

Motion and
Statement of Consistency with Comprehensive Plan
UDO-244

I move that the following statement be adopted in support of a **Motion to Approve** Zoning Text Amendment UDO-244.

The zoning text amendment, proposed by American Towers LLC and New Cingular Wireless PCS, LLC, to amend Chapters A & B of the Unified Development Ordinances (UDO) to Revise Regulations Pertaining to Transmission Towers is in conformance with the recommendations of the Legacy Comprehensive Plan and is reasonable and in the public interest because:

1. The proposed ordinance makes changes to the existing transmission tower regulations which will improve access to telecommunications technology in Winston-Salem and Forsyth County;
2. The proposed ordinance protects the interests of the citizens by utilizing two different review processes for transmission towers, depending upon the location and type of tower. The zoning permit process is used in situations where towers would have less of an impact on adjacent property; and
3. The proposed ordinance provides for a more purposeful approval process for transmission towers than the existing ordinance.

Based on the foregoing Statement, I move adoption of UDO-244.

Second:

Vote:

Motion and
Statement of Consistency with Comprehensive Plan
UDO-244

I move that the following statement be adopted in support of a **Motion to Deny** Zoning Text Amendment UDO-244.

The zoning text amendment, proposed by American Towers LLC and New Cingular Wireless PCS, LLC, to amend Chapters A & B of the Unified Development Ordinances (UDO) to Revise Regulations Pertaining to Transmission Towers is in conformance with the recommendations of the Legacy Comprehensive Plan, however, it is not reasonable or in the public interest because:

This proposed text amendment would allow transmission towers in residential areas where they currently are not permitted.

Based on the foregoing Statement, I move denial of UDO-244.

Second:

Vote:

FORSYTH COUNTY
BOARD OF COMMISSIONERS

MEETING DATE: February 24, 2014 **AGENDA ITEM NUMBER:** _____

SUBJECT:-

- A. Public Hearing on a UDO Text Amendment Proposed by American Towers LLC & New Cingular Wireless PCS LLC to Amend Chapters A & B of the *Unified Development Ordinances* to Revise Regulations Pertaining to Transmission Towers (UDO-244)
- B. Ordinance Revising Chapters A and B of the Unified Development Ordinances to Amend Regulations Concerning Transmission Towers

COUNTY MANAGER'S RECOMMENDATION OR COMMENTS:-

SUMMARY OF INFORMATION:-

See attached staff report.

After consideration, the Planning Board recommended approval of the zoning text amendment.

ATTACHMENTS:- YES NO

SIGNATURE: _____ **DATE:** _____

STAFF REPORT

DOCKET # UDO-244
STAFF: [Kirk Ericson](#)

REQUEST

This text amendment is proposed by American Towers, LLC and New Cingular Wireless PCS, LLC to amend chapters A and B of the *Unified Development Ordinances* to revise existing standards for transmission towers.

BACKGROUND

The number of wireless device users and telecommunications network usage has increased dramatically in the past few years. The adoption of smart phone technology by a large and growing percentage of Forsyth County's citizens has strained existing networks designed primarily for transferring voice data. These networks must now transmit a significant amount of internet data in addition to voice data. Given that, the local network of transmission towers is inadequate for serving these needs. As data carried by individual towers increases, the radius served by these towers gets smaller. To accommodate increased network usage, additional strategically located transmission towers must be added to this network. The petitioners initially approached Planning staff in February 2013 to discuss these concerns as they relate to existing UDO transmission tower regulations.

During these initial discussions, the petitioners stated that in order to meet existing and future customer demand, additional transmission towers must be installed in areas which are currently underserved. Major commercial areas and transportation corridors were the locations where transmission towers were initially installed, due to the origin of mobile phones as a means of voice communication during travel. These locations generally have adequate coverage today. As more people began to use their mobile phones as home phones, and eliminated land line coverage, demand pressures began to mount in residential areas. Consequently, as demand in residential areas has increased, the signal strength and quality of service provided by existing transmission towers has decreased. The invention of smart phones, with their internet access capabilities, has increased demand further. Current UDO standards, however, do not allow towers in single-family residential areas except in GMAs 4 and 5 (Future Growth and Rural Area).

The petitioners shared their concerns with the Planning Board at the Board's April 2013 work session, and staff was directed to provide technical assistance to the petitioners in developing an ordinance amendment that would incorporate requested changes into the existing UDO framework. A draft ordinance was developed in Summer 2013 and petitioners filed their text amendment application and fee for review by the Planning Board at their October 10, 2013 hearing.

Planning staff strongly recommended that the petitioners discuss their ordinance concept with community groups prior to formally initiating the text amendment review process. In August 2013, the petitioners presented the draft ordinance to the Winston-Salem Neighborhood Alliance,

the TAPR committee of the Community Appearance Commission, and the Legislative Policy Committee of the Winston-Salem Chamber of Commerce to gauge community support. In general, they received favorable reaction to the ordinance and concepts presented at these meetings.

ANALYSIS

Staff believes the proposed ordinance makes changes to the existing transmission tower regulations which will improve access to telecommunications technology in Winston-Salem and Forsyth County. In general, the amendment expands the places where transmission towers are allowed, while adding a hierarchy of regulation based on zoning district and the type of transmission tower being proposed. The current ordinance does not distinguish between different types of transmission towers. However, as the petitioner has previously stated, different types of transmission towers have differing impacts on adjacent areas. The proposed ordinance includes specific standards for three categories of transmission towers: Towers with concealed antennae (or stealth towers); monopole towers; and lattice towers.

Tower Types Described

Concealed towers have the least impact on surrounding areas and are allowed in the broadest range of zoning districts in the proposed ordinance. Such towers do not have any exposed antennae, and usually look like flag-less flag poles or can be modified further to look like faux pine trees (monopines). **Monopole towers** consist of a single supporting pole with exposed antennae on top and no supporting structures or guy wires. Monopoles are not allowed in as many situations as concealed towers. **Lattice towers** have the most significant impact of all transmission towers and are allowed in the least number of situations. Such towers consist of a multi-sided open structural frame with exposed antennae, and often reach significant heights which require the inclusion of flashing strobe lights on top of the tower.

Tower Review Processes

The proposed ordinance utilizes two different review processes for transmission towers, depending upon the location and type of tower. The zoning permit review process is used in situations where towers would have less of an impact on adjacent property. This process simply requires the applicant to obtain a zoning permit from City-County Inspections staff. The Board of Adjustment (BOA) Special Use Permit process applies to situations where towers could be more impactful on their surroundings or may generate controversy. The Special Use Permit process includes a public hearing allowing citizen comment, requires a sign posting on the subject property and notification of adjacent property owners, and requires the Board to evaluate the request on four findings of fact, which are as follows:

- The use will not materially endanger the public health or safety if located where proposed and developed according to the application and plan as submitted and approved
- The use meets all required conditions and specifications
- The use will not substantially injure the value of adjoining or abutting property, or that the use is a public necessity
- The location and character of the use, if developed according to the application and plan submitted and approved, will be in harmony with the area in which it is to be located and in general conformity with *Legacy*

The Board must find the proposed tower affirmatively addresses all four findings of fact to approve the request. Additionally, the BOA may impose additional reasonable and appropriate conditions to safeguard the public health, safety, and value of neighboring property and residents.

The Board of Adjustment Special Use Permit review process seems the best fit for review of these towers, as it allows public input and a greater level of review scrutiny. The Elected Body Special Use Permit review process may not achieve all that citizens may hope for with that process since it does not allow *ex-parte* communication, and would therefore not allow citizens to discuss or communicate in any other way their concerns regarding a proposed tower with their elected representatives prior to the sworn testimony that is required for the actual public hearing. This process could also greatly increase the work load of elected officials, as many new towers could be proposed in future years.

Concealed Tower Standards

The proposed ordinance incentivizes the use of shorter, concealed towers by making the review process easier for such towers. Concealed towers up to 150 feet in height are allowed with zoning review in residential districts, **but only on sites with non-residential uses** (such as churches, schools, or fire stations). The height of such towers may be increased to 180 feet with a Special Use Permit from the Board of Adjustment. Residential sites with non-residential uses were identified by staff and the petitioners early on in the ordinance development process as locations with the least potential impacts on residential neighborhoods.

Concealed towers on residentially zoned lots which are either vacant or contain residential uses would also be permitted only through the BOA Special Use Permit process. During preliminary discussions, the petitioners agreed to staff's recommendation to require Special Use Permit review for such parcels (rather than zoning permit review), as they would most likely be found within existing residential areas. Setbacks for such towers adjacent to residential zoning districts would be equal to the height of the proposed tower, with a minimum setback of 100 feet. This minimum setback was suggested by staff to help ensure greater compatibility with and separation from surrounding residential property. These towers would only be allowed in GMAs 3 (Suburban Area), 4 (Future Growth Area), and 5 (Rural Area), and would have a maximum height of 180 feet. They would not be allowed in residentially zoned districts in GMA 2 (Urban Neighborhoods) because of the closer proximity of other zoning districts which allow towers.

Concealed towers up to 180 feet would be allowed with a zoning permit in the IP district, and concealed towers up to 199 feet would be allowed with a zoning permit in other nonresidential districts.

Monopole Tower Standards

The proposed ordinance would require monopole towers in most nonresidential zoning districts to obtain zoning permit review (such towers would have a maximum height of 199 feet). Monopoles up to 180 feet would be allowed in the IP district and on residentially zoned sites with non-residential uses through the BOA Special Use Permit process.

Lattice Tower Standards

Lattice towers would be allowed in the proposed ordinance with a maximum height of 300 feet. Such towers could only be located in nonresidential zoning districts. Lattice towers in the IP, LO, CPO, PB, LB, and NSB districts would require a BOA Special Use Permit, while other more intense nonresidential zoning districts (such as GB or HB) would allow lattice towers with a zoning permit.

Tower Setbacks

Generally, the ordinance requires transmission towers to be setback 40 feet from adjacent nonresidentially zoned areas, and 100 feet from residentially zoned areas. However, alternative compliance may be requested through the Board of Adjustment Special use Permit process where unique site constraints exist (such as topography, existing vegetation/buffering, and surrounding development plans).

Proposed Ordinance Compared to Existing Standards

Existing UDO Transmission Tower standards allow towers in RS-20, RS-30, RS-40, MH, and AG with a Board of Adjustment Special Use Permit, only in Growth Management Areas (GMAs) 4 and 5. Towers are also currently allowed with BOA approval in all residential multifamily districts (RM-5, RM-8, RM-12, RM-18, RM-U), in all GMAs. These towers are allowed with no limits on tower height or tower type. The current ordinance also allows towers in most non-residential districts with Planning Board review (IP currently requires Board of Adjustment review). Planning Board review is simply a site plan review, not a discretionary decision like a proposed rezoning.

Overall, the proposed ordinance provides for a more purposeful approval process for transmission towers than the existing ordinance. The proposed ordinance would allow zoning permit review for towers in intense zoning districts, where Planning Board review is currently required. Less intense nonresidential districts, on the other hand, may require a more stringent Board of Adjustment review process (where lattice towers are proposed), rather than the currently required Planning Board review process.

The proposed ordinance allows transmission towers in a greater amount of residential areas (the current ordinance does not allow towers at all in RS-7, RS-9, RS-12, RS-15, and RS-Q, and only allows towers in RS districts in Growth Management Areas 4 and 5), but limits such towers to a height of 180 feet and incentivizes the use of stealth technology and location on non-residential sites to minimize impacts on surrounding residential properties. Lattice towers are not allowed at all under the proposed ordinance standards.

Proposed Ordinance Compared to Other Peer Communities

The proposed ordinance's provisions are more restrictive than some comparable NC Communities' transmission tower regulations, yet more flexible than others. The proposed ordinance is very similar to the standards recently adopted by the town of Cary.

Future Need for Transmission Towers

In addition to researching comparable existing tower ordinance standards, staff also researched the future of transmission towers themselves to ensure that the proposed ordinance would remain relevant in light of projected industry trends. A 2011 article in Popular Mechanics magazine

quoted an engineer with Bell Labs predicting a thirty-fold increase in mobile data demand by 2015, while acknowledging that there will not be 30 times as many cell towers as there currently are. Bell Labs sees future solutions in the form of smaller antennae combined with signal amplification technology. Such antennae could be placed on tall buildings, bus stops, and similar structures to serve densely populated areas. However, according to an October 2013 article in PC World magazine, the trends underlying mobile data point to new capabilities coming online continually for years, and full-size cell towers are likely to remain critical infrastructure for decades. Small cells will allow carriers to better serve dense areas, but longer-range towers will still be needed for broad coverage. There will still be a need for additional transmission towers for at least the next few decades.

Summary

Overall, Planning staff believes the proposed ordinance will improve access to telecommunications technology for the citizens of Winston-Salem and Forsyth County while providing necessary safeguards for property owners, and is generally supportive of the changes being proposed.

RECOMMENDATION

APPROVAL

**CITY-COUNTY PLANNING BOARD
PUBLIC HEARING
MINUTES FOR UDO-244
OCTOBER 10, 2013**

Kirk Ericson presented the staff report.

During discussion by the Planning Board, the following points were made:

Jurisdictions are very different in how they approach this situation, but compared to similar jurisdictions, this proposal is somewhere in the middle regarding where towers are allowed.

This amendment would allow the cell tower industry to place towers in areas which they are currently prohibited in.

This is a petitioner initiated text amendment so to comply with State Statutes, it must be forwarded to the elected body within 90 days.

Staff provided technical assistance to the petitioners at the request of the Planning Board. The petitioners developed an ordinance which would allow towers where needed while providing safeguards for community aesthetics. Various groups have been briefed along the way and their opinions taken into consideration in developing the current proposal.

PUBLIC HEARING

FOR:

Tom Johnson, 4141 Parklake Avenue, Suite 200, Raleigh, NC 27612

- This proposal is more restrictive than the one which Cary adopted.
- The industry sacrifices height and some types of use of these poles to have these allowed in residential areas and provide the services needed to residents in those areas.
- The demand for wireless services has increased dramatically in recent years.
- An average of 75% of emergency 911 calls in Winston-Salem and Forsyth County come from cell phones.
- Wireless data usage has also increased drastically with smart phones, tablets, etc.
- Under the current ordinance there is no incentive to use short towers or concealed towers. This amendment would provide incentives which would benefit the neighborhoods.

- We worked with staff and met with the Planning Board, the Community Appearance Commission, the Winston-Salem Neighborhood Alliance, and the Legislative Affairs Committee of the Greater Winston-Salem Chamber of Commerce. Our intent was to make sure the community understood the problem and the proposed solution and had the opportunity to ask questions.
- Non-residential uses in residential districts would be on large lots, primarily in places such as churches and schools. If we go onto vacant land in residential districts we have the oversight of the Zoning Board of Adjustment and the tower would have to be placed on large tracts of land, frequently heavily wooded.

Yvette Jones, 201 W. 5th Street, Winston-Salem, NC 27101

- Represented Keith Grandberry, President and CEO of the Winston-Salem Urban League and read statement by him.
- Many low income persons use their cell phones for basic phone and internet connections.
- Minority Americans face obstacles when trying to access mobile broadband and its associated benefits. Allowing them to access mobile communication is critical.
- We ask you to support this request in order to keep our most vulnerable citizens from being left behind in this information age.

AGAINST:

Melynda Dunigan, 1875 Mallard Lakes Drive, Winston-Salem, NC 27106

- I'm concerned about the lack of notification to property owners who are affected by it.
- It would change the way homeowners could develop the land they own and it would change the way their neighbors could change the land around them.
- This has an equivalent or greater impact than a zoning change which requires notification to nearby property owners.
- Staff is usually very conscientious about notifying principal parties impacted by text amendments. Yet no official notice has been given to owners of single family residential property that is affected by this amendment.
- This is similar to an overlay district which doesn't change the underlying zoning district but changes the way land can be developed. However, a change to an overlay district requires very extensive notification.
- There was an article in today's newspaper but that didn't provide ample opportunity for people to read the information, understand the impact of it, and make plans to come to today's meeting.
- Please deny this and send it back to Planning to do a staff initiated ordinance in a similar way to what was done for the tree ordinance and the sign ordinance.

Carolyn Highsmith, 3335 Anderson Drive, Winston-Salem, NC 27127

- I'm speaking on behalf of a community coalition which represents multiple neighborhoods in GMAs 2 and 3.
- We unanimously recommend that this text amendment be slowed down to include broader and more direct citizen input and citizen education.
- We want to see the best possible ordinance which will benefit the citizens of Winston-Salem.

- We ask you to deny this amendment and have a City-initiated amendment which will address the transmission tower issues brought before you today. We should also look at the broad reaching needs and benefits to residents.
- We propose that you create an ordinance and schedule meetings in every ward in the City to explain the impacts to the citizens of the City about cell phone transmission towers and how they would impact neighborhoods.
- The Coalition would also like to ask the petitioners to create three dimensional architectural models simulating GMAs 1, 2, and 3 of the residential areas in the City which would show the different types of cell phone towers and how the towers would be positioned.
- From these meetings we would ask that a citizens advisory committee be created to examine the issue, including looking at the Planning Board and City Council review process.

Eric Bushnell, 2113 Walker Road, Winston-Salem, NC 27106

- I live down the road from a new tower which didn't require the kind of notification I would like to have had.
- I also represent the Winston-Salem Neighborhood Alliance.
- There is interest in having a process which is staff initiated and citizen driven.
- The Alliance has 15 years of experience working with these issues. We've seen some decision making processes that ensure folks that their interests are adequately represented and some that leave people frustrated and angry.
- We've had the benefit of some time to think about this.

Greg Munger, 1629 Turfwood Drive, Pfafftown, NC 27040

- I represent 250 homeowners in the Wedgewood area.
- The staff report notes some safeguards for residents such as "allowing public input and a greater level of review scrutiny."
- However our main objection is summarized in another statement from the staff report: "The proposed ordinance incentivizes the use of shorter, concealed towers by making the review process easier for such towers."
- We would be opposed to the fast-track of any tower at all including stealth towers for four reasons:
 - It reduces or loses citizen control. It makes it easier for these companies to sneak in and install towers without people nearby being made aware of it.
 - It would decrease the value of our properties.
 - The possible long-term health effects.
 - Within four miles of where I live there are already 29 towers and 75 antennas.

WORK SESSION

During discussion by the Planning Board, the following points were made:

It would be helpful to give everyone impacted an opportunity to understand what is being proposed. The petitioner noted that even though they have already sought out as much community input as possible, they would be glad to continue the amendment request for 30 days in order to answer questions, provide more information, and get more input.

It would be helpful if the petitioner and some of the neighborhood representatives could come up with some ideas and venues where this could be discussed for the benefit of folks who feel like they haven't heard about this before.

We have written all the known neighborhood association contacts and urged them to have a zoning "watchdog" to check our website regularly for new zoning cases or proposed UDO text amendments. The website doesn't have to be checked every day - it could be at a specific time each month.

MOTION: Paul Mullican moved continuance of the UDO text amendment to November 14, 2013.

SECOND: Lynne Mitchell

VOTE:

FOR: Arnold King, Clarence Lambe, Barry Lyons, Lynne Mitchell, Paul Mullican, Brenda Smith, Allan Younger

AGAINST: None

EXCUSED: None

**CITY-COUNTY PLANNING BOARD
PUBLIC HEARING
MINUTES FOR UDO-244
NOVEMBER 14, 2013**

Kirk Ericson presented the staff report.

PUBLIC HEARING

FOR:

Tom Johnson, 4141 Parklake Avenue, Suite 200, Raleigh, NC 27612

- I represent the petitioner in trying to find a compromised way to provide the cell tower service to our customers that are in residential areas.
- This is important because reports indicate that the use of cell phones is supposed to triple by the year 2019 & Winston-Salem is one of the top ten most wired cities in the country.
- This will allow Winston-Salem to continue to be in the top ten.
- 80% of 911 calls are made by a cell phone.
- We made a big effort to have two community meetings and heavily advertised them as well as mailed out notices.
- We've met with the Neighborhood Alliance and made offers to meet with any neighborhood association that wanted so we could get specific concerns.
- The invitation still stands with any organization that would like to meet between now and the Council meeting.
- Addressing the specific concerns, we've made some suggested positive changes to the proposal such as clarifying that setbacks must be at least the height of the tower plus 20' from an occupied single-family dwelling.
- We've also added a provision for towers on vacant lots with residential use; these lots must be at least four acres in size. This is a change from the previous three acre minimum.
- Community meetings will be required for proposed cell tower locations before they go before the Zoning Board of Adjustment, and residents that live within 300' will be sent notification letters of the public hearing. This is beyond what is now legally required.
- It's important to let tower requests go forward and deal with them on a case-by-case basis.
- There may be some tower sites that we can compromise on and some that we may find are not good locations, but let it be decided case-by-case.
- We're willing to meet the concerns half-way and I am open to questions.
- Allan Younger thanked Mr. Johnson for meeting with the neighbors and asked if there is any evidence of a correlation between cell towers and property devaluation.

- Mr. Johnson said based on his experience of 25 years across the state of North Carolina, he has not seen any evidence that has shown this correlation.
- Mr. Younger asked how far we are from having advanced technology to no longer need cell towers.
- Mr. Johnson said that he was unable to answer that question. Technology has come a long way but he doesn't know if or when there will be anything that could take the place of land based towers.
- This ordinance allows towers the process to go forward with citizen input so you know what you're dealing with for that individual case.
- Brenda Smith asked if the height of the tower setback from a residence was based on the property line or the actual residence itself.
- You have to be at the height of the tower from the property line but the height of the tower, plus an additional twenty feet, from a residential structure.
- Brenda Smith asked if there was consideration of using a type four buffer on residential sites.
- Mr. Johnson stated that they were already putting in type four buffers and were going to have to do that anyway in residential areas unless there is an intervening structure. If the location is adjacent to non-residential zoning, opaque security fencing can be used without vegetation.
- Mr. Lambe asked about the dead spot locations and citizens who have shared they don't have any cell service.
- You can talk to different people within a given neighborhood and get differing answers.
- Things that interfere with service are things like high volume of usage which occur at different times of the day.
- If you're the one needing emergency services, then you're the one really concerned about reception at that time.
- These areas are analyzed with computers and we're trying to address current and future needs.

AGAINST:

Philip Dickinson, 3720 Kirklees Road, Winston-Salem, NC 27104

- I am speaking on behalf of Forsyth Audubon, which is concerned about birds.
- Cell towers cause an estimated five million to fifteen million bird fatalities annually, including our Bald and Golden Eagles.
- Fortunately, technology is improving with these monopoles and turning off solid red lights to reduce fatalities.
- U.S. Court of Appeals ruled that there had to be an environmental impact analysis when towers are erected on a golf course and I would like to hear more about an environmental impact analysis.
- I don't know much about it, but have you heard of the Alcatel light radio cube?
- It's the small size about the size of a Rubics Cube and a dozen of them can be used to replace a cell tower, particularly in dead spots.
- I would like to hear what Mr. Johnson has to say about this technology.

Eric Bushnell, 2113 Walker Road, Winston-Salem, NC 27106

- I represent the Winston-Salem Neighborhood Alliance.
- Last week we sent a three-page letter listing some of our concerns.
- We were alerted of the changes that the petitioner has proposed.
- This is not to me, about the bargaining of a piece of property for sale but rather, this is about crafting potential legislation that could affect a quarter of a million people.
- It is legislation being suggested by an industry to regulate itself - and is this the best public decision process to serve citizens and residents?
- WSNA thinks not, and for this reason, opposes this ordinance.
- Last month we talked about an alternate process to engage the public in making decisions about future cell towers.
- Any changes made to the UDO to manage cell towers should be made according to a master plan.
- Currently, the proposed plan is being represented by a few companies rather than being community driven.
- The WSNA recommends denial of this UDO amendment in its current format and instead recommends developing a city and county master plan for cell towers and similar infrastructure.
- Chairman King clarified if he was suggesting that the master plan would determine where the cell towers would go.
- Mr. Bushnell said that could be something that people could decide when developing a plan, but it would be more a set of guidelines similar to the visioning part of an area plan and it would be community driven.

James Allred, 1914 Riverdale Road, Pfafftown, NC 27040

- Several months ago, a tower company came out and surveyed land directly in front of my house for a cell tower.
- We live in a nice development with lots of trees and I've been there for 35 years.
- I've got a cell phone and I've never had a problem with getting a signal.
- I believe the reason people want to put these towers on their property is for the money because I understand they get paid rent.
- I don't think our development needs more towers.
- I believe that towers depreciate the value of homes. I wouldn't want to buy a home that had big cell tower directly in front of it.

Steve Doran, 1908 Riverdale Road, Pfafftown, NC 27040

- Like my neighbor, I'm going to be looking at this tower and it's going to affect about four other neighbors.
- I have an issue with the communication level between the tower company and residents.
- We moved to this neighborhood in 2005 from the Raleigh area for what the neighborhood is now and not what certain companies want to change it into.
- I am not only concerned about the safety of my family and children, but also for the environment and the impact on the creek that is running through that property.
- The least of my concerns is the financial value of our house; however, I think these types of things will detract from the neighborhood.

Robert McKay, 2130 Widgeon Court, Winston-Salem, NC 27106

- I agree with what the WSNA had to say.
- I feel steam-rolled by lobbyists for business interests.
- I agree that this ordinance will lower the value of homes and also changes the aesthetics of the area.
- Towers should conform to a master plan.
- I hope that you keep in mind that technology is constantly improving and the need for cell towers will probably become less and less.
- I don't understand why existing cell towers cannot be used by different companies.

Robert Vorsteg, 3620 Marlowe Avenue, Winston-Salem, NC 27106

- I am representing the University Area Neighborhood Association and we entirely endorse the position that Mr. Bushnell presented.
- Our neighborhood will be particularly vulnerable where such cell towers will be placed in residential areas.
- We also endorse that there should be a master plan that the city and its officials and boards could operate on the basis of that is a community-driven plan rather than a business plan representing one or two particular businesses.

Margaret Clark, 5101 River Chase Ridge, Winston-Salem, NC

- I don't know where I stand on this.
- I was not aware of other public hearing meetings and just found out about this yesterday, and I would like to have more informational meetings.
- If there are going to be more towers in residential areas, I've heard that some cities wanted them to be shorter towers.
- I personally think anything over 150' is too tall for a residential area and towers should be the shortest they can be.
- Speaking with a field agent of AT&T, he wasn't aware of anything other than a faux pine tree for a concealed tower, which I think is hideous and hope would not be used.
- If we sign leases for towers and find out in twenty years that we're going to a smaller type of technology, is there some provision that these towers will come down?
- More information to insure people of the safety of towers would be helpful.
- Chairman King clarified that the ordinance does state if a tower is no longer used, it must be removed within 120 days after it is taken out of service.

Eric Bushnell, Continued:

- Mr. Bushnell asked those present who were there in opposition of the ordinance to raise their hands.

Mr. Johnson was asked to return to address the questions that came from those who spoke in opposition:

- I would like to emphasize, we took to heart what the board asked us to do at the last meeting and held two informational community meetings.
- We publicized the meetings but didn't have as much attendance to those meetings in comparison to the number of people here tonight, which concerns me, because we really did try.

- We're not trying to hide anything but want to share this information.
- We've worked with Planning staff and also had the Community Appearance Commission look at this and did not receive any negative input from them.
- We're going through this process and we're not trying to limit it.
- Locating towers is a licensed activity by the federal government and as a result it has to go through the National Environmental Policy Act.
- We have to do an environmental analysis of EVERY site and it's an extensive process.
- Birds have only been raised as a concern with the guide wire towers and our intent is not to use these types of towers.
- We're also not talking about lighted towers.
- The "Cube" technology is really only usable in the very dense urban core areas such as New York City or Chicago.
- It has not been rolled out nor is it an effective technology to cover areas of a city such as Winston-Salem.
- All of these towers are built for co-location and are required to be. If there are existing towers in which carriers can co-locate, they are required to look at that and prove that there is not already an existing tower that they can locate on.
- The public decision aspect of the ordinance concerns me the most.
- In North Carolina, the Board of Adjustment deals with the more intense uses and has a very specific process set up that does that, including the burden to show that this does not adversely affect adjoining property owners. – That is specifically built into the Board of Adjustment process.
- We are not changing this process.
- The talk about a "Master Plan" – the purpose of a master plan is to determine a need.
- There is not a lot of debate about the need for having access to wireless service.
- We are still open to have the dialog and will be glad to meet with any organization.

Chairman King asked Planning staff member, Kirk Ericson, about the comparison of other communities and if this process would have been done differently had it been staff initiated.

- Mr. Ericson replied, the outcome would probably have been similar and as this ordinance stands, it is "middle-of-the-road" when you look at the heights and the review process allowed for comparably sized communities.

WORK SESSION

- Brenda Smith raised concerns about the type four buffer requirement in residential areas and the difference of going before the Planning Board and City Council versus the Board of Adjustment.
- When you talk about "By-Right Uses", there are two different categories. Some can go directly to the zoning officer to get the permits with only administrative review.
- The other requires Planning Board Review which is review of the site plan by a public body to ensure that it meets all of the requirements of the ordinance.
- As long as it meets all of the requirements, the Planning Board does not have the ability to turn a request down.
- Something that requires a Special Use permit and goes to the Zoning Board of Adjustment, is not "By-Right" and is approved on a case-by-case basis.

- The Zoning Board of Adjustment is almost like a court and it works the same way as the elected body Special Use permit process, where no one can be lobbied by anyone in advance of the meeting and their decision is based on the sworn testimony that is offered at the meeting.
- The Zoning Board of Adjustment can only approve a case if it meets all four of the findings of fact that are spelled out within the ordinance. It is a regimented process for the board, the citizens, and the petitioners.
- In some zoning districts, some of the cell tower applications will only require an administrative review and in the residential districts with non-residential uses, the proposed ordinance will require a Zoning Board of Adjustment special use permit when the tower is above 150'.
- The goal of the ordinance is to incentivize towers that are less than 150' by not requiring any Zoning Board of Adjustment review so they could have shorter towers and provide more camouflage and use the ZBOA process for taller and more impactful towers.
- Brenda Smith stated her concern was for the towers that might be within residential areas and would not go to ZBOA for review.
- In most residential areas, there are not three to four acre vacant lots, which can be considered a safeguard by requiring a tower to be somewhat near a neighborhood, rather than in it.
- The petitioner has proposed community meetings be required whether a tower can be approved at the staff level or if it goes before the ZBOA.
- Paul Norby cautioned that the staff person has to approve the proposed tower if it meets the standards, regardless of how many people come in opposition to the community meeting.
- Allan Younger commented that if the purpose of the community meeting is for the petitioner to make the decision of proceeding with locating a tower in an area, then it is worth having it.
- Paul Norby explained that the zoning officer can't act like the ZBOA and have his or her own meeting and decide to turn a tower request down because there is opposition.
- Barry Lyons recommended moving the ordinance to City Council with no action based on the limited time that it has been through the public process.
- Chairman King suggested that the Planning Board has a responsibility to make a recommendation.
- There can be another community meeting between now and when the ordinance goes to City Council even if a decision is made by the Planning Board.
- Mr. Johnson stated that given the efforts of time and money in putting the two previous community meetings together and only having seven to attend the first meeting and four to come to the second, he would rather have a more targeted meeting. If a community association expresses they would like to meet with us, we will do it.
- Mr. Norby reminded the board that this case will not be heard at the first Council meeting in December due to the new Council being sworn in, and that Council normally does not conduct city business on the same night. This request will first go to committee for review before it gets to a City Council public hearing.
- A motion was made to amend the ordinance by removing the provision which gave an exemption to the bufferyard requirement for towers where towers are located more than 200' from the street. This bufferyard will be required regardless of the distance a tower is from the street.

MOTION: Clarence Lambe moved approval of the text amendment with the revisions made by the petitioner and recommended by the Planning Board.

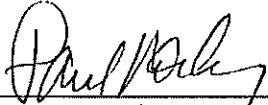
SECOND: Lynne Mitchell

VOTE:

FOR: Tommy Hicks, Arnold King, Clarence Lambe, Darryl Little, Lynne Mitchell, Paul Mullican, Allan Younger

AGAINST: Barry Lyons, Brenda Smith

EXCUSED: None



A. Paul Norby, FAICP

Director of Planning and Development Services

UDO-244
VERSION RECOMMENDED BY PLANNING BOARD
AN ORDINANCE REVISING
CHAPTERS A AND B OF THE *UNIFIED DEVELOPMENT ORDINANCES*
TO AMEND REGULATIONS CONCERNING TRANSMISSION TOWERS

Be it ordained by the Board of Commissioners of Forsyth County, North Carolina, that the *Unified Development Ordinances* is hereby amended as follows:

Section 1. Chapter A, Article II of the *UDO* is amended as follows:

Chapter A - Definitions Ordinance

Article II - Definitions

TRANSMISSION TOWER. A structure, either freestanding or attached to a building, principally intended to support and/or radiate or receive a source of non-ionizing electromagnetic radiation (NIER), and accessory equipment related to broad-cast services, private radio services, cellular telephone services, and common carriers (as regulated by the Federal Communications Commission), including AM, FM, two-way radio, television and cable antenna television transmission and reception, and microwave transmission.

For purposes of this definition, broadcast services include AM and FM radio and high and low power television signals which can be received by anyone with a radio or television. Private radio services include land-mobile or two-way radio, fixed-point microwave, fixed wireless, and amateur public club station signals which can be received only with special equipment. Common carriers provide two- way and one-way paging services on the same frequency to many users.

The term transmission tower does not include electrical or telephone transmission lines or supporting structures, antennas of amateur radio (ham) operators, amateur club services licensed by the Federal Communications Commission, satellite dishes, and antennas less than sixty (60) feet in height with transmitting power of two hundred fifty (250) watts or less.

For the purposes of this ordinance, Concealed Antennae (Stealth Towers), Monopole, and Lattice Transmission Towers are all "Transmission Towers".

TRANSMISSION TOWER WITH CONCEALED ANTENNAE (STEALTH TOWER). A telecommunications tower which completely conceals any associated antennae within the structure of the tower itself. Examples of stealth towers include, but are not limited to, towers intended to look like trees, unipoles without appurtenances/slick sticks, and bell towers.

TRANSMISSION TOWER, MONOPOLE. A self-supporting telecommunications tower consisting of a single pole without guy wires or other supporting devices, with exposed, attached antennae.

NOTE: Items to be deleted are indicated with a ~~strikeout~~; items to be added are indicated with an underscore.
UDO-244 Ordinance Recommended by Planning Board

TRANSMISSION TOWER, LATTICE. A self-supporting multi-sided telecommunications tower generally characterized by an open structural frame and exposed, attached antennae.

Section 2. Chapter B – Zoning Ordinance, Article II – Zoning Districts, Official Zoning Maps and Uses is amended as follows:

Chapter B - Zoning Ordinance

Article II - Zoning Districts, Official Zoning Maps and Uses

2-4 Permitted Uses

TRANSPORTATION AND UTILITIES																																						
	YR	AG	RS40	RS30	RS20	RS15	RS12	RS9	RS7	RSQ	RM5	RM8	RM12	RM18	RMU	MH	NO	LO	CPO	GO	NB	PB	LB	NSB	HB	GB	CB	MRB-S ⁴ (W)	E	LI	GI	CI	IP	C	MU-S	CONDS		
Transmission Tower (Hi)	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z		Z	Z	Z		Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	7
	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		/	/	P		/	/	/	P	P	P	Z	P	P	P	P	/	/	Z	Z	9	
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		A	A			A	A	A														

Z = Permit From Zoning Officer
P = Planning Board Review

A = Board of Adjustment Special Use Permit
E = Elected Body Special Use Permit

The number in the **CONDS** column references the subsection of Section B.2-5 (i.e., 23 refers to Section B.2-5.23)

- ¹ See Section B.2-1.3(E)(3)
- ² See Section B.2-1.3(G)(3)
- ³ See Section B.2-5.67
- ⁴ Per Section B.2-1.3(L), Major Retail & Business District (MRB-S)
- ⁵ SUP not required if requirements of Section B.2-5.2(A) are met
- ⁶ See Section B.2-5.65

This Table should be used in conjunction with Sections B.2-4.1 through B.2-4.6.

2-5 Use Conditions

2-5.79 TRANSMISSION TOWER

(A) Applicability

Transmission towers which are principal or accessory uses shall meet the following requirements.

(1) Types of New Telecommunications Towers

(a) Towers with Concealed Antennae (Stealth Towers). Towers with concealed antennae (stealth towers) shall be designed to complement the physical landscape in which they are intended to be located. Examples of stealth towers include but are not limited to faux pine trees, unipoles/slick sticks (unipoles shall not have any appurtenances), bell towers, etc. New stealth towers shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.

(i) Towers with concealed antennae with a height up to one hundred fifty (150) feet located on lots containing non-residential uses including but not limited to churches and schools in residential districts, up to one hundred eighty (180) feet in the IP district, and up to one hundred ninety-nine (199) feet for all lots in other nonresidential districts shall receive approval from the Zoning Officer.

(ii) Towers with concealed antennae with a height of between one-hundred fifty (150) and one hundred eighty (180) feet located in residential zoning districts on lots containing non-residential uses, including but not limited to churches and schools, shall be approved through the Board of Adjustment Special Use Permit Process.

(iii) Towers with concealed antennae with a height up to one hundred eighty (180) feet on vacant lots in residential districts or lots in residential districts containing a residential structure shall be approved through the Board of Adjustment Special Use Permit Process. In addition, such towers may be located in GMAs 3, 4, and 5, but not in GMAs 1 or 2.

(iv) Monopine towers or any tower designed with the appearance of a tree shall only be located within existing stands of trees.

(b) Monopole Towers With Exposed Antennae. New monopole towers with exposed antennae shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.

(i) Monopole towers with exposed antennae with a height up to one hundred eighty (180) feet in the IP district or residential districts shall be approved through the Board of Adjustment Special Use Permit Process. Such towers shall only be allowed in residential districts on lots containing non-residential uses such as schools, churches, and similar facilities.

(ii) Monopole towers with exposed antennae with a height up to one hundred ninety-nine (199) feet in nonresidential districts shall receive approval from the Zoning Officer.

(c) Freestanding Lattice Towers. Lattice towers and other freestanding telecommunications facilities not described in sections (a) or (b) above shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.

(i) Lattice towers, up to three hundred (300) feet in height, shall receive approval from the Zoning Officer in general use nonresidential districts, except for LO, CPO, PB, LB, NSB, and IP. Such towers in the aforementioned districts shall be approved through the Board of Adjustment Special Use Permit Process.

(ii) New lattice towers shall not be permitted in residential districts.

(B) Prohibited Districts

~~Transmission towers shall not be permitted as a principal or accessory use in RS Districts in GMAs 1, 2, or 3.~~

(1) No Transmission Towers or antennae are allowed in the CB and CI Districts unless they are attached to buildings. No freestanding Transmission Towers are allowed in the CB or CI Districts. No transmission towers or antennae are allowed in the H or HO Districts.

(W)

(C) Fencing

Security fencing at least six (6) feet in height shall be installed around the tower and any ground equipment or buildings.

(D) Setback

(1) All towers, except concealed towers on vacant lots in residential districts, shall be set back a minimum one hundred (100) feet from any adjacent zoning lot zoned RS, RM, YR, AG, HO, or H; and a minimum forty (40) feet from any other adjacent zoning lot or public street. Concealed (stealth) towers on vacant lots in residential districts shall be set back the height of the proposed tower but in no event less than one hundred (100) feet from any adjacent zoning lot zoned RS, RM, YR, AG, HO or H; and a minimum of forty (40) feet from any other adjacent zoning lot or public street. Buildings must meet the setback requirements for principal structures of the underlying district. Towers in any district must be setback at least the height of the tower plus 20' from any occupied single family residential structure.

Alternative compliance. A developer may propose a setback that varies from the strict application of the provisions of this section in order to accommodate the unique character of the site and the surrounding area. Application for alternative compliance shall be made in an application to the Board of Adjustment. When evaluating alternative compliance, the Board of Adjustment may consider the following factors and should only approve the request upon a finding that the proposed setback fulfills the intent and purposes of this section as well or better than would strict conformance with the requirements of this section:

- a. Topography
- b. Surrounding development plans
- c. Existing or proposed development on the property
- d. Existing and proposed screening and buffering
- e. Distance to existing residential structures
- f. Vegetation and tree canopy
- g. Visibility of the tower from the proposed location from public rights of way
- h. Other site development issues

(2) Towers on vacant lots or on lots with residential uses in residential zoning districts may only be located on lots that are a minimum of four acres.

(E) Signage

No business signs, billboards, or other advertising shall be installed on the tower.

(F) Bufferyard

~~Where the transmission tower is located within two hundred (200) feet of an adjacent zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, a type IV bufferyard as described in Section B.3-5 shall be installed around the outside of all improvements on the site, including the tower, any ground buildings or equipment, and security fencing, so as to provide spatial separation and create a visual block from adjacent properties and streets.~~

(1) Transmission towers adjacent to residential zoning. Where the transmission tower is located adjacent to a residential zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, a type IV bufferyard as described in Section B.3-5 shall be installed around the outside of all improvements on the site, including the tower, any ground buildings or equipment, and security fencing, so as to provide spatial separation and create a visual block from adjacent properties and streets.

(2) Transmission towers adjacent to nonresidential zoning. Where the transmission tower is located within two hundred (200) feet of an adjacent nonresidential zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, the security fencing required by Section B.2-5.79(C) shall be opaque, and no vegetative screening shall be required.

(G) Control of Land

All land necessary for improvements, including the transmission tower, buildings, fencing, and landscaping, shall be in ownership of or under lease by the tower operator.

(H) Exemptions

(1) Attached or Incorporated in a Structure. Transmission towers located on nonresidential structures or incorporated into other structures, which structures are devoted to a use not related to the transmission tower, are exempt from the security fencing, setback, bufferyard, and control of land requirements of this section provided they are located in a nonresidential zoning district that permits a Transmission Tower as a principal use. All ground equipment or buildings shall be placed underground or screened from view. These towers are also exempt from any requirements for a Special Use Permit or Planning Board Review as an accessory use.

- (2) **Utilities Rights-of-Way.** Transmission towers located within electrical utility company right-of-way are exempt from the setback and bufferyard requirements of this section.
- (3) **Telecommunications Antennae Completely Within Buildings or Structures.** Telecommunications antennae completely enclosed within buildings or structures (such as church steeples) are exempt from the requirements of Section B.2-5.79, except all exterior ground equipment or buildings shall be placed underground or screened from view.

(I) **Co-Location**

- (1) **Other Structures.** Co-location of antennas of more than one service provider on individual transmission towers is encouraged, subject to the verified structural and mechanical capabilities of the tower. If no other towers, buildings, or other structures exist within the applicant's tower site search area that are structurally capable of supporting the intended antenna or configuration of antennas or meeting the applicant's necessary height criteria or provide a location free from interference of any nature, then satisfactory evidence to that effect shall be submitted by a qualified expert at the time of application for the earliest required approval.
- (2) **Other Users.** All transmission towers installed after the effective date of this Ordinance shall be structurally and mechanically capable of accommodating the antenna or array of antennas of more than one user/transmitter, unless the tower is incapable of supporting more than one user/transmitter due to the design of the tower which is incorporated into another structure in compliance with Section B.2-5.79(H). Monopoles shall accommodate a minimum of two total users, lattice or other types of towers shall accommodate a minimum of three total users. These users shall be in addition to the local jurisdiction which may place devices per Section B.2-5.79(K). Certification as to the tower's structural and mechanical capability to accommodate colocation shall be provided by a professional engineer or other qualified professional.
- (3) **Access. (F)** Access to available technically feasible space on any towers shall not be denied to any competitive users or service provider, unless the additional use would cause objectionable interference or present a danger to the structural safety or stability of the tower.

Access. (W) Access to available technically feasible space on any towers shall not be denied to any competitive users or service provider.

(4) **Nonconforming Uses.** Requirements for co-location on transmission towers which are nonconforming are contained in Section B.5-2.3(E).

(5) Co-location shall be defined in conformance with state and federal law.

(J) Termination of Use

A tower that is no longer used for communication purposes must be removed within one hundred twenty (120) days of the date it is taken out of service.

(K) Easement for Public Facilities

At the request of the local jurisdiction, an easement shall be granted to the jurisdiction to place cameras, monitors, two-way mobile radio equipment, or other desired telecommunications devices; however such devices may be restricted so as not to affect the functioning of the antenna or array of antennas of the tower operator or service provider.

(L) Placement on or Within Large Public Structures

Notwithstanding the provisions of Table B.2.6, nonfreestanding transmission towers meeting the provisions of Section B.2-5.79(H) or located on large, non-habitable public or utilities structures, including but not limited to water towers and trestles of major electrical distribution lines, are permitted under the following conditions:

(1) **Zoning Permit.** A zoning permit from the Director of Inspections or his/her designee is required.

(2) **Compliance with Use Conditions.** Use conditions regarding signage must be complied with.

(M) State Plane Coordinates

All site plans submitted in conjunction with requests for transmission towers shall include the location of the proposed tower by State Plane Coordinates and above ground level and sea level elevations, based on 1983 North America datum. All towers operated by the applicant in Forsyth County and within one quarter (1/4) mile of its borders shall also be similarly located and submitted with the site plan.

(N) Color, Finish, Lighting

Unless otherwise required by the Federal Aviation Administration (FAA), the finish of the transmission tower shall be non-shiny or glossy; any painted color shall be muted or neutral; and no lights or strobe lights shall be placed on the tower. If lights are required by the FAA, the least obtrusive lighting option available under FAA guidelines shall be installed; white strobe lights are discouraged from use.

(O) Interdepartmental Plan Review Requirement

Transmission towers requiring a Special Use Permit per Table B.2.6 and further refined in section B.2-5.79(A), shall complete an interdepartmental plan review prior to applying for a Special Use Permit from the Board of Adjustment.

(P) Community Meeting Required

Applicants for transmission towers requiring a Special Use Permit per Table B.2.6 shall hold a community meeting prior to the date of the meeting of the Board of Adjustment. Applicants for transmission towers in a residential zoning district in GMA 1, 2, or 3 requiring a permit from the Zoning Officer shall hold an informational community meeting prior to the issuance of a permit from the Zoning Officer.

Notice of the location, date, and time of the community meeting shall be mailed to the owners of any property located within 300' of the subject parcel of land as well as to the neighborhood association representing any property located within 300' of the subject parcel as identified by the Planning Department.

(Q) Decision Timeframe

Decisions to approve or deny proposals for new telecommunications towers shall be rendered by the approving authority within one hundred fifty (150) days from application submittal.

Section 3. Chapter B – Zoning Ordinance, Article VI – Administration and Amendments is amended as follows:

Article VI – Administration and Amendments

6-1 Administration

6-1.4 BOARD OF ADJUSTMENT

(A) Special Use Permits Authorized by the Board of Adjustment

- (1) Board of Adjustment Review.** The Board of Adjustment shall review all requests for permits as designated in Table B.2.6 and Section B.2-5.
- (2) Planning Board Report.** Applications for special use permits may be approved by the Board of Adjustment after such board receives a report from the Planning Board and holds a duly advertised public hearing in each case, except that the Planning Board shall not be required to review and report on applications for:
 - (a) Riding Stables** per Table B.2.6;
 - (b) Kennels, Outdoor** per Table B.2.6;

- (c) Shooting Ranges, Outdoor per Table B.2.6;
- (d) Manufactured Homes Class A, Class B and Class C per Table B.2.6;
- (e) Expansion or Conversion of a Nonconforming Use per Sections B.5-2.3(B) and B.5-2.4(A);
- (f) Accessory Uses as follows:
 - (i) Dwelling, Accessory (Detached) per Section B.2-6.4(C);
 - (ii) Separation, Processing, Storage or Wholesale Sale of Materials in LCID's per Section B.2-5.41(N); or
 - (iii) Home Occupations in Rural Areas (GMAs 4 and 5) per Section B.2-6.4(D)(2)(b);
- (g) Accessory Structures as follows:
 - (i) Exceeding size limits for accessory structures per Section B.3-1.2(E);
 - (h) Parking reductions for churches per Sections B.2-5.21(D) and B.2-5.22(C);
 - (i) Veterinary Services per Table B.2.6;
 - (j) Reserved.
 - (k) Keeping of horses, mules, donkeys, goats, sheep, or cattle (W) per Section B.3-11.4;
 - (l) Child Daycare, Large Home: ~~;~~
 - (m) Transmission Towers per Table B.2.6.

Section 4. This ordinance shall be effective upon adoption.

UDO-244
VERSION ADOPTED BY CITY COUNCIL
AN ORDINANCE REVISING
CHAPTERS A AND B OF THE *UNIFIED DEVELOPMENT ORDINANCES*
TO AMEND REGULATIONS CONCERNING TRANSMISSION TOWERS

Be it ordained that the *Unified Development Ordinances (UDO)* is hereby amended as follows:

Section 1. Chapter A, Article II of the *UDO* is amended as follows:

Chapter A - Definitions Ordinance

Article II - Definitions

TRANSMISSION TOWER. A structure, either freestanding or attached to a building, principally intended to support and/or radiate or receive a source of non-ionizing electromagnetic radiation (NIER), and accessory equipment related to broad-cast services, private radio services, cellular telephone services, and common carriers (as regulated by the Federal Communications Commission), including AM, FM, two-way radio, television and cable antenna television transmission and reception, and microwave transmission.

For purposes of this definition, broadcast services include AM and FM radio and high and low power television signals which can be received by anyone with a radio or television. Private radio services include land-mobile or two-way radio, fixed-point microwave, fixed wireless, and amateur public club station signals which can be received only with special equipment. Common carriers provide two- way and one-way paging services on the same frequency to many users.

The term transmission tower does not include electrical or telephone transmission lines or supporting structures, antennas of amateur radio (ham) operators, amateur club services licensed by the Federal Communications Commission, satellite dishes, and antennas less than sixty (60) feet in height with transmitting power of two hundred fifty (250) watts or less.

For the purposes of this ordinance, Concealed Antennae (Stealth Towers), Monopole, and Lattice Transmission Towers are all "Transmission Towers".

DISTRIBUTED ANTENNAE SYSTEM. A network of small, spatially separated antennas connected to a common source via a transport medium that provides wireless communications service within a geographic area or structure.

TRANSMISSION TOWER WITH CONCEALED ANTENNAE (STEALTH TOWER). A telecommunications tower which completely conceals any associated antennae within the structure of the tower itself. Examples of stealth towers include, but are not limited to, towers intended to look like trees, unipoles without appurtenances/slick sticks, and bell towers.

2-5 Use Conditions

2-5.79 TRANSMISSION TOWER

(A) **Applicability**

Transmission towers which are principal or accessory uses shall meet the following requirements.

(1) **Hierarchy of Transmission Towers and Antennae**

- (a) The following types of transmission towers and antennae shall only require approval from the zoning officer:
Antennae co-location on existing towers
Distributed antennae systems on private property (DAS in rights-of-way would not require approval from the zoning officer)
Antennae and towers completely concealed within other structures (such as church steeples and bell towers)
Antennae co-located on utility infrastructure (such as electric transmission line support structures and utility poles)
- (b) New freestanding telecommunications towers shall be approved through the processes identified in Section B.2-5.79(A)(2) below.

(2) **Types of New Telecommunications Towers**

- (a) **Towers with Concealed Antennae (Stealth Towers).** Towers with concealed antennae (stealth towers) shall be designed to complement the physical landscape in which they are intended to be located. Examples of stealth towers include but are not limited to faux pine trees, unipoles/slick sticks (unipoles shall not have any appurtenances), bell towers, etc. New stealth towers shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.
- (i) Towers with concealed antennae with a height up to one hundred eighty (180) feet in the IP district, and up to one hundred ninety-nine (199) feet for all lots in other nonresidential districts shall receive approval from the Zoning Officer.
- (ii) Towers with concealed antennae with a height of up to one hundred ninety nine (199) feet located in residential zoning districts shall be approved through the Elected Body Special Use Permit Process.

- (iii) Towers with concealed antennae with a height up to one hundred ninety nine (199) feet on vacant lots in residential districts or lots in residential districts containing a residential structure shall be approved through the Elected Body Special Use Permit Process. In addition, such towers may be located in GMAs 3, 4, and 5, but not in GMAs 1 or 2.
- (iv) Monopine towers or any tower designed with the appearance of a tree shall only be located within existing stands of trees.
- (v) Photosimulations depicting a proposed concealed tower within its surrounding context will be required where concealed towers over one hundred twenty (120) feet are proposed.

(b) Monopole Towers With Exposed Antennae. New monopole towers with exposed antennae shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.

- (i) Monopole towers with exposed antennae with a height up to one hundred eighty (180) feet in the IP district shall be approved through the Board of Adjustment Special Use Permit Process.
- (ii) Monopole towers with exposed antennae with a height up to one hundred ninety-nine (199) feet in nonresidential districts shall receive approval from the Zoning Officer.
- (iii) Monopole towers with exposed antennae with a height up to one hundred ninety-nine (199) feet in residential districts shall be approved through the Elected Body Special Use Permit Process. Photosimulations for such towers shall be required and shall depict the proposed tower within its surrounding context. This photosimulation shall depict the monopole with the maximum number of antennae it is designed to hold.

(c) Freestanding Lattice Towers. Lattice towers and other freestanding telecommunications facilities not described in sections (a) or (b) above shall be configured and located in a manner that minimizes adverse effects including visual impacts on the landscape and adjacent properties.

- (i) Lattice towers, up to three hundred (300) feet in height, shall receive approval from the Zoning Officer in general use nonresidential districts, except for LO, CPO, PB, LB, and NSB. Such towers in the aforementioned districts shall be approved through the Board of Adjustment Special Use Permit Process.
- (ii) New lattice towers shall not be permitted in IP or residential districts.

(B) Prohibited Districts

~~Transmission towers shall not be permitted as a principal or accessory use in RS Districts in GMAs 1, 2, or 3.~~

- (1) No Transmission Towers or antennae are allowed in the CB and CI Districts unless they are attached to buildings. No freestanding Transmission Towers are allowed in the CB or CI Districts. No transmission towers or antennae are allowed in the H or HO Districts.

(W)

(C) Fencing

Security fencing at least six (6) feet in height shall be installed around the tower and any ground equipment or buildings.

(D) Setback

(1) All towers, except concealed towers on vacant lots in residential districts, The tower shall be set back a minimum one hundred (100) feet from any adjacent zoning lot zoned RS, RM, YR, AG, HO, or H; and a minimum forty (40) feet from any other adjacent zoning lot. All towers, including concealed towers on vacant lots in residential districts, shall be setback a minimum distance equal to tower height from a public street. Concealed (stealth) towers on vacant lots in residential districts shall be set back the height of the proposed tower but in no event less than one hundred (100) feet from any adjacent zoning lot zoned RS, RM, YR, AG, HO or H; and a minimum of forty (40) feet from any other adjacent zoning lot. Buildings must meet the setback requirements for principal structures of the underlying district. Towers in any district must be setback at least the height of the tower plus 20' from any occupied single family residential structure.

Alternative compliance. A developer may propose a setback that varies from the strict application of the provisions of this section in order to accommodate the unique character of the site and the surrounding area. Application for alternative compliance shall be made in an application to the Elected Body. When evaluating alternative compliance, the Elected Body may consider the following

factors and should only approve the request upon a finding that the proposed setback fulfills the intent and purposes of this section as well or better than would strict conformance with the requirements of this section:

- a. Topography
- b. Surrounding development plans
- c. Existing or proposed development on the property
- d. Existing and proposed screening and buffering
- e. Distance to existing residential structures
- f. Vegetation and tree canopy
- g. Visibility of the tower from the proposed location from public rights of way
- h. Other site development issues

(2) Towers on vacant lots or on lots with residential uses in residential zoning districts may only be located on lots that are a minimum of four acres.

(E) Signage

No business signs, billboards, or other advertising shall be installed on the tower.

(F) Bufferyard

~~Where the transmission tower is located within two hundred (200) feet of an adjacent zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, a type IV bufferyard as described in Section B.3-5 shall be installed around the outside of all improvements on the site, including the tower, any ground buildings or equipment, and security fencing, so as to provide spatial separation and create a visual block from adjacent properties and streets.~~

(1) Transmission towers adjacent to residential zoning. Where the transmission tower is located adjacent to a residential zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, a type IV bufferyard as described in Section B.3-5 shall be installed around the outside of all improvements on the site, including the tower, any ground buildings or equipment, and security fencing, so as to provide spatial separation and create a visual block from adjacent properties and streets.

(2) Transmission towers adjacent to nonresidential zoning. Where the transmission tower is located within two hundred (200) feet of an adjacent nonresidential zoning lot or street and there is no intervening structure to block the view of the tower base and improvements, the security fencing required by Section B.2-5.79(C) shall be opaque, and no vegetative screening shall be required.

(G) Control of Land

All land necessary for improvements, including the transmission tower, buildings, fencing, and landscaping, shall be in ownership of or under lease by the tower operator.

(H) Exemptions

(1) **Attached or Incorporated in a Structure.** Transmission towers located on nonresidential structures or incorporated into other structures, which structures are devoted to a use not related to the transmission tower, are exempt from the security fencing, setback, bufferyard, and control of land requirements of this section provided they are located in a nonresidential zoning district that permits a Transmission Tower as a principal use. All ground equipment or buildings shall be placed underground or screened from view. These towers are also exempt from any requirements for a Special Use Permit or Planning Board Review as an accessory use.

(2) **Utilities Rights-of-Way.** Transmission towers located within electrical utility company right-of-way are exempt from the setback and bufferyard requirements of this section.

(3) **Telecommunications Antennae Completely Within Buildings or Structures.** Telecommunications antennae completely enclosed within buildings or structures (such as church steeples) are exempt from the requirements of Section B.2-5.79, except all exterior ground equipment or buildings shall be placed underground or screened from view.

(I) Co-Location

(1) **Other Structures.** Co-location of antennas of more than one service provider on individual transmission towers is encouraged, subject to the verified structural and mechanical capabilities of the tower. If no other towers, buildings, or other structures exist within the applicant's tower site search area that are structurally capable of supporting the intended antenna or configuration of antennas or meeting the applicant's necessary height criteria or provide a location free from interference of any nature, then satisfactory evidence to that effect shall be submitted by a qualified expert at the time of application for the earliest required approval.

(2) **Other Users.** All transmission towers installed after the effective date of this Ordinance shall be structurally and mechanically capable of accommodating the antenna or array of antennas of more than one user/transmitter, unless the tower is incapable of supporting more than one user/transmitter due to the design of the tower which is incorporated

into another structure in compliance with Section B.2-5.79(H). Monopoles shall accommodate a minimum of two total users, lattice or other types of towers shall accommodate a minimum of three total users. These users shall be in addition to the local jurisdiction which may place devices per Section B.2-5.79(K). Certification as to the tower's structural and mechanical capability to accommodate colocation shall be provided by a professional engineer or other qualified professional.

- (3) **Access. (F)** Access to available technically feasible space on any towers shall not be denied to any competitive users or service provider, unless the additional use would cause objectionable interference or present a danger to the structural safety or stability of the tower.

Access. (W) Access to available technically feasible space on any towers shall not be denied to any competitive users or service provider.

- (4) **Nonconforming Uses.** Requirements for co-location on transmission towers which are nonconforming are contained in Section B.5-2.3(E).

- (5) Co-location shall be defined in conformance with federal and state law, including the standards defined in NCGS 160A-400.53.

(J) **Abandonment Termination of Use**

~~A tower that is no longer used for communication purposes must be removed within one hundred twenty (120) days of the date it is taken out of service. An owner of a tower shall immediately notify the City of its abandonment of the use of the tower for communication purposes. The owner of the tower shall remove said tower within one hundred twenty (120) days of its abandonment.~~

(K) **Easement for Public Facilities**

At the request of the local jurisdiction, an easement shall be granted to the jurisdiction to place cameras, monitors, two-way mobile radio equipment, or other desired telecommunications devices; however such devices may be restricted so as not to affect the functioning of the antenna or array of antennas of the tower operator or service provider.

(L) **Placement on or Within Large Public Structures**

Notwithstanding the provisions of Table B.2.6, nonfreestanding transmission towers meeting the provisions of Section B.2-5.79(H) or located on large, non-habitable public or utilities structures, including but not limited to water towers and trestles of major electrical distribution lines, are permitted under the following conditions:

- (1) **Zoning Permit.** A zoning permit from the Director of Inspections or his/her designee is required.

- (2) **Compliance with Use Conditions.** Use conditions regarding signage must be complied with.
- (M) **State Plane Coordinates**
All site plans submitted in conjunction with requests for transmission towers shall include the location of the proposed tower by State Plane Coordinates and above ground level and sea level elevations, based on 1983 North America datum. All towers operated by the applicant in Forsyth County and within one quarter (1/4) mile of its borders shall also be similarly located and submitted with the site plan.
- (N) **Color, Finish, Lighting**
Unless otherwise required by the Federal Aviation Administration (FAA), the finish of the transmission tower shall be non-shiny or glossy; any painted color shall be muted or neutral; and no lights or strobe lights shall be placed on the tower. If lights are required by the FAA, the least obtrusive lighting option available under FAA guidelines shall be installed; white strobe lights are discouraged from use.
- (O) **Interdepartmental Plan Review Requirement**
Transmission towers requiring a Special Use Permit per Table B.2.6 and further refined in section B.2-5.79(A), shall complete an interdepartmental plan review prior to applying for a Special Use Permit from the Board of Adjustment or the Elected Body.
- (P) **Community Meeting Required**
Applicants for transmission towers requiring a Special Use Permit per Table B.2.6 shall hold a community meeting prior to the date of the meeting of the Board of Adjustment or Elected Body.
Notice of the location, date, and time of the community meeting shall be mailed to the owners of any property located within 500' of the subject parcel of land as well as to the neighborhood association representing any property located within 500' of the subject parcel as identified by the Planning Department.
- (Q) **Decision Timeframe**
Decisions to approve or deny proposals for new telecommunications towers shall be rendered by the approving authority within one hundred fifty (150) days from application submittal.

Section 3. Chapter B – Zoning Ordinance, Article VI – Administration and Amendments is amended as follows:

Article VI – Administration and Amendments

6-1 Administration

6-1.4 BOARD OF ADJUSTMENT

(A) Special Use Permits Authorized by the Board of Adjustment

- (1) Board of Adjustment Review.** The Board of Adjustment shall review all requests for permits as designated in Table B.2.6 and Section B.2-5.
- (2) Planning Board Report.** Applications for special use permits may be approved by the Board of Adjustment after such board receives a report from the Planning Board and holds a duly advertised public hearing in each case, except that the Planning Board shall not be required to review and report on applications for:
 - (a) Riding Stables per Table B.2.6;
 - (b) Kennels, Outdoor per Table B.2.6;
 - (c) Shooting Ranges, Outdoor per Table B.2.6;
 - (d) Manufactured Homes Class A, Class B and Class C per Table B.2.6;
 - (e) Expansion or Conversion of a Nonconforming Use per Sections B.5-2.3(B) and B.5-2.4(A);
 - (f) Accessory Uses as follows:
 - (i) Dwelling, Accessory (Detached) per Section B.2-6.4(C);
 - (ii) Separation, Processing, Storage or Wholesale Sale of Materials in LCID's per Section B.2-5.41(N); or
 - (iii) Home Occupations in Rural Areas (GMAs 4 and 5) per Section B.2-6.4(D)(2)(b);

- (g) Accessory Structures as follows:
 - (i) Exceeding size limits for accessory structures per Section B.3-1.2(E);
 - (h) Parking reductions for churches per Sections B.2-5.21(D) and B.2-5.22(C);
 - (i) Veterinary Services per Table B.2.6;
 - (j) Reserved.
 - (k) Keeping of horses, mules, donkeys, goats, sheep, or cattle (W) per Section B.3-11.4;
 - (l) Child Daycare, Large Home;
 - (m) Transmission Towers per Table B.2.6.

Section 4. This ordinance shall be effective upon adoption.




Exhibit 1

Key Differences between Planning Board-Recommended and Council-Approved Transmission Tower Ordinances

	Petitioner’s draft ordinance recommended by Planning Board	Ordinance approved by City Council
Residential towers	Concealed towers less than 150’ tall allowed with <u>staff zoning review</u> on sites with nonresidential uses (churches, schools, etc.) Other residential towers require <u>Board of Adjustment Special Use Permit</u>	All towers in residential zoning require an <u>Elected Body Special Use Permit</u> review
Lattice towers in Institutional zoning	Allowed	Prohibited
Tower setback from public streets	40’	Setback equal to tower height (example: 150’ tower would be setback 150’ from public street)
Alternative compliance for setbacks	Requests reviewed by <u>Board of Adjustment</u>	Requests reviewed by <u>Elected Body</u>
Photosimulations showing proposed towers in context	Not required	Required for concealed towers in residential zoning over 120’ tall; required for all monopole towers in residential zoning
Hierarchy of tower types (shows towers that are allowed with staff review vs. those that require public hearings)	Not included	Included
Public meeting notification radius	300’ from proposed tower	500’ from proposed tower
Additional legal language from City Attorney’s office (added specific state statute references)	Not included	Included

Exhibit 2




Transmission Tower Regulations – Petitioner’s Planning Board Recommended Ordinance

Zoning		Residential (with non-residential uses) ^{1 5}	Residential (vacant or with residential uses) ^{1 2 3 4 5}	IP ¹⁵	LO, CPO, PB, LB, NSB ¹⁵	Intense non-residential districts ¹⁵
Tower Type						
Concealed	Maximum Height	Approval Process				
	199'	--	--	--	Z	Z
	180'	A	A	Z	Z	Z
	150'	Z	A	Z	Z	Z
Monopole	Maximum Height	Approval Process				
	199'	--	--	--	Z	Z
	180'	A	--	A	Z	Z
Lattice	Maximum Height	Approval Process				
	300'	--	--	A	A	Z

¹ 100' required setbacks from RS, RM, YR, AG, or H; 40' setbacks from other districts and public streets
² Required setbacks equal to tower height (100' minimum) from RS, RM, YR, AG, or H; 40' setbacks from other districts
³ Only GMAs 3, 4 or 5
⁴ 4 Acre minimum lot size
⁵ Towers in any district must be set back tower height plus 20' from any occupied single family structure

Exhibit 3

Transmission Tower Regulations – City Council Approved Ordinance

Zoning		Residential (with non-residential uses) ^{1 5}	Residential (vacant or with residential uses) ^{1 2 3 4 5}	IP ^{1 5}	LO, CPO, PB, LB, NSB ^{1 5}	Intense non-residential districts ^{1 5}
Tower Type						
Concealed	Maximum Height	Approval Process				
	199'	E	E	--	Z	Z
	180'	E	E	Z	Z	Z
	150'	E	E	Z	Z	Z
Monopole	Maximum Height	Approval Process				
	199'	E	E	--	Z	Z
	180'	E	E	A	Z	Z
Lattice	Maximum Height	Approval Process				
	300'	--	--	--	A	Z

¹ 100' required setbacks from RS, RM, YR, AG, or H; 40' setbacks from other districts; setbacks equal to tower height from public streets
² Required setbacks equal to tower height (100' minimum) from RS, RM, YR, AG, or H; 40' setbacks from other districts
³ Only GMAs 3, 4 or 5
⁴ 4 Acre minimum lot size
⁵ Towers in any district must be set back tower height plus 20' from any occupied single family structure

Exhibit 4

Summary of NC Peer Cities' Residential Transmission Tower Standards

City	Required Tower Review Process	Max. Tower Height	Concealed (Stealth) Tower Required	Minimum Setback Requirement	Notes
<p>Winston-Salem (Applicant Proposed)</p>	<ul style="list-style-type: none"> • By right up to 150' for concealed towers on sites with non-residential uses • BOA Special Use Permit between 150'-180' for concealed towers with non-residential uses • BOA Special Use Permit for monopole with non-residential uses, up to 180' • BOA Special use Permit up to 180' for vacant residential lots and lots with residential uses in GMAs 3, 4, and 5 	<p>180'</p>	<p>No</p>	<ul style="list-style-type: none"> • 40' adjacent to nonresidential zoning or a public street • 100' for towers adjacent to residential zoning • Stealth towers on vacant lots require setback equal to tower height, but no less than 100' • Towers in any district must be setback tower height plus 20' from any occupied single family structure 	<ul style="list-style-type: none"> • Towers on vacant residential lots or lots with residential uses in residential zoning must be at least 4 acres in size
<p>Cary</p>	<ul style="list-style-type: none"> • By right up to 199' with non-residential uses • By right up to 150' for vacant residential lot or with residential use • BOA Special Use Permit between 150'-175' for vacant residential lot or with residential use • Council SUP between 175'-199' for vacant residential lot or with residential use • Council SUP for non-concealed tower 	<p>199'</p>	<p>No</p>	<ul style="list-style-type: none"> • Towers must have setbacks equal to tower height from adjacent residentially zoned property that is vacant or has a residential use • Setback equal to ½ tower height from residential property with nonresidential uses • Setback equal to tower height from road rights-of-way 	<ul style="list-style-type: none"> • Non-concealed towers only allowed in large lot residential

Exhibit 4

<p>Raleigh</p>	<ul style="list-style-type: none"> • Up to 250' By-Right • 250-510' requires BOA Special Use Permit 	<p>510'</p>	<p>No</p>	<ul style="list-style-type: none"> • For towers less than 250': Setback of 200% of tower height from residential zoning (100% of tower height if the tower is a monopole); 20' from other lots (except mixed-use) or public streets • For towers between 250-510': Setback of 100" of tower height from residential zoning; 20' from other lots or public streets 	<ul style="list-style-type: none"> • City Council may reduce setbacks for towers over 250' where the lesser setback is not injurious to the affected area (up to a reduction equal to 50% of tower height)
<p>Durham</p>	<ul style="list-style-type: none"> • Development Review Board for concealed towers • BOA Special Use Permit for non-concealed towers 	<ul style="list-style-type: none"> • 120' for large lot districts • 25' above max. building height for other residential districts 	<p>No</p>	<ul style="list-style-type: none"> • Concealed tower setbacks are subject to the underlying zoning district – also, concealed facilities shall not be closer to an adjoining property line than the proposed tower is to the dwelling unit on a property on which it is proposed to be located • Non-concealed towers are subject to underlying zoning standards, plus an additional six inches of setback per foot of tower height 	<ul style="list-style-type: none"> • Non-concealed towers only allowed on 5+ acre lots in large lot residential districts • Towers not allowed at all in other residential districts • The BOA may grant reductions to the setback of non-concealed towers as part of the SUP approval process
<p>Greensboro</p>	<p>By-Right</p>	<p>80'</p>	<p>Yes , if located within 1500' of a residential use</p>	<ul style="list-style-type: none"> • Towers must meet minimum district setback requirements; plus, towers must be setback at least 100' from residentially zoned property 	<ul style="list-style-type: none"> • Towers only allowed in residential zoning with nonresidential uses • Towers not allowed on vacant residential land • At least 1 acre is required for towers in residential zoning

Exhibit 4

<p>Charlotte</p>	<p>By-Right</p>	<p>No Limit</p>	<p>Yes, if located within residential zoning or within 400' of residential zoning</p>	<ul style="list-style-type: none"> • Setbacks equal to district standards for towers under 40' • Towers in or abutting residential zoning over 40' in height must have an additional 1' of setback per 1' of tower height, up to a maximum of 200' • Setbacks of towers over 40' adjacent to non-residential districts may be equal to the non-residential district's minimum setbacks 	<ul style="list-style-type: none"> • Towers not allowed in urban residential districts • Residential towers must have indiscernible antennae, and the use of a flagpole as a concealment measure is only available with institutional and non-residential uses
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Exhibit 5

Summary of Existing Forsyth County Transmission Tower Regulations

Zoning District	Tower Allowed or Not	Approval Process	Maximum Tower Height	Tower Type Limits	Minimum Setbacks	Buffer Requirements
YR	Not allowed	N/A	N/A	N/A	N/A	N/A
AG	Allowed in GMAs 4/5	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RS40	Allowed in GMAs 4/5	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RS30	Allowed in GMAs 4/5	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RS20	Allowed in GMAs 4/5	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RS15	Not allowed	N/A	N/A	N/A	N/A	N/A
RS12	Not allowed	N/A	N/A	N/A	N/A	N/A
RS9	Not allowed	N/A	N/A	N/A	N/A	N/A
RS7	Not allowed	N/A	N/A	N/A	N/A	N/A
RSQ	Not allowed	N/A	N/A	N/A	N/A	N/A
RM5	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RM8	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RM12	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RM18	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
RMU	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure

Exhibit 5

MH	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
NO	Not allowed	N/A	N/A	N/A	N/A	N/A
LO	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
CPO	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
GO	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
NB	Not Allowed	N/A	N/A	N/A	N/A	N/A
PB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
LB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
NSB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
HB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
GB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
CB	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
MRB-S	Allowed	Zoning Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
E	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure

Exhibit 5

LI	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
GI	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
CI	Allowed	Planning Board Review	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
IP	Allowed	BOA Special Use Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure
C	Not Allowed	N/A	N/A	N/A	N/A	N/A
MU-S	Allowed	Zoning Permit	No Limit	No Limit	100' from residential zoning; 40 from other districts and public streets	A type IV buffer is required where towers are within 200' of an adjacent street or zoning lot with no intervening structure

Exhibit 6

Summary of Planning Board Recommended Transmission Tower Regulations

Zoning District	Tower Allowed or Not	Approval Process	Maximum Tower Height	Tower Type Limits	Minimum Setbacks	Buffer Requirements
YR	Not allowed	N/A	N/A	N/A	N/A	N/A
AG	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS40	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS30	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS20	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets;	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where

Exhibit 6

		150'/BOA Special Use Permit for other allowed towers			towers in any district must be setback tower height plus 20' from any occupied single family structure	towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS15	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS12	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS9	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS7	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200'

Exhibit 6

		Permit for other allowed towers			any occupied single family structure	of an adjacent street or zoning lot with no intervening structure
RSQ	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM5	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM8	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM12	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure

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RM18	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RMU	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MH	Allowed in all GMAs with restrictions	Zoning Permit for concealed towers with non-residential uses less than 150'/BOA Special Use Permit for other allowed towers	180'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NO	Not allowed	N/A	N/A	N/A	N/A	N/A
LO	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
CPO	Allowed	Zoning Permit	300'	No Limit	100' from residential zoning; 40	A type IV buffer is required where

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		for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'			from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
GO	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NB	Not allowed	N/A	N/A	N/A	N/A	N/A
PB	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
LB	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NSB	Allowed	Zoning Permit for concealed and	300'	No Limit	100' from residential zoning; 40 from other districts and public	A type IV buffer is required where towers are located adjacent to

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		monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'			streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
HB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
GB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
CB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MRB-S	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20'	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure;

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					from any occupied single family structure	A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
E	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
LI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
GI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
CI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to

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						nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
IP	Allowed	Zoning Permit for concealed towers up to 180'/BOA Special Use Permit for other allowed towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
C	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MU-S	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts and public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure

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Summary of City Council Approved Transmission Tower Regulations

Zoning District	Tower Allowed or Not	Approval Process	Maximum Tower Height	Tower Type Limits	Minimum Setbacks	Buffer Requirements
YR	Not allowed	N/A	N/A	N/A	N/A	N/A
AG	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS40	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS30	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS20	Allowed in all GMAs with	Elected Body Special Use	199'	Lattice towers	100' from residential zoning, except concealed towers on vacant lots	A type IV buffer is required where towers are located adjacent to

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	restrictions	Permit for concealed and monopole towers up to 199'		prohibited	require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS15	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS12	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RS9	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure

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RS7	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RSQ	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM5	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM8	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20'	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with

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					from any occupied single family structure	no intervening structure
RM12	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RM18	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
RMU	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MH	Allowed in all GMAs with restrictions	Elected Body Special Use Permit for concealed and monopole towers up to 199'	199'	Lattice towers prohibited	100' from residential zoning, except concealed towers on vacant lots require setbacks equal to tower height (not less than 100'); 40 from other districts; towers must be setback tower height from public	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to

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					streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NO	Not allowed	N/A	N/A	N/A	N/A	N/A
LO	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
CPO	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
GO	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NB	Not allowed	N/A	N/A	N/A	N/A	N/A
PB	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where

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		Permit for lattice towers up to 300'			any occupied single family structure	towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
LB	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
NSB	Allowed	Zoning Permit for concealed and monopole towers up to 199'/BOA Special Use Permit for lattice towers up to 300'	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
HB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
GB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200'

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						of an adjacent street or zoning lot with no intervening structure
CB	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MRB-S	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
E	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
LI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure

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GI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
CI	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
IP	Allowed	Zoning Permit for concealed towers up to 180'/BOA Special Use Permit for other allowed towers	300'	Lattice towers prohibited	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
C	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	A type IV buffer is required where towers are located adjacent to residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
MU-S	Allowed	Zoning Permit for all towers	300'	No Limit	100' from residential zoning; 40 from other districts; setback equal	A type IV buffer is required where towers are located adjacent to

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					to tower height from public streets; towers in any district must be setback tower height plus 20' from any occupied single family structure	residential zoning and there is no intervening structure; A type IV buffer is required where towers are located adjacent to nonresidential zoning and is within 200' of an adjacent street or zoning lot with no intervening structure
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