

DURHAM



1869  
CITY OF MEDICINE

CITY OF DURHAM | DURHAM COUNTY  
NORTH CAROLINA



**Date:** May 4, 2015

**To:** Thomas J. Bonfield, City Manager

**Through:** Keith Chadwell, Deputy City Manager

**From:** Steven L. Medlin, AICP, Planning Director 

**Subject:** *Unified Development Ordinance* Text Amendment, Revisions to the  
Wireless Communication Facilities Ordinance (TC1200013)

**Summary.** Proposed text amendment TC1200013 revises the regulations regarding wireless communication facilities (WCFs). On November 8, 2012, the City Council directed staff to review the current *Unified Development Ordinance* (UDO) regulations for WCFs in regards to issues raised by citizens. Subsequently, staff developed multiple draft revisions to the WCF regulations based upon direction and comments received by the Joint City-County Planning Committee (JCCPC). On August 6, 2014, after public meetings with the JCCPC over an approximate two-year span, the JCCPC provided staff with final direction for staff to move forward with the official adoption process of the revised WCF regulations. Throughout the process, Planning Department staff has involved both the City and County Attorneys' offices to verify that changes are compliant with applicable state and federal regulations. Staff has also met with and received comments from stakeholders consisting of citizens, neighborhood groups, and industry representatives.

In general, the proposed revisions provide for the following to paragraph 5.3.3N, Wireless Communication Facilities for Transmitting and Receiving Electronic Signals (WCFs), and associated sections, of the *Unified Development Ordinance*. A more detailed discussion is provided below.

1. Technical revisions to comply with recent state legislation and Federal Communications Commission (FCC) rulings;
2. Technical revisions to reorganize sections and remove superfluous requirements;
3. Addresses citizen concerns about notification prior to approval of new freestanding WCFs (a.k.a. "cell towers") by requiring more applicants for proposed towers to seek a minor special use permit approval if the cell tower will be located in residential zoning or near residential zoning;
4. Addresses citizen concerns about notification regarding new cell towers by requiring a balloon test, -with surrounding property owner notification of the balloon test, prior to minor special use permit application submittal;
5. Addresses citizen concerns regarding tower safety by providing for greater setbacks from property lines and natural gas line easements;

6. Addresses other concerns regarding liability, abandonment, aesthetics, buffers, and height;
7. Maintains a regulatory preference towards collocation on existing towers and other structures that are suitable for WCFs;
8. Maintains differentiation in the approval process between concealed and non-concealed WCFs; and
9. Adds standards for a new type of freestanding cell tower called a unipole.

**Recommendation.** Staff recommends approval of the attached Ordinance to amend paragraph 5.3.3N, Wireless Communication Facilities for Transmitting and Receiving Electronic Signals (WCFs), and associated sections, of the *Unified Development Ordinance* (TC1200013); and recommends approval of a consistency statement declaring the request consistent with the *Durham Comprehensive Plan* and that the request is reasonable and in the public interest. Information supporting these recommendations is found within this memo, attached documents, and any information provided through the public hearing.

The Planning Commission recommended approval, 8-4, of the text amendment on March 10, 2015, with an additional recommendation to reduce the maximum height of freestanding towers in the Rural Residential (RR) zoning district in the Suburban Tier from 120 feet to the height allowed under the base zoning plus 20 feet. The Planning Commission determined that the Ordinance request is consistent with the adopted *Comprehensive Plan* and that the request is reasonable and in the public interest based on comments received at the public hearing and the information in the staff report.

**Background.**

*Current Regulations:*

Current UDO regulations for WCFs were initially adopted in 2004 as part of the *Durham Merged Zoning Ordinance*, and subsequently adopted as part of the UDO in 2006. Prior to the 2004 regulations, zoning regulations required freestanding towers to receive a minor or major special use permit, depending upon the height of the tower. Towers were limited to the Rural District (RD) and Residential-20 (R-20) districts (which translate to the RR and RS-20 districts in the UDO), and other nonresidential zoning districts. Freestanding towers could, with special use permit approval, be constructed up to 400 feet tall. A result of requiring almost all freestanding towers to receive a special use permit was an increase in litigation due to denials of such permits by the Board of Adjustment or the governing body, depending upon the type of special use permit. Most denials that were appealed were overturned. Therefore, in 2004, the City and County of Durham adopted amendments in order to update regulations in compliance with the

*Telecommunications Act of 1996*, develop standards for more varied types of WCFs, and reflect policy changes in regards to how WCFs should be regulated.

In developing standards for the different types of WCFs, the policy direction from the governing bodies encouraged the placement of facilities on existing structures (buildings, existing towers, etc.), concealment, and shorter towers. Emphasis was placed upon collocating or attaching new, concealed facilities on existing structures. As for freestanding towers, concealed towers were encouraged over non-concealed towers. This was done by requiring special use permits for non-concealed towers and limiting where non-concealed towers could be located. As for height, maximum heights for towers were capped at 199 feet, 120 feet, or the base zoning height plus 25 feet, depending upon the zoning district. Slightly shorter towers might have meant more towers, but that was the perceived trade-off for taller towers.

Other regulatory means were adopted to encourage concealed towers. Concealed towers were permitted in all zoning districts, and smaller setbacks were required compared to the setbacks for non-concealed towers. Impacts to residential areas were considered and reflected by the maximum heights allowed within certain residential zoning districts. Taller towers were permitted in RR, RS-20, and all nonresidential districts. Height was restricted in all other residential districts.

As a result of current regulations, over 90% of all WCF applications received to date have consisted of updating or collocating on existing facilities, buildings, or other structures. Eighteen new freestanding WCF site plan applications have been submitted since 2004, with all proposed in either RR, RS-20, or non-residential districts. Of those, only one was non-concealed and received a minor special use permit in January, 2015. That WCF was a unipole which conceals all antennas within the pole structure.

*State and Federal Regulations' Impact on Local Regulation:*

Three state or federal regulations play key roles in a local jurisdiction's ability to regulate WCFs. The proposed revisions have been reviewed by both the City and County Attorneys' offices to verify compliance with those regulations.

1. *Federal Telecommunications Act of 1996*: This law generally preserves state and local zoning authority, but certain aspects of local authority are preempted. Local or state regulations:
  - a. Cannot discriminate between different providers of personal wireless services.
  - b. Must act on applications within a reasonable amount of time. The FCC has established time periods (a.k.a. shot-clocks) for how long a reviewing agency can perform reviews of the various types of WCF applications.

- c. Cannot deny a WCF application based upon environmental effects of radio frequency emissions. The FCC has regulations regarding emissions.
- d. Cannot prohibit or have the effect of prohibiting the provision of personal wireless services.

The City and County Attorneys' offices verified that Durham's current Ordinance meets the federal criteria, as follows.

- a. The Ordinance does not discriminate between personal wireless service providers.
  - b. The WCF review time periods fall within the shot-clock times prescribed by the FCC.
  - c. There is no provision for regulating WCFs based on environmental effects of radio frequency emission.
  - d. If an applicant claims a technical requirement has the effect of prohibiting the provision of personal wireless service, a variance can be sought from the Board of Adjustment.
2. *State Enabling Legislation under North Carolina General Statutes (NCGS) Chapters 160A (Cities) and 153A (Counties) for WCFs:* First enacted in 2007, and later amended in 2013 (S.L. 2013-185), this legislation preserved local zoning authority for aesthetics regulations, landscaping, structural design, setbacks/fall zones, building code requirements, land-use based location priorities, and determination of collocation feasibility. The law prevents regulation based upon radio frequency emission; proprietary, confidential, or other business decisions to justify the need for the facility; and customer demand or quality of service. The 2013 session law created further limitations by establishing a state-mandated shot-clock review period for certain applications and capping the fees local jurisdictions can charge for review of collocation applications. The 2013 session law also sought to establish the rules for defining and regulating "eligible facility requests" and "substantial modifications" to WCFs, pursuant to Section 6409(a) of the federal *Middle Class Tax Relief and Job Creation Act of 2012*. At that time, the FCC had not released specific rules pertaining to that statute.
3. *Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 and FCC Report and Order 14-153:* In October, 2014, the FCC released Report and Order-14-153, which contained the rules regarding *Section 6409(a)*. This statute prohibits state and local governments from denying "eligible facilities requests" to modify existing wireless towers or base stations if the modifications do not substantially change the dimensions of the facility. An "Eligible Facility Request" is defined as a request for modification of an existing wireless tower or base station that involves:
- a. Collocation of new transmission equipment;

- b. Removal of transmission equipment; or
- c. Replacement of transmission equipment.

The FCC Order specifies the criteria by which certain WCF applications qualify as “eligible facility requests” and therefore must be approved; versus “substantial changes” which allow for broader, local regulatory authority. The criteria include some similar standards already established by state legislation, but also include additional performance standards. Review by the City and County Attorneys’ offices determined that the FCC Order was the governing document local jurisdictions must follow regarding eligible facility requests and substantial changes; but other aspects of the state legislation (such as shot-clock requirements, fees, limits to what local jurisdictions can request) must still be adhered to.

*Amending Current Regulations:*

In response to the administrative approval of a concealed, freestanding WCF tower off of NC Highway 751, citizens residing in the area filed an appeal to the Board of Adjustment contesting the validity of the approval of the tower; and raised a series of concerns regarding aspects of the Ordinance with City Council at its November 8, 2012, work session. At that work session, City Council received information from staff regarding Durham’s historical and current regulatory processes for WCFs. Based upon the information presented at the time, the City Council directed staff to begin reviewing the current UDO regulations and report to the JCCPC with initial considerations for amending the Ordinance.

On April 3, 2013, staff provided the JCCPC with several topics to consider for revising the current WCF regulations, and reiterated the need to update the Ordinance to comply with recent changes in federal and state legislation. The JCCPC provided initial direction to staff to address certain concerns raised by citizens. The issues to be addressed were notification requirements, liability insurance requirements, safety standards, and aesthetics.

Subsequent to that meeting, additional JCCPC meetings were held to review drafts, consider comments, and provide direction to staff. On August 6, 2014, staff provided the JCCPC with a set of recommendations based upon the previous analysis of comments and issues raised by citizens, the Inter-Neighborhood Council (INC), industry representatives, and the JCCPC. The JCCPC directed staff to move forward with the adoption process based upon the staff recommendations reviewed at that meeting, and also asked staff to consider additional comments submitted by the INC. Staff incorporated the feedback and released a public draft for review in September, 2014.

Concurrently, updates to state and federal legislation were approved. As discussed above, the state legislature in 2013 prescribed specific by-right additions and modifications to existing WCF facilities under the auspices of *Section 6409(a)* of the federal *Middle Class Tax Relief and Job Creation Act of 2012*, and prior to any specific FCC rulings on the statute. In October, 2014, the FCC released its specific rules (FCC Report and Order 14-153) on Section 6409(a) of the *Middle Class Tax Relief and Job Creation Act of 2012*, specifying how local governments can regulate “eligible facility” WCFs versus “substantial changes” to WCFs. After further review by the City and County Attorneys’ offices, a subsequent text amendment draft was released in December, taking into account the new FCC rules.

Staff met with industry and INC representatives in early January, 2015, to discuss final concerns and comments prior to initiating the adoption process for the text amendment. The resulting, proposed draft (Attachment A) reflects additional concerns and comments discussed with staff.

The Planning Commission heard the request at its March 10, 2015, meeting and recommended approval. The Planning Commission also recommended reducing the maximum height for freestanding WCFs in an RR District in the Suburban Tier from “120 feet” to the “base zoning height plus 20 feet.” The Durham Board of County Commissioners will consider this request at its May 11, 2015, meeting.

**Issues.** The following section provides a summary of proposed changes to the current WCF regulations based upon direction received from the JCCPC on August 4, 2014, and additional comments received from citizen and industry stakeholder groups. In short, these proposed changes will result in the following circumstances:

1. Increased public notice and input as a result of an increase in instances a quasi-judicial public hearing will be required for freestanding WCFs (primarily in residential areas), and a broader notification range for the public hearings. This will provide more opportunity for residents in a particular area to know of, and voice concerns about, a freestanding WCF proposal. It will also increase time and costs for development of such freestanding WCFs, and may result in increased amount of litigation due to unfavorable results from special use permit hearings, as was evident from the pre-2004 WCF regulations discussed above.
2. Increased setbacks are proposed to address safety concerns raised by citizens and neighborhood groups, and will provide some aesthetic remediation by making towers less visible from nearby off-site locations. Increased setbacks will also require larger lots, especially for taller towers because setbacks are calculated based upon tower height. Setback reductions are possible, but not in residential zoning districts. This may result in fewer sites available for freestanding WCFs; and may increase variance applications for setback relief

under claims that the setbacks have the effect of preventing the provision of wireless service, a key provision of the *Telecommunications Act of 1996*.

*Summary of the Proposed Text Amendment*

**1. Maintain Concealment-Based Regulations**

The proposed regulations maintain a regulatory differentiation between WCFs that are concealed versus those that are not concealed. This maintains the current policy that encourages concealment proposals by only requiring administrative approval. A caveat to this policy is proposed in the text amendment, where most new, freestanding WCFs located in residential districts or in proximity to residential districts would require a special use permit regardless of whether the WCF is concealed or non-concealed.

**2. Special Use Permit Requirements**

Citizen comments expressed a desire for additional public input regarding the placement of freestanding cell towers, primarily in residential areas. The current major special use permit requirement for towers within 300 feet of North Carolina Scenic Byways has been maintained, along with the minor special use permit requirement for non-concealed towers. Otherwise, the following changes are proposed:

- a. The property owner notification range for minor special use permit hearings is increased from 300 feet to 600 feet from the development site. This change will apply to all minor special use permit hearings, not just hearings involving WCFs.
- b. Concealed, freestanding WCFs (other than monopines or faux trees) proposed to be taller than 60 feet in height and located in a residential or Planned Density Residential (PDR) zoning district, or within 450 feet of a residential or PDR zoning district, will require a minor special use permit. No special use permit is currently required for such WCFs in these locations.
- c. Monopines or faux tree WCFs proposed in a residential or PDR zoning district, or within 450 feet of a residential or PDR zoning district, will require a minor special use permit. No special use permit is currently required for such WCFs in any location.
- d. Existing special use permit requirements and specific findings required for WCFs have been reorganized into one location within paragraph 5.3.3N, and text has been modified for clarity.
- e. A mandatory balloon test has been added to the WCF special use permit requirements, including specific standards and notification procedures.

**3. Setbacks from Property Lines and Natural Gas Lines**

The current and proposed setback requirements are as follows. No setbacks from natural gas lines are currently required.

Current Setback Requirements	
<i>Freestanding, Concealed WCFs:</i>	The base zoning district requirements
<i>Freestanding, Non-Concealed WCFs:</i>	The base zoning requirement plus half the height of the proposed tower

Proposed Setback Requirements (for all freestanding WCFs)	
<i>Setbacks from Property Lines:</i>	120% of the tower height or 85 feet, whichever is greater
<i>Modifications Allowed with a Minor Special Use Permit?</i>	Yes, except in PDR and residential districts
<i>Proposed Setbacks from Centerline of Natural Gas Lines <math>\geq 8''</math> Diameter:</i>	120% of the tower height or 85 feet, whichever is greater

In order to address safety concerns raised by citizens regarding the possibility of a tower collapse, setbacks to property lines and natural gas lines of eight-inch diameter or greater have been modified to equal 120% of the height of the proposed tower, or 85 feet, whichever is greater. These increased setbacks are proposed to address safety concerns raised by citizens regarding a complete collapse of a tower along a length equal to its height. The additional 20% required above the proposed tower height is to accommodate additional tower height allowed by-right through federal and state law as an eligible facility request.

As currently allowed, setbacks for freestanding, non-concealed WCFs may be reduced with the issuance of a minor special use permit. Proposed changes will allow this option for other freestanding WCFs in zoning districts other than residential or PDR zoning districts.

It is important to note that the increased and additional setback requirements will require larger parcels in order to accommodate the siting of a freestanding WCF, assuming no setback reduction is granted. This may result in fewer options to site a freestanding WCF. There has been no documented tower collapse in Durham and no documented impact by a tower on a natural gas line.

**4. Height**

The following are the current and proposed maximum height requirements for freestanding WCFs:

Current Maximum Height Requirements	
<i>Freestanding Concealed WCFs:</i>	<ul style="list-style-type: none"> <li>• RR and RS-20 districts: 120 feet</li> <li>• All other residential districts: Base zoning district maximum height plus 25 feet</li> <li>• All nonresidential districts: 199 feet</li> </ul>
<i>Freestanding Non-Concealed WCFs:</i>	<ul style="list-style-type: none"> <li>• RR and RS-20 districts: 120 feet</li> <li>• All nonresidential districts: 199 feet</li> </ul>

Proposed Maximum Height Requirements	
<i>Freestanding Concealed and Unipole WCFs:</i>	<ul style="list-style-type: none"> <li>• RR: 120 feet</li> <li>• All other residential and PDR districts: Base zoning district maximum height plus 20 feet</li> <li>• All other districts: 180 feet</li> </ul>
<i>Freestanding Non-Concealed WCFs:</i>	<ul style="list-style-type: none"> <li>• RR: 120 feet</li> <li>• RS-20: Base zoning district maximum height plus 20 feet</li> <li>• All other districts: 180 feet</li> </ul>

Changes to the maximum heights for RS-20, “all other residential and PDR districts,” and “all other districts” were made upon request by citizens concerned about additional height allowed by-right due to federal regulations. The addition of the PDR district and revision from “all nonresidential districts” to “all other districts” are technical clarifications meant to reflect the intent of the current regulations. The use table of Section 5.1, Use Table, continues to restrict the allowed locations for different types of new, freestanding WCFs.

Industry representatives requested the JCCPC and staff to consider increasing the allowable height for towers in certain areas, primarily RR zoning in the County. However, staff received no direction from the JCCPC to increase the maximum height allowances in these areas.

**5. Buffers**

Current buffer standards around a tower compound are as follows:

<i>Freestanding Concealed WCFs:</i>	As required per Sec. 9.4, Project Boundary Buffers
<i>Freestanding Non-Concealed WCFs:</i>	<ul style="list-style-type: none"> <li>• RR or RS-20 districts: buffers equivalent to Industrial to Residential</li> <li>• Nonresidential districts: buffers equivalent to Light Industrial to Residential</li> </ul>

The INC recommended a buffer with a minimum 60% opacity and a minimum width of 10 feet around the compound for any freestanding WCF. The proposed draft modifies current buffer requirements to accommodate the INC recommendation. This would provide clearer and consistent buffer requirements, while maintaining the ability to use existing vegetation; although a wider buffer would likely be needed to accommodate larger, existing plants.

#### **6. Monopine Standards**

Concerns have been raised regarding the effectiveness of monopine towers as a concealed tower. The proposed draft maintains a monopine as a concealed tower only if certain performance standards are met; otherwise, it will be considered a non-concealed tower. These standards require:

- a. Placement within a cluster of trees that meet specific standards for area and root protection zones;
- b. Matching of species within the tree cluster; and
- c. Compliance with specific design criteria.

Additionally, all monopines proposed in residential or PDR districts or within 450 feet of residential or PDR districts will require a minor special use permit. Current standards do not provide specific standards for monopines and do not require a minor special use permit in residential or PDR districts. To accommodate the potential for concealing towers as a tree species other than pines, these standards have also been broadened to include other faux trees.

#### **7. Liability Insurance and Tower Abandonment**

Current regulations do not require liability insurance or provisions regarding the abandonment of towers. Upon direction of the JCCPC, staff has included provisions for both liability insurance and tower abandonment. For liability insurance, proof of \$1,000,000 liability insurance at time of site plan application, to be maintained for the life of the tower, shall be required. For tower abandonment, once the Planning Department is informed that a tower has not been used for at least six consecutive months, the owner shall have 90 days to remove the tower; or enforcement proceedings authorized through Article 15, Enforcement, will commence.

#### **8. Technical Changes to Address Consistency with Federal Regulations**

As noted above, the FCC issued rulings on how certain WCF modifications may be regulated by local governments. Standards were issued in the FCC Report and Order 14-153 that specify what modifications are eligible for by-right approvals (a.k.a. eligible facility requests) and what modifications are substantial changes which allow more local governmental regulatory discretion. Staff, in consultation with the City and County Attorneys' offices, has revised the current text,

including definitions, to comply with the FCC ruling and other applicable state and federal regulations.

#### **9. Unipole Freestanding WCF**

A unipole is a type of freestanding WCF that maintains all antennas and accessory cables concealed within the tower itself, resulting in a tall pole with nothing protruding from it. A request to regulate these as “concealed” instead of “non-concealed” (TC1400004) was denied by City Council at its December 1, 2014, meeting. The City Council’s primary concern was that the request was premature based upon the pending overall revisions discussed in this report.

Staff has included the unipole-type facility within the proposed WCF revisions, consistent with the regulations proposed to City Council, and consistent with the regulations that received a recommendation of approval from the Planning Commission on October 14, 2014. In short, these facilities would be allowed with an administrative approval only in most non-residentially-zoned areas, and allowed only with a minor special use permit in the RR and RS-20 districts. These facilities would not be allowed in all other residential and PDR zoning districts.

#### **10. Other Notable Modifications**

- a. Third party review – The current Ordinance allows for discretion as to when third party review of WCF applications shall be required. The proposed draft requires it specifically for any WCF application that requires a special use permit or variance. Both are quasi-judicial public hearing requests that require evidence by experts in the field. Third party review is appropriate for such technical review of applications submitted for quasi-judicial hearings.
- b. Fences and walls -- The proposed draft modifies existing standards to require an opaque fence or wall of eight feet in height around the equipment compound. Current standards only require the fence or wall to be opaque but with no specific height requirement. The standard for 100% opacity has also been added.
- c. Reorganization and other technical clarifications or modifications -- Certain existing subsections and standards have been relocated, consolidated, and in some instances removed due to lack of need for them. This has been done in an attempt to provide more clarity to the overall WCF regulations.

#### *Recommendation by the Planning Commission and Staff Response:*

As noted above, the Planning Commission recommended approval of the proposed text amendment. In addition, it recommended reducing the allowed maximum height for freestanding WCFs for sites zoned RR in the Suburban Tier to 20 feet above the maximum height allowed in the base zoning district. Current regulations

and the proposed amendment maintain the maximum height at 120 feet in the RR District in both the Rural and Suburban tiers.

Policy regarding height for freestanding WCFs in residential districts has been relatively consistent over time, with some modification. Other than in nonresidential districts, pre-2004 regulations only allowed towers in RD and R-20 districts (RR and RS-20 under the UDO), which were paired together as primarily large-lot, rural residential districts. None were permitted in the other residential districts. With the adoption of the 2004 regulations (and later encompassed within the UDO in 2006), freestanding WCFs were still primarily encouraged in the RR and RS-20 districts with a maximum height of 120 feet. However, they were allowed in other residential districts with a much lower maximum height of the base zoning district maximum plus 25 feet. The initial drafts of the current text amendment maintained those height standards. To this date, no freestanding WCF application has been submitted for a site within any residential district other than RR or RS-20.

An initial request from INC was to reduce the height for the RS-20 District. Specifically, the request asked to consider RS-20 with all other residential districts by reducing the maximum height from "120 feet" to the "base zoning plus 25 feet." Planning considered the request, and reported to JCCPC that staff believed it reasonable because land use patterns in RS-20 are more similar to all other residential districts than those within RR districts. There are sites in rural areas zoned RS-20, but RS-20-zoned property is mostly developed in the Suburban and Urban Tiers in a similar pattern as other residential districts. Thus staff determined this to be a reasonable revision.

A second request by INC was to reduce the maximum height for the "all other residential districts" category. As noted above, the maximum is base zoning district height plus 25 feet. The INC requested the reduction to accommodate the by-right height additions allowed by state and federal legislation as eligible facility requests. Staff determined the request reasonable with little policy implications. As noted above, no freestanding WCFs have been approved under current regulations within residential zoning districts other than RR or RS-20.

A third request by INC, submitted later in the review process, asked to include properties zoned RR in the Suburban Tier with the "all other residential districts" category. This request was reiterated by the Planning Commission. As with the revision for RS-20, this would reduce the current maximum height for sites zoned RR in the Suburban Tier from "120 feet" to "base zoning plus 20 feet." The primary argument for this reduction is to protect neighborhoods in the Suburban Tier by treating property zoned RR the same as the other residential districts in the Tier.

Furthermore, an assumption has been made that the change would impact relatively few properties in the Suburban Tier because most RR-zoned property is in the Rural Tier. However, review of the zoning map (Attachment B) has proven this assumption to be incorrect, as explained below. Staff considers this a substantial policy decision that staff received no direction to act upon by the JCCPC, and thus has not included the change at this time. Staff has concerns related to this request as follows:

1. Neighborhoods are protected with the proposed draft as written.
  - a. Setbacks have been increased to 120% of the tower height, and a reduction through a minor special use permit would not be permitted in any residential district, including RR. As discussed above, this is a substantial change from current regulations. A minimum lot size for the WCF site would need to be 1.9 acres, assuming a perfect square. Most properties are not perfect squares (or circles), thus it is reasonable to assume that a minimum lot size of over two acres would be required. The text amendment maintains a minimum lot size of five acres where freestanding, non-concealed WCFs would be allowed in residential districts. This further restricts the potential locations for such a tower.
  - b. A proposed freestanding, concealed WCF in any residential district, including RR, over 60 feet in height would require a minor special use permit. Thus public notice and a public hearing would be required to determine the suitability of siting the proposed tower. Additionally, a monopine or non-concealed tower of any height in a residential district would require a minor special use permit.
  - c. Project boundary buffers around the compound would be required at a minimum 60% opacity.
2. A review of the zoning map reveals that there are numerous properties zoned RR in the Suburban Tier. As demonstrated in Attachment B, there are 10,917 properties with RR zoning in the Suburban Tier, totaling approximately 29,600 acres. Although a few of these properties are near urbanized areas within the Suburban Tier, a predominant number of these properties reflect a more rural development and platting pattern that is consistent with the Rural Tier. Such rural areas do not typically provide many alternatives for siting WCFs, such as collocating on tall structures or other towers.

Removing the ability to provide reasonably tall towers to serve such rural areas may limit the ability to provide effective service efficiently. The wireless industry has already made claims that the current maximum height of 120 feet in rural areas is limiting the ability to provide effective service with a minimal number of towers. Reducing the maximum height as suggested could mean a substantial number of new, short towers; increased requests for variances based upon

compliance with the *Telecommunications Act of 1996*, which specifically states that local ordinances “shall not prevent or have the effect of preventing the provisions of wireless service”; or result in below-average cellular service in those areas.

**Revisions to the Planning Commission Draft.** Staff has made the following revisions to the text amendment since the Planning Commission meeting. These do not include revisions to address the maximum height in the RR District as recommended by the Planning Commission.

- *Paragraph 5.3.3N.3.c(6)(a)*: The text “shall be” was inserted to correct the fragmented sentence.
- *Paragraph 5.3.3N.4.f(1)(b)*: The maximum height allowed for freestanding, non-concealed WCFs in the RS-20 District has been revised from “120 feet” to “20 feet above the allowable building height of the underlying zoning district.” This revision was made to be consistent with the proposed maximum height allowed for freestanding, concealed WCFs in RS-20.
- The definitions of a “monopine,” “monopole,” and “unipole” have been revised for clarity.

**Consistency with the *Comprehensive Plan*; Reasonableness and in the Public Interest.**

Although WCFs are not specifically addressed within the *Durham Comprehensive Plan*, the following appears most applicable to the proposed text amendment.

**Chapter 4, Community Character and Design: Goal 4.3, Contextual Design**

Encourage development that is designed to be conscious of and sensitive to its surroundings. Contextual design considers the setting as much as the project itself, is applicable in a variety of areas and situations, and should guide any development.

This text amendment is a result of concerns raised by citizens regarding a cell tower proposed near their community. The changes proposed within the text amendment provide for additional public notification and input, additional safety and aesthetic regulations, and updates to comply with recent state and federal regulations. Just as significantly, the regulations maintain viable options for establishing freestanding or collocated wireless communication facilities. To that end, the proposed text amendment also appears reasonable and in the public interest.

**Staff Contact.** Michael Stock, AICP, Senior Planner, 919-560-4137 ext. 28227; [Michael.Stock@DurhamNC.gov](mailto:Michael.Stock@DurhamNC.gov).

Thomas J. Bonfield, City Manager  
*Unified Development Ordinance* Text Amendment, Revisions to the Wireless Communication Facilities  
Ordinance (TC1200013)  
May 4, 2015

**Attachments**

- Attachment A:** An Ordinance to Amend the *Unified Development Ordinance* Regarding Wireless Communication Facilities (TC1200013)
- Attachment B:** Map of RR-Zoned Property in the Suburban Tier
- Attachment C:** Statement of Consistency Pursuant to NCGS § 160A-383
- Attachment D:** Planning Commission Comments