

Town of Warrenton, VA

Proposed Zoning Ordinance Revisions



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Town of Warrenton, Virginia
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Via email only to: mcrim@sandsanderson.com

PRIVILEGED AND CONFIDENTIAL – Attorney/Client Communications

RE: Proposed Zoning Ordinance Amendment to Modify Wireless Infrastructure Fall Zones

Dear Mr. Crim:

On behalf of our mutual client, the Town of Warrenton, VA, (the “Town”), CityScape Consultants, Inc. (“CityScape”) has been asked to render to you as Town Attorney information regarding a request by Arcola Towers to amend the Town’s existing Zoning Ordinance to change the current required “fall zone” for wireless communications towers in the Public-Semi Public (PSP) zoning district from a “1 to 1” fall zone (e.g. a 90 foot tower would require a 90 foot fall zone) to a calculation that takes into account a designed “breakpoint” in wireless communications towers. In the event of a catastrophic event, a “breakpoint” causes a tower to “fail” at a specific elevation, thus reducing the linear amount of infrastructure that would fall in the event of a tower failure.

Specifically, the Town’s Planning Commission has requested information and opinions on the following subjects:

1. What percent of localities allow “breakpoint” technology in their zoning regulations?
2. Is it legal to allow “breakpoint” technology in one zoning district and not others where towers are allowed?
3. Breakpoint technology design parameters, specifically when and how the communications facility was to fail, including instances where a vehicle was to strike a wireless communications facility.
4. What are the typical standards/best practices that jurisdictions include in their zoning ordinances for “breakpoint” technology?
5. Generally, when, and where is “breakpoint” technology appropriate or not appropriate for wireless infrastructure?

The Town certainly can regulate wireless infrastructure based on both aesthetic concerns and physical safety issues, including but not limited to setbacks from residences and roadways, wind loading standards, etc., which is generally where regulations incorporating “breakpoint” technology are incorporated to facilitate placement of wireless infrastructure within a community

(which is required by 47 USC §332) and avoid having regulations that “prohibit or have the effect of prohibiting the provision of personal wireless services.”¹

As to the specific requests above, addressing them in numeric order:

1. Insofar as providing information on what percentage of communities incorporate “breakpoint” provisions in their zoning regulations, while it would be impossible for us to quantify that number either across Virginia or the United States as a whole, we can, however, indicate that in all communities that Cityscape provides proposed regulations for wireless infrastructure, we recommend inclusion of “breakpoint” technology provisions in all zoning regulations and that CityScape’s recommendation is generally adopted. We provided “breakpoint” provisions when we were engaged for wireless communications regulations adopted by Buckingham and Fauquier counties as well as diverse municipalities across the United States such as Coconut Creek and Coral Springs, Florida; Chapel Hill, North Carolina; Sedona, Arizona; Springdale, Utah and Worcester, Massachusetts.
2. Concerning the question regarding the selective implementation of “breakpoint” regulations in one zoning district versus other zoning districts where wireless infrastructure is also permitted, again federal law constrains you somewhat as the 1996 Telecommunications Act also states local governments shall not “unreasonably discriminate among providers of functionally equivalent services”.² Thus, if you were to permit “breakpoint” technology in one zoning district where wireless towers were allowed but not in another zoning district where wireless towers are also allowed, that *could* have the potential to discriminate between providers (depending on their deployment models). However, if such a regulation were uniformly applied to all applicants on a forward-looking basis and properly based on findings by the Town that such regulations were necessary to protect the physical safety of its residents, there is a strong basis for support of that regulation. Nevertheless, a pre-existing wireless provider who had to site their facility with significant setbacks (generally meaning leasing a larger parcel with more cost) could have the basis of a claim of “discrimination” under 47 USC §332 by allowing a competitor provider to construct a similar facility using “breakpoint” technology with smaller setbacks. While that scenario is remote, it is a possibility. CityScape recommends the Town take this opportunity to expand the Applicant’s request for the text amendment in the PSP District and add the provision for “breakpoint” technology in all zoning districts, and that the Town condition its utilization of any new free-standing tower in residential districts to parcels that do not contain any residential structures (e.g. parks, public property, religious institutions, etc.)
3. Typical design parameters for “breakpoint” technology include engineering the structure to have a particular elevation that is more susceptible to failure than any other point on the structure, as better expressed in the “Definition” illustration below.

¹ 47 USC §332(c)(7)(B)(i)(II)

² 47 USC §332(c)(7)(B)(i)(I)

4. Typical provisions/best practices in such regulations are to include a definition, such as:

Breakpoint design technology - The engineering design of a monopole, or any applicable support structure, wherein a specified point on the monopole is designed to have stresses concentrated so that the point is at least five percent (5%) more susceptible to failure than any other point along the monopole, or any applicable support structure, so that in the event of a structural failure, the failure will occur at the breakpoint rather than at the base plate, anchor bolts or any other point on the monopole, or any applicable support structure.

After defining the term, the inclusion of language like the below in the applicable setback sections of your regulations should be included:

Setbacks. New towers shall be subject to the setbacks described below for breakpoint technology:

- (a) If the proposed tower has been constructed using breakpoint design technology (see ‘Definitions’), the minimum setback distance shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the minimum side and rear yard requirements, whichever is greater. Certification by a registered professional engineer licensed by the Commonwealth of Virginia of the breakpoint design and the design’s fall radius must be provided together with the other information required herein from an applicant. (For example, on a 100-foot-tall monopole with a breakpoint at eighty (80) feet, the minimum setback distance would be twenty-two (22) feet (110 percent of twenty (20) feet, the distance from the top of the monopole to the breakpoint) plus the minimum side or rear yard setback requirements for that zoning district.).
- (b) If the tower is not constructed using breakpoint design technology, the minimum setback distance shall be equal to the height of the proposed tower.

In discussions with Warrenton staff, if “breakpoint” technology is added to the Town’s Code, then it was suggested that the standard setback be the breakpoint distance PLUS the applicable setback for that zoning district from a public right of way.

5. In determining when and where the inclusion of “breakpoint” technology is appropriate for particular types of wireless infrastructure, several factors come into play. First, it should be noted that “breakpoint” is generally utilized to facilitate a failure of a structure arising from external wind forces across the entire structure or flying debris striking the structure. It would not, in most instances, be an effective solution to the scenario of a vehicle crashing into the base of a wireless facility, which *could* result in the failure of the entire length of the structure, albeit an unlikely event given that the tower base is typically the strongest and most resistant point of the entire structure since it is where it is affixed to concrete base/footers in the earth. With the understanding that the “breakpoint” is best utilized as a means to prevent large pieces of tower infrastructure from falling off a tower impacted by a wind event of some kind, and reducing the overall area of falling debris, such technology is best implemented for “monopole” type design facilities since the monopole design generally presents the broadest “face” of structure to atmospheric winds pushing up against it. Other types of structures, such as lattice towers, present a much smaller “face” to the wind and thus
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are less likely to suffer wind-related failure, minimizing the need for “breakpoint” technology, although it is still a useful tool to implement for that type of technology. Additionally, the location of the proposed infrastructure is a factor in utilizing “breakpoint” technology. For example, a community may want a more stringent standard for allowable setbacks employing “breakpoint” in residential districts, given the greater possibility of harm from a designed failure, than in industrial/commercial districts, where the possibility of harm from a designed failure is less given population density.

In summary, it is our opinion that the adoption of “breakpoint” technology regulations by the Town is a worthy exercise and will facilitate the Town’s statutory obligation to allow the deployment of wireless services to its residents. Such regulations should, however, be tailored to accomplish the desired goal while still protecting the Town’s residents from physical danger from the admittedly rare, but not impossible, failure of a wireless infrastructure facility.

We would be happy to review the above analysis and conclusions with the Planning Commission if desired via a virtual appearance.

Respectfully submitted,



Anthony T. Lepore, Esq.
CityScape Consultants, Inc.