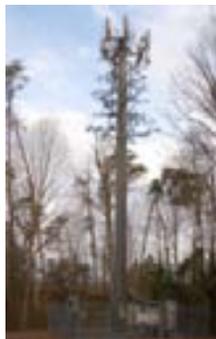




# COMMERCIAL WIRELESS TELECOMMUNICATIONS FACILITIES

CHAPTER 9 ADDENDUM

Fauquier County Board of Supervisors  
*Adopted October 9, 2014*



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### I. Introduction

Telecommunications is the transmission, emission or reception of radio signals, digital images, sound bytes or other information via wires and cables; or space, through radio frequencies, satellites, microwaves, or other electromagnetic systems. Telecommunications includes the transmission of voice, video, data, broadband, wireless and satellite technologies.

The wireless industry is still in the evolution and construction phase. Technology is changing at a fast pace. As existing wired infrastructure throughout the country continues to be replaced with wireless technology, and as new applications for wireless telecommunications are developed and implemented, local governments face increasing demands for construction of new wireless telecommunications facilities. Planning for the wireless infrastructure growth is a critical element of the County's long range planning.

Telecommunications continue to play a vital role in economic development and quality of life for residents of the County. In the rural areas in particular there has been a shift in recent years toward greater demand from residents for access to the Internet. Parents cite the need for their school-aged children to have access to the Internet at home for homework and research projects. Home-based businesses also are often mentioned as a factor in the quest for Internet and cell phone access. It is also important to assure access for new communication facilities for public safety agencies.

Nonetheless, wireless transmission structures are not without negative impacts – primarily visual – but also relating to health, safety and welfare. In setting policy, the value of expanding wireless service using visually impactful cell towers must be tempered with a commensurate valuation of Fauquier's landscape, vistas, viewsheds and its historic heritage. The historic importance of the County has been a matter of record since the first Comprehensive Plan was approved in the mid-20th Century. Over the years, the listing of six rural historic districts and several town and village historic districts within the County, the partnership with the Journey Through Hallowed Ground, the designation of one of the County's major roads, Route 15, as a historic corridor, the identification and mapping of battlefields and countless other historic designations all attest to Fauquier's place in history. Indeed, in 2008 Fauquier County was designated by the U.S. Department of Interior as part of a National Heritage Area. The County's open space, viewsheds and abundant natural resources similarly contribute majorly to the quality of life and are cited by residents and visitors alike in noting their attraction to Fauquier County. As valuable as telecommunications are in the economic future of the County, so too is the protection of our County's natural and historic resources.

The purpose of this Telecommunications Facilities Plan is to establish a policy approach that accommodates access to competitive telecommunications services for businesses, residents and visitors while protecting Fauquier County's unique resources. This policy approach must be established within a regulatory framework where the federal government has passed laws increasingly eroding the County's ability to regulate telecommunication facilities.

#### Goals

- Promote the development of a high quality wireless telecommunications network throughout the County to serve residents, businesses and visitors in a manner that protects the County's visual landscape, natural resources and historic heritage and complies with federal regulations.

- Promote public safety and welfare, and avoid the risk of damage to surrounding properties by ensuring that facilities and related equipment are properly designed, constructed, modified and maintained.

## II. Regulatory Framework

Since 1996, a series of federal laws have been passed that increasingly place limits on local government's authority to regulate telecommunications. Localities still have significant authority to regulate the location and design of new wireless facilities, but decisions must be made swiftly (within 90 days for collocations and 150 days for new facilities), be in writing, and based on substantial facts or evidence. The County has less authority to regulate collocation, removal and replacement on existing facilities, with the Middle Class Tax Relief and Job Creation Act of 2012 requiring approval of such changes, provided the impact is not a "substantial change." The definition of "substantial change" promulgated by the Federal Communications Commission (FCC) leaves limited flexibility on such issues.

Existing federal regulations related to local processing of telecommunications applications are summarized below.

### A. Telecommunications Act of 1996

requires that local governments:

- Allow for carrier to deploy their systems.
- Act expeditiously on these requests.
- Treat providers equally by providing equal access to "functionally equivalent services" (Cellular/PCS/Data).
- May not supersede or undermine areas of federal jurisdiction.
- Must provide written reasons for all rejected applications.
- Cannot supersede FAA tower lighting and marking requirements.
- Cannot consider Radio Frequency Emissions (EMFs).

### B. Federal Declaratory Ruling 2009 (Shot Clock)

requires that local governments make decisions on wireless applications within a specific time frame:

- 90 days for collocation applications
- 150 days for new structures/towers

### C. Middle Class Tax Relief & Job Creation Act of 2012

requires that local governments approve eligible facilities requests for modifications to existing wireless towers or base stations that do not substantially change the physical dimensions of the tower or base station.

- Eligible facilities requests include modification of an existing tower or base station that involves collocation, removal or replacement of transmission equipment.
- Congress did not define "Substantially Change."

**D. FCC Guidance 2013** applied a prior FCC definition of “Substantial Change” as what it thinks Congress intended to define in the Middle Class Tax Relief & Job Creation Act of 2012. Defines “Substantial Change” as:

- Addition of antenna on a tower that would increase its height by the greater of 10% or 20 vertical feet; or
- Addition of antenna that would require installation of more than a standard number of equipment cabinets (not to exceed 4) or more than 1 new equipment shelter; or
- Addition of antenna that would increase the width of the tower by more than 20 feet; or
- Addition of the antenna would involve excavating around the tower site beyond the existing boundaries of the lot associated with the facility.

The federal regulations placing restrictions on a locality’s ability to regulate commercial telecommunications are ever-changing. For example, as this chapter is being written, the FCC is in the process of writing formal rules for the application of the telecommunication regulations contained in the Middle Class Tax Relief & Job Creation act; this guidance will supplement and supersede the guidance issued by the FCC in 2013. It is critical that the County stay abreast of the federal regulations and update our local regulations to maintain compliance as needed.

### III. Existing County Regulations

The County’s Zoning Ordinance as of early 2014 allows towers less than 80 feet in height to be approved administratively with a site plan, regardless of design, provided certain location requirements can be met, most significantly a buffer of trees. Collocations on existing facilities, transmission towers and public buildings are also approved administratively with site plan approval. New facilities that are over 80 feet in height or that cannot meet the stated locational requirements are subject to approval of a special exception by the Board of Supervisors. Towers more than 120 feet are termed “facilities of last resort,” and require approval of the Architectural Review Board in addition to the Board of Supervisors.

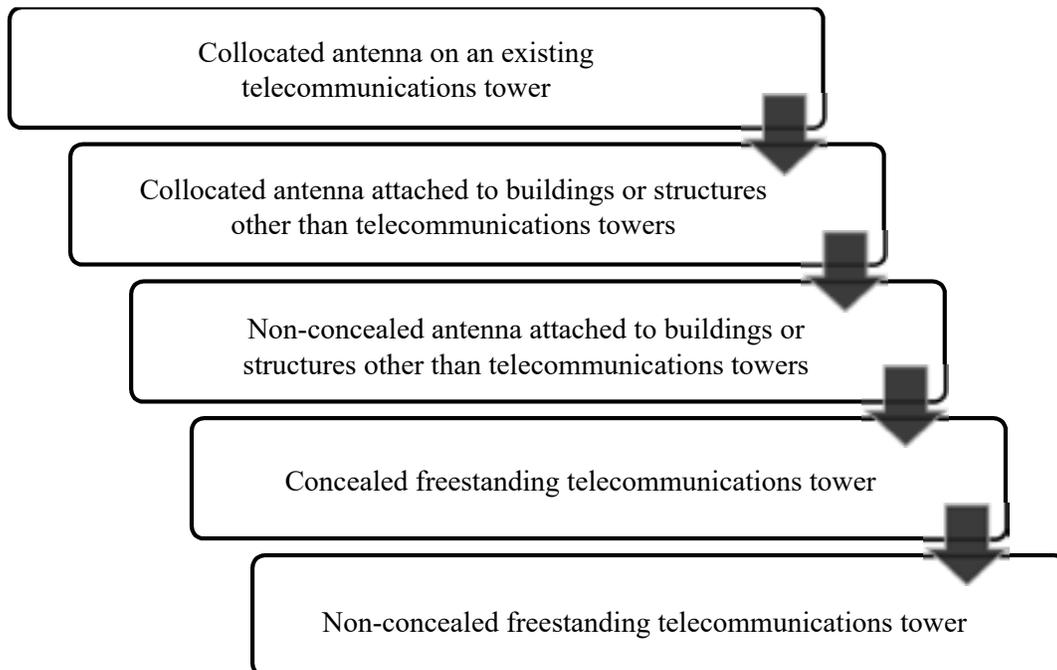
The existing regulations have the effect of encouraging towers 80 feet or less in height, typically within tree stands, because such facilities are more easily approved. There is no incentive within the existing regulations to encourage or require less impactful facilities, where viable, or to encourage other types of facilities that would be equally or less impactful than the typical 80 foot tower.

### IV. Strategy

The most desirable telecommunication facilities are those that do not adversely affect the scenic and historic resources the county has long sought to preserve and protect. The County would benefit from regulations that more clearly direct applicants toward desired facilities, provide unambiguous guidance on the expectations for such facilities, and provide an expedited review and approval process for such facilities. Such regulations would not only allow the County to achieve its goals for new wireless facilities, but would do so in a manner that is responsive to federal regulations that require localities to act swiftly—and in some cases, positively—on telecommunications applications.

To establish such revised regulations, the County must embrace a hierarchy of desirable facilities, and put in place an approval process that requires construction of the most desirable types of facility in every instance where it is viable. New regulations must establish a process that requires applicants to demonstrate meaningful consideration of possible alternatives, and the County must be better prepared to evaluate applications and alternatives by developing an accurate assessment of existing structures in the County available for collocation and consistently using qualified technical experts to assist in evaluating proposals.

**County Hierarchy of Preferences for New Telecommunications Facilities**



**A. Collocated Antenna on Existing Telecommunications Towers**

Placing new antenna on existing telecommunications towers is the County’s preferred approach to expanding the system. Utilizing existing towers reduces the need for additional new towers, minimizing new visual, aesthetic and public safety impacts and effects upon the natural environment created by the construction of new towers. Regulations need to assure that new collocations do not diminish the concealed nature of concealed towers, nor make non-concealed towers more obtrusive than they already are.

**B. Collocated Antenna Attached to Buildings or Structures other than Telecommunications Towers**

The County has seen few, if any, proposals to locate antennas on buildings. The low heights of most buildings in the County diminish opportunities for this approach. But in those rare cases where an opportunity may exist—in a church steeple, as part of an existing barn or silo, or even on taller buildings as the service districts develop, for example—due consideration should be given to placement of antennas in such locations.



Antenna located in Steeple of National Register Church Hanover, NH



Antenna located in Steeple Winnetka, IL



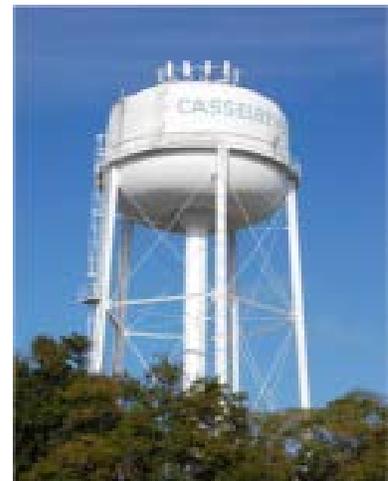
Antenna located in Chimney Concealment Frederick, MD

### C. Non-Concealed Antenna Attached to Buildings or Structures other than Telecommunications Towers

It is not unusual for telecommunications equipment to be placed on water towers and power transmission towers. Such antennas are typically not concealed, but nonetheless are relatively inconspicuous, due to the nature and scale of the structures on which they are being placed.



Antenna located within Transmission Tower



Antenna placed on Water Tower

### D. Concealed Freestanding Telecommunications Tower

Concealed facilities are those designed to blend unobtrusively with the surrounding landscape. In the County's significant wooded areas, an appropriate design might be a tree pole, or in some of the larger forested areas, a structure designed as a fire tower. Even in some less extensively wooded areas, a tree pole could be designed to be unobtrusive. Silo towers would be appropriate for many rural landscapes provided they are designed with a scale, mass and detail consistent with working silos found in the County. Flagpole towers can also be effective, especially at public buildings.



Concealed Tree Pole Facility



Concealed Fire Tower Facility



Concealed Silo Facility  
Fauquier County

The key to a concealed facility strategy is to ensure that the specific design of the facility is appropriate for its immediate surroundings. New Zoning Ordinance regulations must specifically address issues of mass, scale, location and detailed design treatment to assure the design of the facility blends harmoniously with its surroundings. It is also critical to protect those locations where even a concealed facility might be inappropriate, such as within key scenic vistas, on ridge lines, and on or within proximity to critical historic resources.

### E. Non-Concealed Freestanding Telecommunications Tower

This alternative should be allowed only with careful consideration by the Board of Supervisors and only as a last-resort, with the applicant bearing the burden of proof that more desirable approaches are impossible.

### F. Technical Standards

The County must develop a more complete inventory of the existing facilities in the County, so that in conjunction with technical consultants, we are able to better determine whether collocation opportunities are available, and whether proposed facilities are necessary and are designed in a manner that minimizes impacts. While the County's existing regulations purport to require this technical assessment, practically such assessment has been difficult because of the lack of a clear picture of the County's resources.

## V. Implementation Strategies

***A. Develop and implement regulations with incentives for constructing telecommunications facilities that have minimal or no impact on the County's scenic and historic resources. Conversely, provide increased oversight for non-concealed facilities and all facilities in sensitive areas to ensure such facilities are only approved if impacts are not significant and where all other alternatives have been considered and found to not be viable. These regulations should:***

- Accommodate the growing need and demand for telecommunications services.
- Comply with the regulatory framework established by federal law.
- Encourage the collocation of telecommunications equipment on existing structures.
- Where appropriate, ensure that new facilities are constructed to maximize collocation opportunities.
- Utilize the hierarchy established in this plan, and allow less-preferred facilities only where an applicant can demonstrate that the more preferred alternatives cannot be constructed.
- Implement design guidelines that clearly establish the required design features for each type of concealed telecommunications facility, including associated base stations.
- Expedite approval of preferred facilities meeting the County's locational and design requirements.
- Prohibit non-concealed facilities that impact the County's most significant scenic vistas and cultural and environmental resources, and carefully review and control even concealed facilities within view of these areas.

***B. Develop and maintain an inventory of existing telecommunications facilities and other collocation opportunities within the County to utilize as a tool in evaluating alternatives for locating new facilities.***

- Catalog available locations on existing telecommunications facilities.
- Catalog water towers, transmission towers, and public properties.
- Develop and maintain a telecommunications layer within the County's GIS system that can be utilized to analyze proposals and identify alternatives.

***C. Employ outside consulting and review services with expertise in telecommunications to assist in evaluating whether more desirable alternatives are viable in specific situations and to ensure that all facilities are properly designed and constructed for safety.***

***D. Keep abreast of technology changes and proactively monitor how new facilities necessary to support this technology are evolving. Make changes, as needed, to County regulations to address new facility types.***