# CPAM 1996-0003
# Strategic Land Use Plan for Telecommunication Facilites

Adopted November 6, 1996

# Strategic Land Use Plan for Telecommunication Facilities

Adopted as part of
Loudoun County's
Comprehensive Plan
November 6, 1996

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*The Loudoun County Board of Supervisors*

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# *SECTION I: BACKGROUND*

## A. INTRODUCTION

There are currently more than forty commercial public telecommunication antenna sites in Loudoun County (see "Existing and Proposed Telecommunication Antennas" map available through the County). Changes in commercial public telecommunication demand and technology have caused a great demand for additional antenna mounting facilities, mostly in the form of lattice towers or monopoles. The increased demand for these facilities poses a number of important land use issues for Loudoun County including facilitating collocation of antennas, ensuring appropriate siting and design, and mitigating impacts of telecommunication facilities.

The policies outlined in this document were developed by the Transportation, Subdivision, and Site Plan Committee of the Loudoun County Planning Commission to balance the public demand for commercial public telecommunication service with the County's desire to avoid proliferation of towers and monopoles. Guidance is provided for the location and design of commercial public telecommunication facilities only, not amateur operations. The intent of these policies is to provide the overall land use strategy for allowing commercial public telecommunication service in Loudoun County, while mitigating any negative impacts.

## B. GOAL AND OBJECTIVES

Goal:

Loudoun County recognizes that modern, effective, and efficient telecommunications is an essential part of creating an attractive economic development environment and meeting the desires of its citizens for high quality service. The County seeks to encourage improvements in telecommunications services while mitigating the impacts on its residents, nearby land uses, scenic beauty, and rural heritage.

Objectives:

1. To identify a hierarchy of areas where future commercial public telecommunication facilities can be located, while minimizing the proliferation of towers and monopoles;

2. To require collocation of commercial public telecommunication facilities on existing structures and towers;

3. To attempt to ensure compatibility of telecommunication facilities with nearby land uses;

4. To establish siting and design criteria to mitigate negative impacts;

5. To establish commercial public telecommunication tower and monopole removal policies; and

6. To establish a process by which an applicant can demonstrate their compliance with these policies.

7. To stay abreast of changing technologies that may reduce the need for new towers and monopoles.

## C. COMMUNITY PLANNING PROCESS

The proposed policies were developed initially by the Transportation, Subdivision, and Site Plan Committee of the Planning Commission over a three month period in the spring of 1996 that included two public input sessions. As part of their review, the Committee heard presentations from citizens, telecommunication providers, the FCC, Leesburg Airport, and the County's Fire and Rescue staff. The Committee then reviewed existing County policy and regulations and looked at the policy and regulations of several other jurisdictions.

On May 22, 1996, the Committee presented the recommended draft policies to the Planning Commission Committee of the Whole. The draft policies were then sent to referral agencies for review. The Planning Commission held a public hearing on the draft telecommunication policies on June 12, 1996 and made further amendments to the draft policies at their June 19 work session. The Board of Supervisors held a public hearing on these policies on September 4, 1996 and subsequently added two new policies and revised others. On November 6, 1996, the Board approved this comprehensive plan amendment establishing this document as part of the County's comprehensive plan.

## D. RELATIONSHIP TO OTHER COUNTY DOCUMENTS

Loudoun County's Comprehensive Plan consists of the General Plan, several area management plans, strategic plans, and related documents. The General Plan provides the overall countywide goals and policies for managing growth and development while the area management plans and strategic plans outline more specific strategies for local planning areas or particular issues. These telecommunications policies are a strategic plan consisting of goals and policies for the siting and design of telecommunication facilities. As such, these telecommunication policies supersede Energy and Communication Policies 4,5, and 6 on page 83 and Energy and Communication policy 2 on page 156 in the General Plan and apply in all areas of the County.

# *SECTION II. TELECOMMUNICATION POLICIES*

## A. LOCATION POLICIES

The location policies establish a hierarchy of preferred locations for new commercial public telecommunication facilities. The County's first preference is to have new antennas collocate on existing tall structures, monopoles and towers in order to minimize the need for new towers and monopoles. When a telecommunication antenna cannot locate on an existing structure for technical or location reasons, the County then prefers that new towers or monopoles be located where they are most compatible with surrounding land uses.

The second level of preferred locations for new monopoles or towers is in industrial and employment areas, within overhead transmission line rights-of-way, and on public sites or volunteer fire and rescue company properties (see the "Public Facility Sites" and " Telecommunications By-Right Zoning " maps available through the County). The policies provide incentives, such as allowing monopoles as a by-right use, for applicants to locate in these preferred areas. In urban eastern Loudoun County, the policies encourage telecommunications antennas additionally on light poles within the VDOT or Dulles Greenway right-of-way, and potentially on towers on existing low-rise heavy industrial buildings.

In order to protect the scenic rural beauty of Loudoun County, commercial public telecommunications towers and monopoles in rural areas will be allowed only by special exception. Furthermore, the County will not allow new towers or monopoles to locate in County designated historic districts.

Countywide Location Policies

1. To minimize the need for new towers and monopoles, the County prefers that new commercial public telecommunication antennas be located on existing buildings, towers, monopoles, water tanks, overhead utility transmission line structures and other tall structures wherever possible. Commercial public telecommunication antennas should be permitted by-right on all existing towers, monopoles, and other tall structures subject to performance standards to mitigate visual impacts.

2. Where it is not feasible to locate on an existing structure, the County prefers that new towers or monopoles be located

    a. In planned and zoned industrial and employment areas,

b. Within overhead utility transmission line rights of way where structures greater than eighty (80) feet in height already exist, and

c. On public sites or volunteer fire or rescue company properties where such facilities mitigate adverse impacts on the character and use of the public or public safety site.

3. In order to encourage location in industrial and employment areas, commercial public telecommunication monopoles up to 199 feet in height should be a by-right use, subject to performance standards to mitigate visual impacts, in areas that are both planned and zoned for industrial and employment uses ( such as the GB, PDGI, PDSA, PDOP, PDIP, PDRDP and MRHI zoning districts but <u>not</u> the employment areas within PDH districts) provided that the monopole is not located within 750 feet of a residentially zoned property.

4. In order to facilitate use of volunteer fire and/or rescue company sites, telecommunication monopoles should be permitted as a by right use up to 199 feet in height, subject to performance standards to mitigate visual impacts, on fire and/or rescue sites in rural and agricultural areas (specifically A3, A10, A25, all CR, and RC zoning districts). In addition, The County encourages use of other public sites where telecommunication uses should be permissible as an accessory use by special exception. Any <u>Zoning Ordinance</u> amendments should also consider adoption of visual impact performance standards to mitigate impacts on adjacent residential or other sensitive uses.

5. Except for areas where towers or monopoles are permitted by right, an applicant for a new commercial public telecommunication tower or monopole will demonstrate to the County that location on an existing tall structure is not feasible. An applicant will evaluate the feasibility of using existing or approved towers, monopoles, or other structures greater than 50 feet in height within a one mile radius of any proposed site in the Eastern Loudoun Urban Growth Area and within a two-mile radius elsewhere in the County. Technological, physical, and economic constraints may be considered in determining unfeasibility. Collocation may be determined to be unfeasible in the following situations:

a. Planned equipment would exceed the structural capacity of existing and approved towers or monopoles, considering existing and planned use of those towers, and such towers or monopoles cannot be reinforced to accommodate planned or equivalent equipment at a reasonable cost;

b. Planned equipment will cause interference with other existing or planned equipment for that tower or monopole, and that the interference cannot be prevented at a reasonable cost;

c. Existing or approved towers or monopoles do not have space on which planned equipment can be placed so as to provide adequate service; or

d. Existing or approved towers or monopoles will not provide adequate signal coverage.

6. The County encourages new towers and monopoles to locate in overhead utility transmission line rights of way where there are existing tall structures. The Zoning Ordinance should be amended to allow monopoles up to 199 feet in height by-right, subject to performance standards, within overhead utility transmission line rights of way where there are existing transmission support structures greater than eighty (80) feet in height.

Urban Location Policies

1. The County should revise the Zoning Ordinance to allow towers up to 40 feet in height on existing buildings in areas which are both planned and zoned for heavy industrial uses (such as MRHI and PDGI) subject to performance standards to mitigate visual impacts.

2. The County encourages the location of commercial public telecommunication antennas on light poles and other existing tall structures in the right of way of the Dulles Greenway and VDOT's arterial roads.

Rural Location Policies

The County recognizes the importance of maintaining the natural scenic beauty and historic character of the rural and historic areas. As such, monopoles and towers are prohibited within the County's Historic and Cultural Conservation Districts. As in urban areas, the County prefers locating new antennas on existing towers, monopoles or other tall structures. When existing structures cannot be used, new monopoles or towers should be sited within the right-of-way for overhead utility transmission lines where the visual impact of an additional tall structure would be minimal. Elsewhere, towers and monopoles should be located in rural areas only by Special Exception and subject to design criteria for mitigating visual impacts.

1. The County prefers that commercial public telecommunication antennas locate on existing tall structures where possible.

2. Except within overhead utility transmission line rights of way as specified in Countywide Location Policy six (6), commercial public telecommunication towers and monopoles will be permissible in agricultural-residential areas (such as the A-3, A-10, A-25, and CR zoning

districts) only by special exception and subject to performance standards to mitigate visual impacts.

3. Commercial public telecommunication towers and monopoles are prohibited within County designated historic districts.

## B. DESIGN STANDARDS

This plan calls for design standards to address visual and land use impacts of commercial public telecommunication facilities. There are two main components of the design strategy. The first is to limit the need for new towers and monopoles by providing for collocation. The second is to mitigate visual impacts through appropriate setbacks, screening, and design. The policies will help minimize and mitigate impacts through appropriate siting and design and provide guidance for development of new Zoning Ordinance performance standards.

Tower and Monopole Design

1. Due to their reduced visual impacts, when technologically and physically feasible, monopoles are the preferred design.

2. Tower and monopole sites should be designed and constructed to the minimum height necessary to accommodate at least three providers on the tower or monopole and provide sufficient land area for additional equipment buildings unless doing so would:

   a. Create an unnecessary visual impact on the surrounding area; or

   b. No additional need is anticipated for any other potential user in this area; or

   c. There is some valid economic, technological or physical justification as to why collocation is not possible.

Countywide Visual Impacts

1. The visual impact of commercial public telecommunication facilities should be mitigated so as to blend with the natural and built environment of the surrounding area.

2. The specific communication facility design issues that should be examined in looking at visual impact are: the setting, color, lighting, topography, materials and architecture. Towers and antennas should be neutral in color to blend with the background, unless specifically required by the FAA to be painted or lighted otherwise.

3. To mitigate the visual and noise impacts of new equipment buildings and accessory uses, these structures should blend in with the surrounding environment through the use of appropriate color, texture of materials, topography, scale of buildings, landscaping and visual screening.

Rural and Historic Areas

1. New commercial public telecommunication facilities sited in rural and historic areas should conform with the following design considerations:

   a. Monopole or tower sites should be sited within areas of existing mature vegetation so that the maximum amount of the structure and associated buildings are screened;

   b. Monopoles or tower sites shall not be located along ridge lines but down slope from the top of the ridge lines to protect views of the Catoctin, Bull Run, and Hogback Mountains, the Short Hill, and the Blue Ridge;

   c. Monopoles or towers proposed where mature vegetative buffering or topographical conditions will not contribute to screening shall demonstrate that there is no existing mature vegetated area nearby that could be used instead. In all cases, the County encourages camouflaging the facility to mitigate visual impacts;

   d. Monopoles or towers should generally be sited toward the interior of a property rather than close to a property line unless a lesser visual impact would occur from locating it elsewhere. Visual impacts should be mitigated by measures onsite rather than relying on offsite conditions for mitigation.

2. When there is not a feasible location with existing mature vegetation then the preferred location for a new tower or monopole is close to existing tall structures.

3. Commercial public telecommunication towers or monopoles on the property of a structure or site that is listed on the National Register of Historic Places should show how the visual impact on views from or toward the structure will be mitigated. The applicant should provide visual imagery from several different perspectives to help determine the extent to which the facility could be designed to mitigate the visual impact on the historic structure or site.

4. Applicants proposing a telecommunication tower or monopole within one mile of a County designated Historic District or State Scenic Byway should provide both a visual impact analysis and justification why the tower or monopole could not be sited elsewhere.

Publicly Owned or Controlled Facilities and Volunteer Fire or Rescue Companies

1. Applicants for commercial public telecommunication towers or monopoles must demonstrate that there will not be any physical or technological interference with the existing or planned function of the public facility or volunteer fire or rescue company facility.

2. Required landscaping may be less stringent for public sites or volunteer fire or rescue company sites where the visual impact of the support building is otherwise mitigated or is consistent with the surrounding area.

By-Right Uses

1. Commercial public telecommunication monopoles in employment or industrial areas should locate toward the interior of a lot rather than along the common boundary with existing or planned residential areas and should mitigate visual impacts onsite rather than relying on offsite conditions for visual mitigation.

2. Within employment or industrial areas, commercial public telecommunication monopoles should be separated from residentially zoned property by a minimum of 750 feet. Along existing overhead utility transmission line rights of way, the 750 foot separation does not apply.

3. In some locations, such as in industrial areas, required landscaping may be less stringent where the visual impact of the support buildings is otherwise mitigated or consistent with the surrounding area.

Arterial Road Corridors

1. The County may consider allowing towers or monopoles in major and minor arterial road corridor setback areas if the tower can be sited within existing mature vegetation or the topographical conditions are such that the visual impact of locating within the setback is less than a nearby location that adheres to the setback.

## C. SAFETY AND HEALTH POLICIES

This plan addresses two main issues related to safety and health. The first is the potential for conflict between new towers or monopoles and existing airports. The Metropolitan Washington Airports Authority (MWAA) and the Town of Leesburg have expressed concern with coordination between the commercial public telecommunication providers, the County, and the airport authorities. The Plan calls for a commercial public telecommunications provider to demonstrate to the County that they have contacted the appropriate airport authorities prior to submission of a land development application so that any potential airport issues can be addressed.

The second issue relates to the appropriate abandonment of a site no longer maintained for commercial public telecommunication use. The County has included a policy to require that a site no longer used for commercial public telecommunications be returned as nearly as possible to pre-existing site conditions.

Policies

1. Applicants for any commercial public telecommunications facility shall demonstrate that they have complied with applicable regulations of the FCC and the FAA. If a proposed telecommunications tower or monopole is higher than 200 feet or within (5) five miles of either Dulles or Leesburg Airports, the applicant will provide verification that he/she has notified the appropriate airport authority (Metropolitan Washington Airports Authority or the Town of Leesburg) and that the FAA has determined that the proposed facility is neither a hazard nor an obstruction to aviation.

2. An applicant or its successors shall remove all unused structures and facilities from a commercial public telecommunication site, including towers and monopoles, within 90 days of cessation of commercial public telecommunication use or the expiration of the lease, whichever occurs first, and the site should be restored as closely as possible to its original condition.

## D. IMPLEMENTATION POLICIES

The implementation policies specify strategies for the County to execute this telecommunications plan. The policies give guidance to applicants proposing new commercial public telecommunication facilities as well as outline further actions the County intends to take to implement these policies.

1. The County should initiate a Zoning Ordinance amendment to develop regulations that comply with this plan. The Zoning Ordinance performance standards for commercial public telecommunication facilities should be revised to be in conformance with these policies.

2. The County should maintain maps of existing and proposed telecommunication facilities, public facility sites, and areas of by-right zoning for telecommunication monopoles for information purposes.

3. The Joint Annexation Committees for Purcellville and Round Hill should be encouraged to adopt the County's commercial public telecommunication policies for their Urban Growth Areas.

4. Require all applications for future monopoles and towers to :

   a. Demonstrate that the location proposed has resulted from the systematic review of all options from the hierarchy of County location preferences and justify the option selected.

   b. Demonstrate compliance with all design criteria. The applicant should provide a photo-image or other similar visual simulation to show the proposed tower or monopole in relation to its surroundings. The applicant should provide such visual imagery from several different perspectives to help determine the extent to which the facility could be designed to mitigate the visual impact on area residences and roads.

   c. Address the terms and conditions under which collocation by other users would be acceptable.

5. Applicants for proposed new towers should notify in writing and meet with citizens in the vicinity of the proposed site at least three weeks prior to the Planning Commission public hearing.

6. Applicants for proposed new towers are encouraged to provide space on the tower for Loudoun County Fire and Rescue communication purposes.