

UPPER BERN TOWNSHIP  
BERKS COUNTY, PENNSYLVANIA

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COMMUNICATION AND TELECOMMUNICATION FACILITY  
ORDINANCE NO. 54 B - 1999

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AN ORDINANCE OF THE TOWNSHIP OF UPPER BERN, BERKS  
COUNTY, PENNSYLVANIA, AMENDING THE UPPER BERN TOWNSHIP  
ZONING ORDINANCE, BY ADDING REGULATIONS FOR  
COMMUNICATION AND TELECOMMUNICATION FACILITIES.

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WHEREAS, the Board of Supervisors of Upper Bern Township have determined that it is appropriate and necessary to amend the Upper Bern Township Zoning Ordinance in order to incorporate certain definitions, certain use descriptions, establish regulations, standards and criteria for communication and telecommunication facilities, and to incorporate certain technical revisions to ensure integration of the amendments with the existing Ordinance and establish consistency among the sectional references throughout the existing Zoning Ordinance, as amended, for the following purposes:

1. To provide definitions for various terms associated with communication and telecommunication facilities;
2. To distinguish public service activities and companies from public utilities regulated by the Pennsylvania Public Utilities Commission. For the purposes of this Ordinance, communication and telecommunication facilities shall be subject to the provisions of this Ordinance;
3. To protect residential areas and land uses from potential adverse impacts of towers and antennas;
4. To encourage the location of towers in non-residential areas;
5. To control the unregulated location of towers within the Township;

6. To strongly encourage the joint or shared use of new and existing tower sites as a primary option rather than the construction of additional single use towers;
7. To encourage users of towers and antennas to locate them in areas where the adverse impact on the community is minimal;
8. To encourage users of towers and antennas to configure them in a way that minimizes the adverse visual impact of the towers and antennas through careful design, landscape, screening, siting and innovative camouflaging techniques;
9. To enhance the ability of the providers of telecommunication services to furnish such services to the community quickly, effectively and efficiently;
10. To consider the effect of communication towers and/or antenna on public health, safety and general welfare;
11. To avoid potential damage to adjacent properties from tower failure through engineering and careful siting of the tower structures.

In furtherance of these goals, Upper Bern Township shall give consideration to the Upper Bern Township Comprehensive Plan; the Upper Bern Township Zoning Ordinance and Map; and to the Upper Bern Township Subdivision and Land Development Ordinance; existing land uses and environmentally sensitive areas in the review and approval of proposed sites for the location of towers and antennas.

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the Board of Supervisors of Upper Bern Township, Berks County, Pennsylvania, that the Upper Bern Township Zoning Ordinance is hereby further amended as follows:

**SECTION 1.** Article II, Definitions, Section 202, Specific terms of the Upper Bern Township Zoning Ordinance is Amended to include these additional definitions:

**ANTENNA SUPPORT STRUCTURE** - Any pole, telescoping mast, towers, tripod or any other structure which supports a device used in the transmitting or receiving of radio frequency energy.

✓ **CELL SITE** - A trace or parcel of land that contains the cellular communication antenna, its support structure, accessory building (s) and parking, and may include other uses associated with and ancillary to cellular communication transmission.

**CELLULAR TELECOMMUNICATIONS** - A Commercial Low Power Mobile Radio

- A. Roof and/or building mount facilities;
- B. Free-standing low power mobile radio service facilities; and
- C. Micro-cell or repeater facilities.

For purposes of Zoning District height limitations, the height of free-standing low power mobile radio service telecommunications facilities shall be measured from the average elevation of the finished grade of the building or structure.

**CROSS BAR** - A structure at or near the top of the low power mobile radio service telecommunications facility which provides support and horizontal separation for the antenna(s).

**DIRECTIONAL ANTENNA** - An antenna or array of antennas designed to concentrate a radio signal in a particular area.

**EFFECTIVE RADIATED POWER (ERP)** - The product of the antenna power input and the numerically equal antenna power gain.

**ENVIRONMENTALLY SENSITIVE AREAS** - Those areas of Upper Bern Township which are identified, defined or delineated as being floodplains, wetlands and/or steep slopes. All such environmentally SENSITIVE areas shall be further defined and regulated under Article V (Environmental Protection Overlay District) of the Upper Bern Township Zoning Ordinance of 1995, as amended.

**FREE-STANDING LOW POWER MOBILE RADIO SERVICE FACILITY** - A low power mobile radio service telecommunications facility that consists of a stand-alone support structure, antennas and associated equipment. The support structure may be a wooden pole, steel monopole, lattice tower, light standard or other vertical support. Whip antennas on a free-standing low power mobile radio service facility may extend the maximum of fifteen (15) feet above the highest portion of a structure to which they are attached; panel antennas may extend a maximum of six (6) feet above the highest portion of the structure to which they are attached.

**LATTICE TOWER** - A guyed or self-supporting three (3) or four (4) sided open, steel frame structure used to support telecommunications equipment.

**MICRO-CELL** - A low power mobile radio service telecommunications facility used to provide increased capacity in high cell demand areas or to improve coverage in areas of weak coverage. Micro-cells communicate with the primary low power mobile radio service facility in a coverage area via fiber optic cable or microwave. Coverage area for a micro-cell is typically a one (1) mile radius or less. Micro-cells shall not exceed the following maximum characteristics:

A. Pole height: Shall be determined based on the height needed to effectively transmit signals and encourage co-locations of antennas on a tower, consistent, however, with safety requirements for tower stability. In no event shall a tower exceed two hundred fifty (250) feet in height without documentation being submitted to the Township establishing by clear and convincing evidence that the objectives herein stated cannot be met without such additional height of the tower.

B. Permissible number of whip or panel antennas: Four (4).

C. Permissible number of microwave antennas: One (1).

D. Size of antennas are as follows:

Whip Antennas - No greater than three (3) inches diameter and up to twenty (20) feet long for each such antenna.

Panel Antennas - No greater than nine (9) square feet of surface area for each such antenna.

Microwave Antennas - As allowed by the applicable Zoning District regulations.

E. Size of accessory building: As allowed by applicable Zoning District regulations and Article IX, Supplementary Regulations of the Township Zoning Ordinance, but not to exceed one accessory building with a maximum of one hundred (100) square feet, Gross Floor Area.

F. Setback requirements: The setback requirements as established for any accessory building or structure within the applicable Zoning District shall apply.

MICROWAVE ANTENNA - A dish-like antenna manufactured in many sizes and shapes used to link communication sites together by wireless transmission of voice or data.

MONOPOLE - A structure composed of a single spire used to support telecommunications equipment.

OMNIDIRECTIONAL ANTENNA - An antenna that is equally effective in all directions, and whose size varies with the frequency and gain for which it is designed.

PANEL ANTENNA - An antenna that is flat, directional, and whose size varies with the frequency and gain for which it is designed. Panel antennas may extend a maximum of six (6) feet above the highest portion of the structure to which they are attached. Co-locating of panel antennas is an expressed goal of these regulations, and accordingly, placement of such antennas shall attempt to maximize co-location.

**REPEATER** - A low power mobile radio service telecommunications facility that extends coverage of a cell to areas not covered by the originating cell. Repeater facilities shall not exceed the following maximum characteristics:

- A. Pole height: See Subsection "A" above under "Micro-cell".
- B. Permissible number of whip or panel antennas: Four (4).
- C. Permissible number of microwave antennas: One (1).
- D. Size of antennas are as follows:

Whip Antennas - No greater than three (3) inches diameter and twelve (12) feet long.

Panel Antennas - Nine (9) feet square of surface area for each such antenna.

Microwave Antennas - As allowed by applicable Zoning District regulations.

- E. Size of accessory building - One (1) accessory building up to one hundred (100) square feet gross floor area (GFA) in size.
- F. Setback requirements - The setback requirements as established for any accessory building or structure within the applicable Zoning District shall apply.

**ROOF AND/OR BUILDING MOUNT FACILITY** - A low power mobile radio service telecommunications facility in which antennas are mounted to an existing structure on the roof (including rooftop appurtenances) or building face. Roof or building-mounted facilities may include micro-cell and/or repeater facilities. Such facilities must be screened, constructed or colored to match the existing structure to which they are attached. Roof and/or building-mounted facilities shall not exceed the following maximum criteria:

- A. The facility may include up to a maximum of four (4) whip antennas, which may extend a maximum of fifteen (15) feet above the highest portion of the structure to which they are attached, including any rooftop appurtenances.
- B. The facility may extend a maximum of six (6) feet above the highest portion of the structure to which it is attached, including any rooftop appurtenances.
- C. A single accessory building may be constructed provided that the building does not exceed five hundred (500) square feet gross floor area (GFA).
- D. Antennas on the rooftop or above a structure shall be screened, constructed and/or colored to match the structure to which they are attached. Antennas mounted on the side of a building or structure shall be painted to match the color of the building or

structure or the background against which they are most commonly seen. Microwave antennas exceeding twelve (12) inches in diameter on a roof or building-mounted facility shall not exceed the height of the structure to which they are attached, unless fully enclosed. If an accessory equipment shelter is present, it must blend with the surrounding building (s) in architectural character and color.

**TELECOMMUNICATIONS** - The science or technology of communications by electronic transmission of impulses as by telegraph, cable, telephone, radio, television, microwave, earth station broadcast/cable television communications and other similar technology not otherwise enumerated and as may evolve after enactment of this Ordinance.

**WHIP ANTENNA** - An antenna that is cylindrical in shape which can be directional or omnidirectional. Their size varies based upon the frequency and gain for which they are designed.

**WIRELESS COMMUNICATION FACILITY** - All private or commercial forms of wireless telecommunication facilities. For the purposes of this Ordinance, wireless communication facilities shall comply with the provisions established under this Section of the Upper Bern Township Zoning Ordinance.

**SECTION 2.** Article IX, Supplementary Regulations, of the Upper Bern Township Zoning Ordinance is hereby amended by adding a new Section, Section 952, pertaining to cellular communications antennae:

#### **SECTION 952: REGULATIONS FOR CELLULAR COMMUNICATIONS ANTENNAE**

In recognition of the quasi-public nature of cellular communications systems, the following regulations shall apply:

A. **Purpose**

1. To accommodate the need for cellular communications antennae while regulating their location and number in the Township.
2. To minimize adverse visual effect of cellular communications antennae and support structures through proper design, sighting and vegetative screening.
3. To avoid potential damage to adjacent properties from antenna support structure failure and falling ice, through engineering and proper sighting of antenna support structures.
4. To encourage the joint use of existing and any new antenna support structures,

to reduce the number of such structures needed in the future.

5. At the discretion of the Upper Bern Township Board of Supervisors, municipal uses for the purposes of police protection, fire protection, ambulance service and road maintenance shall be exempt from these regulations.

**B. Use Regulations**

1. A cell site with antenna that is attached to an existing communications tower, smokestack, water tower or other tall structure, is permitted in all Zoning Districts. The height of the antenna shall not exceed the height of the existing structure by more than fifteen (15) feet. If the antenna is mounted on an existing structure, a Land Development Plan shall not be required. The permitted uses as herein set forth shall be included under the "Use" regulations for each Zoning District within the Township. A cell site with antenna that is attached to an existing tall structure or a site located on Township owned property shall constitute a use permitted by right in all of the Township's Zoning Districts.
- ✓ 2. A cell site with antenna that is either not mounted on an existing structure, or is more than fifteen (15) feet higher than the structure on which it is mounted, is permitted as a conditional use in all Zoning Districts with the exception of the Medium Density Residential (MDR) Zoning District. A new subsection shall be added to "Use Permitted By Conditional Use" in each of the Zoning Districts except for the medium density residential Zoning District.
3. All other uses ancillary to the antenna and associated equipment (including a business office, maintenance depot, vehicle storage, etc.) are prohibited from the cell site, unless otherwise permitted as an accessory structure in the Zoning District in which the cell site is located.
4. All communications equipment and/or buildings shall be completely automated except for periodic maintenance.

**C. Standards For Approval of Conditional Use Application**

1. The cellular communications company and/or applicant is required to demonstrate, using technological evidence, that the antenna must be located where it is proposed in order to satisfy its function in the company's and/or applicant's grid system.

2. If the cellular communications company and/or applicant proposes to build a tower (as opposed to mounting the antenna on an existing structure), it is required to demonstrate that it contacted the owners of the tall structures within its "ring search area", requested permission to install the antenna on those structures, which are technically capable of supporting the antenna, and were denied permission to do so. Tall structures include, but are not limited to, smokestacks, water towers, tall buildings, antenna support structures of other cellular communications companies, other communications towers (fire, police, etc.), and other tall structures. The Zoning Officer may deny the application (s) to construct a new tower if the applicant has not made a good faith effort to mount the antenna on an existing structure.

D. Standards For Approval of Cellular Communication Antennae

1. Antenna Height: Set forth under "Micro-cell" Subsection "A".
2. Setbacks From Base of Antenna Support Structure: If a new antenna support structure is constructed (as opposed to mounting the antenna on an existing structure), the minimum distance between the base of the support structure, and any property line shall be the largest of the following:
  - ✓(a) One hundred and twenty percent (120%) of the antenna height;
  - (b) The minimum setback of the underlying Zoning District in which it is located; or,
  - (c) Forty (40) feet.
3. Antenna Support Structure Safety: The applicant shall demonstrate that the proposed antenna and support structure are safe, and in conformance with American National Standards Institute (ANSI), Telecommunication Industry Association (TIA), and Electrical Industry Association (EIA) standards and the surrounding areas will not be affected negatively by support structure failure, falling ice or other debris, electromagnetic fields or radio frequency interference. The applicant shall submit a copy of a Certificate of Insurance evidencing general liability coverage in the minimum amount of One Million Dollars (\$1,000,000.00) per occurrence and property damage coverage in the minimum amount of One Million Dollars (\$1,000,000.00) per occurrence covering the proposed communications tower and communications antennas. Said insurance coverage shall be maintained during the useful life of the subject antennae and/or support structure and evidence thereof shall be supplied to

Upper Bern Township upon request. All support structures shall be fitted with anti-climbing devices, as approved by the manufacturers.

4. Fencing: A fence shall be required around the antenna support structure and other equipment, unless the antenna is mounted on an existing structure. The fence shall be eight (8) feet in height exclusive of barbed wire, and shall otherwise comply with the regulations set forth in the Upper Bern Township Zoning District.

5. Landscaping: The following landscaping may be required to screen the fence surrounding the tower and any other ground level features, buildings and structures. Any combination of existing vegetation or topography may be permitted only through the approval of the Upper Bern Township Board of Supervisors:

(a) A Landscaping Plan shall be submitted to Upper Bern Township for review and comment. The Landscaping Plan shall be subject to the approval of the Upper Bern Township Board of Supervisors taking into consideration the topography of the area, the desirability to screen unsightly structures from surrounding areas and the need to have visual access into the fenced area.

(b) An evergreen screen may be required by the Township Supervisors to surround a portion of the property exposed to public roadways and/or visible to adjoining properties. In such cases a screen shall be either an evergreen hedge (planted three (3) feet on center maximum) or a row of evergreen trees (planted ten (10) feet on center maximum). The evergreen screen shall be a minimum of six (6) feet in height at the initial planting and shall grow to a minimum of fifteen (15) feet in height at maturity. All such plantings shall be perpetually maintained by the property owner.

(c) The existing vegetation on and around the site shall be preserved to the greatest extent possible.

(d) If a communications antenna is to be installed on a structure other than a communication tower, the antenna and supporting electrical and mechanical equipment must be of a neutral color that is identical to, or closely compatible with the color of the supporting structure so as to make the antenna and accessory equipment as visually unobtrusive as possible.

(e) If a communication tower and antenna are to be designed as a structure or natural feature, the communication tower and antenna shall be disguised and/or camouflaged with the surrounding area. The type, style, color, design, size and location of the disguised and/or camouflaged communication tower and antenna shall be subject to the approval of the Upper Bern Township Board of Supervisors.

(f) In addition to the requirements for landscaping, buffering and screening specified within under this Section of the Ordinance, the requirements stipulated under Section 914 (Landscaping) of the Zoning Ordinance shall be complied with by the developer.

6. Co-Location: In order to reduce the number of antenna support structures needed in the community in the future, the proposed support structure shall be required to accommodate other users, including other cellular communication companies, and the local police, fire and ambulance companies, where technically feasible.
7. State or Federal Requirements: All communication towers and antennas must meet or exceed the current ANSI, TIA and EIA standards and regulations of the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC) and any other state or federal agency with the authority to regulate towers and antennas. The owner shall bring such towers and antennas into compliance within six (6) months of the effective date of such standards and regulations, unless a different schedule is mandated by the controlling state or federal agency. Failure to bring the communication towers and antennas into compliance shall constitute grounds for the removal of the tower or antenna at the owner's expense. The applicant for proposed communication towers shall notify the Reading Regional Airport and any other airfield within a five (5) mile radius of the proposed tower of its intent to place such a structure at its planned location within the Township. Proof of such notification must be given to the Township prior to the Township giving final permission for construction of any such tower or structure.
8. Required Parking: A minimum of two (2) off-street parking spaces shall be required for maintenance workers. The size, design, number and location of the off-street parking spaces shall be subject to the approval of the Upper Bern Township Board of Supervisors. If use of parking spaces are to be used on a sporadic basis or on infrequent occasions, the Supervisors may waive such a requirement.
9. Access: Access shall be provided to the antennae, support structure and/or accessory structure by means of a public street or easement to a public street. The easement shall be a minimum of twenty (20) feet in width. If the use of the driveway or access lane warrants, the Township Supervisors may, in their discretion, require that the driveway or access lane be designed, constructed and improved in accordance with all codes ordinances and standards adopted by Upper Bern Township. If use of the driveway and/or lane is to be sporadic and used only on infrequent occasions the Supervisors may waive such a

requirement.

10. Signs and Lighting: No advertising signs or lights shall be mounted on a communications tower, except as may be required by the Federal Communications Commission, Federal Aviation Administration or other governmental agency which has jurisdiction and/or as may be necessary to post no trespassing notices and/or to post safety and/or ownership information.
11. Land Development Plan: A complete Land Development Plan shall be required for all cell sites, showing the antenna, antenna support structure, building, fencing, buffering, access and all other items required by the Subdivision and Land Development Ordinance. A complete Land Development Plan may be waived by the Township when it is satisfied that it has sufficient information from the applicant or when located on Township property.
12. Building Codes: To ensure the structural integrity of the communication tower and/or antenna, the owner shall demonstrate that it will be designed and maintained in accordance with all applicable ANSI, TIA and EIA standards. Any portion of the design and maintenance not controlled or regulated by these codes must meet standards adopted in the Township's building code.
13. Geotechnical Investigation: The owner shall complete and submit geotechnical evaluation of the site in which the communication tower is to be located. The owner shall demonstrate how the proposed tower and related infrastructure is to be stabilized and anchored. This study shall be submitted with the application for a building permit.
14. Discontinued Use: If a communication tower and/or antenna remains unused for a period of twelve (12) consecutive months, the owner or operator shall dismantle and remove the tower and/or antenna within six (6) months of notice to do so by Upper Bern Township.
15. Bonding/Financial Security: The owner or operator of a communication tower and/or antenna shall post financial security with Upper Bern Township in an amount to cover tower and/or antenna removal and site clean-up. The financial security shall be used by Upper Bern Township in the event the owner or operator fails to remove the tower and/or antenna within six (6) months of written notification by Upper Bern Township. The amount of the financial security and the terms of the agreement shall be subject to the approval of the Upper Bern Township Board of Supervisors. The Township, may in its discretion, perform periodic inspections of the communication towers and/or antennas to confirm the continued use and structural integrity of such equipment upon thirty (30) days written notice to the owner and /or operator.
16. Emergency/Catastrophic Event: Upper Bern Township reserves the right to utilize any financial security held in escrow to insure that the communication

tower and/or antenna are removed from the site in the event of an emergency or catastrophic event after three (3) days written notice of the need to do so to the owner or operator of the facility. The funds will be utilized by Upper Bern Township if the owner and operator of the communication tower and/or antenna does not make a effort to remove the tower or antenna in a reasonable time frame after three (3) days written notice of the need to do so to the owner or operator of the facility.

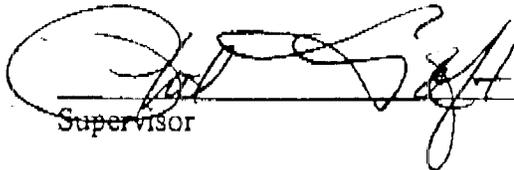
**SECTION 3.** If any sentence, clause, section or part of this Ordinance is, for any reason, found to be unconstitutional, illegal or invalid such unconstitutionality illegality or invalidity shall not affect or impact any other remaining provisions, sentences, clauses, sections or parts of this Ordinance. It is hereby declared as the intent of the Township of Upper Bern that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof had not been included herein.

**SECTION 4.** The remaining provisions of the Upper Bern Township Zoning Ordinance, and as enforced immediately before the enactment of this Ordinance, are intended to be continued and, to the extent not inconsistent herewith, are hereby reenacted and re-ordained; any sections inconsistent with the amendments ii hereinbefore referenced are hereby repealed as referenced.

**SECTION 5.** This Ordinance shall become effective five (5) days following the date of adoption.

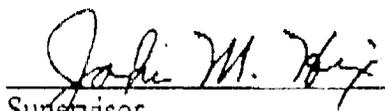
DULY ENACTED and ORDAINED into law, this 3rd day of March, 1999, by the Upper Bern Township Board of Supervisors, Berks County, Pennsylvania.

UPPER BERN TOWNSHIP BOARD OF SUPERVISORS

  
\_\_\_\_\_  
Supervisor

  
ATTEST:  
Secretary of  
Upper Bern Township

  
\_\_\_\_\_  
Supervisor

  
\_\_\_\_\_  
Supervisor