

TOWNSHIP OF MIDDLESEX
CUMBERLAND COUNTY, PENNSYLVANIA

ORDINANCE NO. 98-2

AN ORDINANCE OF THE TOWNSHIP OF MIDDLESEX,
CUMBERLAND COUNTY, PENNSYLVANIA AMENDING ARTICLE
XIV OF THE MIDDLESEX TOWNSHIP ZONING ORDINANCE TO
INCLUDE REGULATION OF ANTENNAS AND PERSONAL
WIRELESS SERVICE FACILITIES, THEIR PLACEMENT,
HEIGHT, SUPPORT STRUCTURE, SAFETY AND SETBACKS,
FENCING, LANDSCAPING AND OTHER REQUIREMENTS.

BE IT HEREBY ENACTED AND ORDAINED and it is hereby enacted
by the Board of Township Supervisors for the Township of
Middlesex, Cumberland County, as follows:

SECTION 1: Article XIV, Supplementary Regulations, of the
Middlesex Township Zoning Ordinance is hereby amended to include
the following:

SECTION 14.52 PERSONAL WIRELESS SERVICE FACILITIES.

A. PURPOSE.

The purpose of this Section is as follows:

1. To accommodate the need for personal wireless service facilities and antennas while regulating their location and number in the Township of Middlesex.
2. To minimize adverse visual impact and effects of personal wireless service facilities, antennas and antenna support structures through proper design, siting, and vegetative screening.
3. To avoid potential damage to adjacent properties from antenna support structure failure and falling ice and debris through engineering and proper siting of antenna support structures.

4. To encourage the joint use of any antenna support structures to reduce the number of such structures needed in the future.
5. To ensure that the location and number of personal wireless facilities are in the best interest of the health, safety and welfare of the residents of the Township of Middlesex.
6. To minimize any adverse effects of location and design of personal wireless facilities and antennas on residential property values.

B. DEFINITIONS.

The following words and phrases when used in this Ordinance shall have the meaning given to them in this Section unless the content clearly indicates otherwise:

"Antenna": any structure or device used to collect or radiate electromagnetic waves, including both directional antennas (such as panels) and omnidirectional antennas (such as whips) but not including satellite earth stations.

"Alternative Tower Structure": man-made trees, clock towers, tall steeples, light poles, and similar alternative design mounting structures that camouflage or conceal the presence of antennas of towers.

"Antenna Height": the vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure including any antenna, if the antenna exceeds the height of the support structure. If the support structure is on a sloped grade, then the average between the highest and lowest grades shall be used in calculating the antenna height.

"Antenna Support Structure": any pole, monopole, telescoping mast, tower, tripod, or any other structure which supports a device used in the transmitting or receiving of radio frequency energy.

"Board": the Zoning Hearing Board of Middlesex Township, Cumberland County, Pennsylvania.

"Commercial Mobile Service": any mobile service (as defined in Section 153 of the Federal Communications Act of 1934, as amended) that is provided for profit and makes interconnected service available (a) to public or (b) to such classes of eligible users as to be effectively available to a substantial portion of the public. It includes, but is not limited to, personal communications services (PCS), cellular radiotelephone service, paging and Specialized Mobile Radio Service (SMRS).

"Common Carrier": any person engaged as a common carrier for hire, in interstate or foreign communications by wire or radio, or in interstate or foreign radio transmission of energy, but a person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier.

"Exchange Access": the offering of access to telephone exchange services or facilities for the purpose of the originator or terminator of telephone toll services.

"Monopole": an antenna support structure consisting of a single pole or spire constructed without guy wires or ground anchor.

"Personal Wireless Services": include commercial mobile services, unlicensed wireless services, common carrier wireless exchange access services and any wireless service not provided or utilized for profit.

"Personal Wireless Service Facilities": facilities, antennas, monopoles, support structures, structures, equipment and/or appurtenances for the provision of personal wireless services.

"Personal Wireless Site": a tract or parcel of land that contains a personal wireless service antenna as the principal use, its support structure, accessory buildings(s), parking, and may include other uses and equipment associated with and ancillary to telecommunication signal transmission or processing.

"Tall Structure": any manmade object having a fixed, stationary location on land which exceeds 25 feet in height, but excluding any building or structure utilized for residential purposes.

"Township": the Township of Middlesex, Cumberland County, Pennsylvania.

"Unlicensed Wireless Service": the offering of telecommunication services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct exchange satellite services.

C. USE REGULATIONS.

1. A personal wireless service facility is permitted in the IG Industrial General District as a special exception use. Such a facility with antenna may be permitted by special exception subject to the requirements of this Ordinance in other zoning districts only if the applicant can present reliable and credible technological evidence that the personal wireless facility and antenna must go in that zoning district and can only go in said zoning district in order to satisfy its function in the grid system and provide the quality of service as required by law. In all cases, the Board may grant a special exception use after review and recommendation of the Planning Commission and a public hearing before the Board.

All applicants are encouraged to utilize existing antenna support structures and pre-existing personal wireless service facilities as well as smokestacks, water towers or other existing tall structures upon which to attach antennas. Whether or not an antenna is proposed to be mounted on an existing structure, a full site plan is required by all applicants requesting a special exception in accordance with C.2.(d), below.

2. All applicants must establish the following:
 - (a) That there is not suitable space on existing personal wireless service facilities or other

personal wireless service facility sites or on other sufficient tall structures where the intended personal wireless service facility can be accommodated and function as required by its construction permit or license without unreasonable modification.

- (b) For applicants seeking to locate facilities or antenna out of the IG Industrial General District, presenting credible technological evidence that the personal wireless facility must go where it is proposed in order to satisfy its function in the grid system and provide the quality of service required by law. For purposes of this provision, evidence describing the system design and all design options considered shall be presented.
- (c) If the applicant proposes to build an antenna support structure (as opposed to mounting the antenna on an existing structure), it is required to demonstrate that it contacted the owners of tall structures within a one (1) mile radius of the site proposed, asked for permission to install the antenna on those structures, and was denied for reasons other than economic ones. This would include smokestacks, water towers, tall buildings,

antenna support structures of other telecommunications companies, other communications towers (fire, police, etc.), and other tall structures. The Board may deny any application to construct a new tower if the applicant has not made a good faith effort to mount the antenna on an existing structure.

- (d) A full site plan which shall include:
 - (1) Written authorization from the property owner of the proposed antenna support structure site.
 - (2) A site plan:
 - (a) Drawn to scale of not smaller than 100 feet to one inch;
 - (b) Showing the property boundaries;
 - (c) Showing any tower guy wire anchors and other apparatus;
 - (d) Existing and proposed structures;
 - (e) Scaled elevation view;
 - (f) Access road(s), location, surface material and design standards in accordance with the Middlesex Township Subdivision and Land Development Ordinance;
 - (g) Parking area;
 - (h) Fences;
 - (i) Location and content of any signs;
 - (j) Exterior lighting specifications;

- (k) Landscaping plan;
 - (l) Land elevation contours not greater than intervals of five (5) feet;
 - (m) Existing land uses surrounding the site;
 - (n) Proposed transmission building and/or other accessory uses with details indicating:
 - (i) Elevations;
 - (ii) Proposed use.
- (3) A written report including:
- (a) Information describing the tower height and design;
 - (b) A cross-section of the structure;
 - (c) Engineering specifications detailing construction of tower, base, and guy wire anchorage;
 - (d) Information describing the proposed painting and lighting schemes;
 - (e) Information describing the tower's capacity, including the number and type of antennas that it can accommodate;
 - (f) Radio frequency coverage;
 - (g) All tower structure information to be certified by a licensed professional engineer;
 - (h) Personal wireless service facilities data to be certified by an engineer learned in personal wireless service facilities;
 - (i) Evidence of the tower or structure's structural integrity and the total anticipated capacity of the structure; and
 - (j) Information discussing unavailability of other existing antenna support

structures located within a two (2) mile radius of the proposed site for one or more of the following reasons:

- (i) Refusal by current tower owner;
 - (ii) Topographic limitations;
 - (iii) Adjacent impediments blocking transmission;
 - (iv) Site limitations to tower construction;
 - (v) Technical limitations of the system;
 - (vi) Equipment exceeds structural capacity of facility or tower;
 - (vii) No space on existing facility or tower;
 - (viii) Other limiting factors rendering existing facilities or towers unusable;
 - (ix) An update of capacity on an existing tower.
- (4) Written certification by the applicant that written notification has been given and received by all property owners adjoining the lot where the proposed antenna, facility and/or tower is proposed to be located.
- (5) Written confirmation that the electro-magnetic fields and radio frequency interferences comply with Federal Communication Commission regulations concerning such emissions together with

a copy of the current regulations, as well as an estimated Nonionizing Electromagnetic Radiation (NIER) level from the proposed antennas, when added to existing levels, that does not exceed applicable federal standards.

(6) A "zone of visibility map" provided to determine locations where the tower, antenna or facility may be seen as well as "before and after" pictorial representations setting forth views from key viewpoints within the Township.

3. All other uses ancillary to the antenna and associated equipment (including a business office, maintenance depot, vehicle storage, (etc.)) are prohibited from the personal wireless site unless otherwise permitted in the zoning district in which the site is located.

D. STANDARDS OF APPROVAL OF ALL PERSONAL WIRELESS SERVICE FACILITIES.

1. Antenna height. The applicant shall demonstrate that the antenna is the minimum height required to function satisfactorily. No antenna that is taller than this minimum height shall be approved.
2. Setbacks from base of antenna support structure and accessory structure setbacks. The minimum distances

between the base of the antenna support structure or any guy-wire anchors and any property line or right-of-way line shall be equal to the antenna height. All proposed accessory structures and buildings incidental to the special exception use shall be subject to the setback requirements of the zoning district in which the antenna support structure is or will be located.

3. Antenna support structure safety. The applicant shall demonstrate that the proposed antenna and support structure are safe and the surrounding areas will not be negatively affected by support structure failure, falling ice, or other debris. The applicant shall also demonstrate compliance with guidelines recommended by the American National Standard Institute (ANSI) (ANSI/IEEE C95.1-1992) and that all support structures shall be fitted with anti-climbing devices, as approved by the manufactures.
4. Fencing. A fence shall be required around the antenna support structure, accessory building(s), and other equipment unless the antenna is mounted on an existing structure. The fence shall be a minimum of six (6) feet in height and a maximum of (8) feet in height, shall completely enclose the antenna, support structure, and related facilities, shall not contain openings greater than nine (9) square inches and shall contain, at all entrances, gates which shall be locked

except during such times as the site is manned by authorized operations or maintenance personnel.

5. Landscaping. The following landscaping shall be required to screen as much of the support structure as possible, the fence surrounding the support structure, and any other ground-level features (such as a building), and in general soften the appearance of the personal wireless service facility site. The Board may permit any combination of existing vegetation, topography, walls, decorative fences, or other features instead of landscaping if they achieve the same degree of screening as the required landscaping. If the antenna is mounted on an existing structure and other equipment is housed inside an existing structure, landscaping shall not be required.

- (a) An evergreen screen shall be required to surround the site. The screen can be either a 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 height of six (6) feet at planting and shall grow to a minimum of fifteen (15) feet at maturity.

- (b) In addition, existing vegetation on and around the site shall be preserved to the greatest extent possible.

6. In order to reduce the number of antenna support structures in the Township of Middlesex in the future, the proposed support structure shall be required to accommodate at least three (3) other users, including other personal wireless service companies, and local police, fire, and ambulance companies.
7. The applicant must demonstrate that it is licensed by the Federal Communications Commission.
8. Required parking. If the personal wireless site is fully automated, adequate parking shall be required for maintenance workers. If the site is not automated, the number of required parking spaces shall equal the number of people on site at the largest shift.
9. Antenna support structures shall be painted or colored in a manner that best allows it to blend into its surroundings and to minimize, to the greatest extent possible, the degree of visual impact. No antenna support structure may be artificially lighted except when required by the FAA.
10. Personal wireless service facilities shall result in a minimal visual impact for those residents in the immediate area and for those in the larger community who view these facilities from a distance.
 - (a) Minimal visual impact shall include:
 - (i) A facility sited so that the tower(s) and/or accompanying structure(s) is

screened from view from off of the subject property by vegetation or landform to the maximum extent practicable and reasonable.

- (ii) A facility where all broadcast equipment is contained within a building, the size, character, and location of which is permitted by the underlying zone district.
- (b) It is acknowledged that large, multi-use towers located within major use transmission areas cannot be effectively screened. In order to minimize the visual impact, such new facilities should be located in close proximity to other comparable structures. Accompanying buildings, groundmounted antennas, and other equipment and structures are subject to screening requirements as set forth in this Section.
- (c) The visual impact of the personal wireless service facilities shall be compatible with the aesthetic character of the surrounding area.
- (d) FAA requirements for coloring and lighting of towers must be considered in looking at visual impact.

- (e) If an antenna is installed on a structure other than a 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 related equipment as visually unobtrusive as possible.
- 11. No personal wireless service facilities may be located within one-eighth (1/8) of a mile from any residential dwelling.
- 12. Any obsolete or unused antennas, antenna support structure, personal wireless service facility and/or any related or associated equipment shall be removed at the owner's expense within four months of discontinuance of use. The owner or user shall provide the Township with a copy of the notice to the FCC of intent to cease operations. Within ten (10) days of the owner or user ceasing the use or operation of any antenna, support structure site or facility, written notice thereof shall be provided to the Township.
- 13. The applicant or owner shall establish, as a condition of approval of any application, a maintenance and performance bond in favor of the Township in an amount sufficient to cover the installation, maintenance, construction and removal of the antenna, antenna

support structure and accessory structures or buildings during its/their lifetime and/or its/their destruction or discontinuance of use. The amount required shall be determined by the Township based upon the characteristics of the antenna, support structure and accessory structures or buildings. Upon obtaining approval subject to this condition, the applicant shall submit to the Township in writing an itemized listing of estimated costs from a professional engineer in support of an amount proposed for such maintenance and performance bond for the Township's review and approval.

Further, the applicant or owner at applicant's or owner's expense shall obtain and maintain public liability insurance in the minimum amount of \$1,000,000 for loss from accident resulting in bodily injury to or death of a person (each occurrence) and damage to or destruction of property (each occurrence). The applicant or owner shall provide evidence of insurance no less than annually to the Township.

The applicant and/or owner shall enter into a written agreement with the Township, in recordable form, indemnifying and holding harmless the Board, the Township of Middlesex, its members, officers, agents, employees, consultants and appointees of and from any and all claims, damages, losses, injuries, causes of

action of any kind, attorney's fees and expenses arising from or in any way related to applicant's or owner's use and/or operation of any personal wireless service facility, personal wireless site and/or antenna.

14. No portion of any antenna or antenna support structure shall be used for a sign or other advertising purpose, including, but not limited to, company name and telephone number; and no banners, streamers or any other objects or items not essential to the function or support of the antenna or antenna support structure shall be attached to or displayed from same.
15. The applicant shall provide the Township within sixty (60) days of completion of initial construction and any additional construction, two (2) complete sets of plans, drawn to scale and certified to the Township of Middlesex as accurately depicting the location of the personal wireless services facilities constructed.
16. Lot requirements. The lot width, lot area, yard and building setback requirements for each personal wireless site or facility shall be those requirements for principal non-residential building or structures as specified in the Middlesex Township Zoning Ordinance for the zoning district in which the site or facility is proposed to be located as modified, where necessary, to meet the setback requirements of this Ordinance set

forth in Section 14.52D.2, above.

17. Continuing maintenance and compliance. All personal wireless service facilities shall be operated and maintained to ensure continuing compliance with all terms, conditions and requirements of this Ordinance and any approval received from the Board.
18. Site construction fencing. Temporary fencing shall be erected, which fencing shall be at least four (4) feet in height and not contain openings greater than nine (9) square inches, completely enclosing any area or access of the personal wireless site when construction or erection of any part or portion of the personal wireless facility occurs. Such temporary fencing shall remain until such time as the permanent fencing specified in Section 14.52D.4 is erected.
19. The Board shall hear and decide applications for special exceptions under this Section in accordance with the standards, criteria and procedures set forth in Section 17.07 of this Ordinance. In granting a special exception, the Board may attach such reasonable conditions and safeguards, in addition to those set forth in Article XVII, as it may deem necessary to implement the purposes of this Ordinance and the Pennsylvania Municipalities Planning Code.

SECTION 2:

Article V, Section 5.02 E and Article VI, Section 6.02 H of the Middlesex Township Zoning Ordinance are each hereby amended to provide as follows:

Municipal and public utility buildings and structures where operational requirements necessitate locating within the district.

SECTION 3:

Article XII, Section 12.05 of the Middlesex Township Zoning Ordinance is hereby amended to include the following:

E. Personal wireless service facilities (See Section 14.52).

SECTION 4:

The provisions of this Ordinance shall be severable, and if any of its provisions shall be held to be unconstitutional, illegal or otherwise invalid, that decision shall not affect the validity of any of the remaining provisions of this Ordinance. It is declared to be the legislative intention that this Ordinance would have been enacted had the unconstitutional, illegal or otherwise invalid provisions not been included in this Ordinance. All prior ordinances or provisions thereof inconsistent with the provisions set forth herein are hereby repealed.

SECTION 5:

This Ordinance shall become effective in accordance with existing law.

ENACTED AND ORDAINED THIS 4th DAY OF MARCH , 1998.

TOWNSHIP OF MIDDLESEX

By: Robert M. Egan
Chairman, Board of Township
Supervisors

ATTEST:

May S. Just
Township Secretary
(Seal)