

Chapter 315. Towers and Wind Energy Conversion Systems.

315.1 Introduction. The Purpose of this Chapter is to establish standards and regulations for the proper design and placement of Tower facilities in order to ensure their compatibility with the surrounding Land Uses in the Zoning Districts where they are permitted. The regulations are intended to:

- a) Protect and preserve open spaces and sensitive natural areas;
- b) Facilitate the provision of telecommunication services and facilities including wireless telecommunication services in Ford Township and the surrounding area;
- c) Encourage development and utilization of alternative sources of energy such as wind and solar;
- d) Minimize adverse visual effects of Towers through careful design and siting standards; and
- e) Avoid potential damage to surrounding properties from tower or antenna failure through structural standards and siting requirements.

315.2 Conditional Use Permit Required. No Person may erect, construct, alter or relocate a Tower or Wind Energy Conversion Systems without obtaining approval of a Conditional Use Permit Application from the Township in accordance with Chapter 710 of this Ordinance together with all required fees. Tower facilities and Wind Energy Conversion Systems must comply with all:

- a) Local,
- b) County,
- c) State, and
- d) Federal regulations governing Antenna and Tower facilities.

The Provisions contained herein shall not apply to any antenna that is less than seventy (70) feet in height and either operated by a federally licensed amateur radio station operator or is used exclusively as a receive-only antenna.

315.3 Definitions.

- a) Antenna: Any structure or device used for the purpose of collecting or radiating electromagnetic waves including but not limited to directional antennas such as panels, microwave dishes, satellite dishes, and omni-directional antennas such as whip antennas.
- b) Commercial Wind Energy Conversion System: Any WECS designed and operated at a capacity greater than incidental excess of the amount needed for basic residential use, and/or the purpose of such energy generation is intended for commercial sale.
- c) Lowest Extension of WECS Blades: The lowest point of the arc created by the rotation of the WECS rotor.
- d) Tower: Any pole, wire, Structure or combination thereof, including support lines, guy wires, cables, wires, braces, and masts intended primarily for the purpose of mounting antenna or to serve as an antenna, or for the placement of a WECS.
- e) Tower Facility: A Tower and its appurtenant devices including but not limited to Antennae, Buildings, Structures, Fences, gates and related equipment.
- f) Total Height: The distance between ground level at the base of a Structure, Tower, or Antenna and its tallest vertical extension including any attachment thereto.
- g) Wind Energy Conversion System (WECS): An electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transmission lines, transformers, converters, substations and meteorological towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be consumed on-site or distributed into the electrical grid.

315.4 Land Use. All Towers not excluded in 315.2 above, require the granting of a Conditional Use Permit per Chapter 710 of the Ordinance. All Towers must meet the Setback requirements of the underlying zoning district.

315.5 Tower Location: No Tower shall be located on a Non-Conforming Lot.

315.6 Tower Density: The density of Towers within the Zoning Districts shall be as follows:

- a) R-1 Residential Zoning District—No Towers Permitted.

- b) R-2 Residential Zoning District—Two (2) Towers per QuarterQuarter, a maximum of one per Lot, each of which must be on a Lot with a Minimum Lot Area of five (5) Acres.
- c) C-1 Commercial Zoning District—One per Lot with a Minimum Lot Area of five (5) Acres.
- d) C-2 Commercial Zoning District—One per Lot with a Minimum Lot Area of five (5) Acres.

315.7 Tower Design

- a) Proposed or modified towers and antennae shall be certified by a licensed professional engineer.
- b) Lighting of any kind is prohibited on towers unless specifically required by the Federal Aviation Administration.

315.8 Tower Setbacks: Towers and all accessory structures shall conform to the following minimum setback requirements:

- a) The base of any Tower shall be located a minimum distance from all Lot Lines equal to twice the height of the Total Height of the Tower.
- b) Support lines, guy wires, cables, wires, braces, and masts used to stabilize the Tower shall meet the Setback requirement of the underlying zoning district.

315.9 Abandoned or Unused Towers: Abandoned or unused Towers and associated facilities shall be removed within 12 months of the cessation of operations at the site unless the time extension was approved in the granting of the Conditional Use Permit.

315.10 Signs and Advertising: Signs on Towers are prohibited.

315.11 Application Requirements: The Ford Township Zoning Administrator may contract with an independent technical expert of his choosing, to review technical materials submitted by the applicant, and/or to determine if additional information is necessary. The applicant shall pay the cost of such review and/or independent analysis. In addition to the general requirements of the Conditional Use Permit Application, all applications for new Towers must also include the following:

- a) Site plans drawn to scale, specifying the location of the Tower facility, support structures, transmission buildings and/or other

accessory structures and uses, accesses, parking areas, fences, signs, lighting, landscaped areas and all adjacent land uses within 250 feet of the Tower facility, including all support structures and security fencing.

- b) In the case of a telecommunications Tower, a signed lease on behalf of a carrier that once the Tower is completed it will be leased within one (1) year.
- c) Documentation that the approved Tower has been designed in compliance with a qualified engineer licensed by the State of Minnesota.
- d) Documentation that the communications equipment planned for the Tower cannot be accommodated on an existing or approved Tower or Structure within the search ring of the service area.
- e) Documentation that in the event of discontinuance or abandonment of the Tower, the tower will be removed by the Tower owner within 12 months of discontinuance or abandonment.

315.12 Time Limit on Tower Construction: Construction of an approved Tower including all accessory structures, including footings and foundations, must be completed within one year following approval of the Conditional Use Permit. If the Tower is not completed within this period, it must be removed as per 315.11.e, or the applicant must apply for and be granted another Conditional Use Permit to complete the construction. A certification of completion must be provided to the Ford Township Zoning Administrator upon completion of the Tower facility.

315.13 Existing Tower Facilities: Tower facilities and antennae in existence as of the approval of this Chapter of the Ford Township Ordinance that do not comply with the requirements of this Ordinance may continue their existing Use, but may not be replaced, enhanced, or structurally altered without complying with all requirements of this Ordinance.

315.14 Wind Energy Conversion Systems (WECS) Performance Standards: In addition to the standards set forth above, all WECS facilities shall also conform to the following performance standards:

- a) All WECS facilities shall have either a climbing apparatus located no closer to the ground than 12 feet, or be un-climbable by design for the first 12 feet.

- b) The siting of the facility should demonstrate the reduced likelihood of blocking or reflecting television or other communication signals.
- c) The safety of the design and construction of all Commercial WECS Towers shall be certified by the manufacturer, by a state-certified engineer, or by a licensed WECS professional.
- d) The location of all proposed WECS facilities shall be in compliance with any applicable airport zoning, and shall comply with Federal Aviation Administration notification requirements and any other FAA regulations
- e). The maximum height of the lowest extent of a WECS blade shall be 130 feet from grade.
- f) The minimum height of the lowest extent of a WECS blade is 30 feet above grade or 30 feet above any object within 300 feet of the Tower, whichever is greater
- g) No WECS facility may create stray voltage that will adversely affect adjacent properties.

315.15 Conditional Use Permit: In addition to the general requirements for a Conditional Use Permit, all applications for new Commercial WECS Tower facilities must also include the following:

- a) Lot lines and physical dimensions of the Lot, including the location and height of any objects within 300 feet of the point of the Lowest Extension of the WECS Blades; and
- b) Clearance distance between the farthest extension of the WECS Blade and all Lot Lines.