

TOWN OF WARREN

SECTION 29 - SPECIAL PERMIT FOR TELECOMMUNICATIONS

FACILITIES AND TOWERS

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SECTION 29 - SPECIAL PERMIT FOR TELECOMMUNICATIONS FACILITIES AND TOWERS

29.0 JURISDICTIONAL CLARIFICATION:

SECTION 29 - SPECIAL PERMIT FOR TELECOMMUNICATIONS FACILITIES AND TOWERS was written in 1998 when Connecticut municipalities controlled for the placement of such facilities in the PCS frequencies. In 2000, all free-standing tower-siting jurisdiction was awarded to the Connecticut Siting Council (CSC) in U.S. District Court and upheld in federal court in *SPRINT SPECTRUM LP v. CONNECTICUT SITING COUNCIL* 274 F.3r 674 (2d. Cir 2001). Nevertheless, Connecticut towns have been advised by the CSC to maintain their tower regulations as advisory to the CSC process, which is conducted in partnership with municipalities according to state statute. In 2007, the Connecticut State legislature passed Public Act number: 07-222 that requires the CSC to officially take a town's regulations, including for cell towers as well as Plans of Conservation & Development, into consideration in tower siting.

Because Warren has no final jurisdiction over the siting of free-standing telecommunications towers at this time, those aspects that pertain to free-standing towers in SECTION 29 are to be considered advisory to the CSC. SECTION 29 was updated in 2011 to be consistent with federal and state laws.

Although the Town of Warren can comment on the acceptability of any free-standing telecommunications tower facility that comes before the CSC, it is understood that the provisions in SECTION 29 are advisory only and are legally unenforceable at this time in the State of Connecticut. It is also understood that no application fees for free-standing towers under CSC review are payable directly to the town of Warren. The town may, at its discretion and sole expense, hire independent consultants, including, but not limited to, RF engineers, to review any application that comes before the CSC.

In the event that jurisdiction over the placement of free-standing telecommunications towers returns to Connecticut municipalities, in whole or in part, SECTION 29 will be reviewed for technical accuracy and legal consistency; application fees will be reassessed; consultant fees will be payable by the applicant directly to the town; and SECTION 29 will be returned to full Warren Planning and Zoning Commission Special Use Permit regulatory status in a timely manner.

29.01 TRANSMISSION EQUIPMENT MOUNTED ON, OR IN, PRE-EXISTING BUILDINGS:

Connecticut municipalities maintain full control over the placement, construction, and modification of telecommunications transmitting antennas, accessory buildings/equipment and antenna arrays placed on, or in, pre-existing buildings. SECTION 29 - SPECIAL PERMIT FOR TELECOMMUNICATIONS FACILITIES AND TOWERS contains review guidelines for such applications and shall therefore be used by the Commission to review all such applications in accordance with state and federal law, under Special Use Permit, subject to the exclusions noted below, and for any other aspect in which the town of Warren maintains jurisdiction over telecommunications facilities now and/or in the future.

For transmission equipment applications mounted on, or in, pre-existing buildings, Commission review shall include, but is not limited to, the following provisions in SECTION 29: compliance with the town's Plan of Conservation and Development; preservation of historic buildings, protection of wetlands and environmentally sensitive areas; setback requirements from dwellings and property lines; antenna height when mounted outside on pre-existing structures; hiring of independent consultants at the applicant's expense; requirements for structural integrity, determinations for adequate coverage and adequate capacity; monitoring for radio frequency (RF) compliance with Federal Communications Commission (FCC) emissions standards; bonding, fees, and whatever else the Commission deems necessary to review an application contained in SECTION 22 Special Use Permit regulations.

29.0.2 EXCLUSIONS, EXEMPTIONS AND DISALLOWANCES

No antennas or transmission equipment shall be mounted on, or in, pre-existing structures less than 50 feet in height as measured at ground level.

The following wireless telecommunications facilities are exempt: police, fire, ambulance and other emergency dispatch; amateur (HAM) radio, citizens band radio; any existing commercial radio tower, and radio dispatch services for local businesses. Also exempt from this regulation are antennas used solely for residential household television and radio reception, and satellite dishes measuring 2 meters or less in diameter. No personal wireless service facility mounted on, or in, a pre-existing building shall be considered exempt from this article for any reason, whether or not said facility is proposed to share a tower or other structure with such exempt uses. Teleports utilizing satellite dishes of greater than 2.0 meters in

diameter designed to uplink to communications satellites are not allowed in the Town of Warren.

29.1 PURPOSE:

The Purpose of this Regulation is to:

- A. Preserve the character and appearance of the Town of Warren while allowing adequate telecommunications services to be developed.
- B. Protect the scenic, historic, environmental, and natural or man-made resources of Warren.
- C. Locate towers and/or antennas in a manner which protects property values, as well as the general safety, health, welfare and quality of life of the citizens of Warren and all those who visit this community.
- D. Minimize the total number and height of towers throughout Warren.
- E. Provide standards and requirements for the regulation, placement, design, appearance, construction, monitoring, modification and removal of telecommunications facilities and towers.
- F. Require the sharing of existing towers, and the clustering of new facilities/towers where possible.
- G. Locate towers so that they do not have negative impacts such as – but not limited to -- attractive nuisance, and falling objects.
- H. Insure that new commercial uses are compatible with prevailing rural residential land-use patterns as specified in The Town of Warren Plan of Development.
- I. Provide a procedural basis for action within a reasonable period of time for requests for authorization to place, construct, operate or modify telecommunications facilities.

29.2 CONSISTENCY WITH FEDERAL LAW:

These regulations are intended to be consistent with The Telecommunications Act of 1996 in that: a) they do not prohibit, or have the effect of prohibiting, the provision of Personal Wireless Services; b) they are not intended to be used to unreasonably discriminate among providers of functionally equivalent Services; c) they do not regulate Personal Wireless Services on the basis of the environmental effects of radio frequency emissions to the extent that the regulated Services and Facilities comply with the FCC's regulations concerning such emissions.

29.3 DEFINITIONS AND WORD USAGE:

The following terms shall have the meanings indicated. The word "shall" or "will" indicate mandatory requirements; "may" is advisory and indicates recommendations which are not mandatory.

Where the term "applicant" is used, it indicates any service provider or tower company applying directly to the Connecticut Siting Council, or, in the event of tower siting jurisdiction being returned to Connecticut municipalities, in whole or in part, it indicates any service provider or tower company applying directly to the town. The term "applicant" also applies to any telecommunications service provider seeking to install or place transmitting equipment on, or in, a pre-existing building in the Town of Warren, which has jurisdiction over such applications.

ADEQUATE COVERAGE - Coverage is considered to be "adequate" within that area surrounding a Base Station where the predicted or measured median field strength of the transmitted signal is such that the majority of the time, transceivers properly installed and operated will be able to communicate with the base station. In the case of cellular communications in a rural environment like Warren, this would be a signal strength of at least -90 dBm for at least 75% of the coverage area. It is acceptable for there to be holes within the area of Adequate Coverage where the signal is less than -90 dBm, as long as the signal regains its strength to greater than -90 dBm further away from the Base Station. For the limited purpose of determining whether the use of a Repeater is necessary or desirable, there shall be deemed not to be Adequate Coverage within said holes. The outer boundary of the area of Adequate Coverage, however, is that location past which the signal does not regain strength of greater than -90 dBm.

ADEQUATE CAPACITY - Capacity is considered to be "adequate" if the Grade of Service (GOS) is p.05 or better for median traffic levels offered during the typical busy hour, as assessed by direct measurement of the Personal Wireless Service Facility in question. The GOS shall be determined by the use of standard Erlang B Calculations. As call blocking may occur in either the land line or radio portions of a wireless network, Adequate Capacity for this regulation shall apply only to the capacity of the radio components. Where capacity must be determined prior to the installation of the Personal Wireless Services Facility in question, Adequate Capacity shall be determined on the basis of a 20% busy hour (20% of all offered traffic occurring within the busiest hour of

the day), with the total daily traffic based on aggregate estimates of the expected traffic in the Coverage Area.

ANTENNA - A device which is attached to a Tower or other structure for transmitting or receiving electromagnetic waves. Examples include, but are not limited to, whip, panel, and dish antennas.

AVAILABLE SPACE - The space on a tower or structure to which antennas of a telecommunications provider are both structurally able and Electromagnetically able to be attached.

BASE STATION - The primary sending and receiving site in a wireless Telecommunications network. More than one base station and/or more than one variety of telecommunications providers can be located on a single tower or structure.

BULLETIN 65 - Published by the FCC Office of Engineering and technology specifying radiation levels and methods to determine compliance.

CAMOUFLAGED FACILITY - Any telecommunications facility that is designed to blend into the surrounding environment, such as towers and/or attached equipment designed to look like trees or barn silos, etc.

CHANNEL - The segment of the radiation spectrum from an antenna which carries one signal. An antenna may radiate on many channels simultaneously.

CO-LOCATION - the use of a single mount on the ground by more than one carrier (vertical co-location), and /or several mounts on an existing structure by more than one carrier.

COMMISSION - The Planning and Zoning Commission of the Town of Warren.

DBM - Unit of measure of the power level of an electromagnetic signal expressed in decibels referenced to 1 mili watt (1/1000th watt), correctly written as "dBm".

ELECTROMAGNETICALLY ABLE - The determination that the new signal from and to the proposed new Antennas will not significantly interfere with the existing signals from and to other facilities located on the same Tower or structure as determined by a qualified professional telecommunications engineer. The use of available technologies to

alleviate such interference shall be considered when making this determination.

ELEVATION - The elevation at grade or ground level shall be given in Above Mean Sea Level (AMSL). The height of the wireless service facility shall be given in Above Ground Level (AGL). AGL is a measurement of height from the natural grade at base of the structure to the highest point of the structure. The total elevation of the wireless service facility is AGL plus AMSL.

EMF - Electromagnetic Fields, often expressed in wavelengths or frequencies to indicate their placement on the electromagnetic spectrum. The radio frequencies usually radiate away from their generating source -- hence wireless capability. The radio frequencies are identified between 3 kilohertz to 300 gigahertz and include AM & FM radio, TV, radar, cellular/PCS technologies, emergency fire & police, paging services, and satellite broadcasting among many others. Microwaves are a portion of the radio frequencies.

ENVIRONMENTAL ASSESSMENT (EA) - An EA is the document required by The Federal Communications Commission (FCC) and the National Environmental Policy Act (NEPA) when a wireless communication facility is placed in certain designated areas such as wetlands and sensitive habitats.

ERP - Effective Radiated Power

EQUIPMENT SHELTER - An enclosed structure, cabinet, shed or box located at the Base Station designed principally to house batteries and electrical equipment used in connection with Personal Wireless Service Transmissions.

FACILITY SITE - a property or any part thereof, which is owned or leased by one or more telecommunications providers and upon which one or more telecommunications facility(s) and required landscaping are located. This includes any lot or location, having met all other criteria in this telecommunication facility may be able to provide Adequate Coverage and Adequate Capacity to a significant portion of the Town of Warren.

FALL ZONE - The area on the ground within a prescribed radius from the

base of a wireless communications facility. The fall zone is the area within which there is a potential hazard from falling debris (such as ice) or collapsing material.

FCC – Federal Communications Commission. The government agency Responsible for regulating telecommunications in the United States.

FCC-97-326 - A report and order which sets new national standards for Exposure to radio frequency emissions from FCC-regulated transmitters.

GHZ - Gigahertz. A measure of electromagnetic radiation equaling one Billion hertz.

GRADE OF SERVICE - A measure of the percentage of calls which are able to connect to the Base Station, during the busiest hour of the day. Grade of Service is expressed as a number, such as p.05, which means that 95% of callers will connect on their first try. A lower number (p.04) indicates a better Grade of Service.

HEIGHT OF TOWER - The vertical distance from the highest point of the structure, plus any device attached, to the grade before construction.

HERTZ - One hertz is the frequency of an electric or magnetic field which reverses polarity once each second, or one cycle per second.

LICENSED CARRIER - A company authorized by the FCC to construct and operate a Wireless Communications facility.

LOCATION - References to site location as the exact longitude and latitude, to the nearest tenth of a second, with bearing or orientation referenced to true North.

MAJOR MODIFICATION OF AN EXISTING FACILITY - Any change, or proposed change in power input or output, number of Antennas, change in Antenna(s) type or model, repositioning of Antenna(s), change in number of Channels per Antenna above the maximum number approved under an existing Special Permit.

MAJOR MODIFICATION OF AN EXISTING TOWER - Any increase, or Proposed increase in dimensions of an existing and permitted Tower or other structure designed to support telecommunications

transmission, receiving, and/or relaying antennas, and/or equipment.

MHZ - Megahertz. A measure of electromagnetic radiation equaling one million hertz.

MONITORING - The measurement, by use of instruments in the field, of non-ionizing radiation exposure at a site as a whole, or from individual telecommunications facilities, towers, antennas, or repeaters.

MONITORING PROTOCOL - The testing protocol shall be consistent with the FCC Regulations (Title 47, Part 1, Section 1.1307 referenced as IEEE C95.3 1991), or one substantially similar, including compliance determined in accordance with the National Council on Radiation Protection and Measurements, (Reports 86 and 119) which is to be used to monitor emissions and determine exposure risk from existing and new telecommunications facilities. The Warren Planning and Zoning Commission may, as the technology changes, require by written regulation, the use of other testing protocols. A copy of the Monitoring Protocol shall be on file with the Town Clerk.

MONOPOLE - A single self-supporting vertical pole with no guy wire anchors, usually consisting of a galvanized or other unpainted metal, or a wooden pole with below grade foundations. (See Towers.)

MOUNT - the structure or surface, upon which antennas are mounted, including the following four types of mounts:

ROOF MOUNTED - on the roof of a building

SIDE MOUNTED - on the side of a building

GROUND MOUNTED - mounted on the ground (see Tower)

STRUCTURE MOUNTED - mounted on a structure other than a building.

OMNIDIRECTIONAL (WHIP) ANTENNA - A thin rod that transmits and receives signals in all directions.

PANEL ANTENNA - A flat surface antenna usually developed in multiples.

PERSONAL WIRELESS SERVICES - Commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services. These services include: cellular services, Personal

Communications Systems (PCS), specialized mobile radio services, and paging services.

PERSONAL WIRELESS SERVICE FACILITY - All equipment (including Repeaters) with which a Personal Wireless Service Provider broadcasts and receives the radio frequency waves which carry their services and all locations of said equipment or any part thereof. This Facility may be sited on one or more Towers or structure(s) owned and permitted by another owner or entity.

PERSONAL WIRELESS SERVICE PROVIDER - An entity, licensed by the FCC to provide Personal Wireless Services to individuals or institutions.

RADIAL PLOTS - Radial plots are the result of drawing equally-spaced lines (radials) from the point of an antenna, calculating the expected signal and indicating this graphically on a map. The relative signal strength may be indicated by varying the size or color at each point being studied along the radial; a threshold plot uses a mark to indicate whether that point is strong enough to provide adequate coverage -- i.e. the points meeting the threshold of adequate coverage. The drawback is the concentration of points close to the antenna and the divergence of points far from the site near the ends of the radials.

RADIATED-SIGNAL PROPAGATION STUDIES OR COVERAGE PLOTS - Computer generated estimates of the signal emanating, and prediction of coverage, from antennas or repeaters sited on a specific tower or structure. The height above ground, power input and output, frequency output, type of antenna, antenna gain, topography of the site and its surroundings are all taken into account to create these simulations. They are the primary tool for determining whether a site will provide Adequate Coverage for the telecommunications facility proposed for the site.

RADIO FREQUENCY ENGINEER - An engineer specializing in the design, review, and monitoring of radio frequency technologies.

REGULATED FACILITY, SERVICE, AND/OR SITE - The equipment, towers, mount, antennas and other structures subject to local zoning regulation. This includes all telecommunication services not exempt from local regulation under the provisions of the Connecticut General Statutes and the authority of the Connecticut Siting Council, or not exempt from local regulation pursuant to the

Telecommunications Act of 1996, or other such federal legislation or federal authority.

REPEATER - A small receiver/relay transmitter of not more than 20 watts Output designed to provide service to areas which are not able to receive Adequate Coverage directly from a Base Station.

SECURITY BARRIER - A locked, impenetrable wall, fence or berm that completely seals an area from unauthorized entry or trespass.

SEPARATION - The distance between one carrier's array of antennas and another carrier's array.

STANDING WAVE PHENOMENON - A localized concentration of energy. This can occur for instance when radio frequencies that are supposed to take off into space, concentrate around metal objects instead (metal roofs, certain architectural supports, water towers, guy wires, etc.), creating "RF hot-spots" that exceed federal guidelines.

STRUCTURALLY ABLE - The determination that a Tower or structure is capable of carrying the load imposed by the proposed new Antennas under all reasonably predictable conditions as determined by professional structural engineering analysis.

TELECOMMUNICATIONS FACILITY - All equipment (including repeaters) with which a telecommunications provider broadcasts and receives the radio frequency waves which carry their services and all locations of said equipment or any part thereof. This facility may be sited on one or more towers or structures owned and permitted by another owner or entity.

TELEPORT - A facility utilizing satellite dishes of greater than 2.0 meters in diameter designed to uplink to communications satellites for transmitting in the C-Band (4 - 6 GHz) spectrum.

TILED COVERAGE PLOTS - Tiled plots result from calculating the signal at uniformly spaced locations on a rectangular grid, or tile, of the area of concern. Unlike radial plots, tiled plots provide a uniform distribution of points over an area of interest; usually the same grid will be used as different sites are examined, and it is not necessary that the transmitter site be within the grid or area of interest. As with radial plots, the graphic display or plot can be either signal strength

or adequate threshold. This method requires substantially more topographic data and longer (computer) execution time than radial plots, but is preferable for comparative analysis.

TOWER - A support structure intended to support antennas and associated equipment. This includes:

GUYED TOWER: A monopole tower or lattice tower that is tied to the ground or other surface by diagonal cables.

LATTICE TOWER: A type of mount that is self-supporting with multiple legs and cross bracing of structural steel.

MONOPOLE TOWER: The type of mount that is self-supporting with a single shaft of wood, steel, fiberglass, or concrete, and a platform (or racks) for panel and whip antennas arrayed at the top.

29.4 EXEMPTIONS AND DISALLOWANCES:

The following wireless telecommunications facilities are exempt: police, fire, ambulance and other emergency dispatch; amateur (HAM) radio, citizens band radio; any existing commercial radio tower, and radio dispatch services for local businesses. Also exempt from this regulation are antennas used solely for residential household television and radio reception, and satellite dishes measuring 2 meters or less in diameter. No personal wireless service facility shall be considered exempt from this article for any reason, whether or not said facility is proposed to share a tower or other structure with such exempt uses. Teleports utilizing satellite dishes of greater than 2.0 meters in diameter designed to uplink to communications satellites are not allowed in the Town of Warren. No antennas or telecommunications transmission equipment shall be mounted on, or in, a pre-existing building or structure less than 50 feet in height as defined in the Zoning Regulations (Section 3.2).

29.5 PROVISION FOR HIRING INDEPENDENT CONSULTANTS

A. Due to the complex technical character of the information to be provided by an applicant pursuant to these regulations and the monitoring, testing and inspection of facilities and operation provisions, the Commission shall hire such consultants as it deems reasonably necessary to assist it with such determinations as are to be made by it concerning such matters. Per Town of Warren Ordinance, page 86, Volume 8, dated October 30, 1998, all expenses incurred by the Commission for such services as part of an application process shall be deemed to be part of the application fee and paid by the applicant. All expenses incurred by the Planning and Zoning Commission for such consultation services incurred in performing its monitoring, testing and

inspection shall be paid by the applicant or current permit fee. Any failure to pay such expenses shall constitute a violation of the permit and automatically cause the revocation of the permit and all rights there under.

B. These consultants shall be qualified professionals with an appropriate combination of training, record of service, and/or certification in one of the following fields: a) telecommunications/radio frequency engineering; b) structural engineering; c) assessment of electromagnetic fields; and, if determined by the Commission, d) other fields.

C. Upon submission of a complete application for a special use permit, the Commission will provide its independent consultant(s) with the full application for their analysis and review.

D. Applicants for any special permit shall obtain written permission from the owners of the proposed property(s) or facility(s) site(s) for the town's independent consultant(s) to conduct any necessary site visit(s).

E. Upon submission of a complete application, the independent consultant(s) will provide an estimate for the cost of reviewing the application to the Commission. The Commission will forward this estimate in writing to the applicant. The applicant will pay this fee during the review process, separate from the general application fee, and include this fee as part of the application process. No application will be processed without full payment. In lieu of estimates, the Commission may require the applicant to fund an account which the town may draw upon to insure reimbursement of those fees.

F. The consultants shall work under the direction of the Warren Planning and Zoning Commission. Copies of the consultant's findings and reports shall be made available to the applicant not less than seven (7) days prior to any meeting of the Commission to consider the consultant's report, and the applicant shall be given opportunity to respond to said report in writing and at the next hearing when the consultant's report(s) will be considered.

29.6 FINDINGS OF THE WARREN PLANNING AND ZONING COMMISSION

29.6.1 Special Permits: No tower or telecommunications facility shall be erected, constructed, or installed without first obtaining a special use permit from the Commission. A special use permit is required for: a) new tower construction or major modification of an existing tower(s) or

repeater(s), b) telecommunications facilities or major modification of existing facilities, to be mounted on a tower or structure.

29.6.2 Applicable Regulations: In acting on the special permit application, the Commission will proceed in accordance with Section 31 of the Warren Planning and Zoning regulations for special permits.

29.6.3 Findings by the Commission: The applicant shall comply with the requirements set forth in Section 29.5 to 29.15.2, inclusive, and shall provide all information reasonably required for review by the Commission. The Commission shall, in consultation with independent consultants, make all of the following applicable findings before granting the special permit.

A. Applicant is not already providing Adequate Coverage and/or Adequate Capacity to the Town of Warren, abutting towns, and within a 30-mile radius.

B. Applicant is not able to use an existing tower/facility, either within or outside of Warren, either with or without the use of Repeaters, to provide Adequate Coverage and/or Adequate Capacity to the Town of Warren, abutting towns, and within a 30-mile radius.

C. Applicant has endeavored to provide Adequate Coverage and Adequate Capacity to the Town of Warren, abutting towns, and within a 30-mile radius with the least number of towers and antennas which is technically and economically feasible.

D. Efforts have been made to locate new towers adjacent to existing towers.

E. Applicant has agreed to rent or lease available space on the tower under the terms of fair-market lease, with reasonable conditions and without discrimination to other telecommunications providers.

F. Proposed telecommunications facility(s) or tower(s) should make use of available municipal lands if those lands conform to appropriate setbacks for this regulation, and where visual impact can be minimized.

G. The proposal shall comply with rules as adopted in FCC-97-326 and procedures outlined in FCC Bulletin 65 regarding emissions and exposure to electromagnetic radiation, and that the required monitoring program shall be paid for by the applicant.

H. Towers and telecommunications facilities shall be located so as to minimize the following potential impacts:

1. Visual/Aesthetic: Unless adequate coverage and adequate capacity cannot otherwise be achieved, towers shall be sited off ridgelines, and where their visual impact is least detrimental to highly rated scenic areas such as, but not limited to, those sites designated as scenic in the Warren Plan of Development. In determining whether or not a tower will have an undue adverse visual impact on the scenic or natural

beauty of a ridge or hillside, the Commission shall consider, but not be limited to:

- a. The period of time, and the frequency of viewing, during which the proposed tower would be seen by the traveling public on a public highway.
 - b. The degree to which the tower is screened by topographic features;
 - c. Background features in the line of sight to the proposed tower that obscures the facility or make it more conspicuous;
 - d. The distance of the proposed tower from the viewing vantage point and the proportion of the facility that is visible above the skyline:
 - e. The number of vehicles traveling on a public highway or waterway at or near the critical vantage point;
 - f. The sensitivity or unique value of the particular view affected by the proposed development.
2. Devaluation of property. Siting shall be in as low population density areas as possible.
 3. Safety hazards: In cases of structural failure, ice accumulation and discharge, and attractive nuisance.
 4. Electromagnetic radiation: In case the tower, guy wires, or telecommunications facility is found to exceed the FCC guidelines.

29.6.4 Documentation of Denial: Any decision of the Warren Planning and Zoning Commission to deny an application for a special permit under this regulation shall be in conformance with 47 U.S.C.#332(7) (B) (iii) of the Telecommunications Act of 1996, in that it shall be in writing and supported by substantial evidence contained in a written record.

29.7 GENERAL PROJECT/SITE REQUIREMENTS

29.7.1 Applicants: If the applicant is not the landowner, the landowner will be considered a co-applicant and must submit the required documentation under section 31.9.5 of these regulations.

29.7.2 Access Roads and Underground Utilities: Where new telecommunications towers and facilities require construction of or improvements to access roads, to the extent practicable roads shall follow the contour of the land and be constructed or improved within existing forest fringe areas, and not in open fields. Utility or service lines shall be buried underground. The Commission shall request input from the Chiefs (or their designees) of Fire, Police, and other Emergency services regarding the adequacy of emergency access for the planned drive or

roadway to the site. The Commission may waive the underground requirement at its discretion.

29.7.3 Landscaping/Screening: Screening shall be required at the perimeter of the site. If the tower or facility site is in a wooded area, a natural vegetated buffer strip of undisturbed trees shall be retained for at least 100' in depth, and at least 15' in height at all times around the perimeter, and only minimally disturbed where the access drive is located. If the tower or facility site is not in a wooded area, a vegetated barrier at least 50' deep by 10' high around the perimeter shall be planted by the applicant. It shall be of a type that has the potential to reach a height of at least 15 feet at maturity. Existing vegetation surrounding the site shall be preserved and maintained to the greatest extent possible. All landscaping shall be properly maintained to ensure its good health and viability at the expense of the owner(s). All areas disturbed during project construction shall be replanted with vegetation. Applicant shall obtain a financial surety (to be determined by the Commission) to cover the cost of the remediation on any damage to the landscape which occurs during the clearing of the site. The Commission may require landscaping in excess of any written requirements as is deemed reasonably necessary in order to enhance compatibility with adjacent residential and non-residential land uses.

29.7.4 Fencing and Signs: The area around the tower and communication equipment shelter(s) shall be completely fenced for security to a height of not less than 8' or more than 12', and gated. Use of razor wire is not permitted. A sign of no greater than two (2) square feet indicating the name of the facility owner(s) and a 24-hour emergency telephone number, either local or toll-free, shall be posted adjacent to the entry gate. In addition, No Trespassing or other warning signs, and the federal registration plate (where applicable) shall be posted on the fence or as required to meet federal requirements.

29.7.5 Building Design: Communication equipment shelters and accessory buildings shall be designed to be architecturally similar and compatible with each other, and shall be no more than 12' high or 750 square feet. The buildings shall be used only for the housing of equipment related to this particular site. Whenever possible, the buildings shall be joined or clustered so as to appear as one building. Buildings and related structures shall use materials and textures that will blend them into the natural setting to minimize the visual impact. Buildings shall be finished or painted in stealth or neutral color tones.

29.7.6 Height of Towers: New Towers shall not exceed the minimum height necessary to provide adequate coverage for the telecommunications facilities proposed for use on the tower. Applicant may submit a request for additional height to accommodate future sharing, and shall provide design information to justify such additional height. In no event shall towers exceed 150' measured from the grade at the base of the tower before construction to the highest point shown on the Facility Plan. The Commission will hire an Independent Consultant to verify Adequate Coverage and justify tower height.

29.7.7 Tower Finish: New Tower(s) shall have a galvanized finish unless otherwise required by the Commission. The Commission may require the tower(s) to be painted or otherwise camouflaged to minimize the adverse visual impact.

29.7.8 Tower Sharing/Camouflaging: Tower(s) must be of a structural type that will maximize potential sharing. Monopoles with flush-mounted antennas are preferred. Applicant must demonstrate the future utility of such structure for expansion of service for applicant and other future applicants.

The Commission reserves the right to require stealth designs such as towers made to resemble trees or other structures.

29.7.9 Use of Repeaters: The applicant shall demonstrate that it is not reasonably able to assure adequate coverage or to create adequate coverage in the Town of Warren, abutting towns, and within a 30-mile radius from base stations located in other towns or to fill holes within the area of otherwise adequate coverage by use of repeaters. Site Plan review before the Commission shall be required. Applicants shall detail the number, location, power output, and coverage of any proposed Repeaters in their systems and provide engineering data to justify their use.

29.7.10 Commercial Advertising: Commercial advertising shall not be allowed on any antenna, tower, or accessory building or communications equipment shelter.

29.7.11 Lighting: No external lighting is permitted, except for manually operated emergency lights for use only when operating personnel are on site.

29.7.12 Noise: Noise-producing equipment, including generators, shall be sited and/or insulated to guarantee that no increase in noise above ambient levels measured at the property line occurs.

29.7.13 Air Navigation: No tower or telecommunications facility that would be classified as a hazard to air navigation, as defined by the Federal Aviation Regulations (Title 14 CFR) is permitted.

29.7.14 Lot Size/Setback Requirements: Tower setbacks shall be measured from the base of the tower (unless guy-wired) to the nearest point along each property line of the parcel on which it is located.

A. The minimum lot size for any telecommunications tower(s) or facilities shall be 10 acres.

B. No Repeater shall be closer than 200' to a dwelling unit measured at ground level, nor less than 35' above the ground.

C. Where guy wire supports are used, setbacks will begin at the base of the guy wire anchor (d) to the ground, not at the base of the tower.

D. No telecommunications facility or tower, including guy-wire anchors and protective fencing, if any, shall be located:

1. Closer than 1,500' horizontally to any structure existing at the time of application which is used as a primary or secondary residence; to the property of any school (both public and private); to any church; or to any other public building. Primary or secondary residences are those dwelling units that include toilet facilities, and facilities for food preparation and sleeping.

2. Closer than 1500 feet horizontally to any boundary line of the property upon which the tower(s) or facilities are located except, this restriction may be reduced to 200' if the applicant has obtained an easement from the owners of all properties located within 1500', precluding such owners, their heirs successors, administrators and assignees from locating any structure used for a primary or secondary residence, private or public school, church or other public structures within 1500' of such towers or facility.

3. Within the habitat of any state-listed rare or endangered wildlife or species.

4. Within 300' horizontally of any Warren, State of Connecticut, or Federally regulated wetlands.

5. Within 300' of the outer riparian zone measured horizontally from any river or perennial stream.

6. Within 1500' of any historic building or property listed, or Capable of being listed, on the State or Federal Register of Historic Places.

7. Within 500' horizontally of any known archaeological site.

(The Commission may consult the State Archaeologist as to the Archaeology significance of any proposed site.)

8. The Fall Zones for guy wire towers shall be at least 4 times the tower height; and for non-guyed towers, 2 and one half times the tower height.

9. In reviewing special permit applications, the Commission may allow the Fall Zones to extend within a neighboring property if it finds that a substantially better design will result from such a reduction. Such neighboring property shall not be developed and will be subject to a legally binding agreement, secured by the applicant, preventing development during the time the tower is in place.

10. Antennas or transmission equipment mounted on or in pre-existing buildings shall be a minimum of 50 feet above ground level. No antennas or transmission equipment shall be mounted on, or in, pre-existing nonconforming buildings unless those buildings fit the general criteria specified herein. Accessory equipment buildings and applications shall follow regulations below in Sections 29.8 inclusive; and 29.9 inclusive: 29.9.6; 29.9.6.1; 29.9.6.2; 29.9.6.3; 29.9.6.4 A-I; 29.9.6.5 A-H; 29.9.6.6 A-B; 29.9.6.7 A-H.

11. The Commission by a simple majority vote of the seated members may modify or waive in whole or in part any of the requirements as set forth in this section. The Commission shall make a finding that the waiver sought is the minimum required to construct the required tower at the proposed location and that there are no feasible and prudent alternatives available. The Commission shall state on the record the reason or reasons for granting the waiver or modification.

29.8 GENERAL APPLICATION REQUIREMENTS AND REQUIRED DOCUMENTATION:

The following shall be required in all applications:

29.8.1 Contract with Provider: Applicants for a telecommunications tower or facility special use permit must be a telecommunications provider, and/or must provide a copy of its lease/contract with an existing telecommunications provider. A special use permit will not be granted for a tower/facility to be built on speculation. Copies of all lease/contracts must be provided with the application. The applicant will also provide copies of any applications in other towns within a 10 mile radius of the proposed site. The Commission may submit this copy to any other host town for review and comment.

29.8.2 Appropriate Signatures/Contacts: All applications shall require that the landowners, if separate from the tower owners and/or service

providers, be co-applicants. Required documents include 1 each displaying original signature(s), and 5 photocopies. The following shall be provided:

- A.** Signature(s) of landowner(s), applicant(s), tower owner(s).
- B.** An affidavit from the owner of the property acknowledging responsibility for the removal of a tower or facility that is deemed "abandoned" or unsafe by the Commission, or is in violation of this section, or whose permit has expired and has not been renewed by the Commission.
- C.** Landowners shall also provide an affidavit expressing written consent for co-application, and copies of any and all leases or other agreements with tower owners, applicant(s) or other service providers.
- D.** Contacts: The applicant shall submit the exact legal name, address or principal place of business and phone number of the following:
 - i.** Applicant. If any applicant is not a natural person, it shall also give the type of business entity and the state in which it is registered. If any applicant is a corporation, trust, association, or other organized group or legal entity, it shall also provide the state under which it was created or organized and the date of such creation.
 - ii.** Person to whom correspondence or communications in regard to the application are to be sent. Notice, orders and other papers may be served upon the person so named, and service shall be deemed to be service upon the applicant.
 - iii.** Person to be contacted in the event of an emergency involving the facility. This should be someone available on a 24-hour basis that is authorized by the applicant to act on behalf of the applicant regarding an emergency situation.
 - iv.** Owner of the property on which the proposed tower shall be located and of the owner(s) of the tower on which the proposed facility shall be located. Written permission of the owner(s) to apply for the special use permit on the proposed property or facility site(s) for the town's independent consultant(s) to conduct any necessary site visit(s).
 - v.** Identification, address, phone number and contact person for each proposed service provider who might be named as an applicant, in addition to the landowner.

E. The names and address of the record owners of all abutting properties.

29.8.3 Evidence of Need:

A. Existing Coverage: Applicant shall provide written documentation demonstrating that existing telecommunications facility sites in Warren, in abutting towns, and within a 30-mile radius of the proposed site cannot reasonable be made to provide Adequate Coverage and/or Adequate Capacity to the Town of Warren. The documentation shall include, for each facility site listed which is owned or operated by the applicant, the exact location (in longitude and latitude, to degrees, minutes and seconds to be nearest tenth of a second), ground elevation, height of the tower or facility, type of antennas, antenna gain, height of antennas on tower(s), output frequency, number of channels, power output and maximum power output per channel. Potential adjustments to these existing facility sites, (including changes in antenna type), orientation, gain, height or power output shall be specified. Radial or tiled coverage plots showing each of these facility sites, as they exist, and with adjustments as above, shall be provided as part of the application.

B. Repeater: Applicant shall demonstrate with written documentation that they have analyzed the feasibility of repeaters in conjunction with all facility sites listed in compliance with 29.8.2A (above) to provide Adequate Coverage and/or Adequate Capacity to the Town of Warren. Radial or tiled coverage plots of all repeaters considered for use in conjunction with these facility sites shall be provided as part of the application.

C. Indirect Service: Applicant shall demonstrate which portion of a tower or facility and which antennas, if any, are to reduce or eliminate reliance on land-lines, or otherwise provide communications capability to the applicant, as opposed to providing direct service to customers. Such provision of indirect service may be considered if reasonable alternatives are not available and the overall effect is consistent with the purposes set forth in Section 29.1 of this regulation.

D. Five Year Plan: All applications shall be accompanied by a written five-year plan for the utilization of the proposed facilities. This plan should include justification for capacity in

excess of immediate needs, as well as plans for any further development within the Town of Warren.

E. The applicant shall further demonstrate with written documentation that it has investigated all available "state of the art" alternative technologies which might be effectively employed to provide Adequate Coverage and/or Adequate Capacity to the Town of Warren in lieu of its proposed facility.

29.9 REQUIRED LEGAL AND TECHNICAL DOCUMENTATION: The following documents are required in all applications:

29.9.1 Federal/State Permits: Applicant shall submit copies of all pertinent submittals and showings pertaining to: FCC permitting/licensing; Environmental Assessments and Environmental Impact Statements; FAA Notice of Construction or Alteration; Aeronautical Studies; all pertinent data, assumptions and calculations relating to service coverage; and all pertinent calculations and/or measurements data related to non-ionizing radiation emissions and exposure, regardless of whether categorical exemption from routine environmental evaluation under the FCC rules is claimed. Copies of all information submitted in compliance with requirements of the Connecticut State Siting Council and the Connecticut Department of Public Utilities shall also be submitted.

29.9.2 Surety: Details of proposed method of financial surety as required in Section 29.7.3 (Landscaping/Screening), 29.16 (Abandonment), 29.17 (Duty of Remove) and 29.18 (Failure to Remove) of these regulations.

29.9.3 Commitment to Available Space: Applicants for new tower construction or modification permits shall provide a written, irrevocable commitment valid for the duration of the existence of the tower, to rent or lease available space for co-location on the tower at fair market prices and terms, without discrimination to other telecommunications providers.

29.9.4 Lease of Tower: Applicants for a special use permit for a facility to be installed on an existing tower or structure shall provide a copy of its lease/contract with the owner of the existing structure.

29.9.5 Applications/Plans for Other Facility Sites: Applicants shall submit any applications or plans for other facility sites within a 10-mile radius of the Town of Warren. Applicants shall submit any existing facility sites within a 30-mile radius of the Town of Warren.

29.9.6 Site Plans and Maps: Required are physical plant plans, prepared, stamped and signed by a professional engineer. Survey plans shall be stamped and signed by a land surveyor registered in Connecticut. Signal propagation and radio frequency studies, plots and related material shall be prepared, clearly identified and signed by a qualified radio frequency engineer. Power density calculations shall be in accordance with "worst case" formulas in the Office of Engineering and Technology (FCC Bulletin 65, August 1997). Radial plots shall be in bright colors, showing clear demarcations between signals strengths.

Plans shall be on 24" x 36" sheets, on as many sheets as necessary, and at scales which are no smaller (i.e. no less precise) than listed below. Each plan sheet shall have a title block indicating the project title, sheet title, sheet number, date, revision dates, scale(s), and original seal(s) and signature(s) of the professional(s) who prepared the plan. Proposed site plans (include 5 copies) require the following:

29.9.6.1 Location Map: Copy of a portion of the most recent U.S.G.S. Quadrangle Map, at a scale of 1:25:000, and showing the area within at least two miles from the proposed tower site. Indicate the tower location and the exact latitude and longitude (degrees, minutes, and seconds to the nearest tenth).

29.9.6.2 Vicinity Map at a scale of 1" = 416' (1:5000) with contour intervals no greater than 10 feet (3 meters) showing the entire vicinity within 2500' radius of the tower site, and including the topography, public and private roads and driveways, buildings and structures, bodies of water, wetlands, landscape features, historic and archaeological sites, and habitats for endangered or threatened species. Indicate the property lines of the proposed tower site parcel and of all abutters to the tower site parcel (from assessor's maps or available surveys). Indicate any access easement or right of way needed for access from a public way to the tower and/or facility site, and the names of all abutters or property owners along the access easement or who have deeded rights to the easement. Locate all residential or commercial structures, schools, churches, or public buildings within 1750' of the proposed Base of the Tower or facility.

29.9.6.3 Existing Conditions Plan: A recent survey of the area within 500' of the tower site at a scale no smaller than 1" = 40' with topography drawn with a minimum of 2' contour intervals, showing existing utilities, property lines, existing buildings or structures, stone walls or fence lines, wooded areas, existing water wells and springs, individual trees with diameters greater than 12" within a 200' radius from the base of the proposed tower (labeled with their current heights). Show the boundary of any wetlands or floodplains or watercourses, and of any bodies of water included in the

Watershed Protection District within 500' from the tower or any related facilities or access ways, or appurtenances. The survey must have been completed, on the ground, by a land surveyor registered in Connecticut within two years prior to the application date.

29.9.6.4 Proposed Site Plan: Proposed facility site layout, grading and utilities at the same scale or larger than the Existing Conditions Plan (above).

A. Proposed tower location and any appurtenances, including supports and guy wires, if any, and any accessory building (communication equipment shelter or other). Indicate property boundaries and setback distances to the base(s) of the tower and to the nearest corners of each of the appurtenant structures to those boundaries, and dimensions of all proposed improvements. Where protective fencing is proposed, indicate setback distances from the edge of the fencing.

B. Indicate proposed spot elevations at the base of the proposed tower and at the base of any guy wires, and the corners of all appurtenant structures.

C. Proposed utilities, including distance from source of power, sizes of service available and required, locations of any proposed utility or communication lines, and exact locations of the underground route. Detailed plans for emergency power generation including:

- i.** Demonstration of percent of electrical demand being proposed in event of loss of commercial power.
- ii.** Type of fuel, storage method and expected means and frequency of fuel delivery to the site for power generation.
- iii.** Amount of generator time based on historic power reliability for the area of the facility, proposed frequency and duration of tests, and description of muffler system and methods for noise abatement.
- iv.** Feasibility of wind and/or solar power in conjunction with storage batteries.

D. Limits of areas where vegetation is to be cleared or altered, and justification for any such clearing or alteration.

E. Any direct or indirect wetlands alteration proposed.

F. Detailed plans for drainage of surface and/or sub-surface water; plans to control erosion and sedimentation both during construction and as a permanent measure.

G. Plans indicating locations and specifics of proposed screening, landscaping, ground cover, fencing, etc.; any exterior lighting or signs.

H. Plans of proposed access driveway or roadway and parking area at the tower site. Include grading, drainage, and traveled width.

Include a cross section of the access drive indicating the width, depth of gravel, paving or surface materials.

I. Plans showing any changes to be made to an existing facility's landscaping, screening, fencing, lighting, drainage, wetlands, grading, driveways or roadways, parking or other infrastructure as a result of a proposed modification of the facility.

29.9.6.5 Proposed Tower and Appurtenances Plan: (include 5 copies)

A. Plans, elevations, sections and details at appropriate scales but no smaller than 1" = 10'.

B. Two cross sections through proposed towers drawn at right angles to each other, and showing the ground profile to at least 100 feet beyond the limit of clearing, and showing any guy wires or supports. Dimension of the proposed height of tower above average grade at tower base. Show all proposed antennas, including their location on the tower or mounted on, or in, a pre-existing building.

C. Details of proposed tower foundation, including cross sections and details. Show all ground attachments, specifications for anchor bolts and other anchoring hardware.

D. Detail proposed finish of the tower.

E. Indicate relative height of the tower to the tops of surrounding trees as they presently exist, and the height to which they are expected to grow in ten years.

F. Illustration of the modular structure of the proposed tower indicating the heights of sections which could be removed or added in the future to adapt to changing communications conditions or demands.

G. A professional structural engineer's written description of the proposed tower structure and its capacity to support additional antennas or other communications facilities at different heights and the ability of the tower to be shortened if future communications facilities no longer require original height.

H. A description of available space on the tower, providing illustrations and examples of the type and number of telecommunications facilities which could be mounted on the structure.

29.9.6.6 Proposed Communications Equipment Shelter Plan:

A. Floor plans, elevations, and cross sections at a scale no smaller than 1/4" = 1' of any proposed appurtenant structure.

B. Representative elevation views, indicating the roof, facades, doors and other exterior appearance and materials.

29.9.6.7 Proposed Equipment Plan:

A. Plans, elevations, sections and details at appropriate scale, but no smaller than 1" = 10'.

B. Number of antennas and repeaters, as well as the exact locations of antennas and of all repeaters (if any) located on a map as well as by degrees, minutes and seconds to the nearest tenth of latitude and longitude.

C. Mounting locations on tower or structure, including height above ground.

D. A recent survey of the facility site at a scale no smaller than 1" = 40' showing horizontal and radial distances of antenna(s) to nearest point on property line, and to the nearest dwelling unit.

E. Antenna(s) types, manufacturer(s), model number(s).

F. For each antenna, the antenna gain, and antenna radiation pattern.

G. Number of channels per antenna, projected and maximum.

H. Power input to the antenna(s).

I. Power output, in normal use and at maximum output for each antenna and all antennas as an aggregate.

J. Output frequency of the transmitter(s).

K. For modification of an existing facility with multiple emitters, the results of an intermodulation study to predict the interaction of the additional equipment with existing equipment.

29.9.6.8 Visibility Maps/Sight Lines:

A. A minimum of eight (8) view lines in a zero (0) to two (2) mile radius from the site, shown beginning at True North and continuing clockwise at forty-five degree intervals.

B. Applicant shall utilize the U.S.G.S. Quadrangle map, at a scale of 1" = 400', with vertical scale of 1" = 40'. Trees shall be shown at existing heights and at projected heights in ten years.

C. A map of the Town of Warren on which any visibility of the proposed tower from a public way (including all existing public rights of way), shall be indicated.

29.9.7 Balloon Tests: Within 35 days of submitting an application, the applicant shall arrange to fly, or rise upon a temporary mast, a three foot diameter brightly colored balloon at the maximum height of the tower and within 50 horizontal feet of the center of the proposed tower. The dates (including a second date, in case of poor visibility on the initial date), times and location of this balloon test shall be advertised by the applicant at 7 and 14 days in advance of the first test date. Such notice will be printed in a newspaper with a general circulation in the Town of Warren such as The Waterbury Republican/American, and the Litchfield County Times. The applicant shall inform the Commission, the Board of

Selectmen, and all abutting property owners, in writing, of the dates and times of the test, at least 14 days in advance. The balloon shall be flown for at least four consecutive hours sometime between 9:00 AM and 5:00 PM on the dates chosen. Balloon tests are not required for antennas mounted inside pre-existing buildings but may be required for antennas that exceed roof height. The Commission may waive this requirement at its discretion.

29.9.8 Visual Analysis: The applicant shall develop and submit a written analysis of the visual impact of the proposed tower. This analysis shall include photographs of the balloon test taken from at least 10 different perspectives within the Town of Warren.

29.10 MONITORING AND EVALUATION OF COMPLIANCE: The Warren Planning and Zoning Commission, and the Zoning Enforcement Officer shall have authority over the hiring of independent engineers to enforce monitoring and compliance with this section.

29.10.1 Monitoring Protocol: The Commission will consult with an independent engineer regarding the choice of a monitoring protocol to be used. This may include The FCC OET Bulletin 65, Edition 97-01, August 1997, referenced in FCC Regulations, Title 47, Part 1, Section 1.1307 as IEEE C95.3 1991, or any other protocol that the Commission adopts as the technology changes. The same protocol will be used from year to year until such time as new protocols are developed.

29.10.2 Pre-Testing: After the granting of a special permit and before the facility begins transmission, the applicant shall pay for an independent consultant RF engineer, chosen and hired by the Commission, to monitor the background levels of EMF radiation around the proposed facility site and at appropriate distances from it, and/or at any repeater locations to be utilized for the applicant's wireless facilities. The independent consultant shall use the specified monitoring protocol. A report of the monitoring results shall be prepared by the independent consultant and submitted to the Board of Selectmen, the Planning and Zoning Commission, the Building Inspector, and the Town Clerk.

29.10.3 Post-Testing: Within 30 days after transmission begins, the owner(s) of any wireless services located on the tower/facility site shall pay for an independent consultant RF engineer, chosen and hired by the Commission, to conduct testing and monitoring of EMF/RF radiation emitted from said site, and to report results of said monitoring as follows:

A. There shall be routine annual monitoring of emissions by the independent RF engineer using actual field measurements of radiation, utilizing the monitoring protocol. This monitoring shall measure levels of EMF/RF radiation from the facility site's primary antennas as well as from repeaters (if any). A report of the monitoring results shall be prepared by the RF engineer and submitted to the Board of Selectmen, the Planning and Zoning Commission, the Building Inspector, and the Town Clerk.

B. Any Major Modification of an existing facility, or the activation of any additional permitted channels, shall require new monitoring.

29.10.4 Excessive Emissions: Should the monitoring of a facility site reveal that the site exceeds the current FCC standards and guidelines, the FCC and the owner(s) of all facilities utilizing the site shall be notified. In accordance with FCC requirements, the owner(s) must immediately reduce power or cease operation as necessary to protect persons having access to the site, tower, or antennas. In addition, the owner(s) shall submit to the Commission and the Building Inspector any analysis or communication submitted to the FCC regarding what caused the problem and a plan for the reduction of emissions to a level that complies with the FCC standards within 10 business days of non-compliance. Failure to accomplish this reduction of emissions within 15 business days of initial notification of non-compliance shall be considered a Zoning Violation subject to fines and such other remedies as are otherwise available to the Town, Commission or ZEO pursuant to Connecticut General Statutes. Such fines shall be payable by those providers with antennas on the facility site, until compliance is achieved.

29.10.5 Structural Inspection: Tower owner(s) shall pay for an independent consultant, a licensed structural engineer chosen and hired by the Commission, to conduct inspections of the tower's structural integrity and safety. This includes antennas mounted on, or in, pre-existing structures. Pre-existing mounts shall be inspected every three years. Guyed towers shall be inspected every three years. Monopoles and non-guyed lattice towers shall be inspected every five years. A report of the inspection results shall be prepared by the independent consultant and submitted to the Board of Selectmen, the Warren Planning and Zoning Commission, the Building Inspector, and the Town Clerk. Any major modification of an existing facility which includes changes to the tower dimensions or antenna numbers or type shall require a new structural inspection.

29.10.6 Unsafe Structure: Should the inspection of any tower or facility reveal any structural defect(s) which, in the opinion of the independent consultant renders that tower or facility unsafe, the following actions must be taken: Within 10 business days of notification of unsafe structure, the

owner(s) of the tower or facility shall submit a plan to remediate the structural defect(s). This plan shall be submitted within 10 business days of the submission of the remediation plan, and completed as soon as reasonably possible. Failure to accomplish this remediation of structural defect(s) within 10 business days of initial notification shall be a Zoning Violation subject to fines. Such fines shall be payable by the owner(s) of the tower or facility until compliance is achieved.

29.11 CO-LOCATION AND TOWN SERVICES: Licensed carriers shall share facilities and sites with other licensed carriers where feasible, thereby reducing the number of stand-alone facilities. The conversion of a single-use facility to a co-location shall be considered a modification. The Commission may require as a condition of approval of the special permit that the tower/facility owners dedicate a space on the facility for the Town of Warren's municipal emergency services for public health and safety purposes. Any such dedications and/or improvements to existing emergency services will be negotiated prior to approval of the special permit.

29.12 SEPARATION OF TOWERS: Separation distances between communications towers shall be applicable for and measured between the proposed tower and those towers that are existing and/or have received special permit approval. The separation distances shall be measured by drawing a straight line between the base of the existing tower and the base of the proposed tower pursuant to the site plan. The separation distance (listed in linear feet) shall be as follows:

- A. Lattice - 5000 linear feet
- B. Guyed - 5000 linear feet
- C. Monopole (150' in height) - 3,500 linear feet
- D. Monopole (80' to 150' in height) - 2,500 linear feet
- E. Monopole (less than 80' in height) - 500 linear feet

The separation distances listed above may be modified by the Commission depending on other site criteria in co-locations.

29.13 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): NEPA applies to all applications for wireless communications facilities. NEPA is administered by the FCC via procedures adopted as Subpart 1, Section 1.1301 et seq. (47CRF ChI). The FCC requires that an environmental assessment (EA) be filed with the FCC prior to beginning operations for any wireless communications facility proposed in, or involving, any of the following:

- A. Wilderness areas
- B. Wildlife preserves

- C. Endangered species habitat
- D. Historical site
- E. Indian religious site
- F. Flood plain
- G. Wetlands
- H. High intensity white lights in residential neighborhoods
- I. Excessive radio frequency radiation exposure.

29.13.1 At the time of application, an Environmental Assessment that meets FCC requirements shall be submitted to the Commission for each regulated facility site that requires such an environmental assessment to be submitted to the FCC.

29.13.2 The applicant shall identify and assess the impact of the proposed facility on areas recommended for conservation in the Warren Plan of Development, as well as the state plan of conservation and development.

29.13.3 The applicant will also list the location, type, and amount (including trace elements) of any materials proposed for use within the facility that are considered hazardous by federal, state, or local governments.

29.14 FEE SCHEDULE AND BONDING:

Per Town of Warren Ordinance, page 86, Volume 8, dated October 30, 1998, fee schedules and bonds will be set by the Zoning Commission.

29.14.1 Application Fees: Upon submission of signed application that meets all of the criteria herein described, including all supporting documents and maps, an application fee shall be submitted to the Town of Warren in the amount of \$3500.00.

29.14.2 Financial Surety: As a condition of approval of a Special Permit, the applicant shall provide a separate Demolition Bond in an amount determined and approved by the Commission. The bond shall be for a duration, and in a form and manner of surety as determined by the Commission, with provision for inspection and town removal of facilities in the event of failure to perform by the responsible parties as defined in Section 29.17 (Duty of Remove).

29.14.3 Performance Bonds: The Commission will require additional Performance Bonding, payable at the time of application, as deemed necessary to protect facility building site(s) during construction; and to hire

independent consultants/engineers to review applications and monitor facilities.

29.14.4 Independent Consultants Fees: At the time of application, the Commission may require a separate escrow fund, in an amount to be determined, to cover independent consultant's fees.

29.15 INSURANCE AND INDEMNIFICATION:

29.15.1 Insurance: The town of Warren shall not enter into any lease agreement, or otherwise authorize a tower site or facility by any telecommunications service provider until and unless the town obtains assurance that such operator (and those acting on its behalf) has adequate insurance as determined by the Commission. At a minimum, the following insurance requirements shall be satisfied:

- A.** A telecommunications facility operator shall not commence construction or operation of the facility without obtaining all insurance required under this section and approval of such insurance by the Commission, nor shall a telecommunications facility operator allow any contractor or subcontractor to commence work on its contract until all similar such insurance required of the same has been obtained and approved by the Commission. The required insurance must be obtained and maintained for the entire period the telecommunications facility is in existence. If the operator, its contractors or subcontractors do not have the required insurance, the town will order such entities to cease operation of the facility until such insurance is obtained and approved by the Commission.
- B.** Certificate(s) of insurance verifying such insurance shall be filed with the Commission at the time of application. For entities that are entering the market, the certificate(s) shall be filed prior to the commencement of construction and once a year thereafter, and as provided below in the event of a lapse of coverage. Such certificate(s) should provide the name, address and phone number of the insurance carrier; and identify an agent in case of inquiries.
- C.** The certificate(s) of insurance shall contain a provision that coverage's afforded under such policies shall not be canceled until at least thirty (30) days prior written notice has been given to the town. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Connecticut.
- D.** Where applicable, in the event that the insurance certificate(s) provided indicates that the insurance will terminate or lapse during

the term of the lease agreement with the town, then in that event the telecommunications facility(s) operator shall furnish a renewed certificate of insurance as proof that equal and like coverage remains in effect for the balance of the lease term, at least thirty (30) days prior to the expiration of the date of such insurance.

E. A telecommunications facility operator and its contractors or subcontractors engaged in work on the operator's behalf, shall maintain minimum insurance in the amounts determined by the Commission to cover liability, bodily injury, and property damage.

The insurance shall cover, but not be limited to, the following exposures: premises, operations, and certain contracts. Such coverage shall be written on an occurrence basis and shall also be required under any lease agreement between the town and the telecommunications facility operator.

29.15.2 Indemnification: The town shall not enter into any lease agreement or otherwise authorize tower siting by a telecommunications service provider until and unless the town obtains an adequate indemnification from such provider. This indemnification must at least:

A. Release the Town of Warren from, and against, any and all liability and responsibility in or arising out of the construction, operation or repair of the telecommunications facility. Each telecommunications facility operator must further agree not to sue or seek any monies or damages from the town in connection with the above mentioned matter.

B. Indemnify and hold harmless the Town of Warren, its elected and appointed officers, agents, servants, and employees, from and against any and all claims, demands, or causes of action whatsoever kind of nature, and the resulting losses, costs, expenses, reasonable attorney's fees', liabilities, damages, orders, judgments or decrees, sustained by the town or any third party arising out of, or by any reason of, or resulting from, or out of each telecommunications facility(s) operator's, agent's, employee's, or servant's negligent acts, errors, or omissions.

C. Provide that the covenants and representations relating to the indemnification provision shall survive the term of any agreement and continue in force and effect as to the responsibility of the party to indemnify.

29.16 ABANDONMENT AND DISCONTINUATION OF USE: Any telecommunications facility which ceases to operate for six (6) consecutive months shall be deemed to be abandoned and removed within ninety (90) days. "Cease to operate" is defined as not performing

the normal functions associated with a telecommunications facility and its equipment on a continuous and on-going basis for a period of six (6) consecutive months. Determination of the date of abandonment shall be made by the Zoning Enforcement Officer who shall have the right to request documentation and/or affidavits from the telecommunications tower owner/operator/service provider(s) regarding the subject of tower usage. Failure or refusal for any reason by the owner/operator/service provider(s) to respond within twenty (20) days to such a request shall constitute prima facie evidence that the communications tower has been abandoned.

Upon a determination of abandonment and notice thereof to the owner/operator/service provider(s), the owner(s) and all others listed as responsible parties in 16.17. (Below), shall remove the tower and all facilities, and remediate the site within 90 days. At the time of removal, the facility site shall be remediated such that all telecommunications facility improvements which have ceased to be utilized are removed. If all facilities on a tower have ceased to operate, the tower shall also be removed, and the site shall be revegetated. Existing trees shall only be removed if necessary to complete the required removal.

Applicant shall, as a condition of the special use permit, provide a financial surety bond payable to the Town of Warren and acceptable to the Commission to cover the cost of removal of the telecommunications facility, and the remediation of the landscape, should the facility cease to operate. (See 16.14 Fee Schedule/Bonding.) Any Special Permit granted for the facility will automatically expire.

29.17 DUTY TO REMOVE: The following are considered jointly and severally to be the responsible parties for tower/facility removal and site remediation:

- A.** The owner of the abandoned tower (and if different, the operator of the abandoned tower.)
- B.** The owner of the land upon which the abandoned tower is located.
- C.** The lessee, if any, of the land upon which the tower is located.
- D.** The sub lessee or sub lessees, if any, of the land upon which the tower is located.
- E.** Any communications service provider who, or which, by ceasing to utilize the tower or otherwise failing to operate any of its transmitters or antennas on the tower for which it leased space or purchased the right to space on the tower for its transmitters or antennas, and by such ceasing or failure to utilize the tower, in fact caused the tower to become abandoned.
- F.** Any person to whom, or entity to which, there has been

transferred or assigned any license issued by the FCC and under which the tower owner/operator operated the tower/facility.

G. Any person or entity which has purchased all or a substantial portion of the assets of the tower owner/operator/service provider(s).

H. Any entity which has merged with, or which has arisen or resulted from a merger with, the tower owner or operator or service provider(s).

I. Any person or entity which acquired the owner or the operator of the abandoned tower.

J. Any parent or subsidiary of any of the foregoing which happens to be a corporation.

K. Any managing partner of any of the foregoing which happens to be a limited partnership.

L. Any partner of any of the foregoing which happens to be a general partnership.

29.18 FAILURE TO REMOVE: In the event that the responsible Parties have failed to remove the tower or facility and/or restore the facility site within 90 days, the Town of Warren may remove the tower or facility and restore the site using the surety bonds deposited at the time of application, and may thereafter initiate judicial proceedings against the Responsible Parties for any portion of the cost not covered by the surety bond.

29.19 FUTURE NON-CONFORMING USES: If at any time the Commission finds that the technologies pertaining to communications towers/facilities have changed such that wireless communications can be readily provided with no towers (such as satellite or DAS systems), or with towers or other structures that are substantially less intrusive to residential and commercial areas, and substantially more aesthetic for neighborhoods and commercial areas, or in that the service providers in the county and/or their customers, are making frequent uses of the new technologies (above 30% for customer-use, or above 30% of business-revenue base per service provider), in the installation of new communication systems, or in the expansion of existing systems (whether such installation or expansion are occurring in Warren or elsewhere), the Commission may declare to be Non-Conforming Uses all communications towers then existing in the Town of Warren. The Commission shall declare such towers/facilities to be non-conforming uses in an ordinance which amends these regulations to make such towers/facilities non-permitted uses altogether in residential and commercial areas. The Commission will then determine if the new technologies are appropriate uses for the preexisting sites. If it determines that the upgrading of the facilities are appropriate uses, the Commission may determine that the new technologies are permitted uses, or special

exceptions requiring special permits. This paragraph shall be effective only if, and to the extent not prohibited or preempted, by state or federal law.

29.20 PERMIT EXPIRATION: A Special Permit granted pursuant to this section shall expire five (5) years from the date of approval or as set by statute. The Special permit may be renewed for a new five (5) year period on applications to the Commission, in a form prescribed by the Commission, submitted to the Commission not later than ninety (90) days before the existing Special Permit expiration date. Upon such a renewal application, the applicant shall affirmatively demonstrate that all the conditions which form the basis of the initial approval as set forth in Section 31.6.3; 31.7.10; 31.8.1; 31.8.2 and 31.8.3, remain as those conditions existed on the date of the initial approval.

29.21 SEVERABILITY CLAUSE: The invalidity of any section or provision of this regulation shall not invalidate any other section or provision hereof.