

ARTICLE XV - SITE DEVELOPMENT REQUIREMENTS _____ 1.1500

1.1501.27 Motel or Motor Court

- a. Each unit of commercial occupancy shall contain a minimum of two hundred (200) square feet of gross floor area.
- b. When adjacent to a residential district, a masonry wall, six (6) feet in height, shall be erected on the common property line.

1.1501.28 Nurseries for Plants and Flowers

- a. Minimum lot size shall be one acre.
- b. The storage or material display areas shall meet all the yard setback requirements applicable to any building in the district.
- c. All loading/unloading activities and parking areas shall be off-street in conformance with Article XVII.
- d. The storage of soil, fertilizer or similarly loosely packaged materials shall be sufficiently contained to prevent any adverse affect upon adjacent properties.

1.1501.29 Open-Air Business (for requirements for outdoor amusement facilities, refer to Section 1.1501.30).

- a. Minimum lot area shall be 20,000 square feet.
- b. Minimum lot width shall be sixty (60) feet.
- c. Lighting shall be installed in such a manner which will not create a traffic hazard on abutting streets or which will cause a glare or direct illumination to be cast onto adjacent properties, residential or otherwise.
- d. In the case of car sales lots:
 - 1. All areas subject to vehicular use shall be paved with durable dust-free surfacing, with appropriate bumper guards where needed.
 - 2. Lighted parking areas shall not create a nuisance for nearby properties including, but not limited to: agricultural machinery sales and service, new and used car sales, lawn and garden sales and service.

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1.1501.30 Outdoor Amusement Facilities

- a. Minimum lot size shall be one acre.
- b. A front yard setback of at least sixty (60) feet from the right-of-way line of any existing or proposed street must be maintained.
- c. Adequate off-street parking in accordance with Article XVII shall be provided.
- d. Ingress and egress points shall be located at least sixty (60) feet from the intersection of any two streets.
- e. All lighting shall be shielded from adjacent residential districts.
- f. A four (4) foot, six (6) inch (4' 6") obscuring wall or fence must be provided around the perimeter of the site.

1.1501.31 Parks, Recreational Facilities

- a. The minimum area for a park shall be one-half acre.
- b. Adequate parking as required in Article XVII shall be provided.
- c. A natural vegetation shall be maintained between the park area and all other adjacent land uses.

1.1501.32 Permitted Uses in the I General Industrial District

- a. All uses and activities in the I General Industrial District shall conform to the following performance standards:
 1. Fire and Explosion Hazards. All activities shall be carried on only in buildings conforming to the building code and the operations shall be carried on in such a manner and with such precaution against fire and explosion hazards, as to produce no explosion hazards as determined by the Michigan Department of Labor to a use on an adjacent property. Every factory or manufacturing building shall be equipped with fire extinguishers approved by the appropriate Fire Chief as being sufficient in view of the nature and extent of the fire risk.
 2. Atmospheric Pollution. There shall be no emission of smoke, atomic radiation, fumes, gas, dust, odors or other

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atmospheric pollutant which will disseminate beyond the lot in such a manner as to create a public nuisance, cause damage or inconvenience to other buildings or properties or imperil the health of animals or humans.

3. Liquid or Solid Waste. No industrial operations shall directly discharge untreated industrial waste of any kind into any river, stream, reservoir, pond or lake. All methods of sewage and waste disposal shall conform to County and State Health Department regulations.
4. Vibration. There shall be no vibration which is discernable to the human sense of feeling beyond the lot lines of the property on which such use is conducted.
5. Noise. There shall be no noise emanating from the operation which will create a public nuisance or adversely affect surrounding areas.
6. Glare. There shall be no direct or sky-reflected glare which would be damaging to the human eye or cause a hazardous condition on a public street.

1.1501.33 Private Fraternal Clubs and Lodges

- a. Minimum lot size shall be two acres.
- b. The main and accessory buildings shall be set back at least thirty (30) feet from all property lines.
- c. Adequate off-street parking, as identified in Article XVII, shall be provided.

1.1501.34 Private Outdoor Recreation Camps

- a. Minimum lot size shall be 10 acres.
- b. Outdoor cooking facilities shall be constructed of appropriate fireproof material, be adequately vented and located an adequate distance from trees, vegetation and other structures to ensure appropriate fire protection.
- c. Adequate off-street parking shall be provided to accommodate the expected number of vehicles that will use the site at any one time.

- d. Main and accessory buildings shall meet the minimum yard setback requirements of the district in which the camp is located.
- e. Adequate screening and vegetation shall be required where the camp abuts a residential, commercial or industrially zoned property.
- f. Outdoor lighting shall be located so as not to create a glare or other visual nuisance upon adjoining property.

1.1501.35 Private Hunting Camps

- a. Minimum lot size shall be 80 acres.
- b. The main and accessory buildings shall be set back at least one hundred (100) feet from all property lines.
- c. Adequate off-street parking, as identified in Article XVII, shall be provided.
- d. "No Trespassing, Private Hunting Club" signs shall be posted and clearly visible on the property within 25 feet of the property boundary lines. Said signs shall be posted every 300 feet along the perimeter of the property. (Amended Ord. #2005-2 on 11-14-05)
- e. "No Shooting Beyond This Point" signs shall be posted and clearly visible 300 feet from the property line and 450 feet from dwellings on adjacent properties where applicable. Signs shall be spaced no more than 300 feet apart. These signs shall be directed towards the interior of the hunting area to prevent hunters shooting too close to adjacent properties. (Amended Ord. #2005-2 on 11-14-05)

1.1501.36 Private Swimming Pools

- a. For permanent above or below ground swimming pools, and for portable pools with a diameter exceeding twenty-four (24) feet or an area exceeding two hundred (200) square feet, a permit must be obtained for its alteration, erection and construction. The application for such permit shall include the name of the owner, the manner of supervision of the pool, a plot plan showing the dimensions and site location of the pool plus nearby buildings, fences, gates, septic tanks, tile fields, public utilities and easements. The application for a below ground pool shall be accompanied by plans and specifications to scale of the pool walls, slope, bottom, walkway, diving boards, type and rating of auxiliary equipment, piping and valve layout. Any other information affecting construction and safety features deemed necessary by the Township or the County Health Department shall also be submitted.

- b. No portion of the swimming pool or associated structures shall be permitted to encroach upon any easement or right-of-way which has been granted for public utility use.
- c. Minimum side yard setback shall comply with required side yard spaces specified for the zoning district wherein the pool is located. Furthermore, the pool fence must not be built within the required front yard or required corner lot side yard. Rear or side yard setback shall not be less than ten (10) feet between the pool outside wall and the side or rear property line, or less than five (5) feet between pool wall and any building on the lot.
- d. All swimming pools shall be completely enclosed by a chainlink fence or a fence of comparable safety not less than six (6) feet nor more than eight (8) feet in height, and set at a distance of not less than six (6) feet from the outside perimeter of the pool wall, except for swimming pools above grade (i.e., portable) which have a side wall with a smooth surface of not less than four (4) feet in height and will all means of access being secured, raised and/or locked to prevent unauthorized use. Except, that if a building is located on a lot not leaving any means of public access, a fence shall not be required on any such side. All openings in any such fence or building shall be equipped with a self-closing, self-latching gate or door which shall be securely locked with a tamper-proof lock when the pool is not in use, provided, that if the entire premises is enclosed by fence or wall, the said fence requirement may be waived by zoning officer, after due inspection and approval.
- e. All electrical installations or wiring in connection with below ground swimming pools shall conform to the provisions of the National Electrical Code or equivalent. If service drop conductors or other utility wires cross under or over the proposed pool area, the applicant shall make satisfactory arrangements with the utility involved for the relocation thereof before a permit shall be issued for the construction of the swimming pool.
- f. A private swimming pool shall be located only in the rear yard.

1.1501.37 Public Utility Service Buildings/Stations (Essential)

Buildings and facilities associated with essential services, as defined in Article II, shall be permitted as authorized by law and other ordinances in any use district. The construction, erection, alteration and maintenance of essential public utilities service buildings/stations

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shall be exempt from the application of this ordinance. Fees will be charged for substations, regulator buildings and auxiliary buildings, but not for those elements directly associated with distribution or transmission systems.

1.1501.38 Radio and Television Towers

- a. The setbacks for each tower from adjacent rights-of-way and/or property lines shall be not less than one and one-half times the height of each tower above the ground.
- b. Unless specifically waived by the Planning Commission, an open weave wire fence eight (8) feet in height shall be constructed on the boundary property line.

1.1501.39 Roadside Stands

- a. The gross floor area of the temporary building shall be not less than one hundred (100) square feet and not more than five hundred (500) square feet.
- b. Suitable containers for rubbish shall be placed on the premises for public use.
- c. The temporary building shall be located not less than ten (10) feet from the public road right-of-way. Its height shall be no more than one story.
- d. An off-street parking space capable of accommodating four (4) automobiles must be provided, with an entrance and exit separate from each other.

1.1501.40 Salvage Yards

- a. Minimum lot size shall be three acres.
- b. The setback from the front property line to the area upon which junk materials are stored shall be not less than sixty (60) feet and said area shall be screened from the roadway and from any adjoining residential or business uses by an obscuring fence ten (10) feet in height. Said fence to be kept uniformly painted, neat in appearance and shall not have any signs or symbols painted on it.

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- c. All structures and fencing and used material storage yards shall be set back not less than 50 feet from any street or highway right-of-way.
- d. All roads, driveways, parking lots, and loading and unloading areas within any junk yard shall be paved, oiled, watered or chemically treated so as to limit for adjoining lots and public roads, the nuisance caused by wind-borne dust.

1.1501.41 Schools, Civic Buildings, Post Office, Fire Station and other similar public structure facilities.

- a. Adequate off-street parking must be provided in accordance with the standards in Article XVII.
- b. Schools must provide adequate space for loading/unloading of students and temporary or permanent parking of buses.
- c. The minimum setbacks for main and accessory school structures shall be fifty (50) feet.
- d. The minimum distance between main and accessory school structures and residential property or residential districts shall be three hundred (300) feet.
- e. Main and accessory structures associated with fire stations shall be located no closer than one hundred (100) feet from a residential district or residential property.
- f. Adequate warning signs shall be provided at appropriate locations on both sides of the street on which emergency vehicles enter and exit.

1.501.42 Shooting Ranges (Outdoor and Indoor)

- a. Minimum lot size shall be ten (10) acres.
- b. Off-street parking shall be provided to accommodate patrons (1 space per shooting station).
- c. Minimum distance between the perimeter or boundary line of an outdoor range and the nearest residential, commercial, industrial or recreational use shall be five hundred (500) feet.

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- e. Target shooting shall be limited to the hours between 10 AM and sundown.
- f. An earthen berm, at least ten (10) feet high, shall be located between ten (10) and twenty (20) feet behind the targets and extending twice the length of the distance between outermost targets.

1.1501.43 Shops for Building Contractors

- a. Minimum lot size shall be 30,000 square feet.
- b. Areas used for storage, milling and/or fabrication shall be surrounded by a fence or wall of a minimum height of six (6) feet and shall be located at the rear of the main building.
- c. Vehicles and equipment used in construction shall be parked or stored in the rear, or on the side, of the main building.
- d. The minimum distance between any structure or area on the premises in which construction or fabrication activity occurs as a function of the business shall be located no closer than seventy-five (75) feet from a residential district.

1.1501.44 Stables

- a. For breeding, rearing and housing of horses, mules and similar domestic animals, the minimum lot size shall be 5.1 acres, except that up to three saddle horses or ponies may be housed and reared on lots of two to five acres.
- b. An accessory building used as a stable shall not be located nearer than fifty (50) feet to any property line and not nearer than one hundred (100) feet to any dwelling.
- c. Animals shall be confined in a suitable fenced area, or paddock, to preclude their approaching nearer than thirty (30) feet to any dwelling on adjacent premises.
- d. The facility shall be so constructed and maintained that odor, dust, noise or drainage shall not constitute a nuisance or hazard to adjoining premises.
- e. Appropriate off-street parking, as identified in Article XVII shall be provided.

1.1501.45 Tire Shops

- a. All processing, fabrication, retreading and similar activity shall occur within an enclosed building.
- b. New, used and retread tires shall be stored in an enclosed building.
- c. Off-street parking for customers shall be paved with concrete or asphalt.

1.1501.46 Trailer Sales Yards

- a. Trailer sales yards shall adhere to the requirements of Section 1.1501.29 Open-Air Business.

1.1501.47 Vehicle Wash Establishments

- a. Minimum lot size shall be 25,000 square feet.
- b. All washing activities must be carried on within a building.
- c. Vacuuming activities may be carried out only in the rear yard and at least fifty (50) feet distant from any adjoining residential use.
- d. The entrances and exits of the facility shall be from within the lot and not directly to or from an adjoining street or alley. A street or alley shall not be used as maneuvering or parking space for vehicles to be serviced by the subject facility.

1.1501.48 Requirements for Wes Special Land Uses

- (A) Upwind Turbines shall be required.
- (B) Property Setbacks. The distance between a WES and the owner's property lines (and road right-of-way lines) shall be at least 1.5 times the height of the WES structure including the blade in its vertical position.
- (C) Utility Setbacks. No WES shall be erected so that any portion of the tower or turbine is closer to utility lines than the total height of the tower and rotor combined.

- (D) Construction Codes, Towers, and Interconnection Standards. WES including towers shall comply with all applicable state construction and electrical codes and building permit requirements. WES including towers shall comply with Federal Aviation Administration requirements, the Michigan Airport Zoning Act (Public Act 23 of 1950, MCL 259.431 et seq.), the Michigan Tall Structure Act (Public Act 259 of 1959, MCL 259.481 et seq.), and local jurisdiction airport overlay zone regulations. An Interconnected WES shall comply with Michigan Public Service Commission and Federal Energy Regulatory Commission standards. Off-grid systems are exempt from this last requirement.
- (E) Safety. A Wind Energy System shall have:
- (1) Automatic Braking - Automatic braking, governing, or a feathering system to prevent uncontrolled rotation or over speeding.
 - (2) Lightening Protection - All wind towers shall have lightening protection.
 - (3) Appropriate Warning Signage – Shall be placed on wind turbine towers, electrical equipment, and large wind energy facility entrances. The sign shall contain at least the following: warning high voltage, manufacturer's and owner's/operator's names, and emergency contact numbers.
 - (4) Guy Wire Anchors - If a tower is supported by guy wire anchors, the wires shall be clearly visible at a height of at least six feet above the guy wire anchors.
 - (5) Fluids - All spent lubricants, cooling fluids, and any other hazardous materials shall be properly and safely removed in a timely manner.
 - (6) Ground Clearance – For both horizontal and vertical axis turbines, the WES rotor shall be located on the tower or support such that the minimum vertical blade clearance above ground within 50 feet of the base of the structure shall be twenty (20) feet.
- (F) Electromagnetic Interference. The entire WES including turbines, alternators, generators, and interconnected systems shall be filtered and/or shielded to prevent the emission of generated radio frequency energy which could cause interference with communication systems, such as, but not limited to, radio, telephone, television, satellite, or emergency communication systems. The entire WES shall

also comply with Federal Communication Commission Rules and in particular with 47 CFR, Part 15, Subparts A and F and Part 18, Subparts A, D, and H.

- (G) Height, WES. The maximum allowable height, of a wind turbine shall be measured from grade to the height of the blade in the vertical position or the highest point the height shall be limited to 500 feet, unless otherwise prohibited or exempted by state or federal statutes or regulations. The maximum allowable height for any specific site shall be further regulated by the requirements of the Federal Aviation Administration, the Michigan Aeronautics Division, Michigan Department of Transportation and the Michigan Aeronautics Commission.
- (H) Quantity. The number of WES shall be determined based on setbacks and separation.
- (I) Noise. Each WES turbine shall not produce vibrations humanly perceptible beyond the property line. In addition, a copy of a noise modeling analysis report and the site plan shall show locations of equipment identified as a potential source of noise. Such potential sources of noise shall be placed, based on the analysis, so that the entire WES shall not exceed the maximum permitted sound pressure levels. The noise modeling and analysis shall conform to IEC 61400 and ISO 9613. After installation of the WES, sound pressure level measurements shall be done by a third party qualified professional according to procedures in the most current version of ANSI S12.18. All sound pressure levels shall be measured with a sound meter that meets or exceeds the most current version of ANSI S1.4 specifications for a Type II sound meter. Documentation of the sound pressure level measurements shall be provided to the Township Zoning Administrator prior to the commencement of commercial operation. Audible noise or the sound pressure level from the operation of the WES Farm shall not exceed fifty (50) dBA, or the ambient sound pressure level plus five (5) dBA, whichever is greater, measured at the property line. The applicant shall provide sound pressure level measurements from a reasonable number of sampled locations at the perimeter and in the interior of the WES Farm to demonstrate compliance with this standard.
- (J) Vibration. The WES shall not produce vibrations humanly perceptible beyond the boundary lines of property on which it is located.

- (K) Shadow Flicker. The WES owner(s) and/or operator(s) shall conduct an analysis by a certified shadow flicker analyst on potential shadow flicker at any occupied building with direct line-of-sight to the WES. Owner(s) and/or operator(s) shall submit documentation to the Zoning Administrator indicating the training and certification of the shadow flicker analyst before such analysis is conducted. The analysis shall identify the locations of shadow flicker that may be caused by the WES and the expected durations of the shadow flicker at these locations from sunrise to sunset over the course of a year. The analysis shall identify situations where shadow flicker may affect the occupants of the buildings for more than 30 hours per year, and describe measures that shall be taken to eliminate or mitigate the problems. Shadow flicker on a building shall not exceed 30 hours per year.
- (L) Avian/Wildlife Impact Analysis. The applicant shall obtain at its own expense and submit an avian/wildlife study to assess the potential impact of a proposed WES Farm upon bird, bat and wildlife species. The avian/wildlife study shall at a minimum report on a literature survey for threatened and endangered species, and any information on critical flyways or pathways. The applicant shall identify any plans for post-construction monitoring or studies. The analysis shall also include an explanation of potential impacts and a proposed mitigation plan to address those impacts. The Planning Commission may request a third-party analysis at the applicant's expense.
- (M) Accessibility. Towers shall be designed and constructed in such a manner that climbing devices are only accessible with a separate ladder at a minimum height of twelve (12) feet.
- (N) Structural Integrity. The structural integrity of the WES shall conform to the design standards of the International Electrical Commission, specifically IEC 61400-1, "Wind Turbine Safety and Design," IEC 61400-22 "Wind Turbine Certification," and IEC 61400-23 "Blade Structural Testing," or any similar successor standards.
- (O) Color. WES shall be painted a non-obtrusive (i.e. white, beige or gray) color that is non-reflective. No striping of color or advertisements shall be visible on the blades or tower.

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- (P) Maintenance. WES must be kept and maintained in good repair and condition at all times and shall not pose a potential safety hazard.

- (Q) Certification and Compliance.
 - (1) The Township shall be notified of a change in ownership of a WES or a change in ownership of the property on which the WES is located.

 - (2) The Township reserves the right to inspect any WES in order to ensure compliance with this ordinance. Any cost associated with the inspection shall be paid by the owner(s) and/or operator(s) of the WES.

 - (3) Owner(s) or operator(s) shall provide the Zoning Administrator with a copy of the yearly maintenance inspection.

- (R) Public Inquiries and Complaints. Should an aggrieved property owner allege that the WES is not in compliance with the noise and shadow flicker requirements of this Ordinance, the procedure shall be as follows.
 - (1) Noise Complaint.
 - (a) Notify the Township in writing regarding concerns about noise level.

 - (b) If the complaint is deemed sufficient by the Zoning Administrator to warrant an investigation and has not previously been studied in a shadow/flicker analysis, the Zoning Administrator will request the owner(s) or operator(s) deposit funds in an amount sufficient to pay for a noise level test conducted by a certified acoustic technician approved by the Planning Commission to determine compliance with the requirements of this Ordinance.

 - (c) If the test indicates that the noise level is within noise requirements, the Township will use the deposit to pay for the test.

(d) If the WES is in violation of the noise requirements, the owner(s) or operator(s) shall reimburse the Township for the noise level test and take immediate action to bring the WES into compliance, which may include ceasing operation of the WES until violations are corrected. The Township will refund the deposit to the property owner.

(2) Shadow Flicker Complaint.

(a) Notify the Township in writing regarding concerns about the amount of shadow flicker.

(b) If the complaint is deemed sufficient by the Zoning Administrator to warrant an investigation, the Zoning Administrator will request the owner(s) or operator(s) to provide a shadow flicker analysis, conducted by a certified analyst, of the WES as constructed to determine compliance of the requirements of this Ordinance. Owner(s) and/or operator(s) shall submit documentation to the Zoning Administrator showing the training and certification of the shadow flicker analyst before such analysis is conducted.

(c) If the WES is in violation of the shadow flicker requirements, the owner(s) or operator(s) shall take immediate action to bring the WES into compliance, which may include ceasing operation of the WES until violations are corrected.