

**ZONING ORDINANCE AMENDMENT - SOLAR ENERGY SYSTEMS - SECTIONS  
2.3, 3.16, AND 4.6.5 - FINAL READING**

**AN ORDINANCE TO AMEND THE ZONING ORDINANCE OF  
THE CITY OF ST. JOSEPH, MICHIGAN**

**THE CITY OF ST. JOSEPH ORDAINS** that the City of St. Joseph Zoning Ordinance adopted by Chapter 33 of the City of St. Joseph Code of Ordinances and codified as Appendix A is hereby amended as follows:

**1. Article II. “Definitions” Sec. 2.3 “Definitions “is amended to add the following definitions:**

*Solar energy system* means a system that uses the power of the sun to capture, distribute and/or store energy for on-site consumption of utility power relying on a battery system for storage of power and consists of panels or arrays and racking system.

*Array* means multiple panels combined to create one system.

*Ground-mounted* means a solar system consisting of panels installed into the ground with a racking system permitted and inspected by the City and any other applicable entity.

*Mechanical snow guard* means a device typically installed one foot or so above the edge of a sloped roof to retain snow and ice from falling from one surface to a lower one.

*Nameplate capacity* means the designed full-load sustained generating output of an energy facility or system.

*Net metered* means a utility billing practice that credits solar energy system owners for excess energy sent to the grid.

*Panel* means a device that converts sunlight into electricity by using photovoltaic (PV) cells. The PV cells are made of materials that produce excited electrons when exposed to light. The electrons flow through a circuit and produce direct current (DC) electricity, which can be used to power various devices or be stored in batteries.

*Racking system* means the designed plates and structural elements to anchor and secure solar panels to a fixed surface either a roof, wall or ground.

*Roof mounted* means a solar system consisting of solar panels installed directly affixed on a roof of the principal or accessory structure with a racking system permitted and inspected by the City and any other applicable entity.

*Solar Lamp* means a solar energy system lighting system composed of an LED lamp, solar panel, battery, charger controller and all components are self-contained and is commonly used for pathway, entrance or outdoor space lighting and does not require any electrical wiring.

*Storage* means a system which uses on-site batteries for the storage of excess energy produced by the collection solar rays.

*Temporary* means an energy generating system that is independent of other power sources, that is structurally independent of any other structure and that produce less than 800 watts of power that will be in place for a period of time greater than 24 hours and less than seven days and utilize the manufactures installed supply connections. It does not include factory-built solar systems, typically mounted on a trailer, that are used for another permitted function such as construction or special event.

*Wall mounted* means a solar system consisting of solar panels installed directly affixed on wall of the principal or accessory structure with a racking system permitted and inspected by the City and any other applicable entity.

## **2. Article III. “General Provisions” Sec. 3.16 is amended to read as follows:**

### **Sec. 3.16. Solar Energy Systems.**

The following regulations are for the installation of Solar Energy Systems and are designed to promote the use of natural resources while protecting the public health, safety, and general welfare of the residents and visitors that are not expressly covered in state regulations. Solar energy systems must meet the following requirements :

- A. The solar energy system must be an accessory use to an established principal use or building in any zoning district;
- B. The solar energy collected must be used onsite or is net metered and is not a utility scale installation.

#### *3.16.1 Standards for installation of roof, wall, ground mounted or temporary solar energy systems.*

- A. Roof-mounted solar energy systems may be attached to the roof of the principal or accessory building subject to the following conditions:
  - 1. The solar energy system shall be installed flat on the plane of pitched roofs, or, if they must be pitched to obtain efficiencies, panels shall not exceed a pitch of twenty-five degrees (25°) or three feet (3') whichever is less and in no case shall the solar energy system exceed the maximum height allowed of the structure it is attached to.
  - 2. The solar energy system located on the principal structure shall be a minimum of seven feet (7') from any lot line.
  - 3. The solar energy system located on an accessory structure shall be a minimum of five feet (5') from any lot line.
  - 4. The solar energy system located on a flat roof shall be screened by a parapet wall the height of the solar energy system.
  - 5. The solar energy system shall be placed a minimum of three feet (3') from any vertical surface, vent, window, peak, eave, or valley of the building to maintain access.

6. All exterior plumbing and electrical lines shall be installed in a side or rear yard, and shall not have any portion located within a front or secondary front yard.
  7. Mechanical snow guards shall be installed on the solar energy system to mitigate damage from sliding snow or ice if not protected by a parapet wall.
- B. Wall-mounted solar energy systems may be attached to the principal or accessory building subject to the following conditions
1. The solar energy system may be attached to the exterior vertical plane of any wall and shall not encroach into the required minimum side setback per Section 5.2, Table 5-1 for the applicable zoning district.
  2. Solar energy systems shall not extend beyond the walls or corners of the building they are attached to.
  3. The solar energy system shall not cover any plumbing, mechanical vents, service panels, windows or other similar equipment.
  4. All exterior plumbing and electrical lines shall be installed in a side or rear yard and shall not have any portion located within a front or secondary front yard.
- C. Ground-mounted solar energy systems may be installed when there is an existing principal building or use on the property subject to the following conditions:
1. Ground-mounted solar energy systems are not allowed in Residential Districts except systems that are designed for and used as a carport.
  2. The solar energy system shall not be installed in a front or secondary front yard.
  3. The solar energy system may be installed in a side yard when located outside the required minimum side setback per Section 5.2, Table 5-1 for the applicable zoning district.
  4. The solar energy system may be installed in a rear yard when located a minimum of five feet (5') from the rear and side lot lines.
  5. The solar energy system shall be a minimum of ten feet (10') from any principal building on the property.
  6. The maximum height from existing average grade at the base of the solar energy system to the highest edge of the solar energy system when oriented at the maximum tilt cannot exceed fourteen feet (14').
  7. The solar energy system shall comply with the maximum lot coverage requirement of the underlying zoning district in accordance with Section 5.2, Table 5-1 and shall not occupy more than 33 percent (33%) of the actual rear yard area. Lot coverage shall be calculated using the solar energy system's most horizontal position.
  8. The solar energy system must be located outside of the required clear vision area in accordance with Section 19.3.2.

9. When a solar energy system is installed and the property abuts a residential use, fencing or vegetative screening shall be installed of sufficient height to block the view of the racking equipment from the abutting residential property at the time of installation. Fencing shall be in compliance with Chapter 12 of the City of St. Joseph Code of Ordinances.
  10. The racking system shall be designed and constructed to hold the weight of the equipment and installed with properly sized footings located below the frost line.
  11. All piping and connection lines shall be located underground.
- D. Temporary solar energy systems may be installed when there is an existing principal building or use on the property subject to the following conditions:
1. It shall be located a minimum of five feet (5') from any lot line.
  2. It shall be located outside of the required clear vision area in accordance with Section 19.3.2.
  3. It must utilize the manufacturer's installed supply connections.
  4. The solar energy collected is to be used onsite.
  5. It shall not be located on the property for more than seven (7) calendar days unless included and approved as part of a building or special event permit.

#### *3.16.2 Minimizing glare, reflection, and damage.*

The solar energy system shall be installed to minimize glare and reflection onto other properties or structures or into public rights-of-way, and to prevent damage to other properties, structures, or persons.

#### *3.16.3 Power storage energy systems.*

- A. All solar energy storage equipment shall be located within an approved principal or accessory structure in accordance with all applicable National Fire Protection Association (NFPA), Building and National Electric Code (NEC) code requirements.
- B. An energy storage warning label shall be visibly posted at all entries located at a height of five feet (5') above grade.

#### *3.16.4 Permitting requirements and process.*

- A. All applicable building, plumbing, and electrical permits shall be required before the installation of any solar energy system.
- B. The necessary application form as provided by the city shall be completed and returned.
- C. All required supplemental information as stated on the application form shall be submitted.
- D. All equipment and installation shall comply with all applicable local, state, and federal regulations before any permit will be issued.

*3.16.5 Maintenance of Solar Energy Systems.*

The property owner shall remove the solar energy system, including all panels, arrays, racking systems, and energy storage equipment and restore the principal or accessory building or ground to its original condition within one (1) calendar year from the time the solar energy system is damaged or no longer operating per manufacturer’s guidelines. In the case of roof replacement, the existing solar energy system will require new permits for re-installation.

*3.16.6 Exemptions.* The following are exempt from the provisions of this Section:

- A. Solar lamps located on private property that are not producing glare on other properties and comply with Section 19.2.
- B. Solar energy systems that are used exclusively for traffic control signals or devices.

*3.16.7 Conflicting Regulation Clause.*

In the event of any conflict between Section 3.16 and any other provision of the Zoning Ordinance or Code of Ordinances, this section shall govern, unless specifically stated otherwise.

**3. Article IV “Official Zoning Map, Zoning Districts and Authorized Uses” Sec. 4.6 Definitions of use classes and authorized uses” Table 4.6.5 Accessory Use Table, Table 4-3 “City of St. Joseph Common Accessory Uses, Buildings & Structures Allowed Uses” is amended to allow Solar Energy Systems as a Permitted Accessory Use in all Districts and Temporary Solar Energy Systems as a Permitted Accessory Use in all Districts subject to the standards of Section 3.16, and shall include the following language:**

Table 4-3

City of St. Joseph Common Accessory Uses, Buildings & Structures Allowed Uses
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Accessory Uses, Buildings & Structures	R1	R2	R3	CO	D	C	I1	I2	OS	W	Special Standards Section #
Solar Energy Systems	P	P	P	P	P	P	P	P	P	P	3.16

Temporary Buildings, Structures & uses											
Temporary Solar Energy System	P	P	P	P	P	P	P	P	P	P	3.16

All provisions of the Zoning Ordinance of the City of St. Joseph not hereby amended remain in full force and effect.

This ordinance shall take effect 10 days after its final passage.