

GRASS LAKE CHARTER TOWNSHIP
ZONING ORDINANCE AMENDMENT

ORDINANCE NO. ____

At a regular meeting of the Township Board of Grass Lake Charter Township, Jackson County, Michigan, held at the Grass Lake Township Hall on _____, 2018, at _____ p.m., Township Board Member _____ moved to introduce the following Ordinance for first reading, posting, and publication prior to subsequent final adoption, which motion was seconded by Township Board Member _____:

An Ordinance to amend the Grass Lake Charter Township Zoning Ordinance to authorize Small Solar Energy Systems as permitted uses in all Zoning Districts, authorize Large Solar Energy Systems as special land uses in the Agricultural and Light Industrial Districts, and establish standards for these uses.

THE CHARTER TOWNSHIP OF GRASS LAKE, ORDAINS:

SECTION 1. AMENDMENT TO ZONING ORDINANCE CHAPTER 2, SECTION 2.03: Zoning Ordinance Chapter 2, Section 2.03, is amended to add a definition for the following term, and shall read as follows:

Abandoned Solar Energy System: Any Solar Energy System, Solar Array or combination of Photovoltaic Devices that remains nonfunctional or inoperative to the extent that it not used to generate electric energy for a continuous period of six months.

SECTION 2. AMENDMENT TO ZONING ORDINANCE CHAPTER 2, SECTION 2.16: Zoning Ordinance Chapter 2, Section 2.16, is amended to add a definition for the following term, and shall read as follows:

Photovoltaic Device: A system of components that generates electric energy from incident sunlight by means of the photovoltaic effect, whether or not the device is able to store the electric energy produced for later use.

SECTION 3. AMENDMENT TO ZONING ORDINANCE CHAPTER 2, SECTION 2.18: Zoning Ordinance Chapter 2, Section 2.18, is amended to add a definition for the following terms, and shall read as follows:

Solar Array: Any number of Photovoltaic Devices connected together to provide a single output of electric energy or other energy.

Solar Energy System, Large: A utility-scale solar energy system where the primary use of the land is to generate electric energy or other energy by converting sunlight, whether by Photovoltaic Devices or other conversion technology, for the sale, delivery or consumption of the generated energy by more than one end user, and typically the power output of that system is equal to or greater than 1 megawatt.

Solar Energy System, Small: A solar energy system where the sole use is to generate electric energy or other energy by converting sunlight, whether by Photovoltaic Devices or other conversion technology, primarily for personal consumption by a single end user at the same

property upon which the solar energy system is located. The power output of the system shall not exceed 150 kilowatts.

SECTION 4. AMENDMENT TO ZONING ORDINANCE CHAPTER 2, SECTION 2.20: Zoning Ordinance Chapter 2, Section 2.20, is amended to add a definition for the following term, and shall read as follows:

Unreasonable Safety Hazard Any condition which could reasonably be expected to create, cause, or compound the substantial likelihood that death, illness or personal injury may occur to any member of the general public, including but not limited to trespassers or emergency services personnel. Adherence by the property owner to industry standards for safeguarding against such risks will be taken into consideration in determining whether a condition poses an unreasonable safety hazard.

SECTION 5. AMENDMENT TO ZONING ORDINANCE CHAPTER 5, SECTION 5.02: Zoning Ordinance Chapter 5, Section 5.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the AG District may be used for the following purposes as Permitted Uses:

- A. Commercial greenhouses and nurseries, when operated primarily as a wholesale operation and/or retail sales.
- B. Conservation and recreation areas, including forest preserves, game refuges, nature preserves, and other similar areas of low intensity uses.
- C. Family day care homes.
- D. Farms for both general and specialized farming, together with a farm dwelling and buildings and other installation useful to farms.
- E. Roadside stands for sale of produce grown on the premises.
- F. Single-family dwellings, including home occupations in accordance with the requirements of Section 3.13.
- G. Small Solar Energy Systems.
- H. State licensed residential family care facilities; provided that such facility is not located closer than one thousand five hundred (1,500) feet from an existing or proposed similar state licensed residential facility, including group care facilities, but not including state licensed residential facilities caring for four (4) or less minors.
- I. Utility and public service buildings, without storage yards.
- J. Accessory buildings, structures, and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 6. AMENDMENT TO ZONING ORDINANCE CHAPTER 5, SECTION 5.03: Zoning Ordinance Chapter 5, Section 5.03, entitled “Special Land Uses,” is amended to add “Large Solar Energy System” as a special land use, and shall read as follows:

Land and/or buildings in the AG District may be used for the following purposes following approval by the Planning Commission as a Special Land Use as regulated by Chapter 14, including consideration of the Specific Special Land Use Requirements of Section 14.07:

- A. Bed and breakfast establishments.
- B. Churches.
- C. Commercial kennels.
- D. Country clubs, golf courses, riding stables, gun clubs, private athletic grounds and parks, and other similar uses, including related uses, such as snack bars, small retail shops selling goods directly related to the primary use.
- E. Home Based Business.
- F. Intensive livestock operations.
- G. Large Solar Energy Systems.
- H. Open Air Businesses
- I. Open Space Preservation Developments.
- J. Private airports.
- K. Private, elementary, middle, and high schools, and colleges.
- L. Private campgrounds.
- M. Removal and processing of topsoil, stone, rock, sand, gravel, lime or other soil or mineral resources.
- N. Veterinary clinic.

SECTION 7. AMENDMENT TO ZONING ORDINANCE CHAPTER 6, SECTION 6.02: Zoning Ordinance Chapter 6, Section 6.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the R-1 District may be used for the following purposes as Permitted Uses:

- A. Family day care homes.
- B. Farms for both general and specialized farming, together with a farm dwelling and buildings and other installations useful to such farms, including greenhouses and nurseries without a retail outlet.
- C. Single-family dwellings, including home occupations in accordance with the requirements of Section 3.13.
- D. Small Solar Energy Systems.

- E. State licensed residential family care facilities; provided that such facility is not located closer than one thousand five hundred (1,500) feet from an existing or proposed similar state licensed residential facility, including group care facilities, but not including state licensed residential facilities caring for four (4) or less minors.
- F. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- G. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 8. AMENDMENT TO ZONING ORDINANCE CHAPTER 7, SECTION 7.02: Zoning Ordinance Chapter 7, Section 7.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the R-2 District may be used for the following purposes as Permitted Uses:

- A. Family day care homes.
- B. Farms for both general and specialized farming, together with a farm dwelling and buildings and other installations useful to such farms, including greenhouses and nurseries without a retail outlet.
- C. Single-family dwellings, including home occupations in accordance with the requirements of Section 3.13.
- D. Small Solar Energy Systems.
- E. State licensed residential family care facilities; provided that such facility is not located closer than one thousand five hundred (1,500) feet from an existing or proposed similar state licensed residential facility, including group care facilities, but not including state licensed residential facilities caring for four (4) or less minors.
- F. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- G. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 9. AMENDMENT TO ZONING ORDINANCE CHAPTER 8, SECTION 8.02: Zoning Ordinance Chapter 8, Section 8.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the R-3 District may be used for the following purposes as Permitted Uses:

- A. Churches.
- B. Family day care homes.
- C. Multiple family dwellings (see Section 8.04, E).

- D. Single-family dwellings, including home occupations in accordance with the requirements of Section 3.13.
- E. Small Solar Energy Systems.
- F. State licensed residential family care facilities; provided that such facility is not located closer than one thousand five hundred (1,500) feet from an existing or proposed similar state licensed residential facility, including group care facilities, but not including state licensed residential facilities caring for four (4) or less minors.
- G. Two family dwellings.
- H. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- I. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 10. AMENDMENT TO ZONING ORDINANCE CHAPTER 9, SECTION 9.02: Zoning Ordinance Chapter 9, Section 9.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the R-4 District may be used for the following purposes as Permitted Uses:

- A. Churches.
- B. Family day care homes.
- C. Manufactured home parks, in accordance with the requirements of this Chapter.
- D. Single-family dwellings, including home occupations in accordance with the requirements of Section 3.13.
- E. Small Solar Energy Systems.
- F. State licensed residential family care facilities; provided that such facility is not located closer than one thousand five hundred (1,500) feet from an existing or proposed similar state licensed residential facility, including group care facilities, but not including state licensed residential facilities caring for four (4) or less minors.
- G. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- H. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 11. AMENDMENT TO ZONING ORDINANCE CHAPTER 10, SECTION 10.02: Zoning Ordinance Chapter 10, Section 10.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the GC District may be used for the following purposes as Permitted Uses:

- A. Financial and business service establishments, banks and credit unions, with or without drive through services.
- B. Funeral homes.
- C. Health and fitness clubs.
- D. Personal services establishments such as repair shops for personal items (watches, small appliances, shoes, etc.), beauty shops and barbershops, dry cleaning retail outlets and other similar services.
- E. Private service clubs, fraternal organizations and lodge halls.
- F. Professional offices for doctors, dentists, lawyers, architects, engineers and other similar professions.
- G. Restaurants, excluding those with drive-through services, and taverns.
- H. Retail businesses which supply commodities such as groceries, meats, dairy products, baked goods, drugs, gifts and notions, books or hardware.
- I. Small Solar Energy Systems.
- J. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- K. Veterinary clinics.
- L. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.

SECTION 12. AMENDMENT TO ZONING ORDINANCE CHAPTER 11, SECTION 11.02: Zoning Ordinance Chapter 11, Section 11.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the HC District may be used for the following purposes as Permitted Uses:

- A. Financial and business service establishments, banks and credit unions without drive through services.
- B. Professional offices for doctors, dentists, lawyers, architects, engineers and other similar professions.
- C. Restaurants, excluding those with drive-through services.
- D. Small Solar Energy Systems.
- E. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.

SECTION 13. AMENDMENT TO ZONING ORDINANCE CHAPTER 12, SECTION 12.02:
Zoning Ordinance Chapter 12, Section 12.02, entitled “Permitted Uses,” is amended to add “Small Solar Energy System” as a permitted use, and shall read as follows:

Land and/or buildings in the LI District may be used for the following purposes as Permitted Uses:

A. Manufacturing, research, assembly, testing and repair of components, devices, equipment and systems of professional, scientific and controlling instruments, photographic and optical goods, and electronic and electrical equipment such as:

1. Appliances.
2. Audio units, radio equipment and television equipment.
3. Communication, transmission and reception equipment such as coils, tubes, semi-conductors, navigation control equipment and systems guidance equipment.
4. Computer equipment and accessory systems.
5. Food products, bakery goods, candy and beverages.
6. Graphics and art equipment.
7. Metering instruments.
8. Optical devices, equipment and systems.
9. Photographic equipment.
10. Radar, infrared and ultra-violet equipment and systems.
11. Scientific and mechanical instruments such as calipers and transits.
12. Testing equipment.

B. Manufacturing, processing, packaging or assembling of the following:

1. Fabrication of paper and wood products such as office supplies, bags, books, cabinets, furniture, and toys.
2. Pharmaceutical preparation, cosmetics, and toiletries.
3. Prefabricated buildings and structured members.
4. Stone, clay, glass and leather products.

C. Data processing and computer centers including the servicing and maintenance of electronic data processing equipment.

D. Financial and business service establishments, banks and credit unions, with or without drive through services.

- E. Health and fitness clubs.
- F. Printing, publishing and related activities.
- G. Private service clubs, fraternal organizations and lodge halls.
- H. Professional offices for doctors, dentists, lawyers, architects, engineers and other similar professions.
- I. Research and design centers where said centers are intended for the development of pilot or experimental products, together with related office buildings for such research facilities where those offices are designed to accommodate executive, administrative, professional, accounting, engineering, architectural, and support personnel.
- J. Small Solar Energy Systems
- K. Utility and public service buildings, without storage yards, but not including essential public services such as poles, wires, and underground utility systems.
- L. Veterinary clinics and commercial kennels.
- M. Warehousing, refrigerated and general storage.
- N. Accessory buildings, structures and uses, customarily incidental to any Permitted or Special Land Use.
- O. Self Service Storage Facility.

SECTION 14. AMENDMENT TO ZONING ORDINANCE CHAPTER 12, SECTION 12.03: Zoning Ordinance Chapter 12, Section 12.03, entitled “Special Land Uses,” is amended to add “Large Solar Energy System” as a special land use, and shall read as follows:

Land and/or buildings in the LI District may be used for the following purposes following approval by the Planning Commission as a Special Land Use as regulated by Chapter 14, including consideration of the Specific Special Land Use Requirements of Section 14.07:

- A. Adult Uses.
- B. Asphalt and concrete mixing plants.
- C. Automobile repair (major and minor).
- D. Automobile service stations.
- E. Building material sales.
- F. Farm machinery sales.
- G. Indoor and outdoor commercial recreation including bowling, miniature golf course, outdoor skating rinks and similar uses.
- H. Large Solar Energy Systems.

- I. Solid waste transfer stations and/or solid waste processing facilities.
- J. Manufacturing, processing or packaging of plastic products such as laminate, pipe, plumbing products, and miscellaneous molded or extruded products.
- K. Metal fabrication.
- L. Recycling centers.
- M. Removal and processing of topsoil, stone, rock, sand, gravel, lime or other soil or mineral resources.
- N. Skilled trade and general construction contractors' offices, warehouses and yards.
- O. Tool and die, job, machine, and skilled trade shops.
- P. Trucking terminals.

SECTION 15. AMENDMENT TO ZONING ORDINANCE CHAPTER 3, SECTION 3.26: Zoning Ordinance, Chapter 3, is amended to add Section 3.26, entitled "Solar Energy Systems," providing as follows:

SECTION 3.26 SOLAR ENERGY SYSTEMS

- A. Any Small Solar Energy System mounted on the ground shall comply with those requirements applicable to an accessory building under Section 3.07, or those requirements applicable to an accessory building within the zoning district in which the Solar Energy System is located, whichever are more stringent.
- B. A site plan shall be prepared and submitted to the Zoning Administrator for approval prior to commencing installation. The site plan shall include the proposed location and an elevation drawing showing the proposed height and foundation details.
- C. Small Solar Energy Systems shall not be constructed or installed in the front yard of any lot, absent a showing that the Solar Energy System cannot be operated efficiently on any other location on the property, and that such operation will not unreasonably interfere with adjacent properties.
- D. Any Small Solar Energy System erected on a building shall not extend beyond the peak of the roof, provided that a Small Solar Energy System erected on a flat roof shall otherwise comply with the other requirements of this Section. In no event shall any portion of a Solar Energy System extend beyond the lesser of either thirty (30) feet or the maximum building height permitted within the district in which that Solar Energy System is located.
- E. Any Solar Energy System mounted on the roof of a property must be installed with a minimum three (3) foot setback from the edges of the roof, the peak, the eave, or the valley.
- F. No Solar Energy System shall be installed in such a way as to pose an Unreasonable Safety Hazard.

- G. All Solar Energy Systems must conform to all applicable federal, state and county requirements, in addition to other applicable Township Ordinances, as well as any applicable industry standards.
- H. All Solar Energy Systems must be installed in a manner ensuring that concentrated solar glare shall not be directed onto nearby properties or roadways.
- I. Any Small Solar Energy System mounted on the ground shall be sufficiently screened from the view of adjacent properties or roadways through the use of solid fencing consistent with Section 3.25, or the installation of a wall, hedge, or other vegetation not less than four (4) feet and no more than eight (8) feet in height.
- J. All power transmission lines from a ground-mounted Solar Energy System to any building or other structure shall be located underground. The Township Board may waive this requirement, or may limit it through conditions, if it determines that it would be impractical or unreasonably expensive to install, place or maintain such transmission lines underground.
- K. Any Solar Energy System and the surrounding premises must be kept and maintained in good repair and condition at all times, and must continuously conform with all applicable building and electrical codes. This shall include, but is not limited to, ensuring that any fencing is maintained to provide sufficient protection and screening, that the property is kept clear of trash and other debris, that all aspects of the Solar Energy System are maintained according to industry standards, and that no portion of the Solar Energy System is in a blighted, unsafe, or substandard manner.
- L. An Abandoned Solar Energy System shall be removed by the property owner within six (6) months.

SECTION 16. AMENDMENT TO ZONING ORDINANCE, CHAPTER 15, SECTION 15.02: Zoning Ordinance Chapter 15, Section 15.02 is amended to add the following section, requiring site plan review for any Large Solar Energy Systems:

- A. A review of a final Site plan will be required by the Planning Commission in the following circumstances
 - 1. All special land uses.
 - 2. All Permitted Uses in the HC, GC, LI, R-3, and R-4 Districts, except as noted in B, below, including existing main buildings or principal uses where an alteration, addition, expansion, change or conversion constitutes an increase to the existing structure or use in excess of one thousand (1,000) square feet.
 - 3. All site condominium developments.
 - 4. All Large Solar Energy Systems; and
 - 5. All Planned Unit Developments.
- B. The Zoning Administrator shall be responsible for site plan review and approval for one family detached dwellings, two-family dwellings, agricultural uses, family day care and family foster care facilities, and accessory buildings and uses.

SECTION 17. AMENDMENT TO ZONING ORDINANCE CHAPTER 14, SECTION 14.07(SS):
Zoning Ordinance, Chapter 14, Section 14.07 is amended to add the following new Subsection:

SS. Large Solar Energy Systems.

- A. Purpose and Intent: The purpose and intent of this Subsection is to establish standards for the siting, installation, operation, repair, decommissioning and removal of Large Solar Energy Systems within the Agricultural and Light Industrial Districts as a Special Land Use.
- B. Site Plan Drawing and Supporting Materials: All applications for a Large Solar Energy System must be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered engineer licensed in the State of Michigan, displaying the following information:
1. All requirements for a site plan contained in Chapter 15 of the Township Zoning Ordinance.
 2. All lot lines and dimensions, including a legal description of each lot or parcel comprising the Large Solar Energy System.
 3. Names of owners of each lot or parcel within the Township that is proposed to be within the Large Solar Energy System.
 4. Vicinity map showing the location of all surrounding land uses.
 5. Location and height of all proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above-ground structures and utilities associated with the Large Solar Energy System.
 6. Horizontal and vertical (elevation) scale drawings with dimensions that show the location of the proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property.
 7. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Large Solar Energy System and within 1,000 feet of the outside perimeter of the Large Solar Energy System.
 8. Proposed setbacks from the Solar Array(s) to all boundary lines and all existing and proposed structures within the Large Solar Energy System.
 9. Land elevations for the Solar Array(s) location and the relationship to the land elevations of all existing and proposed structures within the Large Solar Energy System.
 10. Access driveways within and to the Large Solar Energy System, together with a detailed narrative regarding dimensions, composition, and maintenance of each proposed driveway. All access drives shall be subject to Jackson County Department of Transportation or Michigan Department of Transportation approval as appropriate, and shall be planned so as to minimize the use of lands for that purpose.
 11. Planned security measures to prevent unauthorized trespass and access and to warn of potential dangers during the construction, operation, removal, maintenance or repair of the Large Solar Energy System.

12. A written description of the maintenance program to be used for the Solar Array(s) and other components of the Large Solar Energy System, including decommissioning and removal procedures when determined by the Township to be obsolete, uneconomic or an Abandoned Solar Energy System. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Large Solar Energy System becomes obsolete, uneconomic or an Abandoned Solar Energy System.
13. A copy of the manufacturer's safety measures.
14. Planned lighting protection measures.
15. The environmental impact of the Large Solar Energy System, as reflected in an environmental impact study, including, but not limited to, a review of the following factors:
 - a. Impact on area water resources
 - b. Impact on air quality
 - c. Noise impacts caused by the Solar Energy System
 - d. Impact on utilities and infrastructure
 - e. Protection of neighboring property owners and children
 - f. Impact on wildlife
 - g. Effects on floodplains and wetlands
 - h. Unique farmlands or soils
 - i. Areas of aesthetic or historical importance
 - j. Archeological or cultural concerns
 - k. Any other environmental factors typically evaluated by other members of the commercial energy industry when evaluating locations for a proposed power-generating facility
16. A written description of measures to be taken to support the flow of rainwater throughout the Large Solar Energy System, including any measures to promote the growth of vegetation beneath the arrays and/or otherwise limit the impacts of storm water runoff. The measures shall be subject to the approval of the Jackson County Drain Commission.
17. A written contract with any energy provider or other purchaser of the energy produced by the Large Solar Energy System, demonstrating a commitment to purchase said energy. If

this information is considered a confidential trade secret, the Township, upon written request from an energy provider, will keep such information confidential to the extent and through the means authorized by Public Act 442 of 1976.

18. Additional detail(s) and information as required by the Special Land Use requirements of the Zoning Ordinance, or as required by the Planning Commission.
- C. Application Escrow Deposit: An escrow deposit shall be paid to the Township by the applicant when the applicant applies for a Special Land Use Permit for a Large Solar Energy System. The monetary amount deposited by the applicant in escrow with the Township shall be the amount estimated by the Township to cover all reasonable costs and expenses associated with the Special Land Use Permit review and approval process, which costs shall include, but are not limited to, reasonable fees of the Township Attorney, Township Planner and Township Engineer, as well as costs for any reports or studies that are reasonably related to the zoning review process for the application. Such escrow amount shall be in addition to any filing or application fees established by resolution. At any point during the Special Land Use Permit review process, the Township may require that the applicant place additional funds into escrow with the Township if the existing escrow amount deposited by the applicant is deemed insufficient by the Township. If the escrow account needs replenishing and the applicant refuses to do so promptly, the Special Land Use Permit process shall cease unless and until the applicant makes the required additional escrow deposit. Any applicable zoning escrow resolutions or other ordinances adopted by the Township must also be complied with by the applicant.
- D. Compliance with the State Building Code and the National Electric Safety Code: Construction of a Large Solar Energy System shall comply with the National Electric Safety Code and the state construction codes as administered and enforced by the Township (as shown by approval by the Township) as a condition of any Special Land Use Permit under this section.
- E. Certified Solar Array Components: Components of a Solar Array shall be approved by the Institute of Electrical and Electronics Engineers (“IEEE”), Solar Rating and Certification Corporation (“SRCC”), Electronic Testing Laboratories (“ETL”), or other similar certification organization acceptable to the Township.
- F. Height: Maximum height of a Solar Array shall not exceed fifteen (15) feet. Other collection devices, components or buildings of the Large Solar Energy System shall not exceed thirty-five (35) feet, or the maximum building height permitted within the district in which that Solar Energy System is located, whichever is less, at any time or location on the property. The height shall be measured from the natural grade at the base of the Solar Array, device, component or building measured. The Township Board may waive or modify these height requirements for certain aspects of a Solar Energy System (such as structures associated with above-ground transmission lines) through the implementation of conditions when appropriate.
- G. Lot Size: A Large Solar Energy System shall be located on one or more parcels with an aggregate area of 10 acres or greater.
- H. Setbacks: A minimum setback distance of forty (40) feet from all property boundaries on the outside perimeter of the Large Solar Energy System shall be required for all buildings and Solar Arrays except for property boundaries where the applicable adjoining owner(s) agree to lessen or increase that setback distance by executing a signed written waiver of this requirement in

recordable form, provided no such waiver shall act to permit less than the required minimum setback of the applicable zoning district.

- I. Lot Coverage: A Large Solar Energy System is exempt from maximum lot coverage limitations.
- J. Screening/Security: A Large Solar Energy System shall be completely enclosed by perimeter security fencing to restrict unauthorized access. Such fencing shall be 8 (eight) feet in height as measured from the natural grade of the fencing perimeter. Electric fencing is not permitted. The perimeter of Large Solar Energy Systems shall also be screened and buffered by installed evergreen vegetative plantings whenever existing natural forest vegetation does not otherwise continuously obscure the Large Solar Energy System's entire perimeter from adjacent parcels, subject to the following requirements:
 1. Unless screened and buffered at all times by natural forest vegetation meeting the minimum spacing and height requirements, and having a substantially similar obscuring effect of an evergreen vegetative buffer installed pursuant to this Section, a continuous evergreen vegetative buffer shall be installed and maintained at all times at the perimeter of the all Large Solar Energy Systems, including without limitation between such Large Solar Energy Systems and adjacent residential or agricultural areas and/or public highways or streets. Nothing contained herein shall be construed to prevent reasonable access to any Large Solar Energy System as approved by the Special Land Use Permit.
 2. The evergreen or native vegetative buffer shall be composed of native or evergreen trees that at planting shall be a minimum of four (4) feet in height and shrubs two (2) feet in height. The evergreen trees shall be spaced no more than fifteen (15) feet apart on center (from the central trunk of one plant to the central trunk of the next plant), native trees shall be placed no more than thirty (30) feet apart on center and shrubs shall be spaced no more than seven (7) feet apart on center. All unhealthy (sixty (60) percent dead or greater) and dead material shall be replaced by the applicant within six (6) months, or the next appropriate planting period, whichever occurs first, but under no circumstances should the applicant allow unhealthy or dead material to remain in place for more than six (6) consecutive months. Failure to maintain the required evergreen vegetative buffer as required by this section shall constitute a violation of this Ordinance and sufficient grounds for revocation of any Special Land Use Permit previously granted.
 3. All plant materials shall be installed between March 15 and November 15. If the applicant requests a Final Certificate of Occupancy from the Township and the applicant is unable to plant during the installation period, the applicant will provide the Township with a letter of credit, surety or corporate guarantee for an amount equal to one and one-half (1.5) times the cost of any planting deficiencies that the Township shall hold until the next planting season. After all plantings have occurred, the Township shall return the financial guarantee.
- K. Signage: No lettering, company insignia, advertising, graphics or other commercially-oriented inscriptions or designs shall be on any part of the Solar Arrays or other components of the Large Solar Energy System. This section does not prohibit signs reasonably necessary to inform the public of potential safety hazards associated with the Large Solar Energy System, nor does it prohibit any other signs that may be required by this Ordinance, the Special Land Use Permit or other applicable law.

- L. Noise: No component of any Large Solar Energy System shall emit noise exceeding forty-five (45) dBA as measured at the outside perimeter of the project.
- M. Lighting: All lighting for parking lots, driveways, external illumination of buildings, or the illumination of signs shall be directed away from and be shielded from adjacent properties and shall be so arranged as to not adversely affect driver visibility on adjacent public roads.
- N. Glare: All solar panels shall be placed such that concentrated solar glare shall not be directed onto nearby properties or roadways.
- O. Distribution, Transmission and Interconnection: All collection lines and interconnections from the Solar Array(s) to any electrical substations shall be located and maintained underground inside the Large Solar Energy System. The Township Board may waive this requirement, or modify it with appropriate conditions, if it determines that it would be impractical or unreasonably expensive to install, place or maintain such collection lines and interconnections underground.
- P. Abandonment and Decommissioning: Following the operational life of the project, or at the time the project becomes obsolete, uneconomic or an Abandoned Solar Energy System, as determined by the Township Engineer or any other expert or specialist to be designated by the Township to make such a determination, the applicant shall perform decommissioning and removal of the Large Solar Energy System and all its components. The applicant shall prepare a Decommissioning Plan and submit it to the Planning Commission for review prior to issuance of the Special Land Use Permit. Under this plan, all structures and facilities shall be removed, including any structures below-grade, and removed offsite for disposal. No concrete, piping and other materials may be left in place. Any Solar Array or combination of Photovoltaic Devices that become an Abandoned Solar Energy System shall be removed under the Decommissioning Plan. The ground must be restored to its original condition within 180 days of becoming an Abandoned Solar Energy System, or decommissioning, whichever occurs first.
- Q. General Standards: The Planning Commission shall not recommend for approval any Large Solar Energy System Special Land Use Permit unless it finds that all of the applicable standards for Special Land Uses contained in Chapter 14 of this Ordinance are met, or will be met through the implementation of appropriate conditions.
- R. Safety: The Planning Commission shall not recommend for approval any Large Solar Energy System Special Land Use Permit if it finds the Large Solar Energy System will pose an Unreasonable Safety Hazard to the occupants of any surrounding properties or area wildlife.
- S. Conditions and Modifications: Any conditions and modifications approved by the Planning Commission shall be recorded in the Planning Commission's meeting minutes. The Planning Commission may, in addition to other reasonable conditions, require landscaping, walls, fences and other improvements that are reasonable in relation to and consistent with the nature of the applicable or adjacent zoning districts. After approval, at least two (2) copies of the final approved Site Plan shall be signed and dated by the Chairman of the Planning Commission and authorized representative of the applicant. One copy shall be kept on file by the Township Clerk, and one copy shall be returned to the applicant's authorized representative.

- T. Inspection: The Township shall have the right at any reasonable time to inspect the premises on which any Large Solar Energy System is located. The Township may hire one or more consultants to assist with any such inspections, at the applicant's or project owner's expense.
- U. Maintenance and Repair: Each Large Solar Energy System must be kept and maintained in good repair and condition at all times. If the Township Zoning Administrator determines that a Large Solar Energy System fails at any time to meet the requirements of this Ordinance and the Special Land Use Permit, or that it poses a potential Unreasonable Safety Hazard, the applicant shall shut down the Large Solar Energy System within 48 hours after notice by the Zoning Administrator and not operate, start or restart the Large Solar Energy System until the condition has been corrected. Applicant shall keep a maintenance log on the Solar Array(s), which shall be available for the Township's review on a monthly basis. Applicant shall keep all sites within the Large Solar Energy System neat, clean and free of refuse, waste or unsightly, hazardous or unsanitary conditions.
- V. Roads: Any material damages to a public road located within the Township resulting from the construction, maintenance or operation of a Large Solar Energy System shall be repaired at the applicant's expense. In addition, the applicant shall submit to either the Jackson County Department of Transportation or MDOT (as appropriate) a description of the routes to be used by construction and delivery vehicles; any road improvements that will be necessary to accommodate construction vehicles, equipment or other deliveries; and a performance guarantee acceptable to the appropriate agency in an amount necessary to assure repair of any damage to the public roads caused by construction of the Large Solar Energy System or any of its elements.
- W. Continuing Security and Escrow: If any Large Solar Energy System is approved for construction under this Section, applicant shall be required to post continuing security and a continuing escrow deposit prior to commencement of construction, which shall remain in effect until the Large Solar Energy System has been finally removed, as provided below:
1. Continuing Restoration Security: If a Special Land Use Permit is approved pursuant to this section, the Township Board shall require security in the form of a cash deposit, letter of credit, or surety bond acceptable to the Township, which will be furnished by the applicant to the Township in order to ensure full compliance with this section and all conditions of approval. When determining the amount of each required security, the Township may also require an annual escalator or increase based on the Consumer Price Index (or its equivalent or successor). Such financial guarantee shall be deposited or filed with the Township Clerk after a Special Land Use Permit has been approved but before construction commences on the Large Solar Energy System. At a minimum, the financial security shall be in an amount determined by the Township to be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the Large Solar Energy System. Such financial security shall be kept in full force and effect during the entire time that the Large Solar Energy System exists or is in place, and such financial security shall be irrevocable and non-cancelable. In addition, the party operating a Large Solar Energy System approved by the Township shall inform the Township in the event that System, or a material portion of that system is sold to a third party, and any such sale shall require the purchasing party to provide the Township with the security described by this section, along with relevant contact information.

2. Continuing Compliance and Enforcement Escrow Deposit: A continuing escrow deposit shall be held by the Township and shall be funded by a cash deposit, letter of credit, or surety bond by the applicant prior to the commencement of construction of any Large Solar Energy System and shall be maintained by the owner or operator until the Large Solar Energy System has been permanently decommissioned and removed. The monetary amount placed by the applicant in escrow with the Township shall be estimated by the Township to cover all reasonable costs and expenses associated with continuing enforcement of this Ordinance and the terms of the Special Land Use Permit, which costs can include, but are not limited to, reasonable fees for the Township Attorney, Township Planner and Township Engineer, as well as costs for any reports or studies that the Township determines are reasonably related to enforcement of the Ordinance and the Special Land Use Permit. If the Township is required to expend any portion of the escrow deposit or if the existing escrow amount paid by the applicant proves to be insufficient to cover the Township's enforcement costs, the Township may require the applicant to place additional monies into escrow with the Township.
 3. Continuing Obligations: Failure to keep any required financial security and escrow deposit in full force and effect at all times while a Large Solar Energy System exists or is in place shall constitute a material and significant violation of the Special Land Use Permit and this Ordinance, and will subject the Large Solar Energy System applicant, owner and operator to all remedies available to the Township, including enforcement action and revocation of the Special Land Use Permit. A review of security and escrow requirements shall occur no less than annually to determine compliance with this section.
- X. Conditions: In addition to the requirements of this Section, the Planning Commission may impose additional reasonable conditions on the approval of a Large Solar Energy System as a Special Land Use.
- Y. Completion of Construction: The construction of any Large Solar Energy System must commence within a period of one (1) year from the date a Special Land Use Permit is granted, and must be completed within a period of three (3) consecutive years from the date a Special Land Use Permit is granted. The Planning Commission may grant an extension not to exceed one (1) year, provided the applicant requests the extension prior to the date of the expiration of the Special Land Use approval. Failure to complete construction within the permitted time period shall result in the approved Special Land Use Permit being rendered null and void.
- Z. Quarterly Reports: The owner or operator of a Large Solar Energy System shall provide the Zoning Administrator with quarterly reports on trends and usage of that System as set by the Township Board. If this information is considered a confidential trade secret, the Township, upon written request from an energy provider, will keep such information confidential to the extent and through the means authorized by Public Act 442 of 1976.
- AA. Transfer of Ownership/Operation: Prior to a change in the ownership or operation a Large Solar Energy System, including, but not limited to, by the sale or lease of that System or the underlying property, the current owner or operator shall provide written notice to the Township at least sixty (60) days prior to that change becoming effective. This notice shall inform the Township of the intended transfer of control of the Large Solar Energy System, and shall include a copy of the instrument or agreement effecting that transfer. Such an instrument or agreement shall include an express statement that the new owner or operator of the Large Solar Energy System shall not be permitted to operate that System until compliance with the terms of

Cathy Zenz, Township Clerk
Grass Lake Charter Township

CERTIFICATION

I hereby certify that:

1. The above is a true copy of an Ordinance adopted by the Grass Lake Charter Township Board at a duly scheduled and noticed meeting of that Township Board held on _____, 2018, pursuant to the required statutory procedures.
2. A summary of the above Ordinance was duly published in the _____ newspaper, a newspaper that circulates within Grass Lake Township, on _____, 2018.
3. Within 1 week after such publication, I recorded the above Ordinance in a book of ordinances kept by me for that purpose, including the date of passage of the ordinance, the names of the members of the township board voting, and how each member voted.
4. I filed an attested copy of the above Ordinance with the Jackson County Clerk on _____, 2018.

ATTESTED:

Cathy Zenz, Township Clerk