

DRAFT: May 4, 2023
Approved: May 8, 2023
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**GRATTAN TOWNSHIP
KENT COUNTY, MICHIGAN
(Ordinance No. 2023-003)**

At a regular meeting of the Township Board for Grattan Township held at the Township offices within the Township on May 8, 2023, at 7:00 p.m., the following Ordinance/ordinance amendment was offered for adoption by Township Board Member Paul Knoerl and was seconded by Township Board Member Dennis Heffron:

**AMENDMENTS TO THE GRATTAN TOWNSHIP ZONING
ORDINANCE REGARDING SOLAR PANELS, SOLAR
ENERGY SYSTEMS AND RELATED USES AND MATTERS.**

THE TOWNSHIP OF GRATTAN (the “Township”) ORDAINS:

Article 1. Several new definitions are hereby added to Chapter 2 of the Grattan Township Zoning Ordinance, as amended:

2.65A – SOLAR ENERGY SYSTEMS (SES): Solar energy collectors, systems, panels, parts, controls, poles, posts, energy storage devices, heat pumps, heat exchangers, and/or other materials, items, hardware, and/or equipment necessary to the process by which solar radiation is collected, converted into another form of energy, stored, protected from unnecessary dissipation, and distributed. Solar energy systems include solar thermal, photovoltaic, and concentrated solar. This definition does not include small devices or equipment such as solar powered lawn or building lights which house both the solar energy generation system and the system which uses that energy to operate.

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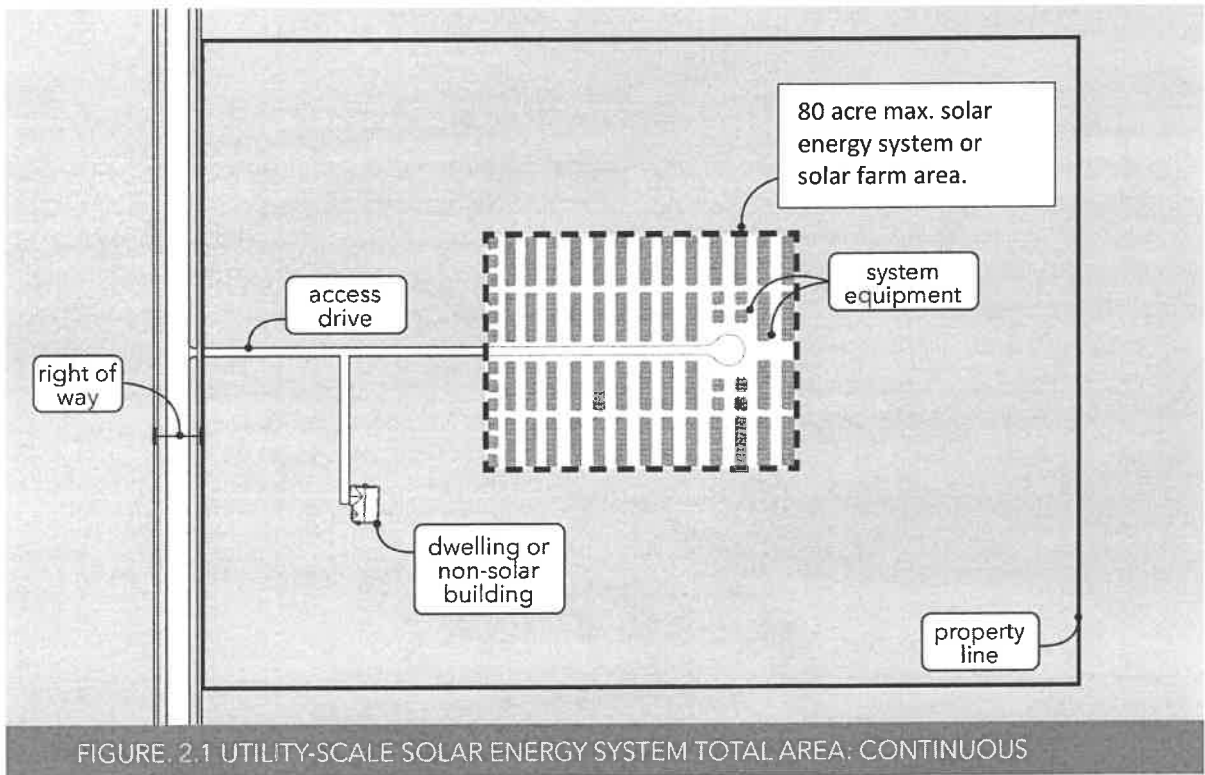
2.55B – PRIME AGRICULTURAL SOILS OR AREAS (also referred to as PRIME AND/OR UNIQUE FARMLAND): Shall mean one, some or all of the following:

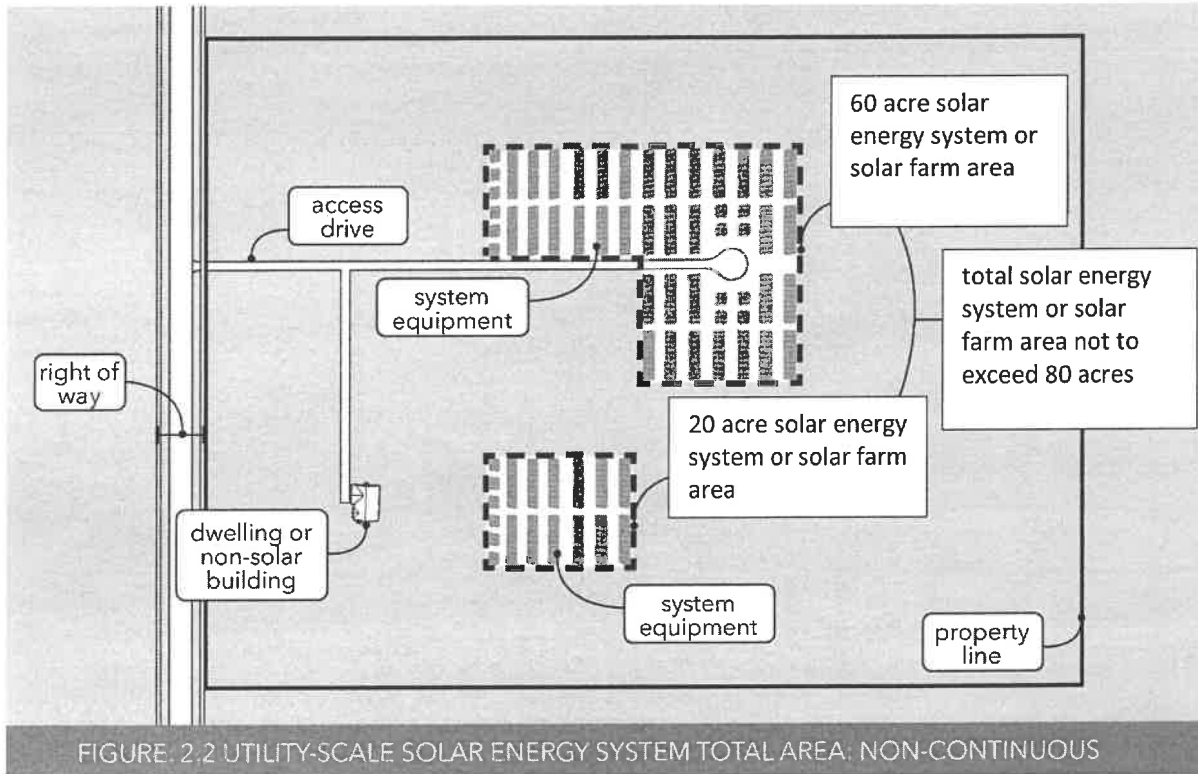
1. Any land or property in a contract or program pursuant to Michigan Public Act No. 116 of 1974, as amended, being MCL 324.36101 *et seq.* (commonly called “PA 116”).
2. Any land or property in or subject to a conservation easement, farmland preservation agreement or the equivalent.
3. Any land or property shown as “prime farmland” or “unique farmland” on a current or future Grattan Township Master Plan Map.

- Any land or property identified as prime farmland or unique farmland by the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA).

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2.76A – TOTAL AREA (AS WELL AS LOT COVERAGE, LAND AREA, COVER, OCCUPY AND/OR SIZE): When used in association with or pertaining to a solar farm or solar energy system shall mean the total area of all components and parts of the solar farm or solar energy system and facilities (including the solar panels as if they were laying flat on the ground) on a lot or parcel within the outer periphery of those facilities as viewed from above or a bird’s-eye view. Such area shall include the area contained within the shortest line surrounding all of the solar facilities on a lot as viewed from above or a bird’s-eye view and as if all of the solar panels were laying flat on the ground. Vacant or unused land between and/or among solar panels, solar fixtures and solar facilities shall also be considered part of the coverage or total area. Please also see the following figures:





Article 2. Section 3.62 of the Grattan Township Zoning Ordinance (as amended) is hereby replaced in its entirety with the following and shall constitute the contents of Section 3.62 hereafter

3.62 SOLAR PANELS AND SYSTEMS

- A. Purpose. Grattan Township desires to promote the effective and efficient use of solar energy systems (i.e. solar farms, solar cells, collectors or panels and other solar energy collection systems or equipment) subject to reasonable regulations. It is the intent of the Township to permit these systems under certain circumstances by regulating the siting, design and installation of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of solar energy collectors. All building-mounted and ground-mounted solar energy collectors shall comply with the provisions of this Section.

Another purpose of this Section is to strike an appropriate balance between the interests of community residents, real property owners, and businesses interested in harnessing the energy of the sun through the installation and use of solar farms. While the creation of domestic local energy sources brings benefits to the state, region, and community, the installation and use of solar farms simultaneously creates concerns surrounding farmland preservation, community aesthetics, environmental impacts, wildlife impacts, property value impacts, noise, glare, public health, and other similar issues. Further, the dominance of one particular land use brings aesthetic and economic concerns and the impact on the viability of historic land uses such as farming in the community.

B. Criteria for the Use of all Solar Energy Equipment.

1. Residential solar energy equipment shall be located in the least visibly obtrusive location where panels would be functional.
2. Solar energy equipment shall be repaired or replaced or completely removed within nine (9) months of becoming nonfunctional, abandoned and/or at the end of their useful life of or the lease. Any ground disturbance from the removal of a ground mounted unit must be restored to its original condition or better within that nine month time period.
3. Each system shall conform to all applicable industry standards including those of NEC 2014, as amended, and conform to the latest updated version.

C. Application For Sketch Plan Review. An applicant who seeks to install building mounted solar energy equipment over 500 square feet in area shall submit an

application to the Township for sketch plan review and approval by the Planning Commission. The application shall include:

1. Photographs of the property's existing conditions.
2. Renderings or catalogue cuts of the proposed solar energy equipment.
3. A certificate of compliance demonstrating that the solar energy system has been tested and approved by Underwriters Laboratories (UL) or other approved independent testing agency. Proof of compliance with the National Electrical Code (Article 690 Solar Photovoltaic Systems, as amended) shall also be provided to the Township.
4. A sketch plan to indicate where the solar energy equipment is to be installed on the property.
5. A description of any screening to be provided for building or wall-mounted solar energy equipment.
6. Any fee(s) to be determined by the Township Board from time to time.

D. The following are exempt from Township approval requirements for Solar Panels:

1. The installation, use or presence of solar panel(s):
 - (a) On a building, with solar panels having a total area equal to or less than 500 square feet.
 - (b) For ground-mounted solar panels, with a total area per lot of 5,000 square feet or less of solar panels.
2. Repair and replacement of existing lawful solar energy equipment, provided that there is no expansion of the size or coverage area of the solar energy equipment.

3. Temporary use in agricultural or power-outage situations.

E. Building-Mounted Solar Energy Collector Requirements. A building-mounted solar energy system or collector shall be a permitted accessory use on buildings in all zoning districts, subject to all of the following requirements:

1. Sketch plan review and approval by the Planning Commission is required of all building-mounted solar energy systems or collectors which in total aggregate over 500 square feet in area.
2. Solar energy systems or collectors that are mounted on the roof of a building shall not project more than five (5) feet above the highest point of the roof but, in any event, shall not exceed the maximum building height limitation for the zoning district in which it is located, and shall not project beyond the eaves of the roof.
3. Solar energy systems or collectors mounted on the roof of a building shall be only of such weight as can safely be supported by the roof. Proof thereof, in the form of certification by a professional engineer or other qualified person, shall be submitted to the Township prior to installation and such certification shall be subject to the Township building official's approval.
4. Solar energy systems or collectors that are roof-mounted, wall-mounted or are otherwise attached to a building or structure shall be permanently and safely attached to the building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Township prior to installation. Such proof shall be subject to the Township building

official's approval and compliance with the National Electrical Code and other applicable codes.

5. Solar energy systems or collectors that are wall-mounted shall not exceed the height of the building wall to which they are attached.
6. Solar energy systems or collectors shall not be mounted on a building wall that is parallel to or visible from an adjacent public right-of-way.
7. The exterior surfaces of solar energy systems or collectors that are mounted on the roof or on a wall of a building, or are otherwise attached to a building or structure, shall be generally neutral in color and substantially non-reflective of light.
8. Solar energy systems or collectors shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy of such directions shall be submitted to the Township prior to installation. The Township building official may inspect the completed installation to verify compliance with the manufacturer's directions, the National Electrical Code and any other applicable codes.
9. Solar energy systems or collectors, and the installation and use thereof, shall comply with the state's construction code, the electrical code and other applicable Township codes.
10. The total area of solar panels on any building shall not exceed 1,000 square feet. Notwithstanding such limitation, the total area of solar panels on any building used for bona fide agricultural or farm uses shall not exceed 5,000 square feet.

F. Large Solar Energy Collector Systems (also called “solar farms”).” In the event that the total area or size of all solar energy collectors and panels on a lot exceeds 10,000 square feet (“large solar energy collector system” or “solar farm”), regardless of whether the solar energy collectors or panels are owned, leased or operated by a public or private utility, homeowner or other person or entity, and regardless of whether the electricity or heat produced is used solely on site or is transmitted for use elsewhere, then special land use approval is required. If the total area or size of all solar energy collectors and panels on a lot is over 500 square feet in total area but does not exceed 10,000 square feet in total area or size, then special land use approval is not required but sketch plan review and approval by the Planning Commission is required.

1. Ground-mounted solar energy collectors or systems shall be located only as follows, if there is a building on the property:
 - (a) They may be located in the rear yard and the side yard, but not in the required rear yard setback or in the required side yard setback unless permitted by the Planning Commission in its approval of the special land use.
 - (b) They may be located in the front yard only if permitted by the Planning Commission in its approval of the special land use but, in any event, they shall not be located in the required front yard setback.
 - (c) If there is a building on the property, set backs will be applicable per zoning requirements for structures for the zoning district involved.

- (d) Every large energy collection system and solar farm (and all components thereof) shall be located at least 100 feet from every wetland, stream and river, and shall be located at least half (1/2) mile from any lake (and any portion thereof).
 - (e) If a ground-mounted solar energy system or solar farm on a lot exceeds 5 acres in size or area, then all collectors, panels and facilities must be located at least 100 feet from any public road and 100 feet from any property line.
2. Ground-mounted solar energy collectors and facilities shall not exceed twelve (12) feet in height, measured from the ground at the base of such equipment, and the solar panels must be at least 3 feet off of the ground.
 3. Solar energy collectors and facilities shall be permanently and safely attached to the ground. Proof of the safety and reliability of the means of such attachment shall be submitted to the Township with the special land use application and shall be subject to site development plan review.
 4. Solar energy collectors and facilities shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted to the Township with the special land use application. The special land use, if granted, shall be subject to the Township building official's inspection to determine compliance with the manufacturer's directions.
 5. The exterior surfaces of solar energy collectors, facilities and panels shall be generally neutral in color and substantially non-reflective of light.

6. Ground-mounted solar energy collectors, facilities and panels and the installation and use thereof, shall comply with the Township construction code, the electrical code and other applicable codes.
7. Security and Fencing: Security for a solar energy system over 5 acres in size or area requires a completely enclosed perimeter security fence to restrict unauthorized access. Fencing shall not exceed eight (8) feet in height, unless approved by the Planning Commission. Use of barbed-wire fencing requires Planning Commission approval. Electric fencing is not permitted. Fencing more than eight (8) in height feet may be required to be set back further from the public or private road right-of-way or easement or property lines. Any substation or support structures and related electrical transmission equipment buildings shall be further secured with additional fencing and security measures, locks, and restricted access. Any public roadways or access points to the parcel shall have additional fencing and/or restricted access measures. The Planning Commission may require wildlife-friendly fencing with openings that allow wildlife to traverse over or through a fenced area.
8. Screening vegetation is required where perimeter fencing abuts residential lands, public roads, parks, trails, or other non-commercial properties or agriculture land.
9. Solar energy equipment and facilities shall be repaired or replaced or completely removed within nine (9) months of becoming nonfunctional, abandoned, and/or at the end of the lease. Any ground disturbance from the

removal of a ground mounted units must be restored to its original condition or better within that nine month time period.

10. Any special land use approval may include terms and conditions in addition to those stated in this Ordinance.
11. Large energy collection systems and solar farms over 5 acres in size or area are only allowed within the A-2 Agricultural and R-R Rural Residential zoning districts and only with special land use approval by the Planning Commission.
12. Special Land Use approval is required for all large energy collection systems and solar farms over 5 acres in size or area. The applicant shall also comply with all applicable federal, State of Michigan and county requirements, in addition to other applicable Township ordinances and codes. All plans, drawings, or other material submitted for a solar energy system special land use approval shall be produced by licensed professionals appropriate for the materials. In addition to the Special Land Use standards found in Section 13.01F of this Ordinance, the Planning Commission shall also consider the following:
 - a. The Special Land Use shall not significantly adversely impact the property values of buildings, structures and lands located within one mile of the solar energy facilities or solar farm. A presumption arises that this standard will not be met if substantial evidence indicates that the proposed solar energy system or solar farm will decrease the value

of any parcels or lots (and/or the buildings, uses, land value or structures thereon) by 15% of fair market value or greater.

- b. The Special Land Use will not visually, aesthetically, economically or otherwise dominate other area land uses, structures or activities.
 - c. The Special Land Use shall be harmonious and consistent with the intent of the Township Zoning Ordinance.
 - d. The Special Land Use will not establish a precedent for developments or uses which could adversely affect the long-term goals of the Township Zoning Ordinance and Master Plan.
 - e. The Special Land Use shall be designed to preserve environmental features, such as lakes, streams, flood plains, agricultural areas and natural areas.
 - f. The Special Land Use shall be reasonable.
13. Township Land Coverage: Large solar energy collection systems and solar farms shall not occupy or cover more than three (3) percent of the total land area of Grattan Township. For determining land coverage or area, see the definition of Lot Coverage in Section 2.76A of this Ordinance.
14. Maximum Size: Large solar energy collection systems and solar farms shall not exceed eighty (80) acres in size per parcel or lot. For determining such maximum size, see the definition of size in Section 2.76A of this Ordinance. In addition, where two (2) or more large solar energy collection systems and/or solar farms (or the lots or parcels involved) are located within one (1) mile of one another and are owned or operated by the same person or

firm (or a related or affiliate firm), such systems shall be deemed to be one overall large solar energy collection system or solar farm for purposes of this Subsection 14 and the total size shall be attributable to each such lot or parcel. By way of explanation (but not of limitation), Parcel A has an existing large solar energy collection system or solar farm that is 40 acres in size. Parcel B is located within one-half mile of Parcel A and the same property owner, firm or affiliate of the firm that owns or operates the large solar energy collection system or solar farm on Parcel A is proposing a new 30 acre large solar energy collection system or solar farm on Parcel B. The total of the land area for the existing and proposed large solar energy collection system and/or solar farm would not exceed 80 acres, such that the maximum size limit would not be exceeded. Alternately, Parcel 1 has an existing large scale energy collection system or solar farm that is 60 acres in size. Parcel 2 is located three-quarters of a mile from Parcel 1. The owner, firm or affiliated firm that owns or operates the large scale energy collection system or solar farm on Parcel 1 is proposing a new 30 acre large scale energy collection system or solar farm on Parcel 2. Accordingly, both Parcel 1 and Parcel 2 are deemed to have a large scale energy collection system or solar farm with the size of 90 acres, such that the new large scale energy collection system and/or solar farm cannot be built, installed or utilized on Parcel 2.

G. Farmland preservation.

1. No ground-mounted solar energy collectors or collection system shall be installed or utilized on any land that is subject to a farmland conservation easement, the loss of development rights (or a PDR agreement) or any farmland preservation program unless approved by the Planning Commission as a special land use and the Township Board also approves such ground-mounted solar energy collectors or collection system by a vote of at least two-thirds of all of the members of the Township Board. Such restriction shall not apply to any farmland simply because it is in the PA 116 farmland preservation program of the State of Michigan.
2. Large scale energy collection systems or solar farms shall generally not be located on or within prime or unique farm or agricultural soils or areas.
3. For sites where agriculture uses or farms are a permitted use in the zoning district where the lot or parcel is located, a large scale energy collection system or solar farm shall be sited so as to minimize impacts to agricultural production through site design and accommodations. The applicant shall follow the following protective methods, and provide reasonable evidence to the Planning Commission that the site will be reasonably capable of maintaining agricultural operations and/or a return to agricultural production upon decommissioning of the large solar energy collection system or solar farm:
 - (a) The ground mounting of panels by screw, piling, or similar system that does not require a footing, concrete, or other permanent mounting in order to minimize soil compaction;

- (b) Siting panels to avoid disturbance and compaction of farmland by siting panels along field edges and in nonproductive areas to the maximum extent practicable and financially feasible;
- (c) Maintaining all drainage infrastructure on site, including drain tiles and ditches, during the operation of the utility-scale solar energy system;
- (d) Siting the large solar energy collection system or solar farm so as to avoid isolating farm operations such that they are no longer viable or efficient for agricultural production, including, but not limited to, restricting the movement of agricultural vehicles/equipment for planting, cultivation, and harvesting of crops, and creating negative impacts on support infrastructure such as irrigation systems or drains; and
- (e) Maintaining existing grading and topography on the site as much as practicable, including all soils except where needed to install footings or other infrastructure.
- (f) Prime or unique farm or agricultural soils and areas shall be avoided and not have large solar energy collection systems or solar farms or components thereon unless no other land is reasonably available and the facilities will not adversely affect other area uses.

Article 3. Existing Section 2.21 (entitled “Essential Public Services”) of the Grattan Township Zoning Ordinance, as amended, is hereby amended to add the following new and additional paragraph to such Subsection 2.21:

Biodigesters, solar energy systems, solar energy collection systems, solar farms and large solar energy collector systems shall not be considered “essential public services” regardless of whether they are owned, operated, used or benefited by a private or public utility, firm, an individual or entity.

[The existing language of Section 2.21 remains unchanged except for the addition of the sentence above.]

Article 4. The following new definition is hereby added to Chapter 2 of the Grattan Township Zoning Ordinance as amended:

2.05A - BATTERY FARM, BATTERY STORAGE FARM, BATTERY ENERGY STORAGE SYSTEM OR BATTERY STORAGE FACILITY:

Battery energy storage systems (“BESS”) (often also called a “Battery Storage Farm,” “Battery Farm” or “Battery Storage Facility”) are facilities or devices in areas that enable energy from renewals, like solar and wind, or other energy electric sources, to be stored on land and then released when customers or utilities need power. For purposes of this Ordinance, a “battery farm” or BESS is an area on a lot comprised of 2,000 square feet over more of batteries and related facilities and equipment including related buildings, batteries, pavement, impermeable surfaces, facilities and structures.

Article 5. Section 12.02 of the Grattan Township Zoning Ordinance, as amended, is hereby amended to add the following Subsection I:

- I. Battery Farm, Battery Storage Farm, Battery Energy Storage System or Battery Storage Facility.

Article 6. The Remainder of the Grattan Township Zoning Ordinance is Unaffected. Except as expressly amended by this Ordinance/ordinance amendment, the rest of Grattan Township Zoning Ordinance remains unchanged and in full force and effect.

Article 7. Severability. Should a court of competent jurisdiction determine that any portion of this Ordinance/ordinance amendment (or any portion thereof) is invalid or unconstitutional, that shall not affect the balance of this Ordinance/ordinance amendment, which shall remain in full force and effect.

Article 8. Effective Date. This Ordinance/ordinance amendment shall become effective upon the expiration of seven (7) days after this Ordinance/ordinance amendment or a summary thereof appears in the newspaper as provided by law.

The vote to adopt this Ordinance/ordinance amendment was as follows:

YEAS: Frank Force, Michelle Alberts, Sabrina Freeman, Dennis Heffron, Paul Knoerl

NAYS: None

ABSENT/ABSTAIN None

THE ORDINANCE/ORDINANCE AMENDMENT IS DECLARED TO BE DULY ADOPTED.

CERTIFICATION

I hereby certify the above is a true copy of the Ordinance/ordinance amendment adopted by the Township Board for Grattan Township as of the date, time and place as specified above, pursuant to the required statutory procedures.

Respectfully submitted,

By Michelle Alberts
Michelle Alberts
Grattan Township Clerk

