TOWNSHIP OF LYKENS
DAUPHIN COUNTY,
PENNSYLVANIA

AN ORDINANCE AMENDING CHAPTER 27 (RELATING TO **ZONING), PART 2 (DEFINITIONS) AND PART 19 (GENERAL REGULATIONS) OF THE TOWNSHIP OF LYKENS CODE OF ORDINANCES, AMENDING DEFINITIONS, AND AMENDING** AND **ESTABLISHING REQUIREMENTS FOR THE INSTALLATION, OPERATION AND DECOMMISSIONING OF** SOLAR ENERGV SYSTEMS AS ACCESSORY USES AND **PRINCIPAL USES**

ORDINANCE NUMBER XXXXXXXXXX

Section 1- Introduction

WHEREAS, the Pennsylvania Municipalities Planning Code, act of July 31, 1968, as amended, 53 P.S. §§ 10101 *et seq.,* enables a municipality through its zoning ordinance to regulate the use of property and the conservation of energy through access to and use of renewable energy resources; and

WHEREAS, the Township of Lykens, Dauphin County, Pennsylvania seeks to promote the general health, safety and welfare of the community by adopting and implementing this Ordinance providing for access to and use of solar energy systems; and

WHEREAS, the Township recognizes the importance of providing energy and power to the residents utilizing alternative energy systems, yet the Township seeks to maintain for future generations the agricultural and rural nature of the community as identified in the Agricultural District purpose in the Lykens Zoning Ordinance, and

WHEREAS, the purpose of this Ordinance is to set requirements for solar energy systems, and;

WHEREAS, Chapter 27, ZONING is to be amended with the addition of language to meet the mentioned goals;

IT IS HEREBY ENACTED AND ORDAINED by the governing body of the Township of Lykens, Dauphin County, Pennsylvania as follows:

Section 2 — Definitions

A. The following Definitions are added to Article 2 — DEFINITIONS of the Zoning code with the addition of the following:

ACCESSORY SOLAR ENERGY SYSTEM (ASES) (often referred to as "residential solar")
An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for on-site use. An accessory solar energy system consists of one or more freestanding ground- or roof-mounted solar arrays or modules, or solar-related equipment, and is intended to primarily reduce on-site consumption of utility power or fuels.

ENVIRONMENTALLY STABLE: The proper placing, grading, construction, reinforcing, lining, and covering of soil, rock, or earth to ensure their resistance to erosion, sliding or other movement.

PRINCIPAL SOLAR ENERGY SYSTEM (PSES): An area of land or other area used for a solar collection system principally used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for off-site use. Principal solar energy systems consist of one (1) or more free-standing ground, or roof mounted, solar collector devices, solar related equipment and other accessory structures and buildings including light reflectors, concentrators, and heat exchangers; substations; electrical infrastructure; transmission lines and other appurtenant structures.

SOLAR GRAZING: The practice of grazing livestock on solar farms. Sheep are the most common solar grazing animals, as they are the best-suited species. For the safety of low-mount solar arrays, goats, cows, pigs, and horses are not recommended.

SOLAR EASEMENT: A solar easement means a right, expressed as an easement, restriction, covenant, or condition contained in any deed, contract, or other written instrument executed by or on behalf of any landowner for the purpose of assuring adequate access to direct sunlight for solar energy systems.

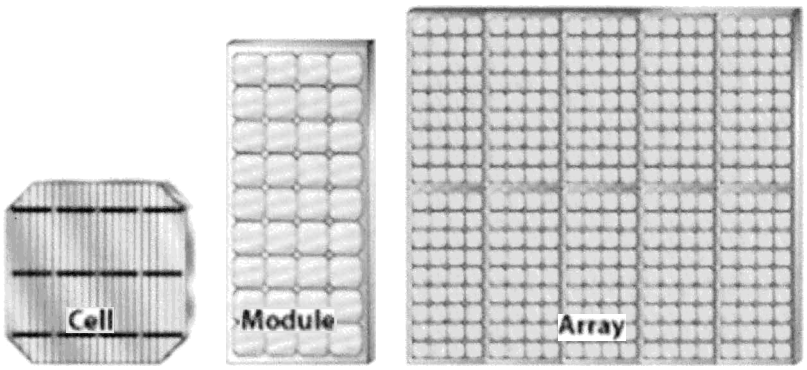
SOLAR ENERGY: Radiant energy (direct, diffuse and/or reflective) received from the sun.

SOLAR ENERGY SYSTEM: A solar photovoltaic cell, module, or array, or solar hot air or water collector device, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat.

1. SOLAR ARRAY: A grouping of multiple solar modules with the purpose of harvesting solar energy.

2. SOLAR CELL: The smallest basic solar electric device which generates electricity when exposed to light.

3. SOLAR MODULE: A grouping of solar cells with the purpose of harvesting solar energy.



SOLAR RELATED EQUIPMENT: Items including a solar photovoltaic cell, module, or array, or solar hot air or water collector device panels, lines, pumps, batteries, mounting brackets, framing and possibly foundations or other structures used or intended to be used for collection of solar energy.

STRAY VOLTAGE: A voltage resulting from the normal delivery and/or use of electricity (usually smaller than 10 volts) that may be present between two conductive surfaces that can be simultaneously contacted by members of the general public and/or their animals. Stray voltage is caused by primary and/or secondary return current, and power system induced currents, as these currents flow through the impedance of the intended return pathway, its parallel conductive pathways, and conductive loops in close proximity to the power system.

Section 3 – ACCESSORY SOLAR ENERGY SYSTEMS

The following language are to be incorporated into Section 27 Zoning and in Article 19 General Regulations of the Zoning Code, Part 19 (General Regulations), and Section 27-1903 (Accessory Uses and Structures).

The language in 1903.R Solar Collectors and Related Equipment is hereby replaced with the following language and 19.03.R shall be renamed ACCESSORY SOLAR ENERGY SYSTEMS

1. Accessory Solar Energy Systems (ASES)

A. Regulations Applicable to All Accessory Solar Energy Systems:

1. Exemptions

a. ASES with an aggregate collection and/or focusing area of 200 square feet or less are exempt from this ordinance.

b. ASES constructed prior to the effective date of this Section shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to an existing ASES, whether or not existing prior to the effective date of this Section that materially alters the ASES, shall require approval under this Ordinance. Routine

maintenance or like-kind replacements do not require a permit.

2. Accessory solar energy systems are a permitted use in all zoning districts.

3. It is recognized that the ground mounted requirements of Section 2 are not applicable to roof mounted facilities.

4. The ASES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with the Municipality's Building Code, and with all applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.

5. All on-site utility, transmission lines, and plumbing shall be placed underground to the greatest extent possible.

6. The ASES shall be designed to use all energy created solely on site.

7. Signage shall comply with the prevailing sign regulations.

8. All solar energy systems should be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.

9. All ASES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

B. Roof Mounted and Wall Mounted Accessory Solar Energy Systems:

1. A roof mounted or wall mounted ASES may be located on a principal or accessory building.

2. ASES mounted on roofs or walls of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within each of the applicable zoning districts,

3. Wall mounted ASES shall comply with the setbacks for principal buildings in the applicable zoning districts.

4. Solar panels shall not extend beyond any portion of the roof edge.

5. The owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of holding the load of the ASES.

C. Ground Mounted Accessory Solar Energy Systems:

1. Setbacks.

a. the minimum setbacks from side and rear property lines shall be equivalent to the principal building setbacks in the applicable zoning district.

b. A ground mounted ASES shall not be located in the required front setback.

c. Ground mounted ASES are prohibited in front yards unless unique physical circumstances or conditions exist that preclude it from being located in a side or rear yard. Such physical conditions may include, but are not limited to, restricted solar access in other yards, other resource constraints, unusual situation of the principal use on the parcel, etc.

2. Height

a. Freestanding ground mounted ASES shall not exceed twenty (20) feet in height above the ground elevation surrounding the systems.

3. Coverage.

a. The area beneath the ground mounted ASES is considered pervious cover.
i. EXCEPTION: in cases where areas under solar panels are paved or otherwise surfaced with impervious material (ie. parking lots or areas covered by panels), shall be considered to be IMPERVIOUS.

b. The following components of a ground mounted ASES shall be considered impervious coverage and calculated as part of the lot coverage requirements for the applicable zoning district:

i. Foundation systems, typically consisting of driven piles or monopoles or helical screws with or without small concrete collars; and

ii. All mechanical equipment of the system including any structure for batteries or storage cells.

4. Ground mounted ASES shall not be placed within any legal easement or right-of-way location, or be placed within any storm water conveyance system, or in any other manner that would alter or impede storm water runoff from collecting in a construed storm water conveyance system.

5. If a ground mounted ASES is removed, any earth disturbance as a result of the removal of the ground mounted solar energy system shall be graded and re-seeded.

Section 4 – PRINCIPAL SOLAR ENERGY SYSTEMS

The following language are to be incorporated into Section 27 Zoning and in Article 20 Conditional Uses of the Zoning Code, and Section 27-2004 (Specific Criteria).

A. The following language shall be inserted as 2004.P

P. Principal Solar Energy Systems (PSES)

Regulations Applicable to All Principal Solar Energy Systems:

PSES constructed prior to the effective date of this Section shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing PSES, whether or not existing prior to the effective date of this Section that expands the PSES shall require approval under this Ordinance. Routine maintenance or replacements do not require a permit.

1. Principal solar energy systems (PSES) are a conditional use in Agricultural (A), Light-Industrial (L-I) and Commercial-Business (C-B) Zoning Districts.

2. No PSES construction can be developed in lands that are enrolled in the Agricultural Preservation program.

3. Agricultural and PSES uses are permitted on the same lot and are considered as dual primary uses as prescribed by the zoning code.

4. In Agricultural Zoning Districts, no more than twenty five (25) percent of the entire area for development shall consist of Class I and Class II prime agricultural soils as defined by the then current version of the NRCS Custom Soil Resource Report. **For purposes of this section, development is considered to be disturbance or placement of panels.**

5.The PSES layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory(ETL),Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with Municipality's Building Code, and with all other applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.

6.A pre-fire plan is to be submitted to inform the Fire Company and other emergency responders regarding the special features to safely address potential emergency situations which are unique to PSES systems.

7.All on-site utility transmission lines and plumbing shall be placed underground to the greatest extent feasible.

8.The owner of a PSES shall provide the Municipality written confirmation that the public utility company to which the PSES will be connected has been informed of the customer's intent to install a grid connected system and approved of such connection. The owner shall provide a copy of the final inspection report or other final approval from the utility company to the Municipality prior to the issuance of a certificate of use and occupancy for the PSES.

9.No portion of the PSES shall contain or be used to display advertising. The manufacturing name and equipment information or indication of ownership shall be allowed on any equipment of the PSES provided they comply with the prevailing sign regulations.

10.All PSES shall be placed such that concentrated solar radiation or glare does not project onto nearby structures, roadways or beyond the boundaries of the land upon which it is located.

11.The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses. The Municipality will require anti-glare coating and the Municipality may, in its sole and absolute

determination, require applicant to provide the Municipality with a glare report/ study. The said report/study may be required at the time of application or any time thereafter. The said report/study shall be subject to review and approval by the Municipality. The cost of the review and approval shall be paid by applicant or owner.

12. All solar energy systems should be designed and located to ensure solar access without reliance on and/or interference from adjacent properties.

13. A noise study will be performed and submitted with the application. The noise study will be performed by an independent noise study expert and paid for by the applicant. Noise from a PSES shall not exceed 50 dBA, except during construction, as measured at the property line of non-participating landowners. The study shall be subject to review and approval of the Municipality, the costs of the same to be paid by applicant.

14. No trees or other landscaping otherwise required by the municipal ordinances or attached as a condition of approval of any plan, application, or permit may be removed for the installation or operation of a PSES, subject to approval of the Municipality.

15.For Emergency purposes, the PSES owner and/or operator shall maintain a phone number and address of a person responsible for the public to contact with inquiries and complaints throughout the life of the project and provide this number, address and name to the Municipality, the same to be updated when changed. The PSES owner and/or operator shall make reasonable efforts to respond to the public's inquiries and complaints no later than 3 days after the complaint was filed.

16. PSES owners shall properly maintain all panels, structures and equipment and shall repair or replace any damaged or visibly degraded components. Components shall be replaced in kind, or with equivalent parts or materials, consistent with the original design and manufacturer's specifications and shall be completed within sixty (60) days of the mailing of a notice by the Municipality of the need to make repairs or replacement. Said notice to be mailed by First Class Mail to the said responsible person provided for herein.

17. A Contingency Plan of Emergency Procedures shall be developed by the PSES owner consistent with standard operating practices of the industry and furnished to the Municipality, the local fire company and the County Department of Emergency Services at the time the application for a permit is submitted. The same shall be reviewed and updated, if necessary, every five (5) years.

18. Stray voltage caused by ASES or PSES shall not be detectable or emitted onto properties not participating in the solar project. In the event that stray

voltage is detected and the source is confirmed, the producer of the stray voltage shall be responsible for correcting the source and removing the stray voltage. Further, the producer of the stray voltage shall test for stray voltage at the affected property after corrections have been made to verify proper abatement. Producer of stray voltage shall be responsible for costs associated therewith.

B. Ground Mounted Principal Solar Energy Systems:

1. Minimum Lot Size

a. The PSES shall meet the lot size requirements of the applicable zoning district,

2. Setbacks

a. PSES AND ALL COMPONENTS shall be set back at least 200' from non-participating properties. **The setback may be waived by the property owner. In the event that a waiver is granted, it shall be in written format, notarized and signed by the non-participating land owner.**

b. The minimum side and rear yards specified above may be waived in the case of adjoining tracts of land within a single PSES. In the case where the PSES development encompasses multiple tracts of land, the setback requirements shall apply to the development and not the individual tracts of land. The setbacks shall apply to the perimeter of the entire development.

3. Height

a. Ground mounted PSES shall not exceed fifteen (15) feet in height.

4. Impervious Coverage

a. The area beneath the ground mounted PSES is considered pervious cover. However, use of impervious construction materials under the system could cause the area to be considered impervious and subject to the overall lot coverage requirement for the applicable zoning district. Gravel or paved access roads servicing the PSES, foundation systems, and any structures shall be considered impervious coverage and calculated as part of the impervious coverage limitations.

5. Stormwater

a. The Applicant shall submit a storm water management plan that demonstrates stormwater from the PSES will infiltrate into the ground beneath the PSES at a rate equal to that of the infiltration rate prior to the placement of the system.

6. PSES owners are encouraged to use low maintenance and/or low growing vegetative surfaces under the system as a best management practice for stormwater management. They are also encouraged to use pollinator grass cover at the edges of

the development.

7. Screening

a. Ground mounted PSES shall be screened from any adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of plant materials which provide an effective visual screen.

b. Street screening shall consist of shrubs, six feet to eight feet high when mature, that shall be planted every 15 feet of property abutting a public right-of-way in a manner to provide an effective visual screen. The exact type and placement type of vegetation shall be approved by the Township. Shrubs shall be planted adjacent to or outside of the road right-of-way. Solar perimeter fence shall be placed between shrubs and solar panels.

c. Perimeter fence shall be placed between shrubs and solar panels.

d. Widespread use of herbicides to control ground cover growth is prohibited.

e. Unless agreed to by the easement or right-of-way holder, ground-mounted PSES shall not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

8. Security

a. All ground mounted PSES shall be completely enclosed by fencing that consists of a minimum six (6) foot high fence with a locking gate, or as designated by the municipality.

b. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the PSES informing individuals of potential voltage hazards.

9. Access drives are required to allow for maintenance and emergency management vehicles. The minimum cart way width is ten 10 feet with a one foot level area on each side of the roadway. The access drive is to be a DOT approved aggregate material.

10. If a ground mounted PSES is removed, any earth disturbance as a result of the removal of the ground mounted solar energy system must be graded and re-seeded.

11. Excavation or grading shall be limited to that required for the footers, posts, etc. for each individual solar panel within areas of Class 1 and Class 2 prime agricultural soils. Grading that would alter the existing contour or elevation of the land, modify stormwater drainage, or alter soil profiles beyond the exception herein noted are not permitted. These restrictions are in place to facilitate the restoration to prime farmland at the time of decommissioning the solar site.

12. A pull off parking area is to be proved for maintenance purposes adjacent to any building or stations. No other parking requirement is required.

13. Solar grazing. Solar grazing with sheep is highly encouraged and a preferred method of

controlling ground cover growth.

(I)Benefits of solar grazing

- Farm income is more diversified and increases family farm viability.
- Farmland conservation and keeps farmland in farm production.
- Benefit and aesthetics for the community.
- Solar grazing contributes dairy, meat, and wool to the locally sourced, renewable farm market.
- With time, planning, and good management, sheep can do 90% to 100% of the vegetative maintenance work inside the fence, eliminating the need for mowing and reducing emissions and costs.

(II)If solar grazing to be provided, the following features are to be supplied, provided or allowed:

(1) Provide a water well for sheep if public water or reliable on-lot water (steam or pond) is not available.

(2) Seed fenced area with grazing-friendly seed mix, such as Fuzz & Buzz seed mix or similar.

(3) Where applicable, install fencing gates between adjoining solar parcels for moving sheep and line up gates between separately fenced sections of the arrays.

(4) Allowance to farmer to use portable low-voltage energizers and fences. In lieu of this fencing, installation of low (three-foot) interior fences to facilitate best grazing/ vegetation management.

(5) Install pipe fences and gates around inverter/transformer pads.

(6) Allow signs on road gates for sheep farmers to advertise their organic, value-added products.

R. oof Mounted Principal Solar Energy Systems:

a. The owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of holding the load of the PSES.

b. PSES mounted on roofs of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district,

3—Decommission of **Principal Solar Energy Systems (PSES)**

A. Documentation

1. An affidavit, or similar evidence, signed by the property owner and the PSES facility owner affirming a lease agreement with a decommissioning clause (or similar) and a successors and assigns clause. The successors and assigns clause must bind those successors and assigns to the lease agreement.

2. The PSES owner is required to notify the Municipality immediately upon cessation or abandonment of the operation. The PSES shall be presumed to be

discontinued or abandoned if no electricity is generated by such system for a period of 12 continuous months and the owner has not initiated necessary remedial actions to return the PSES to a generating state. If the PSES owner fails to dismantle and/or remove the PSES within 18 months of cessation or abandonment, the Municipality may complete the decommissioning at the property owner's expense. The PSES owner must post a bond when the application for such a system is filed with the Municipality in an amount determined by the Municipality's Engineer, to ensure the proper decommissioning.

3. The applicant for a Zoning Permit for a PSES shall execute an agreement with the Municipality providing financial security in an amount equal to one hundred twenty five (125%) per cent of the estimated cost to decommission the PSES. The estimated cost shall be prepared by the applicant and shall be in writing itemizing the costs. The estimated costs shall be subject to the approval of the Municipality. The financial security shall be:

(1) funds deposited with the Municipality,

(2) a bond from an entity acceptable to the Municipality or

(3) an irrevocable letter of credit from an entity acceptable to the Municipality

The agreement and financial security shall remain in effect until the PSES is decommissioned and the land restored to its original condition. The financial security may be utilized by the Municipality to pay the costs of repair, replacement, dismantling, removal and/or restoration of the PSES or the land as provided herein. Every five (5) years, a new estimate of the said costs shall be submitted to the Municipality in writing by the owner of the PSES. The said estimate shall be subject to the approval of the Municipality. The said financial security shall be adjusted to equal one hundred twenty five (125%) per cent of the said estimated costs. In the event the Municipality utilizes the said financial security as herein provided, the owner of the PSES shall, immediately, replace the funds so utilized to the 6-46 extent necessary to provide financial security in the amount of the said one hundred twenty (125%) per cent. The Municipality shall be entitled to an administrative fee of ten (10%) per cent of the cost of any work done by it pursuant hereto. The same may be deducted from the financial security. Should the financial security not be sufficient to paythe costs and the fee, the owner of the PSES shall be liable for the costs and fees not paid from the financial security. The agreement referred to herein shall be prepared by the Municipality. All costs, expenses and fees incurred by the Municipality in reviewing the estimates or enforcing the said agreement shall be paid by the owner of the PSES within ten (10) days of receiving a bill for the same.

4.- Administration

A. Applications

1. Permit applications shall document compliance with this Ordinance and shall be accompanied by drawings showing the location of the solar energy system on the building or property, including property lines. Permits must be kept on the premises where the solar energy system is located.

2. The permit shall be revoked if the solar energy system, whether new or preexisting, is moved or otherwise altered, either intentionally or by natural forces, in a manner which causes the solar energy system not to be in conformity with this Ordinance.

3. The solar energy system must be properly maintained and be kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety, or general welfare.

4. An approved land development plan shall accompany all permit applications excluding those for ASES which are accessory to a single-family residential use.

B. Fees and Costs

1 . The Applicant shall pay fees associated with the general fees provisions of the Township Code. The fees will be reflective of the actual fees or costs incurred arising out of or related to the Application (collectively the "Costs"). The Costs shall include, but not be limited to, engineering, zoning officer, building code official and legal fees.

C, Access

The landowner and developer shall execute an agreement with the Municipality authorizing the Municipality, its employees, agents, and contractors to enter upon the real estate for the purpose of making inspections, repairs, replacements, dismantling and/or removal as provided herein, the same to include a release of liability for any damages caused by the Municipality, its employees, agents or contractors and an indemnification of the Municipality, its employees, agents, or contractors. The said agreement shall be prepared by the Municipality and shall be submitted with the application for a permit signed by said owner and developer.

5.— Construction and Severability

A. The provisions of this Ordinance shall be construed to the maximum extent possible to further the purposes and policies set forth herein, as consistent with applicable state statutes and regulations.

If

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the provisions of this section and state law are in conflict, then state law shall prevail.

B. It is the intention of the Municipality's governing body that the provisions of this Ordinance are severable and if any provisions of this Ordinance shall be declared unconstitutional or invalid by the judgment or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining provisions of this Ordinance.

6.— Repealer

All prior ordinances that are inconsistent herewith are hereby repealed to the extent of such inconsistency.

7.— Effective Date

This Ordinance shall become effective five (5) days after itsenactment.

TOWNSHIP OF LYKENS BOARD OF SUPERVISORS

ORDAINED AND ENACTED into law this _____ day of _____, 2024.

TOWNSHIP OF LYKENS

By _____

Rick Schadel, Chairman

[Township Seal]

Attest:

_____

Amy Hoffman, Township Secretary