

HERRICK TOWNSHIP ZONING ORDINANCE AMENDMENTS

The Herrick Township Zoning Ordinance shall be amended as follows:

- 1) All separate overlay district references and development regulations found in Article III or any other sections of this ordinance shall be eliminated and Section 301 shall be revised to read as follows:

§ 301 District Designations.

Herrick Township shall encompass four zoning districts as follows:

ARR	Agricultural Rural Residential District
RMD	Recreational Mixed Density District
MDS	Medium Density Single-Family District
LDS	Lakeside Development District

A Schedule of Development Regulations, including standards referenced in Sections 303 and 304 below, for these four districts, follows, being removed from Article II hereof.

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SCHEDULE OF DEVELOPMENT REGULATIONS					
Name and Intent	Principal Uses	Conditional Uses	Special Exceptions	Accessory Uses	Development Standards
<p>ARR: Agricultural-Rural Residential District. This district is intended to provide for: 1) the health, safety and general welfare of the residents of Herrick Township, including preservation of its unique farm and recreational character; 2) to provide for a wide range of land uses to be allowed throughout the Township; and 3) to provide for the orderly development of all such land uses in the Township in ways which are designed to compatible with each other.</p>	<p>Agricultural uses Bed and breakfast establishments Conservation subdivisions Funeral homes Home-based businesses Neighborhood retail sales Personal services Professional offices Single family dwellings Two-family dwellings</p>	<p>Adult stores Animal hospitals Battery energy storage Boarding or tourist homes Campinggrounds/RV parks Commercial solar energy Commercial wind energy Drive in retail establishments Excavating and quarrying Financial institutions Hotels and motels Industrial & manufacturing uses Junkyards Kennels Mobile home parks Multi-family dwellings Nursing & group homes & health clinics Outdoor & indoor commercial recreation Private clubs and lodges Restaurants Retail sales establishment Truck and bus terminals Vehicle service, sales, washing & repair Warehouses and distribution centers Wholesale sales establishments</p>	<p>Civic buildings Municipal buildings Public and private schools</p>	<p>Accessory energy uses Carports Decks and porches Farm stands Garages Swimming pools Tool or storage sheds Other uses customarily accessory to permitted principal, conditional, and special exception and accessory uses.</p>	<p>Minimum Lot Area 2 acres Minimum Average Lot Width 200 feet Minimum Average Lot Depth 200 feet Minimum Front Setback 50 feet Minimum Side Setback 30 feet Minimum Rear Setback 30 feet Maximum Building Height 35 feet Maximum Building Stories 3 stories Maximum Lot Coverage 15.00%</p> <p>Notes: (1) All setbacks for hotel/motel uses shall be increased to a minimum of 75 feet. (2) All setbacks for other commercial uses shall be increased to a minimum of 50 feet. (3) All setbacks for industrial, distribution, to a minimum of 150 feet for front setbacks and 100 feet for side and rear setbacks. (4) Maximum building heights for industrial, distribution, and wholesale uses shall be increased to 40 feet. Maximum building heights shall not apply to agricultural structures, church spires, or other unoccupied building extensions.</p>
<p>RMD: Recreational Mixed Density District. This district is intended to restrict the range of uses and thereby to protect the recreational-residential character of certain portions of the Township where higher density residential uses pre-date this ordinance and are possible because of the availability of off-site disposal and off-site water supply facilities.</p>	<p>Same as ARR District</p>	<p>Bed and breakfast establishments Conservation subdivisions Hotels and motels Multi-family dwellings Non-commercial recreation Private clubs and lodges Restaurants</p>	<p>Same as ARR District</p>	<p>Same as ARR District</p>	<p>Minimum Lot Area 10,000 sq. ft. Minimum Average Lot Width 75 feet Minimum Average Lot Depth 100 feet Minimum Front Setback 20 feet Minimum Side Setback 6 feet Minimum Both Sides Setback 18 feet Minimum Rear Setback 9 feet Maximum Building Height 35 feet Maximum Lot Coverage 2,500 sq. ft.</p> <p>Note: New lots must be accompanied by sufficient open space to achieve density of no more than one dwelling unit per 65,340 square feet of land area.</p>

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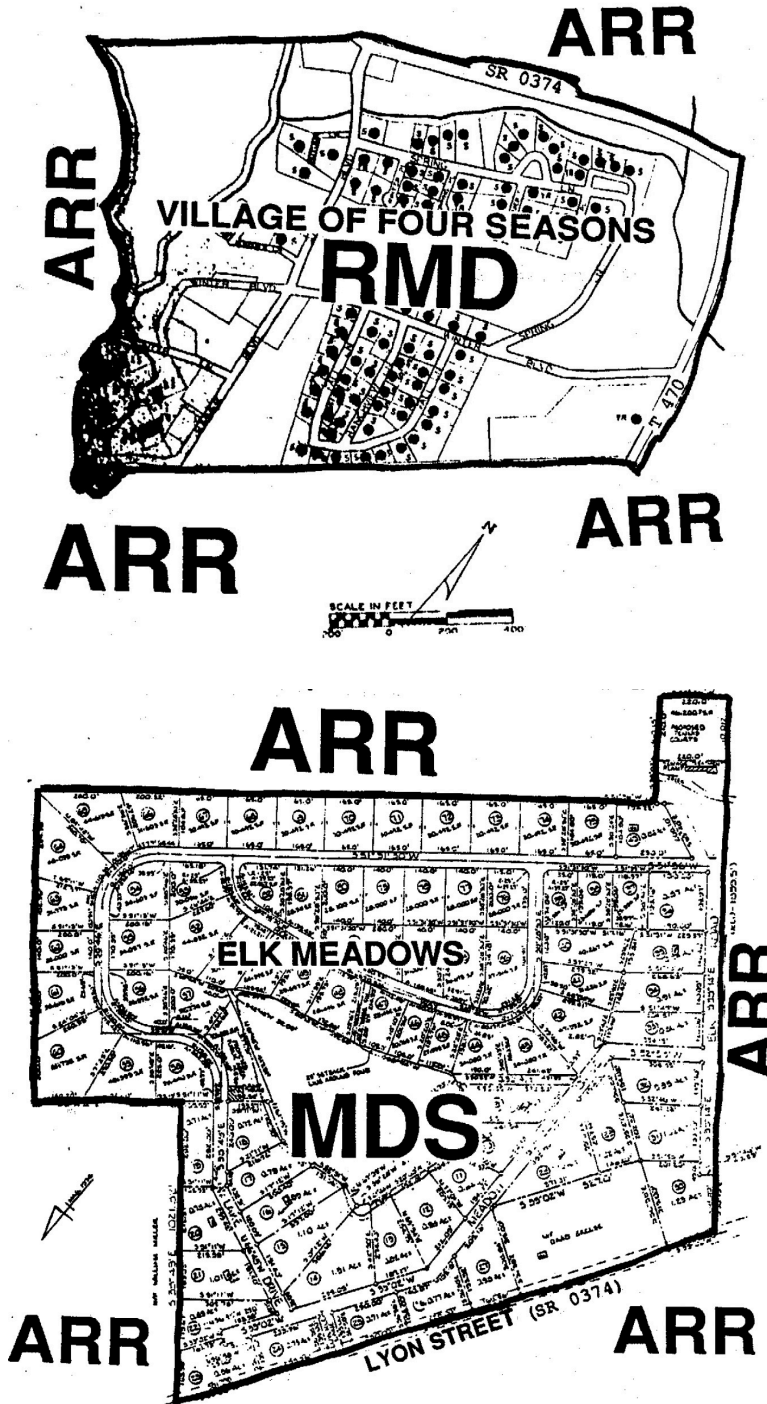
SCHEDULE OF DEVELOPMENT REGULATIONS					
Name and Intent	Principal Uses	Conditional Uses	Special Exceptions	Accessory Uses	Development Standards
<p>MDS: Medium Density Single-Family District. The Intent of this district is to restrict the range of uses and thereby to protect the single-family second home development character of certain portions of the Township where medium density residential uses predate the Ordinance and are possible due to the availability of off-site sewage disposal and water supplies.</p>	<p>Single-family dwellings with off-site sewage disposal and off-site water supply facilities</p>	<p>Conservation subdivisions Home-based businesses Non-commercial recreation Personal services</p>	<p>Same as AFR District</p>	<p>Same as AFR District</p>	<p>Minimum Lot Area 20,000 sq. ft. Minimum Average Lot width 100 feet Minimum Average Lot Depth 150 feet Minimum Front Setback 40 feet Minimum Side Setback 10 feet Minimum Both Sides Setback 30 feet Minimum Rear Setback 15 feet Maximum Building Height 35 feet Maximum Lot Coverage 5,000 sq. ft.</p> <p>Note: New lots must be accompanied by sufficient open space to achieve density of no more than one dwelling unit per 65,340 square feet of land area.</p>
<p>LDS: Lakeside Development District. The Intent of this district is to restrict the range of uses and thereby to protect the single-family second home development character of the lakeside areas of the Township where density is relatively high compared to the Township as a whole.</p>	<p>Single-family dwellings</p>	<p>Conservation subdivisions Home-based businesses Non-commercial recreation</p>	<p>Same as AFR District</p>	<p>Same as AFR District</p>	<p>Minimum Lot Area 40,000 sq. ft. Minimum Average Lot width 75 feet Minimum Average Lot Depth 100 feet Minimum Setback From High Water Mark of Lake 75 feet Minimum Front Setback 20 feet Minimum Side Setback 9 feet Minimum Both Sides Setback 27 feet Minimum Rear Setback 9 feet Maximum Building Height 35 feet Maximum Lot Coverage 2,500 sq. ft.</p> <p>Notes: (1) New lots must be accompanied by sufficient open space to achieve density of no more than one dwelling unit per 87,120 square feet of land area, and (2) Setback reduction provisions shall not be applicable in LDS districts.</p>

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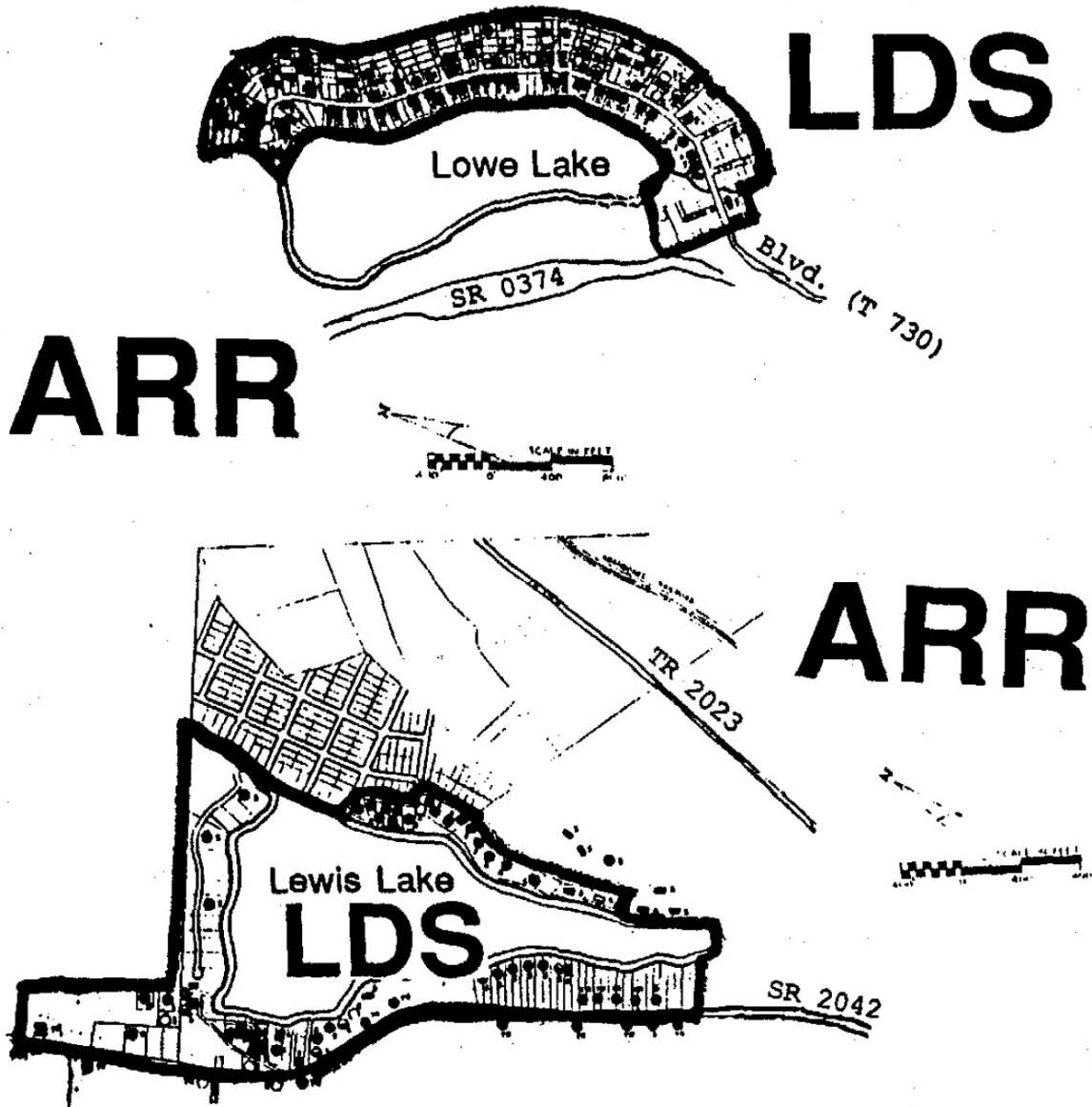
3) Section 305 is added to read as follows:

§ 305. Zoning Map

All of Herrick Township shall be classified AAR District with the exception of the following areas which shall be designated as follows::



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4) Section 412 shall be revised to read as follows:

§ 412. Energy Uses.

A. Commercial Solar Energy

Facilities engaged in production and sale of electricity are "industrial facilities" and should be considered a conditional use in limited situations where the facility does not adversely impact the community nor residents. Therefore it shall be a permitted conditional use if it demonstrates that the proposed operation preserves the rural nature of the community and protects residential properties within close proximity from negative consequences that without regulation could negatively impact their quality of life from such industrial non-

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farming operation.

Commercial solar systems with nameplate capacity of 25kW or encompassing more than one (1) acre of land, whichever is less, for sale to utility companies or other commercial use shall, notwithstanding any other provisions of this section, be permitted Conditional Uses in ARR Districts subject to the following additional standards and review criteria:

- (1) The owner of a commercial solar system shall, as a condition of approval and prior to submitting an application for Conditional Use approval to develop such a system, provide evidence of approval to connect the solar system to the utility electrical grid and meet all applicable standards for such interconnection. No facility shall be permanently connected to such electrical grid, for purposes of producing power, without first securing approval from Herrick Township.
- (2) Ground mounted commercial solar energy systems must comply with accessory structure restrictions contained in the zoning district where it is installed; all exterior electric and/or plumbing lines must be buried below the surface of ground and placed in conduits.
- (3) All installers of commercial solar energy systems shall be on the PA Department of Environmental Protection's list of registered installers for the DEP Solar Sunshine program or shall establish to the satisfaction of the code official that they meet the certification standards of the North American Board of Certified Energy Practitioners (NABCEP).
- (4) All commercial solar energy systems shall be placed such that concentrated solar radiation or glare does not project onto nearby lots or roadways. The applicant has the burden of proving that any glare produced does not have significant adverse impact on neighboring or adjacent uses whether through siting or mitigation.
- (5) Nothing in this section shall be deemed to give any applicant the right to cut down surrounding trees and vegetation on any adjoining property to increase direct sunlight to the solar energy facility.

Likewise, nothing in this section shall be deemed a guarantee against any future construction or Township approvals of future construction that may in any way impact the sunlight flow to any solar energy facility. It shall be the sole responsibility of the facility operator or owner to acquire any necessary solar energy easements, or rights to remove vegetation.

- (6) A solar energy system shall not be used to display advertising.
- (7) The design of the commercial solar energy system shall conform to applicable industry standards. To the extent reasonably possible, the design shall use materials, colors, textures, screening and landscaping that will blend the system into existing structures and environment.

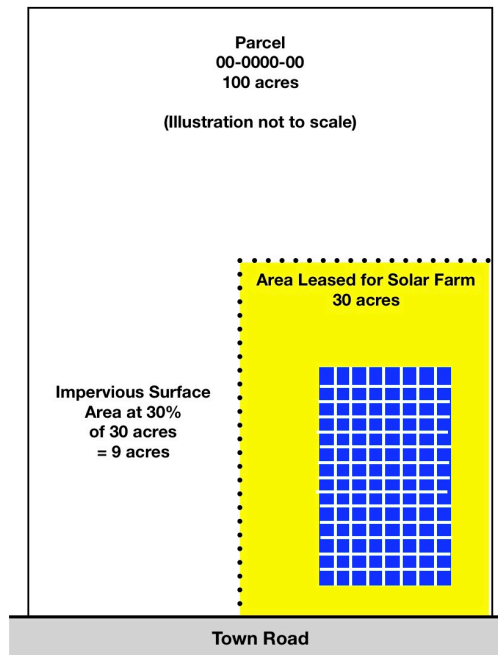
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- (8) All commercial solar system applications shall, in addition to other ordinarily required land development plan data, include the following:
- (a) Drawings of the solar installation signed by a licensed professional engineer showing the proposed layout of the system and any potential shading from nearby structures.
 - (b) Proposed changes to the site landscape, grading, vegetation clearing and planting, exterior lighting (which shall be limited), screening vegetation, fencing details and any other structures. This shall include a visual analysis depicting prospective views from key observation points, including a virtual reality video presentation to demonstrate the prospective view from any major public viewing point including public roads and any residential structure within 1500 feet of the property line
 - (c) A description of the solar facility and the technical, economic and other reasons for the proposed location and design with confirmation by a licensed professional engineer that it complies with all applicable federal and state standards.
 - (d) Electrical diagram detailing the solar system layout, solar collector installation, associated components, and electrical interconnection methods, with all National-Electrical-Code-compliant disconnects and over-current devices.
 - (e) Documentation of the major system components to be used, including the PV panels, mounting system, and inverter.
 - (f) An operation and maintenance plan which shall include measures for maintaining safe access to the installation as well as general procedures for operational maintenance of the installation.
 - (g) An analysis of noise levels at the property line and residences of adjacent landowners regarding noise from tracking motors, inverters, transformers, battery storage systems and the like shall be provided. There shall be no increase in the ambient noise level measured at any adjoining residential property boundary. An analysis regarding reflectivity of solar panels and any potential impacts on adjoining or nearby property owners shall also be provided.
 - (h) Location of the nearest residential structure(s) on the site and located off the site, and the distance from the nearest proposed solar farm equipment.
 - (i) Nameplate capacity data (for both AC and DC), the anticipated capacity factor and how many megawatts of electricity is expected to be actually generated by the facility and provided for use by the electrical grid on an average daily and

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annual basis.

- (k) A site-specific emergency response plan prepared by a qualified emergency services professional in consultation with emergency service providers, providing evidence of such consultation. The commercial solar system owner or operator shall provide a copy of the electrical schematic and final site plan to the local fire department and other local emergency service providers.
 - (l) Documentation regarding Township-wide cumulative impacts from multiple facilities developed, proposed or projected by the applicant, a full visual impact analysis the scope of which shall subject to the Township review approval and a study of potential property value and other economic impacts based upon experience with other similar facilities. Property value impacts shall be evaluated by a professional appraiser and specifically address impacts on adjoining properties
 - (m) Documentation of site-specific baseline testing of air, noise and water quality and electro-magnetic interference from existing electrical infrastructure, which testing shall be done by qualified independent professionals. Post-construction impacts compared to these baselines shall also be provided on an annual basis and be submitted to the Township.
- (9) The total surface area of all ground-mounted and freestanding solar collectors and impervious surfaces associated with the solar system, regardless of tilt, shall not exceed 30% of the land area used for the commercial solar system. Other impervious surfaces on the lot shall be limited to such proportion of the lot area as normally permitted for the zoning district. See illustration following:



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- (10) A vegetated perimeter buffer shall be installed and maintained throughout the term of the lease with the landowner and to the satisfaction of the Board of Supervisors, to provide year-round screening of the system from adjacent properties. Also The vegetative barrier shall provide a complete visual barrier from adjoining residences and public roads and shall consist of at least three alternating rows of Norway Spruce. Such buffer shall also include a naturalized mix of shrubs and ground cover designed to provide year-round screening. All new trees shall be no less in height than the solar panels to be buffered. An earthen berm may also be required

The Township, however, may waive such requirements where adequate vegetative buffers already exist, provided they are maintained so as to fully accomplish the intended screening.

Regardless, all commercial solar systems shall, under any circumstance, be designed and located so as to prevent reflective glare toward any habitable buildings, as well as public streets within one-fourth mile of any solar panels. Determination of compliance with this requirement shall also consider the impact of topography in obscuring or highlighting views of solar panels.

- (11) All ground-mounted panels shall not exceed 10 feet in height and shall be certified by a recognized U.S. authority as meeting all applicable Federal, State and American National Standards Institute (ANSI) standards governing manufacture and installation. The applicant shall also provide documentation indicating solar panels utilized are the minimum practicable size required to generate the energy proposed.
- (12) All mechanical equipment, including any structure for batteries or storage cells, shall be completely enclosed by a high-quality fence that is a minimum of eight feet high with a self-locking gate, provided that such facilities shall be buffered with natural materials so as to preserve the character of the location.
- (13) All on-site utility and transmission lines shall, to the extent feasible, be placed underground. No facility shall be located more than 1,200 feet from 3-phase electric service connection or require an upgrade of existing 2-phase electric service.
- (14) A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
- (15) All commercial solar system components shall have a minimum setback of 350 feet from any project external property lines and 750 feet from any any adjoining residence. d where the applicant proposes buffer plantings or other forms of concealment.
- (16) Each solar facility shall be accompanied by a minimum of six acres of land per megawatt of rated nameplate capacity and no more than six megawatts of such capacity shall be concentrated in one area of land, regardless of ownership, without a separation of one-half mile between facilities. The Township may, in its sole

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discretion, modify this standard if the facilities being concentrated are not visible or only minimally visible from existing residences or publicly travelled roads.

- (17) Solar modular panels shall not contain hazardous materials or shall be designed in such fashion that any such materials shall be confined and protected from the possibility of any spills in the event of panel damage from normal wear and tear or due to weather. The applicant shall provide certification with respect to the same from a certified U.S. materials testing agency. The applicant shall also provide a plan for disposal of old or damaged panels, including the identification of and agreements with proposed disposal facilities.
- (18) There shall be no signs except announcement signs, such as "no trespassing" signs or signs required to warn of danger. A sign shall be placed at any entrance to the facility, which sign shall identify the owner and operator with an emergency telephone number where the owner and operator can be reached on a twenty-four-hour basis.
- (19) The commercial solar system shall, at all times, be maintained in good condition. Site access shall be maintained to a level acceptable to the local Fire Department and Emergency Medical Services.
- (20) Hours of operation for construction and decommissioning shall be limited, except in the case of an emergency, to the hours of 7 AM to 6 PM. Monday through Friday and shall not take place on national holidays.
- (21) Decommissioning:
 - (a) The facility owner and operator shall, at its own expense, complete decommissioning of the facility, or individual components, within (12) twelve months after the end of the useful life of the facility or individual components. Any commercial solar energy system that is not operated for a continuous period of six (6) months shall be considered abandoned, and the owner of such system shall remove the same within 90 days of receipt of notice from the Township notifying the owner of such abandonment. Failure to remove an abandoned system within said 90 days shall be grounds to remove the system at the owner's expense and constitute a violation, subject to fines.
 - (b) Decommissioning shall include removal of collectors, buildings, cabling, electrical components, roads, foundations to a depth of thirty-six (36) inches, and any other associated facilities.
 - (c) Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
 - (d) The facility owner or operator, prior to the issuance of a zoning permit, shall provide a financial security bond with the Township as payee in an amount approved by the Board of Supervisors, but not less than \$50,000, from a

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company and in a form and content acceptable to the Township Solicitor, to insure the decommissioning within one hundred eighty (180) days of the expiration of the license or lease and/or cessation of use. The bond shall remain in place for as long as the facilities exist at the site.

- (e) An independent and certified Professional Engineer shall be retained to estimate the total cost of decommissioning without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment. Said estimates shall be submitted to the Township with the Conditional Use application and every fifth year following approval, with an update of the bond or other financial security to this amount being required to continue operation.
- (f) Decommissioning funds may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable to the Township.
- (g) If the facility owner or operator fails to complete decommissioning within the prescribed time period, then the landowner shall have eighty (180) days to complete decommissioning.
- (h) If neither the facility owner or operator, nor the landowner complete decommissioning within the prescribed periods, then the Township may take such measures as necessary to complete decommissioning. The entry into the record and submission of evidence of a participating landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning plan.
- (i) The escrow agent shall release the decommissioning funds when the facility owner or operator has demonstrated and the Township concurs that decommissioning has been satisfactorily completed, or upon written approval of the Township to implement the decommissioning plan.
- (j) The developer and landowner shall enter into a Developer Agreement with the Township incorporating any conditions of approval and further providing that any transfer of ownership or control of the facility shall be presented to the Township Board of Supervisors for review and consent. Prior to formal action, the public shall be notified and given notice of intent to transfer ownership or change in control shall be provided at least 120 days in advance of the transfer such that the Township may ensure the proposed new owner has the appropriate experience and can satisfy all financial guarantee obligations are also transferred and updated as may be necessary. Prior defaults and complaints from communities where the proposed new operator has operated shall be considered. Notice shall be provided to the public and letters sent by Developer to all adjoining property owners in advance of at least 30 days prior

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to being considered by the Township. Notice shall include details of the proposed transfer of ownership or change in control being proposed. Approval or disapproval of any transfer or change in control shall be in the sole discretion of the Supervisors but shall not be unreasonably withheld..

B. Commercial Wind Energy

- (1) The following special definitions shall apply to this section:

Wind Energy Facility: A facility where one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities are located and are used for the generation of electricity which is used on-site for commercial purposes or which is sold on the open market.

Wind Turbine Generator, Accessory: A wind energy conversion system that converts wind energy into electricity through the use of a wind turbine generator, and includes the nacelle, rotor, tower, and pad transformer, if any, and which is sized and intended to be used to generate electricity primarily for the principal structure to which it is accessory.

Wind Rotor: The propeller or blades, plus the hub to which the propeller or blades are attached, that are used to capture wind for the purpose of energy conversion.

- (2) In addition to all other applicable requirements of this Ordinance, a Conditional Use permit shall be required of all commercial wind energy facilities, which shall be permitted in the ARR Districts.
- (3) All other uses ancillary to the wind energy facility (including a business office, maintenance depot, etc., greater than one thousand (1,000) sq. ft.) are prohibited from the wind energy facility, unless otherwise permitted in the District in which the wind energy facility is located. This shall not prohibit the installation, as accessory structures, of equipment containers not intended for human occupancy to house only equipment necessary for the operation of the wind energy facility.
- (4) Standards:
- (a) No wind turbine shall be located closer to any property line (not lease, license or easement line) than one and one tenth (1.1) times the turbine height, including the rotor plane.
- (b) No wind turbine shall be located less than one thousand (1,000) feet from any principal structure existing on any other parcel prior to the erection of the wind turbine as measured from the center point of the turbine base unless the owner of such existing principal structure shall have executed a written waiver or non-disturbance easement, covenant or consent, any of the aforementioned that has

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been recorded in the Office of the Recorder of Deeds of Susquehanna County, Pennsylvania.

Such easement or covenant shall run with the land and, at a minimum, provide the said property owner waives and releases any and all claims, damages and/or losses resulting from higher noise levels, visual impacts or flickering reflections and/or shadows which may arise as a result of the location of a wind turbine generator within the established setback distance of an existing principal structure on the property of the owner executing same.

Such easement, covenant or consent shall meet such requirements as to form and content as may be required by the Township. In no event shall the setback distance be less than one and one tenth (1.1) times the total height of the wind turbine as measured from the highest point of the turbine, including the rotor plane.

- (c) The required setbacks for windmills with horizontal rotors shall not be less than one and one tenth (1.1) times the height of the turbine tower or one and one tenth (1.1) times the height of the turbine tower plus the distance of the outer end of the rotor from the tower, whichever is greater.
- (d) The design of the wind energy facility shall conform to applicable industry standards, including those of the American National Standards Institute. The Applicant shall submit certificates of design compliance obtained by the equipment manufacturers from certifying organizations.
- (e) A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten (10) feet from the ground.
- (f) No advertising material or signs other than warning, equipment information or indication of ownership shall be allowed on the wind turbine generators. This prohibition shall include the attachment of any flag, decorative sign, streamers, pennants, ribbons, spinners, or waiving, fluttering or revolving devices, but not including weather devices.
- (g) Wind turbines shall not be climbable up to fifteen (15) feet above ground surface. and all access doors to wind turbines and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.
- (h) The facility shall comply with all applicable local, state and federal fire code and emergency services guidelines and all other all applicable state and federal regulations.
- (i) Audible sound from a wind energy facility shall not exceed forty-five (45) dBA as

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measured at the exterior of any occupied building on any other parcel. Methods for measuring and reporting acoustic emissions from wind turbines and the wind energy facility shall be equal to or exceed the minimum standards for precision described in AWEA Standards for such turbines.

- (j) The facility owner and operator shall use best efforts to minimize shadow flicker to any occupied building on any other parcel. For the purposes of this Subsection D, occupied building shall mean a residence, school, hospital, church, public library or other building used for public gathering that is occupied or in use when the permit application is submitted
- (k) Access to the wind energy facility shall be provided by means of a public street or easement to a public street. The easement shall be a minimum of twenty (20) feet in width and shall be improved to a width of at least ten (10) feet with a dust-free, all weather surface for its entire length and comply with stormwater management and erosion control standards.
- (l) Wind turbines, including rotors, shall be a non-obtrusive color such as white, off-white or gray. Wind turbines shall comply with all applicable Federal Aviation Administration (FAA) and PA DOT Bureau of Aviation regulations. No wind turbine may be artificially lighted, except as required by FAA requirements. If lighting is required, the lighting alternatives and design chosen shall minimize the disturbance to the surrounding views.
- (m) On-site transmission and power lines between wind turbines shall, to the greatest extent possible, be placed underground.
- (n) The applicant shall document that the radio, television, telephone or reception of similar signals for nearby properties shall not be disturbed or diminished; and, this may be accomplished by remedial measures instituted by the wind energy facility operator. The operator shall utilize Good Utility Practice to minimize the impact, if any, of stray voltage and/or EMF.
- (o) Upon request, the applicant shall cooperate with emergency services to develop and coordinate implementation of an emergency response plan for the wind energy facility.
- (p) The applicant shall submit certification from a Pennsylvania registered professional engineer that a proposed wind energy facility and support structure shall be designed and constructed in accord with accepted engineering practices and all requirements of this Ordinance. Within forty-five (45) days of initial operation, the owner and/or operator of the wind energy facility shall provide a certification from a Pennsylvania registered professional engineer that the wind energy facility and all structures comply with all applicable regulations.

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- (q) The facility owner and operator shall maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints throughout the life of the project, and the facility owner and operator shall make reasonable efforts to respond to the public's inquiries and complaints.
 - (r) Temporary wind test towers may be erected as a conditional use in Districts where wind energy facilities are permitted in accord with other applicable requirements of this Zoning Ordinance. Such towers shall be removed within eighteen (18) months of installation.
- (5) Decommissioning:
- (a) The facility owner and operator shall, at its own expense, complete decommissioning of the facility, or individual components, within (12) twelve months after the end of the useful life of the facility or individual components. The facility or individual components shall be presumed to be at the end of its useful life if no electricity is generated for a continuous period of twelve (12) months.
 - (b) Decommissioning shall include removal of collectors, buildings, cabling, electrical components, roads, foundations to a depth of thirty-six (36) inches, and any other associated facilities.
 - (c) Disturbed earth shall be graded and re-seeded, unless the landowner requests in writing that the access roads or other land surface areas not be restored.
 - (d) The facility owner or operator, prior to the issuance of a zoning permit, shall provide a financial security bond with the Township as payee in an amount approved by the Board of Supervisors, but not less than \$50,000, from a company and in a form and content acceptable to the Township Solicitor, to insure the decommissioning within one hundred eighty (180) days of the expiration of the license or lease and/or cessation of use. The bond shall remain in place for as long as the facilities exist at the site.
 - (e) An independent and certified Professional Engineer shall be retained to estimate the total cost of decommissioning without regard to salvage value of the equipment, and the cost of decommissioning net salvage value of the equipment. Said estimates shall be submitted to the Township after the first year of operation and every fifth year thereafter, with an update of the bond or other financial security to this amount being required to continue operation.
 - (f) Decommissioning funds may be in the form of a performance bond, surety bond, letter of credit, corporate guarantee or other form of financial assurance as may be acceptable to the Township.
 - (g) If the facility owner or operator fails to complete decommissioning within the

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prescribed time period, then the landowner shall have eighty (180) days to complete decommissioning.

- (h) If neither the facility owner or operator, nor the landowner complete decommissioning within the prescribed periods, then the Township may take such measures as necessary to complete decommissioning. The entry into the record and submission of evidence of a participating landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning plan.
- (i) The escrow agent shall release the decommissioning funds when the facility owner or operator has demonstrated and the Township concurs that decommissioning has been satisfactorily completed, or upon written approval of the Township to implement the decommissioning plan.
- (j) Any transfer of ownership of the facility shall be noticed to the Township at least 30 days in advance of the transfer such that the Township may ensure all financial guarantee obligations are also transferred and updated as may be necessary.

C. Battery Energy Storage.

- (1) Definitions. As used in this section, the following terms shall have the meanings indicated:

BATTERY(IES): A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE SYSTEM: One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle.

CELL: The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy.

COMMISSIONING: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment.

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OCCUPIED COMMUNITY BUILDING: Occupied schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, houses of worship, and similar facilities.

PARTICIPATING PROPERTY: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

UNIFORM CODE: The Pennsylvania Uniform Construction Code, as currently in effect and as hereafter amended from time to time.

- (2) **Applicability.** The requirements of this section shall apply to all battery energy storage systems permitted, installed, or modified in Herrick Township after the effective date of this amendment, excluding general maintenance and repair, which systems shall be subject to annual inspection.
- (3) **General requirements.** The following standards shall to all battery energy storage systems:
 - (a) All battery energy storage systems, all dedicated use buildings, and all other buildings or structures that contain or are otherwise associated with a battery energy storage system shall comply with all applicable provisions of the Uniform Code and related codes.
 - (b) Battery energy storage systems shall be permitted as Conditional Uses in ARR zoning districts.
 - (c) All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility.
 - (d) Signage shall be in compliance with American National Standards Institute Publication Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.
 - (e) As required by the National Electrical Code, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
 - (f) Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

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- (g) Areas within [10] feet on each side of any battery energy storage system shall be cleared of combustible vegetation and growth.
- (h) The [1-hour] average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of [60] dBA as measured at the outside wall of any non-participating residence or occupied community building. Applicants may submit equipment and component manufacturers' noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.
- (i) All applications for battery energy storage systems shall be accompanied by a decommissioning plan to be implemented upon abandonment and/or in conjunction with removal of the facility, as provided for solar and wind energy systems above.
- (j) Site plan applications for battery energy storage systems shall include an electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, as well as a preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
- (k) A fire safety compliance plan shall be submitted to document and verify the system and its associated controls and safety systems are in compliance with the Uniform Code, including an emergency operations plan to be shared with the local fire department. A permanent copy shall also be placed in an approved location to be accessible to facility personnel, fire code officials, and emergency responders. The emergency operations plan shall include, but not be limited to, procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions as well as other procedures as determined necessary by the Town of Cochection to provide for the safety of occupants, neighboring properties, and emergency responders.
- (l) Battery energy storage systems shall be setback a minimum of 500 feet from any property line and otherwise comply with general development standards for the underlying zoning district.

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- (m) Battery energy storage systems, including all mechanical equipment, shall be enclosed by an eight (8) feet high chain-link fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building.
- (n) Battery energy storage systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area.
- (o) Battery energy storage systems and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) or approved equivalent.
- (p) Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department.
- (q) Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with National Fire Protection Association Publication 70.

D. Accessory Energy Uses

- (1) It is the intent of Herrick Township to encourage business and residential use of renewable energy systems in the Township, including accessory use geothermal, solar and wind energy systems, as defined herein. It is further intended to facilitate the placement of required infrastructure for such systems on buildings and lots, recognizing these improvements often involve special design and location requirements.
- (2) Definitions. The following special definitions shall apply to this section:

Geothermal Energy System: Equipment that transfers thermal energy to and/or from the ground for the purposes of heating and/or cooling a building. A geothermal energy system consists of a closed-loop system of pipes filled with liquid, a heat exchanger and heat pump.

Solar Energy System: Equipment that directly converts and then transfers or stores solar energy into usable forms of thermal or electrical energy. For the purposes of this Ordinance, a solar energy system does not include any solar collection system of 12 square feet in size or less.

Wind Energy System: Equipment used to produce electricity by converting the kinetic energy of wind to rotational, mechanical and electrical energy. A wind energy system

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consists of the turbine apparatus (rotor, nacelle and tower) and any other buildings, support structures, or other related improvements necessary for the generation of electric power.

- (3) General standards. The following standards shall apply to all accessory use renewable energy systems, including geothermal, solar and wind energy systems:
 - (a) Except for systems designed to produce 25 kW or the equivalent in energy, which systems shall be considered manufacturing and industry uses for purpose of this Ordinance, all renewable energy systems shall be considered accessory uses permitted in conjunction with any principal use permitted in any zoning district. Notwithstanding this classification, such accessory uses may be placed on a lot separate from the principal use they serve, provided such principal use is located on an adjoining parcel in Herrick Township or an adjoining municipality.
 - (b) Renewable energy systems are not permitted within 10 feet of any property line or 35 feet of front lot line, except for underground systems, which may extend to within five feet of a property line, provided that no stand-alone renewable energy system structure shall be placed within a distance equal its own height from such property line or block the majority of sunlight from entering the window of any structure on an adjoining property. An easement granted by an adjoining landowner shall suffice as a setback.
 - (c) Any installation of a renewable energy system shall comply with any and all applicable building code requirements.
 - (d) No alternative energy system shall be installed unless evidence has been provided that the utility company has been informed of the customer's intent to install an interconnected customer-owned power generation system. Off-grid systems shall be exempt from this requirement.
 - (e) Permit requirements. Building permits shall be required for all renewable energy system installations as defined herein.
 - (f) Installation. All renewable energy system installations shall be made by qualified installers, and prior to operation, the electrical connections must be inspected by Township building code enforcement officials.
- (4) Geothermal energy system standards:
 - (a) Ground-source geothermal energy systems shall be located entirely within the subject property or within appropriate easements secured for this particular purpose. No part of any such system shall be located within public rights-of-way. The heat-exchanger part of a geothermal system may also be located within a pond or lake on the landowner's property, subject to the requirements herein,

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but no portion of a geothermal system shall be located within a stream. Fluids used shall be identified.

- (b) Vertical or deep-bore geothermal systems are not permitted within within designated water well protection zones.
 - (c) Open-loop geothermal systems that include one or more supply wells and one or more diffusion, recharge, return or injection wells shall comply with any Pennsylvania DEP standards. Water removed from an aquifer must be returned to that same aquifer and within 50 feet vertically, in either direction, of the withdrawal point.
- (5) Solar energy system standards:
- (a) Solar panels or arrays shall be placed on a principal or accessory structure, on the ground or on a monopole not exceeding 35 feet in height.
 - (b) The height of the solar panel or array shall be the minimum necessary to generate usable energy but shall not exceed the height limitations for any structure to which it is attached, provided that structures intended solely for purposes of supporting such solar equipment shall not exceed 35 feet, and any placements on existing structures at a height of more than 35 feet shall be subject to Conditional Use. The height of the equipment or the building and equipment combined shall, in all instances, be measured with the solar panel or array oriented toward a full tilt, where applicable.
 - (c) A solar panel or array shall, where attached to an existing structure, comply with the required setbacks for such structure, provided that attachments to existing nonconforming structures shall not further encroach on such setbacks where already exceeded.
 - (d) The total surface area of all ground-mounted and freestanding solar panels and arrays on a lot shall not exceed 1,200 square feet, provided that nonresidential placements exceeding this size may be approved by Conditional Use.
 - (e) All solar hot water systems shall be subject to the same standards outlined herein as may be applicable.
 - (f) When solar storage batteries are included as part of the solar energy system, they must be placed in a secure container or enclosure meeting building code requirements. When no longer used, such devices shall be safely disposed of in accordance with the laws and regulations of Pennsylvania and the Herrick Township.
 - (g) If a solar collector ceases to perform its originally intended function for more than 24 consecutive months, the property owner shall remove the collector,

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mount and associated equipment and facilities within 90 days of a Township order for such removal.

- (h) No homeowners' or property owners' association shall prohibit solar energy systems. Covenants and restrictions connected with projects requiring special use permits, site plan review or subdivision approval shall be reviewed for purposes of ensuring there are no such prohibitions.
- (6) Wind energy system standards:
- (a) The height of a wind energy system shall be the minimum necessary to produce usable power. No part of a wind energy system, including the rotor blades while in operation, shall exceed 75 feet above ground level or 20 feet above the base height limit of the underlying zone, whichever is greater. The height may be increased to a maximum of 150 feet on parcels of five or more acres by Conditional Use and findings that granting of the additional height would allow use of a wind energy system where none would otherwise be practical and the support structures are designed to blend in with the architectural character and/or landscape of the surrounding area.
 - (b) The maximum length of rotor blades shall be no more than 10 feet, provided that this length may be increased to a maximum of no more than 15 feet where such increased rotor length is documented as the minimum necessary to produce usable power. Longer length rotor blades may be permitted on properties of three acres or more in lot area, subject to Conditional Use and findings that granting of the additional length would allow use of a wind energy system where none would otherwise be practical and the support structures are designed to blend in with the architectural character and/or landscape of the surrounding area.
 - (c) No part of a wind energy system shall extend within 10 feet of the ground. No blades shall extend over parking areas, driveways or sidewalks.
 - (d) Wind energy systems shall not exceed 60 dBA as measured at the nearest adjacent property or easement line. A noise study verifying that the maximum level is not being exceeded may be required to be submitted where equipment is to be located within 100 feet of a property line. An easement granted by an adjoining landowner shall suffice as a setback.
 - (e) Power transmission lines from the tower to any building or other structure shall, to the maximum extent practicable, be located underground.
 - (f) No television, radio or other communications antennas may be affixed or otherwise made part of any wind turbine, except with approval by Herrick Township to ensure such equipment will not interfere with existing communications equipment or overwhelm the primary purpose of generating

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renewable energy.

- (g) No advertising signs are allowed on any part of the wind energy facility, including fencing and support structures. Other measures to reduce the visual impact of wind turbines shall also be employed to the maximum extent practicable. Monopole towers shall be used wherever practicable. All structures in a project shall be finished in a single, non-reflective matte-finished color or a camouflage scheme. Except for danger warnings, no lettering, company insignia, advertising or graphics shall be on any part of the tower, hub or blades.

D. Developers Agreement.

All renewable energy developers shall be required to execute a Developers Agreement incorporating all approved requirements required herein. The Developers Agreement shall be recorded and shall follow the land, the owner and any potential future owner or other party where ownership doesn't transfer while controlling interest does.