

THORNHURST TOWNSHIP

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COUNTY

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ORDINANCE NUMBER 48

AN ORDINANCE OF THE TOWNSHIP SUPERVISORS OF THORNHURST, PENNSYLVANIA, TO AMEND THE THORNHURST TOWNSHIP CODE OF ORDINANCES TO DEFINE AND ADD SPECIFIC REQUIREMENTS FOR DATA CENTERS, DATA CENTER ACCESSORY USES, AND ENERGY GENERATION SYSTEMS.

WHEREAS, Article VI of the Pennsylvania Municipalities Planning Code, 53 P.S. § 10601, *et seq.*, authorizes the Board of Supervisors of Thornhurst Township to enact, amend and repeal Zoning Ordinances within Thornhurst Township; and

WHEREAS, the Board of Supervisors of Thornhurst Township deems it to be in the best interest and general welfare of the residents of Thornhurst Township to update and amend provisions of Thornhurst Township Zoning Ordinance to provide for data Centers, Data Center Accessory Uses, and Energy Generation Systems; and

WHEREAS, the Board of Supervisors of Thornhurst Township desires to add provisions to the Zoning Ordinance relating to Data Centers, Data Center Accessory Uses, and Energy Generation Systems while recognizing the community development objectives and severe land use constraints set forth in Section 27-105 of the Zoning Ordinance.

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, by the Board of Supervisors of Thornhurst Township as follows:

Section 1. Section 27-201 of the Thornhurst Township Code of Ordinances, entitled Definitions, is amended to add the following definitions:

Data Center: A building or buildings which are occupied primarily by computers and/or telecommunications and related equipment where digital information is processed, transferred and/or stored, primarily to and from offsite locations. This use does not include computers or telecommunications related equipment that is secondary and customarily incidental to an otherwise permitted use on the property, such as servers associated with an office building. This use shall also include cryptocurrency mining, blockchain transaction processing, and server farms. A Data Center may include Data Center Accessory Uses.

Data Center Accessory Use: Ancillary uses or structures secondary and incidental to a Data Center use, including but not limited to: administrative, logistical, fiber optic, storage, and security buildings or structures; sources of electrical power such as generators used to provide temporary power when the main source of power is interrupted; electrical substations; utility lines; domestic and non-contact cooling water and wastewater treatment facilities; water holding facilities; pump stations; water towers; environmental controls (air conditioning or cooling towers, fire suppression, and related equipment); security features, provided such data center accessory uses/structures are located on the same tract or assemblage of adjacent parcels developed as a unified development with a Data Center. The use shall not include energy generation systems used or intended to be used to supply power to the Data Center during normal operations.

Energy Generation System: Energy Generation Systems, including but not limited to solar, wind, fossil fuel, and nuclear energy generating systems, designed and used or intended to be used to supply power directly to the Data Center during normal operations. Energy Generation Systems including Small Modular Reactors shall be considered a separate use and shall be permitted only as a conditional use and only in the R-C Zoning District. Large-scale commercial nuclear power plants (specifically those exceeding an electrical capacity of 300 megawatts (MWe)) are expressly prohibited.

Small Modular Reactor (SMR): A class of small nuclear fission reactors, designed to be built in a factory, shipped to operational sites for installation, and then used to power buildings or other commercial operations, with a rated capacity of 300 MWe or less, and of a design fully licensed and permitted by the U.S. Nuclear Regulatory Commission (NRC).

Section 2. Section 27-402, Schedule 27-I of the Thornhurst Township Code of Ordinances, entitled Regulations Governing the Use of Land, is amended to add Data Centers and Data Center Accessory Uses as a Conditional Use in the R-C Zoning District. Schedule 27-I is also amended to add Energy Generation Systems, including Small Modular Reactors, as a separate Conditional Use in the R-C Zoning District.

Section 3. Section 27-403, entitled Use Classes in Zoning Districts, Subsection 4. Conditional Uses, is amended to add Section 27-403.4.E. Data Centers and Data Center Accessory Uses and Section 27-403.4.F. Energy Generation Systems including SMRs.

27-403.4.E. – Data Centers and Data Center Accessory Uses

(1) Data Centers shall be permitted by Conditional Use in the R-C Zoning District in Thornhurst Township when approved in compliance with the procedures, standards, and criteria contained in this section.

(2) For purposes of this section, sensitive receptors shall be defined as residential uses, schools, preschools, daycare centers, in-home daycares, long term care facilities, retirement and nursing homes, community centers, places of worship, parks (excluding trails), forest and game lands, campgrounds, prisons, and dormitories.

(3) **Dimensional Standards.** The dimensional standards of Data Centers and Data Center Accessory Uses shall be in accordance with Section 27-403.4, with the following exceptions:

- (a) The maximum building height for a Data Center shall be sixty-five (65) feet, inclusive of roof-mounted equipment such as cooling and ventilation systems, HVAC units and cooling towers.
- (b) The maximum height of Data Center Accessory Uses, inclusive of the roof-mounted equipment set forth in (a) above, shall be no greater than the height of the principal building.
- (c) Data Centers and Data Center Accessory Uses shall be set back a minimum of one hundred (100) feet from all adjoining property lines and roadways and two hundred (200) feet from the property line of any property developed with a sensitive receptor.
- (d) Minimum lot size shall be five (5) acres.

(4) **Landscape Buffer.** A landscape buffer is required between Data Centers and Data Center Accessory Uses and any adjoining properties or roadway.

- (a) The landscape buffer shall be at least fifty (50) feet in width and may be part of the minimum setback distance. Existing forest and vegetation shall be retained.
- (b) If existing forest vegetation is inadequate, or to replace vegetation removed during construction, then supplemental buffer plantings shall consist of native species planted as follows:
 - 1) One (1) large evergreen tree per twenty five (25) linear feet of buffer. The size of large evergreen trees shall be a minimum of eight (8) feet in height at the time of planting.
 - 2) One (1) deciduous canopy (shade) tree per seventy five (75) linear feet of buffer. Size of canopy (shade) trees shall be a minimum of 2½ inch caliper at the time of planting.
 - 3) One (1) ornamental/flowering tree per fifty (50) linear feet of buffer. The size of ornamental/flowering trees shall be a minimum of eight (8) feet in height for multi-stemmed varieties, or 2½ inch caliper at the time of planting for single-stemmed varieties.
 - 4) Five (5) shrubs per twenty five (25) linear feet of buffer. Size of shrubs shall be fully branched and minimum of three (3) feet in height at the time of planting. Shrubs shall be a combination of evergreen and deciduous species, with a minimum of 50% being evergreen.
- (c) In the event that existing vegetation is inadequate to meet the intent of the required buffer yard to screen the Data Center and Data Center Accessory Uses from any adjoining property or roadway, the Board of Supervisors upon recommendation by the Township Engineer and Planning Commission, may determine that additional topography and/or vegetation will be required.

(5) Screening and Fencing

(a) To provide visual screening and reduce noise levels, ground-mounted and roof-mounted equipment used for cooling, ventilating, or otherwise operating the facility, including power generation or other power supply equipment, that is located within three hundred (300) feet of a roadway or adjoining property line, must be fully enclosed, except where not mechanically feasible based on the manufacturer's specifications. If it is not mechanically feasible to fully enclose the equipment, it must be fully screened from view using one or more of the following means:

- 1) The landscape buffer required by subsection (4) above.
- 2) By existing vegetation that will remain on the property.
- 3) By the principal Data Center building or an accessory building.
- 4) By a berm averaging a minimum of five (5) feet in height above the adjacent average ground level with a maximum side slope of 3:1, provided that the berm shall be covered by a well-maintained all season natural ground cover and any required screening plantings shall be arranged on the outside and top of the berm.
- 5) By a visually solid fence, screen wall or panel, parapet wall, or other visually solid screen that shall be constructed of materials compatible with those used in the exterior construction of the principal building.

(b) Fencing of the property is permitted, provided that fencing along public and private roadways is not chain-link, with or without slatted inserts, and does not include barbed wire or other similarly visibly intrusive deterrence device. An applicant shall not be required to comply with this requirement if fencing is fully screened from view by one or more of the means identified in subparagraph (a) above.

(6) Noise and Vibration

(a) The applicant shall demonstrate through a sound study conducted by a professional acoustical expert that the sound generated by a Data Center and/or Data Center Accessory Uses during normal operations shall be limited to a maximum daytime (7:00 a.m. to 8:00 p.m. Monday-Friday) decibel level of 67 dB(A) and a maximum nighttime and weekend (8:00 p.m. to 7:00 a.m. Monday-Friday and all day Saturday and Sunday) decibel level of 57 dB(A) as measured from the property line of the use. Such sound study shall be conducted using Sound Level Meters described in ANSI S1.4-2014 and generally accepted methodology. A sound study shall be conducted at the following phases:

- 1) A preliminary study shall be conducted as part of the conditional use application process. The preliminary sound study shall include recommended sound reducing materials or systems as needed to meet the aforesaid sound limits.
- 2) An interim sound study shall be conducted during the building permit approval process based upon the proposed user or users of the Data Center and Data Center Accessory Uses depicted on the building plans. Any sound reducing materials or systems recommended by interim sound study shall be incorporated into the construction plans for the use.
- 3) An as-built sound study shall be conducted six months after issuance of the certificate of occupancy and prior to the final escrow release for any land development phase. An as-built sound study may also be required thereafter by the Township. If it is determined by the as-built sound study that there is a violation of the aforesaid noise limits, it shall be considered a violation of this Ordinance.

(b) Tonal Noise Penalty

1) Each sound study shall include a narrow band frequency analysis for the purpose of identifying audible tones generated by the use. Audibility of tones shall be calculated in accordance with International Organization for Standardization Technical Specification (ISO/TS) 20065:2022 – Acoustics – Objective Method for Assessing the Audibility of Tones in Noise – Engineering Method.

2) If the decisive audibility of any narrow-band averaged spectrum is 10 dB or more, a 6 dB penalty shall be applied to the overall A-weighted sound measurement for purposes of determining compliance with paragraph (a) above.

(c) Maximum decibel levels specified herein shall not apply during times of power outage, however the sound studies shall also evaluate and report anticipated decibel levels when all emergency power generation equipment is running, including backup generators.

(d) The applicant shall provide a vibration study prepared by a qualified professional that demonstrates that no vibration from the Data Center, Data Center Accessory Uses, or associated equipment will be perceptible to the human sense of feeling beyond the property line.

(7) Water and Sewer

(a) If the use will be served by a public water supply or other existing centralized water supply, the applicant shall submit documentation from the public authority or other utility operator certifying that the public authority will supply the water needed.

(b) If the use is to rely upon nonpublic sources of water, the applicant shall provide a water feasibility and environmental impact study prepared by a qualified professional(s) preapproved by the Board of Supervisors of Thornhurst Township. The purpose of these studies are to determine if there is an adequate supply of water for the proposed use and to estimate the impact of the use on existing wells, groundwater, and surface waters in the vicinity. No Data Center shall be approved unless the water feasibility study demonstrates that the anticipated water supply yield is adequate for the project and that the proposed water withdrawals and discharges will not endanger or adversely affect the quantity or quality of groundwater supplies or surface waters in the vicinity. No Data Center shall be approved unless the water feasibility study shall include the following information at a minimum:

1) The projected water demands of the Data Center;

2) The source of water to be used;

3) A description of how water will be used, including the amount or proportion of water to be used for each purpose (e.g. cooling, humidity control, fire suppression, and domestic usage);

4) The long-term safe yield of the water source;

5) A description of the amount or portion of water withdrawn that will be recycled or discharged and by what means;

6) A geologic map of the area with a radius of at least one mile from the site;

7) The location of all existing and proposed wells within two thousand (2,000) feet of the property boundary, with a notation of the capacity of all high-yield wells;

8) The location of all surface waters, including perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps, and estuaries, within two thousand

(2,000) feet of the property boundary and recognition of the Exceptional Value designation of those waters;

9) A determination of the effects of the proposed water supply system on the quantity and quality of water in nearby wells, surface waters, and the groundwater table;

10) A statement of all limitations and conditions the person preparing the study recommends to protect nearby wells, surface waters and ground water tables;

11) A statement of the qualifications and the signature(s) of the person(s) preparing the study.

(c) The applicant shall provide proof of review and approval from the Delaware River Basin Commission for projects proposing:

1) Water withdrawals of 100,000 gallons per day (gpd) or more over a 30-day average from any source or combination of sources within the Delaware River Basin; or

2) Any consumptive water use of 20,000 gpd or more over a 30-day average from any water source.

(d) The applicant shall demonstrate that adequate means of wastewater disposal, including domestic wastewater and wastewater used for cooling or industrial purposes, have been provided and approved by the Sewage Enforcement Officer and/or the Pennsylvania Department of Environmental Protection.

(8) Power Supply

(a) When the applicant proposes to connect the Data Center to the electric grid, the applicant shall provide documentation from the applicable electric service provider certifying that the necessary capacity is available and that electric service provider will serve the Data Center. Known impacts on electric rates or availability for other uses directly attributable to the Data Center project shall be noted.

(b) Any Energy Generation System designed or used to supply power directly to a Data Center during normal operations including solar, wind, fossil fuel, or Small Modular Reactor (SMR) shall not be considered part of the Data Center use. Energy Generation Systems shall be considered a separate use and shall be permitted only as a conditional use and only in the R-C Zoning District.

(9) Emergency Management

(a) The applicant shall submit an Emergency Response Plan (ERP) prepared by a qualified professional. The ERP shall:

1) Be reviewed and accepted by the local fire department and emergency management services as part of the conditional use, land development process;

2) Include detailed procedures for fire suppression, containment, ventilation, and evacuation;

3) Include an evaluation of the access roads and hydrant locations within the site to ensure suitable access for emergency equipment within the site;

4) Ensure that all first responders receive adequate training specific to the installed system;

- 5) Include provisions for annual fire safety inspections demonstrating compliance with fire safety standards to be performed by a qualified professional on behalf of the Data Center.
- (b) Any Data Center use proposing battery storage or any other device or group of devices capable of storing energy in order to supply electrical energy at a later time, whether the energy is stored for use on-site or off-site, shall demonstrate compliance with National Fire Protection Association (NFPA) Standard 855, Installation of Stationary Energy Storage Systems, or similar standards and must include fire suppression systems designed specifically for battery storage.
- (c) No Data Center shall be approved unless the applicant demonstrates that procedures for fire suppression, containment, ventilation, and evacuation are sufficiently protective of public health, safety and welfare.

(10) Aesthetics

- (a) Any Data Center and Data Center Accessory Use building facade that faces a road, or a property developed with a sensitive receptor must incorporate at least two of the following design elements every one hundred fifty (150) horizontal feet:
- 1) A change in building material, pattern, texture, or color;
 - 2) A change in building height;
 - 3) Building step-backs or recesses having a minimum depth of five (5) feet;
- (b) External building materials shall be of colors that are low reflective, subtle, or earth tones. Fluorescent and metallic colors shall be prohibited as external colors.
- (c) All utility lines to the Data Center and Data Center Accessory Use building shall be installed and maintained underground.

(11) Parking

- (a) Data Centers are to be provided with at least one parking space per 8,000 square feet of floor area designed and intended to be accessible regularly by employees, or one parking space for every one employee, based upon the maximum number of employees on site during the largest shift, whichever is lesser.

(12) Discontinued Use. If any Data Center or Data Center Accessory Use building ceases to be used, the owner or operator or then owner of the land on which these structures are located shall be required to remove the same within 1 year from this abandonment of use, unless the owner applies for and receives authorization in writing from the Township Supervisors to convert the structure(s) to another use. Failure to do so shall authorize the Township to remove the structures and assess the cost of removal to the foregoing parties. The Township may also file a lien against the land to recover the costs of removal and attorney's fees. In addition, at the time of zoning permit review, the Township shall require a financial guarantee, in term, form, and amount determined by the Supervisors with the advice of the Solicitor, to guarantee the removal of the Data Center and Data Center Accessory Use buildings. Any application for change of use shall be in accordance with all applicable ordinances, regulations, and approvals.

27-4 03.4.F. Energy Generation Systems including SMRs

(1) Energy Generation Systems including SMRs shall be permitted by Conditional Use in the R-C Zoning District when approved in compliance with the procedures, standards and criteria contained in this section.

(2) For purposes of this subsection, sensitive receptors shall be defined as set forth in Section 27-403.4.E.(2) above.

(3) Energy Generation Systems including SMRs shall comply with the dimensional standards, landscape buffer, screening and fencing, noise and vibration, water and sewer, water studies, emergency management, aesthetics, and parking sections contained in Section 27-403-4.E.as though fully set forth herein and applied to “Energy Generation Systems” including “SMRs”.

Section 4. Severability. If any sentence, clause, section, or part of this Ordinance or of the Zoning Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors of Thornhurst Township, that this Ordinance and the Zoning Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

Section 5. Repealer. All Ordinances or parts of Ordinances conflicting with any provision of this Ordinance are hereby repealed insofar as the same affects this Ordinance.

Section 6. Codification. Pursuant to the Pennsylvania Second Class Township Code and the Pennsylvania Municipalities Planning Code, the Thornhurst Township Zoning Ordinance shall hereby be codified to incorporate the above-referenced amendments.

Section 7. Effective Date. This Ordinance shall take effect immediately upon its adoption.

TOWNSHIP OF THORNHURST

ORDINANCE NUMBER 48

RESOLVED this _____ day of _____, 20_____

ATTEST:

Board of Supervisors

Secretary

Chair
