

TRI-COUNTY REGIONAL PLANNING COMMISSION

MODEL DATA CENTER ORDINANCE

Prepared April 15, 2026

Purpose and Use of the Model Zoning Ordinance

This Model Zoning Ordinance provides sample language, definitions, and regulatory approaches for municipalities seeking to address and regulate data center uses within their zoning regulations. The Tri-County Regional Planning Commission (TCRPC) provides this model as a reference framework to assist municipalities in evaluating potential land-use impacts associated with data center development and determining appropriate regulatory responses.

The model ordinance is intended to be flexible and adaptable to local conditions, priorities, and regulatory frameworks. It reflects consideration of common data center development characteristics, operational requirements, and potential land use impacts, as well as a review of prevailing zoning approaches and regulatory practices. Recommended standards, including dimensional criteria and performance-based provisions, are provided for guidance and should be evaluated for compatibility within each municipality's existing zoning framework.

When using this model ordinance, certain sections are highlighted in **yellow**. These highlights identify standard dimensional values that are intended for consideration only and are not meant to be applied uniformly. Municipalities should review these provisions in light of local conditions, existing development patterns, and community objectives, and determine appropriate standards to insert where indicated based on local needs and circumstances.

In addition, certain provisions within the model ordinance are identified as **OPTIONAL**. As with the previously noted sections highlighted, careful consideration should be given to the appropriateness and relevance of this optional language or additional regulatory components. Municipalities should evaluate whether such provisions align with local conditions, policy objectives, and existing zoning frameworks before electing to incorporate them into the ordinance.

Some topics addressed in this model may already be regulated locally or may not be appropriate for inclusion in a zoning ordinance, and municipalities should determine the relevance of each provision within their broader planning and regulatory context.

The ordinance is structured as a base regulatory framework that establishes general definitions, development standards, and review procedures applicable to data center uses.

The model also includes optional supplemental provisions and conditional standards that may be applied at a municipality's discretion. These supplemental provisions are clearly identified and are intended for selective use based on local land use goals, infrastructure capacity, environmental context, and overall development vision.

Given the scale, intensity, and infrastructure requirements often associated with data centers, municipalities may determine that such uses are best reviewed as a conditional use or special exception rather than permitted by right. This approach allows for the evaluation of site-specific factors, operational characteristics, and compliance with applicable standards, while maintaining consistency with adopted comprehensive plans, zoning district intent, and established review processes.

When determining where to permit and how to regulate data center and other intensive land uses, municipalities are encouraged to undertake planning-level assessments to evaluate potential social, environmental, and economic impacts. Consideration of development standards should be made in relation to those applied to comparable commercial or industrial uses within the same zoning districts. Standards related to site design, building placement, noise, landscaping, and infrastructure improvements may be applied in a manner consistent with existing zoning regulations, with additional standards evaluated based on their relationship to identified planning objectives and anticipated land use impacts.

Consistent application of zoning standards is an important consideration in ordinance administration and decision-making. Application of this model ordinance in a manner that is consistent with the comprehensive plan, established zoning framework, and existing regulatory practices can support clarity, predictability, and defensibility in implementation.

This model ordinance is provided as a reference tool and is not intended to prescribe a single regulatory approach. Municipalities are encouraged to modify and apply the provisions in coordination with planning staff, legal counsel, and community stakeholders, and to consider updates as technologies and industry practices evolve. Municipal staff and elected officials may also contact TCRPC staff for additional clarification or assistance related to the use and interpretation of this model ordinance.

(Insert Municipality Name) ORDINANCE NO. _____

An Ordinance Amending Ordinance No. _____ of

(Insert Municipality Name), known as the (Insert Municipality Name) Zoning

Ordinance, providing for the regulation of Data Centers and Associated Items

(Insert Municipal Governing Body Name) hereby amends Ordinance No. _____ known as the (Insert Municipality Name) Zoning Ordinance, by adding the following:

Section 1. PURPOSE

The purpose of this section is to establish a process and standards for the establishment, construction, and operations of Data Centers to allow for the integration of an allowed industry while providing for the protection of the public’s health, safety, morals, and general welfare.

Section 2. DISTRICT REGULATIONS

- A. DATA CENTERS** are permitted as Conditional Use / Special Exception in the Commercial (C), and Industrial (I) Districts with consideration for the applicable performance standards found in §____ of this ordinance.

Editor’s note: Data Centers could be considered for inclusion in other districts or in specially designated Zones or overlays. It is recommended that in any condition, they be under a conditional use or arrangement provided the applicable district already imposes strong coverage requirements. If a new district is created, then similar provisions can be provided as provided in this model ordinance.

Section 3. DEFINITIONS

The following definitions will be incorporated into Article/Part _____ § _____, Definitions)

- A. BACKUP GENERATOR:** Natural Gas, diesel, hydrogen fuel cells, UPC, Power Storage System, or other non-coal equipment used to generate electricity during a power outage or similar emergency. Backup generators are only to be used during periods of outages, natural disasters, or similar “emergency events” for power generation and for regular reliability testing and exercising.

- B. DATA CENTER:** A facility used for housing or intended to be used for housing, operation, and or co-location of computer systems and associated components, including servers, storage devices, networking equipment, and supporting infrastructure such as power supply, cooling systems, and security systems, for storage, management, processing, and/or transmission of digital information necessary for the operation of one or more businesses, commercial, or governmental entities. Includes but is not limited to co-location facilities, cloud computing centers, enterprise data centers, crypto mining, high-intensity compute-only centers, and similar uses. A Data Center may include limited office space associated with facility operations but does not include general business offices or call centers.
- C. DATA CENTER ACCESSORY USES:** 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. **OPTIONAL ADD:** *Accessory uses shall not include energy generation systems used or intended to be used to supply power to the Data Center during normal operations.*
- D. DATA CENTER EQUIPMENT (DCE):** Equipment related to utilities, utility lines, power generation stations, electrical substations, pump stations, water towers, mechanical equipment, cooling systems, and sound control systems. Fire suppression systems, and environmental controls (emission controls, noise pollution controls, environmental impact monitoring), redundant/backup power supplies, redundant data communications connections, and security operations when located on the same parcel or assemblage of adjacent parcels developed as a unified development for a Data Center.

OPTIONAL DEFINITIONS

- E. BATTERY ENERGY STORAGE SYSTEMS (BESS):** *One or more devices, assembled together, capable of storing and discharging electricity primarily intended to supply electricity to a building or to the electrical grid. This includes, but is not limited to, the following: battery cells; enclosures and dedicated-use buildings; thermal, battery, and energy management system components; inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations;*

interconnection or switching facilities; circuit breakers and transformers; overhead and underground control, communications and radio relay systems, and telecommunications equipment; utility lines and installations; and accessory equipment and structures.

F. SENSITIVE RECEPTORS: *Any land use or structure where occupants are likely to be present for extended periods or where individuals may be more susceptible to adverse impacts from noise, lighting, visual disturbance, traffic, or other external effects. Sensitive Receptors shall include, but are not limited to:*

- 1. Residential uses;*
- 2. Residential districts;*
- 3. Schools, including public, private, and charter schools, and licensed daycare centers;*
- 4. Hospitals, nursing homes, assisted living facilities, and other licensed healthcare facilities;*
- 5. Places of worship;*
- 6. Community centers;*
- 7. Campgrounds;*
- 8. Dormitories;*
- 9. Public parks, playgrounds, and recreational areas;*
- 10. Any other similar use where individuals are expected to be present for extended durations.*

G. SMALL MODULAR REACTOR (SMR): *A small nuclear fission reactor designed to be manufactured off-site and installed at a location to provide energy to buildings or commercial operations. SMR designs may include pressurized water, Generation IV, thermal-neutron, fast-neutron, molten-salt, and gas-cooled reactor models. An SMR must be fully licensed and permitted by the Nuclear Regulatory Commission (NRC) and may only be considered by Special Exception or Conditional Use approval*

Section 4. USE REGULATIONS

The following performance standards will be incorporated into Article/Part _____ § _____, Performance Standards.

***Editor's note:** The following performance standards are provided for general guidance and highlight key considerations related to the data center use and its associated features. Each standard should be reviewed in the context of the applicable ordinance provisions to ensure consistency with permitted regulatory authority. Municipalities should apply the setback, parking, landscaping, coverage, and building height requirements of the applicable zoning district to determine the building envelope and maximum allowable floor area.*

A. DATA CENTERS AND ACCESSORY USES

Data Centers shall be permitted by [RIGHT/CONDITIONAL USE/SPECIAL EXCEPTION] in the [XX Zoning District(s)] when approved in compliance with the procedures, standards, and criteria contained in this section and Article IX of the Pennsylvania Municipalities Planning Code (MPC).

1. Dimensional Standards.

- a. Minimum tract size: [20_] contiguous acres
- b. Maximum impervious coverage: [75%_] of tract area, including all driveways, parking areas, and truck loading areas, unless otherwise regulated by stormwater ordinance
- c. Maximum gross building coverage: [50%_] of tract area
- d. Minimum lot width at the building line (feet) [100_ ft].
- e. *OPTIONAL: Maximum gross building size (all buildings in total): [100,000_] square feet, inclusive of all Data Center Accessory Use buildings on the tract*

2. Maximum Height.

- a. The maximum building height for a Data Center shall be [75_] feet, exclusive of roof-mounted equipment such as cooling and ventilation systems, HVAC units, and cooling towers. Building height shall be calculated from ground to the top edge of the main roofline and exclude any mechanical or accessory equipment, screen walls, and/or parapets.

- b. No mechanical or accessory equipment mounted on the roof shall exceed [20_] feet in height from the top edge of the roof.
- c. The maximum height of Data Center Accessory Uses shall be no greater than the height of the Data Center principal building.
- d. *OPTIONAL: Parapets shall not exceed [20_] in height from the top edge of the roof, except in cases where parapets are utilized for sound screening purposes. Then the size of the parapet shall be no larger than the height of the mechanical equipment seeking to screen.*

3. Minimum Setbacks.

- a. Data Centers and Data Center Accessory Uses, and Data Center Equipment shall be located no closer than the following minimum distances:
- b. [300_] feet from any lot line adjoining property that is zoned for Residential use [Optional] or a Sensitive Receptor.
- c. [200_] feet from the ultimate right-of-way of any dedicated, publicly maintained street;
- d. *Optional: [200_] feet from any lot line for adjoining property that is not containing a Sensitive Receptor.*

4. Parking, Driveway and Loading Requirements

- a. Parking lot setbacks:
 - 1) Parking lots for Data Centers shall be at least [50_] feet from public road rights-of-ways, and [50_] feet from all property lines.
 - 2) Parking, loading, and driveway setbacks shall be at least [100_] feet from any lot line for adjoining tracts of residential uses.
- b. Parking requirements:
 - 1) A minimum of [1_] parking space per employee on the largest shift is required, plus additional [2_] visitor spaces.
- c. Parking Areas Design:
 - 1) Parking lots shall be designed to break up large areas of asphalt through the incorporation of traffic islands, stormwater management areas,

landscaped areas, and other design features, as required by applicable provisions of this zoning ordinance and the land development regulations.

d. Loading /Delivery Areas:

- 1) A minimum of one loading space for off-street loading is required. All loading spaces/bays are permitted to be located on one façade of the Data Center Principal building.
- 2) Must be screened from public streets and residential uses.
- 3) Shall be located to the side or rear of the building provided such loading area is not located adjacent to residentially zoned property.

e. Access:

- 1) Primary Access: Must be from an arterial or collector roadway.
- 2) It shall be demonstrated that there is an adequate second means of ingress and egress suitable for emergency access to the site, and such means shall be maintained for the duration of the use.

f. Traffic Study:

- 1) Required for facilities exceeding 50,000 sq. ft. GFA in total or aggregate.

Editor's Note: Additional information regarding off-street parking and loading regulations are contained in TCRPC's Model Zoning Ordinance.

5. Building Placement and Orientation

- a. The parcel or assemblage of adjacent parcels developed as a unified development must have direct access to an arterial or collector roadway. Parcels divided by a public roadway or land owned by a public utility but owned in common or otherwise developed as a unified development are deemed to be contiguous for the purpose of all area and land mass calculations.

6. Building Design

- a. Facades facing public rights-of-way shall include architectural treatments to reduce visual massing.

- b. Monotone or reflective exterior materials are discouraged.
- c. External building materials shall be of colors that are low-reflective, subtle, or earth tone. Fluorescent and metallic colors shall be prohibited as exterior wall colors.
- d. DCE shall not be located between any principal Data Center building and any arterial or collector street that the site fronts, unless approved during the [Land Development/Special Exception/Conditional Use] process.
- e. Design should be made to minimize impacts to natural resources.
- f. *OPTIONAL: For Data Center sites containing more than one principal building, a variety of building sizes, massing, siting, and architectural treatments is encouraged. Building placement should provide a transition in scale from smaller or lower-height buildings along public street frontages to larger and taller buildings toward the interior of the site. Site design shall consider existing topography to minimize the visual prominence of larger or taller buildings, and such structures should be sited to avoid highly visible locations along public roadways or elevated areas of the property where feasible.*

7. Landscape Buffer

Editor's Note: *The Landscaping Buffer provisions addressing natural visual mitigation provisions for Data Centers set forth below are offered as optional considerations. Any supplemental visual, buffering, or landscaping requirements should be evaluated in the context of existing municipal standards applicable to other industrial uses, as well as all other provisions already in effect under the zoning ordinance. Care should be taken to ensure consistency and proportionality across comparable uses.*

- a. A landscape buffer is required adjoining land within a [residential zoned], or being utilized by a residential use, adjoining a property being utilized as a [permitted Residential Use] or [Sensitive Receptor] shall meet the following buffer yard type and width requirements, unless otherwise stipulated in this Ordinance.
- b. The buffer yard shall extend the entire length or width of the property line of the adjoining zone or lot except along ingress and egress points.
- c. The landscaping buffer shall comply with the following requirements:

- 1) The landscape buffer shall be at least [30] feet in depth and may be part of the minimum setback distance.
- 2) Landscape Buffer yards shall not include environmental encumbrances such as, but not limited to, wetland transition areas, riparian buffers, and flood hazard areas as may be imposed by outside agencies.
- 3) Landscape Buffer yards along roadways shall be measured from the street right-of-way line.
- 4) Landscape Buffer yards are required to be maintained throughout the duration of the use of the Data Center.
- 5) The use of existing vegetation for landscaping and screening is encouraged. If existing vegetation is adequate to meet the intent of the required landscape buffer yard to screen the Data Center and DCE from adjoining [Residential Zoning District(s)], and public roadways, the [decision-making body], upon recommendation by the Municipal Engineer and Planning Commission, at its discretion may determine that existing topography and/or vegetation constitutes all or part of the required landscape buffer.
- 6) *OPTIONAL: Buffer plantings shall consist of native species planted as follows:*
 - a) *One large evergreen tree per [30] linear feet of buffer.*
 - b) *The size of large evergreen trees shall be a minimum of [8] feet in height at the time of planting.*
 - c) *One (1) deciduous canopy (shade) tree per [30] linear feet of buffer.*
 - i. *The size of canopy (shade) trees shall be a minimum of 2½ inch caliper at the time of planting.*
 - d) *One ornamental/flowering tree per [30] linear feet of buffer.*
 - e) *The size of ornamental/flowering trees shall be a minimum of [8] feet in height for multi-stemmed varieties, or 2½ inch caliper at the time of planting for single-stemmed varieties.*
 - f) *Five (5) shrubs per [50] linear feet of buffer.*

- i. *The size of shrubs shall be fully branched and a minimum of three feet in height at the time of planting.*
- ii. *Shrubs shall be a combination of evergreen and deciduous species, with a minimum of [50] % being evergreen.*

8. Screening and Fencing

Editor's Note: *The Screening and Fencing provisions addressing structural visual mitigation provisions for Data Centers set forth below are offered as optional considerations. Any supplemental visual, or other screening or buffering, requirements should be evaluated in the context of existing municipal standards applicable to other industrial uses, as well as all other provisions already in effect under the zoning ordinance. Care should be taken to ensure consistency and proportionality across comparable uses.*

- a. All Data Center operations shall provide screening and fencing as follows:
 - 1) Screening shall be provided for all ground-mounted and roof-mounted mechanical equipment associated with facility operations, including cooling, ventilation, power generation, and power supply equipment, that is located within [50] feet of any property line or public right-of-way. Such equipment shall be fully enclosed. Where full enclosure is not mechanically feasible, the equipment shall be fully screened from view using one or more of the following methods:
 - a) The landscape buffer required by Section above.
 - b) The use of existing vegetation for landscaping and screening is encouraged. If existing vegetation is adequate to meet the intent of the required screening of the Data Center and DCE from adjoining [Residential Zoning District(s)], and public roadways, the [decision-making body], upon recommendation by the Municipal Engineer and Planning Commission, at its discretion may determine that existing topography and/or vegetation constitutes all or part of the required screening.
 - c) A berm averaging a minimum of [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.

- 2) Where full enclosure is provided using a visually solid fence, screen wall, panel, parapet wall, sound-attenuating barriers or comparable screening structure, such enclosure shall be constructed of materials that are compatible with the exterior materials of the principal building.
 - a) Where mechanical equipment is screened by a parapet wall, penthouse, sound-attenuating barrier, or comparable screening structure located on a building, such structure shall be set back from the building façade so that the top of the screening structure does not extend above a forty-five (45) degree plane measured from the top of the parapet wall.
- 3) Fencing is permitted on the property; however, fencing located along public or private roadways shall not consist of chain-link fencing, with or without slatted inserts.
 - a) Perimeter and Security fencing shall not exceed [8] feet in height above ground and shall be of high-quality design and materials. Security fencing that uses barbed wire is required to have visual fencing or screening as provided in subparagraph 1 above.
 - b) Compliance with this subsection shall not be required where such fencing is fully screened from view by one or more of the methods identified in Screening and Fencing Subparagraph listed above.
 - c) Security fencing shall not be deemed to satisfy screening requirements unless otherwise approved at the discretion of the approving body.

9. Water and Sewer

Editor's Note: Water supply and sewage disposal requirements for Data Centers are frequently addressed through regulatory frameworks outside the conventional land development review process. While the demonstration of adequate water and wastewater service is a customary component of plan review, municipalities are encouraged to exercise caution in establishing additional standards to ensure alignment with the Municipalities Planning Code, applicable utility regulations, and provisions applied to comparable industrial uses.

- a. The applicant shall demonstrate that an adequate water supply, provided by a public or approved private system, is available to serve the proposed data center use.

- 1) If the use will be served by a public water supply, the applicant shall submit documentation from the public authority certifying that the public authority can supply the water needed without adverse impact.
- 2) If the use is to rely upon nonpublic sources of water, the applicant shall provide a water feasibility study.
 - a) The purpose of the study is to determine if there is an adequate supply of water for the proposed use and to estimate the impact of use on existing wells, groundwater, and surface waters.
 - b) The scope of the study is to be reviewed and approved by the Municipal Engineer and;
 - i. The water feasibility study shall include the following information at a minimum:
 - a) Projected demands of the Data Center;
 - b) The source of water to be used;
 - c) 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)
 - d) The long-term safe yield of the water source;
 - e) A geologic map of the area with a radius of at least 1 mile from the site;
 - f) The location of all existing and proposed wells within [1,000 feet] of the property boundary, with a notation of the capacity of all high-yield wells;
 - g) A description of the amount or portion of water withdrawn that will be recycled or discharged and by what means;
 - h) The location of all surface waters, including perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps, and estuaries, within [1,000 feet] of the property boundaries and all known point sources of pollution;

- i) A determination of the effects of the proposed water supply system on the quantity and quality of water in nearby wells, streams, and the groundwater table;
 - j) A statement of the qualifications and signature(s) of the person(s) preparing the study.
- 3) Any water withdrawal associated with a data center shall comply with all applicable federal and state regulations, including coordination with the Pennsylvania Department of Environmental Protection. Where applicable, approval from the Susquehanna River Basin Commission shall be obtained prior to the initiation of any withdrawal or consumptive use of water. The applicant shall demonstrate, as part of the permitting process, that all required approvals have been secured or that the proposed withdrawal is below applicable regulatory thresholds.
- b. 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.

10. Noise and Vibration Regulations

Editor's Note: Noise impacts associated with Data Centers are commonly addressed through general municipal noise ordinances and performance standards applicable to industrial uses. While compliance with applicable noise standards is a customary component of plan and zoning review, care should be taken when establishing supplemental noise-related requirements to ensure consistency with the Municipalities Planning Code and standards applied to comparable industrial uses. Implementation of such provisions may also require additional municipal enforcement responsibilities and staff training.

- a. The applicant shall demonstrate that noise generated by the proposed Data Center will comply with applicable municipal noise regulations and will not result in adverse impacts to adjoining properties or sensitive receptors.
 - 1) Where the use is subject to an adopted municipal noise ordinance or performance standard, the applicant shall submit documentation demonstrating compliance with such standards for normal operations and routine testing of emergency or backup equipment, as applicable.
 - 2) As part of any land development plan submission and where determined necessary by the Municipality due to the nature or

intensity of the proposed use, the applicant shall submit a Noise Impact Study.

- a) The purpose of the Noise Impact Study shall be to estimate existing ambient sound levels and projected post-construction sound levels associated with facility operations, including cooling systems, mechanical equipment, and emergency generators, and to evaluate potential noise impacts at all property lines and at nearby existing dwellings.
- b) The scope of the study is to be reviewed and approved by the Municipal Engineer and the study is to be completed by a qualified acoustic professional and is to be conducted using Sound Level Meters described in ANSI S1.4-2104 and generally accepted methodology. It is to consist of the following;
 - i. Estimated existing and post-construction sound levels at all property lines, expressed in dBA and dBC, demonstrating compliance with the applicable noise standards set forth in this section;
 - ii. An estimate of the dBA and dBC noise levels that adjacent existing dwellings would experience under existing and proposed conditions;
 - iii. A description of proposed noise mitigation measures, including methods and materials, intended to limit sound levels to the standards established herein;
 - iv. Include recommended sound-reducing materials or systems as needed to meet the aforesaid standard; and
 - v. An evaluation of anticipated noise levels under both normal operating conditions and routine emergency or backup system testing.
- c) All costs for both studies will be paid for by the applicant.

- b. Sound levels shall not exceed the following dBA and dBC levels for the zoning district contiguous to the property line of the subject property, measured at the property line:

Zoning District Boundary/Use	Maximum dBA daytime (7:00 am – 7:00 pm)	Maximum dBA Nighttime (7:01 pm – 6:59 am)	Maximum dBC daytime (7:00 am – 7:00 pm)	Maximum dBC Nighttime (7:01 pm – 6:59 am)
Residential/ [Sensitive Receptors]	60	60	70	70
Commercial	70	70	70	70
Industrial	75	75	80	80
Mixed Use	65	65	70	70

- c. Backup Generators and back-up power systems, which generate noise in excess of the limits set forth above, shall not be tested between [8:00 PM and 7:00 AM]. Except for generator testing or commissioning activities, generator use is limited to backup/emergency use only.
- d. No vibration generated by Data Centers or DCE shall be perceptible beyond the property line of the site, as determined without the use of instruments.

OPTIONAL: The applicant shall provide a vibration study prepared by a qualified professional that demonstrates no vibration from the Data Center, Data Center Accessory Uses, or DCE, will be perceptible to the human sense of feeling beyond the property line. All costs for present and future vibration studies will be paid for by the applicant.

- e. A noise reduction barrier or device shall be required where post-construction monitoring demonstrates noncompliance with sound limits set forth herein or where the applicant’s acoustic study identifies mitigation measures necessary to achieve compliance.

- f. The maximum sound levels specified above shall not apply to, emergency alerts; emergency work to provide electricity, water, or other public utilities when public health or safety is involved; snow removal, or road repair or maintenance conducted in response to emergency conditions.

OPTIONAL: Within two years after issuance of a certificate of occupancy for all Data Center buildings that have been constructed pursuant to an approved land development plan, [MUNICIPALITY] reserves the right, in its sole discretion, to engage a third-party sound expert of its choosing to perform a post-occupancy noise study at the Data Center facilities at the Owner's expense to confirm compliance with the sound level standards set forth in this section for Noise Regulations. If the study shows that the noise standards are not met, the Owner shall undertake any modifications needed to bring the facilities into compliance with the noise standards.

11. Power

***Editor's Note:** The MPC does not permit municipalities to regulate federally or state-regulated facilities beyond land use impacts. Nothing herein is intended to regulate matters preempted by federal or state law. Municipalities should cross reference their existing ordinances and requirements. The below text is provided for consideration or to be added if there are not any provisions currently in place.*

- a. Prior to approval of the certificate of completion or occupancy, the applicant shall provide written verification from the applicable service provider stating the following:
 - 1) If 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 capacity is available on the applicable supply lines and substation to ensure that the capacity available to serve the other needs of the service area is consistent with the normal projected load growth envisioned by the provider.
 - 2) Utility supply equipment and related electrical infrastructure are sufficiently sized and can safely accommodate the proposed use.
 - 3) Above-ground utility boxes and other equipment must be co-located and screened.
 - 4) Installation of utility lines within or adjacent to all roads must not restrict the installation or adequate future growth of required street trees and landscaping.

- 5) *OPTIONAL: All major utility and minor utility sites must conform to natural topography and minimize disturbance of steep slopes and natural drainage areas.*
- 6) *OPTIONAL: Any energy generation system designed or used to supply power directly to a Data Center during normal operations, including solar, wind, fossil fuel, or nuclear energy generating systems (e.g., Small Modular Reactors (SMRs)), shall not be considered part of the Data Center use. Such systems shall be considered a separate use and shall be approved according to all regulations applicable to such use.*

12. Lighting and Glare

Editor's note: Lighting impacts associated with Data Centers are commonly addressed through general municipal lighting regulations and performance standards applicable to industrial uses. While compliance with applicable lighting standards is a customary component of plan and zoning review, care should be taken when establishing supplemental lighting-related requirements to ensure consistency with the Municipalities Planning Code and standards applied to comparable industrial uses. Implementation of such provisions may also require additional municipal enforcement responsibilities and staff training.

- a. A Lighting Plan is required to be submitted that shows all exterior lighting, including any security lighting. Lighting shall comply with the municipal lighting ordinance and the following:
 - 1) Full cutoff fixtures required.
 - 2) Maximum illumination at property line:
 - a) Non-Sensitive Receptors: 0.5 foot-candles
 - b) Sensitive Receptors: 0.1 foot-candles
 - 3) No strobing or colored lighting.
- b. LED light sources shall have a correlated color temperature that does not exceed 3000k.
- c. Luminaires shall not be mounted more than **[.35.]** feet above the finished grade of the surface being illuminated. No pole-mounted lighting on the roof shall be permitted.

13. Emergency Management

- a. Each Data Center operation shall provide 24-hour emergency contact signage visible at the access entrance. Signs shall include the company name (if applicable), the owner/representative's name, the telephone number, and the corresponding local power company's name and telephone number.
- b. Any Data Center proposing battery energy storage systems (BESS) 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. The applicant shall submit an Emergency Response Plan (ERP) prepared by a qualified professional and is to be reviewed by the municipality's Emergency Management Coordinator, and or the Emergency Management Agency or other appropriate Municipal official servicing in this capacity for review and comment.

Section 5. SEVERABILITY

That if any sentence, clause, section, or part of this Ordinance is for any reason found to be unconstitutional, illegal, or invalid, such unconstitutionality, illegality, or invalidity shall not affect, impair any of the remaining provisions, sentences, clauses, sections, or parts of this Ordinance. It is hereby declared as the intent of the [GOVERNING BODY] that this Ordinance would have been adopted had such unconstitutional, illegal, or invalid sentence, clause, section, or part thereof not been included therein.

Section 6. EFFECTIVE DATE

This ordinance shall take effect _____.

Section 7. ENACTMENT

Enacted and ordained into an ordinance this ____ day of _____, 20____.

(Insert Municipal Governing Body Name)

Attest: _____

(Secretary)

(Chairperson or President)

OPTIONAL SUPPLEMENTAL PROVISIONS AND CONDITIONS STANDARDS

EDITOR'S NOTE: *The following provisions were developed based on a review of select model ordinances and informational materials addressing data center regulation. Certain provisions reflect approaches that have been adopted or discussed in other jurisdictions as of the time of drafting the TCRPC ordinance. Some of these provisions may be useful for Pennsylvania municipalities when considering potential additions or refinements to local data center regulations. Any provision considered for inclusion should be carefully reviewed by the municipal solicitor to ensure consistency with the Pennsylvania Municipalities Planning Code (MPC), other applicable state laws, and local zoning practices prior to adoption within a community's ordinance.*

Items identified by alphabetical listing in this section are intended to serve as dimensional standards and/or criteria and if determined to be appropriate for use are recommended to be placed in the appropriate areas within the proposed model. The use of alphabetical ordering applies only to how the items are presented within this portion of the model ordinance and is not intended to be carried literally into the adopted sections. The optional inclusion of DECOMMISSIONING is recommended as a separate Code section, if chosen for inclusion within the municipality's ordinance.

A. Green Building Techniques

Data Centers are encouraged to implement low-impact development practices in site design and energy efficiency, such as, but not limited to, the following:

1. Site Design
 - a. Select sites that avoid sensitive lands such as wetlands, floodplains, and steep slopes;
 - b. Minimize land disturbance;
 - c. Maximize tree preservation;
 - d. Minimize impervious surfaces;
 - e. Minimize potential nuisance impacts (noise, glare, vibration, etc.) on adjacent properties, public roadways, and the vicinity.
2. Energy/Resource Efficiency

- a. Orient buildings to take advantage of passive cooling and daylight opportunities;
- b. Utilize alternative energy sources (solar, wind, hydro, etc.) as much as possible;
- c. Provide an energy storage system to monitor and regulate the usage of alternative energy for usage during off-peak hours;
- d. Utilize reclaimed water for cooling, if available;
- e. Encourage systems that limit the use of finite natural resources and their disposal;
- f. Encourage fuel storage that limits impacts on the environment from potential spills;
- g. Install water-efficient landscape materials;
- h. Utilize LED exterior/interior lighting.

B. LEED Certification

1. All new Data Centers are strongly encouraged to be designed and constructed to achieve Leadership in Energy and Environmental Design (LEED) certification or comply with any equivalent state or federal requirement for green building standards.

C. Small Modular Reactors (SMRs) Accessory to Data Center Uses

1. The purpose of this section is to establish standards for the siting and operation of Small Modular Reactors (SMRs) in a limited and controlled manner as an accessory or integrated component of Data Center uses in order to protect public health, safety, and welfare while recognizing the federal regulatory authority governing nuclear facilities. Nothing herein is intended to regulate matters preempted by federal or state law.
2. An SMR facility shall be permitted only as an accessory use to a principal Data Center use, subject as a [Conditional Use/Special Exception] which can demonstrate the following:
 - a. Approval from the Nuclear Regulatory Commission (NRC), or similar/successor entity;

- b. Demonstration by developer of a Federally approved constructor and operator of the proposed facility;
- c. The licensed operator and developer must demonstrate that there is an adequate repository of nuclear fuel produced by the SMR with a federally licensed facility and/or agency;
- d. There will be no processing or enrichment activity at the SMR site;
- e. Any temporary fuel storage, used for refueling, or removed during refueling, will be disposed of in accordance with a plan approved by the NRC and other applicable Federal and State agencies having jurisdiction.
- f. Before commencement of construction the operator prepares and submits to the Municipality and NRC any required decommissioning plan, and if none is required by the NRC at time of construction, then to the City a proposed decommissioning plan which ensures the removal of all radioactive materials when the SMR is no longer in operation.
- g. A Safety Plan shall be submitted in a form reasonable acceptable to the Municipality for the SMR. If the Safety Plan complies with the federal standards, or is approved by a Federal agency, the Safety Plan shall be deemed approved by the Municipality.

D. Woodland Disturbance

1. Woodland disturbance, including the alteration or removal of hedgerows, shall be minimized to the maximum extent practicable. No portions of tree masses, tree lines, hedgerows, or individual freestanding trees measuring six (6) inches or greater in diameter at breast height (DBH) shall be removed unless such removal is demonstrated to be necessary to accommodate the proposed development.
2. Under no circumstances shall more than fifty percent (50%) of any existing tree mass, tree line, hedgerow, or group of freestanding trees with a diameter of six (6) inches or greater DBH be removed as part of the development.
3. For the purposes of this section, woodland shall mean a tree mass or plant community in which tree species are dominant or co-dominant and where the branches and leaves of adjacent trees form a complete or nearly complete overhead canopy. Any area, grove, or stand of mature or predominantly mature trees measuring six (6) inches or greater DBH that covers an area of at least one-quarter (0.25) acre, or that contains more than fifty (50) individual trees of six (6) inches or greater DBH, shall be considered a woodland.

E. Threatened and Endangered Species

1. PNDI: A Pennsylvania Natural Heritage Program study (PNDI Receipt) dated within two (2) years of the submission of an application for conditional use/special exception or subdivision and land development, whichever is first, as well as any state agency clearance letters required thereby, shall be provided to the Municipality.
2. Compliance: The applicant shall comply with all measures directed by the clearance letters to avoid, minimize, or mitigate impacts to endangered, threatened, and special concern species and their habitat.

Section “X”. DECOMMISSIONING

- A.** A decommissioning plan that ensures the return of all participating properties to a useful condition, including removal of above-surface facilities that have no ongoing purpose, shall be provided by the applicant.
- B.** The decommissioning plan shall include, but not be limited to, financial assurance in the form of a bond, a parent company guarantee, or an irrevocable letter of credit, but excluding cash, to be determined by the applicant. The amount of the financial assurance shall not be less than the estimated cost of decommissioning the facility, after deducting salvage or recycling value, as calculated by a third party with expertise in decommissioning, hired by the applicant.
- C.** In no event shall the security be less than 100% of the estimated cost of decommissioning. The owner shall provide a new estimate of the cost of decommissioning every ten years thereafter and increase its security if the cost increases.
- D.** The [MUNICIPALITY] is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the right to seek reimbursement from the owner or owner successor for decommissioning costs in excess of the amount deposited in the account and to file a lien against any real estate owned by the owner or owner successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien.