

**CONEWAGO TOWNSHIP
YORK COUNTY, PENNSYLVANIA**

ORDINANCE 2026-

**AN ORDINANCE TO AMEND THE CODE OF ORDINANCES OF THE
TOWNSHIP OF CONEWAGO, ORDINANCE NUMBER 322, ZONING, TO
PROVIDE REGULATIONS FOR DATA CENTERS AND THEIR
ACCESSORY USES AS PART OF AN OVERLAY DISTRICT; TO
PROVIDE FOR THE SEVERABILITY OF THE PROVISIONS THEREOF;
AND TO PROVIDE FOR THE EFFECTIVE DATE THEREOF.**

WHEREAS, the Conewago Township Board of Supervisors previously duly enacted the Conewago Township Zoning Ordinance of 2008, as amended (“Zoning Ordinance”), pursuant to its statutory authority under the Pennsylvania Municipalities Planning Code (“MPC”), Act 247 of 1968, as amended (53 P.S. § 10101 et seq.); which Zoning Ordinance was codified as Ordinance No. 322 of the Code of Ordinances of Conewago Township; and

WHEREAS, since its adoption, the Board of Supervisors has from time to time amended the Zoning Ordinance; and

WHEREAS, the Board of Supervisors has met the procedural requirements of the MPC and of the Township’s Ordinance for the adoption of this proposed ordinance, including public notice, County planning commission review, and posting requirements, and the holding of a public hearing; and

WHEREAS, the Board of Supervisors of Conewago Township, York County Pennsylvania believes it is in the best interest of the Township’s residents to amend Ordinance No. 322 (Zoning) of the Code of Ordinances to update and revise provisions throughout Ordinance No. 322 (Zoning) related to the delineation of districts in which certain uses are permitted; and

WHEREAS, the Board of Supervisors, after due consideration of the proposed ordinance amendment, at a duly advertised public hearing, has determined that the health, safety, and general welfare of the residents of Conewago Township will be served by the proposed Ordinance amendment.

NOW THEREFORE it is HEREBY ORDAINED by the Board of Supervisors of Conewago Township, York County, Pennsylvania, that Ordinance No. 322 (Zoning), of the Code of Ordinances of the Township of Conewago is amended as follows:

SECTION 1. ORDINANCE AMENDMENT. Ordinance No. 322 (Zoning), is hereby amended as set forth herein:

I. Article II (Definitions), Section 201 (Definition of Terms), is hereby amended to insert the following in alphabetical order within the Section without disturbing the existing Terms:

ACOUSTICAL PROFESSIONAL

An individual having demonstrated education, training, and professional experience in environmental acoustics, including environmental sound measurement, predictive acoustical modeling, and noise control, who satisfies at least one of the following:

- (a) Holds a bachelor's or graduate degree in acoustics, engineering, physics, architecture, environmental science, or a related technical discipline and has at least five (5) years of documented professional experience in environmental acoustics, including sound measurement, predictive acoustical modeling, and noise control; or
- (b) Is a full member of the Institute of Noise Control Engineering (INCE), the Acoustical Society of America (ASA), or the National Council of Acoustical Consultants (NCAC), and has documented professional experience in environmental sound measurement, predictive acoustical modeling, and noise control.

AMBIENT SOUND LEVEL.

The lowest valid one hour A weighted L90 sound level (LA90,1 hour) measured within the minimum forty eight (48) hours of valid measurement data obtained during the preconstruction Ambient Sound Survey required by this Section.

CLOSED-LOOP COOLING SYSTEM

A cooling system that circulates a single contained coolant or fluid that is not discharged to the environment as a normal part of operation (may include plate-and-frame heat exchangers, rear-door heat exchangers, immersion, or other sealed liquid cooling approaches).

DATA CENTER

A facility used for the housing, operation, and/or co-location of computer and communication equipment for the purpose of storage, management, processing, and/or transmission of digital information necessary for the operation of one or more business, commercial, or governmental entities.

DATA CENTER ACCESSORY USE

Systems, equipment, facilities, and/or components used for cooling, power supply systems, telecommunication, cloud communication, and mechanical or environmental controls when used in the support or enabling of a Data Center.

DATA CENTER PARK

A tract of land, developed as an integrated planned development that is laid out exclusively for a group of three or more Data Centers with no other use permitted within the park and having separate building sites designed and arranged in accordance with, and complying with the requirements of the Data Center Overlay

District as set forth in this Zoning Ordinance, and other applicable provisions of this Zoning Ordinance; the Conewago Township Subdivision and Land Development Ordinance; and other applicable ordinances of the Conewago Township Code of Ordinances, where the purpose is to allow sub-lots to be subdivided as independent tax parcels.

DAYTIME

The period from 7:00 a.m. to 10:00 p.m., except on a Holiday Quiet Day.

DESIGN CAPACITY

The calculable maximum load that any individual Data Center is designed to accommodate through its physical and technological infrastructure. This term shall be understood to not include the terms “Actual Utilization” or “Utilization Ratio”.

FAÇADE – PRINCIPLE

The face of a building that is adjacent to any public or private street or that contains a primary entrance point of the building

FAÇADE – SECONDARY

The face of a building that is not adjacent to any public or private street but contains a secondary entrance or egress and may be visible from a neighboring residential zone or use

FAST RESPONSE

The sound level meter detector response setting having a time constant of one hundred twenty five (125) milliseconds as defined by ANSI/ASA S1.4, as amended.

HOLIDAY QUIET DAY

Christmas Day, Thanksgiving Day, New Year's Day, Easter Sunday, Memorial Day, Independence Day (July 4), and Labor Day.

INFRASOUND

Acoustic energy having a frequency below twenty (20) Hertz (Hz).

LA90

The A weighted sound level exceeded ninety (90) percent of the measurement period.

LC90

The C weighted sound level exceeded ninety (90) percent of the measurement period.

LAeq

The equivalent continuous A weighted sound level measured over a specified period.

LCeq

The equivalent continuous C weighted sound level measured over a specified period.

LOW FREQUENCY SOUND

Acoustic energy concentrated within the lower frequency portion of the audible spectrum, including frequencies from twenty (20) Hertz through two hundred (200) Hertz, or such other range recognized by generally accepted acoustical standards.

NIGHTTIME

The period from 10:00 p.m. to 7:00 a.m. and all hours of a Holiday Quiet Day.

PROJECT SOUND

Sound attributable to the Data Center, Data Center Campus, Data Center Accessory Uses, Data Center Equipment, and associated infrastructure under any operating condition, including normal operation, maintenance, testing, commissioning, load bank testing, utility demand response, peak shaving, utility interruptions, emergency conditions, and operation of emergency or back up power systems and associated equipment. Project Sound shall exclude sound attributable to unrelated sources. Emergency operation, operation of back up power systems, and load bank testing shall not be exempt from the sound limits or other acoustical requirements of this Section.

RESIDENTIAL PROPERTY

A lot, parcel, or tract of land containing a lawful residential use, regardless of the zoning district in which the residential use is located.

SCREENING - AUDIBLE

A physical barrier that is an earthen berm, solid wall, or a combination thereof specifically designed and constructed to disrupt the travel of sound through absorptive or deflective methods.

SCREENING - VISUAL

A physical barrier, including but not limited to landscaping or a wall, solid or louvered, that obscures the visibility of a property or use from abutting properties, this term shall be understood to incorporate "screen planting".

SENSITIVE RECEPTOR

Any lot, parcel, or tract of land that: (a) constitutes a Residential Property; (b) is located within a residential zoning district, regardless of whether presently developed with a residential use; or (c) contains a lawfully existing school, preschool, childcare or daycare facility, hospital, nursing home, assisted living facility, personal care home, place of worship, public park or public recreational facility, community center, cemetery, or other similar noise sensitive use.

TONAL SOUND

Sound characterized by acoustic energy concentrated at one or more discrete frequencies and perceived as having a tonal character. For purposes of determining whether prominent tonality exists and whether the tonal adjustment required by this Section applies, Tonal Sound shall be evaluated in accordance with Section 10.

WOODLAND

A mass of trees or planting community in which tree species are the dominate or codominant and the branches of which form a complete or nearly complete aerial canopy. Any area of mature or largely mature trees, having a diameter of six (6) inches or more at 65" above grade, covering an area of .25 acres and/or consisting of 60 or more individual trees shall be considered a woodland.

II. The Zoning Map of Conewago Township, Article III (Zone Regulations), Section 301.a (Establishment of Zones) of the Conewago Township Zoning Ordinance, is hereby amended to reflect the addition of the Data Center Overlay District as follows:

- a. The parcels included in the Data Center Overlay District are identified by the following York County Property Identification Numbers:
[HOLD]
- b. The Code of Ordinances of Conewago Township, Ordinance Number 322, Zoning, Section 301, Zones and Boundaries, is hereby amended to reflect the addition of the Data Center Overlay district ("DCO") as identified in the Zoning Map attached hereto and incorporated here as Exhibit A.
- c. An applicant who submits plans for development of land within the DCO District shall have an option of submitting plans under these DCO provisions or under the provisions of the underlying zoning district.
- d. If an applicant chooses to utilize these DCO provisions, then all of the requirements of this Ordinance shall apply. All of the provisions of this Ordinance and other Township regulations shall remain in full force except for provisions modified hereby.

III. Existing Article VII (Administration and Enforcement) is hereby renumbered in its entirety to Article VIII, with the below text to be inserted as a new Article VII (Standards for Conditional Uses), and the same is hereby amended to establish Section 701 (Data Center) as set forth herein:

Article VII. Standards for Conditional Uses.

§ 701. Data Center.

- a. Conditional Use Standards. The applicant shall establish by credible evidence that the application complies with all applicable requirements of this chapter.
 1. The applicant shall provide the Board with sufficient plans, studies or other data to demonstrate this compliance. The applicant shall also prove compliance with

regulations of the Township Subdivision and Land Development Ordinance (“SALDO”) provisions that have direct impact upon the zoning site plan, provided that stormwater, grading, profiles and similar engineering information may be addressed as part of a separate SALDO application.

2. The approval may be conditioned upon the applicant later showing proof of compliance with other specific applicable Township, state and federal laws, regulations and permits, such as PennDOT and DEP permits. All zoning permits are automatically conditioned upon an applicant showing compliance with the Township Stormwater and SALDO ordinances prior to construction, if they are applicable.
 3. Traffic. The applicant shall establish that the traffic from the proposed use will be accommodated in a safe and efficient manner that will minimize hazards and congestion, after considering any improvements proposed to be made by the applicant as a condition on approval.
 4. Site planning. The application shall include proper site layout, internal circulation, parking layout, and loading facilities in order to safely operate the use with minimal negative impacts upon neighboring properties and streets.
 5. Neighborhood. The proposed use shall not substantially negatively change the character of any surrounding residential neighborhood, after considering any proposed conditions upon approval such as limits upon hours of operation and proposed buffering and setbacks.
 6. Safety. The proposed use shall not create a significant hazard to the public health and safety, such as fire, toxic or explosive hazards.
 7. Natural features. The proposed use shall be suitable for the site, considering the disturbance of steep slopes, mature woodland, wetlands, floodplains, springs and other important natural features.
- b. Conditions. In granting a conditional use, the Board may require such reasonable conditions and safeguards (in addition to those expressed in this chapter) as it determines are necessary to implement the purposes of this chapter.
- c. General Requirements. The following requirements shall be met for the development of a Data Center or Data Center Accessory Use.
1. Area Regulations.
 - A. The lot area shall not be less than 100 contiguous acres.
 - B. The width of any lot shall not be less than 200 feet at the minimum building setback line.
 2. Required Yard Regulations.
 - A. When abutting a non-residential district, the minimum required yard widths shall be as follows:
 - i. Front Yard: 500 feet.
 - ii. Side Yard: 500 feet.
 - iii. Rear Yard: 500 feet.
 - B. When abutting a residential district, or an existing residential use, the minimum required yard widths shall be as follows:
 - i. Front Yard: 1,000 feet.
 - ii. Side Yard: 1,000 feet.

- iii. Rear Yard: 1,000 feet.
 - C. Corner lots shall have two (2) front yards, one (1) side yard, and one (1) rear yard.
 - D. No accessory structure or material storage is permitted within the required yards, except for freestanding signage and driveways.
3. Buffer Requirements. A buffer shall be provided and shall be required to be maintained in perpetuity along each exterior property line of a parcel on which a Data Center or Data Center Accessory Use exists. The buffer is required only along the exterior parcel boundaries and not along parcel boundaries under common ownership with the Data Center or within a Data Center Park. Each edge of the site is unique and requires different setback and buffering methods tailored to that edge's characteristics in order to achieve the goal of visually and audibly screening the Data Center use from surrounding properties. All buffers must be continuously effective year round and are to be a combination of berms, deciduous and evergreen planted material, sound wall and horizontal green space to sufficiently screen the use visually from the adjacent properties.
- A. Standard Minimum Screening:
 - i. A buffer of at least fifty (50) feet in depth shall be maintained adjacent to all exterior property boundaries of the Data Center site. The buffer may be placed within the required yard setbacks.
 - ii. The property owner shall maintain all berms and plantings as long as the Data Center or Data Center Accessory use exists.
 - iii. An annual maintenance plan shall be submitted to the Township.
 - iv. Dead or diseased vegetation must be replaced within one growing season.
 - v. Existing woodlands shall be preserved where possible.
 - vi. Where existing topography does not provide adequate screening, earthen berms installed in the following manner shall be required:
 - a) The leading toe of slope shall be no more than ten (10) feet from the property line.
 - b) The height shall be a minimum of fifteen (15) feet.
 - c) The berm must include a plan for a multiple- row planting mix of deciduous and evergreen trees and shrubs native to Pennsylvania.
 - d) Screen plantings shall be permanently maintained so as to provide the minimum required screening at all times.
 - e) A sight line plan shall be submitted as part of the conditional use filing, showing how these provisions are to be installed and maintained.
 - f) Where the submitted site line plan shows that preexisting vegetation or other conditions in required buffer yard areas of the subject property can achieve the same or greater screening result as these provisions in this Paragraph (A), the Board of Supervisors may, as part of its conditional use decision, allow such preexisting vegetation or conditions to

remain in place of these requirements and shall require in such decision that such screening be maintained permanently in accordance with Paragraph (B) below.

B. Preexisting Screening Alternative:

- i. An applicant may incorporate preexisting vegetation, woodlands, or other site conditions into the required buffer yard areas of the subject property if it can achieve the same or greater result as the minimum screening requirements of Paragraph (A) above for some or all of the areas required to be screened. The Board of Supervisors may approve the use of such preexisting conditions in lieu of the installation of the standard screening measures in such areas, subject to at least the following conditions:
 - a) The owner (including owner's successors and assigns with respect to the subject property) shall be required in perpetuity to maintain such preexisting vegetation or conditions to continuously provide the same or greater screening result as would be provided by the standard screening measures provided for in Paragraph (A) above.
 - b) In the event that the preexisting vegetation or other conditions are ever diminished or otherwise cease to continue to provide the same or greater screening as provided for by standard screening measures under Paragraph (A) above (for example, if a fire or natural disaster destroys a preexisting woodland area used as alternative screening), owner shall within one (1) year of such occurrence install screening that meets at least the requirements of Paragraph (A) above.
 - c) Owner shall be required to record in the York County Recorder of Deeds Office a restrictive covenant or other instrument in a form approved by the Township that is enforceable by the Township and that cannot be amended or terminated without the written recorded agreement of the Township, setting forth the conditions of this Paragraph (B).

C. Landscape Bond. Applicant shall place with the Township a bond guaranteeing the maintenance of the landscape screening at the value of not less than 110% percent of the cost of replacement of the landscape screening as determined by the Township Engineer, including the cost of berm grading, for five (5) years from the issuance of a certificate of occupancy for the use of the Data Center. The bond shall be renewable annually and subject to increase at the annual rate of the consumer price index.

4. Screening Requirements.

- A. Visual and audible screening shall be provided for all Data Center Accessory Uses. The requirements shall apply to both ground and roof

mounted equipment and components and be in addition the required buffer yards of this Ordinance.

B. Ground and Roof Mounted Requirements.

i. Ground Mounted Systems.

- a) Visual screening shall be provided directly adjacent to the noise producing equipment and be provided at a minimum height of the equipment.
- b) Screening must be provided on all sides of the structure except when one side is facing the primary Data Center building.
- c) Audible screening shall be provided in the following manner:
 - 1) Designed to provide a Sound Transmission Class of 35 or greater.
 - 2) Designed to provide a minimum Noise Reduction Coefficient of 1.0.
 - 3) Designed to attenuate sound levels at neighboring property lines in accordance with Table 1.
 - 4) Screening must be provided on all sides of the sound producing equipment except when one side is facing and completely enclosed by the primary Data Center building.
 - 5) Screening must be provided as shown by models produced specific to the site in question for height and placement.

ii. Roof Mounted.

- a) All screening shall be provided at a minimum height of ten (10) feet and be setback a minimum of ten (10) feet from the edge of the roof.
- b) All roof mounted screening must be provided with access doors or gates to allow maintenance and emergency access to roof mounted systems.
- c) Audible screening shall be provided in the following manner:
 - 1) Designed to provide a Sound Transmission Class of 35 or greater
 - 2) Designed to provide a minimum Noise Reduction Coefficient of 1.0
 - 3) Designed to attenuate sound levels at neighboring property lines in accordance with Table 1.
 - 4) Screening must be provided on all sides of the sound producing equipment so as to encase such equipment.

C. Electrical substations installed specifically for the transmission of power to a Data Center shall be visually screened with a man-made, opaque barrier at a minimum of 12 feet to lessen visual impact. Such screening shall be

provided with proper access and ventilation to allow for the proper maintenance and functioning of the substation

- D. When noise producing equipment is abutting a residential or agricultural district or use, such equipment shall be placed so that the Data Center is between the affected lot and the equipment.
- E. If the Data Center has more than one lot line that abuts a residential or agricultural district or use, the sound producing equipment shall be placed on the side of the Data Center that does not abut the residential or agricultural district or use or the side that has greatest setback from the affected property line(s) with distance preference going to existing residential uses.

5. Height Regulations.

- A. Maximum permitted height of a Data Center is 70 feet.
 - i. Building height shall be calculated from the lowest adjacent grade to the top edge of any encasements or enclosures.
 - ii. The maximum height is inclusive of any projections from the roof or mechanical equipment.
 - iii. The maximum height of any accessory structure is 50 feet.
 - iv. Utility poles, antenna, and towers for the specific support and/or utilization of utility equipment are not subject to this section.

6. Cover Regulations. Impervious cover may not exceed 55% of the total lot area.

7. Lighting.

- A. Lighting. A photometric plan shall be provided showing all exterior lighting for the Data Center and shall be designed so as to not produce more than 0.0 foot-candles at any abutting lot line. Any intersection of an access drive to a public road where lighting is required for public safety shall be exempt.
- B. Directional luminaires such as floodlights and spotlights, when their use is specifically approved by the Township, shall be so shielded, installed and aimed downward such that they do not project their output onto the properties of neighboring residences, adjacent uses, past the object being illuminated, skyward or onto a public roadway or pedestrian way. Floodlights installed above grade on residential properties, except when motion-sensor actuated, shall not be aimed out more than 45° from straight down. When a floodlight creates glare as viewed from an adjacent residential property, the floodlight shall be required to be re-aimed and/or fitted with a shielding device to block the view of the glare source from that property.
- C. Lighting Fixture Design. Luminaires shall be of a type and design appropriate to the lighting application and aesthetically acceptable to the Township. All fixtures shall be fully shielded or cutoff so as to direct light at a downward angle and towards the interior of the lot and not equal to or

higher than the horizontal plane of the bulb, bulb enclosure, or light shielding.

- D. For the lighting of predominantly horizontal surfaces such as, but not limited to parking areas, roadways, vehicular and pedestrian passage areas, and building entrances, luminaires shall be aimed straight down, have no uplight and shall meet IESNA full-cutoff/fully shielded criteria. Except as may be specified elsewhere in this Ordinance, luminaires shall have a rating of B1-U0-G1. Luminaires with an aggregate rated lamp output not exceeding 500 lumens, e.g., the rated output of a standard non-directional 40-watt incandescent or 10-watt compact fluorescent lamp, are exempt from the requirements of this paragraph. In the case of decorative street lighting luminaires, the Township may approve the use of luminaires with an uplight component not exceeding 1%.
- E. For the lighting of predominantly non-horizontal tasks or surfaces such as, but not limited to, facades, landscaping, and signs, luminaires shall be shielded and shall be installed and aimed so as to not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward or onto a public roadway. Luminaires with an aggregate rated lamp output not exceeding 500 lumens, e.g., the rated output of a standard non-directional 40-watt incandescent or 10-watt compact fluorescent lamp, are exempt from the requirements of this paragraph.
- F. Directional fixtures for such applications as façade, fountain, feature and landscape illumination shall be aimed so as not to project their output beyond the objects intended to be illuminated, shall be extinguished between the hours of 11 p.m. and dawn.
- G. Only the United States and Commonwealth of Pennsylvania flags shall be permitted to be illuminated from dusk till dawn and each flag shall be illuminated by a source or sources with a beam spread no greater than necessary to illuminate the flag. Flag lighting sources shall not exceed 7,000 lumens per flagpole.
- H. The use of white strobe lighting for tall structures such as smokestacks, chimneys and radio/communications/television towers is prohibited during hours of darkness, except as specifically required by FAA.
- I. Light sources shall have a color temperature that does not exceed 2700K.
- J. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of fixture mounting height, wattage, aiming angle and fixture placement.

8. Sound.

A. Acoustical Review and Costs

- i. The Township shall retain an independent Acoustical Professional to review acoustical submissions and evaluate compliance with this Section.

- ii. The Township's Acoustical Professional may perform acoustical services reasonably necessary to review the application or determine compliance with this Section, including:
 - a) Review of Ambient Sound Surveys, Noise Impact Studies, predictive acoustical modeling, sound source data, mitigation measures, compliance studies, and supporting documentation.
 - b) Review and approval of proposed sound measurement locations and measurement protocols;
 - c) Coordination or observation of preconstruction, post construction, periodic, or other compliance measurements;
 - d) Review of sound measurement instrumentation, calibration documentation, meteorological data, and data screening procedures;
 - e) Review of modeling assumptions, sound power data, operating scenarios, model inputs, calculations, and electronic acoustical model files;
 - f) Review of proposed or required noise mitigation measures;
 - g) Site visits and inspections;
 - h) Independent sound measurements, acoustical analysis, or predictive modeling where reasonably necessary to evaluate compliance;
 - i) Attendance at meetings, hearings, or proceedings where acoustical consultation is reasonably necessary; and
 - j) Other acoustical services reasonably necessary to review the application or determine compliance with this Section.
- iii. All reasonable and necessary costs and fees incurred by the Township for the services of its independent Acoustical Professional shall be paid by the applicant or Operator, as applicable and as authorized by law.
- iv. The obligation to pay such costs shall apply to acoustical services associated with application review, construction, post construction verification, periodic compliance testing, complaint or compliance investigations, enforcement, corrective action, facility expansion or modification, and continuing compliance with this Section.
- v. The Township may require the applicant or Operator to establish and maintain an escrow account in an amount reasonably determined by the Township to pay anticipated acoustical review and compliance costs. The Township may require additional deposits or replenishment of the escrow account when necessary to maintain sufficient funds for reasonably anticipated acoustical services.

- vi. Failure of an applicant to replenish a required escrow account following written notice from the Township may constitute grounds for suspension of further application review until the required funds are deposited.
- vii. The applicant or Operator shall provide the Township and its Acoustical Professional with all information reasonably necessary for acoustical review or determination of compliance, including manufacturer equipment sound data, sound power levels, electronic acoustical model files, model inputs and assumptions, field measurement data, calibration records, meteorological data, facility operating information, and supporting calculations.

B. Noise Impact Study Every application for a Data Center shall include a Noise Impact Study prepared by an Acoustical Professional at the sole cost and expense of the applicant.

The Noise Impact Study shall be sufficiently detailed to permit independent technical review and demonstrate compliance with this Section under all reasonably foreseeable operating modes.

The Noise Impact Study shall include, at a minimum:

- i. The preconstruction Ambient Sound Survey required by Section 6;
- ii. Identification of all significant sound sources associated with the proposed facility;
- iii. Projected operational sound levels under normal operating conditions;
- iv. Projected sound levels associated with emergency generators, backup power systems, load banks, and other emergency or backup equipment, including the loudest reasonably foreseeable simultaneous operating condition;
- v. Daytime and Nighttime sound modeling;
- vi. A weighted and C weighted sound analysis;
- vii. Frequency band analysis sufficient to evaluate Low Frequency Sound;
- viii. Qualitative identification and discussion of Infrasound where proposed equipment is reasonably anticipated to generate such sound;
- ix. Evaluation of the potential for Tonal Sound from proposed equipment and operating conditions, including application of the tonal adjustment required by this Section where prominent tonality is predicted or cannot reasonably be ruled out;

- x. Evaluation of vibration;
- xi. Octave band sound power levels and locations for all significant modeled equipment;
- xii. Identification of all mitigation measures necessary to demonstrate compliance with this Section; and
- xiii. The predictive acoustical modeling required by Section 7.

C. Measurement Standards

- i. To the extent practicable, sound measurements shall be conducted in general accordance with the applicable provisions of the ANSI/ASA and ISO standards referenced in this Section. The compliance metrics and detector response requirements expressly established by this Section shall govern for purposes of determining compliance.
- ii. Applicable standards include:
 - a) ANSI/ASA S12.9 Part 2, *Quantities and Procedures for Description and Measurement of Environmental Sound, Part 2: Measurement of Long Term, Wide Area Sound*;
 - b) ANSI/ASA S12.9 Part 3, *Quantities and Procedures for Description and Measurement of Environmental Sound, Part 3: Short Term Measurements with an Observer Present*;
 - c) ANSI/ASA S1.4, *Specifications for Sound Level Meters*; and
 - d) ANSI/ASA S1.40, *Specifications and Verification Procedures for Sound Calibrators*.
- iii. All measurements shall be performed using ANSI/IEC Class 1 sound level instrumentation and appropriate calibrators.
- iv. For purposes of determining compliance with the sound limits established by this Section, A weighted and C weighted statistical sound levels shall be measured and reported using Fast Response.
- v. Field calibration shall be performed immediately before and after each measurement period. Current laboratory calibration certificates shall be provided for the sound measurement instrumentation and calibrators.
- vi. Meteorological conditions including temperature, humidity, wind speed and direction (including gusts) and precipitation shall be monitored and documented as necessary to determine measurement validity.

D. Preconstruction Ambient Sound Survey

- i. A preconstruction Ambient Sound Survey shall be conducted at each approved monitoring location and shall obtain a minimum of forty eight (48) hours of valid ambient sound measurement data at each monitoring location.
- ii. Prior to commencement of any ambient sound measurements, the applicant shall submit a proposed measurement protocol to the Township's Acoustical Professional for review and approval.
- iii. The protocol shall identify, at a minimum:
 - a) Proposed monitoring locations;
 - b) Monitoring duration;
 - c) Instrumentation and equipment specifications;
 - d) Calibration procedures;
 - e) Meteorological limitations;
 - f) Data screening criteria;
 - g) Measurement parameters;
 - h) Site access arrangements; and
 - i) Other information reasonably required by the Township's Acoustical Professional to establish the measurement program.
- iv. Monitoring locations and the measurement protocol shall be selected in coordination with and approved by the Township's Acoustical Professional prior to commencement of monitoring.
- v. The Township's Acoustical Professional may require monitoring at locations reasonably necessary to characterize existing ambient sound conditions at Sensitive Receptors potentially affected by the proposed Data Center.
- vi. No ambient sound measurements shall be used to establish the Ambient Sound Level unless conducted pursuant to a measurement protocol approved by the Township's Acoustical Professional.
- vii. Monitoring shall be continuous during each measurement period. If any portion of the measurement period is invalid, monitoring shall be continued or extended until a minimum of forty eight (48) hours of valid data has been obtained at each monitoring location.
- viii. Invalid measurement periods shall not count toward the required forty eight (48) hours of valid data.
- ix. The Ambient Sound Survey shall include continuous A weighted and C weighted sound level data and one-third octave band sound pressure levels from 16 Hz through 8,000 Hz sufficient to characterize the existing ambient acoustical environment and Low Frequency Sound.
- x. Measurement periods affected by precipitation, excessive wind, equipment malfunction, construction activity, maintenance

activity, emergency response activity, or other atypical sound sources or conditions not representative of normal environmental conditions shall be excluded where they render the data invalid or unrepresentative.

- xi. The Township's Acoustical Professional may require additional monitoring where weather conditions, atypical events, equipment malfunction, seasonal conditions, insufficient valid data, or other circumstances prevent the survey from adequately characterizing existing ambient sound conditions.

E. Predictive Acoustical Modeling

- i. All predictive acoustical modeling shall comply with ISO 9613 2:2024, *Acoustics — Attenuation of sound during propagation outdoors — Part 2: Engineering method for the prediction of sound pressure levels outdoors*, or any successor standard approved by the Township.
- ii. The acoustical model shall:
 - a) Include all significant sound sources associated with the proposed facility, including cooling equipment, chillers, cooling towers, air handling equipment, generators, generator exhaust systems, transformers, substations, switchgear, mechanical equipment, ventilation systems, load banks where applicable, and other equipment capable of producing measurable sound at a Sensitive Receptor;
 - b) Evaluate all reasonably foreseeable operating modes, including normal operation, peak shaving, demand response participation, utility curtailment, load shedding, back up power operation, emergency operation, routine testing, maintenance, startup, shutdown, and commissioning;
 - c) Utilize octave band sound power levels for all significant modeled equipment supported by manufacturer data, field measurements, laboratory testing, or other documentation acceptable to the Township's Acoustical Professional;
 - d) Include source and receptor locations and elevations;
 - e) Include existing and proposed buildings;
 - f) Include terrain and topography;
 - g) Include ground absorption characteristics;
 - h) Include atmospheric attenuation;
 - i) Include shielding effects, noise barriers, berms, and other acoustically significant mitigation;
 - j) Include building reflections and other acoustically significant site features;
 - k) Identify the modeling software and version;

- l) Include all assumptions, model inputs, and calculation parameters necessary to permit independent technical review;
 - m) Model all significant equipment operating simultaneously under the loudest reasonably foreseeable operating condition, inclusive of emergency conditions when back up power systems are operating;
 - n) Predict Project Sound at all Sensitive Receptors located within two thousand five hundred (2,500) feet of the consolidated project property boundary;
 - o) Predict Project Sound at any additional locations required by the Township's Acoustical Professional;
 - p) Provide noise contour maps for all areas within four thousand (4,000) feet of the consolidated project property boundary at a receiver height of approximately five (5) feet above local ground elevation; and
 - q) Provide point receiver calculations at residential dwellings using receiver heights representative of the highest occupied floor exposed to the project, including approximately five (5) feet for single story dwellings and fifteen (15) feet for two story dwellings, with greater heights where warranted by taller residential structures or site specific conditions.
- iii. The model shall report predicted A weighted and C weighted sound levels and frequency band sound levels sufficient to evaluate compliance with this Section and characterize Low Frequency Sound.
 - iv. Potential Tonal Sound shall be evaluated in accordance with Section 10.
 - v. The applicant shall provide sufficient technical information and electronic model data to permit the Township's Acoustical Professional to independently review and reproduce the analysis.

F. Operational Sound Limits

- i. Project Sound shall not exceed the applicable Ambient Sound Level plus five (5) dBA, based upon LA90, at or within a Sensitive Receptor located within two thousand five hundred (2,500) feet of the consolidated project property boundary
- ii. In addition, the maximum Project Sound shall not exceed the following A weighted sound limits at or within a Sensitive Receptor:

Receiving Location	Daytime	Nighttime
At or within a Sensitive Receptor	45 dBA	40 dBA

- iii. The maximum Project Sound shall also not exceed the following C weighted sound limits at or within a Sensitive Receptor:

Receiving Location	Daytime	Nighttime
At or within a Sensitive Receptor	60 dBA	50 dBA

- iv. Compliance shall be based upon the more restrictive applicable requirement.
- v. Existing ambient sound levels shall not be used to increase the fixed A weighted or C weighted sound limits established by this Section.
- vi. The Ambient Sound Level plus five (5) dBA criterion shall apply only to A weighted Project Sound.
- vii. Compliance shall be demonstrated during maximum operating conditions, inclusive of emergency conditions when back up power systems are operating.

G. Compliance Determination

- i. Compliance evaluations shall be performed under representative maximum sound producing operating conditions, as determined by the Township or the Township's Acoustical Professional.
- ii. Compliance with the Ambient Sound Level plus five (5) dBA criterion shall be determined using the measured LA90 attributable to Project Sound.
- iii. Compliance with the fixed A weighted and C weighted sound limits established by Section 8 shall be based upon the maximum measured Project Sound during the applicable measurement period.
- iv. Each compliance measurement shall have a minimum duration of fifteen (15) consecutive minutes.
- v. Longer measurement periods may be required by the Township's Acoustical Professional where necessary to adequately characterize Project Sound under the operating conditions being evaluated.
- vi. Compliance measurements shall include, at a minimum:
- Maximum A weighted sound level;
 - Maximum C weighted sound level;
 - LA90;
 - LC90;
 - LAeq;
 - LCeq; and
 - Frequency band sound levels sufficient to evaluate Low Frequency Sound and support acoustical diagnosis and source identification.

- vii. LA90 shall be used to determine compliance with the Ambient Sound Level plus five (5) dBA criterion. LA90, LC90, LAeq, LCEq, and frequency band data may also be used for acoustical characterization, diagnostic analysis, enforcement support, source identification, and other technical evaluation but shall not replace the maximum measured A weighted and C weighted Project Sound levels for determining compliance with the fixed limits established by Section 8.
- viii. Where unrelated ambient sound prevents direct determination of Project Sound, the Acoustical Professional shall use appropriate acoustical measurement and analytical procedures to determine the contribution of Project Sound.
- ix. The Operator shall provide the Township and its Acoustical Professional with equipment operating status, facility loading information, generator operating records, maintenance and testing records, demand response or utility curtailment records where applicable, and other operational information reasonably necessary to determine whether measurements represent maximum sound producing operating conditions and to evaluate compliance with this Section.

H. Tonal Sound

- i. Potential Tonal Sound from the proposed Data Center shall be evaluated as part of the predictive acoustical modeling required by this Section.
- ii. The preconstruction tonal evaluation shall be based upon manufacturer sound data, equipment characteristics, available frequency spectrum data, and other reasonably available acoustical information.
- iii. Where prominent tonality is predicted or cannot reasonably be ruled out during the preconstruction acoustical analysis, a five (5) dB tonal adjustment shall be applied to the predicted A weighted Project Sound level before comparison with the applicable A weighted sound limit.
- iv. The absence of sufficient narrowband or other frequency specific manufacturer sound data to determine whether prominent tonality will occur shall not constitute a basis for omitting the tonal adjustment.
- v. The tonal adjustment may be omitted only where the Noise Impact Study provides sufficient technical information and analysis to reasonably rule out prominent tonality at the applicable Sensitive Receptor.
- vi. Post construction and subsequent compliance testing shall include evaluation for potentially prominent tonal Project Sound.

- vii. Where a potentially prominent tonal component is identified through field observation, measurement data, equipment operating characteristics, complaint information, or other reasonable evidence, targeted narrowband frequency measurements shall be conducted and prominent tonality shall be determined in accordance with ISO 1996 2:2017, Annex C, or any successor standard approved by the Township.
 - viii. Continuous narrowband monitoring shall not be required as part of routine long term sound monitoring.
 - ix. Where prominent tonality is determined to exist, a five (5) dB tonal adjustment shall be applied to the measured A weighted Project Sound level before comparison with the applicable A weighted sound limit.
- I. Low Frequency Sound and Infrasound.
- i. The Noise Impact Study shall identify and evaluate Low Frequency Sound using octave band or other generally accepted acoustical methodologies. The Noise Impact Study shall identify equipment reasonably anticipated to generate Infrasound and shall evaluate potential Infrasound using available manufacturer data, published source data, measurements of comparable equipment, or other technically reliable information where such information is reasonably available.
 - ii. Infrasound shall be quantitatively measured and evaluated using G weighted sound pressure levels in accordance with ISO 7196:1995, Acoustics — Frequency weighting characteristic for infrasound measurements, or any successor standard, as part of the Post Construction Noise Verification Study and subsequent compliance measurements where Infrasound is reasonably anticipated or identified as a potential concern.
 - iii. Measured Infrasound attributable to the Data Center, Data Center Accessory Uses, or associated equipment shall not exceed a G weighted equivalent sound pressure level of 90 dBG evaluated over a 16 hour reference period from 6:00 AM to 10:00 PM, or 85 dBG evaluated over an 8 hour reference period from 10:00 PM to 6:00 AM. Measurements shall be conducted in accordance with ISO 7196:1995, or any successor standard.
 - iv. The absence of audible or consciously perceptible Infrasound shall not, by itself, constitute a demonstration that Infrasound is absent or that further evaluation is unnecessary. Where Infrasound is measured, reported as perceptible, or otherwise identified as a potential source of adverse impact at a Sensitive Receptor or property located within a residential zoning district, the Township may require additional evaluation by the

Township's independent Acoustical Professional and reasonable mitigation where warranted.

- v. The Township may establish or require more protective quantitative Infrasound criteria where supported by subsequently published generally accepted scientific research or professional guidance and where compliance can be objectively determined using an applicable standardized measurement methodology.

J. Emergency Generator Testing and Operation

- i. Routine maintenance, exercising, and testing of emergency or back up generators shall occur only between 10:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays, and shall be limited to the duration reasonably necessary to maintain operational readiness.
- ii. Routine generator testing shall not occur outside this period except where testing outside the permitted hours is reasonably necessary to diagnose or repair an equipment malfunction or restore the emergency power system to operational readiness following an actual emergency operation. Any such testing shall be limited to the minimum duration reasonably necessary.
- iii. The application shall identify the anticipated testing frequency and duration, number of generators proposed to be tested simultaneously, use of load banks, commissioning procedures, and proposed noise control measures.
- iv. The operational sound limits established by this Section shall apply during generator testing and operation, including load bank testing.

K. Vibration

- i. Operation of a Data Center, Data Center Accessory Use, or associated equipment shall not produce ground borne or structure borne vibration that is perceptible without instruments at or within a Sensitive Receptor or property located within a residential zoning district. Where measurement is required to evaluate compliance, vibration shall be measured and evaluated with respect to the threshold of human perception in accordance with ASA/ANSI S2.71-1983 (R2025), Guide to the Evaluation of Human Exposure to Vibration in Buildings, or any successor standard approved by the Township.
- ii. The applicant shall evaluate potential vibration impacts upon nearby Sensitive Receptors and properties located within residential zoning districts as part of the Noise Impact Study and shall incorporate mitigation where necessary to prevent perceptible Project generated vibration. The evaluation shall

include vibration associated with all reasonably foreseeable operating conditions and equipment capable of producing ground borne or structure borne vibration.

L. Post Construction Noise Verification

- i. No sooner than one (1) month and no later than twelve (12) months following Commencement of Operations, the Operator shall submit a Post Construction Noise Verification Study prepared by an Acoustical Professional demonstrating compliance with this Section.
- ii. Measurement locations and the testing protocol shall be selected in coordination with and approved by the Township's Acoustical Professional prior to commencement of testing.
- iii. Testing shall include representative locations used during the preconstruction Ambient Sound Survey and any additional locations determined by the Township's Acoustical Professional to be reasonably necessary to demonstrate compliance.
- iv. Testing shall evaluate maximum reasonably achievable sound producing operating conditions and shall include the measurements and evaluations required by Sections 9, 10, and 11.
- v. The Operator shall document the operating condition of significant sound producing equipment during each measurement period.
- vi. If operating conditions during the initial verification study do not reasonably represent maximum sound producing operating conditions, inclusive of emergency conditions when back up power systems are operating, the Township may require additional testing when representative conditions occur.
- vii. The Township's Acoustical Professional may observe, review, or independently perform compliance measurements.

M. Periodic Acoustical Compliance Testing

- i. The Operator shall demonstrate continuing compliance with this Section through periodic acoustical compliance testing performed by an Acoustical Professional at the Operator's sole cost and expense.
- ii. Periodic acoustical compliance testing shall be conducted annually for the first three (3) years following Commencement of Operations and at least once every three (3) years thereafter for the life of the facility.
- iii. Measurement locations and the testing protocol for each periodic acoustical compliance test shall be selected in coordination with

and approved by the Township's Acoustical Professional prior to commencement of testing.

- iv. The Township's Acoustical Professional may require testing at additional locations reasonably necessary to demonstrate compliance.
- v. Periodic testing shall comply with the measurement and compliance requirements of Sections 5, 9, 10, and 11, as applicable.
- vi. Testing shall be conducted during operating conditions representative of the maximum sound producing conditions reasonably achievable at the time of testing.
- vii. The Operator shall submit the complete results of each periodic acoustical compliance test to the Township, including measurement data, operating information, meteorological data, calibration information, and supporting analysis.
- viii. If the testing does not adequately represent maximum sound producing operating conditions or otherwise does not provide sufficient information to demonstrate compliance, the Township may require supplemental testing.

N. Compliance Investigation and Corrective Action

- i. Where the Township has reasonable cause to investigate compliance with this Section, including as a result of a complaint, observation, operating information, measurement data, or other credible information, the Township may require or undertake sound or vibration measurements, testing, analysis, and investigation reasonably necessary to determine compliance.
- ii. Testing shall be conducted under operating conditions reasonably representative of the condition giving rise to the investigation where those conditions can reasonably be reproduced or observed.
- iii. Where an investigation concerns Tonal Sound, targeted narrowband frequency measurements shall be conducted where reasonably necessary to determine whether prominent tonality exists in accordance with Section 10.
- iv. If testing demonstrates noncompliance, the Operator shall promptly submit a corrective action plan prepared by an Acoustical Professional.
- v. The corrective action plan shall identify:
 - a) The nature and magnitude of the exceedance;
 - b) The sound sources causing or contributing to the exceedance;
 - c) The corrective mitigation measures proposed;

- d) The schedule for implementation; and
 - e) The procedures and measurements that will be used to verify compliance following implementation.
- vi. The Operator shall implement all measures necessary to achieve compliance within a timeframe approved by the Township.
- vii. Following completion of corrective measures, additional compliance testing shall be conducted to demonstrate compliance.

O. Maintenance of Noise Control Measures

- i. All noise mitigation measures required as part of an approval or subsequently required to achieve compliance with this Section shall be maintained in effective operating condition for the life of the facility.
- ii. No required noise mitigation measure shall be removed, bypassed, materially altered, or allowed to deteriorate in a manner that results in noncompliance with this Section.

P. Facility Expansion, Modification, and Continuing Compliance

- i. A Material Expansion of a Data Center or Data Center Campus shall require an updated Noise Impact Study demonstrating continued compliance with this Section.
- ii. Installation of new or materially different sound producing equipment, or a material change in operating conditions that may increase Project Sound, shall be evaluated by an Acoustical Professional prior to implementation.
- iii. The Township may require updated predictive modeling, additional compliance testing, or both where reasonably necessary to demonstrate continued compliance.
- iv. Replacement equipment and changes in facility operation shall not cause cumulative Project Sound to exceed any requirement of this Section.
- v. Compliance with this Section shall constitute a continuing condition of Data Center operation.
- vi. In addition to the periodic testing required by Section 15, the Township may require additional acoustical compliance testing where:
 - a) A Material Expansion occurs;
 - b) New or materially different sound producing equipment is installed;
 - c) Facility operating conditions materially change;
 - d) A complaint or other credible information provides reasonable cause to investigate compliance; or

- e) The Township otherwise has reasonable cause to believe that the Data Center or Data Center Campus may not comply with this Section.
- vii. All Data Centers, Data Center Accessory Uses, and associated equipment shall remain in compliance with this Section throughout the life of the facility.

9. Electric Service.

- A. The proposed parcel must be within 2,000 feet of an existing high voltage power transmission line or facility with the capacity to transmit 230kv or greater.
- B. The applicant shall provide written verification from the applicable service provider stating the following:
 - i. Adequate 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.
 - ii. Utility supply equipment and related electrical infrastructure are sufficiently sized and can safely accommodate the proposed use.
 - iii. Any system designed for cooling and operation of the facility (electricity, water, or other means) will be adequate and will not negatively impact other local users in terms of access to electricity or cost of using the system.
 - iv. The energy storage capacity of the system used (if applicable) will be defined.
 - v. The use will not cause electrical interference or fluctuations in line voltage on and off the operating premises.
- C. All new electrical lines must be installed underground.

10. Water Use.

- A. Raw Water. No operations of a Data Center or Data Center Accessory Use shall use raw or ground water, except that ground and/or surface water is permitted to be used during construction for dust suppression only.
- B. Public Water. The applicant shall provide a will serve letter from the public utility confirming that the required quantities will be supplied and shall supply a water needs analysis confirming required quantities.
- C. All functions of a Data Center or a Data Center Accessory Use shall be served by public water and sewer. No waste water or sewage of any type shall be discharged on site.
- D. Cooling System Requirements. Data Centers may only utilize cooling systems designed to minimize water loss, such as: air-cooled; closed-loop liquid cooling; and hybrid systems. Once-through cooling systems and high-loss evaporative cooling systems using potable water as the primary source are prohibited. Cooling systems using hydraulic cooling must use closed-loop systems that are not fed through surface water or groundwater.

11. Environmental Impact Analysis.

- A. Prior to the commencement of the conditional use hearing, the applicant shall provide an environmental and community impact analysis. The environmental and community impact analysis shall include, at a minimum, the following:
- i. A narrative description prepared by a professional engineer, ecologist, environmental planner or other qualified individual, of the proposed nature of the on-site activities and operations, including the market area served by the facility, the hours of operation of the facility, the total number of employees on each shift, the times, frequencies, and types of vehicle trips generated, the types of materials stored and the duration period of storage of materials, and the relationship to other projects or proposals. The description shall focus on the elements of the environment most likely to be affected as well as potential regional effects and ecological interrelationships.
 - ii. A site plan of the property indicating the location of proposed improvements, flood plains, wetlands, waters of the Commonwealth, and cultural and historic resources on the property and within 500 feet of the boundaries of the property, and the potential for public nuisance to residents resulting from operations.
 - iii. Evidence that the disposal of materials will be accomplished in a manner that complies with state and federal regulations.
 - iv. An evaluation of the potential impacts of the proposed use, both positive and negative, upon:
 - a) The surrounding properties and Township from the potential environmental impacts from vibration, noise, emissions, and utility service of the use at the proposed location,
 - b) Emergency services and fire protection,
 - c) Water supply,
 - d) Sewage disposal,
 - e) Solid waste disposal,
 - f) School facilities and school district budget,
 - g) Municipal revenues and expenses, and
 - h) Stormwater.
 - v. Any environmental impacts that are likely to be generated (i.e., odor, noise, smoke, dust, litter, glare, heat islands, vibration, electrical disturbance, wastewater, stormwater, solid waste, etc.), and specific measures employed to mitigate or eliminate any negative impacts. The applicant shall further furnish evidence that the impacts generated by the proposed use fall within acceptable levels, as regulated by applicable laws and ordinances.

- vi. The applicant shall identify all stationary and mobile sources of fine particulate matter (PM_{2.5}), sulfur dioxide, carbon monoxide volatile organic compounds, and nitrogen oxides at the site. The applicant shall specify best management practices for preventing and reducing the concentration of air polluting emissions at the site.
 - vii. The applicant shall submit an assessment report of the impact of the proposed use on the goals the Township Comprehensive Plan.
- B. Any emissions of exhaust, gases, noxious odor or similar shall adhere to applicable State and Federal emission standards and shall be carried on in such a manner that it is not perceptible at or beyond the property line.
- C. The Applicant shall conduct direct air quality monitoring pursuant to the National Ambient Air Quality Standards with the results submitted to the Township in accordance with the following schedule:
 - i. A test upon the Data Center reaching 90% occupancy or capacity.
 - ii. A test completed after 180 days of operation. This test shall not be conducted less than 180 days from the study required in subsection (i), above.
 - iii. A test completed annually thereafter while the Data Center is operational.
- D. Energy Usage.
 - i. Diesel generators shall meet Tier 4 emission standards of the U.S. Environmental Protection Agency.
 - ii. Emergency energy generation that uses diesel, gasoline, or another fossil fuel shall be used only at the following times:
 - a) When the primary source of energy is not available due to a loss of primary power in the event of an emergency outage.
 - b) During routine maintenance, or readiness testing for a short duration of time and capped at 100 hours per year.
 - c) Use of generators for peak shaving or supplying power to the grid is prohibited. The applicant shall design and locate emergency energy generation systems to limit noise and visual impacts as much as possible.
- E. Spill Containment. Storage of liquids other than unaltered water from a potable source, rainwater, surface water or groundwater, whether maintained above or below ground, must utilize secondary containment methods sufficient to prevent the liquid from escaping into soil in the event of a failure of the containment system. Hydraulic cooling systems are subject to the requirements of this paragraph.

12. Renewable Energy Requirements.

- A. Data Centers shall be designed and constructed to meet the current USGBC LEED BD+C: Data Centers rating system, or equivalent design standard, as approved by the municipal engineer.

- B. All building roofs shall be solar-ready, which includes designing and constructing buildings in a manner that facilitates and optimizes the installation of a rooftop solar photovoltaic (PV) system at some point after the building has been constructed.
- C. Any portion of a building's rooftop that is not covered with solar panels or other utilities shall be constructed with light colored roofing material with a solar reflective index of not less than 78. This shall be the minimum solar reflective rating of the roof material for the life of the building.
- D. The applicant shall use reasonable efforts to maximize the use of renewable and/or clean energy for all electrical and cooling needs, including by reduce the need for new electric generation by incorporating the best available energy efficiency into the design of data center servers, cooling units, and the building structure.
- E. A proposed Data Center that will have an annual power demand of over 50 megawatts (MW) that proposes to connect to the power grid shall be required to procure a minimum of 10% of its power from renewable generation sources generated withing the PJM region, which include solar, wind, hydroelectric power, geothermal, and waste heat from data center cooling processes. Electricity supply shall be procured through a power purchase agreement or similar mechanism.

13. Emergency Responders.

- A. The applicant shall coordinate with the emergency management coordinator serving the Township to ensure there is adequate radio coverage for emergency responders within the building based upon the existing coverage levels of the Township Public Safety Radio Communications System at the exterior of the building, and shall install enhancement systems as needed to meet compliance.
 - i. The applicant shall submit an Emergency Response Plan (ERP) prepared by a qualified professional. The ERP shall:
 - a) Be reviewed by the local fire department and emergency management services serving the Township;
 - b) Include detailed procedures for fire suppression, containment, ventilation, and evacuation;
 - c) Include an evaluation of the adequacy of the local fire department equipment;
 - d) Include an evaluation of the access roads and hydrant locations within the site to ensure suitable access for emergency equipment within the site;
 - e) Ensure that all first responders receive adequate training specific to the installed system;
 - f) 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.

- ii. 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.

14. Facade Standards.

A. Principal Facades:

- i. Facades shall be consistent in terms of design, material, detail, and treatments.
 - ii. Facades shall avoid the use of undifferentiated surfaces that result in a monolithic appearance by including two of the following design elements:
 - a) Changes in building height;
 - b) Building step-backs or recesses;
 - c) Building projections, risalites, or avant-corps;
 - d) Fenestrations; and
 - e) Change in material, pattern, texture, color, or accents.
- B. Facades shall be designed so as to provide the appearance of an office building or similar professional space as opposed to a structure for the storing or logistics of computer and technological equipment

C. Secondary Facades:

- i. Facades shall be consistent in terms of design, material, detail, and treatments.
- ii. Facades shall avoid the use of undifferentiated surfaces by including the following design elements:
 - a) Fenestrations; and
 - b) Change in material, pattern, texture, color, or accents.
- iii. Facades shall be designed so as to provide the appearance of an office building or similar professional space as opposed to a structure for the storing or logistics of computer and technological equipment.

15. Access and Security.

- A. Primary access shall be from an arterial or collector street with at least one route of secondary egress and ingress provided from any adjacent street.
- B. Internal drives shall be designed in a manner which allows for the circulation of emergency vehicles and sufficient access to each structure. A circulation plan must be provided during the conditional use process.
- C. Any gated emergency access route or secondary access route shall be fitted with the "knox-box" type device approved by the Township Supervisors.
- D. All fencing, including security fencing, may not exceed 10 feet in height at the highest point of the fencing or any appendages, including but not limited to barb wire.

- E. Parking spaces shall be provided in accordance with the following and meet all other requirements of Ordinance No. 322, Article 4 (General Provisions), Section 405 (Parking).
 - i. Parking spaces shall be provided at a rate of one and one-half (1.5) spaces per on-site employee on the largest shift.
 - ii. Off Street loading facilities shall be provided at a rate of one (1) space per building.
 - F. All access roads, including emergency access roads, shall have a total lane width of not less than 26 feet, excluding any on street parking areas and shoulder. Cul-de-sacs shall have a diameter of at least 96 feet.
 - G. A minimum of 1 fire lane intended for aerial apparatus access to roof structures shall be provided. The lane shall be:
 - i. a minimum of 26 feet wide restricted to travel and not including any on street parking areas or shoulder;
 - ii. clearly identified with ground markings and post-mounted signs;
 - iii. free from any overhead obstructions; and
 - iv. able to access the area not less than 15 feet nor greater than 30 feet from the Data Center buildings and be on the same side of the structure as the access road.
 - H. A traffic control plan showing planned construction routes for the duration of construction shall be submitted as part of the conditional use submission for review. All traffic for the purpose of construction of a Data Center shall access the site via an arterial road and shall not use collector or other minor or secondary street.
 - I. Any Data Center proposing battery storage systems or any other device or group of devices capable of storing energy for the purpose of supplying electrical energy at a later time, shall demonstrate compliance with the National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems, and must include in any fire suppression system, components designed specifically for energy storage systems.
 - J. Each Data Center primary and secondary access point, including emergency access routes, shall provide signage detailing the 24-hour emergency contact for the site, including name and 24-hour phone number, and include the following: company name (if applicable), the owner or representatives name, owner/representatives phone number, name of the power company/utility, emergency contact phone number for the power company/utility.
16. Electromagnetic Field (EMF). Electromagnetic field (EMF) emissions from Data Centers and associated electrical infrastructure may not exceed levels generally accepted as safe for human exposure and do not interfere with nearby electronic devices or communication systems.
- A. All Data Centers and associated electrical transmission or distribution equipment shall comply with the exposure limits established by the Institute of Electrical and Electronics Engineers (IEEE) Standard C95.6

and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines, as adopted or updated from time to time.

B. Measurement and Monitoring.

- i. EMF levels shall not exceed 2 milligauss (mG) above ambient background levels, measured at the nearest property line or at any point accessible to the general public.
- ii. Measurements shall be taken by a qualified professional using calibrated instrumentation and consistent with recognized IEEE or ICNIRP measurement protocols.
- iii. If required by the Township, the applicant shall provide preconstruction baseline measurements and post-construction verification demonstrating compliance with the standards herein.

C. Design and Mitigation.

- i. Electrical equipment, substations, switchgear, transformers, and cabling shall be designed and configured to minimize EMF emissions through appropriate shielding, grounding, and separation of conductors.
- ii. To the extent practicable, underground cable routing, phase balancing, and equipment orientation shall be used to reduce EMF exposure at adjacent properties.
- iii. The applicant shall submit an EMF management plan identifying expected field strengths, mitigation measures, and monitoring protocols at the time of the land development application.

D. Data Centers shall be operated and maintained so as not to cause electromagnetic interference (EMI) with radio, television, telecommunications, or other electronic equipment on nearby properties. Any interference complaints verified by the Township shall require prompt corrective action by the operator.

E. If EMF or EMI levels exceed the thresholds specified in this section, the operator shall immediately implement corrective measures, which may include equipment shielding, rerouting of cables, modification of grounding systems, or other mitigation methods approved by the Township Engineer.

17. Decommissioning Plan.

- A. Data Centers are recognized as a distinct use that warrants special consideration due to their limited operational lifespans and the potential for residual materials or infrastructure that may require specialized removal or remediation at the end of use. Given the rapid evolution of data storage and processing technologies, applicants shall submit a decommissioning plan for removal of obsolete equipment and site restoration at the end of the facility's operational life.
- B. Such plan shall address dismantling and removal of all equipment and appurtenances related thereto, including but not limited to special cabling and electrical components, electronic equipment, special cooling equipment, special power generation, batteries and other associated

facilities from the property to a condition where the building and property may be reused for another purpose.

- C. These provisions are intended to ensure compatibility with surrounding land uses, maintain long-term land use flexibility, and promote the orderly reuse or redevelopment of the property. When the operation of the Data Center ceases, the recycling or responsible disposal of decommissioned hardware and materials shall be prioritized to reduce environmental impact. The operator shall partner with certified E-waste recycling facilities to ensure the proper handling and recycling of electronic components.
- D. Prior to issuance of a certificate of occupancy for a Data Center, the operator shall provide financial security, in the form and amount of a bond, irrevocable letter of credit, or other financial security acceptable to the Township, to secure the expense of decommissioning, dismantling, removing, and disposal of the Data Center specific components and equipment, in the amount of 110% of the estimated decommissioning cost minus the salvageable value of the Data Center. The Township reserves the right to review, once every five (5) years, an engineer's new estimate of probable cost of decommissioning, which shall be submitted for approval in the same manner as the initial submission. The bond, letter of credit, or other financial security acceptable to the Township shall be increased or decreased, as appropriate, upon a finding by the Board of Supervisors that the new estimate appropriately addresses the probable cost of decommissioning. The owner of the Data Center shall pay for all fees associated with the review and approval of each such decommissioning cost estimate by the Township Engineer.

Section 702. Data Center Parks.

- a. In addition to the requirements in Section 701, the development of a Data Center Park shall be in accordance with the requirements of this Section.
 - 1. Reciprocal Restrictive Covenants and Cross Easements.
 - A. A Data Center Park must be subject to a recorded agreement or other instrument, approved by the Township, permanently restricting the use of the entire parent tract constituting the Data Center Park exclusively for Data Center uses; providing reciprocal easements and covenants necessary for access, utilities, general and emergency access routes, open space, common sound abatement improvements, and stormwater management facilities; and providing for the continued maintenance of the common areas and common facilities for the benefit of all of the sublots of the Data Center Park (collectively referred to herein as the "Data Center Restrictive Covenants") as part of any Subdivision or Land Development Plan for the approval of a Data Center Park. Such Data Center Restrictive Covenants shall provide that the Township shall be considered a third-party beneficiary of the restrictive covenant relating to the prohibition on uses other than Data Center Uses or other restrictive covenants that are conditions of the approval of any Subdivision and Land Development Plan, which provisions shall not be terminated or modified

without the recorded consent of the Township. However, any other provisions of such agreement or other instrument may be modified by the owners of the sub-lots of the Data Center Park without the need for Township consent.

2. Area Regulations.

- A. The minimum lot size of the parent tract shall be in accordance with § 701.
- B. The minimum lot size of an internal lot is six (6) acres.
- C. The lot width of any internal lot shall not be less than 100 feet at the building setback line.

3. Yard Regulations.

- A. Perimeter lot lines of the Park shall be in accordance with § 701.
- B. Setback requirements between internal lot lines shall be reduced to encourage the clustering of Data Center buildings and equipment. Setbacks may be reduced to not less than the following:
 - i. Front Yard: 50 feet
 - ii. Side Yard: 50 feet
 - iii. Rear Yard: 50 feet
- C. Accessory uses, including Data Center Accessory Uses, shall meet the following requirements:
 - i. When an accessory use abuts a perimeter lot line, the setback shall conform to § 701.
 - ii. When an accessory use abuts an internal lot line, the minimum setback is reduced to 10 feet. This section applies to parking and loading areas.

4. Cover Regulations.

- A. Overall impervious cover of the parent tract shall conform to § 701.
- B. Internal lot coverage may not exceed 75%.

5. Screening Requirements.

- A. Screening at the external property lines are required in accordance with § 701. Internal screening between structures in a Data Center Park is not required.

6. Lighting and Sound.

- A. Perimeter lot lines shall conform to § 701.
- B. Interior lots and lot lines shall not be required to conform to § 701.
- C. A photometric plan and sound study shall be provided as part of any Land Development submission proposing a Data Center Park demonstrating compliance with this Section.

SECTION 3. ZONING MAP CHANGE.

