

**EAST GOSHEN TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA**

ORDINANCE NO. _____

**AN ORDINANCE OF EAST GOSHEN TOWNSHIP,
CHESTER COUNTY, PENNSYLVANIA, AMENDING AND
SUPPLEMENTING THE EAST GOSHEN TOWNSHIP
ZONING ORDINANCE OF 1997, AS AMENDED, IN ORDER
TO DEFINE AND ADD SPECIFIC REQUIREMENTS FOR
DATA CENTERS AND DATA CENTER ACCESSORY USES
WITHIN THE I1 LIGHT INDUSTRIAL ZONING DISTRICT
BY CONDITIONAL USE, AND TO PROVIDE FOR
REQUIRED SEVERABILITY, REPEALER AND
CODIFICATION PROVISIONS.**

BE IT ENACTED AND ORDAINED by the Board of Supervisors of East Goshen Township, that the East Goshen Township Zoning Ordinance of 1997, as amended, which is codified in Chapter 240 of the East Goshen Township Code, titled, "Zoning", shall be amended and supplemented as follows:

SECTION 1. Section 240-6.B, titled, "Definitions", shall be amended and supplemented to include the following definitions:

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 primarily for the storage, management, processing, and transmission of digital data, which houses computer or network equipment, systems, servers, appliances and other associated components related to digital data operations. The facility may also include air handlers, power generators, water cooling and storage facilities, utility substations, and other associated utility infrastructure to support sustained operations at the Data Center.

DATA CENTER ACCESSORY USE – Ancillary uses or structures secondary and incidental to a Data Center use, including but not limited to: administrative, logistical, fiber optic, storage, and security buildings or structures; sources of electrical power such as generators used to provide temporary power when the main source of power is interrupted; electrical substations; utility lines, domestic and non-contact cooling water and wastewater treatment facilities; water holding facilities; pump stations; water towers; environmental controls (air conditioning or cooling towers; fire suppression, and related equipment), and 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.

DATA CENTER CAMPUS – A data center campus includes all of the structures and real estate owned, controlled, leased or otherwise occupied primarily for the use and purpose as Data Center(s), including: (i) Data Center(s); (ii) Data Center Accessory Uses; and (iii) all other systems, equipment, piping, conduit and other ancillary equipment, structures, and other appurtenances that are incidental to and/or needed for the construction, support, operation, repair, maintenance, and/or protection of the Data Center(s) and/or the data center campus.

ENERGY GENERATION SYSTEM – Any energy generation system designed or used to supply power directly to a Data Center during normal operations, including solar, wind, fossil fuel, fuel cells, or nuclear energy generating systems.

SENSITIVE RECEPTOR – Buildings used for residences (including institutional uses with a residential component), schools, daycare centers, preschools, hospitals, community centers, and similar institutional uses.

SECTION 2. Section 240-19.C(34) I-1 Light Industrial District, Permitted conditional uses, shall be amended and supplemented as follows:

(34) Data Centers in accordance with § 240-31C(3)(xx).

~~(34)~~(35) Any lawful use not otherwise permitted in the Township.

SECTION 3. Section 240-31.C(3), Conditional uses; additional standards for specific principal uses, shall be supplemented as follows:

(xx) Data Centers

- [1] All Data Center and Data Center Accessory Uses shall be set back a minimum of 300 feet from any residentially zoned district and from the property boundary of all Sensitive Receptor uses.
- [2] The owner of the data center shall provide the Township with an emergency liaison that may be reached 24 hours a day, seven days a week, in the event of an emergency.
- [3] The owner of the data center shall submit an emergency response plan to the Township Fire Marshal for review and approval, which shall be implemented and followed in the event of an emergency at the facility. The emergency response plan shall include coordination with local emergency responders, as applicable.
- [4] The data center facility and accessory buildings shall be fully screened in accordance with the criteria set forth in § 240-27C(3). In addition to Section 240-27.C(3) the Applicant shall include an elevation/rendering of the data center from the vantage points of the roadways and residential areas
- [5] In addition to the Supplementary studies as required pursuant to Chapter 205, Subdivision and Land Development, an applicant shall submit the following:
 - [a] A noise and vibration study as described in the Noise and Vibration section (12).

- [b] No use shall produce any heat perceptible at or beyond the lot boundaries, as demonstrated by qualified professional analysis conducted in accordance with applicable state and federal standards.
- [c] No use shall emit potentially harmful radiation more than levels permitted under applicable state and federal standards, as demonstrated by qualified professional analysis.
- [d] the applicant shall provide documentation from the applicable electric service provider certifying that the necessary capacity is available and that electric service provider will serve the Data Center. Known impacts on electric availability for other uses directly attributable to the Data Center project shall be noted. An analysis in accordance with applicable utility, state, and federal standards, shall show Data Center operation shall not cause electrical interference or fluctuations in line voltage on and off the operating premises.
- [e] A Pipeline awareness study in accordance with § 205-40.1, with review and recommendation made by the East Goshen Township Pipeline Task Force.
- [f] Any system designed for cooling and operation of the facility (electricity, water, or other means) shall be demonstrated, through qualified professional analysis and in accordance with applicable state and federal standards, to be adequate and to not negatively impact the surrounding region.
- [g] A Decommissioning Plan prepared by a qualified professional shall be submitted. The plan shall outline the procedures for safe shutdown, removal of equipment, disposal or recycling of materials, and site restoration. The plan shall address at a minimum the following:
 - [i] Owner shall submit a notification of closure if operations are permanently ceased.
 - [ii] Decommissioning shall begin within 1 year of cessation of data center operations, or upon notice of abandonment by the operator, whichever occurs first. An extension of 1 year may be granted by the Board of Supervisors if the property owner can demonstrate that they are actively marketing the site for a compatible replacement use. Decommissioning shall be completed within 18 months thereafter, unless granted an extended for good cause.
 - [iii] All above-ground structures, equipment, and accessory facilities shall be removed.
 - [iv] Hazardous materials, including batteries, fuel, or refrigerants, shall be disposed of in compliance with state and federal law.
 - [v] Disturbed soils shall be stabilized and re-vegetated.
 - [vi] Any utility connections shall be safely disconnected and capped.
 - [vii] the site shall be restored to a condition compatible with surrounding land uses or consistent with the most restrictive adjacent zoning district.
- [6] 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.

[7] Energy Sources, Power Lines, and Co-Location of Energy Generation Systems.

- [a] Any energy generation system designed or used to supply power directly to a Data Center during normal operations, including solar, wind, fossil fuel, fuel cells, or nuclear energy generating systems, shall not be considered part of the Data Center use but shall be subject to existing municipal or utility regulations. Such systems shall be considered a separate principal use and shall be approved according to all applicable state and federal regulations along with municipal zoning regulations applicable to such use. The applicant shall select, design, and locate the energy generation systems to limit noise, emissions, and visual impacts to adjacent and nearby uses as much as possible. Data center principal buildings shall be located between energy generation systems and residential districts or any other sensitive receptors.
- [b] Electric Utility Substations on the same property as the Data Center they serve shall be located on the side or rear of a Data Center principal building so they are screened from public view and shall not be in a required front yard. On-site substations do not require a buffer or screening between the Data Center Principal Building and the substation.
- [c] Data Center electric utility substations visible from an arterial roadway shall include a combination of year-round opaque landscaping and screening walls to minimize visual impact.
- [d] Burying power lines serving the property is strongly encouraged. On-site power lines of 34.5 kV and below shall be buried.
- [e] Proposed substations on a parcel that abuts a zoning district boundary other than industrial, and/or a boundary with a property with a sensitive receptor shall be set back a minimum of 300 feet from the property line. If abutting both another industrial-zoned parcel and use, substations shall meet the requirements for accessory uses in the underlying zoning district.
- [f] Utility Infrastructure Upgrade Costs. Applicant shall agree to fund the costs of any public utility infrastructure upgrades that may be required or reasonably anticipated based on Applicant's proposed use or plan unless: (1) Certified documentation is provided from the public utility provider that no upgrades are or will be necessary for Applicant's proposed use or plan, or (2) such upgrade costs are otherwise prohibited by Pennsylvania statute or Pennsylvania Utility Commission Regulation.
- [g] On-Site energy (battery) storage systems
 - [i] the data center shall incorporate an engineered collection and containment system designed to prevent the release of contaminated fire-fighting water and other hazardous substances to groundwater, surface waters, wetlands, stormwater management facilities, sanitary sewer systems, or adjacent properties during fire suppression activities or other emergency events. The collection and containment system shall utilize impermeable collection and containment measures and shall be designed by a professional engineer licensed in the Commonwealth of Pennsylvania to capture, isolate, and retain contaminated fire-fighting water and associated hazardous materials until they can be properly characterized, removed, and disposed of in accordance with all applicable federal, state, and local laws and regulations. The applicant shall

demonstrate, through engineering calculations and supporting documentation, that the collection and containment system has sufficient capacity to accommodate the maximum anticipated volume of contaminated fire-fighting water generated by the proposed fire protection system and emergency response strategy. The Emergency Response Plan shall include procedures for the isolation, containment, monitoring, testing, removal, transportation, and lawful disposal of contaminated fire-fighting water and other hazardous materials generated during an emergency event, including identification of the parties responsible for implementing these measures.

[8] Backup Power

- [a] Diesel generators shall meet the emission standards of the U.S. Environmental Protection Agency for Backup Emergency Diesel Generators.
- [b] Diesel generators shall undergo annual testing, and reports shall be provided to the municipality to ensure that data center equipment is performing as designed and that emissions from the data center do not exceed permitted limits.
- [c] Emergency energy generation that uses diesel, gasoline, or another fossil fuel shall be used only at the following times:
 - [i] When the primary source of energy is not available due to an emergency outage.
 - [ii] During routine maintenance, or readiness testing for a short duration of time and capped at 100 hours per year.
 - [iii] Routine maintenance testing of back-up fossil fuel-powered generators is restricted to the hours of 9 am through 3 pm Monday through Friday.
- [d] Backup Emergency shall not be for voluntary curtailment /demand response programs with the utility or with PJM Interconnection.

[9] Water Usage

- [a] No principal use on a data center site shall use private groundwater wells or direct withdrawals from surface watercourses as its primary source of water for cooling purposes if a public water source is available.
- [b] Data centers shall be designed to include a closed-loop water circulation system to cool data center processing equipment. An applicant may propose an alternative cooling system that can be demonstrated to use less water and energy than closed-loop systems to the satisfaction of the municipal engineer. An alternative cooling system shall not be approved unless the applicant also demonstrates that the alternative does not increase the volume, toxicity, mobility, flammability, or persistence of cooling fluid held on the site as compared to a closed-loop water or water-glycol system. No cooling system shall use a fluid containing per- and polyfluoroalkyl substances (PFAS). Approval of any cooling system under this subsection shall not relieve the applicant of the requirements of subsection [h].
 - [i] the applicant shall describe what is released from any cooling stacks or heat exchangers, used to remove heat from closed-cooling system, and whether remediation may be necessary. The applicant shall describe how Federal EPA and PA DEP regulations are satisfied

[c] If the proposed source is from a public system, the applicant shall submit certified documentation that the public authority has the capacity to supply the water needed.

[d] Where the data center is served entirely by a public water supply, items [ii], [iii], [iv], and [v] may be waived by the municipal engineer upon written request; items [i], [vi], [vii], and [viii] shall not be waived. The applicant shall provide a water feasibility study, prepared by a qualified professional. The purpose of the water feasibility study is to determine if an adequate supply of water is present to support the proposed data center's water use and to evaluate the potential adverse effects on the quantity and quality of existing wells or nearby surface waters.

The water feasibility study shall include, at minimum, the following information:

[i] Calculations of the projected water needs, including seasonal fluctuations.

[ii] A geologic map of the proposed project area within a radius of at least one mile from the site property boundary.

[iii] the location of all existing and proposed wells within 1,000 feet of the site property boundary with a notation of the capacity of all high-yield wells.

[iv] the location of all surface waters within 1,000 feet of the site property boundary and all known point sources of pollution.

[v] A determination of the long-term safe yield of the water source.

[vi] A determination that the proposed water supply system poses no adverse impacts on the quantity and quality (volume, temperature and pollutants) of water in nearby wells, streams, and the groundwater table.

[vii] Identification of how water will be recycled, treated, or released into surrounding water bodies.

[viii] A statement of the qualifications and the signature(s) of the person(s) preparing the study.

[e] No approvals shall be granted until all required state and regional permits have been obtained (i.e., Pennsylvania Department of Environmental Protection Department, Delaware River Basin Commission (DRBC)).

[f] the applicant shall provide a drought response plan to demonstrate compliance with state, water supplier, and local drought declaration requirements.

[g] Wastewater disposal analysis:

[i] the applicant shall submit an analysis of wastewater disposal needs to either a public sewer system or private system, indicating the quantity of wastewater generation expected. Wastewater shall include sewage and water discharged as part of the data center's HVAC system and other equipment cooling system.

[ii] No wastewater, cooling fluid, or other liquid generated, used, or stored at the data center shall be discharged or released, directly or indirectly,

to any stormwater system, storm sewer, inlet, swale, basin, roof conductor, surface water, ground surface, soil, or groundwater. This prohibition shall not apply to (A) discharges expressly authorized under a valid National Pollutant Discharge Elimination System (NPDES) permit or a valid industrial waste discharge permit issued under Chapter 188 of this Code; (B) de minimis quantities of untreated potable water; or (C) precipitation that has not come into contact with cooling fluid.

[iii] If wastewater will be conveyed and/or treated by a public system, the applicant shall submit documentation certified by the public authority that the public authority can support the conveyance and treatment needed.

[iv] If the data center is to rely upon a private system of wastewater disposal, a wastewater feasibility study shall be required. The purpose of the study is to determine if there is an adequate capacity to dispose of wastewater and that the disposal technique does not pose adverse impacts on surrounding water bodies. A wastewater feasibility study shall include the following information at a minimum:

[A] Calculations of the projected wastewater generation including the sources of wastewater, the content of the wastewater effluent including any chemical additives and other emerging contaminants.

[B] A geologic map of the area with a radius of at least one mile from the site property boundary.

[C] The location of all existing and proposed wells within 1,000 feet of the property boundary, with reference to the capacity of all high-yield wells.

[D] The location of all surface waters within 1,000 feet of the property boundary and all known point sources of pollution.

[E] Identification of the process by which water will be recycled or released into surrounding water bodies. The process shall describe how chemicals are removed from the wastewater supply prior to release to the environment (land or water body)

[F] A determination that the proposed wastewater disposal system has no adverse impact on the quantity and quality of water in nearby wells, surface waters, and the groundwater table.

[G] A statement of the qualifications and the signature(s) of the person(s) preparing the study.

[h] Cooling Fluid Containment and Leak Prevention

[i] Definitions. For purposes of this subsection:

COOLING FLUID — Any liquid used to absorb, transport, or reject heat at a data center, together with any additive, corrosion inhibitor, scale inhibitor, biocide, or other chemical dosed into such liquid. The term includes chilled water, condenser water, deionized water, water-glycol solutions employing ethylene glycol or propylene glycol, direct-to-chip

coolant, and single-phase and two-phase dielectric immersion fluid. The term does not include potable water prior to introduction into a cooling system, or stormwater.

TOTAL COOLING FLUID INVENTORY — The aggregate maximum design volume, in gallons, of all cooling fluid on the site at any one time, including fluid held in reserve for make-up or replacement.

[ii] Applicability. This subsection applies to any data center with a Total Cooling Fluid Inventory of 1,000 gallons or more or employing any cooling fluid other than untreated potable water. Designation of a system as closed loop under subsection B shall not exempt a data center from this subsection.

[iii] Secondary containment. All cooling fluid tanks, buffer tanks, day tanks, immersion tanks, coolant distribution units, heat exchangers, dry coolers, and associated piping that are located outside a fully enclosed building, and all such components with an individual capacity of 250 gallons or more wherever located, shall be provided with secondary containment. Secondary containment shall:

[A] Hold not less than 110% of the capacity of the largest single component served, plus, were open to precipitation, the runoff volume from a 25-year, 24-hour storm event falling within the containment area;

[B] Be constructed of materials impervious to and chemically compatible with the cooling fluid contained and be sealed against infiltration to soil or groundwater. Earthen berms alone shall not satisfy this subsection;

[C] Contain no drain or penetration discharging outside the containment area; and

[D] Where cooling fluid piping crosses above or within 50 feet of any stormwater management facility, riparian buffer, wetland, watercourse, floodplain, well, or wellhead protection area, be provided as continuous secondary containment or a jacketed double-wall piping configuration.

Interior rooms containing coolant distribution units, immersion tanks, buffer tanks, or heat exchangers shall have liquid-tight floors with curbs or recessed slabs draining to a containment sump. No such floor drain shall discharge to the sanitary sewer, to any stormwater facility, or to the ground.

[iv] Leak detection and isolation. Each cooling fluid loop and each secondary containment area shall be equipped with automatic leak detection annunciating at a continuously attended location or by automatic remote notification to on-call personnel, twenty-four hours per day. Loops of 1,000 gallons or more shall be equipped with segment isolation valves and automatic pump shutdown upon a confirmed leak. Make-up fluid volume shall be metered and recorded; cumulative unexplained make-up exceeding 5% of a loop's design volume in any 30-day period shall be investigated and reported in writing to the Township within 10 days.

[v] Cooling Fluid Management Plan. As a submission item for preliminary land development approval, and prior to issuance of any occupancy permit,

the applicant shall submit for municipal engineer review a Cooling Fluid Management Plan containing:

[A] Each cooling fluid to be used, by trade name and chemical constituents, with a Safety Data Sheet for each, and the identity and dosing rate of every treatment chemical;

[B] Total Cooling Fluid Inventory and the design volume of each individual loop and component;

[C] Plans showing all cooling fluid components, all secondary containment areas with volume calculations, all leak detection devices, and all isolation valves;

[D] The management procedure for each release pathway, expressly addressing maintenance drain down, expansion tank and relief valve discharge, filter and strainer flushing, scheduled fluid changeout, and freeze protection of outdoor components;

[E] The method, licensed hauler, and permitted destination facility for off-site management of spent cooling fluid, with acknowledgment of the applicant's obligation to make a waste determination under 25 Pa. Code Chapter 287 and, where applicable, 40 CFR Part 261;

[F] Any Preparedness, Prevention and Contingency Plan prepared consistent with PA DEP Document 400-2200-001, and any Spill Prevention, Control and Countermeasure Plan required under 40 CFR Part 112;

[G] Backflow prevention details for every connection between the potable water system and any cooling loop containing glycol or treatment chemicals, consistent with the adopted plumbing code; and

[H] Certification by a professional engineer licensed in the Commonwealth of Pennsylvania that clauses [iii] and [iv] are satisfied.

[I] the Plan shall be updated and resubmitted prior to any change in cooling fluid type, any increase in Total Cooling Fluid Inventory exceeding 10%, and not less than once every three years.

[vi] Legionella risk management for evaporative cooling equipment. Any data center using a cooling tower, closed-circuit cooling tower, evaporative condenser, evaporative fluid cooler, or other heat-rejection equipment that recirculates water and may aerosolize that water shall maintain and implement a written water-management program designed to control *Legionella* and other waterborne pathogens. The program shall be consistent with the then-current CDC guidance and ASHRAE Standard 188, or successor standards, and shall include system inventory, responsible personnel, operating and treatment-control limits, monitoring, inspection and cleaning schedules, shutdown and restart procedures, corrective-action procedures, record retention, and emergency notification procedures.

[A] Testing. Environmental testing for *Legionella* shall be conducted when required by an applicable federal, state, county, or local law; when required by the facility's water- management program; are an

identified control failure or material prolonged shutdown; or when directed by the health authority in connection with a suspected or confirmed case or outbreak.

[B] Closed non-aerosolizing systems. A sealed, non-evaporative cooling loop that does not aerosolize water shall not be subject to routine *Legionella* testing solely by reason of its use as a cooling loop, unless otherwise required by a public-health authority or the facility's risk assessment.

[vii] Release notification. Upon any release of cooling fluid not fully retained within secondary containment, the operator shall immediately notify by telephone the Township, the East Goshen Township Municipal Authority, and, where required by 25 Pa. Code § 91.33, the Pennsylvania Department of Environmental Protection, stating the location, the fluid and additives involved, the estimated volume, and corrective actions planned or taken. Within five days the operator shall submit to the Township a written report describing the cause, the volume released and recovered, the media affected, and measures to prevent recurrence. Notification shall not relieve the operator of liability.

[viii] Annual reporting and testing. The operator shall file annually with the Township a Cooling Fluid Inventory Report stating, for each cooling fluid, the volume on site, make-up volume added during the year, volume removed for disposal or recycling, and the destination facility for each removal. Secondary containment integrity and leak detection function shall be tested at least annually, with records retained five years and available to the Township on request.

[ix] Continuing condition. Compliance with this subsection is a continuing condition of conditional use approval and shall survive issuance of the certificate of occupancy.

[10] Scale/Aesthetics

[a] Principal building facades shall require a horizontal offset of at least ten feet at intervals of no more than 150 linear feet (measured horizontally) of principal building facade.

[b] No more than 80 percent of a principal building facade may consist of one building material.

[c] No more than 80 percent of a principal building facade may consist of one color, texture, or pattern.

[d] Principal building facades shall require fenestration, step-back(s), cantilever(s), projection(s), or architectural elements extending horizontally across at least 60 percent of the facade.

[e] Each principal building shall include an articulated main entrance. This entrance shall be differentiated from the rest of the building with a change in building material, pattern, texture, color, or architectural accent. It shall also either project or be recessed from the adjoining building plane.

[f] Elevations/renderings of all principal building facades visible from off-site shall be submitted with the conditional use application. Fencing shall not include barbed or razor wire and shall be subject to municipal fence standards.

[11] Modular and phased facilities.

[a] Data center facilities may employ modular, prefabricated, factory-built, containerized, skid-mounted, panelized, or relocatable buildings or equipment. Such facilities and components shall be subject to all requirements applicable to Data Centers and Data Center Accessory Uses. The modular, portable, or phased nature of a facility shall not exempt it from applicable requirements for use approval, setbacks, height, lot coverage,

buffers, screening, lighting, noise, stormwater management, utility capacity, fire protection, emergency access, and decommissioning.

[i] Cumulative development.

For purposes of applying this ordinance, all existing, approved, proposed, and reasonably foreseeable data-center modules, buildings, equipment, and infrastructure located on a lot or on contiguous or commonly controlled lots shall be considered one development. Applicable thresholds and performance standards shall be calculated on an aggregate basis.

[ii] Temporary installations.

A modular data-center component may be approved as a temporary use only where it is demonstrably required for emergency, maintenance, testing, or short-term continuity-of-service purposes; complies with all applicable safety, fire , floodplain, generator, fuel-storage , and noise requirements; and is removed by the date stated in the approval. Continued installation beyond that date, or any expansion or replacement constituting ongoing operations, shall require approval as a Data Center.

[12] Noise and Vibration.

[a] The applicant shall submit a pre-construction noise and vibration study with the conditional use application prepared and sealed by a qualified professional. Such qualified professional shall be an engineer licensed in the Commonwealth of Pennsylvania or other environmental or technical professional with demonstrated education, training and experience in acoustical noise or vibration analysis applicable to the scope of work being performed (defined herein as "Qualified Professional") to include the predicted noise and vibration levels from the operation of the Data Center.

[b] Simultaneous Operation Assumption. All noise evaluations, studies, modeling, and compliance determinations shall assume the concurrent operation of all generators, cooling systems, mechanical equipment, and other noise-producing devices operating at maximum rated capacity, unless a more restrictive operating condition is required by approval.

[c] Within 90 days following issuance of a use and occupancy certificate and commencement of operations at the Data Center, the applicant shall submit to the Township an as-built post-construction noise and vibration study. The study shall:

- [i] Be conducted by a Qualified Professional using applicable ANSI standards and generally accepted criteria.
- [ii] Demonstrate compliance with all applicable noise regulations set forth in the Data Center Noise Standards Tables at the end of this section. Compliance shall be demonstrated using objective sound level limits expressed in A-weighted decibels (dBA), measured and evaluated in accordance with standardized methodologies acceptable to the Township.
- [iii] Include sound measurements taken at all property lines.
- [iv] Include measurements taken during normal operations, peak cooling load, and during operation of emergency generators under load.
- [v] Address low-frequency noise impacts, including compliance with applicable decibels (dBC) limits set forth in the Data Center Noise Standards Tables.
- [vi] Vibration Standards to be used in the study. Vibration shall be evaluated using three distinct criteria:
 - [A] Building Damage: Ground vibration shall not exceed 0.2 to 0.5 inches per second peak particle velocity (PPV), measured in accordance with USBM RI 8507 or successor standard; and,
 - [B] Human Perception: Vibration levels shall not exceed 65 VdB, measured in accordance with ISO 2631-1 or successor standard.
 - [C] Vibration at nearest Residential Receptor Limit shall use standard ISO 2631-2 / FTA and not to exceed 72 Vd(B).
- [vii] Identify all measurement locations, instrumentation used, calibration documentation, testing methodology, operational conditions during testing, and meteorological conditions.
- [viii] the timing of the post construction noise and vibration study shall not preclude enforcement by the Township at any time upon identification of a violation. The applicant shall provide reasonable access to monitoring data, equipment specifications, and operating conditions to the Township Engineer, designee or other consultant acting on behalf of the Township.
- [d] If the post construction study demonstrates non-compliance with any applicable noise or vibration standard, the applicant shall, within 30 days of written notice from the Township, submit a corrective action plan prepared by a Qualified Professional. All violations shall be fully remediated within a timeframe approved by the Township, but in no event later than 90 days following Township notice of non-compliance, unless extended by the Township for good cause shown.
- [e] If the pre-construction noise study establishes a baseline sound level more than the maximum sound level permitted under Data Center Noise Standards Tables, the post-construction study shall demonstrate that operations of the proposed use do not increase baseline ambient sound levels. Sound levels within 1 dBA of ambient sound levels will meet this requirement.

- [f] Objective Noise Standards. Noise limits shall be established by land use category, measurement location, time-of-day, and averaging period, and shall include provisions for instrumentation and low-frequency noise evaluation.
- [g] The Township may require additional noise and vibration testing upon receipt of substantiated complaints or following material modification, replacement, or addition of mechanical equipment, cooling systems, generators, or other vibration-generating equipment.
- [h] If initial monitoring or complaints indicate a probable violation, the Township may require interim mitigation measures, which may include operational modifications, equipment limitations, or temporary curtailment of specific noise producing activities until compliance is demonstrated.
- [i] Data Center Noise Standards Tables

Data Center Noise Standards Tables

The following tables establish objective noise limits, modeling requirements, and enforcement procedures applicable to Data Center use. These standards shall supersede noise standards set forth in any noise chapters or noise provisions of the Code for Data Centers only.

Table 1: Data Center Noise Limits, Measurement, and Compliance Requirements

<u>Requirement Category</u>	<u>Applicable Uses</u>
<u>Applicable Uses</u>	<u>Data Centers, including all accessory mechanical equipment, generators, cooling systems, and substations</u>
<u>Measurement Basis</u>	<u>A-weighted sound levels (dBA), unless noted otherwise for low-frequency noise</u>
<u>Receptor Locations</u>	<u>Measurements and modeling shall be conducted at or beyond the nearest property line</u>
<u>Operating Condition Assumption</u>	<u>All compliance evaluations shall assume simultaneous operation of all generators, cooling equipment, and other noise-producing devices at maximum rated capacity</u>

Table 2: Numeric Noise Limits by Zoning Use

<u>Receiving Land Use</u>	<u>Daytime (7:00 AM – 7:00 PM)</u>	<u>Nighttime (7:00 PM – 7:00 AM)</u>
<u>Residential</u>	<u>55 dBA Leq (1-hour)</u>	<u>45 dBA Leq (1-hour)</u>
<u>Mixed-Use / Commercial</u>	<u>60 dBA Leq (1-hour)</u>	<u>50 dBA Leq (1-hour)</u>
<u>Industrial</u>	<u>65 dBA Leq (1-hour)</u>	<u>55 dBA Leq (1-hour)</u>

Short-term tonal or impulsive noise exceeding the above limits by 5 dBA or more shall constitute a violation.

Table 3: Low-Frequency Noise Criteria

<u>Parameter</u>	<u>Requirement</u>
<u>Frequency Sensitivity</u>	<u>C-weighted sound levels (dBC), capturing enhanced sensitivity to low-frequency noise</u>
<u>Measurement Metric</u>	<u>Equivalent continuous sound level (Leq, 1-hour) in dBC</u>
<u>Measurement Locations</u>	<u>At the nearest property line</u>
<u>Daytime Limit (7:00 AM – 7:00 PM)</u>	<u>60 dBC Leq (1-hour)</u>
<u>Nighttime Limit (7:00 PM – 7:00 AM)</u>	<u>50 dBC Leq (1-hour)</u>
<u>Tonal / Narrowband Noise</u>	<u>Clearly perceptible low-frequency tonal noise shall require mitigation regardless of overall dBC compliance, as determined by the Qualified Professional or the Township based on clearly perceptible tonal characteristics</u>
<u>Applicability</u>	<u>Limits apply under simultaneous operation of all generators, cooling systems, and mechanical equipment</u>

Table 4: Modeling and Study Requirements

<u>Requirement</u>	<u>Standard</u>
<u>Pre-construction Study</u>	<u>Required with conditional use application</u>
<u>Post-construction Verification</u>	<u>Required within 90 days of commencement of operations</u>
<u>Prepared By</u>	<u>Qualified Professional with demonstrated noise expertise</u>
<u>Modeling Methodology</u>	<u>ISO 9613-2, CadnaA, SoundPLAN, or equivalent accepted industry model</u>
<u>Meteorological Assumptions</u>	<u>Downwind propagation, ISO-conservative conditions</u>
<u>Equipment Data</u>	<u>Manufacturer sound power levels and octave-band spectra</u>
<u>Low-Frequency Evaluation</u>	<u>Required where generators or cooling systems are used</u>

Table 5: Measurement Procedures

<u>Element</u>	<u>Requirement</u>
<u>Instrumentation</u>	<u>Type 1 or Type 2 ANSI-certified sound level meter</u>
<u>Calibration</u>	<u>Pre- and post-measurement field calibration required</u>

<u>Measurement Duration</u>	<u>Minimum 15 minutes per location unless otherwise specified. Sound level limits expressed as hourly equivalent levels (Leq, 1-hour) may be evaluated using shorter-duration measurements, including the minimum durations identified in this table, where such measurements are conducted under steady-state operating conditions and are representative of normal operations.</u>
<u>Operating Conditions</u>	<u>Measurements shall include peak cooling load and generator operation under load</u>
<u>Background Noise</u>	<u>Baseline ambient levels documented prior to construction</u>

Table 6: Compliance

<u>Item</u>	<u>Requirement</u>
<u>Material Increase Definition</u>	<u>An increase of ≥ 3 dBA above baseline ambient sound level</u>
<u>Violation Determination</u>	<u>Exceedance of numeric limits or material increase</u>
<u>Retesting Authority</u>	<u>Township may require additional testing following substantiated complaints or equipment change</u>

[13] Condition of Approval

[a] If a project is over 25 MW or is otherwise pursuing the GRID/COA route, add this condition to the conditional-use or land-development decision:

[i] Prior to issuance of a zoning permit, building permit, or land-disturbance permit, as applicable, the Applicant shall provide the Municipality with evidence that it has submitted all required Commonwealth permit applications and, if applicable, has executed or is actively proceeding under a project-specific Consent Order and Agreement with the Pennsylvania Department of Environmental Protection implementing the Governor's Responsible Infrastructure Development requirements. Prior to issuance of a certificate of occupancy for the Data Center, the Applicant shall provide copies of all final Commonwealth permits and approvals required for operation of the approved facility. Nothing herein shall be construed to require the Municipality to interpret, administer, or enforce the terms of a Commonwealth Consent Order and Agreement.

SECTION 4. Severability. 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 or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

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

SECTION 6. Codification. General Code is hereby authorized to make non-substantive formatting and numbering changes necessary to clarify references to other sections of Township ordinances and/or codification and to bring the Ordinance into conformity with Township ordinances/codification.

SECTION 7. Effective Date. This Ordinance shall become effective on [DATE], 2026 and shall remain in force and effect until otherwise amended by the Township.

ENACTED AND ORDAINED this _____ day of _____, 2026.

ATTEST:

**EAST GOSHEN TOWNSHIP
BOARD OF SUPERVISORS**

Derek J. Davis, Secretary

Cody Bright, Chairman

Barbara Emery, Vice-Chairwoman

Peter Hicks, Member

Ann Duffield, Member

Larry Massaro, Member