DATA CENTER DESIGN REQUIREMENTS

Companion Ordinance to

***Critical Infrastructure Verification & Impact Governance** (CIVIG)*

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This ordinance establishes design and operational standards for large-scale data center facilities whose infrastructure scale and physical presence may significantly affect surrounding neighborhoods, municipal infrastructure systems, and long-term community development patterns. These standards are intended to ensure that data center development integrates responsibly into the built environment while supporting balanced economic growth and protecting community stability. This ordinance complements the City's Critical Infrastructure Verification & Impact Governance (CIVIG) framework, which establishes the evaluation process for high-impact infrastructure proposals.

Design and Development Objectives
This ordinance is designed to:

1. Ensure responsible site integration
Large-scale facilities should be located, designed, and buffered in ways that respect surrounding land uses and community character.

2. Protect infrastructure capacity and operational resilience
Design standards address electrical infrastructure, backup systems, cooling systems, and other facility components whose scale may place demands on municipal infrastructure systems and operational reliability.

3. Reduce visual, noise, and environmental impacts
Appropriate setbacks, screening, lighting controls, and operational standards help minimize impacts on nearby residents and public spaces.

4. Promote long-term site compatibility
Design standards help ensure that large infrastructure facilities remain compatible with surrounding development patterns over time.

5. Support balanced economic development
Clear design expectations provide predictability for responsible developers while protecting community quality of life.

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CHAPTER ___ – ZONING

ARTICLE ___ – DATA CENTER DESIGN REQUIREMENTS

This Article establishes the design and operational standards applicable to data center facilities within the City and shall be administered in conjunction with Article ___ (Critical Infrastructure Verification & Impact Governance – CIVIG).

Section ___.01. Purpose and Applicability.

(a) **Purpose.**
The purpose of this Article is to establish enforceable site design, buffering, screening, lighting, noise mitigation, form, and architectural standards applicable to data center facilities in order to protect adjacent properties, preserve community character, and mitigate visual and operational impacts associated with large-scale infrastructure development.

(b) **Applicability.**
These Design Regulations shall apply to any data center facility qualifying as a High-Impact Infrastructure Project pursuant to Article ___ (High-Impact Infrastructure Zoning Overlay).

(c) **Incorporation into Zoning Approval.**
These Design Regulations shall be incorporated into any Planned Development (PD) district or equivalent site-specific zoning ordinance approving a qualifying data center project.

(d) **Relationship to Other Regulations.**
In the event of a conflict between these Design Regulations and the underlying zoning district requirements, the more restrictive provision shall govern.

Section ___.02. Site Layout and Setbacks.

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(a) **Minimum Setbacks.**
Data center buildings and primary structures shall maintain a minimum setback of one hundred (100) feet from any public right-of-way and one hundred fifty (150) feet from any residentially zoned property.

(b) **Perimeter Buffer Zone.**
A continuous perimeter buffer shall be provided along all property boundaries adjacent to residential or agricultural uses. The buffer shall consist of a minimum fifty (50) foot landscaped buffer zone designed to provide year-round visual screening.

(c) **Equipment Placement.**
Exterior mechanical equipment, cooling infrastructure, and generator arrays shall not be located within required setback areas unless fully screened in accordance with Section ___.03 of this Article.

(d) **Access Orientation.**
Primary vehicular access points and service entrances shall be oriented, where feasible, to minimize traffic intrusion into residential streets.

Section ___.03. Screening and Landscaping.

(a) **Perimeter Screening.**
All data center facilities shall provide continuous visual screening along property boundaries adjacent to public rights-of-way or residentially zoned property. Screening shall consist of a combination of berming, masonry walls, decorative fencing, and layered landscaping designed to obscure ground-level equipment and service areas.

(b) **Planting Standards.**
Landscaping shall include a mix of canopy trees, understory trees, shrubs, and native or drought-tolerant plant materials appropriate to the local climate. Plant

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materials shall be installed at sufficient density to achieve effective visual screening within three (3) years of installation.

(c) **Irrigation Efficiency.**
Irrigation systems shall utilize water-efficient technologies, including drip or subsurface irrigation where feasible. The use of non-potable or reclaimed water for landscape irrigation is encouraged where available.

(d) **Maintenance Requirement.**
All required landscaping and screening elements shall be maintained in healthy condition. Dead or damaged plant materials shall be replaced within ninety (90) days.

Section ___.04. Building Massing and Height.

(a) **Maximum Height.**
Data center buildings shall not exceed sixty-five (65) feet in height unless otherwise approved through a Planned Development district with additional architectural mitigation measures approved by ordinance.

(b) **Facade Articulation.**
Building facades exceeding two hundred (200) feet in horizontal length shall incorporate visual articulation elements such as offsets, material variation, vertical plane changes, or architectural detailing to reduce the appearance of uninterrupted mass.

(c) **Blank Wall Treatment.**
Exterior walls visible from public rights-of-way or residentially zoned property shall not consist of unbroken expanses of blank facade exceeding one hundred (100) linear feet without architectural modulation or screening.

(d) **Roof Equipment Screening.**
Rooftop mechanical equipment shall be screened from view

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at ground level through parapet extensions or equivalent architectural treatment.

Section ___.05. Lighting and Glare Control.

(a) **Shielding Requirement.**
All exterior lighting shall be fully shielded and directed downward to prevent light trespass onto adjacent properties and public rights-of-way.

(b) **Maximum Illumination.**
Illumination measured at the property line adjacent to residential zoning shall not exceed one (1.0) footcandle, measured at grade.

(c) **Pole Height.**
Exterior lighting poles shall not exceed twenty-five (25) feet in height unless specifically approved through a Planned Development district based on demonstrated operational necessity.

(d) **Glare Mitigation.**
Reflective building materials or site elements that produce excessive glare visible from adjacent properties or public rights-of-way are prohibited.

Section ___.06. Noise Mitigation and Generator Controls.

(a) **Equipment Enclosure.**
Exterior generators, cooling towers, transformers, and similar mechanical equipment shall be enclosed or acoustically shielded through masonry walls, sound-attenuating enclosures, or equivalent engineered mitigation measures.

(b) **Generator Testing.**
Routine generator testing shall be limited to daytime hours between 8:00 a.m. and 6:00 p.m., except in emergency conditions.

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(c) **Tonal and Low-Frequency Mitigation.**
Mechanical systems shall be designed to minimize tonal or low-frequency noise that may carry beyond the property boundary.

(d) **Compliance Standard.**
All facilities shall comply with applicable municipal noise performance standards adopted in the Code of Ordinances.

Section ___.07. Cooling Infrastructure and Exterior Equipment Placement.

(a) **Location.**
Cooling towers, chillers, transformer yards, and similar infrastructure shall be located to minimize visibility from public rights-of-way and residentially zoned property.

(b) **Screening.**
Exterior equipment areas shall be screened by architectural walls, decorative fencing with landscaping, or a combination thereof sufficient to obscure equipment at ground level.

(c) **Elevation Control.**
Elevated mechanical platforms shall incorporate visual screening consistent with the primary building design.

(d) **Water-Conscious Design.**
Cooling infrastructure shall be configured to reduce drift, overspray, and visible plume impacts on adjacent properties where feasible.

Section ___.08. Access, Parking, and Truck Management.

(a) **Truck Routing.**
Heavy truck access shall be directed to arterial or industrial-designated roadways where feasible and shall

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avoid residential streets except where no reasonable alternative exists.

(b) **Service Yard Screening.**
Loading docks, service bays, and refuse areas shall be located away from residential property lines and screened from public view.

(c) **Parking Placement.**
Surface parking areas shall not dominate primary street frontages and shall incorporate interior landscaping and shade trees.

(d) **Internal Circulation.**
Site design shall provide adequate internal circulation to prevent truck queuing onto public rights-of-way.

Section ___.09. Enforcement and Relationship to High-Impact Infrastructure Zoning Overlay.

(a) **Enforcement.**
These Design Regulations shall be enforceable through the zoning mechanism approving the project, including any Planned Development (PD) district or equivalent site-specific zoning ordinance.

(b) **Continuing Obligation.**
Compliance with these Design Regulations shall be a continuing obligation and shall run with the land.

(c) **Relationship to Overlay.**
These Design Regulations are adopted pursuant to and in furtherance of Article ___ (High-Impact Infrastructure Zoning Overlay) and shall apply in addition to all capacity, sequencing, and performance requirements established therein.

(d) **Severability.**
If any section, subsection, sentence, clause, or phrase of this Article is held invalid by a court of competent

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jurisdiction, such decision shall not affect the validity of the remaining portions of this Article.

Section ___.10. Security Fencing and Perimeter Walls.

(a) Fence Material.
Perimeter fencing visible from public rights-of-way or residentially zoned property shall consist of decorative metal, masonry, or architecturally finished wall systems. Unscreened galvanized or black chain-link fencing shall not be permitted along such frontages.

(b) Height.
Security fencing shall not exceed eight (8) feet in height unless specifically approved through a Planned Development district upon demonstration of operational necessity.

(c) Opaque Screening at Street Frontage.
Where fencing is located along a public street, fencing shall be supplemented by landscaping, berming, or architectural treatment sufficient to prevent the appearance of exposed industrial yard conditions.

(d) Internal Security Areas.
Chain-link fencing may be permitted within interior portions of the site not visible from public rights-of-way or adjacent residential property.

Section ___.11. Noise Performance Standards (Residential Adjacency).

(a) **Applicability.**
The provisions of this section apply to any data center facility located adjacent to, or within one thousand (1,000) feet of, property zoned for residential use.

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(b) **Maximum Nighttime Sound Levels.**
Sound attributable to the data center facility shall not exceed fifty (50) A-weighted decibels (dBA), or five (5) dBA above existing ambient nighttime levels, whichever is lower, as measured at the nearest residential property line between the hours of 10:00 p.m. and 7:00 a.m.

(c) **Tonal Noise Adjustment.**
If a distinct tonal component is present, five (5) dBA shall be added to the measured sound level for purposes of determining compliance with subsection (b), as determined using accepted acoustical engineering standards.

(d) **Low-Frequency Differential.**
The difference between C-weighted decibels (dBC) and A-weighted decibels (dBA), as measured at the residential property line, shall not exceed fifteen (15) decibels.

(e) **Verification of Compliance.**
Upon written complaint or as otherwise required by the City, the operator shall provide acoustical testing performed by a qualified acoustical professional demonstrating compliance with this section. If noncompliance is confirmed, corrective measures shall be implemented within a timeframe established by the City.

Section ___.12. Additional Design and Operational Requirements.

(a) **Generator Emissions Compliance.**
All backup generators and on-site power equipment shall comply with applicable federal and state emissions standards in effect at the time of installation.

(b) **Refuse and Utility Areas.**
Refuse collection areas, fuel storage tanks, and utility infrastructure shall be screened from public view and

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located away from residential property lines where feasible.

(c) **Exterior Materials.**
Primary building elevations visible from public rights-of-way shall incorporate durable exterior materials such as masonry, architectural metal panels, or equivalent finished materials. Large expanses of unfinished tilt-wall concrete shall be architecturally treated.

(d) **Design Integration.**
Site elements, including fencing, walls, lighting fixtures, and equipment enclosures, shall be architecturally integrated with the primary building design.

(e) **PD Authority.**
The Planning & Development Commission and City Council may impose additional site-specific design conditions through the Planned Development approval process where necessary to mitigate identified impacts.

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