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**VILLAGE OF SUGAR GROVE  
BOARD REPORT**

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**TO:** VILLAGE PRESIDENT & BOARD OF TRUSTEES

**FROM:** BRENT EICHELBERGER, VILLAGE ADMINISTRATOR  
WALTER MAGDZAIRZ, COMMUNITY DEVELOPMENT DIRECTOR  
ANTHONY SPECIALE, PUBLIC WORKS DIRECTOR  
BRAD MERKEL, DEPUTY PUBLIC WORKS DIRECTOR  
DANIELLE MARION, PLANNING AND ZONING ADMINISTRATOR  
ALISON MURPHY, ASSISTANT TO THE VILLAGE ADMINISTRATOR/  
VILLAGE CLERK

**SUBJECT:** DISCUSSION: ZONING ORDINANCE, DATA CENTER DISTRICT

**AGENDA:** SEPTEMBER 20, 2022 REGULAR BOARD MEETING

**DATE:** SEPTEMBER 12, 2022

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**ISSUE**

Should the Village Board discuss a Zoning Ordinance amendment establishing a zoning district exclusively for data centers.

**DISCUSSION**

In 2019, the Village of Sugar Grove was a finalist in the site selection process for the Facebook data center that eventually went to the City of DeKalb. The selection process revealed several shortcomings with locating in the Village and since that time the Village has discussed how best to address these concerns. One of the primary concerns was the risk of the time and uncertainty in the rezoning process. At that time, the Board directed staff to conduct more research on data centers and to bring back recommendations for further consideration.

To address the rezoning concerns, staff developed a proposed zoning amendment to add a Data Center District as a permitted or special use. Based on the Village M1 Limited Manufacturing District, this initial draft proposed different standards in a DC District on lot size and structure height. The Plan Commission discussed the proposed amendment including building height, footprint, landscaping, security fence height, noise and environmental issues. Following discussion, the Commission approved a motion to recommend the Village Board approve the proposed amendment as recommended by staff.

Following passage of the Plan Commission motion, Village staff reconsidered some areas of the zoning district including water and waste water concerns and electricity needs. Staff continued to look to other municipalities and counties that had developed zoning amendments to address data centers including, DeKalb, Hoffman Estates and Loudoun County, VA.

Earlier this year, the Village Board again discussed establishing a zoning district for data centers. Staff presented a data center primer and several photos of data centers from across the country. The Village Board discussed the materials presented and expressed their continued interest in developing a zoning district. The Board provided feedback that the Village wants to establish regulations to provide for aesthetically pleasing buildings that do not put an undue burden on Village infrastructure capabilities.

The attached Proposed Zoning Ordinance Amendment - Data Center District incorporates many aspects of the initial draft presented to the Plan Commission as well as lessons from other communities and feedback from the Board and Plan Commission. Changes to the proposed Plan Commission draft are highlighted below.

**1. *The addition of a definition of data center.***

Based on the practice of other jurisdictions, staff felt the need to formally define what a data center is for purposes on the Zoning Districts.

**11-10B-2: DEFINITION:**

- A. Data center: A facility used primarily for the storage, management, processing, and transmission of digital data, which houses computer and/or network equipment, systems, servers, appliances and other associated components related to digital data operations. Such 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 a data center.

**2. *Reduced lot size regulations***

Staff is proposing a minimum lot size of not less than five acres. The current M1 standard is 40,000 square feet, which is about 1/5 the size. The Plan Commission considered and recommended this size.

**11-10B-4: LOT SIZE REGULATIONS:**

- A. Minimum lot size: Not less than five (5) acres.

**3. *Increase in structure height allowance.***

The Plan Commission considered and recommended a height of 40', however, after further review, staff is recommending 60'. The Facebook project in DeKalb

allows for up to 75', however, the highest building proposed is 57'. Other cities ranged from 40' to 75'.

11-10B-7: STRUCTURE HEIGHT:  
Not more than sixty feet (60').

#### **4. *Additional Requirement for Principal Building Facades***

Staff proposes added additional language to further regulate building facades to achieve more a aesthetically pleasing appearance.

11-10B-8: OTHER STANDARDS:

B. Building Design/Materials:

2. Principal building facades (all building facades that face adjacent public roads) shall avoid the use of undifferentiated surfaces by including at least two (2) of the following design elements: change in building height, building step-backs or recesses, fenestration, change in building material, pattern, texture, color, or use of accent materials.

It should be noted that as long as the design standards are met, i.e. materials used, the Village does not have much additional say in how a building looks. If a data center wishes to stray from what Village design standards require and use a different material, etc. this cannot be approved as a zoning variation, this would have to be approved as a text amendment and a text amendment would apply to all data centers. For reference, a zoning variation is something that can be "measured." A zoning variation can be granted for things such as setback requirements, lot coverage, building height, etc. and these only apply to the one particular building/project that applies for the zoning variation. A text amendment is something that is based more on design requirements or materials. These are applied to the entire zoning district or data center requirements. They are not specific to one property.

#### **5. *Regulations for Ground Mounted Mechanical Equipment***

The Ground Mounted Mechanical Equipment section was added following the Plan Commission meeting. Current M1 standards do not address such equipment, however, staff felt the need to formalize these requirements to allow for flexibility while maintain aesthetics.

11-10B-8: OTHER STANDARDS:

E. Ground Mounted Mechanical Equipment:

1. Ground mounted mechanical equipment shall be screened on all sides of the building that are exposed to public view.
2. Enclosure fences to screen service and utility areas (such as HVAC, mechanical equipment, utility services, storage yards, data centers, manufacturing uses, or satellite antennas) shall not exceed eight (8) feet in height. Landscaping may be an appropriate screening.
3. Enclosure fences to screen service and utility areas shall be designed to blend with the architectural style, materials and color of the building.

## **6. Security Fencing**

Since the Plan Commission review, staff has added specific language regarding security fencing. The regulations are taken from Section 11-4-13 Fence Requirements of the Village Code.

### **11-10B-8: OTHER STANDARDS:**

H. Security Fencing: The establishment of fences in the DC District shall be regulated as follows, and conform with the provisions of chapters 6, 9, 9A, 10, and 10A of this title:

1. Fences shall be constructed and maintained along the perimeter of the property at a height of eight feet (8').
2. Fences shall be positioned so that the finished side faces away from the lot on which it is constructed.
3. Fences shall be located and landscaped in order to meet the screening standards required in chapters 9 and 10 of this title.
4. Permitted fence materials include wood, vinyl, aluminum, and iron. No chain link or mesh type fence with inserted screening slats or screening fabric shall be acceptable. No fence shall contain barbed wire, razor wire, electrified elements, or any components determined by the Village to constitute a public safety hazard.

## **7. Construction of Additional Buildings and Improvements**

Based on review of the DeKalb Facebook provisions, staff recommends adding conditions for the construction of additional buildings and improvements.

### **11-10B-8: OTHER STANDARDS:**

I. Construction of Additional Buildings and Improvements: The Owner shall have the right, but not the obligation, to construct Additional Buildings and Improvements on the Property as part of the Planned Development, without further zoning review or approval by the corporate authorities of the Village, if:

1. The Owner submits to the Community Development Director site plans, elevations, and landscape plans depicting the Additional Buildings and Improvements; and
2. The Community Development Director determines, in his reasonable judgment, that the Additional Buildings and Improvements depicted on such plans comply with the Development Standards set forth.

## **8. *Water/Wastewater***

Staff held several meetings to consider how best to regulate water and wastewater demands. Few jurisdictions provide detailed specifications for water with the exception of the DeKalb Facebook project. Water requirements for data centers for cooling appear to be varied and rapidly changing water requirements. To help better understand the Village's water availability, the Village has contracted with the Illinois State Water Survey to perform groundwater modeling for some different data center scenarios as it relates to the sustainability of the deep aquifer. As water usage is still being researched, staff has determined the best limit for water/wastewater usage at this time would be the wastewater flow rate. A limit of six (6) P.E. per acre is proposed based on current capacity in the area.

### **11-10B-8: OTHER STANDARDS:**

#### **L. Wastewater**

Wastewater: Wastewater flow rates are limited to six (6) P.E. per acre.

## **COST**

There is no cost to discuss the amendment. There will be attorney fees of approximately \$1,000 and codification costs already accounted for in the budget.

## **RECOMMENDATION**

That the Board discuss the proposed Data Center Zoning Ordinance Amendment and send the ordinance back to the Plan Commission for consideration.

**PROPOSED ZONING ORDINANCE AMENDMENT – DATA CENTER DISTRICT**  
**DRAFT – September 2022**

**Chapter 10B**  
**DC, DATA CENTER DISTRICT**

**11-10B-1: PURPOSE**

**11-10B-2: DEFINITION**

**11-10B-3: USES**

**11-10-4B: LOT SIZE REGULATIONS**

**11-10-5B: YARD AND SETBACK REGULATIONS**

**11-10B-6: MAXIMUM LOT COVERAGE**

**11-10B-7: STRUCTURE HEIGHT**

**11-10B-8: OTHER STANDARDS**

**11-10B-9: PERFORMANCE STANDARDS**

**11-10B-10 : SUBMITTAL REQUIREMENTS**

**11-10B-1: PURPOSE:**

- A. The DC Data Center District is intended to provide for a physical environment conducive to the establishment and operation of data centers.

**11-10B-2: DEFINITION**

- A. Data center: A facility used primarily for the storage, management, processing, and transmission of digital data, which houses computer and/or network equipment, systems, servers, appliances and other associated components related to digital data operations. Such 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 a data center.

**11-10B-3: USES:**

- A. Permitted uses: See section 11-4-22 of this title.
- B. Special uses: See section 11-4-22 of this title.
- C. Permitted accessory uses: Please refer to section 11-4-7 of this title.
- D. Additional standards and criteria for specific uses: See section 11-4-23 of this title.

**11-10B-4: LOT SIZE REGULATIONS:**

- A. Minimum lot size: Not less than five (5) acres.
- B. Minimum lot width: Not less than three hundred fifty (350) feet shall be maintained at the building setback line.

**11-10B-5: YARD AND SETBACK REGULATIONS:**

Every building hereafter erected or enlarged in this district shall provide and maintain a setback in accordance with the following:

- A. Setback from the boundary lines of the district: Not less than seventy five feet (75') from streets forming the boundary line of the DC District.
- B. Minimum front and corner side yards: Not less than forty feet (40') from a front or corner side lot line of a public or private street that is interior to the DC District.
- C. Minimum interior side yards: Not less than twenty five feet (25') from an interior side lot line. Where a side lot line coincides with a side or rear lot line of a residential or institutional use or district, or forms the boundary line of the DC District, the interior side requirement shall be increased to seventy five feet (75').
- D. Minimum rear yards: Not less than fifty feet (50') from a rear lot line, unless the lot line forms the boundary line of the DC District. In that case, not less than seventy five feet (75') shall be provided.

**11-10B-6: MAXIMUM LOT COVERAGE:**

No more than seventy five percent (75%) of a lot shall be occupied with buildings, accessory structures and impervious surfaces.

**11-10B-7: STRUCTURE HEIGHT:**

Not more than sixty feet (60').

**11-10B-8: OTHER STANDARDS:**

- A. Pedestrian and Bicycle Facilities.
  - 1) Provision of Sidewalks and/or Trails. Sidewalks and/or trails for pedestrian and/or bicycle access shall be provided, at a minimum, along any side of a public road that abuts the property upon which the data center is located as required by the Village Engineer.
- B. Street Trees: One (1) 21/2-inch caliper shade tree shall be installed in the right-of-way per each fifty (50) linear feet of frontage, as required by the Village Engineer.

C. Building Design/Materials:

1. One hundred percent (100%) of building facades in the DC District facing a public right-of-way and fifty percent (50%) of other facades shall be constructed of masonry, brick, stone, or decorative concrete block (excluding plain concrete block), architectural steel and glass, or precast panels. Aluminum or vinyl siding shall not be allowed as a primary building material.
2. Principal building facades (all building facades that face adjacent public roads) shall avoid the use of undifferentiated surfaces by including at least two (2) of the following design elements: change in building height, building step-backs or recesses, fenestration, change in building material, pattern, texture, color, or use of accent materials.
3. When a building has more than one principal facade, such principal building facades shall be consistent in terms of design, materials, details, and treatment.
4. Walls that exceed a length of two hundred fifty feet (250') shall be articulated through changes in the plane of the facade, installation of windows, installation of landscaping, or any combination thereof.

D. Roof Mounted Mechanical Equipment:

1. Screening of all heating, ventilating and air conditioning equipment shall be provided on all sides of the building that are exposed to public view.
2. Roof screens and/or parapet wall screens shall be allowed in this district, provided they are designed to blend with the architectural style, materials and color of the building. The height of the approved screening shall be equal to the height of the tallest rooftop unit installed on the building.
3. Flues, goosenecks or other equipment that is mounted on the roof shall also be screened when heights exceed four feet (4').

E. Ground Mounted Mechanical Equipment:

1. Ground mounted mechanical equipment shall be screened on all sides of the building that are exposed to public view.
2. Enclosure fences to screen service and utility areas (such as HVAC, mechanical equipment, utility services, storage yards, data centers, manufacturing uses, or satellite antennas) shall not exceed eight (8) feet in height. Landscaping may be an appropriate screening.



3. Enclosure fences to screen service and utility areas shall be designed to blend with the architectural style, materials and color of the building.
- F. Tree Preservation/Mitigation: The intent of this provision is to mitigate the loss of healthy, mature trees in the Village, by requiring replacement trees:
1. Existing trees, six inches (6") in diameter or greater, as measured at breast height (dbh), shall be preserved, when possible, according to a tree preservation plan prepared by the developer with input from the Community Development Director or designee. The tree preservation plan shall show:
    - a. Protective fencing planned to be installed around the critical root zone of those trees identified for preservation, on both grading and landscape plans.
    - b. Trees that will have their roots pruned by a certified arborist, to avoid tearing and other damage during construction.
    - c. Locations where limestone and other materials that might negatively affect trees planned to be preserved will be stored on the property.
  2. Where it is determined that trees six inches (6") dbh or greater must be removed to allow for proposed development, tree replacement will be required:
    - a. Not less than one (1) 3-inch caliper tree shall be required for each six inches (6") of tree proposed to be removed, as measured at breast height. However, in no instance shall more than three (3) 3-inch caliper replacement trees be required for any tree removed.
    - b. Replacement trees shall be required in addition to any other landscaping that may be required by this title, except landscape screening. In this instance replacement trees can be used to count toward screening between DC development and properties planned, zoned or used for residential or institutional purposes.
    - c. The number of trees that an individual property can support, according to good forestry practices, shall determine the number of replacement trees that will be required on an individual lot.
- G. Waste Materials: No materials or wastes shall be deposited upon a lot in such a form that they might be transferred off the property by natural causes or forces, such as water, wind or snow.
- H. Security Fencing: The establishment of fences in the DC District shall be regulated as follows, and conform with the provisions of chapters 6, 9, 9A, 10, and 10A of this title:

1. Fences shall be constructed and maintained along the perimeter of the property at a height of eight feet (8').
  2. Fences shall be positioned so that the finished side faces away from the lot on which it is constructed.
  3. Fences shall be located and landscaped in order to meet the screening standards required in chapters 9 and 10 of this title.
  4. Permitted fence materials include wood, vinyl, aluminum, and iron. No chain link or mesh type fence with inserted screening slats or screening fabric shall be acceptable. No fence shall contain barbed wire, razor wire, electrified elements, or any components determined by the Village to constitute a public safety hazard.
- I. Construction of Additional Buildings and Improvements: The Owner shall have the right, but not the obligation, to construct Additional Buildings and Improvements on the Property as part of the Planned Development, without further zoning review or approval by the corporate authorities of the Village, if:
1. The Owner submits to the Community Development Director site plans, elevations, and landscape plans depicting the Additional Buildings and Improvements; and
  2. The Community Development Director determines, in his reasonable judgment, that the Additional Buildings and Improvements depicted on such plans comply with the Development Standards set forth.
- J. Outdoor Illumination: All exterior lighting shall be designed and constructed as set forth in Section 11-8-5 of the Zoning Code.
- K. Parking: All parking shall be designed and constructed as set forth in Section 11-12 of the Zoning Code.
- L. Wastewater

Wastewater: Wastewater flow rates are limited to six (6) P.E. per acre.

#### **11-10B-9: PERFORMANCE STANDARDS:**

##### **Performance Standards:**

Noise, glare, vibration, odor, etc., shall be regulated according to standards established by the Illinois Pollution Control Board of the Environmental Protection Agency, as may be amended from time to time. (Ord. 2002-01-15B, 1-15-2002) and in accordance with all state, local and municipal building and zoning ordinances.

### **11-10B-10: SUBMITTAL REQUIREMENTS:**

Three (3) sets of drawings that include the information set forth below are required for processing permitted uses on the individual lot in the DC, Data Center District. Chapter 13 of this title includes requirements for processing special uses and planned developments.

- A. Site information, including:
  - 1. Name and address of the owner, applicant, planner, architect, engineer, and landscape architect.
  - 2. Date, scale and north arrow.
  - 3. Total acreage of the site.
  - 4. Title by which the property or project is to be referred.
  - 5. Proof of ownership.
- B. A copy of a survey, prepared by a registered land surveyor, including a legal description of the subject property.
- C. Existing and proposed zoning of the subject property.
- D. Existing zoning of adjacent parcels.
- E. Adjacent development, including buildings, drives, fences, walls, parking lots, etc., within a minimum of one hundred feet (100') of the subject property.
- F. Location and size of all buildings and structures, both existing and proposed.
- G. Ground elevations of the property, both existing and proposed.
- H. Locations of floodplain, floodway, wetlands and existing vegetation.
- I. Soil analysis, if required by the Village Engineer.
- J. Building setbacks from street rights-of-way and all property lines.
- K. Yards and spaces between all structures.
- L. Location and dimensions of all fences and walls.
- M. A landscape plan, prepared by a qualified landscape architect, which includes spot elevations, or is superimposed on a halftoned grading plan to show the relationship between proposed plantings and final grades.
- N. Identification of vehicular, pedestrian and service access, including:

1. Distance from the driveway opening at the curb to the prolongation of the property line of the nearest intersecting street.
  2. Width of proposed access drives and drive aisles.
  3. Identification and location of:
    - a. Curb lines.
    - b. Property lines.
    - c. Sidewalks.
    - d. Existing driveways, if any.
    - e. Parking regulations and signs.
    - f. Traffic signals.
    - g. Utility poles.
    - h. Light standards.
    - i. Fire hydrants.
- M. Off street parking and loading facilities, including the number of spaces and dimensions of spaces, drive aisles and loading zones.
- N. Location, area and height of all freestanding signs, all elevations of the proposed structure or addition, and which include:
1. Proposed materials and colors for all elements of the building.
  2. Cross sections of the building, showing the relationships between all roof mounted mechanical equipment and the top of the screen wall.
  3. Location of utility meters and ground supported transformers, and proposed method of screening these elements when visible to the public.
  4. Location, area, and dimensions for all wall mounted signs.
- O. Photometric plan, superimposed on the site plan, showing:
1. Point by point foot-candle intensities, extended to all property lines.
  2. Locations of light standards.
  3. Average maintained foot-candle intensities.
  4. Method of illumination.
  5. Catalog cuts and specifications for light standards and luminaries.
- P. Outdoor storage areas, if any, and proposed method of screening of these areas from public view.
- Q. Waste disposal facilities, including trash bins, compactors, etc., and provision for screening these elements from public view.
- R. Preliminary engineering, drainage, and grading plans, if required by the Village Engineer. Final engineering plans shall, however, be approved by the Village Engineer prior to the issuance of a building permit.

**Section 11-4-22 Table of Permitted Uses:**

*Add the following:*

Use	A-1	E-1	R-1	R-2	R-3	SR	B-1	B-2	B-3	BP	OR-2	DC	M-1	I-1
Industrial uses:														
Data center												P*	P*	P*

**11-4-23: ADDITIONAL STANDARDS FOR SPECIFIC USES:**

In order to carry out the recommendations of the Village of Sugar Grove Comprehensive Plan and the purposes and provisions of this title, the following uses permitted in the zoning districts described in section [11-4-22](#) of this chapter shall be subject to the following additional standards, conditions and restrictions:

Data Centers: Regulated by chapter 10B of this title