



DATA CENTER ZONING: Overview of Draft Regulatory Framework

PUBLIC INFORMATION MEETING

OCTOBER 27, 2026

Meeting Purpose & Agenda



▶ Presentation on Draft Data Center Framework

- ▶ Background on Data Centers & Regulatory Authority
- ▶ Proposed Draft Zoning & Ongoing Analysis



▶ Feedback and Q&A

Housekeeping

- ▶ Please ask questions and make comments via the Q&A feature.
- ▶ We will compile and answer questions until 7:30, combining similar questions together.
- ▶ Any questions we do not get to will be posted on the website: cityofmadison.com/datacenters
- ▶ Comments will not be reviewed out loud. They will be saved for staff to review.

Overarching Context

- ▶ The proposed zoning rules help restrict data center development in Madison. Without new zoning rules, all data center types would be allowed throughout the city.
- ▶ A moratorium is only temporary.
- ▶ This proposal aims to restrict all types/sizes of data centers, while meeting the data needs of local entities like hospitals or research centers.
- ▶ Hyperscale data centers would be prohibited.
- ▶ There are no current proposals for new data centers in Madison.
- ▶ This proposal is not final and is still being refined – with your feedback.

Feedback We've Been Hearing So Far

- ▶ Common perspectives:
 - ▶ The maximum size of data centers should be reduced
 - ▶ Buffers between data centers and residential/open space uses should increase
 - ▶ Noise and vibrations from mechanical equipment should be regulated
 - ▶ Some think we should not allow data centers of any size.
 - ▶ Some think there are more restrictions than necessary.

Data Center Moratorium

Madison passed 12-month moratorium on new data centers more than 10,000 square feet as the primary use.

Time needed to define “data center” as a use in City code and establish appropriate parameters for it.

<http://www.cityofmadison.com/datacenters>

Planning Steps

Research & Outreach

Public Meeting 6/3
SMC Meeting 6/22
Plan Commission 6/29

Draft Framework Feedback

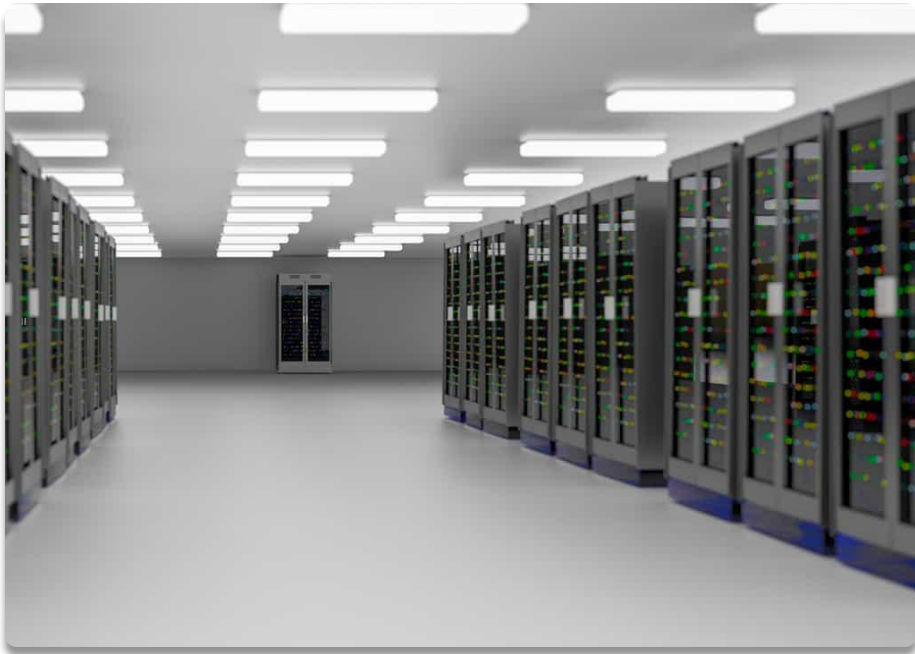
Plan Commission 9/28
SMC Meeting 10/19
BERC Meeting 10/21
Public Meeting 10/27

We Are Here

Final Proposal Review & Action

Plan Commission – Nov
SMC - Dec
BERC – Dec
Plan Commission - Jan
Common Council - Jan

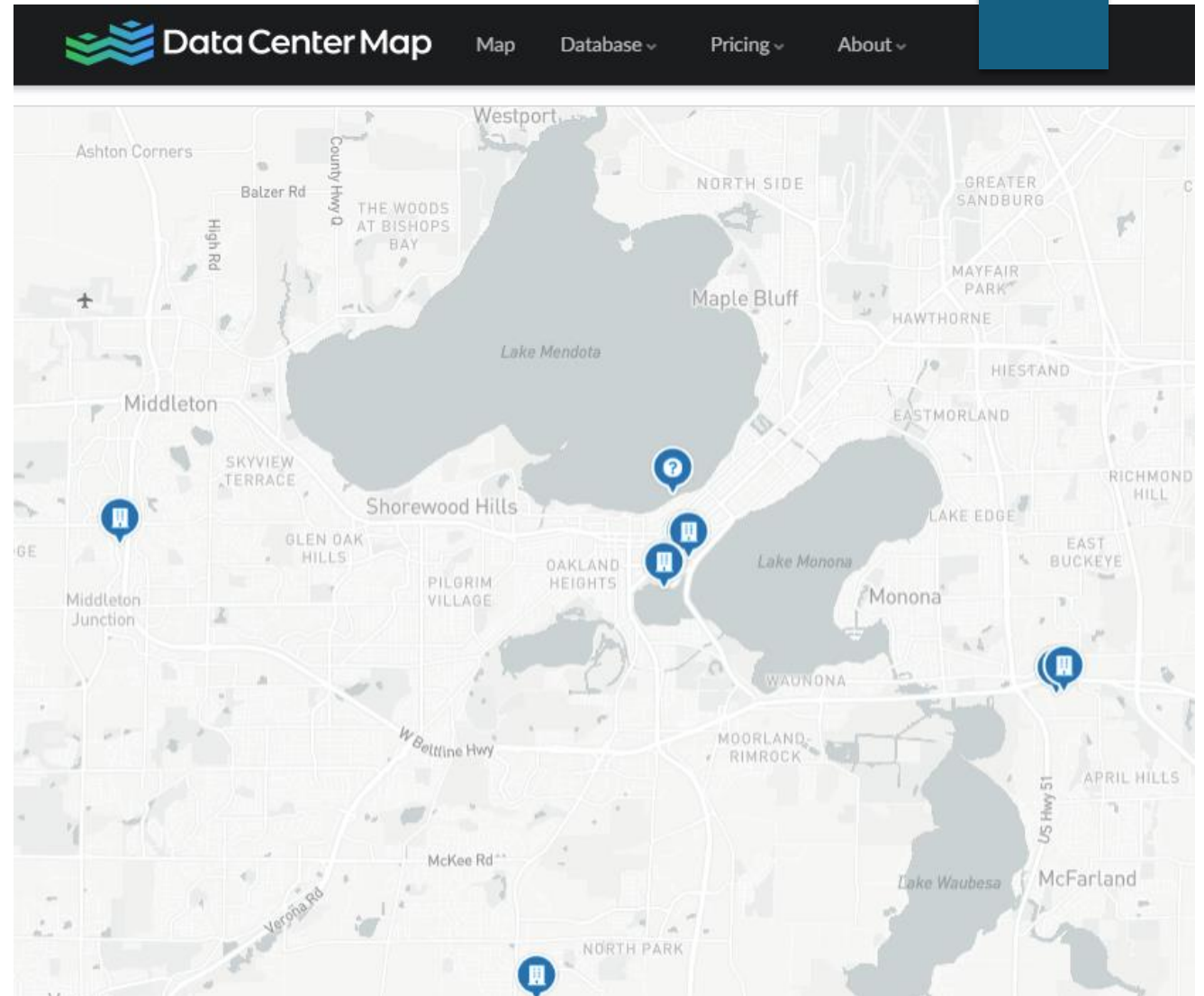
What do we mean by data centers?



A facility used 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. This is not a server room.

Local Context

- ▶ ~ 6+ stand-alone data centers in Madison, ranging in size of 1,200 – 17,000 sf
- ▶ Other data centers in region, 60,000+ sf
- ▶ Numerous data center spaces in larger buildings to serve that entity's needs
- ▶ Located throughout the city



Data Center Services

- ▶ The size of data centers vary based on their purpose and how much demand there is.
- ▶ Data centers can provide data processing and storage services. Data Centers can also support AI platforms, train AI, and support cloud platforms.
- ▶ Some businesses in the City use data centers for data processing and storage to serve their customers.
- ▶ It is possible for a data center of any size to use or support AI in some way, but it is not always the case. There are many data centers that do not use or support AI.

Types of Data Center by Building: **Integrated**



Land area

NA

Building size

1,000 sq ft – 40,000 sq ft

**Land
use comparable**

Office tenant

Energy demand

40 kw – 3 MW

**Energy
use comparable**

40 – 2,880 WI
homes daily energy

Types of Data Center by Building: **Medium**



Data Center, East Broadway, Madison WI

Land area

0.5-5 acres

Building size

5,000 sq ft – 40,000 sq ft

Land use comparable

Office or light industrial

Energy demand

500 kw – 3 MW

Energy use comparable

480 – 2,880 WI
homes daily energy

Types of Data Center by Building: **Large**



H5 Data Center, Ashburn VA (via Google Street View)

Land area

10-30 acres

Building size

40,000 sq ft – 200,000 sq ft

Land use comparable

Heavy or light industrial

Energy demand

3 MW- 50 MW

Energy use comparable

2,880 – 48,000 WI homes daily energy

Types of Data Center by Building: Hyperscale



Google Data Center, Council Bluffs IA (datacenters.google)

Land area

200 – 1,000 acres

Building size

500,000 – 2,000,000 sq ft

Land use comparable

Depends / TBD

Energy demand

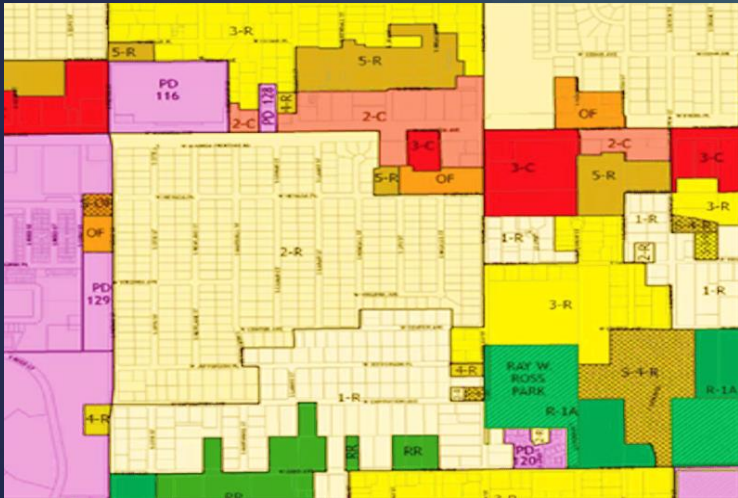
220 MW to >1.8 GW

Energy use comparable

100 MW can power 75,000-100,000 homes

Zoning Overview

Zoning regulates where different uses can be to prevent negative impacts. E.g., we separate industrial uses from residential uses.



Step 1: Define a “use.”

E.g. a restaurant, an auto body shop, a light manufacturing facility, a multifamily building

Step 2: Determine which zones this use is allowed in

This could vary by size of the “use”

Step 3: Determine parameters or conditions of approval for that use in that zone

E.g. “supplemental regulations”

What does the City regulate in Zoning?

Allowed uses

Building
design and
form

Building size

Building
height

Minimum
stories

Lot size

Lot
coverage

Setbacks

Landscaping

Screening

Parking

What else does the City regulate?

Noise

Lighting

State building
code
compliance

Tax assessments

Construction
traffic
management

Stormwater
management

Sewer
discharge
quality (not
quantity)

What CAN'T the City regulate?

Water usage

Energy use or
sources

Community
benefits as
condition of
approval

Jobs unless via
incentives

Other regulations in Wisconsin

- ▶ State of Wisconsin

- ▶ Data Center Sales and Use Tax exemption
- ▶ More regulation under discussion in State Legislature last session

- ▶ Public Service Commission of WI

- ▶ Individual utility decisions – required special tariffs to ensure data centers cover own costs

Draft Zoning Framework Overview

The proposed zoning regulations aim to:

- ▶ Prohibit “hyperscale” or “data center campus” developments
- ▶ Limit the density of data centers
- ▶ Mitigate and limit noise impacts
- ▶ Enable the data-related functions that businesses rely on
 - ▶ 3 size groups with different levels of restriction based on their impacts

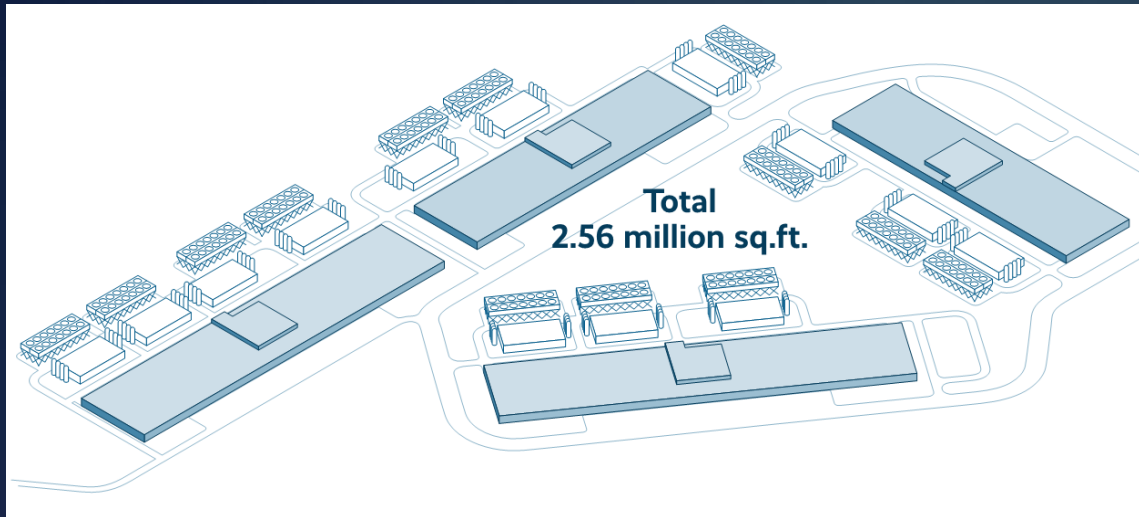
Industry Definitions vs. City Definitions

Types and Sizes of Data Centers in General

General National Description	Typical Size
Integrated	1,000-40,000 sf
Medium	5,000-40,000 sf
Large	40,000-200,000 sf
Hyperscale	500,000 – 2,000,000 sf

Sizes Proposed to Allow in Madison

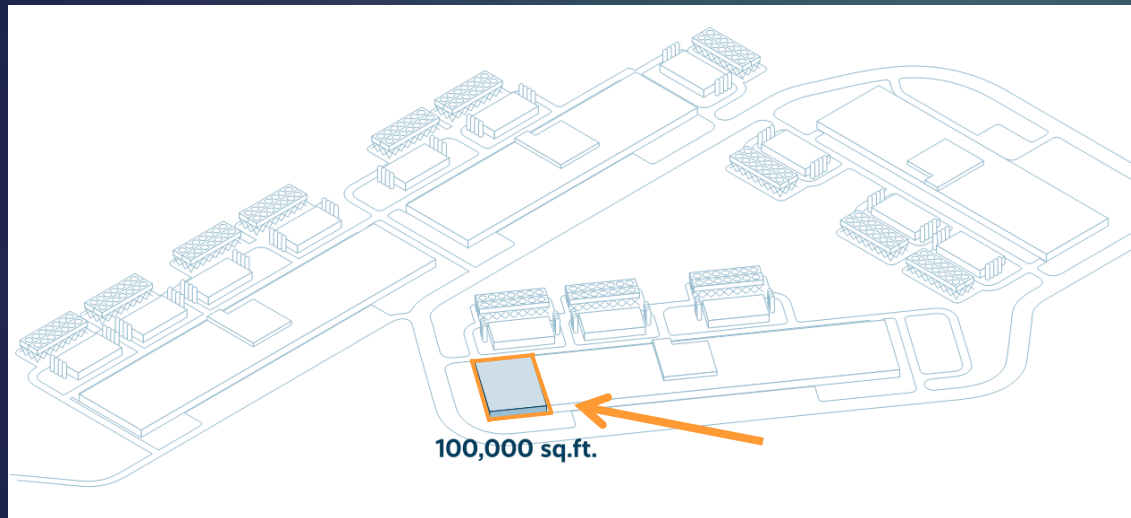
City Allowance
0-10,000 sf
10,000-50,000 sf
50,000-100,000 sf
No data centers larger than 100,000 sf



How Proposed Maximum compares to data centers elsewhere

Top:

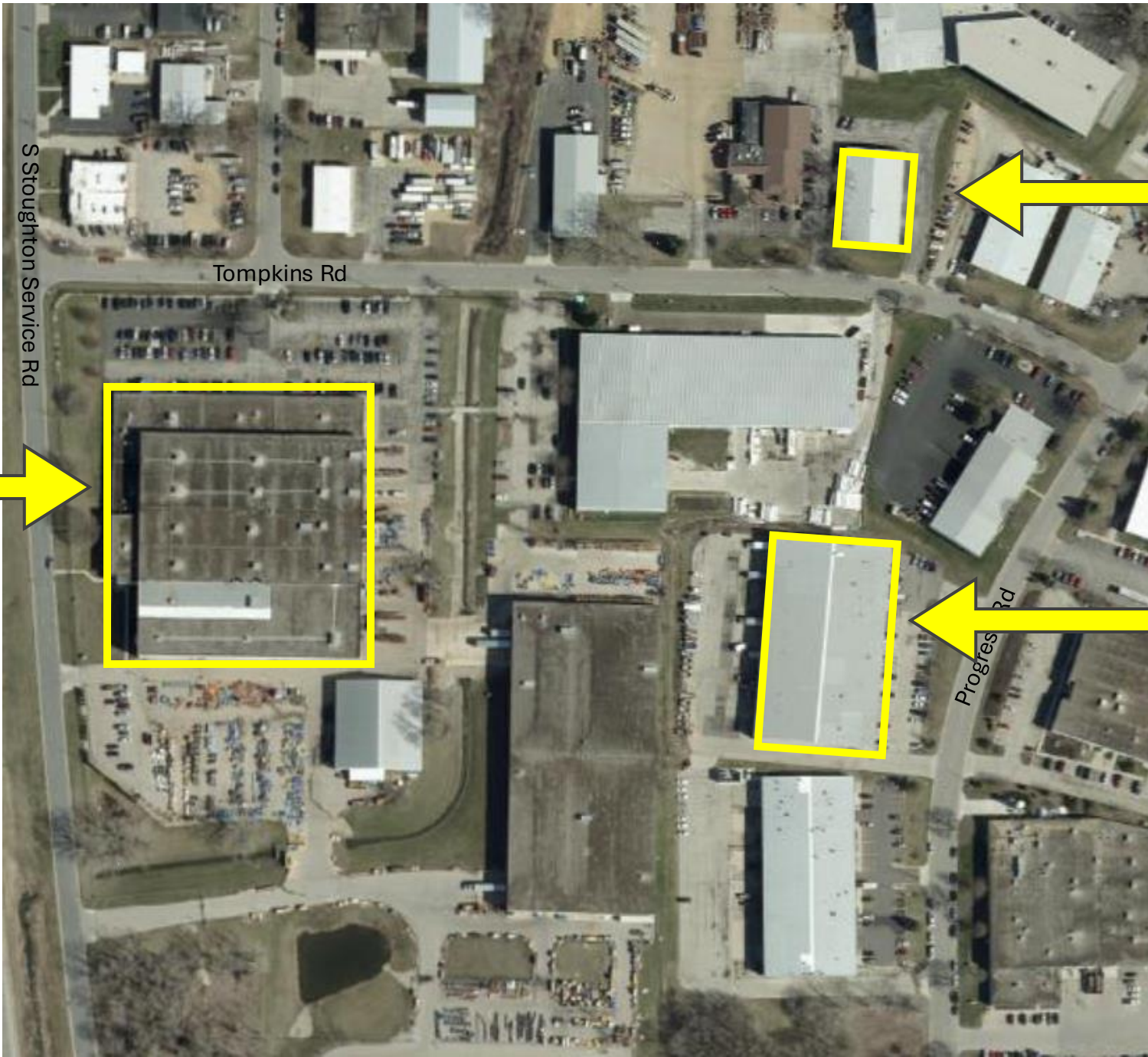
“Hyperscale” data center in Port Washington, under construction.



Bottom:

Madison’s proposed maximum data center size that could be allowed in very limited areas of the city.

The Port Washington buildings are 25x larger than what is proposed to be allowed in Madison.



100,000 sq. ft.

This size is slightly smaller than a Hy-Vee or Kohl's

10,000 sq. ft.

This size falls between a McDonald's and a Walgreens.

50,000 sq. ft.

This size is similar to a bowling alley.

0 to 10,000 sq. ft.

Planning Considerations

- ▶ Examples: A tenant in a building that leases space on their servers for off-site customers.
- ▶ Primary land use concern: Minimize placement of data centers within buildings where active uses are more appropriate.

Proposed Zoning Framework:

- ▶ Prohibit in residential zones. Allow in mixed-use districts, and where offices and industry are allowed
- ▶ Prohibit at ground level of a building
- ▶ Only one data center on a property



10,000–50,000 sq. ft.

Planning Considerations

- ▶ Example: Business leasing off-site server space
- ▶ Primary land use concern: minimize placement in buildings where active uses are more appropriate; some noise

Proposed Zoning Framework:

- ▶ Prohibit, except in campus, most employment districts, and industrial districts
- ▶ Only one data center on a property
- ▶ 1,000-foot distance between data centers (no campuses)
- ▶ Surround mechanical equipment with solid wall
- ▶ Noise Mitigation Plan required



26,000 sq. ft. Data Center, Orlando, FL

50,000–100,000 sq. ft.

Planning Considerations

- ▶ Example: Stand-alone building leasing space to multiple businesses
- ▶ Primary land use concern: minimize placement in buildings where active uses are more appropriate; noise impacts, especially near residential or open space

Proposed Zoning Framework:

- ▶ Prohibit except in limited parts of industrial districts
- ▶ 300-foot buffer from residential and park/open space uses
- ▶ Only one data center on a property
- ▶ 1,000-foot distance between data centers (no campuses)
- ▶ Surround mechanical equipment with solid wall
- ▶ Noise Mitigation Plan required



80,000 sq. ft. Data Center, Houston, TX (Google Street View)

> 100,00 sq. ft.

Prohibited

Summary: Zoning Districts & Data Center Types allowed

	Residential Districts	Mixed-Use and Commercial Districts	Downtown Districts	Campus District	Employment Districts	Industrial Districts	Transit Oriented Development Overlay District
0-10K	✗	✓	✓	✓	✓	✓	✓
10-50K	✗	✗	✗	✓	✓ (except TE)	✓	✗
50-100K	✗	✗	✗	✗	✗	✓	✗

Summary: Special Rules for Data Center Types

0-10K	10-50K	50-100K	
✓			Prohibited at ground level of a building except in IL, IG, CI.
✓	✓	✓	Only one Data Center on a property.
	✓	✓	A Medium or Large Data Center building shall not be located within 1,000 feet of the boundary of any parcel occupied by a Medium or Large Data Center.
	✓	✓	Mechanical equipment and emergency generators shall be surrounded by a solid wall on all sides.
	✓	✓	Shall provide a Noise Mitigation Plan that identifies the noise attenuation measures that are required to comply with the Noise Ordinance.
		✓	A building containing a Large Data Center and any ground mounted mechanical equipment shall not be located within the 300-foot buffer depicted on the Data Center Buffer Map in the Zoning Code.

Noise Ordinance - Overview

- ▶ Noise limits are established for each Zoning District. The Noise Ordinance does not establish limits for specific uses.
- ▶ Any change to the Noise Ordinance would impact all properties in the City not just properties with a data center.
- ▶ The Noise Ordinance sets noise limits using dBA (most common decibel measurement, perceived by people as "loud").
- ▶ Noise is measured on the property that is receiving the noise.
- ▶ The maximum dBA in a Residential Receiving Zone is 65 dBA.

Ways to measure sound

- ▶ **dBA (A-weighting):** Filters out very low and very high frequencies to match how the human ear perceives quiet-to-moderate sounds. It is widely used for OSHA workplace standards, everyday environmental noise, and general hearing-damage risk.
- ▶ **dB(C-weighting):** Has a much flatter frequency response that retains low-frequency energy. It reflects how the human ear perceives loud sounds where bass becomes more prominent.

Questions about measuring sound

- ▶ The city is aware of concerns about low frequency noise (dBC) most often associated with hyperscale data center buildings and data center campuses.
 - ▶ Hyperscale and data center campuses would not be permitted.
- ▶ Existing city-owned equipment can measure dBC.
- ▶ Staff conducted site visits to measure dBC and found that the dBC sounds levels decreased with distance (similar to dBA).
- ▶ How are staff evaluating the Noise Ordinance?
 - ▶ What is staff able to measure with existing equipment?
 - ▶ What is considered a safe or appropriate dbC sound level?
 - ▶ What types of sound measurements require specialized training and equipment?

Analysis Still In Progress

- ▶ Zoning-related
 - Establish vehicle and bike parking regulations
 - Providing flexibility for businesses with server rooms
- ▶ Evaluate if penalties for non-compliance are adequate
- ▶ Determine if and how to amend the Noise Ordinance

Anticipated Schedule

- ▶ **Mid to Late October:** SMC and BERC meetings to discuss draft framework; Community Meeting to discuss draft framework
- ▶ **November:** Introduce Zoning Code ordinance at Common Council for referral to BCC's and public hearings
- ▶ **November 30:** Plan Commission for first review of ordinance and recommendations
- ▶ **December 16:** BERC for review of ordinance and recommendations
- ▶ **December 21:** SMC for review of ordinance and recommendations
- ▶ **January 11:** Plan Commission for second review of ordinance and recommendations
- ▶ **January 12:** Common Council action on ordinance changes
- ▶ **January 24:** Moratorium expires

Public Comments

- ▶ Public comments can be emailed to pccomments@cityofmadison.com at any time.
- ▶ Written public comments that are received before the ordinance is introduced will be posted under Legistar File ID 93441.
- ▶ Written public comments received after the ordinance is introduced will be posted under a new Legistar File ID that is created for the ordinance.
- ▶ Public comments can be made at each committee meeting on the schedule.

Questions

- ▶ Please add questions and comments using the Q&A feature
- ▶ FAQs will be posted on the website:
cityofmadison.com/datacenters