

PLANNING AND ZONING ORDINANCE 26-
MCPHERSON COUNTY
SOUTH DAKOTA

FIRST PUBLIC READING:
SECOND PUBLIC READING:
ADOPTED:

EFFECTIVE DATE:

ORDINANCE 2026-1
AN ORDINANCE AMENDING MCPHERSON COUNTY ORDINANCE 24-1, AN
ORDINANCE AMENDING ZONING REGULATIONS FOR DATA PROCESSING
CENTERS IN MCPHERSON COUNTY

BE IT ORDAINED BY MCPHERSON COUNTY, SOUTH DAKOTA:

Article V, General Requirements, Chapter 5.33, Data Processing Centers, shall be amended as follows:

CHAPTER 5.33 DATA PROCESSING CENTERS.

Section 5.33.01. Purpose.

The purpose of this Section is to facilitate the construction, installation, operation and decommission of Data Processing Centers in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands and other sensitive lands. This ordinance is not intended to replace safety, health or environmental requirements contained in other applicable codes, standards, or ordinances. The provisions of this ordinance shall not nullify any provisions of local, state or federal law.

Section 5.33.02. Compliance.

All Data Processing Centers are subject to the State of South Dakota Storm Water Management Regulations **in accordance with South Dakota Administrative Rules Chapter 74:52**, as well as erosion and sediment provisions and National Pollutant Discharge Elimination System (NPDES) permit requirements if applicable.

All Data Processing Centers shall meet or exceed applicable standards and regulations of any state or federal agency.

Section 5.33.03. Siting Requirements.

1. Data processing centers shall comply with the following requirements:
 - a. All electrical generators shall be enclosed behind a solid wall made of concrete or another equivalent sound absorbing material a minimum of four (4) feet higher than the highest point on the generator. This requirement may be reduced, or eliminated if a noise mitigation plan is submitted in accordance with all other requirements of McPherson County Zoning Ordinance demonstrating that peak sound levels do not exceed those allowed in this Section.
 - b. Yard requirements: The entire perimeter of the facility shall be screened from adjoining properties by a buffer yard. The side and rear buffer yards shall be a minimum of fifty (50) feet and the minimum front buffer yard shall be one-hundred fifty (150) feet.
2. **Fencing:**
 - a. A six (6) foot sight obscuring screening fence shall be required along the entire perimeter of the facility. Such fence shall comply with all other requirements of McPherson County Zoning Ordinance.
 - b. All fencing and gates shall be constructed to substantially lessen the likelihood of entry into a Data Processing Center by unauthorized individuals.
 - c. All gates to the fences of all Data Processing Centers shall be equipped with locks and shall always remained locked except for those times when the owner and/or operator, or their respective agents is/are using the gate for ingress and/or egress or is/are otherwise present and monitoring the Data Processing Centers.
 - d. The fencing and gates shall be maintained in serviceable condition. Failure to maintain the fencing or gates required hereunder shall constitute a violation of this ordinance.
 - e. The fencing and gate requirements specified hereunder shall continue notwithstanding the fact that a Data Processing Center is no longer operational and/or falls into disuse unless and until the Data Processing Center is properly decommissioned.
 - f. Fences are exempt from Chapter 5.03 and may further be constructed on property and right of way lines.
3. All equipment and structures shall comply with 4.01.04 (3) (4) and (5) for minimum distances from the property boundary of the facility as delineated on the site plan and one mile (5,280 feet) from any church, school, or occupied residence.
4. **Weed/Grass Control Plan:** The applicant shall submit an acceptable weed/grass control plan for property inside and outside the fenced area for the entire property. The operating

company or successor during the operation of the Data Processing Center shall adhere to the approved weed/grass control plan.

5. Roads

- a. **Public Roads.** Prior to commencement of construction, the permittees shall identify all state, county or township haul roads that will be used during the construction of the Data Processing Center project and shall notify the state, county or township governing body having jurisdiction over the roads to determine if the haul roads identified are acceptable. The governmental body shall be given adequate time to inspect the haul roads prior to use of these haul roads. Where practical, existing roadways shall be used for all activities associated with the Data Processing Center. Where practical, all-weather roads shall be used to deliver cement, solar collectors and components, and all other heavy components to and from the site.
- b. **Haul Road Inspection.** The permittees shall, prior to the use of approved haul roads, make satisfactory arrangements with the appropriate state, county or township governmental body having jurisdiction over approved haul roads for construction of the Data Processing Center for the maintenance and repair of the haul roads that will be subject to extra wear and tear due to transportation of equipment and Data Processing Center components. The permittees shall notify the County of such arrangements upon request of the County.
- c. **Private Roads.** The permittees shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner.
- d. **Control of Dust.** The permittees shall utilize reasonable measures and practices of construction to control dust.

Section 5.33.04. Site Plan Requirements.

1. A detailed Site Plan created on a United States Geological Survey Map, or other map as appropriate, for both the existing and proposed conditions of a Data Processing Center must be submitted showing the following:
 - a. Boundaries and/or property lines of the entire leased or purchased property;
 - b. Boundaries of the site proposed for a Data Processing Center and associated facilities;
 - c. The location of all current structures and proposed structures;
 - d. The proposed location and dimensions of all equipment;
 - e. The proposed location and dimensions of all screening and/or fencing;
 - f. The proposed location and dimensions of all access roads;

- g. The proposed location and dimensions of all turnout locations;
 - h. The proposed location and dimensions of all ancillary equipment; and
 - i. The location, and distance to, any church, school or residence within one mile (5,280 feet) of any equipment and/or structures located on the facility.
2. The Site Plan must show the location of construction phasing.
 3. The Site Plan must show right-of-ways, service roads, floodplains, wetlands and other protected natural resources, topography, and all other characteristics requested by the Board of Adjustments.
 4. The Site Plan must show the existing & proposed contour lines and surface drainage paths of the entire purchased or leased site with 1-foot contours and directional arrows.
 5. The Site Plan shall incorporate appropriate contingencies for the protection of private cropland and pasture.
 6. The Site Plan shall show the locations of the proposed structures and any future structures and the calculations of hard surface runoff from these structures.
 7. The Site Plan shall include downstream pipe and/or bridge sizing to accommodate the increased runoff.
 8. The Site Plan shall include a study of the feasibility of a retention pond system to accommodate the possibility of a 100 yr. flood event.
 9. The Site Plan must include documentation for acquiring any drainage permits pertinent to the site.
 10. All copies of the Site Plan must be submitted, signed and sealed by a professional engineer, licensed in the State of South Dakota.

Section 5.33.05. Required Studies.

1. EMF Exposure Study

An EMF (Electromagnetic Field) Exposure Study for a Data Processing Center assesses the levels of electromagnetic radiation emitted by the facility's high-powered electronic equipment and evaluates potential health and environmental risks. Since Data Processing Centers rely on thousands of powerful processors, cooling systems, and electrical infrastructure, they generate

both low-frequency (LF) and radio-frequency (RF) electromagnetic fields, which may have biological and environmental effects.

The EMF Exposure Study must include the following:

- a. Identification of EMF Sources;
- b. Mining Rigs & Servers – High-performance processors generate low-frequency electromagnetic radiation;
- c. Power Infrastructure – Transformers, high-voltage power lines, and substations emit extremely low-frequency (ELF) EMF;
- d. Wireless Networks – If the facility uses Wi-Fi, Bluetooth, or 5G for data transmission, it produces radio-frequency (RF) EMF;
- e. Measurement of EMF Levels
 - i. Conducts onsite EMF readings at different distances from the facility.
 - ii. Compares exposure levels to established safety guidelines from the FCC, ICNIRP, and WHO.
 - iii. Identifies potential EMF hotspots where exposure is above safety levels.

2. Tax Revenue Impact Study.

A tax revenue study for a Data Processing Center in McPherson County, South Dakota, evaluates the potential economic impact of the facility on local tax revenues. This study helps determine how the Data Processing Center's construction, operation, and future growth might generate revenue for the county through various types of taxes, including property, sales, and business taxes. The goal is to quantify how much money the Data Processing Center will contribute to the county's budget and whether these revenues will offset any costs associated with the facility's presence (such as infrastructure upgrades, public services, or environmental mitigation).

- a. **Property Taxes:** The Data Processing Center's property, including buildings, equipment, and land, will be assessed to determine its value and the annual property tax revenue it will generate for the county. The center's infrastructure, such as mining rigs and power systems, will contribute significantly to tax revenue.
- b. **Sales & Use Taxes:** Evaluates the sales tax revenue generated from the purchases of equipment, supplies, and services used by the Data Processing Center. The facility's operational needs, including energy and maintenance, will also contribute to local sales taxes.

- c. **Business & Occupational Taxes:** Assesses taxes from business operations, employee wages, and payroll taxes, including state income tax withholding.
- d. **Energy Consumption Taxes:** Due to the high energy demands of a Data Processing Center, the study will consider any utility taxes on electricity consumption and assess potential impacts on local energy infrastructure.
- e. **Long-Term Revenue Projections:** Projections for the growth in tax revenues over time, factoring in both the potential for increased operations and the volatility of Data Processing Center operations.

3. **Energy Consumption Study:**

An energy consumption study for a Data Processing Center analyzes the facility's power requirements, efficiency, and potential impact on the local electrical grid. Data Processing Centers are extremely energy-intensive, so this study is essential for understanding sustainability and infrastructure needs.

- a. **Power Demand Analysis**
 - i. Estimates the facility's total electricity consumption, typically measured in megawatts (MW).
 - ii. Evaluates the power usage effectiveness (PUE) to determine energy efficiency.
 - iii. Considers peak and off-peak demand to assess strain on the local grid.
- b. **Source of Energy**
 - i. Identifies where the electricity will come from (e.g., coal, natural gas, renewable sources).
 - ii. Assesses the proportion of power drawn from sustainable sources like solar, wind, or hydroelectricity.
 - iii. Evaluates the carbon footprint and potential for reducing emissions.
- c. **Grid Impact & Infrastructure Requirements**
 - i. Determines if the local power grid can handle the data center's demand.
 - ii. Assesses the need for grid upgrades, new substations, or dedicated power lines.
 - iii. Evaluates potential risks of power shortages or outages affecting local residents and businesses.

d. Efficiency & Cooling Systems

- i. Examines cooling methods, such as air cooling, liquid cooling, or immersion cooling, to improve energy efficiency.
- ii. Looks at ways to reduce wasted energy through heat recapture or more efficient hardware.

e. Cost Analysis

- i. Estimates the facility's energy costs based on local electricity rates.

4. Biodiversity & Wildlife Impact Study:

Examines whether the facility might disrupt local wildlife habitats or ecosystems, particularly if located near natural resources, livestock or agricultural land.

Section 5.33.06. Utility Notification

1. No grid-connected data processing center shall be issued a permit until evidence has been provided by the operator that installation of the system has been approved by the electrical utility provider. Off-grid systems shall be exempt from this requirement. Written verification from the Electric Utility provider shall state the following:
 - a. Adequate capacity is available on the applicable supply lines and substation to ensure that the capacity available to serve the other needs of the planning area is consistent with the normal projected load growth envisioned by the data center.
 - b. Utility supply equipment and related electrical infrastructure are sufficiently sized and can safely accommodate the proposed use.
 - c. The use will not cause electrical interference or fluctuations in line voltage on and off the operating premises.

Section 5.33.07. Noise.

1. All proposed data centers that are within one mile (5,280 feet) of a residence, church, or school shall submit a noise mitigation plan in accordance with the following:
 - a. Name and qualifications of the person who measured the decibel levels.
 - b. Equipment used.
 - c. Location of the noise measurements depicted on a scaled site plan. The points of measurement shall be at all property lines and other noise receptors (residences, etc.).

- d. A list of all sound sources that contribute to the overall sound emissions from the site and the following for each source;
 - i. Peak sound levels, in decibels, emitted by each source; and,
 - ii. Sound levels, in decibels, for sound continuously emitted by each source for a duration exceeding thirty (30) minutes; and,
 - iii. The frequencies of the sound emissions from each source;
 - iv. A site diagram showing the location of each sound source.
- e. A description of any and all methods, systems, devices or structures intended to be used to mitigate sound emissions, including technical specifications, descriptions of materials and/or engineering specifications.
- f. A certification, signed by the preparer of the document, certifying the accuracy of the materials contained within the noise mitigation plan and that the plan will effectively reduce sound emissions to levels required by McPherson County.
- g. The county reserves the right to require independent verification of noise measurements and/or to request additional measurements at different points on the property.
- h. The maximum sound level allowed as measured from the receiving physical structure of any occupied residence, church or government building is fifty-five (55) dBA after any applicable adjustments provided for herein are applied.
 - i. Between the hours of 10:00 p.m. and 7:00 a.m. the maximum sound level allowed as measured from the receiving physical structure of any occupied residence, church or government building of forty-five (45) dBA after any applicable adjustments provided for herein are applied.
 - ii. At any hour of the day or night the applicable noise limitations in (h) and (i) above may be exceeded for any receiving property by no more than:
 - 1) 5 dBA for a total of 15 minutes in any one-hour period; or
 - 2) 10 dBA for a total of 5 minutes in any one-hour period; or
 - 3) 15 dBA for a total of 1.5 minutes in any one-hour period.

Section 5.33.08. Signage.

1. No signage shall be permitted on the perimeter fence, with the exception of one (1) sign not to exceed thirty-two (32) square feet that displays the name, address and emergency contact information of the facility as well as appropriate warning signs.

Section 5.33.09. Structural Requirements.

1. The facility shall meet all requirements of the most current edition of the International Building Code (IBC). Any electric wiring shall be located underground, except where wiring is brought together for interconnection to system components and/or the local utility power grid.
2. The use of cargo containers, railroad cars, semi-truck trailers and other similar storage containers for any component of the operation is strictly prohibited.

Section 5.33.10. Contamination Prevention.

1. All Data Processing Centers located in McPherson County, South Dakota, shall be required to utilize a closed-loop cooling system using a food-grade coolant consisting of thirty percent (30%) propylene glycol and seventy percent (70%) water, or an approved equivalent.
2. All Data Processing Center structures must be constructed with stem walls of impermeable materials and designed to a height sufficient to contain not less than two (2) times the maximum volume of coolant used within the individual structure. In the event of a release or spill, all coolant must be promptly recovered and removed via an approved sump system to prevent infiltration into surrounding soils or discharge to any floor drain or storm water system.
3. Where any portion of the coolant system is located outside the structure, an impermeable secondary containment berm must be installed around the structure or equipment. The containment capacity of the berm must be designed to hold not less than two (2) times the maximum volume of coolant used within the individual structure. In the event of a release, the coolant must be recovered and removed using an approved sump system to prevent contact with surrounding soils or environmental discharge.
4. Verification is required to ensure the stem walls and berm provides equivalent containment capacity by a professional engineer, licensed in the State of South Dakota.

Section 5.33.11. Access.

1. All roads shall be of sufficient width to accommodate emergency vehicle access as determined by the McPherson County Emergency Management Director.

Section 5.33.12. Discharge and Recycling.

1. If more than 2,000 gallons of hazardous materials or used, stored, expected to be used, or expected to be stored, at the site of the Data Processing Center, or within the Data Processing Center, an environmental study shall be completed regarding such hazardous material and its possible effects on the local environment if containment were to fail. The environmental study shall be provided to the McPherson County Board of County Commissioners.
2. Any hazardous material and/or discharge, including any contaminated water, coming from or being removed from the Data Processing Center shall be disposed of in/at a disposal site approved for such material.
3. If any hazardous material is used within the Data Processing Center, or located on the site of the Data Processing Center, a containment system for the hazardous material shall be put into place.
4. Any electrical equipment, including computers, hard drives, servers, and components thereof, shall be disposed of at a certified recycling center.
5. The Data Processing Center Owner and/or Operator shall notify the McPherson County Director of Equalization at least twenty-four (24) hours in advance of any hazardous material and/or discharge being removed from the Data Processing Center.

Section 5.33.13. Emergency Response Plan.

1. The Data Processing Center Owner and/or Operator shall provide a copy of the project description, site plan, and any other pertinent documentation and/or information to the McPherson County Emergency Manger, local fire department(s), sheriff's office having jurisdiction, and any other local first responder organization(s). The Data Processing Center Owner and/or Operator shall coordinate with such local entities in the development of an Emergency Response Plan.
0. The Emergency Response Plan shall include a description of the numbers, locations, and training of personnel necessary to respond to a worst-case emergency in McPherson County. The plan shall also include all Material Safety Data Sheets for all hazardous material and/or substances that are located within the Data Processing Center.
1. All necessary training and equipment for a worst-case emergency in McPherson County for local fire departments, sheriff's office, first responder organizations, and the McPherson County Emergency Manager shall be paid for by the Data Processing Center Owner and/or Operator.
0. The Emergency Response Plan shall be submitted to the McPherson County Board of County Commissioners or its designee not less than sixty (60) days before construction is to begin.

0. The Emergency Response Plan shall include a list of all specialized response equipment; showing the type and capability of said equipment, as well as the equipment's location.
1. All response equipment shall be accessible by the McPherson County Emergency Manger, local fire department(s), sheriff's office having jurisdiction, and any other local first responder organization(s).

Section 5.33.14. Decommissioning, restoration, or Abandonment of a Data Processing Center.

1. The Owner and/or Operator of a Data Processing Center shall be responsible for decommissioning a Data Processing Center including all related facilities, and for all costs associated with decommissioning a Data Processing Center and for all related facilities.
2. At least thirty (30) days prior to construction, the Applicant shall provide a plan to the McPherson County Board of Adjustment regarding the action to be taken upon the decommissioning and removal of the Data Processing Center and all related facilities. Estimates of monetary costs and the site condition, including any land irretrievably committed, after decommissioning shall be included in the plan.
3. At least six (6) months prior to the commencement of decommissioning, Data Processing Center Owner and/or Operator shall give notice, in writing, to the McPherson County Board of Adjustment of the date decommissioning is to begin.
4. Data Processing Center Owner and/or Operator shall physically dismantle all below and above ground components of the Data Processing Center within three-hundred and sixty-five (365) days from the date decommissioning is to begin.
5. Such removal and dismantling period can be extended upon written agreement between Data Processing Center Owner and/or Operator and Property Owner. However, in no event can this period extend beyond two (2) years from the date decommissioning is to begin. Any agreement to extend removal and dismantling shall be filed at the McPherson County Registrar of Deeds office and a copy thereof shall be delivered by the Data Processing Center Owner and/or Operator to the McPherson County Board of County Commissioners or its designee.
6. A Data Processing Center shall be deemed abandoned if it is out of service or no longer in use for twenty-four (24) consecutive months.
7. If a Data Processing Center is deemed abandoned:
 - a. The McPherson County Board of Adjustment, or its designee, shall issue a written Notice of Abandonment by certified mail to the Data Processing Center's Owner and/or Operator. The Data Processing Center's Owner and/or Operator shall have the right to respond to the Notice of Abandonment within thirty (30) days from the date of receipt

of such notice to present evidence that the Data Processing Center has not been abandoned.

- b. The McPherson County Board of Adjustment shall review any such response to determine if the Data Processing Center has or has not been abandoned.
 - c. If it is determined the Data Processing Center has not been abandoned, the Notice of Abandonment shall be withdrawn and notice of same shall be provided to the Data Processing Center Owner and/or Operator.
 - d. If, after review of Data Processing Centers Owner and/or Operator's response, it is determined that Data Processing Center has been abandoned, notice of such finding shall be provided by certified mail to the Data Processing Center's Owner and/or Operator.
 - e. If the Data Processing Center is deemed to have been abandoned, the Data Processing Center's Owner and/or Operator shall have one hundred twenty (120) days from the date of receipt of such notice to dismantle all above and below ground components of the Data Processing Center. If the Data Processing Center's Owner and/or Operator fails to dismantle the Data Processing Center within the prescribed time period, such shall be considered a violation of this ordinance and shall be subject to any and all legal remedies.
13. If the owner and/or operator of the Data Processing Center fails to properly decommission or abandons the Data Processing Center, the landowner shall be held liable for the decommissioning of the Data Processing Center.

Section 5.33.15. Construction Related Debris.

- 1. Construction related debris and material which is not an integral part of the Data Processing Center will be promptly removed from the Property Owner's property at the Data Processing Center Owner and/or Operator's expense. Such material to be removed includes all litter generated by the Data Processing Center Owner and/or Operator's employees, agents, contractors, or invitees, including construction crews. Following the completion of the Data Processing Center, the Data Processing Centers Owner and/or Operator shall keep the Property Owner's property clean and free of all trash and litter which may have been produced or caused by the Data Processing Center or its employees, agents, contractors, invitees, or its operations on the property. Under no circumstances shall the Data Processing Center's Owner and/or Operator, or its employees, agents, contractors, or invitees bury or

burn any trash, debris or foreign material of any nature on the property where the Data Processing Center is located.

Section 5.33.16. Reclamation Obligations.

1. Following the completion of the Data Processing Centers construction, or upon removal of the Data Processing Center, at the expiration, termination, abandonment, or surrender of the Data Processing Center, the Data Processing Center's Owner and/or Operator shall restore the area disturbed by construction as best as practicable to its original preconstruction topsoil, vegetation, elevation, and contour at the Data Processing Center's Owner and/or Operator's expense.

Section 5.33.17. Submittal Requirements.

1. No Data Processing Center shall be erected, built, or constructed without a conditional use permit having been approved by the Board of Adjustment.
2. Application(s) for Data Processing Center Conditional Use Permits shall be accompanied by:
 - a. Site plan as required by 5.33.04
 - b. Map of easements for Data Processing Center, if applicable.
 - c. Affidavit attesting that necessary easement agreements with landowners have been obtained, if applicable.
 - d. Studies required by 5.33.05
 - e. The fencing and gates required to be around the exterior perimeter. 5.33.03 (2. a-f)
 - f. The storm water pollution and prevention plan. 5.33.02
 - g. The decommissioning, restoration, or Abandonment plan. 5.33.14
 - h. Weed/Grass control plan 5.33.03 (4)
 - i. Haul roads identified. 5.33.03 (5. a-d)
 - j. Project schedule
 - k. Emergency Response Plan. 5.33.13
 - l. Documentation of proposed coolant. 5.33.10 (1)

m. **Any other factors relevant to Data Processing Center.**

3. A narrative describing the proposed data processing facility including an overview of the project;
4. A study prepared by an acoustical engineer that describes the anticipated noise level of the facility and any proposed mitigation efforts such as sound walls, baffles, ventilation silencers, additional separation from surrounding uses, etc.;
5. Other relevant studies, reports, certifications, and approvals as may be reasonably requested by McPherson County to ensure compliance with this Article; and
6. Signature of the Property Owner(s) and the Data Processing Center Owner and/or Operator (if different than the property owner);
7. The McPherson County Board of County Commissioners shall, by resolution, establish a Data Processing Center Permit Application fee. This fee shall be reviewed and may be adjusted on an annual basis. This fee shall be payable to the McPherson County Treasurer and paid at the time the Data Processing Center Permit Application is submitted. This fee shall be sufficient to offset county review of the application, organization, third-party consulting, holding of public hearings and other additional costs incurred by McPherson County related to the Data Processing Center project. Such payments are necessary and reasonable for the County to promote the health, convenience, order, and welfare of the present and future inhabitants of McPherson County including, but not limited to, providing adequate light and air, protecting the tax base, and protecting property against blight and depreciation.
8. The Data Processing Center Owner and/or Operator shall reimburse McPherson County for any and all reasonable expenses in excess of the Permit Application Fee for review of the Data Processing Center Permit Application, organization, third-party consulting, holding of public hearings and other additional costs incurred by the county related to the Data Processing Center Permit Application.

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Dated this _____ day of _____, 2025.

Mark Opp
Chairman of the McPherson Co. Board of County Commissioners

ATTEST:

Lindley Howard
McPherson County Auditor

FIRST READING:

SECOND READING:

ADOPTED:

PUBLICATION DATE:

EFFECTIVE DATE: