

**CITY OF CHARLEVOIX**

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE TO REGULATE CRYPTOCURRENCY DATA MINING FACILITIES AND DATA CENTERS**

The City of Charlevoix ordains:

**Addition of New Sections 153.200 and 153.201 to Title XV Land Usage, Chapter 153 Planning and Zoning.**

A new section 153.200 entitled “Supplemental Regulations” is hereby added to the City’s Zoning Ordinance.

A new Section 153.201 entitled “Cryptocurrency Data Mining Facilities and Data Centers” is hereby added to the City’s Zoning Ordinance, to read, in its entirety, as follows:

**153.201 CRYPTOCURRENCY DATA MINING FACILITIES AND DATA CENTERS.**

1. Definitions.

**Cryptocurrency Data Mining Facility.** A facility dedicated to operating data processing equipment for commercial cryptocurrency mining and the process by which cryptocurrency transactions are verified and added to digital ledgers.

**Data Center.** A structure that houses information technology infrastructure and equipment for building, running, and delivering applications, and the storage of digital data. This includes Artificial Intelligence (“AI”) Data Centers.

**Electrical Substation.** A facility used for the transformation or distribution of electrical power necessary to serve a Cryptocurrency Data Mining Facility or Data Center site, excluding any energy generation facility designed to serve as the primary or continuous power source for the Cryptocurrency Data Mining Facility or Data Center.

2. General Provisions.

1. Cryptocurrency Data Mining Facilities and Data Centers of up to 10MW are permitted in the City as a special land use in the Industrial Zoning District.

2. Data Centers that are ancillary to another primary use are permitted in a non-residential district if they a) occupy no more than ten percent of the building footprint, b) are used to serve the enterprise functions of the on-site property owner and are not used to lease data storage and processing services to third parties, and c) are not housed in a separate stand-alone structure on the parcel.

3. The City may enforce any remedy or enforcement, including but not limited to, the removal of any Cryptocurrency Data Mining Facilities and Data Centers pursuant to the Zoning

Ordinance or as otherwise authorized by law if the Cryptocurrency Data Mining Facility or Data Center does not comply with this Section.

3. Special Land Use Application Requirements. In addition to the requirements of Article 153.231 Site Plan Approval an applicant for special land use approval of a Cryptocurrency Data Mining Facility or Data Center must provide the City with all of the following:
  1. An application fee in an amount set by resolution of the City Council.
  2. A list of all parcel numbers that the Cryptocurrency Data Mining Facility or Data Center will use; documentation establishing ownership of each parcel; and any lease agreements, easements, or purchase agreements for the subject parcels.
  3. An operations agreement setting forth the parameters of the operation, the name and contact information of the operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.
  4. Current photographs of the subject property.
  5. A site plan that meets 153.235 Required Site Plan Content of the city's zoning ordinance. The site plan must indicate how the Cryptocurrency Data Mining Facility or Data Center will be connected to the power grid.
  6. A written plan for maintaining the subject property, including a plan for maintaining and inspecting drainage systems and addressing stormwater management, and identifying anticipated water usage and wastewater discharge methods, including any required state or county permits, which are subject to the City's review and approval.
  7. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Cryptocurrency Data Mining Facility or Data Center, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Cryptocurrency Data Mining Facility or Data Center and restore the subject parcels, which is subject to the City's review and approval.
  8. A deposit for an escrow account in an amount set by resolution or fee schedule approved by the City Council. The escrow account is used to cover all costs and expenses associated with the special land use review and/or approval process, which costs can include, but are not limited to, review fees of the City Attorney, City Planner, and City Engineer, as well as any reports or studies which the City anticipates will be required during the review and/or approval process for the application. At any point during the review process, the City may require that the applicant place additional monies into escrow with the City if the existing escrowed funds on account with the City will be insufficient, in the determination of the City, to cover any remaining costs or expenses with the review and/or approval process. If additional funds are required by the City to be placed in escrow and the applicant refuses to do so within 14 days after receiving notice, the City will cease the zoning review

and/or approval process until and unless the applicant makes the required escrow deposit. Any escrow amounts in excess of actual cost will be returned to the applicant. An itemized billing of all expenses will be provided to the applicant upon request.

9. A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Cryptocurrency Data Mining Facility or Data Center, which is subject to the City's review and approval.

10. A plan for infrastructure impact considerations including;

(1) Power demand thresholds

(a) Utility capacity review

- I. Dedicated electrical substation
- II. Electric nameplate capacity
- III. Power usage effectiveness (PUE) Federal guidelines 1.3 or lower
- IV. Power with clean energy sources (same or better than City)
- V. Self-generation of power (power backup)

(b) Water usage limits

- I. Require usage and disposal amounts
- II. Require disposal ingredients
- III. Water, city capacity review and approval from water department
- IV. Sewer, city capacity review and approval from public works department
- V. Cooling/climate control methods and specifications. ■

11. A plan for managing any hazardous waste, which is subject to the City's review and approval.

12. A plan addressing response to power outages, which is subject to the City's review and approval.

13. A security plan for providing 24-hour on-site or remote monitored security, including security fencing as described in Section 4.D.

14. A fire protection plan, which identifies the fire risks associated with the Cryptocurrency Data Mining Facility or Data Center; describes the fire suppression system that will be implemented; describes what measures will be used to reduce the risk of fires re-igniting (i.e., implementing a "fire watch"); identifies the water sources that will be available for the local fire department to protect adjacent properties; identifies a system for continuous monitoring, early detection sensors, and appropriate venting; and explains all other measures that will be implemented to prevent, detect, control, and suppress fires and explosions.

15. A transportation plan for construction and operation phases, including any applicable agreements with the County Road Commission and Michigan Department of Transportation, which is subject to the City's review and approval.

16. An attestation that the applicant will indemnify and hold the City harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Cryptocurrency Data Mining Facility or Data Center, which is subject to the City's review and approval.

17. Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL324.36501 et. seq.); and any other applicable laws and rules in force at the time the City considers the application.

18. An attestation that all stationary and backup energy systems will comply with applicable EPA and EGLE air emission standards, that any diesel generators shall meet the EPA's current Tier 4 emission standards, and that any battery energy storage system (BESS) shall comply with NFPA 855 fire safety standards.

19. A noise and sound study demonstrating compliance with the noise standards, as provided in Section 4.F, at all property lines.

20. A traffic impact study prepared by a professional engineer knowledgeable in the traffic study field identifying trip generation, road capacity needs, and any required improvements.

21. Documentation prepared in coordination with the serving utility demonstrating the availability of sufficient electrical, water, and wastewater capacity to serve the facility without compromising existing needs or causing rate hikes for existing customers.

22. An analysis describing existing environmental site conditions, natural features, and any anticipated impacts to wetlands, streams, woodlands, wildlife habitat, air quality, and groundwater.

23. A community and environmental impact statement evaluating the expected operational characteristics of the Cryptocurrency Data Mining facilities or Data Center and its potential impacts, describing measures to avoid, minimize, or mitigate any adverse impacts identified, including, but not limited to:

1. Emergency Services: Fire, police, and medical response needs and coordination measures.

2. Road Network: Effects on City street infrastructure and access points.

3. Water Resources: Effects on wells, aquifers, and surface waters.
  4. Noise, Vibration and Air Emissions: Including generators and cooling equipment.
  5. Land Use Compatibility and Visual Impacts: Especially in relation to nearby residential or agricultural properties.
  24. Any additional relevant information or documentation requested by the Planning Commission, City Council, or other City representatives.
4. System and Location Requirements. In addition to the requirements of Section 153.231 for a site plan, the site plan must include all of the following:
1. Equipment. All equipment used in any Cryptocurrency Data Mining Facility or Data Center must be housed in a metered, electrically grounded, and pre-engineered or prefabricated structure with a fire rating designed to resist an internal electrical fire for at least one hour.
  2. Structures. All principal and accessory structures used for cryptocurrency mining operations and/or data centers, shall be arranged, designed, and constructed to be harmonious and compatible with the site and with the surrounding properties, and comply with zoning district regulations. If prefabricated, pre-engineered, or modular structures are installed, the following standards are required:
    - (a) All structures shall have concrete foundations.
    - (b) All exterior facades shall have muted earth tone colors that will blend the facility into the natural setting and existing environment, and shall not be defective, decayed or corroded.
    - (c) If intermodal shipping containers are utilized such installation shall comply with current National Electrical Code standards.
  3. Lighting. The lighting of the Cryptocurrency Data Mining Facility or Data Center is limited to the minimum light necessary for safe operation. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Cryptocurrency Data Mining Facility or Data Center and must be fully shielded and directed downward. The Cryptocurrency Data Mining Facility or Data Center must not produce any glare that is visible to neighboring lots or persons traveling on public or private roads. Security lighting may be motion-activated or reduced during nighttime or off-peak hours.
  4. Security Fencing. Security fencing must be installed around all electrical equipment related to the Cryptocurrency Data Mining Facility or Data Center. Such fencing must be a minimum six (6) feet tall and must use materials, colors, textures, screening and landscaping, that will blend the facility into the natural setting and existing environment.
  5. Substations. Any on-site electrical substation shall be located to minimize visual impact and screened to provide year-round opacity when viewed from public roads or adjacent residential properties.

5 Noise. The Data Center must be designed and built to incorporate sound mitigation methods sufficient to prevent the sound levels emanating from the Data Center including any generator noise (as determined by a third-party acoustic engineer) from exceeding the ambient noise levels that were observed in a baseline study. Design specifications for such sound mitigation must be provided to the City before zoning permit approval.

1. The noise generated by the Cryptocurrency Data Mining Facility or Data Center must not exceed 45 dBA, as measured at the property line of any adjacent parcel.
2. Testing of generators shall be permitted only Monday through Friday between 9:00 a.m. and 5:00 p.m.
3. Where necessary to meet noise limits, audible screening such as sound walls, enclosures, or other mitigation measures shall be required.
4. The Data Center operator must also conduct an additional noise study, as measured at the property line of the nearest property to the Data Center property that is planned or zoned for residential land uses, or other noise sensitive use as reasonably determined by the Zoning Administrator, annually during peak operation of the Data Center mechanical equipment for five years after completion of the initial post-construction noise study. The Data Center operator must provide the results of the noise study to the City within thirty days of the anniversary of the date on which the certificate of occupancy or certificate of completion was issued by the City.

6. Vibration. No use shall generate any ground-transmitted vibration in excess of the limits set forth below. Vibration shall be measured at the nearest adjacent lot line. The vibration maximums set forth below are stated in terms of particle velocity, which may be measured with suitable instrumentation or computed on the basis of displacement and frequency. When computed, the following standards shall apply:

<b>Frequency (Hz)</b>	<b>Particle Velocity (in/sec)</b>
0 to 9.99	0.0010
10 to 19.99	0.0008
20 to 29.99	0.0006
30 to 39.99	0.0004
40 and over	0.0002

If requested by the enforcement official, the petitioner shall provide evidence of compliance through a third-party professional specializing in vibration monitoring. The cost and arrangement of testing shall be the petitioner's obligation. Vibrations from temporary construction activities are exempt from these requirements.

7. Signage. The Cryptocurrency Data Mining Facility or Data Center shall provide a 24-hour emergency contact signage visible at the access entrance. Signs shall include company name if applicable, owner/representative name, telephone number, and corresponding local power company and telephone number.

8. Traffic and Access. Vehicle access shall be directed to County or State-designated primary roadways where feasible. The City may require roadway improvements, turn lanes, or other traffic management measures after considering the recommendations of the Traffic Impact Study required under Section 3.S.

9. Underground Transmission. All power transmission or other lines, wires, or conduits from a Cryptocurrency Data Mining Facility or Data Center to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

10. Drainage System Inspections. The Cryptocurrency Data Mining Facility or Data Center must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain piping at least once every three years using a robotic camera, with the first inspection occurring before the Cryptocurrency Data Mining Facility or Data Center is in operation. The applicant or operator must submit proof of the inspection to the City. The owner or operator must repair any damage or failure of the drainage system within sixty (60) days after discovery and submit proof of the repair to the City. The City is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

11. Stormwater Management. Stormwater management facilities shall comply with City and Charlevoix County standards. The use of green infrastructure and low-impact design practices is encouraged where feasible.

12. Fire Protection.

1. Before any construction of the Cryptocurrency Data Mining Facility or Data Center begins, the City's fire department (or the fire department with which the City contracts for fire service) will review the fire protection plan submitted with the application. The fire chief will determine whether the fire protection plan adequately protects the City's residents and property and whether there is sufficient water supply to comply with the fire protection plan and to respond to fire or explosion incidents. If the fire chief determines that the plan is adequate, then the fire chief will notify the City or his or her designee of that determination. If the fire chief determines that the plan is inadequate, then the fire chief may propose modifications to the plan, which the applicant or operator of the Cryptocurrency Data Mining Facility or Data Center must implement. The fire chief's decision may be appealed to the City Planning Commission, and the City Council will hear the appeal at an open meeting. The City Planning Commission may affirm, reverse, or modify the fire chief's determination. The City Planning Commission's decision is final, subject to any appellate rights available under applicable law.

2. The applicant or operator may amend the fire protection plan from time-to-time in light of changing technology or other factors. Any proposed amendment must be submitted to the fire department for review and approval under subsection (1).

3. The Cryptocurrency Data Mining Facility or Data Center must comply with the fire protection plan as approved by the fire chief (or as approved by the City Planning Commission in the event of an appeal).

4. The Cryptocurrency Data Mining Facility or Data Center must contain an internal fire suppression system that shall be reviewed and tested once every twelve (12) months by a third-party contractor approved by the fire chief.

14. Applicant must provide all City Fire Department staff or contractors with the appropriate equipment and training to address fires in the Cryptocurrency Data Mining Facility or Data Center.

15. Insurance. The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least \$5 million per occurrence. The City shall be listed as an additional insured on the policy at all times.

16. Permits. All required county, state, and federal permits must be obtained before the Cryptocurrency Data Mining Facility or Data Center begins operating. A building permit is required for construction of a Cryptocurrency Data Mining Facility or Data Center regardless of whether the applicant or operator is otherwise exempt under state law.

17. Before a Data Center is constructed within the Industrial zoning district, the property owner proposing to build a Data Center must comply with the following:

1. The Data Center operator must schedule and attend two neighborhood meetings with residents to describe the project and the proposed sound-mitigation aspects of the project design. Notice of the neighborhood meetings must be mailed to all residents and homeowners associations within a 2,000-foot radius of the parcel. A representative of the developer or owner with decision-making authority on the design of the Data Center must attend the neighborhood meetings. The Data Center operator or property owner must also post a minimum size of 16 sq ft sign on the subject property, at least fifteen days before each neighborhood meeting. The sign must be located along an arterial street or other high-visibility location as reasonably determined by the Zoning Administrator. The content of the sign shall (i) be consistent with the City's generally applicable sign guidelines to include the applicants name and contact information, a brief description of the Data Center project, and the date, time, and location of the neighborhood meeting, and (ii) must be reviewed and approved by the Zoning Administrator before installation. The applicant must remove the sign at the conclusion of the citizen review process.

2. Before the first neighborhood meeting is held, the property owner proposing to build a Data Center must conduct a sound study performed by a third-party acoustic engineer to document baseline sound levels in the area of the proposed Data Center, including noise levels measured at the property line of the nearest property to the Data Center property that is planned or zoned for residential land uses, or other noise sensitive use as reasonably determined by the Zoning Administrator. The property owner must provide a copy of the results of the study to the City before the first neighborhood meeting.

18. Decommissioning. If a Cryptocurrency Data Mining Facility or Data Center is abandoned or otherwise nonoperational for a period of one year, the property owner or the operator must notify the City and must remove the system within six (6) months after the date of abandonment. Removal requires receipt of a demolition permit from the Charlevoix County Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The site must be filled and covered with top soil and restored to a state compatible with the surrounding vegetation. The requirements of this subsection also apply to a Cryptocurrency Data Mining Facility or Data Center that is never fully completed or operational if construction has been halted for a period of one (1) year.

19. Financial Security. To ensure proper decommissioning of a Cryptocurrency Data Mining Facility or Data Center upon abandonment, the applicant must post financial security in the form of a security bond or escrow payment in an amount equal to 125% of the total estimated cost of decommissioning, code enforcement, and reclamation, which cost estimate must be approved by the City. The operator and the City will review the amount of the financial security every two (2) years to ensure that the amount remains adequate. This financial security must be posted within fifteen (15) business days after approval of the special use application.

20. Extraordinary Events. If the Cryptocurrency Data Mining Facility or Data Center experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the City within 24 hours.

21. Annual Report. The applicant or operator must submit a report on or before January 1 of each year that includes all of the following:

1. Current proof of insurance;
2. Verification of financial security; and
3. A summary of all complaints, complaint resolutions, and extraordinary events.

22. Inspections. The City may inspect a Cryptocurrency Data Mining Facility or Data Center at any time by providing 24-hour advance notice to the applicant or operator.

23. Transferability. A conditional land use permit for a Cryptocurrency Data Mining Facility or Data Center is transferable to a new owner. The new owner must register their name and business address 30 days prior to the transfer date with the City and must comply with this Ordinance and all approvals and conditions issued by the City. In the event of a sale or transfer of ownership and/or operation of the Cryptocurrency Data Mining Facility or Data Center, the original security bond or escrow must be maintained throughout the entirety of the process and must not be altered.

24. Remedies. If an applicant or operator fails to comply with this Ordinance, the City, may pursue any remedy or enforcement, including but not limited to the removal of any Cryptocurrency Data Mining Facility or Data Center pursuant to the Zoning Ordinance or as

otherwise authorized by law. Additionally, the City may pursue any legal or equitable action to abate a violation and recover any and all costs, including the City’s actual attorney fees and costs.

1.

**Table 153.086: Allowed Uses, Non-Residential and Mixed Use Zones**

Table of Permitted Uses, is hereby amended to add Cryptocurrency Data Mining Facilities and Data Centers as a special land use in the Industrial zoning districts:

	PO	GC	CBD	CH	MC	SR	I	P	CM	Specific Requirements
INDUSTRIAL AND STORAGE										
Cryptocurrency Data Mining Facilities and Data Centers							S			Sec. 153.095

**Section x. Validity and Severability.**

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

**Section x. Repealer.**

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

**Section x. Effective Date.**

This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

I, Sarah Dvoracek, do hereby certify that I am the duly elected and acting clerk of the City of Charlevoix, and I do hereby certify that this Ordinance was adopted by the City Council of the City of Charlevoix, County of Charlevoix, State of Michigan, at a regular meeting of the City Council held at the Charlevoix City Hall, on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Vote: \_\_\_\_ Aye \_\_\_\_ Nay

THE CITY COUNCIL OF THE  
CITY OF CHARLEVOIX, COUNTY  
OF CHARLEVOIX, STATE OF MICHIGAN

By: \_\_\_\_\_  
Sarah Dvoracek  
Charlevoix City Clerk

AUTHENTICATED:

By: \_\_\_\_\_  
Lyle Gennett  
Charlevoix City Mayor