January 8, 2026

Howell Township Planning Commission
3525 Byron Road
Howell, MI 48855

To the members of the Howell Township Planning Commission,

The following information on definitions, data center zoning districts and additional siting requirements is being provided for consideration by the Howell Township Resident Research Committee (RRC).

DEFINITIONS & DATA CENTER ZONING REQUIREMENTS

What the RRC is asking for: 3 Items - Definitions, Data Center Zoning District Requirements and Additional Siting Requirements to be discussed and adjusted as needed, for future approval and addition to the Zoning Book of Ordinances.

1. DEFINITIONS TO BE ADDED:

Battery Energy Storage Systems (BESS): *A storage system that collects energy from renewable and non-renewable sources in rechargeable batteries for later use.*

Closed Loop Cooling System: *A cooling system that constantly reuses and recycles an initial load of water within its operation, significantly reducing the draw on external water sources and minimizing wastewater discharge.*

Cryptocurrency Mining Facility: *A facility of any size that is dedicated to operating data processing equipment for cryptocurrency mining and the process by which cryptocurrency transactions are verified and added to digital ledgers. This includes data mining facilities.*

Data Processing: *The collection and manipulation of digital data to analyze and produce meaningful information.*

Data Center: *a physical facility housing the people, hardware and software organized to provide information processing services. This includes data processing facilities, server farms and artificial intelligence / "AI" data centers.*

Ancillary Data Center: *are data centers that are ancillary to another primary use and a) occupy no more than ten percent of the building's footprint, b) are used to serve the enterprise functions of the on-site business and are not used to lease data storage and processing services to third parties, c) are not housed in a separate, stand-alone structure on the parcel, and d) uses no more than 5 MW of power, low power usage effectiveness (PUE) and incorporates cooling systems that do not utilize water.*

Minor Data Center: *See Data Center, a Minor Data Center shall also be under 10,000 square feet (for all buildings and structures on the site). If a minor data center requires an electrical substation and/or water treatment plant, it shall be classified as a Medium Data Center.*

Medium Data Center: *See Data Center, a Medium Data Center shall also be between 10,000 square feet and 99,999 square feet (for all buildings and structures on the site).*

Major Data Center: *See Data Center, a Major Data Center shall also be between 100,000 square feet and 499,999 square feet (for all buildings and structures on the site).*

Data Center Campus: *See Data Center, also a Data Center Campus shall consist of more than one Data Center building and may be any combination of sizes of Data Center buildings, not to exceed a total of 750,000 square feet (for all buildings and structures on the site).*

Decibel, dB: *A decibel (dB) is a common measure of sound intensity that is one-tenth of a bel (B) on the logarithmic intensity scale.*

Decibel-dBA: *Decibels measured in dBA are weighted to the frequencies in the middle of the range of human hearing, as a representation of the perceived overall loudness.*

Decibel-dBC: *Decibels measured in dBC are weighted to the low-frequency, sounds which travel and penetrate farther than treble sound, often a component of tonal noise.*

Generator: *A machine that converts one form of energy into another.*

High Load Use: *A term that refers to an industry or business with higher than average consumption; typically of electricity and/or water.*

Megawatt: *A unit of power output equal to 1,000,000 watts or 1,000 kilowatts, used to measure power consumption.*

Noise Disturbance: *Any noise which a) endangers or injures the safety of health of humans or animals; or b) annoys or disturbs a reasonable person of normal sensitivities; or c) endangers or injures persons or real property.*

Electrical Substation: *An electric system facility that converts higher voltages to lower voltages within or separate from a data center to generate sufficient power at maximum efficiency; can operate independently for dedicated sites once directly connected to the transmission line.*

Sensitive Receptors: *Schools, preschools, daycares, health facilities such as hospitals, long-term care facilities, retirement and nursing homes, community centers, places of worship, playgrounds, parks, campgrounds, prisons, dormitories, and any residence where such residence is not located on a parcel with an existing industrial, commercial, or unpermitted use as determined by the zoning officer.*

Sound Pressure Level (SPL): *Means the sound pressure levels stated in dB units referenced to twenty (20) micro pascals, with a C frequency weighting and a ten (10) mS response with peak detection per ANSI Sl.4-2014.*

Standalone Modular Data Center / Cryptocurrency Mining Facility: *Pre-engineered, prefabricated, temporary and standardized buildings, including shipping containers, designed to house computer servers and network equipment.*

Tonal Noise: *A noise characterized by a distinct, recognizable frequency, which stands out significantly against the background broadband noise, considered a nuisance due to the human auditory system's sensitivity to pure tones, especially when they are continuous.*

2. DATA CENTER ZONING REQUIREMENTS TO BE ADDED:

In light of the context provided in the information and research attached, inspired by the precedent provided by a combination of other localities' ordinances, and with consideration to Howell Township's particular community and rural character, the RRC would like to see Data Centers sited in our Zoning Book of Ordinances outlined similar to the following chart, and in the suggested overlay district outlined. Please note, the distances provided are estimated numbers presented for discussion and adjustment as needed to accommodate our existing industrial zoning:

CHART FOR USE WITH DATA CENTER OVERLAY DISTRICT IN CURRENT INDUSTRIAL ZONING

Data Center Type	Size (Sq Ft)	Zoning District	Distance from Residential Zoned Parcels	Distance from Sensitive Receptors	Distance from other Data Centers
Ancillary	<10% of building footprint	RT	-	-	-
Minor	<10,000	SUP- IF/I	Shall not abut	-*	-*
Medium	10,000-99,999	SUP- I	Shall not abut & >1,320 Ft* (.25 Mile)	>1,500 Ft*	500 Ft* from Major or Campus
Major	100,000-499,999	SUP- I	Shall not abut & >1,500 Ft*	>2,000 Ft*	>500 Ft* from Medium, Major or Campus
Campus	<750,000	SUP- I	Shall not abut & > 2,000 Ft*	>2,640 Ft* (.5 Mile)	>.2,000 Ft* from another Campus; >500 Ft* from Medium or Major

Research & Technology (RT), Industrial Flex (IF), Industrial (I), Special Use Permit (SUP)

*****The distances provided are based on the placement of a Data Center/Cryptocurrency/High Load Uses Overlay District being placed to coincide with HT's existing industrial zoning district; these distances will need to be increased if the use of an Overlay district is not utilized for Data Centers/Cryptocurrency/High Load Uses. The current distance from Industrial Flex and Industrial parcels to residentially zoned parcels and sensitive receptors need to be confirmed, it is not our intent to make these restrictions impossible to meet within the township's current zoning; the option for a variance may be appropriate should an existing IF/I parcel be located near an extremely low residential concentration area, a number should be set for low residential concentration, such as less than 5 residential homes.

Data Center, *Ancillary:* Data Centers that are ancillary to another primary use are a Permitted Principle Use in Research & Technology (RT) 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 business and are not used to lease data storage and processing services to third parties, c) are not housed in a separate, stand-alone structure on the parcel, and d) use no more than 5 MW of power, low power usage effectiveness (PUE), and incorporates cooling systems that do not utilize water.

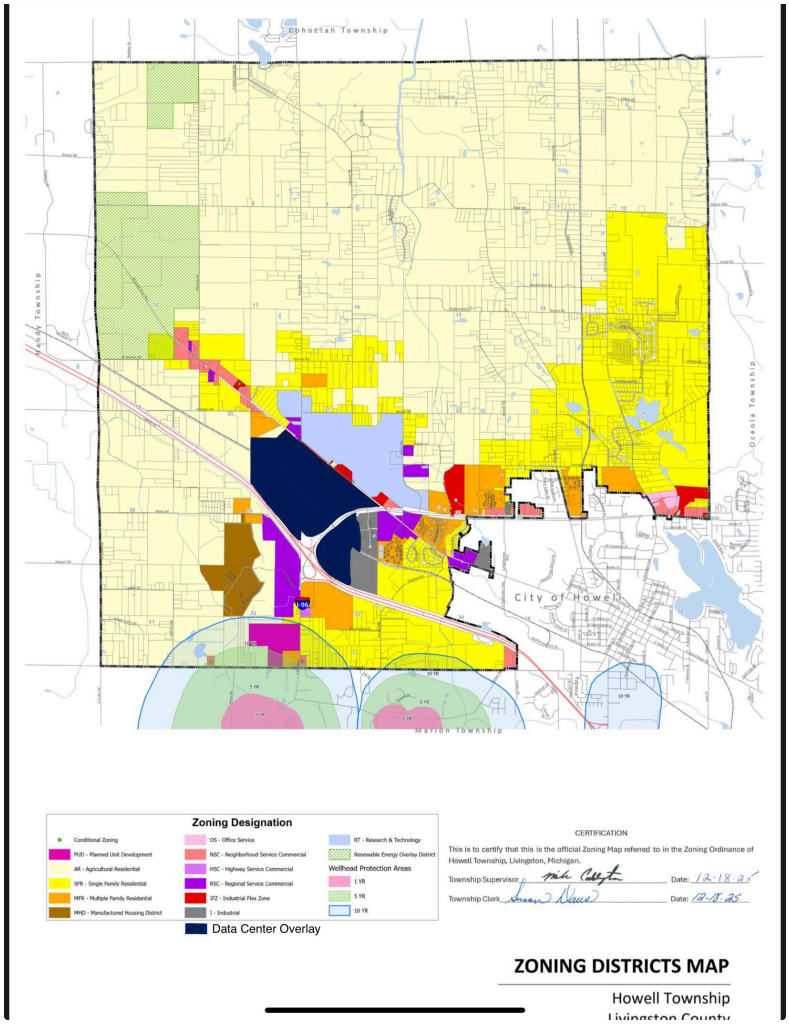
Data Center, *Minor:* Minor Data Centers shall be under 10,000 square feet (for all buildings and structures on the site), and shall require a Special Use Permit in either Industrial Flex (IF) or Industrial (I). If a Data Center development requires a substation, it shall be classified as a Medium Data Center. Minor Data Centers shall not abut residentially zoned land or land used/planned for a park, school, or medical care facility.

Data Center, *Medium:* Medium Data Centers shall be between 10,000 square feet and 99,999 square feet (for all buildings and structures on the site), and shall require a Special Use Permit in Industrial (I). Medium Data Centers shall not abut residentially zoned land or land used/planned for a park, school, or medical care facility. The minimum separation from any Medium Data Center property line and any residentially zoned property line shall be 1,325 feet, and the minimum separation from any sensitive receptor property line shall be at least 1,500 feet. A Medium Data Center property line shall be at least 500 feet from the property line of a Data Center Major, or Data Center Campus.

Data Center, *Major*: A Major data center shall be between 100,000 square feet and 499,999 square feet (for all buildings and structures on the site), and shall require a Special Use Permit in Industrial (I). Major Data Centers shall not abut residentially zoned land or land used/planned for a park, school, or medical care facility. The minimum separation from any Major Data Center property line and any residentially zoned property line shall be 1,500 feet, and from any sensitive receptor property line shall be at least 2,000 feet. Any Major Data Center property line shall be at least 500 feet from any property line of a Medium Data Center, another Major Data Center, and a Data Center Campus.

Data Center, *Campus:* A Data Center Campus shall consist of more than one Data Center building, and may be any combination of sizes of Data Center buildings, not to exceed 750,000 square feet total (for all buildings and structures on the site). Data Center Campuses shall require a Special Use Permit in Industrial (I). Data Center Campuses shall not abut residentially zoned land or land used/planned for a park, school, or medical care facility, and should be located adjacent to the Interstate. The minimum separation from any Data Center Campus property line and any residentially zoned property line shall be at least 2,000 feet and the minimum separation from any sensitive receptor property line shall be 2,640 feet. Any Data Center Campus property line shall be at least 2,000 feet from any property line of another Data Center Campus, and at least 500 feet from any property line of a Medium Data Center, and a Major Data Center.

The following map illustrates the suggested overlay district, in proximity to the highway, train tracks, and existing Industrial and Industrial Flex zoning. An overlay district should still require Special Use Permitting, and consideration for proximity to residential and sensitive receptors should still be accounted for in the ordinance. To avoid compounding impacts and financial concentration risk, the ordinance should limit the total number or total number of square feet of Data Centers and Cryptocurrency Mining Facilities allowed in the township. **It is <u>not</u> the intention of the RCC for this overlay district to allow the entire area to be composed of data centers or other high load uses.**



3. ADDITIONAL SITING REQUIREMENTS TO INCORPORATE:

- Land previously occupied/used for industrial, including brownfield site parcels, shall be prioritized for use first before rezoning minimally impacted land such as but not limited to residential or agricultural for future development.

- Existing parcels that meet zoning requirements shall be utilized for the development of Data Centers before expanding zoning districts.

- Only parcels that abut existing Industrial Flex (for Minor Data Centers) or Industrial (for Medium & Major Data Centers and Data Center Campuses) may be rezoned for Data Center development, no “spot zoning” shall be permitted.

Supporting Information & Research for the Above Requests:

As we discussed last month, there is a considerable amount of variance among different types of data centers, their uses, and their impacts. A strong ordinance that addresses these nuances provides opportunities for responsible development in ways that fit within the community's vision and protect the quiet and rural character residents value so highly. Although the Research and Technology district vaguely mentions data processing, it should not be a given that any and all forms of data processing belong in that district, especially in context of the timeline of data center evolution and the ordinance's intent at the time it was written.

To review the Research & Technology district's Purpose, it is stated, in Section 5.01, "The RT District is designed to recognize the growing **convergence of office, industrial and research in terms of function, location, appearance and activities**" (emphasis added). "Convergence" means: the act of coming together resulting in **similarities or uniformity among different entities**. Data centers, by design, do not share any functional activities in common with office or research uses. Data centers are automated buildings specifically designed for housing computer servers, often with massive, industrial-scale mechanical yards and cooling systems. There is virtually *no convergence* of stand-alone data centers with office buildings or research facilities.

It seems clear that there needs to be a distinction between the smaller-scale data centers of the past, those ancillary to other business operations that provide direct services to the community, and hyperscale facilities—especially purpose-built AI data centers and campuses. Other municipalities have done this by requiring facilities of different sizes or functions be zoned under different districts.

For example, Chandler, AZ distinguishes between ancillary data processing facilities and stand-alone facilities:

> 35-2214. Data Centers. (1) Data Centers are not permitted to operate in the City of Chandler unless explicitly approved as part of a Planned Area Development zoning district. Data Centers that are ancillary to another primary use are permitted 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.

Albemarle County, VA currently has a similar distinction in their ordinances:

> Sec. 5.1.65 Data center.
>
> A. Accessory data center.
>
> 1. Data center serving a permitted primary use is permitted as an accessory use if:
>
> a. The data center is on the same site as the primary use;
>
> b. The site's primary user operates the data center for its own data; and

c. The aggregate area devoted to the data center and its support systems and structures does not exceed 25% of the gross floor area of the primary use.

Albemarle County is also in the process of adding additional distinctions to their ordinances, creating different “Tiers” within their Data Center Overlay District, as well as distinguishing “by right” and “special use” based on facility size:

Section 30.8.3 Permitted Uses

1. Tier 1

a. By Right. The following uses shall be permitted by right in Tier 1 designated areas:

i. The uses permitted by right in the underlying zoning district.

ii. Data center up to 125,000 Square Foot footprint.

b. By Special Use Permit. The following uses shall be permitted by special use permit in Tier 1 designated areas:

i. The uses permitted by special use permit in the underlying zoning district.

ii. Data center over 125,000 square foot footprint.

2. Tier 2

a. By Right. The following uses shall be permitted by right in Tier 2 designated areas:

i. The uses permitted by right in the underlying zoning district.

ii. Data center up to 500,000 Square Foot footprint.

b. By Special Use Permit. The following uses shall be permitted by special use permit in Tier 2 designated areas:

i. The uses permitted by special use permit in the underlying zoning district.

ii. Data center over 500,000 square foot footprint.

Another locality that regulates data centers in different ways based on size is DeKalb County, GA. They distinguish four categories; from their website:

Data Centers are broken up into 4 categories based on size and energy needs:

- **Data Center, *Minor***: A physical room, building, or facility that houses infrastructure for building, running, delivering, or transmitting applications and services, or for storing and managing the data associated with those applications or services. Minor data centers shall be under 20,000 square feet and do not require a substation. A minor data center may include data centers as an accessory use if they are under 2,000 square feet.

- **Data Center, *Medium***: A physical room, building, or facility that houses infrastructure for building, running, delivering, or transmitting applications and services, or for storing and managing the data associated with those applications or services. A medium data center shall be between 20,000 square feet and 100,000 square feet.
- **Data Center, *Major***: A physical room, building, or facility that houses infrastructure for building, running, delivering, or transmitting applications and services, or for storing and managing the data associated with those applications or services. A major data center shall be between 100,000 square feet and 500,000 square feet.
- **Data Center, *Campus***: A singular development that has more than one (1) data center, or a physical room, building, or facility that houses infrastructure for building, running, delivering, or transmitting applications and services, or for storing and managing the data associated with those applications or services. A data center campus shall be a minimum of 500,000 square feet.

Their general zoning districts for the various sized data centers are as follows:

- **Office Institutional (OI)**: Minor data centers as an accessory use (under 2,000 square feet); Medium data centers with a SLUP, Major data centers with a SLUP and industrial land use.
- **Office Distribution (OD):** Minor data centers (permitted), Medium data centers with a SLUP, Major data centers with a SLUP and industrial land use.
- **Light Industrial (M):** Minor data centers (permitted), Medium data centers (permitted), Major data centers with a SLUP and industrial land use, Campus data centers with a SLUP and industrial land use.
- **Heavy Industrial (M-2):** Minor data centers (permitted), Medium data centers (permitted), Major data centers with a SLUP and industrial land use, Campus data centers with a SLUP and industrial land use.
- Major and Campus data centers will not be permitted on parcels with any Future Land Use other than Light Industrial or Industrial.

There are many other examples of municipalities regulating data centers in a variety of ways to address the diverse range of impacts data centers of different types and sizes may impose on the surrounding area. It seems reasonable, then, to utilize a similar strategy in Howell Township. Given the context and purpose of the current RT zoning, it seems reasonable to interpret “data processing” as the on-site, largely CPU-based server rooms utilized by medical centers, banks, software developers, and

research centers, similar to how Chandler, AZ and Albemarle, VA allow them to be incorporated within the primary building of another industry.

The size of these on-site “data centers” (often referred to as “Technology Equipment Rooms” within medical centers) varies with the size of the primary use facility. In terms of medical facilities, they often range from 1,000 to 2,500 square feet. Businesses’ on-site server rooms are often approximately the same size. Universities, such as the University of Michigan, also utilize data processing facilities or rooms of varying sizes; U of M has a modular unit that is 1,000 square feet and consumes 1 MW of power, while Syracuse University has one which is larger, at 6,000 square feet, but uses less power—only 450 kW. Businesses and Universities also utilize larger, stand-alone buildings to house their servers. These are the still-relatively unimposing types of buildings that have existed for decades without much issue, and may range in size from 5,000 square feet to 60,000 square feet.

Our society and economy is increasingly dependent on cloud computing—and the data processing facilities required to provide these services and data storage. As the Artificial Intelligence sector grows, too, technology companies are seeking to continue building the facilities required to meet this demand. Of course, from their perspective, the idea of “economies of scale” is appealing; the more servers they can fit in one facility or campus, the better for their bottom line. However, multi-billion dollar corporations’ bottom lines are not Howell Township’s primary concern. It is the township’s responsibility to ensure any tech growth and development takes place in a responsible way that fits within the community, with minimal impact to the residents and way of life that is highly valued here.

As such, the township will benefit from creating different “tiers” or classifications of data centers based on size and function, as other localities have done in their ordinances. Based on that precedent and the information provided above, it seems reasonable to allow only the smallest, least-impactful sizes or types “by right” as an accessory/ancillary use, and all others with a Special Use permit in another district. Special Use zoning is intended for unique purposes which must be, per Section 16, “carefully regulated”, “on account of their **actual or <u>potential</u> impact** on neighboring uses or public facilities”. In light of how rapidly technology is evolving, requiring all stand-alone data centers to receive Special Use permitting will ensure the ever-changing infrastructure and impacts required will still be compatible with the intent of the zoning districts and area. For reference: animal shelters, gas stations, and tow yards all constitute “special uses” in our zoning book. Any data center, but especially an AI data center, dwarfs the actual and potential impacts of any of those other “special uses”; **A single entity which has the potential to consume more power and water than the entire township absolutely demonstrates a “potential impact”** on “public facilities” and qualifies as requiring SU zoning, too.

As discussed, stand-alone, hyperscale, and AI data centers do not appear to fit within the stated purpose of the RT district at all. Industrial Flex (IF) may be a reasonable district to site smaller-scale, stand-alone facilities, though a SUP would be important to ensure compatibility with their individual

required infrastructure. As for larger, hyperscale facilities, AI facilities, and data center campuses, to glean insight about the type of land-use implications data centers of this nature would bring, it would be helpful to see how a developer of these facilities would choose to define their own facilities. From the application for a text amendment from Stantec, Inc, their definition reads:

> A facility or facilities used to house, and in which are operated, maintained and replaced from time to time, computer systems and associated components, including but not limited to telecommunications and storage systems, cooling systems, power supplies and systems for managing property performance (including generators and mechanical and electrical yards), and equipment used for the transformation, transmission, distribution and management of electricity (including private substations), internet-related equipment, data communications connections, private communication towers, environmental controls and security devices, structures and site features, as well as certain accessory uses, buildings or structures located on the same lot such as utility buildings, offices, warehousing, cafeteria, guardhouses, diesel storage tanks, water storage tanks, security fencing, and other similar structures, improvements and appurtenances.

When you read the language of the developer's proposed definition of "data processing (facilities/centers)", presumably with specific regard to the purpose-built AI data center they were proposing, there are many features that stand out:

Developer Definition	Industrial PPU's
Electrical yards	Electrical machinery, equipment, and supplies
Cooling systems, power supplies; water storage tanks; communication towers; electrical substations; diesel storage and generators; water treatment facilities	General Industrial Machinery and Equipment
Computer systems and associated components	Electronic components and accessories; computing machines
Warehousing	Warehouses

The language is practically verbatim. Comparing their definition of data centers with the uses for RT vs Industrial, it seems clear Industrial zoning is a much better fit for hyperscale and AI data centers. **To reiterate: all stand-alone data centers still ought to be considered a Special Use,** as their potential impacts are magnitudes greater than any of the other current uses requiring a Special Use permit. Therefore, facilities of this nature ought to be listed as a Special Use under Industrial Zoning.

Another point to consider about the merits of Industrial zoning for this use, is that Howell Township's master plan clearly states that Industrial zoning must be buffered from residential zoning by other lower-impact districts such as Industrial Flex and Commercial. (The fact that IF and Commercial

districts can abut residential zoning is precisely why they would be inappropriate candidates for siting most data centers—especially large ones). Given the enormous amount of cooling equipment hyperscale data centers—and particularly AI data centers—utilize, the constant, tonal noise emitted by the cooling systems is a reoccurring problem for residential neighborhoods bordering data centers across the country. Our master plan rightfully recommends mitigating the impact of industrial uses by ensuring there is adequate buffering with other zones (not **just** setbacks and landscaping) to protect township residences from those sorts of impacts.

There are a number of localities that consider data centers to be Industrial uses, including DeKalb County, GA as noted above. Others include Prince William County, VA (via an overlay district located in their Industrial zoning), Altoona, IA, Port Huron Township, MI, and Garden City, MI. Loudoun County, VA is known as “data center alley”, and has hundreds of data centers of all sizes. They have made news recently as there is growing conflict in their county between the sprawl of these data centers and the impacts they are having on residential zoning. Loudoun County, as recently as 2025, adopted some amendments and revisions to their ordinances to address these problems. They now designate data centers as a **conditional use** in their General Plan, and in their ordinances they require **Special Exemption approval** for the **Industrial Park, General Industry, and the Mineral Resources-Heavy Industry** districts. If any municipality could be considered well-versed in data center impacts, it would be Loudoun. While they are still revising their ordinances to adequately regulate these facilities, their new zoning designations reflect the nature of these facilities, and we encourage Howell Township to learn from their mistakes and ensure these facilities are recognized and regulated as the high-impact, heavy-industrial facilities that they are.

While a Special Use Permit will help ensure compatibility with the surrounding area, there are other things the township can include in their ordinances to further protect the community—especially residential properties—from potential negative impacts. Fauquier County, VA, contains a section explicitly to ensure compatibility with their community:

C. Compatibility

1. Data Center Development should be compatible in scale, both size and height, and intensity to the surrounding area.
2. Data centers should not be located contiguous to residentially zoned land or land used or planned for a park, school, or medical care facility.

They also include language protecting scenic viewsheds or Byways.

Another way to ensure compatibility with the surrounding area, is to limit the total square footage of development, and/or the power usage of the development. Albemarle County, VA, caps the maximum size of their larger-tiered data centers to 500,000 square feet. Jackson County, MI, defines Accessory

Small Data Centers as being limited to 1-5MW of power, and requires them to have a low power usage effectiveness (PUE), and incorporate zero-water cooling systems.

While not as common as setting minimum lot sizes, or establishing maximum development ratios, there is zoning precedent for setting an explicit, maximum limit to building sizes. Fenton, MI does so in Article 14, where they restrict the Special Use of “Adult Entertainment” to a maximum of 5,000 square feet. Many communities have restrictions on the maximum size of large, commercial developments. The reason is, of course, to minimize negative impacts from noise, traffic, and loss of community character. Nags Head, NC bans stores larger than 50,000 square feet; Santa Fe, NM limits retail stores to 150,000 square feet.

One reason it would be wise to limit the maximum size or the number of data centers is simply a matter of compatibility. As Fauquier County’s ordinance (mentioned above) states, data centers should be compatible in size and intensity to the surrounding area. Howell Township is a relatively small and rural community; large, industrial development is simply incompatible with the general community. Another, more tangible reason to limit the maximum size is related to financial concentration risk. Data centers provide high-density storage for servers—and these servers are the most valuable piece of the property. The larger the facility, the more servers they can fit. On the surface, it seems like the more servers, the more property value, the more tax revenue…which seems like a good thing. Indeed, the sizable potential tax revenue was an appealing factor of the previously-proposed hyperscale, AI campus. However, there *is* “too much of a good thing”. Howell Township is a small township with low-density residential population of approximately 8,000 residents, and a relatively modest commercial and industrial presence. A single, large taxpayer may seem like an ideal way to provide more resources for the community, but there is always the risk of that entity leaving. Our neighbor, Flint, MI, is a case-in-point. When General Motors began shutting down its plants in Flint, it slashed the tax base dramatically—contributing to the financial crisis of the city. When a single industry comprises a significant source of tax revenue, it places the municipality in a precarious financial situation. Given the potential AI “bubble”, and the fact data centers have an average lifespan of approximately 15-20 years, it is not a good idea to rely on them to provide a significant portion of the township’s revenue, because if (and when) they close up, the township’s revenue (and therefore budget) will be drastically cut—much like Flint’s. Township finances are most similar to businesses (as opposed to investments funds or banks). It is generally considered a “financial concentration risk” for a business to receive more than 10-15% of their revenue from a single customer, and it is considered a “high risk” at more than 20% of revenue. Therefore, given the township’s fiduciary duty to their residents, it is important for the township to be mindful of the risks of allowing large developments that provide such a significant source of tax revenue. By limiting the square footage of these facilities, the township can keep the tax revenue generated within—or at least much closer to—a reasonable share. (For context: without property tax abatements, the previously-proposed data center would have comprised more than 80% of the township’s tax revenue at full build-out—an astonishingly risky financial situation)!

An additional consideration for siting of data centers is “sprawl prevention”. It is typical for one data center to “attract” others, and the cumulative impacts can compound quickly. Oldham County, KY specifies there must be setbacks of more than 1,320 feet (a quarter mile) between the property lines of two data centers, and at least 1,000 feet between property lines of battery storage systems, generators, and substations. This inherently limits the total number of data centers that can be developed in their area. Closely related to sprawl prevention is the problem of “spot-zoning”. When non-contiguous parcels get zoned for different uses, there is a very real risk of adjacent parcels being incompatible and, importantly, benefiting one landowner to the detriment of the others. For example, millions of square feet of industrial data center buildings—and their mechanical yards, electrical substations, and water treatment facilities—being situated in the middle of nearly all of the townships’ Agricultural/Residential-zoned area. Such a situation would clearly benefit the data center landowners (both those selling to the developers, and the end-user/owner of the data center facilities), and be a detriment to the surrounding residential property owners, as the data center does not provide any community benefit to them, and only brings harm. It follows, too, that by allowing additional parcels to be rezoned in non-contiguous patterns, it hastens the general sprawl of *any* Industrial growth which may rapidly change the community’s character in unintended (and undesired) ways.

Grand Rapids, MI states on their website that if the owner of a single parcel wishes to rezone to a district that is not in-line with the surrounding parcels, that they need to consult with the surrounding landowners and likely get them to agree to rezone their parcels as well, to avoid illegal spot-zoning. Eastpointe, MI, in their ordinances (Section 14.04, E, 5) stipulates that one of the factors for approving a rezoning application is that it “Will not create an isolated or incompatible zone in the city”. Stockbridge Village, MI, in Section 6-330, places a fairly high burden on applicants to prove that they cannot receive a reasonable return on investment with any of the permitted uses under the existing uses, and that there is apparent demand within the Village for the new use, in relation to the amount of land currently zoned being able to accommodate demand for the use. These types of ordinance stipulations can help ensure that data center development—a potentially high-impact land use which does not provide much, if any, community benefit beyond tax revenue—does not grow to unreasonable proportions thereby negatively impacting the community’s character and residential quality of life, and that the scale of the proposed rezoning is necessary and compatible with the area.

Another way to prevent sprawl (and to preserve agricultural land), is to prioritize use of “brownfield” sites over development of vacant, undeveloped land. Oldham County, KY includes several location stipulations, including (in section 5., c., 4.)

“The site and structures shall be located to: …Make use of brownfield sites, or similar, where possible;…”.

DeKalb County, GA, employs a similar strategy in Section G., Special Land Use Permit requirements, where they waive some permitting requirements in the instance of redevelopment, reuse, renovation, or reconstruction of previously-developed Industrial sites.

Finally, to prevent sprawl and to ensure data centers remain sited within reasonable areas of the township where impacts to residential properties can be minimized, it may be useful to create a Data Center/Cryptocurrency/High Load Use Overlay district for the non-ancillary Data Center facilities. Many other municipalities have implemented this strategy, including Albemarle, VA, Prince William County, VA, and Middlesex Township, PA. These overlays help confine Data Center and Cryptocurrency development to appropriate parcels within the township. Should Howell Township utilize this approach, the Resident Research Committee recommends the district be situated in the areas designated on the map included in this report. The area indicated on the map is already zoned Industrial and Industrial Flex (a few Regional Service Commercial parcels were included, because of their location at the intersection of M-59 and I-96), making the overlay district compatible with the premise behind the districting and tier chart. The overlay's ordinance could further sub-divide the area to designate where the different tiers of data centers could be located within the overlay. This strategy is utilized in Albemarle, VA, they have various sizes permitted with special-use-permits within different sections of their overlay district. The RCC wishes to be clear that although the overlay district appears comparable in size to the airport, the size restrictions of data centers and distancing from other data centers remain crucial. **It is <u>not</u> the intention of the RCC for this overlay district to allow the entire area to be comprised of Data Centers, whether it be one campus of hyperscalers, nor dozens of smaller facilities.** Therefore, if the Planning Commission wishes to utilize an overlay to help identify an appropriate area for Data Center development, we strongly encourage them to include robust regulations on size, concentration, and buffering—such as those we have recommended above— to prevent the detrimental impacts of high-density data center development.

We feel the above tiers, districts, permits, and siting stipulations would establish a solid foundation to ensure Howell is able to reasonably accommodate data centers that provide essential support to other business functions that directly serve the community, as well as provide opportunity for technology investment in the township, without imposing undue harm on local residents or public utilities, or allowing an influx or clustering of several data centers. Towns without specific rules like these are experiencing an overwhelming amount of conflict in their communities, as dozens of data centers are negatively impacting neighboring residences. By proactively accounting for compatibility in both scale and intensity with the surrounding area, like Fauquier County does, Howell Township will hopefully avoid most of those conflicts while still allowing responsible data center development.

Another item discussed at the 12/16/2025 PC meeting was why the definition for a data center, or an industry definition, should not include a list of items or specific uses/processes. Following is more information and supporting research for why.

The previously proposed definition provided as a text amendment request from Stantec Consulting Michigan is concerning when we compare it to other ordinance industry definition examples for Data Centers/Data Processing Facilities (please note we've already addressed in separate discussions the inappropriateness of trying to list the definition of a "data processing facility" under the term "data processing", a different term with its own definition) and when we look into what an ordinance definition should be comprised of.

For comparison to the previous proposed definition, let's look at the following examples.

> Per Merriam-Webster Dictionary…
> **Data Processing Facility** - A data processing facility refers to the physical location—a building, dedicated space within a building, or group of buildings—that houses the people, hardware, and software organized to provide these information processing services.
>
> Per Cohoctah's Cryptocurrency Data Mining Facilities and Data Centers Ordinance…
> **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.

When considering what should and should not be included in an industry definition for ordinances we should look for precedent, prioritize our ability to review and approve items and specific uses/processes, including with main and ancillary equipment, and avoid language that would limit the township and residents in the future.

1. Current Zoning Book Precedent:

   Our own Howell Township Zoning Book sets a precedent that should also be followed when it comes to industry definitions. Our current zoning book does not list specific items used by an industry for other definitions. This precedent should be maintained.

   - For example, in our zoning book "water park" specifies what water features constitute a water park, but does not enumerate all the equipment and machinery utilized in operating the facility, such as water filtration systems.
   - In our zoning book "restaurant" defines the activity that occurs on the premises, and lists synonymous terms. Notably absent is any mention of commercial ranges, commercial grade refrigerators, ventilation systems, hoods, and exhaust fans, etc.
   - In our zoning book "laboratory" describes the type of study and operations that occur, but does not list any of the capital that may be required to facilitate their operations.

   In following our zoning book precedent, a "data processing facility" should only be defined as a means to describe the nature of the use—housing computing servers—and should **not** list out all the additional equipment, machinery and capital that such facilities may require in order to carry out their function.

2. Exclusion of Unlisted Uses:

   Zoning ordinances in Michigan historically have followed a prohibitive trend, where unlisted uses are not allowed. This exclusion of unlisted uses is intended to limit use to that which is specifically approved. By an industry trying to include in its definition a long list of items, capital or uses/processes, it is hoping for automatic approval / consent of the said items and uses since they would be approved along with the approval of the industry definition itself, codified into the ordinance. This places the township in a difficult position should it need to limit those listed items or uses in the future.

3. Rapid Obsolescence:

   Another topic of consideration needs to be the ever evolving nature of industry, especially that of technology, which regularly experiences rapid obsolescence. A detailed list of items and processes included with an industry definition can quickly become outdated as new materials, equipment and methods emerge.

Ultimately the inclusion of items, machinery, capital and some specific uses/processes in an industry definition risks approving uses not fully considered nor approved through the proper processes, can limit the township to language that quickly becomes outdated, does not follow our own precedent and is unnecessary red tape for the township and residents to have to navigate in the future and therefore should be avoided wherever applicable.

Respectfully,
The Howell Township Resident Research Committee

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