

GREENFIELD DATA CENTER SITES

Qualified Locations in Sheboygan County



SHEBOYGAN COUNTY, WISCONSIN – DO MORE



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ATTACHMENTS

- A – Qualified Locations of Data Center Sites in Sheboygan County
- B – Natural Gas Utility Service Areas
- C – CLEC Map
- D – ATC Power Transmission Map
- E – 3-Mile Cluster Substation Map
- F – Electric Utility Service Areas
- G – Detailed Town of Sheboygan Qualified Sites Map
- H – 10-Acre Qualified Locations Map
- I – Opportunity Analysis Data Centers in the New North

ABOUT THE DATA CENTER GREENFIELD SITE SEARCH

The Sheboygan County Economic Development Corporation (SCEDC) was contacted by the New North whom with its partners, WE Energies, Kimberly-Clark, BURR Computer Environments, and Wisconsin Public Service, believes that north-eastern Wisconsin has geographic advantages to accommodate data center operations. The New North's explanation of the area's natural advantages for data center operations is attached at the end of this report (see Attachment I entitled: *Opportunity Analysis Data Centers in the New North.*)

The New North provided a list of criteria for a data center, explained on the next page. The SCEDC has analyzed these requirements and has identified several parcels matching the majority of criteria as well as identified an area of Sheboygan County that has the highest potential for a data center, given the New North's criteria.

The SCEDC would like to thank the Sheboygan County Planning Department for their assistance in this analysis.

ABOUT SHEBOYGAN COUNTY, WISCONSIN

Sheboygan County is located in east-central Wisconsin, along Lake Michigan between Milwaukee and Green Bay. Manufacturing, agriculture, education, and a strong work ethic are core elements of Sheboygan County's economy.

Sheboygan County has many world-class amenities to offer businesses, residents, and visitors. Communities within have been ranked as the best place to raise a family, the #1 hometown in the USA, one of the best places to retire, and one of the best small places for business and careers over the last 20 years. With all of these accolades, you are sure to find Sheboygan County a spectacular place to simply do more.



Learn what makes us unique at www.youtube.com/SheboyganCountyEDC.

ABOUT THE SCEDC

The Sheboygan County Economic Development Corporation (SCEDC) is a non-profit public/private partnership with the goal of increasing jobs and investment in Sheboygan County, Wisconsin. We have been successful in this effort by leading initiatives to support business and community development, forging strong strategic partnerships with key local and regional organizations, assisting businesses one-on-one with a variety of short and long-term needs, and providing the most accurate up-to-date information available to our clients and stakeholders.

Learn more at www.SheboyganCountyEDC.com.

GREENFIELD DATA CENTER SEARCH CRITERIA

The New North provided the following list of criteria used to identify “qualified sites” or sites that met the stated criteria in Sheboygan County.

Primary Characteristics:

- The site must be for sale
- The site must be at least 10 acres—with the capability to expand to 30 acres
- The site must have access to water
- The site must have access to natural gas
- The site must have access to electricity
- The site must have access to sewer and sanitation
- The site must have telecom carrier neutrality (more than one telecommunication provider)
- The site must have fiber-optic network availability
- The site cannot be in a 100 year flood plain
- The site must be at least ½ mile away from a railroad
- The site must be at least ¼ mile away from a highway
- The site must be at least ¼ mile away from any heavy manufacturing activity
- The site must be at least 20 miles away from a nuclear facility

Secondary Characteristics (Preferred):

- The site receives electricity from two separate feeds, from two separate substations
- The site has dark fiber-optics available (unused extra fiber on the same path as existing)
- The site is not located on a commercial airport flight path
- The site is located at least ½ mile away from an identified electromagnetic interference
- The site has dual water feeds
- The electrical lines are buried underground

Please indicate the following:

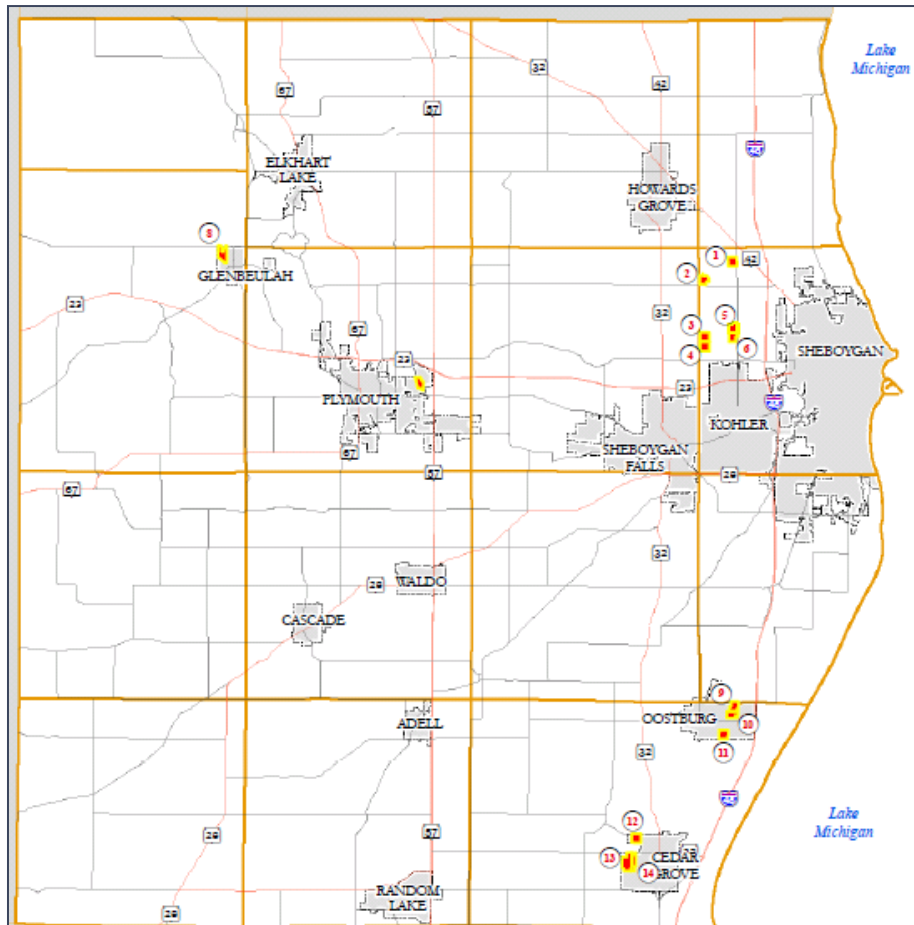
- Please indicate if the property is eligible for local incentives
- Please indicate zoning details
- Please indicate any environmental issues or concerns

Most of these criteria were analyzed to form a list of qualified sites as well as identify the area of the County most suited for a data center. It is recommended that any business looking to locate a large data center in Sheboygan County talk with the owners of qualified sites identified herein. The SCEDC has not contacted with these property owners to gauge interest in selling their properties for a data center use.

Qualified Site Definition – Parcels that meet the New North’s criteria for a data center in Sheboygan County, Wisconsin.

MAP AND LIST OF QUALIFIED SITES

Below is a map and list qualified sites in Sheboygan County. A more detailed map is attached (See Attachment A entitled: *Qualified Locations of Greenfield Data Center Sites in Sheboygan County, Wisconsin.*)



Map of 30-Acre Qualified Sites in Sheboygan County

List of Qualified Sites				
Qualified Greenfield Data Center Sites in Sheboygan County, Wisconsin				
Map Number	Parcel Number	Acres	Site Address	Municipality
1	59024342730	30.9	COUNTY ROAD Y	TOWN OF SHEBOYGAN
2	59024342830	35.3		TOWN OF SHEBOYGAN
3	59024349170	40.0	N6327 RANGELINE RD	TOWN OF SHEBOYGAN
4	59024349411	40.0	N6225 RANGELINE RD	TOWN OF SHEBOYGAN
5	59024349030	33.9	COUNTY ROAD Y &	TOWN OF SHEBOYGAN
6	59024349121	32.7	COUNTY ROAD Y	TOWN OF SHEBOYGAN
7	59271827939	34.5	CARR RD	CITY OF PLYMOUTH
8	59131611960	56.2		VILLAGE OF GLENBEULAH
9	59165719400	35.0	MINNESOTA AVE	VILLAGE OF OOSTBURG
10	59165719480	36.6		VILLAGE OF OOSTBURG
11	59165719690	39.3	SOUTH AVE	VILLAGE OF OOSTBURG
12	59112551865	40.0	W2773 COUNTY ROAD G	VILLAGE OF CEDAR GROVE
13	59112555480	67.0	PALMER RD	VILLAGE OF CEDAR GROVE
14	59112555450	35.4	W UNION AVE	VILLAGE OF CEDAR GROVE

LIMITS OF SITE EVALUATION

The site must have access to natural gas: Due to security restrictions, utilities are unable to provide a detailed natural gas distribution map. There are two utility service providers of natural gas in Sheboygan County, WE Energies and Wisconsin Public Service (WPS). A map of the natural gas utility service areas is attached (see Attachment B).

The site must have fiber-optic network availability: Due to the similar security restrictions mentioned above, a map of fiber-optic networks, hubs, and “dark” fiber is not available. The more prominent telecommunication providers in Sheboygan County are listed below, although additional area service providers do exist.

- Wisconsin Independent Network
- AT&T
- Charter Communications
- Frontier North (Verizon)
- Time Warner Cable
- Wisconsin Bell
- TDS Telecom

PRIMARY SITE CRITERIA EXPLAINED

Site is for Sale: This study is a top-down approach to identify areas in Sheboygan County that have a natural advantage for the development of a data center. As a result, the listing of land by a broker was not considered in this report. The parcels identified above are not currently listed for sale, but have the potential to be sold for development.

30 Acre Site: All qualified sites meet this criterion.

Access to Water: All sites lie within a municipal water utility service area. A property’s inclusion in a service area does not guarantee the property is serviced by the water utility. It does mean that a water utility has the capability and intention to serve the property.

Access to Sewer and Sanitation: All qualified properties lie within a sanitary service district. A property’s inclusion in a service area does not guarantee the property is serviced by the sanitary utility. However, it does indicate that a utility has the capability and intention to serve the property.

Site has Telecom Carrier Neutrality: All sites are serviced by three or more telecommunications providers according to the Wisconsin Public Service Commission. A Competitive Providers Service Location map entitled *Wisconsin Areas with CLEC* or competitive local exchange carriers is attached (See Attachment C.)

Site Cannot be in a 100 Year Flood Plain: All qualified sites meet this criterion.

Site is More Than ½ Mile From a Rail Line: All qualified sites meet this criterion.

Site is More Than ¼ Mile From a Highway: All qualified sites meet this criterion.

Site is More Than ¼ Mile from a Heavy Manufacturer: All qualified sites meet this criterion. The SCEDC defined heavy manufacturing as foundries and other high-energy users. The companies considered to be heavy manufactures in Sheboygan County are: Kohler Company, JL French, Bemis Manufacturing and Willman Industries.

Site is More Than 20 Miles from a Nuclear Facility: All qualified sites meet this criterion.

SECONDARY CRITERIA EXPLAINED

Electricity from Two Separate Substations: American Transmission Company (ATC) operates all transmission lines within Sheboygan County. ATC has provided a map of all substations (see Attachment D: *Electric Transmission Network & Substations*). In addition, to show the clustering of substations, a map with 3-mile radius zones around these substations was created (See Attachment E: *Electrical Substation Locations around Plausible Locations of Greenfield Data Center Sites*). Also attached is the map entitled: *Wisconsin 2010 Electric Utility Service Territories* (see Attachment F) to identify electric utility service providers in the area.

Site is not located on a commercial airport flight path: All qualified sites meet this criterion. Sheboygan County's airport, Sheboygan County Memorial Airport (SBM), is not classified as a commercial airport.

Site is located at least ½ mile away from an identified electromagnetic interference: All qualified sites meet this criterion. The only known electromagnetic interferences are two power generation facilities, operated by Alliant Energy. No other sources of electromagnetic interference were identified.

Site has dual water feeds: No area of Sheboygan County has two water utility service systems abutting one another that draw water from different sources. Other options such as looping water lines and a separate well for the facility can be discussed with the local water utilities. For this analysis, the presence of two different water sources was not considered.

Electrical lines are buried underground: There are no known underground electrical transmission lines in Sheboygan County. The ability to bury electrical lines to the site can be discussed with the local utilities and governments.

ADDITIONAL CONSIDERATIONS

Planning: Several communities have comprehensive plans identifying future land use. Several qualifying parcels were removed from consideration, as use identified on the respective community's future land use map was incompatible with a data center use.

Proximity to Residential Areas: Many parcels were removed because of proximity to existing residential subdivisions. The majority of qualified parcels removed for this reason were located in the Town of Sheboygan.

SHEBOYGAN COUNTY ADVANTAGES

Sheboygan County has several key advantages for a data center operation explained below.

- Alliant Energy, operator of the two power plants in Sheboygan County, has expressed interest supplying power to data centers prior to the New North's inquiry.
- Sheboygan County has several electric transmission lines owned by American Transmission Company (ATC). ATC will be upgrading its transmission capabilities across the northern half of Sheboygan County in the next few years under a project called "Barnhart-Branch River Electric Reliability Project." Many substations draw power from different transmission lines, providing further security for the duplication of electrical power.
- Most of Sheboygan County's water supply is surface water from Lake Michigan. The communities of the City of Sheboygan, Town of Sheboygan, Village of Kohler, and City of Sheboygan Falls all receive water from the lake. By sharing this resource and systems they have created an effective economy of scale resulting in very competitive water rates.

FINANCIAL INCENTIVES

No site is excluded from local financial incentives or assistance from local governments. Each project in Sheboygan County is judged by employment creation, capital investment, and anticipated economic impact. Please contact the Sheboygan County Economic Development Corporation to discuss details of the project and availability of financial assistance.

CONCLUSIONS

The best location for a data center in Sheboygan County, given these criteria, is in the western half of the Town of Sheboygan. More qualified sites arose in this geographic area than in any other in the County. For a detailed map of the Town of Sheboygan see Attachment G: *Detailed Map of Plausible Locations of Greenfield Data Center Sites in the Town of Sheboygan*.

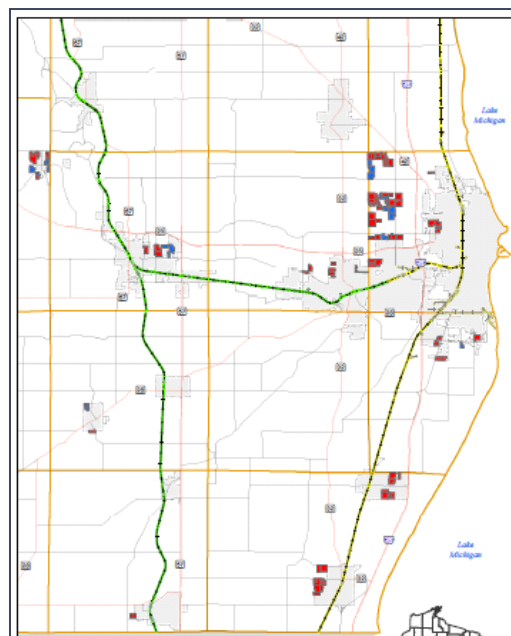
It is important to note that proximity to electrical substations was not taken into consideration when identifying qualified sites. To our surprise, many substations are located in relative close proximity to the Town of Sheboygan, further solidifying this area's strong potential for a data center site. The Town of Sheboygan has plenty of duplicate power options, raw land for development, located within a water and sanitary district, has no disruptive transportation systems, or heavy industry.

These attributes also lends the Town of Sheboygan's greatest challenge to the development of a data center. The Town of Sheboygan is one of the fastest growing residential areas in Sheboygan County. Many subdivisions have recently been built. Finding a location that does not adversely impact existing residential areas will be a challenge for a well positioned data center.

Several other locations may also prove useful for the development of a data center. Qualified sites exist in the communities of Plymouth, Glenbeulah, Oostburg and Cedar Grove. In addition, the Town of Sheboygan Falls may offer additional sites as Sheboygan County is planning to build a high-efficiency well to service the Sheboygan County Memorial Airport and surrounding businesses.

Also, qualified sites in this report had to be 30-acres. Numerous other developable sites exist if parcel size is reduced to from 30 to 10 acres as seen in the attached map, *10-Acre Qualified Locations Map* (see Attachment H) and below. Please note that the items under "Additional Considerations" section were taken into account when identifying these smaller sites.

The Sheboygan County Economic Development Corporation looks forward to working with the New North, its partners, and prospective investors to accommodate data center uses in Sheboygan County, Wisconsin.



Map of 10-Acre Qualified Sites in Sheboygan County