

Fox River Valley Industrial Properties Intensive Survey



*Stacks of logs at the Thilmany Paper Company Plant,
Kaukauna, c.1950. WHS Image ID: 82885*

Prepared By

Legacy Architecture, Inc.
605 Erie Avenue, Suite 101
Sheboygan, Wisconsin 53081

Prepared For

Wisconsin Historical Society
State Historic Preservation Office
816 State Street
Madison, Wisconsin 53706

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Acknowledgments

The following persons or organizations assisted in completing this project:

Legacy Architecture, Inc.

Jennifer L. Lehrke, Principal Historic Preservation Consultant
Rowan Davidson, Historic Preservation Consultant
Leila Saboori, Historic Preservation Institute Intern
Robert Short, Historic Preservation Consultant
Gail Biederwolf, Administrative Services Coordinator

Wisconsin Historical Society State Historic Preservation Office

Daina J. Penkiunas, State Historic Preservation Officer
Joseph R. DeRose, Survey & Registration Historian
Amy D. Wyatt, Historic Preservation Specialist
Felipe Avila, GIS Coordinator

Wisconsin Department of Revenue

Kurt Keller, Supervisor
Judy Lara, Operations Program Associate

City of Green Bay

Alex Drews, Appraiser II

City of Kaukauna

Allyson Watson Brunette, Principal Planner
Jason Holmes, Planning/Engineering Technician

City of Appleton

DeAnn Brosman, Assessor
Matt Tooke, Property Assessor

City of Menasha

Joe Stephenson, Associate Planner

City of Neenah

Brad R. Schmidt, Deputy Director
Cassie Kohls, Assessment Technician

City of Oshkosh

Jan Rogers, Office Assistant

City of Fond du Lac

Linda Baxter, Property Appraiser II

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Executive Summary

The Wisconsin Historical Society's State Historic Preservation Office (SHPO) undertook a campaign to fund the Milwaukee Industrial Properties Intensive Survey which was conducted by Mead & Hunt, Inc. in 2015-2016. Spring boarding on its success, the SHPO undertook a second campaign to fund a similar intensive survey of architecturally and historically significant industrial properties in the Fox River Valley, including the communities of Green Bay, Kaukauna, Appleton, Menasha, Neenah, Oshkosh, and Fond du Lac. The purpose of this survey was not to write a definitive history of the Fox River Valley, but rather to provide an overview of the history of the region with specific emphasis on industry. The major objective of the project was to identify individual resources, complexes, and historic districts that are eligible for listing in the National Register of Historic Places, and, therefore, eligible for federal and state historic tax credits. The availability of these financial incentives makes these resources, complexes, and historic districts attractive for reinvestment and rehabilitation for continued use.

The survey was conducted by Legacy Architecture, Inc. during a period of four months, beginning in May 2019 and concluding in August 2019, according to guidelines described in SHPO's *Survey Manual*. The project scope was defined in consultation with the SHPO to include all pre-1980 buildings currently identified on city zoning maps as industrial. The survey consisted of four major work components: 1) reconnaissance survey, 2) historic research, 3) evaluation of resources, and 4) intensive survey report.

The Fox River Valley Industrial Properties Intensive Survey identified approximately 290 resources of architectural and historical interest, including 20 individual resources, six complexes, and one historic district that are eligible for listing in the of Historic Places, as well as one proposed expansion of an existing National Register-listed historic district.

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Methodology

Introduction

The Wisconsin Historical Society's State Historic Preservation Office (SHPO) undertook a campaign to fund the Milwaukee Industrial Properties Intensive Survey which was conducted by Mead & Hunt, Inc. in 2015-2016. Spring boarding on its success, the WHS undertook a second campaign to fund a similar intensive survey of architecturally and historically significant industrial properties in the Fox River Valley, including the communities of Green Bay, Kaukauna, Appleton, Menasha, Neenah, Oshkosh, and Fond du Lac. The purpose of this survey was not to write a definitive history of the Fox River Valley, but rather to provide an overview of the history of the region with specific emphasis on industry. The major objective of the project was to identify individual resources, complexes, and historic districts that are eligible for listing in the National Register of Historic Places, and, therefore, eligible for federal and state historic tax credits. The availability of these financial incentives makes these resources, complexes, and historic districts attractive for reinvestment and rehabilitation for continued use.

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Reconnaissance Survey

The survey scope was defined in consultation with the SHPO to include all pre-1980 buildings currently identified on city zoning maps as industrial (including General Industry, Light Industry, Industrial, Industrial Park, General Industrial, Heavy Industrial, Urban Industrial, and Industrial – Business Park zoning districts), excluding properties already listed in the National Register or contributing to a National Register historic district. Noncontributing industrial, mill, or warehouse resources in historic districts were resurveyed to document if they might now be considered contributing to the historic district or be individually eligible. During the course of the project, any buildings discovered that were clearly industrial historically, but were currently zoned otherwise, were also surveyed.

Certain historic uses that are sometimes located in industrial areas were excluded from the survey scope. Power-generating resources like coal-fired or hydroelectric powerplants are common within the Fox River Valley. However, they produce power rather than goods and are

covered by the Federal Energy Regulatory Commission license renewal process with federal government oversight. Resources related exclusively to transportation, such as railways, railway buildings, highways, road maintenance buildings, and bridges were also excluded. Likewise, automobile sales and repair, which are retail and service oriented rather than industrial in nature, were not included in the survey.

The reconnaissance survey had two products: 1) Wisconsin Historic Preservation Database (WHPD) records and 2) survey maps. WHPD records, publicly visible online as the Architecture and History Inventory (AHI), document data related to each resource and contain at least one photo. Records for 202 previously surveyed resources that have been altered, restored, or demolished were updated with new data and photos. Of those, approximately 6 resources were altered to the point that they were no longer survey worthy, and 108 resources were demolished, leaving a total of 88 previously surveyed resources. Records for 88 newly surveyed resources were created with new data and photos. For large industrial buildings with more than one publicly visible façade, multiple photos showing each façade were taken. WHPD records for all eligible properties included a summary statement of significance that provided an area and period of significance as well as a short statement on the resource's importance.

The boundaries of the survey are delineated on the City Survey Area Maps. Survey maps that document all surveyed properties with the AHI number within the property parcel lines were produced and provided to the SHPO.

Historical Research

Historic research on the industries of the Fox River Valley was conducted to provide a historical context to evaluate resources. Site specific historic research was conducted on all properties potentially eligible for the National Register of Historic places or within a potential historic district.

Of importance were items located at the Area Research Centers at the University of Wisconsin-Green Bay and the University of Wisconsin-Oshkosh, Brown County Central Library, Wisconsin Historical Society Library and Archives, Sanborn Fire Insurance Maps, City Directories, and assessor and land records for all seven cities.

Resources that proved invaluable in providing a broad overview on the industrial history of the City of Green Bay include *Green Bay, 1634-1924*, published by the Green Bay City in Commission in 1924, the 1988 *Green Bay Intensive Resource Survey Final Report* produced by Howard, Needles, Tammen, & Bergendoff, and Jack Rudolph's *Green Bay: A Pictorial History*.

The history of industrial Kaukauna is discussed in Melanie Betz and Carolyn Kellogg's *City of Kaukauna Intensive Historic Resource Survey*, conducted in 1983, and Francis Bowman's *Industrial Kaukauna*, in addition to *The Power Behind the Electric City* by Carol Mainville-Van Boxtel.

The *City of Appleton Intensive Architectural and Historical Survey* produced by the East Central Wisconsin Regional Planning Commission in 1992 covers the history of Appleton, as does the 1978 *Historic Building Survey: Appleton, WI*.

Neenah and Menasha are discussed in Charles N. Glaab and Lawrence H. Larsen's *Factories in the Valley: Neenah-Menasha, 1870-1915* and Alice E. Smith's *Millstone and Saw: The Origins of Neenah-Menasha*, both published in the 1960s. A number of intensive surveys have already been completed in the cities including Peter James Adams' 1986 *Menasha Intensive Survey*, and Heritage Research completed historical and architectural resources surveys in Neenah in 2004 and Menasha in 2009.

Oshkosh is covered in William Dawes and Clara Dawes' *History of Oshkosh*, published in 1938 and followed by *Oshkosh: One Hundred Years a City*, completed in 1953. Michael J. Goc followed with *Oshkosh at 150, Version II New Edition*, published from 2003 through 2011, and an intensive survey of the city was done by Howard, Needles, Tammen, & Bergendoff in 1981.

Useful secondary resources that cover the industrial history of Fond du Lac include Ray Thorton's *A Photographer's History of Fond du Lac* and two intensive surveys: one completed by Carol Lohry Cartwright in 1992 and another done by Heritage Research in 2011.

In all of these cases, these secondary sources often discussed a wider range of industrial resources in more depth than was intended for this survey, the object of which is to identify potentially eligible resources rather than record the history of non-extant buildings and places.

A wealth of information exists on the subject of industries, particularly the paper industry, in the Fox River Valley. These include Dorothy Heesakker's dissertation *The Paper Mill Industry in the Lower Fox River Valley, Wisconsin, 1872-1890*.

On the subject of industrial architectural history, this report relies heavily on the typology set by Betsy Hunter Bradley in her book *The Works: The Industrial Architecture of the United States*. While industrial architecture is not a well-worn subject, other sources were also drawn on including Louis Bergeron and Maria Teresa Maiullari-Pontois's *Industry, Architecture, and Engineering* and James Munce's older *Industrial Architecture: An Analysis of International Building Practice*. Henry Grattan Tyrell's extensive discussion on mill design during the 1910s, found in *Engineering of Shops and Factories* and *A Treatise on the Design and Construction of Mill Buildings and other Industrial Plants*, also proved useful.

Evaluation of Resources

National Register evaluations were performed according to the National Register's Criteria for Evaluation and Criteria Considerations which are used to assist local, state, and federal agencies in evaluating nominations to the National Registers of Historic Places. The Criteria for Evaluation are described in several National Register publications as follows:

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.

The Criteria Considerations are described as follows:

Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions, or used for religious purposes, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. a building or structure removed from its original location, but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic period or event; or
- C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or
- D. a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- G. a property achieving significance within the past 50 years if it is of exceptional importance.

As noted above, a historic district is placed in the National Register of Historic Places in a manner similar to individual properties; using essentially the same criteria. A historic district is comprised of resources; that is, buildings, structures, sites, or objects located in a geographically definable area. The historic district is united by historical factors and a sense of cohesive architectural integrity. District resources are individually classified as contributing or non-contributing.

- A. A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because:
 - a. it was presented during the period of significance and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or
 - b. it independently or individually meets the National Register criteria.
- B. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property or district is significant because:
 - a. it was not present during the period of significance [less than 50 years old or moved to the site],
 - b. due to alterations, disturbances, addition, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or

- c. it does not independently meet the National Register criteria.

The historic research was used to examine potential historical significance under Criteria A and B and architectural or engineering significance under Criterion C. All findings of potentially eligible resources, complexes, and historic districts were reviewed and approved by the SHPO prior to inclusion in the intensive survey report.

Intensive Survey Report

This intensive survey report contains the following elements: 1) historical context of the Fox River Valley including the industrial histories of Green Bay, Kaukauna, Appleton, Menasha, Neenah, Oshkosh, and Fond du Lac; 2) historical overview for each type of industry surveyed in the project area; 3) list of extant buildings with their addresses; 4) architectural overview of each industrial building type surveyed in the project area; and 5) survey results including lists of potentially eligible properties, complexes, and historic districts.

For all eligible properties, the justification for eligibility was documented, including which criteria are applicable, the potential period of significance, and a summary statement of significance. Historic districts include a map and a list of contributing and noncontributing properties.

The customary scope of the intensive survey report was amended to include a table with the property name, AHI record number, current owner, owner address, total square footage, estimated average floor plate size, current zoning, parcel size, possible environmental issues, and if there are known architectural plans or a property survey on file for all identified eligible resources.

Nine double-sided and bound copies of the final report and an electronic version in a PDF format were submitted to the SHPO, as well as one unbound, double-sided copy on acid-free paper.

This intensive survey report is intended to be a work in progress which can lead to future research and can be updated over time as additional information is collected.

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Historic Context

Fox River Valley

Prior to the late seventeenth century, the shorelines of the Fox River and Green Bay were home to large groups of Native Americans, for whom, the river was a major transportation route as the Fox River allowed small boats to travel from the Great Lakes to the Mississippi River with one short portage between the Fox and either the Wisconsin or Rock Rivers. The area was also an important fishing and hunting region for several Nations, including the Menomonie, Ho-Chunk, and Fox. The activities of these groups were significant in defining the region through the mid-1800s. The present-day name of the river is the English translation of the French name for a local Native American nation in the seventeenth century.¹

The first European to come to the State of Wisconsin, Jean Nicolet arrived around 1634, landing on the shore of Lake Michigan in the Green Bay area at Red Banks in the present-day town of Scott, sent by the governor of New France, Samuel de Champlain, to establish trade with area tribes, to explore the area, and to secure French political, military, and economic domination in the region.² He claimed the Fox River Valley as a part of New France for the King of France. That portion of Lake Michigan became known as “La Baie des Puants,” French for “Bay of Stinking Waters,” and later “La Baye Verte,” French for “Green Bay.” Nicolet spent one year exploring the region before he returned to Quebec. The Fox River was part of the famous 1673-1674 voyage of French explorers Louis Jolliet and Jacques Marquette, the first Europeans to explore the upper Mississippi River.³

It was not until 1671 that a European is documented to have arrived to permanently settle in the area, near Green Bay. In that year, Pere Claude Allouez, a French Catholic missionary to the Native Americans, founded the St. Francis Xavier Mission at “Rapids Des Peres,” in the present-day City of De Pere. Soon after, trader Nicolas Perrot represented the French at “La Baye,” as the Green Bay area was known, establishing a fur trade route along the Fox River to the Wisconsin River, eventually establishing other routes down the Mississippi River.⁴ A fort was constructed by the French in present-day Green Bay in 1717, which was destroyed by Native Americans in 1728.⁵

During the 1750s, the French and Native Americans allied against British attempts to overtake fur trading posts in the territories spanning between the Appalachian Mountains and Mississippi River from the Great Lakes to the Gulf of Mexico. After British victory in what is now known as the French and Indian War, the French surrendered all of its territories, including Green Bay, to the British.

In 1761, the British constructed Fort Edward Augustus on the site of the former French fort. The British abandoned their fort during the Pontiac Uprising sometime between 1763 and 1766. Half-French Ottawa chief, Charles de Langlade and his father, Augustine de Langlade established a trading post in what is now the City of Green Bay on the Fox River in 1764. Soon thereafter, French fur traders began claiming plots of land along the Fox River south of the bay.⁶

Although the United States gained independence from Great Britain in 1776, the British remained in control of the Fox River Valley, a part off the Northwest Territory from 1787 to around 1805, until driven out during the War of 1812. Four years later, the Americans constructed a fort, named Fort Howard, on the site of the former French and British forts in the present-day City of Green Bay. Brown and Crawford Counties were established in 1818, each covering approximately half of the present-day state of Wisconsin, then a part of the Michigan Territory until creation of the Wisconsin Territory in 1836.⁷ At that time, Brown County covered the entire territory north of the Illinois state line between Lake Michigan and the Wisconsin River.⁸

In 1829, the Village of Navarino was platted at the confluence of the Fox and East Rivers across from Fort Howard followed by the Village of Astor platted immediately south in 1835.⁹ The two villages consolidated in 1838 to form the Borough of Green Bay, now the City of Green Bay, which then became the seat of Brown County.¹⁰

Wide settlement of the American frontier reached the area, when the federal government began land sales in Wisconsin in 1835. Over the next decade numerous settlers, most of them originally from New England and the Mid-Atlantic, migrated to the region. By that time, speculators in the Wisconsin Territory as well as Chicago, Detroit, and some eastern cities purchased tracts for towns, dam sites, and sizable stretches of timberland and prairie at government auctions. Land was then subdivided and sold to farmers, and the agricultural population of the Fox River Valley steadily grew through Wisconsin's statehood in 1848. By the Civil War, approximately half of the Fox River Valley was under cultivation.¹¹

The paper industry played a vital role in social, economic, and cultural growth of the Fox River Valley. The expectation of urban greatness, a part of the Midwestern cultural tradition, sustained the promoters of Fox River Valley communities. By the 1860s, the Fox River Valley led Wisconsin to be the leader in producing paper in the Midwest. In the 1870s, several communities, including Appleton, Fond du Lac, Green Bay, Kaukauna, Menasha, Neenah, and Oshkosh grew into flourishing commercial and industrial centers.¹²

The region's development has been steady throughout its history, owing its growth and prosperity to its rich soils, various raw materials, and strategic position on one of the most historically important water routes in North America, eventually transporting raw natural resource, agricultural products, and manufactured goods across state, nation, and world.

By the mid-twentieth century, the Fox River Valley boasted numerous industrial communities important to Wisconsin's economy. From the south end of Lake Winnebago at Fond du Lac, north along the western shore and on down the Lower Fox to Green bay extended a chain of economically, socially, and culturally linked cities, as they remain to this day.

City of Green Bay

The City of Green Bay is located along Lake Michigan at the mouth of the Fox River in Brown County. It is the oldest settlement in Wisconsin and has been a center of trade and commerce since the late-seventeenth century.

As previously stated, the first Europeans to reached area in 1634, and European activities remained largely limited to the transient fur trade for the following two decades. By 1680, a trading outpost was established at Green Bay. It was not until after the War of 1812 that Americans fully controlled the region's fur trade, then led by John Jacob Astor's American Fur Company. After construction of Fort Howard at the confluence of the Fox and East Rivers, the community grew rapidly. The fur trade was at its highest in the 1820s; however, U.S. trade regulations, a diminishing availability of pelts, and increased settlement along the Fox River led to a rapid decline. By the mid-1830s, the fur trade largely disappeared, and agriculture became the dominant industry.¹³

From 1820 to 1822, Col. Joseph Lee Smith, without federal approval, relocated Fort Howard away from its marshy site to higher land on the opposite side and farther up the Fox River, in the present-day Village of Allouez, ultimately ordered to return to its original site.¹⁴ However, during this time, a small, informal settlement grew along the river near Camp Smith, which became known as Shantytown. During the 1820s, Shantytown was the location to which all arrivals to the Green Bay area were made. Upon Wisconsin's first federal judge James Doty's arrival to the Green Bay area in 1824, he purchased property in Shantytown and established the first territorial courthouse, making Shantytown the first county seat of Brown County. In an effort to establish the Green Bay area's first developed city, Doty and John Lawe platted the Village of Menomineeville there by 1829; however, it failed to develop¹⁵

That same year, attracted to capitalize on the potential for settlement, logging, and shipping opportunities, Daniel Whitney platted the Village of Navarino across from Fort Howard. With similar ambitions, John Jacob Astor, founder of the American Fur Company, platted the Village of Astor in partnership with Ramsey Crooks and Robert Stuart immediately south of Navarino in 1835. Development thrived at Navarino and Astor.¹⁶ The Villages of Navarino and Astor consolidated to form the Borough of Green Bay in 1838, which by then became the county seat. The Village of Fort Howard was platted by Joel S. Fisk and the Hon. Uriah H. Peak in 1850 on the west bank of the Fox River across from Green Bay and adjacent to fort, which was decommissioned two years later. Influential early residents included Henry Baird, Wisconsin's first professionally trained lawyer, and John Arndt, who built Green Bay's first successful sawmill in 1827. Green Bay was home to the state's first newspaper, *The Green Bay Intelligencer*, in 1833, and was the first community in Wisconsin to receive mail. The Borough of Green Bay incorporated as the City of Green Bay in 1854, with which the Village of Fort Howard merged two years later.¹⁷

By the mid-1850s, Green Bay turned into a transportation and service center, with Fort Howard a manufacturing center across the river. Lumbering was a major industry, as new settlers needed wood to build their homes. Green Bay also became an important supplier for lumber camps in northern Wisconsin and the Upper Peninsula. Shingle making was another booming industry in

the 1850s and 1860s. Green Bay had packing companies as early as the 1850s and ice harvesting and storage facilities since the 1860s.¹⁸

The first railroad to service Green Bay, the Chicago and Northwestern, arrived in 1862. As railroads continued to develop, replacing waterways as the main transportation route to and from the area, Green Bay was better connected to mines and lumber camps throughout the Upper Peninsula and northern Wisconsin and became a center of iron manufacturing, lumber milling, and paper products. The fire that began north along the bay near Peshtigo in 1871 led to the decline of Green Bay's lumber industry in 1870s and 1880s.¹⁹

Other important industries from the late nineteenth century included packing and distributing, fishing, shipbuilding, brewing, flour milling, mineral springs, and canning. Green Bay had the state's largest lumberyards during the 1880s and 1890s, and Wisconsin's largest coal fields, of which there were three along the river, including the C. Reiss Coal Company. Brickyards became increasingly important after the 1871 Peshtigo Fire and 1880 Green Bay Fire. One of the earliest canneries in the state, Larson Canning, opened in 1890; soon followed by others including the Green Bay Canning Company in 1902. The ice trade also flourished from 1880s to 1920s, declining after the development of artificial refrigeration.²⁰ Supporting small industries were plentiful in Green Bay during the early twentieth century, encouraged in their concentration by civic industrial zoning introduced during the 1920s, and proliferated around the larger storage yards, warehouses, mills, and manufacturing plants near the rivers.



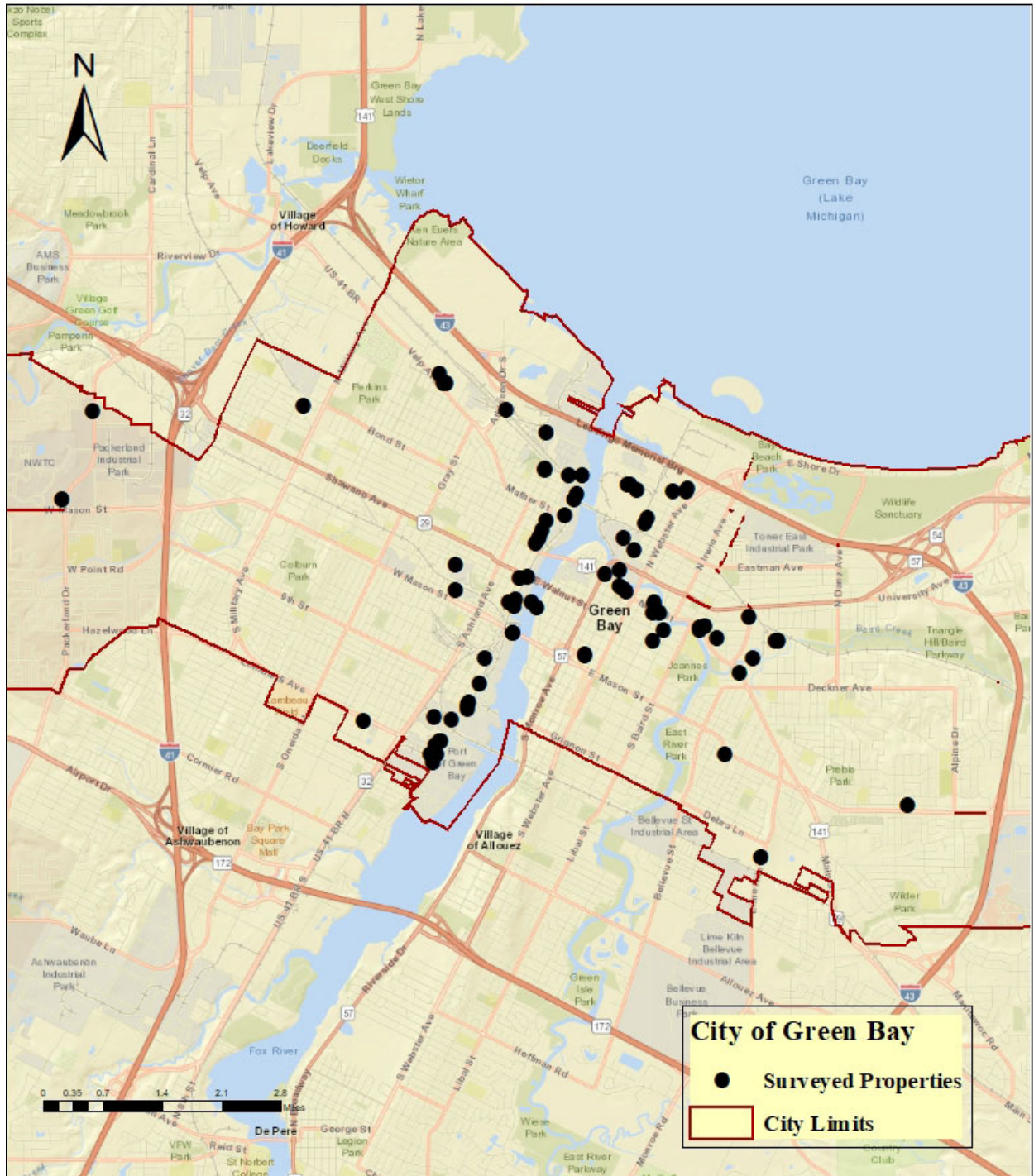
Aerial view of the Green Bay shoreline, east side of the Fox River, 1912.
WHS # 31415

Green Bay's grew as a regional industrial center in northern Wisconsin after the turn of the century. The cheese and dairy industries became very important in Green Bay in the early twentieth century. The Hoberg Paper and Fiber Company, previously of Kaukauna, opened in Green Bay in 1895 and the Green Bay Paper and Fiber Company in 1902 extending the Fox River Valley's already dominant paper industry to this city. These two major companies merged in 1922 and were purchased by the Proctor and Gamble Company in 1957.²¹

Packaging and distribution soon became a major industrial in the Green Bay. The Forest Packing Company, a local company that packed and shipped meat products, sponsored a new professional football team, the Green Bay Packers, for their inaugural season in 1919. The Green Bay Box Company was established in 1933, the manufacturer of corrugated shipping containers. In 1963, the Green Bay Box Company merged with Green Bay Pulp & Paper Company to become Green Bay Packaging. Many other industries also operated in Green Bay at various scales during its history, including clothing, construction, dairy, distribution and shipping, fishing, food, lumber milling, metal product, milling, packing, and textiles.²²

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|----------------------|------------------------------------|-----------------------|-------------|-------------------|
| 1028 N. Ashland Ave. | Green Bay Plastics | Miscellaneous | 1946 | Surveyed |
| 520 N. Broadway | Northern Cold Storage Company | Miscellaneous | 1925 | Surveyed |
| 1100 N. Broadway | Miller and Rasmussen Ice Company | Brewing and Bottling | 1921 | Surveyed |
| 127 S. Broadway | Rothe Blacksmith | Metal Products | 1932 | Surveyed |
| 339 S. Broadway | Scheffe Printing Company | Paper Products | 1928 | Surveyed |
| 1095 S. Broadway | Fort Howard Lumber Co. Warehouse | Lumber Products | 1890 | Eligible |
| 1341 S. Broadway | Hess Iron Works | Metal Processing | 1911 | Surveyed |
| 1522 S. Broadway | Paper Novelty Company | Paper Products | 1932 | Surveyed |
| 1814 S. Broadway | Wisconsin Fabricating Company | Metal Processing | c.1920 | Surveyed |
| 1919 S. Broadway | Fort Howard Paper Company | Paper Products | 1919 | Surveyed |
| 1666 Cass Street | U.S. Celloprint Company | Paper Products | 1968 | Surveyed |
| 801 Cedar Street | Frank C. Schilling Co. Wholesale | Food Products | 1916 | Surveyed |
| 900 Cedar Street | Bodart Candy Factory | Food Products | 1897 | Surveyed |
| 1438 Cedar Street | Wernig / Cobb Sunlit Bakery | Food Products | 1923 | Eligible |
| 710 Chicago Street | O. Van Dyke Brewing Company | Brewing and Bottling | 1872 | Surveyed |
| 800 Chicago Street | Allouez Mineral Springs Company | Brewing and Bottling | 1889 | Surveyed |
| 500 Day Street | Northern Paper Mills Office | Paper Products | 1901 | Eligible |
| 724 Day Street | E.C. Manger and Son Company | Lumber Products | 1969 | Surveyed |
| 501 Eastman Avenue | Hoberg Paper and Fibre Company | Paper Products | 1922 | Surveyed |
| 601 Elizabeth Street | Cleermon Machine Tool Company | Metal Products | 1906 | Surveyed |
| 2545 Finger Road | Delwiche Farms Dairy | Food Products | 1945 | Surveyed |
| 341 N. Henry Street | Atlas Warehouse Cheese Factories | Food Products | 1934 | Surveyed |
| 404 N. Henry Street | Jones Transfer Company | Distribution | 1937 | Surveyed |
| 2155 Hutson Road | Green Bay and Western Co. Offices | Construction | 1980 | Surveyed |
| 137 James Street | Western Lime and Cement Company | Cement | 1949 | Surveyed |
| 600 Liberty Street | Bark River Culvert & Equipment Co. | Cement | 1947 | Surveyed |
| 1330 Lime Kiln Road | Packerland Packing Company | Food Products | 1972 | Surveyed |
| 975 Lombardi Avenue | Hudson and Sharp Company | Metal Products | 1966 | Surveyed |
| 1201 Main Street | Hudson and Sharp Machine Shop | Metal Products | 1906 | Surveyed |
| 1228 Main Street | Johnson Fish Company | Food Products | 1927 | Surveyed |
| 1429 Main Street | Green Bay Canning Company | Food Products | 1902 | Surveyed |
| 1605 Main Street | L. D. Schreiber and Company | Food Products | 1945 | Surveyed |
| 1623 Main Street | Hummel Lumber Company | Lumber Products | 1957 | Surveyed |
| 111 W. Mason Street | Reiss C. Coal Company | Miscellaneous | 1928 | Surveyed |
| 200 Mather Street | Motor Transfer Depot | Distribution | 1930 | Surveyed |
| 924 McDonald Street | Universal Atlas Cement Company | Cement | 1938 | Surveyed |
| 1121 McDonald Street | Sinclair Refining Company | Miscellaneous | 1913 | Surveyed |
| 500 N. Monroe Avenue | Green Bay Welding Company | Metal Products | 1930 | Surveyed |
| 701 Morley Road | Morley-Murphy Company | Metal Products | 1970 | Surveyed |
| 1514 Morrow Street | Northern Glove and Mitten Company | Textiles and Clothing | 1927 | Surveyed |

| | | | | |
|-------------------------|--|-----------------------|------|----------|
| 1833 Morrow Street | Basten Construction Company | Construction | 1948 | Surveyed |
| 1834 Morrow Street | Basten Construction Company Warehouse | Construction | 1948 | Surveyed |
| 200 Packerland Drive | K. C. Storage Company | Food Products | 1982 | Surveyed |
| 920 Packerland Drive | Seven Up Bottling Company | Brewing and Bottling | 1973 | Surveyed |
| 233 S. Pearl Street | Northwest Engineering Company | Metal Products | 1918 | Surveyed |
| 301 S. Pearl Street | Norcor Manufacturing Company | Metal Products | 1922 | Surveyed |
| 345 S. Pearl Street | Bay-West Paper Company | Paper Products | 1910 | Surveyed |
| 1300 N. Quincy Street | Prange's Distribution Center | Distribution | 1962 | Surveyed |
| 831 Radisson Street | Green Bay Packaging Inc. | Paper Products | 1956 | Surveyed |
| 322 N. Roosevelt Street | Libert Machine Company | Metal Products | 1920 | Surveyed |
| 409 N. Roosevelt Street | Meler Machine Company | Metal Products | 1929 | Surveyed |
| 857 School Place | Alart and McGuire Pickle Company | Food Products | 1917 | Surveyed |
| 1271 St. Clair Street | Wisconsin Dairy Laboratory | Food Products | 1916 | Surveyed |
| 1401 State Street | Leicht Material and Transfer Co. | Distribution | 1938 | Surveyed |
| 1402 State Street | Automatic File and Index Company | Miscellaneous | 1920 | Eligible |
| 420 Twelfth Avenue | Strid Grain Company Elevator | Food Products | 1917 | Eligible |
| 800 University Avenue | Charmin Paper Products | Paper Products | 1940 | Surveyed |
| 1206 Velp Avenue | Alwin Manufacturing Co. Warehouse | Metal Products | 1962 | Surveyed |
| 1222 Velp Avenue | Willow Grass Rug Company | Textiles and Clothing | 1912 | Eligible |
| 1232 E. Walnut Street | Fabry Glove Company | Textiles and Clothing | 1907 | Surveyed |
| 201 W. Walnut Street | Northwest Engineering Office | Metal Products | 1920 | Surveyed |
| 1700 N. Webster Court | Green Bay Packaging Headquarters | Paper Products | 1972 | Surveyed |
| 1800 N. Webster Court | Green Bay Packaging Garage | Paper Products | 1951 | Surveyed |



City of Kaukauna

The City of Kaukauna is located along the Fox River in southeastern Outagamie County. It is one of Wisconsin's oldest communities. Jean Nicolet was the first European to see present-day Kaukauna while he was canoeing up the Fox River from Green Bay around 1634. He established trade and alliance with the Ho-Chunk and returned to Canada.

In 1790, Dominick Ducharme, son of French fur trader Jean Ducharme, built a substantial log house at "Cacalin," present-day Kaukauna and started trading with the Menominee and Chippewa. His brother Paul Ducharme came to Kaukauna in 1794 to help him trade. The third European settler, an American fur trader, Augustin Grignon moved from Green Bay to Kaukauna in 1818 and improved the Ducharme house and built a sawmill. In 1825, New Englander Daniel Whitney, also moved to Kaukauna from Green Bay to erect a second sawmill. However, the Whitney sawmill was not profitable, and he turned to making potash and trading.

Settlement at Kaukauna increased with arrival of Stockbridge in 1822, a group of Mohicans from New York who fought on the side of the Americans in the Revolutionary War who to take advantage of a land cession from the Menominee and Ho-Chunk through 1828.²³ By 1830, they had largely adopted Anglo-American customs, lived in log houses, and raised corn, wheat, and livestock on large farms. However, a series of American treaties beginning in 1831 resulted in the departure of the Stockbridge and declined the population of Kaukauna.²⁴

As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. George W. Lawe settled in Kaukauna in 1839, opened a trading post, and established a farm. Lawe improved communications to Green Bay and Appleton by building roads with the help of fifty Menominee. In 1842, Lawe was appointed Justice of the Peace by territorial Governor Doty, an office he held for almost fifty years. He directed the first platting of the townsite in 1850 and built the first bridge across the Fox River at Kaukauna in 1851, which led to development of a small community. For his efforts turning Kaukauna from a remnant settlement of New France into an American city, Lawe is often called the 'Father of Kaukauna.'²⁵

As part of the Fox River's 170-foot drop in elevation from Neenah and Menasha to Green Bay, 138 feet of the drop occur in the nine miles of river between Appleton and Kaukauna. This change in elevation affords a ripe opportunity for waterpower in its riverfront communities, particularly Neenah, Menasha, Appleton, and Kaukauna; and of these, the powers at Appleton and Kaukauna far surpass all others.²⁶ However, the fall also presented an obstacle for transportation, which led to the construction of a series of canals and locks in 1856. This allowed larger steamboats to replace the Durham boats that dominated river traffic in the 1830s and 1840s. Construction of the system also provided a boon to the local economy; however, the workers' departure after completion of the canal left vacant stores and dwellings on Kaukauna's north side.²⁷

The Chicago and Northwestern Railroad reached Kaukauna in 1862, and industry thrived. By 1870, Kaukauna boasted two large flour mills, two large factories making staves for flour barrels, the Diedrich sawmill, and Reuter Brothers spoke factory, which did a massive business

in hardwood logs and railroad ties. The Chicago and Northwestern line north of the river was joined to the Milwaukee Lakeshore and Western Railroad in 1872.²⁸

In 1872, Col. Henry A. Frambach and his brother John Stoveken opened the first paper mill in the City of Kaukauna, the Eagle Paper and Flouring Mill, on the site of Stoveken and Henry Hewitt's 1867 flour mill that was destroyed by fire that year. Soon after the mill's start, Frambach became the second producer of wood pulp in the state and the first in the state to manufacture wood pulp paper.²⁹



Bird's eye view of Kaukauna, Appleton Post Annual Review, 1882. WHS # 12377

The factories in Kaukauna benefited often from the area's Trenton limestone, one of the finest building stones in the country, found along the river here. Therefore, instead of being obliged to build a wooden or brick buildings at vast expense for material, the capitalists who built at Kaukauna had the advantage of an unlimited amount of the very choicest building material locally making Kaukauna a desirable location for factories of any kind.³⁰

Kaukauna grew to be a center for the paper industry during the 1890s. The American Pulp Company was established in 1883, becoming the Thilmany Pulp and Paper Company in 1889. Perhaps the most innovative and dynamic of Kaukauna's paper manufacturers, the company was known for its production of diversified and innovative paper products, including the first tissue paper manufactured in Wisconsin, produced by the firm in 1885.³¹ By the turn of the century, the firm emerged as the Kaukauna's largest papermaking concerns, and the only one of the city's seven major pulp and paper firms that remains to present day.

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|------------------------|-----------------------------------|----------------------|-------------|-------------------|
| 722 W. Desnoyer Street | Helf and Brill Brewery | Brewing and Bottling | 1892 | Surveyed |
| 300 Elm Street | Thilmany Paper Mill Warehouse | Paper Products | 1906 | Surveyed |
| 400 Gertrude Street | Roloff Manufacturing | Metal Processing | 1944 | Surveyed |
| 820 Hyland Avenue | Liebovich Steel and Aluminum | Metal Processing | 1929 | Surveyed |
| 600 Thilmany Road | Thilmany Paper Mill | Paper Products | 1919 | Surveyed |
| 601 Thilmany Road | Outagamie Paper Company Warehouse | Paper Products | 1892 | Surveyed |



City of Appleton

The City of Appleton is located along the northernmost point of Lake Winnebago in southern Outagamie County. The Menominee, Fox, and Ho-Chunk occupied the area, which was visited by the French explorer Jean Nicolet in 1634. In 1673, the French explorers Marquette and Jolliet traveled southward down the Fox River and through Lake Winnebago on their journey to the Mississippi River. Fur traders soon followed.

As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. Hippolyte Grignon built a trading post and inn in present-day Appleton at that time. A community grew where Amos A. Lawrence of Boston founded Lawrence University in 1847. Originally called Grand Chute, the community was later renamed for Samuel Appleton, an early university donor. The city's first paper mill was built in 1853. One of the earliest notable operations in Appleton was the extensive Dunn and Brewster barrel factory in Appleton built in 1858, one of the state's largest woodworking operations during the mid-1860s. However, while flour, wool, and paper milling dominated Appleton's early economy, papermaking quickly became its foremost industry.³²

Prior to the 1870s, paper manufacturing was a far smaller industry than the state's production of flour and lumber. The introduction of ground wood pulp technology in Wisconsin sparked a boom in paper and pulp mill construction in the state that was heavily concentrated in communities along the Fox River, notably including Appleton. The first ground wood pulp mill in Wisconsin was constructed by Bradner Smith in Appleton in 1871. Within the following decade, at least 20 new paper companies were established in the Fox River Valley, including the Ames Pulp Company's Appleton Paper and Pulp Mills in 1875, Patten Company in 1881, the Fox River Flour and Paper Company in 1883, and the Fox River Paper Company in 1887 in Appleton.³³ The 1880 census of manufacturers tabulated the Appleton paper business as larger than that of Neenah and Menasha.³⁴

Appleton also became a major supplier of paper and pulp manufacturing equipment by the 1870s to serve the half-dozen paper mills that occupied the same valley, bolstered by the establishment of the Appleton Woolen Mills, Appleton Machine Company in 1887, Appleton Wire Works in 1896, Valley Iron Works in 1900, Wisconsin Wire Company in 1900.³⁵ To provide electricity to for industry, especially papermaking, the first hydro-electric central station in the country began operation in Appleton on September 30, 1882. In 1886, Appleton had the nation's first commercially successful electric streetcar company. Appleton's transportation system was a basic necessity to industrial growth. It kept pace with the area's expansion both in quality and efficiency.³⁶



Aerial view of Appleton, c.1930. WHS # 28385

While a paper manufacturing center, Appleton grew to be home to a diverse array of industries, including metal fabrication, food processing, knitting mills, and farm machinery manufacturing. While Lake Michigan communities dominated the state’s furniture industry, the Fox River Valley and Lake Winnebago areas also played important roles, including Appleton. Prominent local furniture manufacturers of the late nineteenth century included the Appleton Chair and Bedstead Company in Appleton. Specialized wooden products were also manufactured in Appleton, by firms like the Appleton Toy and Furniture Company.

Throughout its history, Appleton has been a regional cultural center with the presence of Lawrence University and an industrial center by virtue of its paper mills, and to a lesser degree metal and other products. However, papermaking remained the city’s foremost major industry through the 1950s. Today, the city is also a major commercial center of the Fox River Valley.

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------------------|------------------------------------|----------------------|-------------|---------------------------|
| 316 N. Appleton Street | Milhaupt Carriage Works | Vehicles | 1920 | Surveyed |
| 600 E. Hancock Street | Tuttle Press Company | Paper Products | 1906 | Eligible |
| 714 E. Hancock Street | Appleton Coated Paper Co. Lab | Paper Products | 1952 | Eligible |
| 1629 W. Haskel Street | Spencer-Johnston Company | Metal Products | 1956 | Surveyed |
| 1005 N. Lawe Street | Standard Manufacturing Company | Metal Products | 1914 | Surveyed |
| 800 S. Lawe Street | Riverside Paper Company Office | Paper Products | 1939 | Surveyed |
| 975 N. Meade Street | Bahcall Isadore Scrap Metal Co. | Metal Processing | 1928 | Surveyed |
| 1000 N. Meade Street | Wisconsin Wire Works | Metal Products | 1908 | Surveyed |
| 618 S. Olde Oneida St. | Appleton Machine Company | Metal Products | 1890 | Contributing ^A |
| 712 S. Olde Oneida St. | Appleton Machine Company Office | Lumber Products | 1941 | Surveyed |
| 912 S. Olde Oneida St. | Filtration Plant | Paper Products | 1915 | Surveyed |
| 1004 S. Olde Oneida St. | Muench Brewery | Brewing and Bottling | 1879 | Surveyed |
| 114 N. Outagamie Street | Safety Truck Brake Company | Miscellaneous | 1929 | Surveyed |
| 127 E. Pacific Street | Langstadt, Myer & Co. Creamery | Food Products | 1897 | Surveyed |
| 1325 S. Perkins Street | Fox Valley Sheltered Workshop Inc. | Metal Products | 1959 | Surveyed |
| 1018 N. Rankin Street | Fox River Tractor Company Office | Vehicles | 1928 | Surveyed |
| 1111 N. Rankin Street | Kambo Food Stores | Food Products | 1936 | Surveyed |
| 110 N. Richmond Street | Marshall Paper Company | Paper Products | 1901 | Surveyed |
| 1520 W. Rogers Avenue | Scolding Locks Company | Miscellaneous | 1922 | Surveyed |
| 401 E. South Island St. | Valley Iron Works Company | Metal Processing | 1881 | Contributing ^A |
| 430 E. South Island St. | Telulah Paper Mill | Paper Products | 1887 | Eligible ^B |
| 1233 W. Spencer Street | Krogh Supply Company | Distribution | 1943 | Surveyed |
| 918 N. Union Street | Northwestern Petroleum Corporation | Miscellaneous | 1943 | Surveyed |
| 231 S. Victoria Street | Al Utschig and Sons | Metal Products | 1951 | Surveyed |
| 600 S. Vulcan Street | Patton Paper Mill Office | Paper Products | 1940 | Contributing ^A |
| 100 W. Water Street | Fox River Paper Company Office | Paper Products | 1942 | Contributing ^C |
| 425 W. Water Street | Atlas Paper Mill | Paper Products | 1888 | Eligible ^D |
| 501 W. Water Street | Vulcan Mill Hydroelectric Plant | Paper Products | 1909 | Eligible ^D |
| 825 E. Wisconsin Street | Appleton Coated Paper Company | Paper Products | 1907 | Eligible ^E |

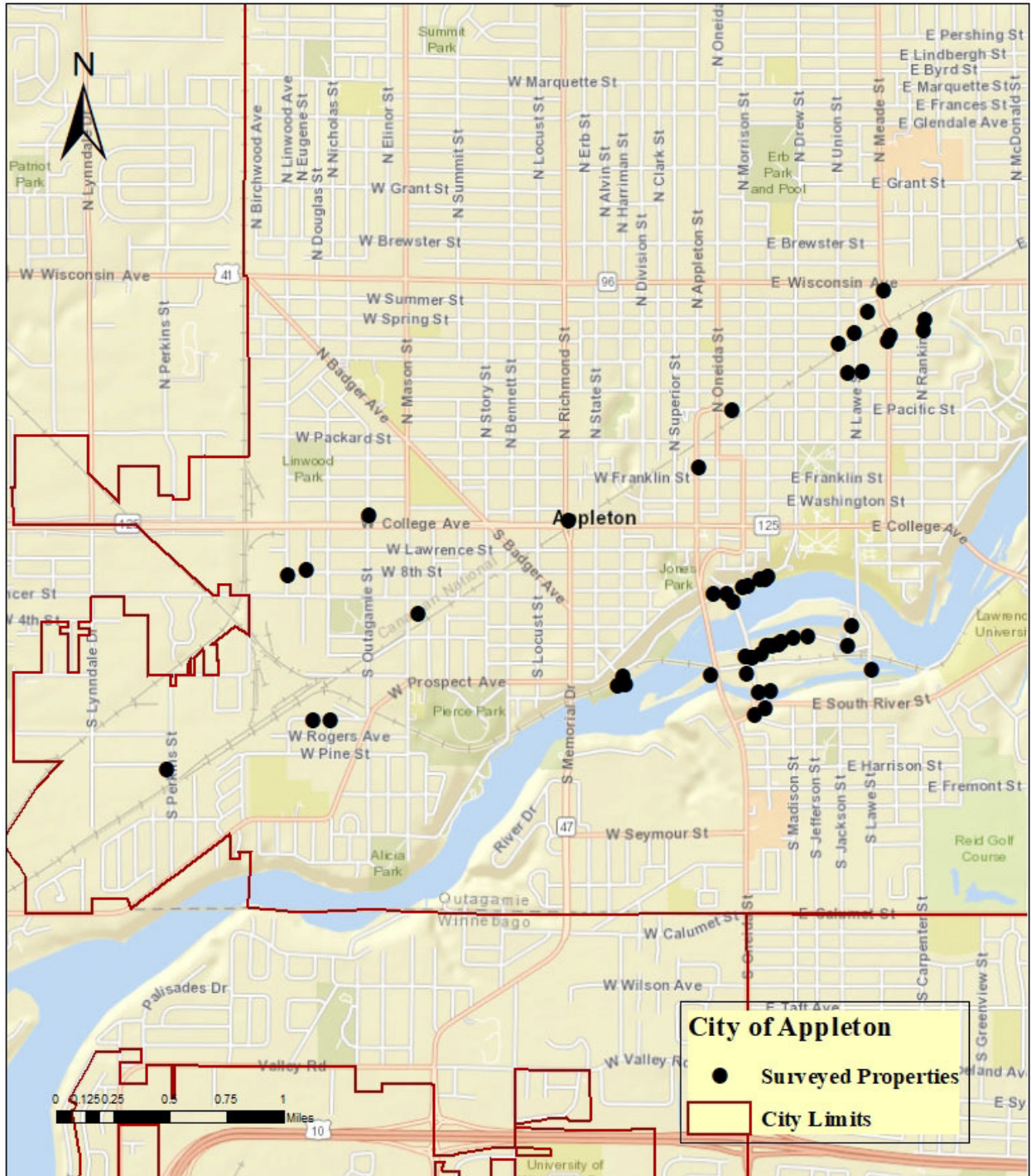
^A Contributing to the proposed South Island Industrial Historic District

^B Individually eligible and contributing to the proposed South Island Industrial Historic District

^C Contributing to the proposed boundary increase for the existing Fox River Paper Company Historic District

^D Eligible as the proposed Atlas Paper Mill Complex

^E Eligible as the proposed Appleton Coated Paper Company Complex

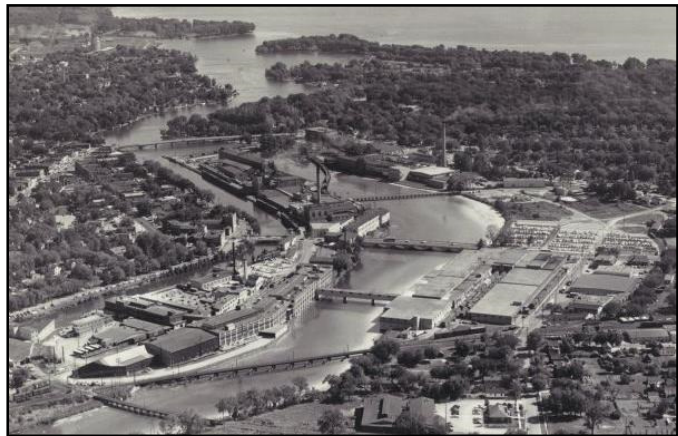


City of Menasha

The City of Menasha is located on the north bank of the Fox River where it flows out of the northwest side of Lake Winnebago in northeastern Winnebago County. Menasha is often considered a “twin city” to Neenah, immediately adjacent on the south bank of the Fox River; both cities occupy half of Doty Island in the Fox River with the channel on each side of the island named for the respective city. The Menominee, Fox, and Ho-Chunk occupied the area, which was visited by the French explorer Jean Nicolet in 1634. In 1673, the French explorers Marquette and Jolliet traveled southward down the Fox River and through Lake Winnebago on their journey to the Mississippi River. Fur traders soon followed.

As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. Wisconsin Territorial Governor James D. Doty was one of the area’s earliest land speculators and was responsible for the earliest local development. Doty settled in and established the neighboring community of Winnebago Rapids on the south channel of the island, at present-day Neenah; but abandoned it in 1848 due to disputes over waterpower development. He subsequently established a community on the channel north of the island, at present-day Menasha.³⁷

In 1848, the same year that Doty was elected to the United States House of Representatives to represent Wisconsin’s third district, his son Charles and associate Curtis Reed arranged for the formation of a waterpower development company and construction of a dam at Menasha. Curtis Reed, considered the founder of Menasha, built a log hotel there that same year. In 1849, Reed and Doty platted the Village of Menasha and were successful in locating the local link of the federal Fox River lock system through the north channel. Having Doty in the United States Congress benefited Menasha. In 1851, the United States Land Office moved from Green Bay to Menasha; and in 1852, the village received federal funds for building a lighthouse.³⁸



*Aerial view of Menasha, 1955.
WHS # 39094*

Plank roads were constructed to connect Menasha to Kaukauna in 1850 and Appleton in 1852; and Menasha became a vital point in the transport of goods and travels for steamboat traffic on Lake Winnebago. In 1854, the village board approved Manitowoc & Mississippi Railroad construction bonds with the intention of establishing Menasha as “the principle transportation axis of Wisconsin.”³⁹

By 1855, Menasha was a boomtown with three commercial districts. During this early period, Menasha was a market center for outlying wheat producing areas, as well as areas shipping from

Fond du Lac, Oshkosh, and Berlin. The construction of the Chicago & Northwestern Railroad to Menasha in 1861 diminished the importance of the Fox River for transportation.⁴⁰

The Civil War helped to create a national market for woodware products manufactured in Menasha, encouraging an industrial shift from wheat to lumber.⁴¹ Following the Civil War, Menasha also became part of one of the leading flour mill centers in the state with neighboring Neenah.⁴² There were 10 mills in Neenah and Menasha by 1860 and 15 by 1870.⁴³

Menasha became a center for the manufacture of wooden domestic and commercial items such as boxes, measures, bowls, dishes, barrel covers, broom racks, cheese cases, hubs, spokes, pails, churns, and cutlery; by 1870, it boasted the "largest tub, pail, and churn factory west of the Ohio" and one of the largest hub and spoke factories in the upper Midwest.⁴⁴

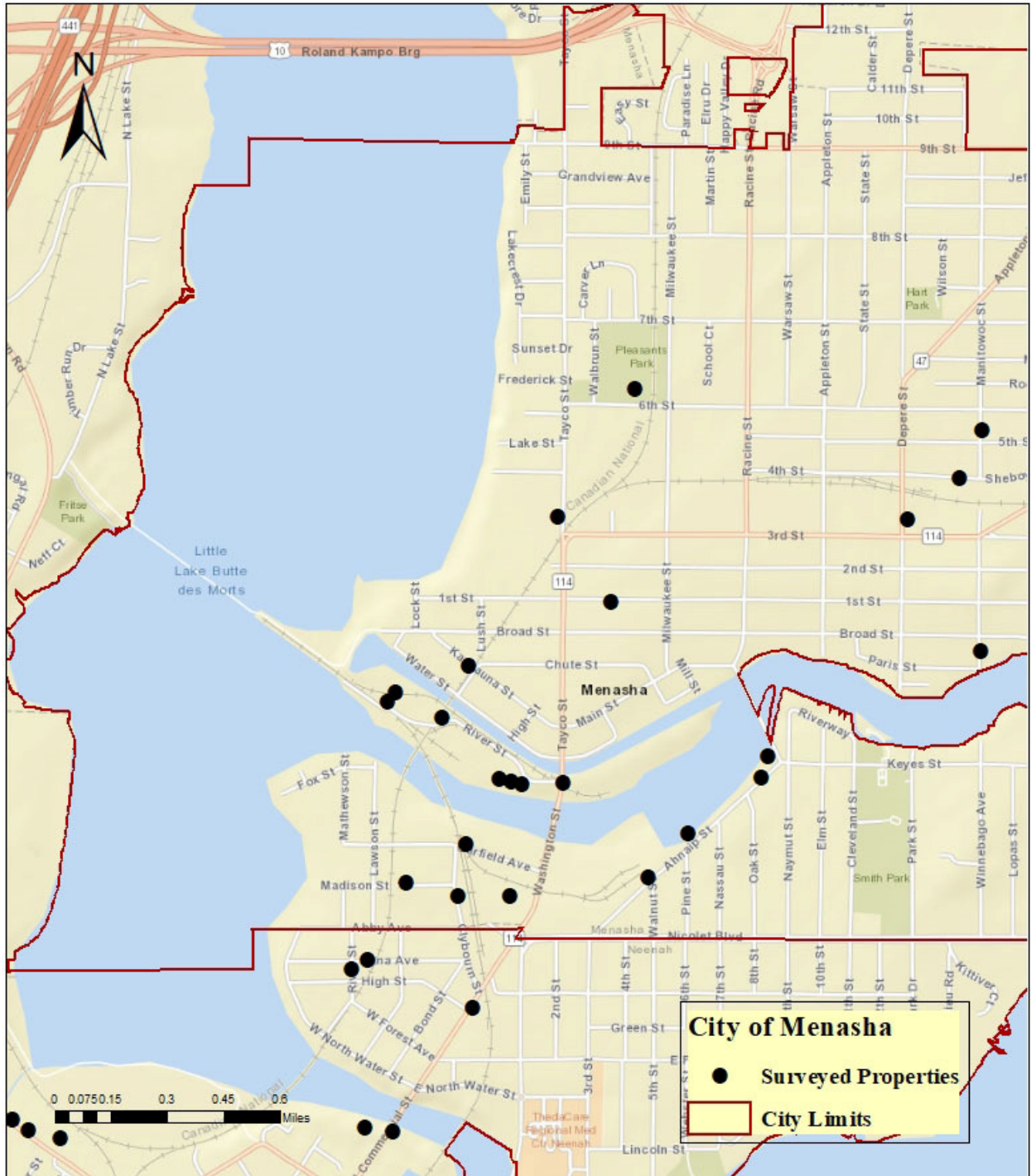
Prior to the 1870s, paper manufacturing was a far smaller industry than the state's production of flour and lumber. The introduction of ground wood pulp technology in Wisconsin sparked a boom in paper and pulp mill construction in the state that was heavily concentrated in communities along the Fox River, notably including Menasha. Within the following decade, at least 20 new paper companies were established in the Fox River Valley, including the Menasha Paper Company in 1876, George Whiting Paper Company in 1882, Gilbert Paper Company in 1887, and the John Strange Paper Company in 1888 in Menasha.⁴⁵

By 1910, the automobile and gasoline tractor were widely accepted, and buildings for Uncle Sam Tractor and Machinery Company in Menasha were constructed in 1919. The paper industry remained the major player in Menasha's economy through the mid-twentieth century. Several firms consolidated into the Marathon Corporation, which in turn was absorbed by American Can.

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|-----------------------|-----------------------------------|------------------|-------------|-----------------------|
| 388 Ahnaip Street | Menasha Wooden Ware Oil Room | Miscellaneous | 1890 | Surveyed |
| 430 Ahnaip Street | Gilbert Paper Company Office | Paper Products | 1919 | Eligible |
| 460 Ahnaip Street | George Banta Publishing Company | Paper Products | 1910 | Surveyed |
| 309 DePere Street | M. G. Auer Sheet Metal Works | Metal Processing | c.1920 | Surveyed |
| 333 First Street | William Gear Dairy | Food Products | 1949 | Eligible |
| 741 Fourth Street | Central Paper Company | Paper Products | 1941 | Surveyed |
| 245 Garfield Avenue | Marathon Paper Carton Plant | Paper Products | 1919 | Surveyed |
| 153 Kaukauna Street | Pankratz Fuel Company | Miscellaneous | 1901 | Surveyed |
| 204 Madison Street | Chemical Supply Company | Distribution | 1959 | Surveyed |
| 216 Railroad Street | School Stationary Corporation | Paper Products | 1925 | Surveyed |
| 100 River Street | George A. Whiting Paper Company | Paper Products | 1888 | Eligible ^A |
| 261 River Street | Marathon Paper Mill | Paper Products | 1928 | Surveyed |
| 271 River Street | Marathon Paper Mill Office | Paper Products | 1940 | Eligible |
| 352 Sixth Street | Uncle Sam Tractor & Machinery Co. | Vehicles | 1919 | Surveyed |
| 190 Tayco Street | Wisconsin Tissue Mills | Paper Products | 1919 | Surveyed |
| 69 Washington Street | John Strange Paper Company | Paper Products | 1876 | Eligible ^B |
| 222 Washington Street | United Pattern Works Garage | Metal Products | 1957 | Surveyed |

^A Eligible as the proposed George A. Whiting Paper Company Complex

^B Eligible as the proposed John Strange Paper Company Complex



City of Neenah

The City of Neenah is located on the south bank of the Fox River where it flows out of the northwest side of Lake Winnebago in northeastern Winnebago County. Neenah is often considered a “twin city” to Menasha, immediately adjacent on the north bank of the Fox River; both cities occupy half of Doty Island in the Fox River with the channel on each side of the island named for the respective city. The Menominee, Fox, and Ho-Chunk occupied the area, which was visited by the French explorer Jean Nicolet in 1634. In 1673, the French explorers Marquette and Jolliet traveled southward down the Fox River and through Lake Winnebago on their journey to the Mississippi River. Fur traders soon followed.

As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. Wisconsin Territorial Governor James D. Doty was one of the area’s earliest land speculators and was responsible for the earliest local development. Doty settled in and established the community of Winnebago Rapids on the south channel of the island, at present-day Neenah; but abandoned it in 1848 due to disputes over waterpower development. He subsequently established a community on the channel north of the island, at present-day Menasha.⁴⁶

Among the very earliest of the manufacturing enterprises in Neenah was the making of flour. Neenah’s first flour mill was built by the government. The Neenah Flouring Mill was built soon after by John R. and Harvey L. Kimberly in 1850.⁴⁷ The Fox River Flour Mill opened in 1856, and two more in 1857.⁴⁸ Following the Civil War, Neenah became one of the leading flour mill centers in the state, ranking second only to Milwaukee, the world leader in flour production.⁴⁹ There were 10 mills in Neenah and Menasha by 1860 and 15 by 1870.⁵⁰

Neenah had large scale iron production for purposes unrelated to its dominant paper industry. The Neenah Stove Works produced stoves and furnaces, while the Neenah Foundry produced plumbing fittings and civic equipment like manhole and drain covers.⁵¹

Neenah’s first paper mill, the Neenah Paper Mill, was built around 1865 and became the most successful and profitable of the valley’s early mills and drew attention to the industry’s possibilities in northern Wisconsin. Prior to the 1870s, paper manufacturing was a far smaller industry than the state’s production of flour and lumber. The introduction of ground wood pulp technology in Wisconsin sparked a boom in paper and pulp mill construction in the state that was heavily concentrated in communities along the Fox River, notably including Neenah.

Within the following decade, at least 20 new paper companies were established in the Fox River Valley, including Kimberly, Clark & Company’s Globe Mill in 1872 and the Patten mill and



Photograph of canal at the Neenah Paper Company, 1963. WHS # 65778

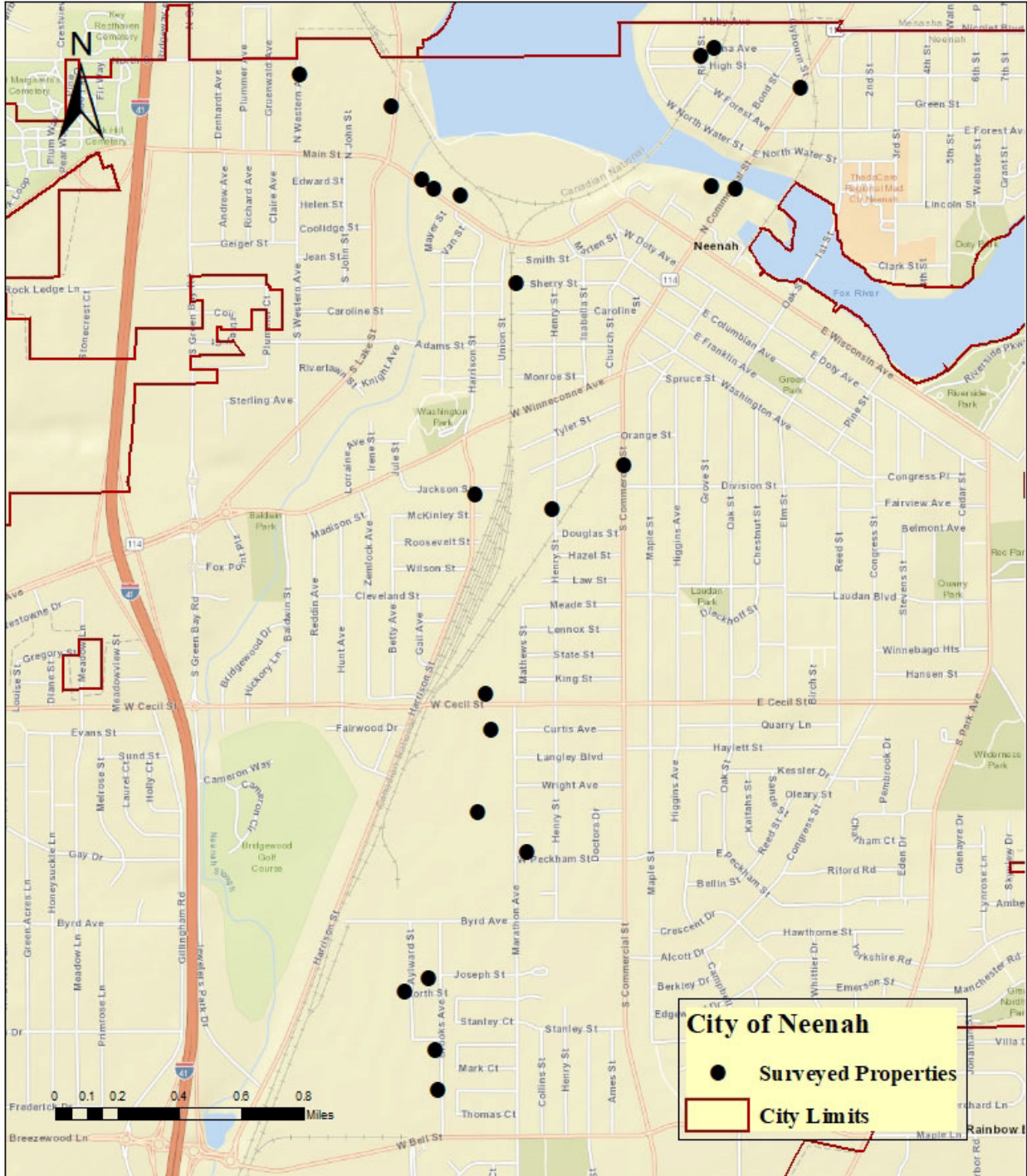
Winnebago Paper Company in 1874.⁵² Much of the history of manufacturing during the late twentieth century in Neenah and Menasha, and the wider Fox River Valley, centered around the rapid growth of Neenah’s Kimberly, Clark & Company. From its one in 1872, producing solely newsprint, the firm grew within a decade to include 4 mills throughout the Fox River Valley producing a diverse array of paper products. By 1888, it owned and operated the Globe, Neenah, and Badger mills in Neenah as well as four mills in Appleton, a newsprint mill at Niagara, a mill in DePere; and began constructing the company town of Kimberly, single-handedly making the Fox River Valley the Midwestern center of paper manufacturing. The company became a national leader in the paper industry and major American corporation

Neenah Foundry grew during the Great Depression due to WPA projects and World War II by supply war materials. It became a national leader in construction castings during the economic boom of the 1950s. It’s product lines eventually expanded beyond manhole covers and drainage grates to also include tree grates, trench grates, downspout adapters, cast iron decorative bollards, and detectable warning plates among others.⁵³

In 1956, Kimberly-Clark constructed a new corporate headquarters in Neenah to replace its original offices. However, during the 1970s and 1980s, the corporation began disinvesting in the Fox River Valley by expanding operations elsewhere in the country and internationally. While Kimberly-Clark moved its corporate headquarters to Arlington, Texas, in 1985, it still maintains regional offices in Neenah to this day.

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|-----------------------|--------------------------------------|-----------------------|-------------|-----------------------|
| 2121 Brooks Avenue | Neenah Foundry | Metal Processing | 1964 | Surveyed |
| 2255 Brooks Avenue | Menasha Corporation - Printing Plant | Paper Products | 1975 | Surveyed |
| 128 N. Commercial St. | Badger-Globe Paper Mill | Paper Products | 1929 | Surveyed |
| 135 N. Commercial St. | Neenah Paper Company | Paper Products | 1885 | Eligible ^A |
| 333 N. Commercial St. | Jersild Knitting Company | Textiles and Clothing | 1918 | Surveyed |
| 601 S. Commercial St. | Neenah Milk Products | Food Products | 1928 | Surveyed |
| 223 Edna Street | Neenah Brass Works | Metal Products | 1907 | Eligible |
| 401 Edna Street | Standard Oil Depot | Miscellaneous | 1893 | Surveyed |
| 1109 Henry Street | Natural Fiber Textile Company | Textiles and Clothing | 1924 | Surveyed |
| 164 N. Lake Street | Hardwood Products Factory | Lumber Products | 1911 | Surveyed |
| 249 N. Lake Street | Kimberly-Clark Lakeside Mill | Paper Products | 1911 | Surveyed |
| 401 N. Lake Street | Kimberly-Clark Headquarters | Paper Products | 1956 | Eligible |
| 619 Main Street | Neenah Stove Works | Metal Products | 1876 | Eligible |
| 1815 Marathon Avenue | American National Can Company | Food Products | 1955 | Surveyed |
| 1915 Marathon Avenue | James River Corp. - Tech. Center | Paper Products | 1966 | Surveyed |
| 2001 Marathon Avenue | Kimberly-Clark South Offices | Paper Products | 1956 | Surveyed |
| 434 Sherry Street | N. Simon and Company | Food Products | 1887 | Surveyed |
| 175 N. Western Avenue | Neenah Electrotype Corporation | Miscellaneous | 1956 | Surveyed |

^A Eligible as the proposed Neenah Paper Company Complex



City of Oshkosh

The City of Oshkosh is located along the Fox River between where it flows out of Lake Butte des Morts and into the west side of Lake Winnebago in Winnebago County. The Menominee, Fox, and Ho-Chunk occupied the area, which was visited by the French explorer Jean Nicolet in 1634. In 1673, the French explorers Marquette and Jolliet traveled southward down the Fox River and through Lake Winnebago on their journey to the Mississippi River. Fur traders soon followed.

As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. However, the development of Oshkosh was slow until 1846, when it was viewed as an ideal location downriver along the Fox-Wolf Rivers lumber district. In 1847, the Fox River Bridge Company incorporated and built the city's first bridge across the Fox River. The city's first sawmill was also built that year by Morris Firman. In the following years, many more sawmills were erected along the Fox River. Oshkosh incorporated as a city in 1853. However, unlike other Fox River Valley cities, the paper industry did not become a dominant player in Oshkosh.⁵⁴

Brewing was one of the earliest industries in Oshkosh, with the brewery of Scheussler and Fried operating as early as 1849. Ice harvesting was also common in the nineteenth century in Oshkosh on Lake Winnebago. The ice would be stored and sold to breweries, other industries, and directly to households for common use. By 1876, the city had five breweries.

With two mills built near Oshkosh by 1836 and another in the city in 1847, the Fox-Wolf River area became a major lumbering district by the late 1840s and the lumber industry became the backbone of the region's economy by 1850.⁵⁵ Four more mills were constructed in Oshkosh in 1852 alone. The arrival of the railroad in 1859 made the transportation of lumber products easier; and by the mid-1860s, the city was home to 50 mills, 25 lumber dealers and manufacturers, and several sash, door, and blind factories. By the mid-1860s, mills in Oshkosh were producing substantial quantities of shingles, lath, and other products in addition to boards and rough lumber. Following the Civil War, Oshkosh's many millwork industries earned the city the title of "Sawdust Capital of the World." In 1871 the Chicago and Northwestern Railroads, which had connected Oshkosh to Green Bay since 1860, extended to the Chippewa Valley. The great Chicago fire of 1871 proved a boon to Oshkosh's lumber industry, as much of the wood used to rebuild that city came from mills in Oshkosh. By 1873, there were 24 sawmills, 15 shingle mills, and seven sash and door factories in operation.

By 1890, Winnebago County became the state's leader in sash, door, and blind manufacturing and remained one of the largest producers through the early twentieth century. Oshkosh was home to 12 finishing mills during that time, including the notable mills of the Morgan and Radford Brothers and the Paine Lumber Company. Oshkosh was also home to furniture, cabinetwork, match, and truck factories. The Buckstaff-Edwards Company manufactured caskets in Oshkosh during the late nineteenth century.⁵⁶

As the lumber industry declined, other industries took place. Union Steam Boiler Works was established in Oshkosh in 1880; soon followed by other smaller foundries and machine shops.

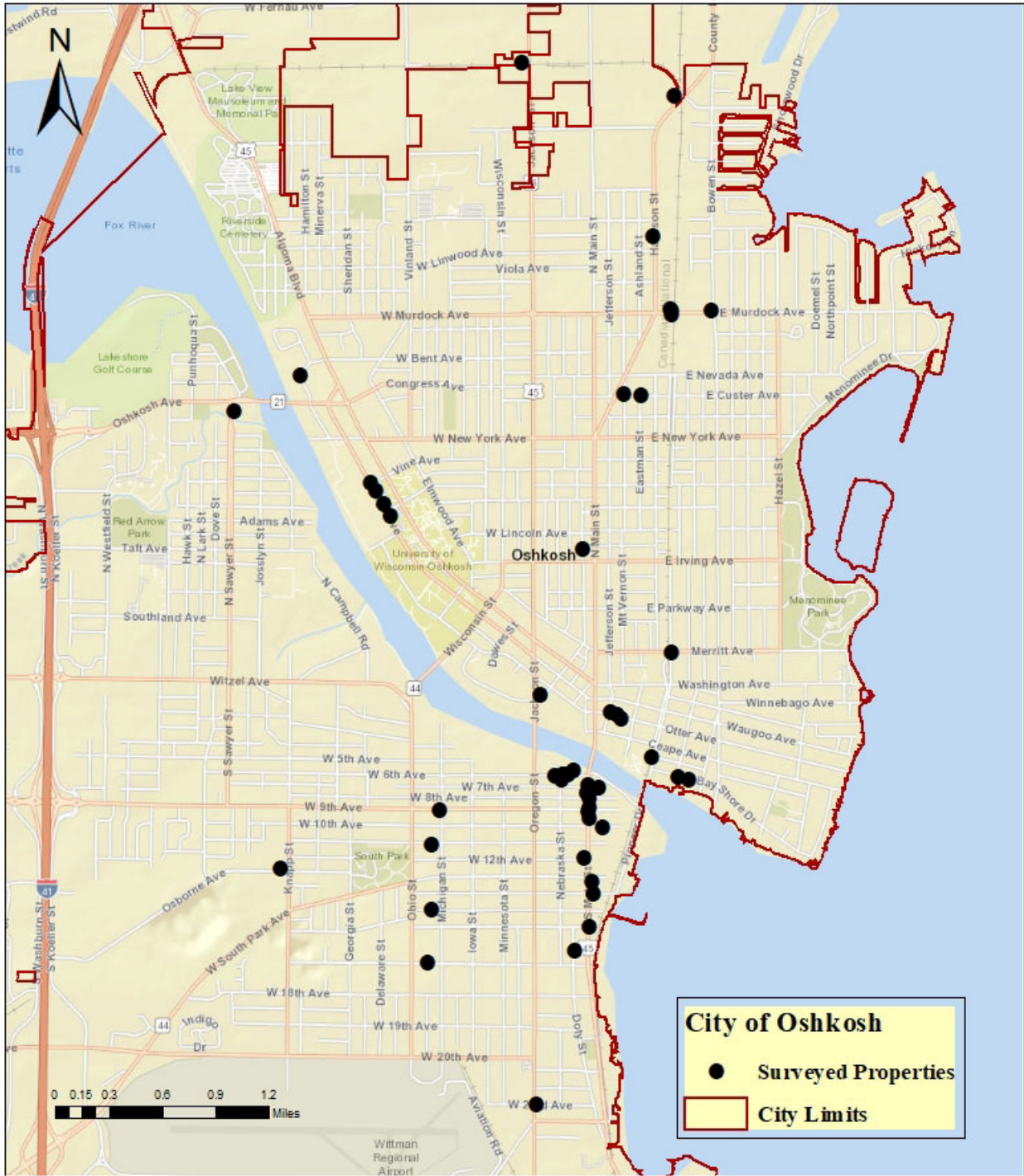
The E. B. Hayes Machinery Company, or Rockwell Wisconsin Parts Company, began producing axels for trucks by 1912 and became of the largest metal products companies in the Fox River Valley. The Wisconsin Duplex Auto Company, now the Oshkosh Corporation, was founded in 1917 to build severe-duty four-wheel-drive trucks; that company grew rapidly. After World War I, Oshkosh's metal working equaled the woodworking industry.⁵⁷

Oshkosh had many small industries, including stone quarries, stone monument makers, tobacco companies, small electric tool makers in addition to large industry of trunk and luggage makers that was widespread in the city from the 1880s through the 1910s. The Oshkosh Brewing Company was established in 1894 by merger of the last three breweries that remained by that time. The Mondl Manufacturing Company produced leather shoes, sporting helmets, and aviator helmets from the 1920s to the 1950s. The city also had the large Oshkosh Clothing Manufacturing Company, which produced and sold cotton clothing across the country. The company, established in 1902, would become known by its moniker 'Oshkosh B'Gosh' in the post-war period.⁵⁸

Oshkosh has remained a city of substantial, diversified industry to this day, including brewing, clothing, metal products, milling, and vehicle industries some with world-wide distribution of their products.

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|------------------------|--|----------------------|-------------|-------------------|
| 236 Bayshore Drive | Machine Shop | Metal Products | 1919 | Surveyed |
| 627 Bayshore Drive | Sash and Door Millwork Warehouse | Lumber Products | 1932 | Surveyed |
| 1803 Bowen Street | Marvel Equipment Corporation | Metal Products | 1956 | Surveyed |
| 36 Broad Street | Knapp, Fowler and Company | Paper Products | 1869 | Surveyed |
| 139 Division Street | Pabst Beer Warehouse and Station | Brewing and Bottling | 1890 | Surveyed |
| 714 Division Street | Triangle Manufacturing Company | Metal Products | 1918 | Surveyed |
| 523 W. Eleventh Avenue | Pingry Caswell Inc. | Lumber Products | 1928 | Surveyed |
| 520 W. Fifteenth Ave. | Preston Chick Company | Miscellaneous | 1958 | Surveyed |
| 2110 Harrison Street | Seven Up Bottling Company | Brewing and Bottling | 1964 | Surveyed |
| 2737 Harrison Street | Oshkosh Corporation North | Vehicles | 1962 | Surveyed |
| 1100 High Avenue | E. B. Hayes Machinery Company / Rockwell Wisconsin Parts Company | Metal Products | 1912 | Eligible |
| 2905 Jackson Street | Deep Rock Oil Corporation | Distribution | 1921 | Surveyed |
| 501 S. Main Street | Leach Company Warehouse | Metal Products | 1925 | Surveyed |
| 600 S. Main Street | Theobold Fisher Company | Miscellaneous | c.1920 | Surveyed |
| 710 S. Main Street | T & S Tobacco Company | Miscellaneous | 1917 | Surveyed |
| 851 S. Main Street | A. Streich and Brothers Warehouse | Distribution | 1919 | Surveyed |
| 900 S. Main Street | G. Reinke Company Monuments | Miscellaneous | 1908 | Surveyed |
| 1127 S. Main Street | Buckstaff Company Office | Miscellaneous | 1923 | Surveyed |
| 1302 S. Main Street | Home Improvement Company | Miscellaneous | 1947 | Surveyed |
| 1404 S. Main Street | Coca-Cola Bottling Company | Brewing and Bottling | 1938 | Surveyed |
| 1512 S. Main Street | People's Brewing Company Bottling House | Brewing and Bottling | 1912 | Surveyed |
| 1641 S. Main Street | Brooklyn Brewery | Brewing and Bottling | 1879 | Surveyed |
| 410 E. Murdock Avenue | Standard Oil Depot | Miscellaneous | 1921 | Surveyed |
| 413 E. Murdock Avenue | Oshkosh Corrugated Box Mfg. Co. | Paper Products | 1928 | Surveyed |
| 609 Nebraska Street | Specht-Durler Electric Company | Miscellaneous | 1931 | Surveyed |

| | | | | |
|------------------------|----------------------------------|-----------------------|------|----------|
| 513 W. Ninth Street | Duo-Safe Ladder Corporation | Metal Products | 1950 | Surveyed |
| 2307 Oregon Street | Oshkosh Corporation Headquarters | Vehicles | 1921 | Surveyed |
| 112 Otter Avenue | Oshkosh Clothing Mfg. Company | Textiles and Clothing | 1902 | Surveyed |
| 203 Otter Avenue | Mondl Manufacturing Co. Office | Textiles and Clothing | 1922 | Surveyed |
| 522 Seventeenth Avenue | Wisconsin Liquor Co. Wholesale | Miscellaneous | 1940 | Surveyed |
| 43 E. Seventh Avenue | Rasmussen and Sons Contractors | Construction | 1922 | Surveyed |
| 50 W. Sixth Avenue | H. P. Schmidt Milling Company | Food Products | 1883 | Eligible |
| 206 State Street | P. Chardonneau Block | Food Products | 1877 | Surveyed |
| 36 E. Tenth Avenue | Block Iron and Supply Company | Metal Processing | 1964 | Surveyed |



City of Fond du Lac

The City of Fond du Lac is located at the mouth of the Fond du Lac River on the southernmost point of Lake Winnebago in Fond du Lac County. The Ho-Chunk, Potawatomi, and Menomonee occupied the area. Fur traders soon came to the area after French exploration of the region in the late seventeenth century. French traders named the area, Fond du Lac, from its obvious geographic location; the name means "the base (or foot) of the lake."⁵⁹

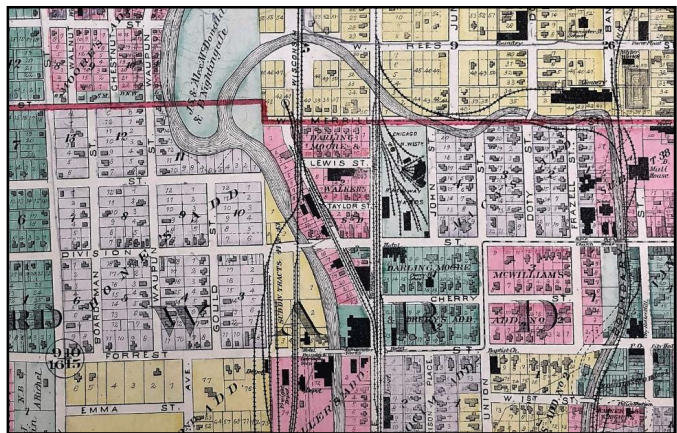
As previously stated, the United States territorial land offices opened the area to general settlement after the Treaty of the Cedars in 1836. Mason C. Darling, known as the father of Fond du Lac, arrived in 1838. The city grew slowly in 1840s. During the 1840s, lumbering lumber production became the state's leading commercial enterprise, and two sawmills were built in Fond du Lac by 1844 as the nearby the Fox-Wolf River district became a major lumbering area. One of the first steam-powered mills in northern Wisconsin was constructed in Fond du Lac in 1846.⁶⁰

The Rock River Valley Union Road railway arrived in Fond du Lac in 1852. Northern Wisconsin lumber industry's boom and the development of the Chicago Northwestern Railroad led to more substantial growth of the city during the 1860s making Fond du Lac the state's second largest city by 1870 and a major railroad center.⁶¹

By 1850, the carriage and wagon making industry emerged in Wisconsin, including at least one concern operating in Fond du Lac.⁶² The industry boomed after the end of the Civil War, largely based on agricultural demand. While Kenosha and Racine Counties dominated the market, Fond du Lac continued to hang in the top six.⁶³ LaBelle Wagon Works in Fond du Lac catered to a diverse market including the regional lumber and paper industries, agriculture, and urban development.⁶⁴

Fond du Lac was a notable center of the wood sash, door, and blind industry due to its central location between northern timberland and the major southeastern markets in the state. In 1868, the C.J.L. Meyer sash, door, and blind factory in Fond du Lac ranked as the largest in the world.

By 1870, the number of building product manufacturers in the state grew, including 9 sash, door, and blind firms in Fond du Lac County. By 1890, it was eclipsed as the state's leader by neighboring Winnebago County.⁶⁵



Detail, Plat Book of Fond du Lac County, C.M. Foote & Co., 1893. On file at the Wisconsin Historical Society Archives.

Fond du lac has a diverse industrial history. The state's earliest cheese factories were located in Fond du Lac and Winnebago Counties in the mid-1860s, and Fond du Lac County was one of the state's top butter producers. Fond du Lac County was second only to Dane County in wheat

production in the state. The city had had four active brickyards in the 1880s. As milling declined during the late nineteenth century, new industries began, including tanneries, machine shops, agricultural implement factories, and canneries were established, including Fond du Lac Canning Company in 1898.⁶⁶

While Lake Michigan communities dominated the state’s furniture industry, Fond du Lac also played an important role. Prominent local furniture manufacturers of the late nineteenth century included the Winnebago Furniture Manufacturing Company, the Fond du Lac Table Manufacturing, and Northern Casket Company.

In the early 20th century, Fond du Lac continued to be a commercial center for agricultural products from the surrounding region. The Winnebago Cheese Company was founded in 1914. Fond du Lac also had many manufacturers of agricultural machinery and household appliances as well as producers of stoneware, typewriters, hand tools, textiles, and many industrial products related to food production and consumption. Notable companies include the Gurney Refrigerator Company, Fred Rueping Leather Company, the Sweet Company, the Fond du Lac Shirt and Overall Company, the Badger Sewing Company, and the O. C. Steenberg Company.⁶⁷

Fond du Lac’s iron production expanded from a collection of small foundries in the late nineteenth century to having large companies like the Vulcan Manufacturing and Giddings and Lewis by the 1920s which produced assembly line industrial machines and pioneered automation in the post-war period. Mercury Marine, which began in 1939 as the Kiekhaefer Company, continues to produce marine outboard motors across the country presently and remains one of the largest employers in the city today.⁶⁸

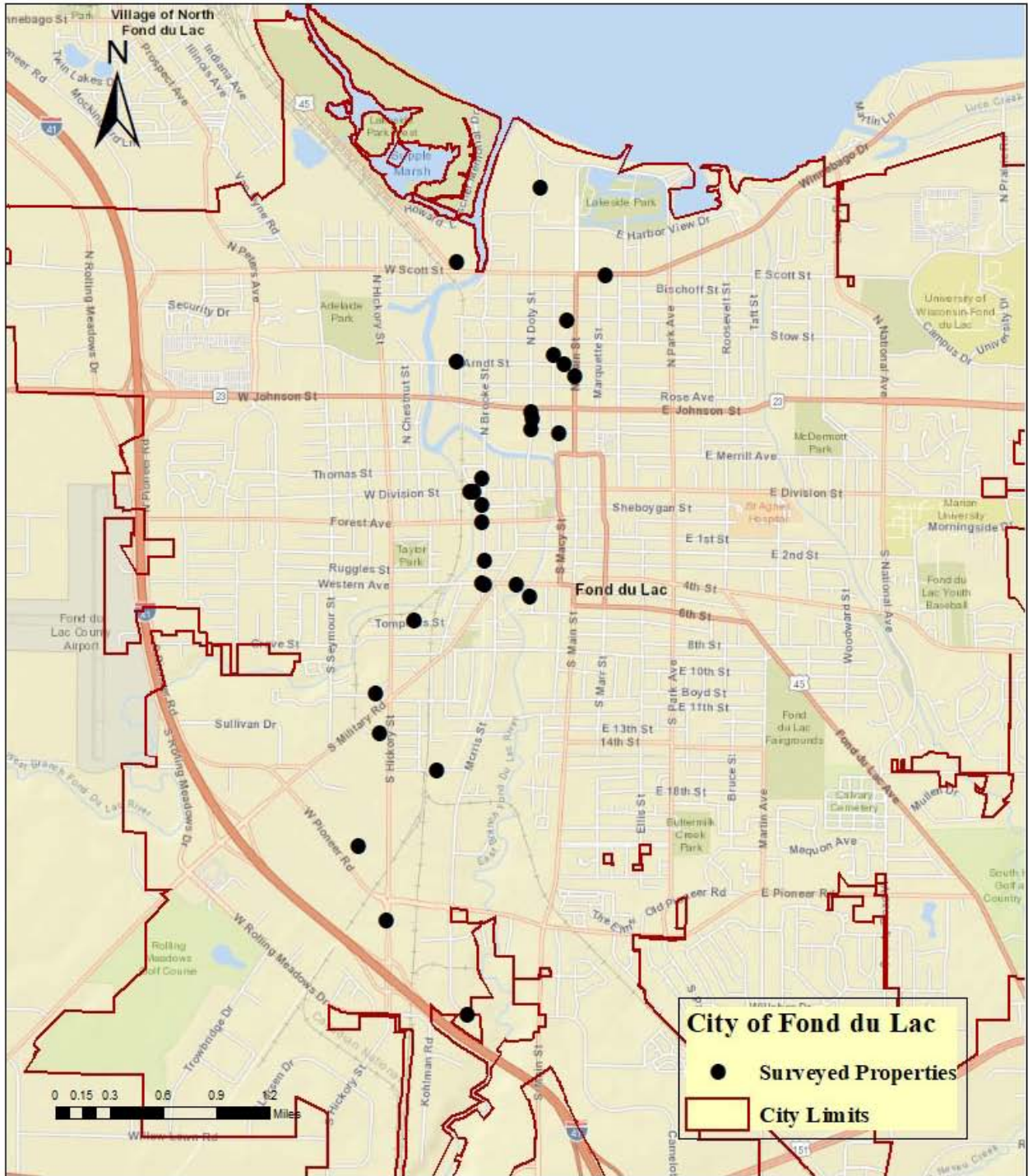
World War II brought Wisconsin’s canning production back to a nationwide peak.⁶⁹ In 1944, Fond du Lac County had nine canneries, tied for second in the state, and was known for its high concentration in peas and corn.⁷⁰

Industrial resources in the City of Fond du Lac in this survey include the following:

| <i>Address</i> | <i>Historic Name</i> | <i>Industry</i> | <i>Date</i> | <i>Evaluation</i> |
|------------------------|-----------------------------------|----------------------|-------------|-----------------------|
| 423 Arlington Avenue | Graham Tool and Die Company | Metal Products | 1953 | Surveyed |
| 21 W. Arndt Street | Wright Brothers Paper Box Company | Paper Products | 1917 | Eligible |
| 24 S. Brooke Street | LaBelle Wagon Works | Vehicles | 1879 | Surveyed |
| 42 S. Brooke Street | Gurney Refrigerator Company | Miscellaneous | 1901 | Eligible |
| 135 S. Brooke Street | Globe Stove and Range Warehouse | Metal Products | 1904 | Surveyed |
| 233 W. Division Street | Winnebago Cheese Company | Food Products | 1915 | Eligible |
| 240 W. Division Street | Dow Cheese Company | Food Products | 1924 | Surveyed |
| 142 N. Doty Street | Giddings and Lewis Company | Metal Products | 1929 | Eligible ^A |
| 429 W. Eleventh Street | Bechaud Brewing Company | Brewing and Bottling | 1922 | Surveyed |
| 981 S. Hickory Street | International Paper Company | Paper Products | 1968 | Surveyed |
| 283 N. Macy Street | C. J. Hinn Company | Miscellaneous | 1919 | Surveyed |
| 17 McWilliams Street | Fond du Lac Awning & Tent Company | Metal Products | 1920 | Surveyed |
| 228 S. Military Road | Smith-Manis-Winning Fruit Company | Food Products | 1927 | Surveyed |

| | | | | |
|---------------------|--|-----------------|------|----------|
| 220 Oak Street | Sanitary Refrigerator Company Warehouse | Miscellaneous | 1922 | Surveyed |
| 545 W. Pioneer Road | Mercury Marine Manufacturing | Metal Products | 1965 | Surveyed |
| 57 E. Scott Street | Hutter-Miesan Company | Construction | 1930 | Surveyed |
| 239 W. Scott Street | Fond du Lac Table Mfg. Company | Lumber Products | 1871 | Surveyed |
| 325 Tompkins Street | Galloway West Dairy | Food Products | 1918 | Surveyed |
| 134 Western Avenue | Hutter Construction Company | Construction | 1934 | Surveyed |
| 196 Western Avenue | Damrow Brothers Company | Food Products | 1917 | Surveyed |

^A Eligible as the proposed Giddings and Lewis Complex



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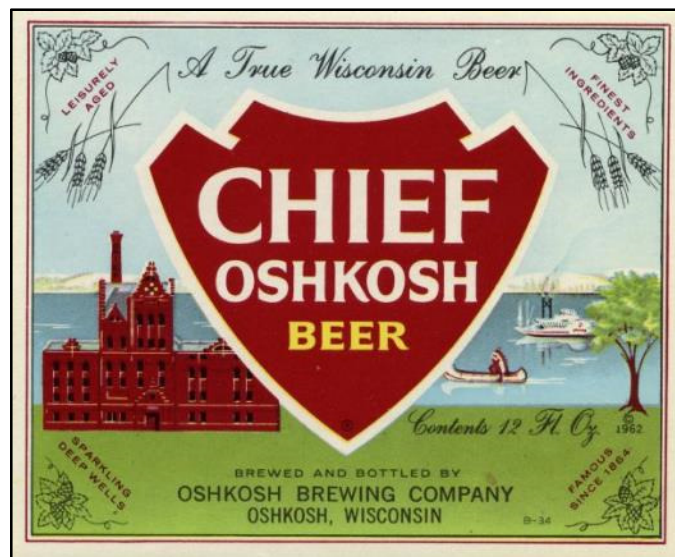
Fox River Valley Industries

The following offers a brief historical overview of the various type of industries found in the Fox River Valley, from the area's early settlement through the late twentieth century. Each type of industry also contains a list of buildings associated with that industry that were inventoried during the survey, including the city, address, historic name, date of construction, and evaluation.

Brewing and Bottling

America's first brewery was founded in New Amsterdam (New York City) in 1630. The brewing industry in Wisconsin began over 200 years later in the early 1840s. Wisconsin had an abundant supply of water and ice as well as barley and hops. The industry was also closely tied to German immigration, both in terms of skilled labor and consumption, and was centered in Milwaukee.⁷¹

Small breweries serving local markets began to appear in other parts of the state in the 1850, when census data lists 27 breweries in operation. This expanded to an estimated 127 breweries operating in Wisconsin by 1860.⁷² Located along rivers for easy access to water and ice, these breweries were simple two- and three-story structures with gabled roofs and a basement or cellar for cold storage during the fermentation process and afterwards.⁷³



Chief Oshkosh Beer Label, 1962.
WHS # 89039

Assisted by a number of markets, technological, and taxation factors, the brewing industry witnessed exponential growth from 1860 to 1890, during which time it emerged as one of the state's top three industries. While ice harvesting was a related industry, mechanical refrigeration was introduced to breweries as early as the 1890s, cutting down on the need for ice. The perfection of the pasteurization process allowed beer to be bottled and shipped to widespread markets. Locations like the valley, with access to the Mississippi River or the Great Lakes via the Fox-Wisconsin rivers as well as Wisconsin's growing rail network for shipping, fared well.

From this period of expansion, there are five extant breweries and a mineral springs company in the Fox River Valley that date from 1872 to 1892.⁷⁴

However, the Prohibition Era from 1920 to 1933 in conjunction with the Great Depression from 1929 to 1939 put a damper on the industry. Many small local breweries closed while others transitioned to bottling and distribution of other beverages such as soda. There are three extant bottling companies in the Fox River Valley that date from 1938 to 1973.⁷⁵

The Fox River Valley Industrial Properties Intensive Survey identified 12 resources associated with the brewing and bottling industry. The dates of construction of these resources begin with the O. Van Dyke Brewing Company in 1872 in Green Bay and end with the Seven Up Bottling Company in 1973 in Green Bay. However, brewing and bottling companies were most prevalent in Oshkosh, which had as many as ten breweries in operation at the turn of the twentieth century, Chief Oshkosh Beer among them.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|-------------------------|---|-------------|-------------------|
| Appleton | 1004 S. Olde Oneida St. | Muench Brewery | 1879 | Surveyed |
| Fond du Lac | 429 W. Eleventh Street | Bechaud Brewing Company | 1922 | Surveyed |
| Green Bay | 1100 N. Broadway | Miller and Rasmussen Ice Company | 1921 | Surveyed |
| Green Bay | 710 Chicago Street | O. Van Dyke Brewing Company | 1872 | Surveyed |
| Green Bay | 800 Chicago Street | Allouez Mineral Springs Co. | 1889 | Surveyed |
| Green Bay | 920 Packerland Drive | Seven Up Bottling Company | 1973 | Surveyed |
| Kaukauna | 722 W. Desnoyer Street | Helf and Brill Brewery | 1892 | Surveyed |
| Oshkosh | 139 Division Street | Pabst Beer Warehouse & Station | 1890 | Surveyed |
| Oshkosh | 2110 Harrison Street | Seven Up Bottling Company | 1964 | Surveyed |
| Oshkosh | 1404 S. Main Street | Coca-Cola Bottling Company | 1938 | Surveyed |
| Oshkosh | 1512 S. Main Street | People's Brewing Company Bottling House | 1912 | Surveyed |
| Oshkosh | 1641 S. Main Street | Brooklyn Brewery | 1879 | Surveyed |

Carriages, Wagons, and Motorized Vehicles

Wagon and carriage making began in Wisconsin almost as soon as permanent settlers arrived. The industry began with independent blacksmiths, whose shops were some of the first established in small communities across the state, along with saw and flour mills. With an ample supply of natural hardwood and a growing demand for wagons for agricultural use, these invaluable craftsmen were able to repair or manufacture a wide array of wagons, machines, and farm tools.⁷⁶

By 1840, an emerging industry was beginning with eight wagon and carriage manufacturers in the state, one of which was in the Green Bay area.⁷⁷ As settlements grew over the next two decades, these manufacturers became more commonplace in communities across the state. These shops would employ blacksmiths, carpenters, leather workers, painters, and wheelwrights. They would make simple wagons for farmers and more comfortably appointed carriages for city folks. In 1850, there were 74 wagon makers, but only ten carriage makers in the state, at least one of which was in Fond du Lac.⁷⁸ A decade later, there were 179 wagon makers and 17

carriage makers, and Wisconsin was making its mark for horse-drawn vehicles across the Midwest.⁷⁹

The industry boomed after the end of the Civil War, largely based on agricultural demand. In 1870, there were 485 wagon and carriage makers across the state.⁸⁰ In terms of the value of its products, the industry jumped to number three in the state, behind flour milling and lumber, and eighth in the country. Kenosha and Racine counties began to dominate the market, which had now transitioned to personal and industrial use rather than agricultural use, and Fond du Lac continued to hang in the top six.⁸¹

A financial depression in 1873 caused many small establishments to fail or consolidate, and the 156 manufacturers that remained increased their production levels to become fifth in the country by 1880. Besides the mainstays in Kenosha and Racine, Fond du Lac and Winnebago counties still retained 19 manufacturers, such as the LaBelle Wagon Works in Fond du Lac, who catered to a diverse market servicing the local lumber and paper industries, agriculture, and urban development.⁸²

Toward the end of the century, stock components and mass production improved manufacturing processes and lowered costs, keeping Wisconsin at the forefront of the industry. Small shops were replaced by vertically integrated factories with assembly plants, machine shops, paint shops, parts storage, pattern shops, and a myriad of other departments, including associated distribution warehouses and showrooms. These factory buildings were often brick, one- to three-stories in height, and located near rail lines for receiving raw material and also shipping out finished products.⁸³

Production levels continued to rise through 1920, but, in terms of value of its products, the industry slowly fell out of the state's top 20. Motorized vehicles began to appear in Wisconsin in the early 1900s and replaced the carriage and wagon industry. By 1910, the automobile and gasoline tractor were widely accepted, and buildings for Uncle Sam Tractor and Machinery Company in Menasha and Oshkosh Corporation in its namesake Oshkosh were constructed in 1919 and 1921 respectively, followed by the Fox River Tractor Company Office in 1928.⁸⁴

The Fox River Valley Industrial Properties Intensive Survey identified six resources associated with the carriage, wagon, and motorized vehicle industry. The dates of construction of these

Speed
when you want it
Power
all the time

WE do not argue that all plowing should be done at high speed, for we believe the farmer is the best judge. We do believe that he should have sufficient power in reserve to permit high speed plowing, harrowing and seeding when soil and weather conditions make it advisable. And having such reserve, it is unnecessary to provide an emergency low gear.

The gear ratios of the Uncle Sam Tractor give two speeds forward, 2½ and 3½ m. p. h. At the 1919 National Tractor Demonstration at Wichita, the Uncle Sam gave an impressive demonstration when it pulled four 14-inch bottoms at 3½ m. p. h. But we only recommend 3 bottoms as always to have ample reserve power for the hard spots and to insure longer life to the motor.

The Uncle Sam 20-50 is the kind of quality tractor which discriminating farmers now want. Timken bearings throughout—U. S. Nuttall heat-treated gears—U. S. Beaver motor specially designed for kerosene—Bossett producer type carburetor and special manifolds—and Dainic-insured ignition.

A GOOD TRACTOR should carry a good contract. You will like the Uncle Sam proposition. When may our representative talk things over with you? Write for catalog.

U. S. TRACTOR & MACHINERY CO.
Box 220 Sixth St. MENASHA, WIS.

U.S. Tractor & Machinery Co. (Uncle Sam), advertisement. Farm Implement News, Dec. 25, 1919.

resources begin with the LaBelle Wagon Works in 1879 in Fond du Lac and ends with the Oshkosh Corporation North in 1962 in Oshkosh. While diffuse, there does appear to be a prevalence of resources associated with this industry in Winnebago County.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|------------------------|-------------------------------------|-------------|-------------------|
| Appleton | 316 N. Appleton Street | Milhaupt Carriage Works | 1920 | Surveyed |
| Appleton | 1018 N. Rankin Street | Fox River Tractor Company Office | 1928 | Surveyed |
| Fond du Lac | 24 S. Brooke Street | LaBelle Wagon Works | 1879 | Surveyed |
| Menasha | 352 Sixth Street | Uncle Sam Tractor and Machinery Co. | 1919 | Surveyed |
| Oshkosh | 2737 Harrison Street | Oshkosh Corporation North | 1962 | Surveyed |
| Oshkosh | 2307 Oregon Street | Oshkosh Corporation Headquarters | 1921 | Surveyed |

Distribution, Shipping, and Packing

Distributing, shipping, and packing industries have historically relied on transportation for their business model. Consequently, they have been located near both the manufacturing facilities of other industries and major modes of transportation, whether that is rivers and railways in the nineteenth century or highways and airports in the twentieth century. The extant resources associated with these industries in the Fox River Valley are all from the twentieth century and often follow a trend of adaptation to transportation means. The first two decades saw the creation of large multi-story warehouses in most of the cities of the valley to house the material goods that other industries produced. During the 1920s and 1930s, oil holding, and processing facilities became common, and trucking and transfer companies began appearing in large numbers during the 1940s and 1950s. By the 1960s, a number of these functions had combined in the form of large sprawling distribution centers, often at the edges of cities and frequently related to food industries rather than consumer goods or heavy industry.⁸⁵

Green Bay, known for its economic character as the packing city, has had many historic resources related to distribution, though many are more closely associated with transportation rather than industry. Beyond the port, railway lines, switching stations, and highways, Green Bay also has many historic warehouses, shipyards, coal and lumber yards, and oil, chemical, and fuel supply companies. The city had the state's largest lumber yards during the 1880s and 1890s, and also Wisconsin's largest coal fields, of which there were three along the river, including the C. Reiss Coal Company. In addition, Green Bay has also had packing companies as early as the 1850s and ice harvesting and storage facilities since the 1860s. The city's shipbuilding yards are non-extant, as are most of, but not all, the resources associated with its coal and lumber yards, all located along the banks of the Fox River and the East River. Another example was the non-extant Forest Packing Company, a local company that packed and shipped meat products from the Fox River Valley, that sponsored a new professional football team, the Green Bay Packers, for their inaugural season in 1919. The remaining resources are from the twentieth century instead, and include trucking companies, transfer companies, fuel supply, and later consumer goods storage and distribution centers like Prange's expansive center for loading and unloading clothing and other department store goods. Other post-war examples include the Jones Transfer and Motor Transfer companies that were early trucking companies, supplying goods from their warehouses and garages in the city, often for industrial clients.⁸⁶

By the middle of the twentieth century, the focus of distribution industries had moved away from wagons, ships, and even railroads toward trucking, taking advantage of the widely improved and growing highway network in the United States. These industries consequently moved their facilities to the edges of the city and away from the industrial core neighborhoods that they had previously inhabited. One such example is the Krogh Supply Company of Appleton, which began as a warehouse and became a trucking business with new facilities in 1943.⁸⁷

The Fox River Valley Industrial Properties Intensive Survey identified eight resources associated with the distribution, shipping, and packing industry. The dates of construction of these resources begin with the A. Streich and Brothers Warehouse in 1919 in Oshkosh and ends with the Prange's Distribution Center in 1962 in Green Bay. Distribution, shipping, and packing companies were most prevalent in Green Bay, which had dozens of such enterprises contributing to the economic hub that was the port of Green Bay.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|------------------------|-----------------------------------|-------------|-------------------|
| Appleton | 1233 W. Spencer Street | Krogh Supply Company | 1943 | Surveyed |
| Green Bay | 404 N. Henry Street | Jones Transfer Company | 1937 | Surveyed |
| Green Bay | 200 Mather Street | Motor Transfer Depot | 1930 | Surveyed |
| Green Bay | 1300 N. Quincy Street | Prange's Distribution Center | 1962 | Surveyed |
| Green Bay | 1401 State Street | Leicht Material and Transfer Co. | 1938 | Surveyed |
| Menasha | 204 Madison Street | Chemical Supply Company | 1959 | Surveyed |
| Oshkosh | 2905 Jackson Street | Deep Rock Oil Corporation | 1921 | Surveyed |
| Oshkosh | 851 S. Main Street | A. Streich and Brothers Warehouse | 1919 | Surveyed |

Food Products

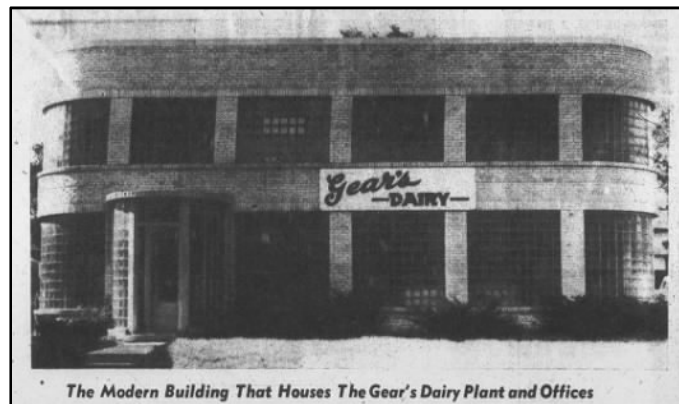
Abundant natural resources, such as Lake Michigan, Lake Superior, Green Bay, and inland rivers and lakes, first drew Native Americans to the region and later fur traders who grew the fishing industry from a small trade of independent fishermen serving local markets into one of Wisconsin's earliest commercial enterprises with entire networks of skilled fishermen. Door, Manitowoc, and Bayfield counties emerged as early leaders in the industry due to their protected shores, aquatic environment, and lack of heavy industry. The 1840 census indicates that Brown County (present day Oconto, Brown, Door, and Kewaunee counties) was second in commercial distribution of fish in the state, and Winnebago County was fifth.⁸⁸ Fish were salted, packed in barrels, and shipped to the east coast through the help of the expanding railroad network in the mid-1800s. The industry continued to grow until the late-1800s when overfishing and less demand had a negative impact. The period from 1900 to 1930 was marked by renewed growth due to improvements in boat design, refrigeration, and trucking, and major fisheries opened branches in communities that were emerging as leaders in the packing industry, such as Johnson Fish Company in Green Bay. However, predatory species devastated the industry by mid-century, and it went into a steady decline.⁸⁹

The flour milling industry was one of the first in the Wisconsin Territory, and there was a mill in Brown County as early as 1809. Around the time of statehood, there was an influx of farmers who chose to grow a staple crop of soft, winter wheat, making Wisconsin one of the country's top producers from 1845 to 1875. Flour mills were in high demand, and every community with a

river with enough flow to turn a waterwheel had a gristmill. Early mills used heavy timbers to support the heavy grindstones; later mills used stone and masonry. There were 29 grist mills in Wisconsin in 1840, 117 in 1850, 370 in 1860, and 581 in 1870.⁹⁰ Milwaukee and the Fox River Valley became centers for the industry. Following the Civil War, Neenah and Menasha were second only to Milwaukee, the world leader in flour production. There were 10 mills in Neenah and Menasha by 1860 and 15 by 1870.⁹¹ The industry hit its peak in 1880 with 705 mills, including the South Side Flouring Mill in 1883 in Oshkosh. In terms of dollar value, flour production was the state's top industrial concern for decades, consistently ranking seventh or eighth in the country.⁹² Westward migration of wheat cultivation and new milling techniques led to the demise of the milling industry by 1890. New industries rehabilitated the mill sites to make use of the waterpower sources. Small town mills converted to production of animal feed for the growing livestock and dairy industries.⁹³

The growth of this industry also gave rise to the grain elevator and storage warehouse. These one-story, wood-framed buildings appeared as early as the 1840s in Wisconsin's larger milling centers. They were located adjacent to the mill to store wheat coming from new regions in the west until it could be milled. In later years, the railroads established their own massive grain elevators and storage warehouses. During the 1860s and 1870s, the wood cribbed elevator emerged, commonly clad in corrugated metal and prevalent until the turn of the century. It did not resolve fire concerns, though, and new experimental designs were developed. Steel elevators were quite large, but quite costly and therefore fairly rare. Structural clay tile and brick were used in the late 1870s and 1880s and were common by 1900. Reinforced concrete experimentation began in 1899 and became popular in the 1920s and 1930s. The 1917 Strid Grain Company Elevator in Green Bay is an early example of a reinforced concrete elevator. Concrete has since become an industry standard due to its structural and economic qualities and was used throughout Wisconsin from the 1920s to the 1960s. With the decline of the flour milling industry, extant elevators are often associated with hops and malt storage for the brewing industry.⁹⁴

Early dairy production began in Wisconsin during the late 1840s and 1850s by skilled dairymen from New York. However, it was seen as just another aspect of operating a farm. Livestock were not quality breeds and were wintered, preventing milk production throughout the year. Dairy products were produced right on the farm and were usually of poor quality, preservation methods, and age. After the Civil War, dairy production moved off of the farm and into small regional factories that would combine the milk from many local farmers to produce specialized products such as butter, cream, or cheese. The state's earliest cheese factories were located in Fond du Lac and Winnebago counties in the mid-1860s, and Fond du Lac County was one of the state's top butter producers. In 1872, practitioners



*Gear Dairy Advertisement.
Neenah News-Record, August 1949.*

advocating for dairy specialization formed the Wisconsin Dairymen's Association. Their education and marketing efforts positioned the dairy industry to succeed the waning wheat industry. The Wisconsin Dairy Commission was established in 1889 in attempt to control quality, and the Agricultural Experiment Station at the University of Wisconsin was founded to contribute scientific developments and education in agriculture. Technical advances at the turn of the century contributed to make Wisconsin the nation's leader in butter, cheese, and milk production by 1915. During the 1920s and 1930, small regional factories consolidated into large industrial concerns. Today, Wisconsin has more dairy farms and produces nearly twice the amount of cheese than any other state. Nearly half of the food industry resources inventoried were related to the dairy industry.⁹⁵

The canning of fruit and vegetables was developed in France and England in the early 1800s. America's first cannery was founded in Boston in 1819, and the concept spread along the eastern seaboard. However, it wasn't until the late 1800s that entrepreneurs contemplated the possibility of canning cash crops for sale in distant markets. In 1887, Wisconsin's first cannery was started in Manitowoc, followed by Larson Canning in 1890 in the Fort Howard area of Green Bay. At the turn of the century, there were 15 canneries in the state, such as the Fond du Lac Canning Co. in 1898 in Fond du Lac and the Green Bay Canning Company in 1902 in Green Bay.⁹⁶ These factories were one- or two-story frame buildings with front or side loading areas and gabled roofs with ventilators. Apples, beans, corn, cucumbers, peaches, peas, pumpkins, sauerkraut, and tomatoes were some of the earliest fruits and vegetables canned in Wisconsin, with corn and tomato dominating. Shortly after the turn of the century, beets, corn, peas, and snap beans proved to be more economical, accounting for 80 to 90 percent of the state's canned vegetables.⁹⁷ Technological advances in crop growth, machinery, and food preservation greatly improved the industry as it expanded in the early twentieth century, tripling the number of canneries to over 49 by 1910, 126 by 1920, including the Alart and McGuire Pickle Company in 1917 in Green Bay, and 170 in 1931. Profitable enterprises were replacing their old, wood factories with new brick ones, and some were repurposing breweries shut down during Prohibition. Like many others, the Great Depression saw a dampening of the industry, which led to closed factories, suspended operations, consolidated firms, and delayed upgrades. However, World War II brought Wisconsin's production back to a nationwide peak in 1945.⁹⁸ In 1944, Wisconsin had 153 canneries including nine in Fond du Lac County (tied for second in the state and known for their high concentration in peas and corn), six in Brown County (third in the state and known for its unusual Wisconsin sugar beets), and five in Outagamie County (tied for fourth in the state).⁹⁹ Wisconsin led the country in canned vegetable production, especially beets, carrots, peas, sauerkraut, and sweet corn, into the mid-century and is presently known for its cranberry production.¹⁰⁰

The Fox River Valley Industrial Properties Intensive Survey identified 26 resources associated with the food industry. The dates of construction of these resources begin with the P. Chardonneau Block in 1877 in Oshkosh and end with the K. C. Storage Company in 1922 in Green Bay. From 1915 to 1949, the industry was dominated by dairy concerns. After 1950, canning, packaging, and storage concerns dominated the industry, which was concentrated in Green Bay.¹⁰¹

The P. Chardonneau Block, located at 206 State Street in the City of Oshkosh, is an excellent example of a resource related to the dairy industry. However, the interior integrity of the property, which served as a small two-story urban dairy constructed in 1877, is lacking. Otherwise, the property may be potentially eligible for listing in the National Register of Historic Places.¹⁰²

26 resources were identified in the survey related to the food products industry. A number of these properties are potentially eligible for listing in the National Register of Historic Places, including the Winnebago Cheese Company at 240 W. Division Street in Fond du Lac, the Wernig, or Cobb, Sunlit Bakery at 1438 Cedar Street in Green Bay, the Strid Grain Company Elevator at 420 Twelfth Avenue in Green Bay, the William Gear Dairy at 333 First Street in Menasha, and the South Side Flouring Mill at 50 W. Sixth Avenue in Oshkosh. These resources produce a context for the industry in the Fox River Valley that spans a period from 1877 to 1982, with much of the industry concentrated in Green Bay and Fond du Lac.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|--------------------------|---|-------------|-------------------|
| Appleton | 127 E. Pacific Street | Langstadt, Myer & Company Creamery | 1897 | Surveyed |
| Appleton | 1111 N. Rankin Street | Kambo Food Stores | 1936 | Surveyed |
| Fond du Lac | 233 W. Division Street | Winnebago Cheese Company | 1915 | Eligible |
| Fond du Lac | 240 W. Division Street | Dow Cheese Company | 1924 | Surveyed |
| Fond du Lac | 228 S. Military Road | Smith-Manis-Winning Wholesale Fruit | 1927 | Surveyed |
| Fond du Lac | 325 Tompkins Street | Galloway West Dairy | 1918 | Surveyed |
| Fond du Lac | 196 Western Avenue | Damrow Brothers Company | 1917 | Surveyed |
| Green Bay | 801 Cedar Street | Frank C. Schilling Company | 1916 | Surveyed |
| Green Bay | 900 Cedar Street | Bodart Candy Factory | 1897 | Surveyed |
| Green Bay | 1438 Cedar Street | Wernig's Sunlit Bakery | 1923 | Eligible |
| Green Bay | 2545 Finger Road | Delwiche Farms Dairy | 1945 | Surveyed |
| Green Bay | 341 N. Henry Street | Atlas Warehouse Cheese Factories | 1934 | Surveyed |
| Green Bay | 1330 Lime Kiln Road | Packerland Packing Company | 1972 | Surveyed |
| Green Bay | 1228 Main Street | Johnson Fish Company | 1927 | Surveyed |
| Green Bay | 1429 Main Street | Green Bay Canning Company | 1902 | Surveyed |
| Green Bay | 1605 Main Street | L. D. Schreiber and Company | 1945 | Surveyed |
| Green Bay | 200 Packerland Drive | K. C. Storage Company | 1982 | Surveyed |
| Green Bay | 1271 St. Clair Street | Wisconsin Dairy Laboratory | 1916 | Surveyed |
| Green Bay | 857 School Place | Alart and McGuire Pickle Company | 1917 | Surveyed |
| Green Bay | 420 Twelfth Avenue | Green Bay and Western Railroad Grain Elevator | 1917 | Eligible |
| Menasha | 333 First Street | William Gear Dairy | 1949 | Eligible |
| Neenah | 601 S. Commercial Street | Neenah Milk Products | 1928 | Surveyed |
| Neenah | 1815 Marathon Avenue | American National Can Company | 1955 | Surveyed |
| Neenah | 434 Sherry Street | N. Simon and Company | 1887 | Surveyed |
| Oshkosh | 50 W. Sixth Avenue | South Side Flouring Mill | 1883 | Eligible |
| Oshkosh | 206 State Street | P Chardonneau Block | 1877 | Surveyed |

Masonry, Stone, and Cement

Wisconsin has a varied geological history that has produced a range of materials from three geological classes, including igneous, metamorphic, and sedimentary rock. These materials have

been quarried for stone, lime, and clay and applied in building and industrial purposes. Quarrying stone was a common practice early in the state's history, and, by the 1870s, many small cities had their own quarries supplying rubble, sand, and particularly limestone. Following large-scale urban fires across the Midwest, including in the City of Oshkosh, an impetus to build with stone and brick became more popular. Industrial buildings often employed a great deal of heat and energy and were invariably constructed out of fire-resistant materials. Work yards of quarries were often developed along rich limestone or sandstone beds along waterways and often left significant deep scars on the landscape. Therefore, such resources were often located outside of the center of nineteenth century cities. Most, if not all, of the Fox River cities covered in this survey had at least one stone quarry. Oshkosh and Appleton in particular had more than one on each side of the Fox River. Green Bay provided the Fox River Valley with a large amount of stone for building construction purposes in the late nineteenth and early twentieth centuries. No resources related to the production of stone products were included in this survey. Sand and gravel production have also been traditionally high in the region of the Fox River Valley, though extensive processing plants have seldom been associated with these products.¹⁰³

Brick was commonly produced in parts of the state with stratified beds of clay, mostly along the shore of Lake Michigan. Milwaukee in particular became known for the manufacture of brick in Wisconsin, often referred to as "Cream Brick" due to its color. Kiln production of bricks began in and around Milwaukee in the 1830s and became a major industry by the mid-nineteenth century. The cities of the Fox River began producing their own cream brick after the end of the Civil War, on a smaller scale for local construction. Fond du Lac, for example, had four active brickyards in the 1880s. Brick production began to slow as the easily accessible clay deposits began to run out, and other building materials became popular. There were no resources included in the survey related to brick making.¹⁰⁴

Early development in cement and concrete production in Wisconsin centered in Milwaukee. Such supplies had been imported from eastern states until the 1890s. However, after the 1890s, such building materials, increasingly common in construction, were produced in and around most small cities in the state and especially those known for manufacturing.¹⁰⁵

In the Fox River Valley, Green Bay, as a regional port and transportation hub, had a particular use for the production of stone, brick, and concrete. The city had numerous brickyards in particular, though few quarries, at the turn of the twentieth century. In addition, cement and concrete manufacturing plants were common. Many of these functions, quarries, brickyards, and concrete plants, were located at the periphery of industrial areas, supplying the nearby industries and located close to major means of transportation like the Fox River, rail lines, and major highways. Most of them were developed from the 1910s through the 1950s. Little remains of most of these resources. However, a few cement production facilities still exist in Green Bay including the Western Lime and Cement and the Universal Atlas Cement Companies. There were no examples of these resource types found in the other cities of the Fox River Valley, though they certainly existed in the past.¹⁰⁶

The Fox River Valley Industrial Properties Intensive Survey identified three resources associated with the masonry, stone, and cement industry. The dates of construction of these resources begin with the Universal Atlas Cement Company in 1938 in Green Bay and ends with the Western

Lime and Cement Company in 1949 in Green Bay. Masonry, stone, and cement companies were most prevalent in Green Bay due to its history of transportation and construction related industries and as a regional distribution point.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|---------------------|--------------------------------------|-------------|-------------------|
| Green Bay | 137 James Street | Western Lime and Cement Company | 1949 | Surveyed |
| Green Bay | 600 Liberty Street | Bark River Culvert and Equipment Co. | 1947 | Surveyed |
| Green Bay | 924 McDonald Street | Universal Atlas Cement Company | 1938 | Surveyed |

Metal Products

Metal product industries began in Wisconsin with the development of small-scale blacksmith shops in settlement communities. These shops typically followed a traditional method and trade, which had existed for hundreds of years making small tools of iron and other metals for local use. As demand for agricultural machinery increased in the 1840s and 1850s, many of the blacksmith shops became larger foundry businesses, producing entire sets of equipment and complex metal machines. By the mid-nineteenth century, the manufacturing of machinery for industrial purposes had become common as the industrial revolution began to affect the American economy.¹⁰⁷

The first foundry in the Fox River Valley was the non-extant Fort Howard Foundry, established in 1856, which employed eight people at the time. By the 1880s, there were at least 108 independent firms in Wisconsin along these lines. The number decreased to only 34 by the twentieth century. The foundries had shifted focus to the specialized manufacture of large and expensive products such as stoves, boilers, railway equipment, presses, carriages, and paper-making machinery. The businesses consolidated and became some of the largest employers in the state. Often, these industries located themselves near their primary customers, so it is unsurprising that many of the foundries in the valley produced paper-making machinery, spare parts, and the means to transport the paper products. To present day, Wisconsin's three largest private industrial sectors are, in ascending order: dairy production, paper printing and milling, and machinery manufacturing. The Fox River Valley has significant representatives of all three, though its reputation lies with paper milling. The foundries and manufacturing plants of the region are nearly as significant as its paper mills as the valley is only second to Milwaukee in industrial production in the state.¹⁰⁸

Many of the surveyed metal products resources date from the first three decades of the twentieth century, when the cities of the Fox River Valley were growing rapidly. Though many of the metal products industries in the Fox River Valley became large and influential companies in the State of Wisconsin and beyond, most began by catering to the other industrial needs in their community. In Green Bay, metal production was focused on supporting the locally important shipping industry with the production of large steel cranes and bridges, like the Northwest Engineering Company, the successor of the Hartman-Greiling Company, the Green Bay Dock Company, and the Hess Iron Works.¹⁰⁹

The first non-extant blacksmith shop in Kaukauna opened in 1881 on the south side of the Fox River, producing common metal items in addition to wire and parts for the hydroelectric powerplants and paper mills. Roloff Manufacturing is the direct descendant of the shop, making hardware and marine vehicle parts. In Appleton, the large Valley Iron Works made machinery for paper production, often sold to the half-dozen paper mills that occupied the area. Other Appleton metal product industries produced stamping, wires, and other supporting industries to paper manufacturing.¹¹⁰



Valley Iron Works, Appleton, 1962.
WHS # 28733

Menasha and Neenah, unusually, had large scale iron production for purposes unrelated to the paper industry. The Neenah Stove Works produced stoves and furnaces, while the Neenah Foundry produced plumbing fittings and civic equipment like manhole and drain covers. Further south, the non-extant Union Steam Boiler Works was established in Oshkosh in 1880. Other smaller foundries and machine shops soon followed. One of the largest and most influential of all the metal products companies in the survey is located in Oshkosh: The E. B. Hayes Machinery Company, or Rockwell Wisconsin Parts Company, which began producing axels for trucks, but would eventually expand to international prominence as the Rockwell Corporation building trucks, automobile parts, assembly line machines, and aircraft. Similarly, Fond du Lac expanded from a collection of small foundries in the late nineteenth century to developing two large international corporations in the Giddings and Lewis headquarters and manufacturing plant, developed from the 1920s to the 1940s, which produced assembly line industrial machines and pioneered automation in the post-war period. Mercury Marine, which began in 1939 as the Kiekhaefer Company, continues to produce marine outboard motors across the country.¹¹¹

The Fox River Valley Industrial Properties Intensive Survey identified 42 resources associated with the metal products industry. The dates of construction of these resources begin with the Neenah Stove Works in 1876 in Neenah and ends with the Morley-Murphy Company in 1970 in Green Bay. Metal products companies were common in nearly all of the cities of the Fox River Valley, and communities like Appleton, Green Bay, Neenah, Oshkosh, and Fond du Lac had an extensive number of historic foundries and other machine shops.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|----------------------------|-------------------------------------|-------------|---------------------------|
| Appleton | 1629 W. Haskel Street | Spencer-Johnston Company | 1956 | Surveyed |
| Appleton | 1005 N. Lawe Street | Standard Manufacturing Company | 1914 | Surveyed |
| Appleton | 975 N. Meade Street | Bahcall Isadore Scrap Metal Company | 1928 | Surveyed |
| Appleton | 1000 N. Meade Street | Wisconsin Wire Works | 1908 | Surveyed |
| Appleton | 618 S. Olde Oneida Street | Appleton Machine Company | 1890 | Contributing ^A |
| Appleton | 1325 S. Perkins Street | Fox Valley Sheltered Workshop Inc. | 1959 | Surveyed |
| Appleton | 401 E. South Island Street | Valley Iron Works Company | 1881 | Contributing ^A |

| | | | | |
|-------------|-------------------------|--|--------|-----------------------|
| Appleton | 231 S. Victoria Street | Al Utschig and Sons | 1951 | Surveyed |
| Fond du Lac | 423 Arlington Avenue | Graham Tool and Die Company | 1953 | Surveyed |
| Fond du Lac | 135 S. Brooke Street | Globe Stove and Range Warehouse | 1904 | Surveyed |
| Fond du Lac | 142 N. Doty Street | Giddings and Lewis Machine Tool Co. | 1929 | Eligible ^B |
| Fond du Lac | 17 McWilliams Street | Fond du Lac Awning & Tent Co. | 1920 | Surveyed |
| Fond du Lac | 545 W. Pioneer Road | Mercury Marine Manufacturing | 1965 | Surveyed |
| Green Bay | 127 S. Broadway | Rothe Blacksmith | 1932 | Surveyed |
| Green Bay | 1341 S. Broadway | Hess Iron Works | 1911 | Surveyed |
| Green Bay | 1814 S. Broadway | Wisconsin Fabricating Company | c.1920 | Surveyed |
| Green Bay | 601 Elizabeth Street | Cleermon Machine Tool Company | 1906 | Surveyed |
| Green Bay | 975 Lombardi Avenue | Hudson and Sharp Company | 1966 | Surveyed |
| Green Bay | 1201 Main Street | Hudson and Sharp Machine Shop | 1906 | Surveyed |
| Green Bay | 500 N. Monroe Avenue | Green Bay Welding Company | 1930 | Surveyed |
| Green Bay | 701 Morley Road | Morley-Murphy Company | 1970 | Surveyed |
| Green Bay | 233 S. Pearl Street | Northwest Engineering Company | 1918 | Surveyed |
| Green Bay | 301 S. Pearl Street | Norcor Manufacturing Company | 1922 | Surveyed |
| Green Bay | 322 N. Roosevelt Street | Libert Machine Company | 1920 | Surveyed |
| Green Bay | 409 N. Roosevelt Street | Meler Machine Company | 1929 | Surveyed |
| Green Bay | 1206 Velp Avenue | Alwin Manufacturing Company Warehouse | 1962 | Surveyed |
| Green Bay | 201 W. Walnut Street | Northwest Engineering Office | 1920 | Surveyed |
| Kaukauna | 400 Gertrude Street | Roloff Manufacturing | 1944 | Surveyed |
| Kaukauna | 820 Hyland Avenue | Liebovich Steel and Aluminum | 1929 | Surveyed |
| Menasha | 309 DePere Street | M. G. Auer Sheet Metal Works | c.1920 | Surveyed |
| Menasha | 222 Washington Street | United Pattern Works Garage | 1957 | Surveyed |
| Neenah | 2121 Brooks Avenue | Neenah Foundry | 1964 | Surveyed |
| Neenah | 223 Edna Street | Neenah Brass Works | 1907 | Eligible |
| Neenah | 619 Main Street | Neenah Stove Works | 1876 | Eligible |
| Oshkosh | 236 Bayshore Drive | Machine Shop | 1919 | Surveyed |
| Oshkosh | 1803 Bowen Street | Marvel Equipment Corporation | 1956 | Surveyed |
| Oshkosh | 714 Division Street | Triangle Manufacturing Company | 1918 | Surveyed |
| Oshkosh | 1100 High Avenue | E. B. Hayes Machinery Company | 1912 | Eligible |
| Oshkosh | 501 S. Main Street | Leach Company Warehouse | 1925 | Surveyed |
| Oshkosh | 1127 S. Main Street | Buckstaff Company Office | 1923 | Surveyed |
| Oshkosh | 513 W. Ninth Street | Duo-Safe Ladder Corporation | 1950 | Surveyed |
| Oshkosh | 36 E. Tenth Avenue | Block Iron and Supply Company | 1964 | Surveyed |

^A Contributing to the proposed South Island Industrial Historic District

^B Eligible as the proposed Giddings and Lewis Complex

Miscellaneous Small Industries

Many industries produced goods that do not fit easily into the other categories of industrial development in the Fox River Valley. These businesses were usually small in scale, though not always, and span a period from the late nineteenth century to the 1950s among those extant surveyed resources. Their variety includes examples as disparate as refrigerator manufacturers, plastics companies, oil refining, index drawer manufacturing, and chick breeding and raising. Since none of these have a clear relationship with another, it is difficult to exact trends in their

development and frequency. However, it can be stated that their industrial nature is manifested in the location of these resource in and around other industrial buildings and districts.¹¹²

Supporting small industries were plentiful in Green Bay during the early twentieth century, encouraged in their concentration by zoning introduced during the 1920s, and proliferated around the larger storage yards, warehouses, mills, and manufacturing plants near the rivers. Ice harvesting was common in the nineteenth century in Oshkosh on Lake Winnebago and in Green Bay on the Fox River and Green Bay. The ice would be stored and sold to breweries, other industries, and directly to households for common use. Oshkosh had many small industries including stone monument makers, tobacco companies, small electric tool makers in addition to the large industry of trunk and luggage makers that was widespread in the city from the 1880s through the 1910s and which has no extant resources. Fond du Lac had many manufacturers of agricultural machinery and household appliances. The city also produced stoneware, typewriters, hand tools, and many industrial products related to food production and consumption, though few of these remain.¹¹³



Railroad loading platform on S. Brooke Street with Gurney Refrigerator Company in the background. Fond du Lac, 1924.

The Fox River Valley Industrial Properties Intensive Survey identified 24 resources associated with miscellaneous small industries. The dates of construction of these resources begin with the Standard Oil Depot in 1893 in Neenah and ends with the Preston Chick Company in 1958 in Oshkosh. Miscellaneous small industries were historically present in all of the Fox River Valley cities and especially prevalent in Oshkosh.

| City | Address | Historic Name | Date | Evaluation |
|-------------|-------------------------|-------------------------------------|------|------------|
| Appleton | 114 N. Outagamie Street | Safety Truck Brake Company | 1929 | Surveyed |
| Appleton | 1520 W. Rogers Avenue | Scolding Locks Company | 1922 | Surveyed |
| Appleton | 918 N. Union Street | Northwestern Petroleum Corp. | 1943 | Surveyed |
| Fond du Lac | 42 S. Brooke Street | Gurney Refrigerator Company | 1901 | Eligible |
| Fond du Lac | 220 Oak Street | Sanitary Refrigerator Co. Warehouse | 1922 | Surveyed |
| Fond du Lac | 283 N. Macy Street | C. J. Hinn Company | 1919 | Surveyed |
| Green Bay | 1028 N. Ashland Avenue | Green Bay Plastics | 1946 | Surveyed |
| Green Bay | 520 N. Broadway | Northern Cold Storage Company | 1925 | Surveyed |
| Green Bay | 111 W. Mason Street | Reiss C. Coal Company | 1928 | Surveyed |
| Green Bay | 1121 McDonald Street | Sinclair Refining Company | 1913 | Surveyed |
| Green Bay | 1402 State Street | Automatic File and Index Company | 1920 | Eligible |
| Menasha | 388 Ahnaip Street | Menasha Wooden Ware Oil Room | 1890 | Surveyed |
| Menasha | 153 Kaukauna Street | Pankratz Fuel Company | 1901 | Surveyed |
| Neenah | 401 Edna Street | Standard Oil Depot | 1893 | Surveyed |
| Neenah | 175 N. Western Avenue | Neenah Electrotype Corporation | 1956 | Surveyed |

| | | | | |
|---------|-------------------------|---------------------------------------|--------|----------|
| Oshkosh | 520 W. Fifteenth Avenue | Preston Chick Company | 1958 | Surveyed |
| Oshkosh | 410 E. Murdock Avenue | Standard Oil Depot | 1921 | Surveyed |
| Oshkosh | 600 S. Main Street | Theobald Fisher Company | c.1920 | Surveyed |
| Oshkosh | 710 S. Main Street | T & S Tobacco Company | 1917 | Surveyed |
| Oshkosh | 900 S. Main Street | G. Reinke Company Monuments | 1908 | Surveyed |
| Oshkosh | 1127 S. Main Street | Buckstaff Company Office | 1923 | Surveyed |
| Oshkosh | 1302 S. Main Street | Home Improvement Company | 1947 | Surveyed |
| Oshkosh | 609 Nebraska Street | Specht-Durler Electric Company | 1931 | Surveyed |
| Oshkosh | 522 Seventeenth Avenue | Wisconsin Liquor Company Wholesale | 1940 | Surveyed |

Lumber and Wood Products

Wisconsin's earliest European settlers erected homes of roughly hewn logs. As settlements developed, lumber was available nearby and processed locally at small sawmills built in the earliest years of almost every community. As local timber became scarce, a demand for lumber from farther locations gave rise to the lumber industry. The Upper Midwest was one of the most abundantly forested parts of the country. The Fox River Valley held a seemingly inexhaustible supply of hardwoods and well-scaled conifers. Wisconsin also had an ideal system of lakes and rivers connected to the Great Lakes and Mississippi River for transporting timber, log storage, and waterpower sites for mills, perhaps the most important factor in the growth of the industry. While the Chippewa River Valley would become the largest and most productive lumbering district, the Green Bay and Fox-Wolf River System also became one of the industry's most significant areas.¹¹⁴

During the 1840s, lumber production became the state's leading commercial enterprise, exceeding fur trading and lead mining, by industry pioneers like Jacob Franks in Green Bay. The exhaustion of lumbering areas in the Eastern United States by the mid-1800s, brought experienced lumber barons and a skilled labor force to Wisconsin. With two mills built near Oshkosh by 1836, another in that city in 1847, two at Fond du Lac by 1844, the Wolf River area became a major lumbering district by the late 1840s. The lumber industry became the backbone of the region's economy by 1850, at which time the number of sawmills in the state had grown to 278. In 1860, there were 476 sawmills in the state.¹¹⁵

A new era of development was fueled by rapid immigration west, extraordinary growth of the railroads, and increasing industrialization after the Civil War. Four mills were constructed in Oshkosh in 1852 alone; and by the mid-1860s, that city was home to 50 mills, 25 lumber dealers and manufacturers, and several sash, door, and blind factories. By the mid-1860s, mills in Oshkosh and Green Bay were also producing substantial quantities of shingles, lath, and other products in addition to boards and rough lumber. Lake Michigan became an important conduit for exporting lumber to other markets, and Green Bay became one of several important lumber shipping ports in Wisconsin.¹¹⁶

The industry modernized as steam power replaced waterpower during the 1850s, only to be outmoded by electric power in the late 1800s. Increases in efficiency and economy were had with advances in machinery, notably the band saw, and transportation, as new railroads

connected mills to the farthest north lumber camps and opened up new markets. In 1871, the Chicago and Northwestern Railroads, which had connected Oshkosh to Green Bay since 1860, extended to the Chippewa Valley. Similarly, the Wisconsin Central line constructed a branch to Green Bay, and the Green Bay and Minnesota Railroad extended from Green Bay to the Mississippi River. Sawmills sprang up along the rail lines, increasing the total number of sawmills in the state to 704 in 1880. Due to improved distribution, mills could produce finished lumber in addition to their rough sawn goods, leading to the increased construction of planing mills, drying yards, and kilns to dress and finish lumber.¹¹⁷

While earlier lumber companies were most often owned by individuals or partnerships, corporations became increasingly more common. Small operations were often absorbed by larger companies or crushed by expenses necessary to compete. Companies commonly operated grist mills, farms, meat-packing plants, and stores to supply their logging crews; some operated boarding houses, residences, foundries, machine shops, wagon shops, and warehouses to support mill sites.¹¹⁸

Wisconsin's lumber industry reached its peak production in 1892. The state's white pine reserves were nearly exhausted by the turn of the century, forcing dramatic changes in the industry. In 1900, Wisconsin was the foremost producer of lumber in the United States, with 1,033 mills; however, within five years it dropped to second behind Washington. By 1910, many companies cut timber in the Pacific Northwest to supply their operations in Wisconsin. Lumber remained the top industry in the state until 1920. By 1925, the number of mills plummeted to 234. As companies closed mills, retail and distribution centers remained in economically stable communities. The lumber industry continued through the late twentieth century, with increased importance on conservation and reforestation; harvest of aspen, fir, and hemlock; and with wood pulp as the most important lumber product.¹¹⁹

The making of wood products began almost as soon as industrial logging began in Wisconsin, including the production of sashes, blinds, furniture, cabinetwork, barrels, and many other household articles by skilled craftsmen in custom shops commonly associated with local sawmills to serve the demands of the local community. As settlement increased, these shops transformed into independent factories. Wood product manufacturing quickly became a major segment of the state's economy after the Civil War. Wisconsin became a leading national producer of wood products by the late nineteenth century, shipping products to markets across the country. Despite Wisconsin's lumber industry's dramatic decline after 1910, manufacturers of finished wood products survived by using discarded timber or lesser grades of wood and experienced growth until the 1930s.¹²⁰

Most wood product companies were located along a major waterway with direct access to rail transportation. Manufacturing complexes comprised of spaces for receiving, storing, and seasoning lumber; planing mills; powerhouses; fabrication, assembly, and finishing shops; offices; and shipping warehouses; some included sales or display areas.¹²¹

The state's earliest European settlers brought furniture with them or made their own. In larger communities, furniture made and shipped from the east available to purchase. In some communities, there may have been skilled craftsmen who produced a limited number of custom

items. By 1840, Brown County had two such cabinetmakers. In the following decades, furniture factories continued to open, particularly in the southern half of the state and near Lake Michigan. By 1860, the industry grew to 147 operations. The adoption of mass production methods during the second half of the nineteenth century led to specialization, such as upholstered parlor furniture, bedroom furnishings, chairs, commercial wares, cabinets, or coffins. Experiencing a boost after the Civil War, the number of operations in the state grew to 196 by 1870. While Lake Michigan communities dominated the state industry, the Fox River Valley and Lake Winnebago areas also played important roles, specifically Appleton, Oshkosh, and Fond du Lac. Prominent local furniture manufacturers of the late nineteenth century included the Appleton Chair and Bedstead Company in Appleton, Buckstaff-Edwards Company in Oshkosh, and the Fond du Lac Table Manufacturing Company in Fond du Lac. Furniture manufacturing became one of the largest wood product industries in Wisconsin during the late nineteenth and early twentieth centuries, among the top 10 states in production for most of that time and peaking at sixth at the turn of the century with over 250 furniture factories.¹²²

While most furniture built in Wisconsin was from soft woods, non-wood materials were introduced at various times, including twisted paper fibers as a substitute for popular wicker fibers or metal components, common in twentieth century furniture design. The electric age of the twentieth century introduced many new products, including refrigerators, radio cabinets, and phonographic stands. Wisconsin's furniture industry peaked by 1915. The economic depression of the 1930s, exhaustion of native hardwoods, high labor costs, and unionization contributed to the industry's decline in Wisconsin. A few companies survived through modernization and adaptation, concentrating efforts on a limited line of products such as office, children's, hospital, or contract furnishing. Many former furniture manufacturers turned to wartime production during the 1940s and continued in heavy and light manufacturing after the war instead of returning to manufacturing furniture.¹²³

By 1850, there were thirteen manufacturers of wood sashes, doors, and blinds in the state, and by 1860, there were 55 operations that were mostly small and only served local demand. Plants grew to include planing mills, sash fabrication shops, door and blind production areas, glazier shops, finishing areas, power plants, and shipping and packing facilities as well as main office buildings and sales offices. Fond du Lac was a notable center of the industry due to its central location between northern timberland and the major southeastern markets in the state. In 1868, the C.J.L. Meyer sash, door, and blind factory in Fond du Lac ranked as the largest in the world. By 1870, the number of building product manufacturers in the state grew to 81, including 9 sash, door, and blind firms in Fond du Lac County. By 1890, it was eclipsed as the state's leader by neighboring Winnebago County led by Oshkosh as "Sawdust City." That city was home to 12 finishing mills during most of the following decade, including the notable mills of the Morgan and Radford Brothers and the Paine Lumber Company. Oshkosh was also home to furniture, cabinetwork, match, casket, and truck factories. The two counties, along with Milwaukee, remained the largest producers in the state through the early twentieth century. By 1900, the number of building product manufacturers in the state grew to 97 at which time the state ranked third in production of sashes, doors, and blinds. By the beginning of World War I, building product manufacturers began to stagnate similar to the state's other lumber-related industries. By 1920, the building products industry was no longer in the state's top 20 industries, with only a few mills left in operation.¹²⁴

While the manufacture of wooden containers was never a major industry, it was extremely important to communities with industrial concerns that depended on barrels, buckets, boxes, and tubs in which to store and ship goods such as meatpackers, flour millers, brewers, fish packers, and others. By 1860, there were 125 cooperage factories in the state, with 41 firms at the important shipping port of Milwaukee. The most notable operation in the Fox River Valley was the extensive Dunn and Brewster barrel factory in Appleton built in 1858, one of the state's largest woodworking operations during the mid-1860s. The coopering trade flourished in the state during the late nineteenth century, and many industries, particularly breweries and meat packing houses, maintained their own coopering departments. The industry peaked by the 1880s with a total of 198 firms making cooperage the fifteenth largest industry in the state, with strong areas of production in the Winnebago, Outagamie, and Brown Counties. Alternate bulk transportation methods such as sacks, bags, tins, metal kegs, paper boxes, and bulk shipping became increasingly popular and more economical and eroded demand for wooden containers by the late 1890s. By 1920, only seven operations remained in the state, and those closed by the mid-twentieth century.¹²⁵

Alongside cooperages, several other allied woodworking interests operated in the Fox River Valley. Menasha manufactured wooden domestic and commercial items such as boxes, measures, bowls, dishes, barrel covers, broom racks, cheese cases, hubs, spokes, pails, churns, and cutlery; by 1870, that city boasted the "largest tub, pail, and churn factory west of the Ohio" and one of the largest hub and spoke factories in the upper Midwest. Specialized wooden products were also manufactured in Appleton, including the Appleton Toy and Furniture Company.¹²⁶

The Fox River Valley Industrial Properties Intensive Survey identified seven resources associated with the wood products industry. The dates of construction of these resources begin with the Fond du Lac Table Manufacturing Company in 1871 in Fond du Lac and ends with the E. C. Manger and Son Company in 1969 in Green Bay. While diffuse, there does appear to be a prevalence of resources associated with this industry in proximity to the paper making industries of Green Bay, Neenah, and Menasha.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|---------------------------|-------------------------------------|-------------|-------------------|
| Appleton | 712 S. Olde Oneida Street | Appleton Machine Company Office | 1941 | Surveyed |
| Fond du Lac | 239 W. Scott Street | Fond du Lac Table Manufacturing Co. | 1871 | Surveyed |
| Green Bay | 1095 S. Broadway | Fort Howard Lumber Co. Warehouse | 1890 | Eligible |
| Green Bay | 724 Day Street | E. C. Manger and Son Company | 1969 | Surveyed |
| Green Bay | 1623 Main Street | Hummel Lumber Company | 1957 | Surveyed |
| Neenah | 164 N. Lake Street | Hardwood Products Factory | 1911 | Surveyed |
| Oshkosh | 627 Bayshore Drive | Sash and Door Millwork Warehouse | 1932 | Surveyed |
| Oshkosh | 523 W. Eleventh Avenue | Pingry Caswell Inc. | 1928 | Surveyed |

Paper Products

The invention of paper is attributed to the Chinese by 105 A.D. The first paper mill in America was established near Germantown, Pennsylvania in 1690. The industry was brought westward during the 1700s and early 1800s.¹²⁷

Wisconsin's paper industry began in Milwaukee around 1848. Wisconsin had the basic necessities readily available for efficient paper production: an abundance of water, raw materials, stable power supply, skilled labor, and access to markets. During the mid-1850s, the industry expanded across the state with the establishment of the non-extant paper mill of G.N. Richmond, C.P. Richmond, and Thomas Richmond in Appleton in 1855, and the non-extant Neenah Paper Mill of Hiram Smith, Edward Smith, Dr. N.S. Robinson, John Jamison, Moses Hooper, and Nathan Cobb in Neenah in 1865.¹²⁸

Paper is produced by placing millions of strands of fiber on a moving fine wire screen that is suspended in water. The fibers intertwine forming a thin mat as the water is drained through the screen, which becomes finished paper when pressed and dried. Cotton rags had been the main source for the fibers in paper making for centuries. During the first decade of the nineteenth century, several new paper making machines were introduced in Europe, which revolutionized what had previously been a very labor-intensive process. After the War of 1812, these European machines became widely available in the United States.¹²⁹

Due to an increasing demand for paper products during the early nineteenth century, papermakers searched for alternative ingredients from which to manufacture their products. Straw and hay were experimented with during the 1830s and were commonly used in addition to cloth rags and wastepaper by Wisconsin's early manufacturers. However, the new technology of wood pulp production was invented in Germany and soon introduced to North America, causing a dramatic shift in the papermaking industry. The use of wood pulp produced a stronger paper of consistently finer quality and allowed papermakers to maintain adequate supplies of raw materials to keep up with demand.¹³⁰

The Fox River Valley was ideal for the establishment of industrial operations, and the paper industry soon thrived there. The Neenah Paper Mill became the most successful and profitable of the valley's early mills and drew attention to the industry's possibilities in northern Wisconsin. That mill was eventually purchased by Kimberly-Clark.¹³¹

Until the 1870s, paper manufacturing was considered a secondary industry in the Fox River Valley behind flour and lumber. However, the first years of the 1870s marked the expansion of the paper making industry in that area due to the introduction of wood pulp technology. The first ground wood pulp mill in Wisconsin was constructed by Bradner Smith in Appleton in 1871, utilizing pulp grinding machines to produce pulp from poplar or hemlock timber discarded by local lumber operations. The following year, Col. Henry Frambach and John Stoveken's Eagle Paper and Flouring Mill in Kaukauna was the second operation to produce ground wood pulp in Wisconsin and the first to manufacture paper from wood pulp. Early wood pulp producers in the state commonly utilized poplar, spruce, and basswood. Through the twentieth century, wood pulp was manufactured by both independent pulp mills and the papermaking companies

themselves, some of which conducted pulping operations directly adjacent to their paper mills while others located pulping operations closer to the source of the wood supply.¹³²

As the state's wheat industry declined and moved west, these advances in paper production coupled with the Fox River Valley's access to abundant water and wood resources made the region well positioned for expansion of the paper industry. Many former flour mills on valuable milling sites were converted for pulp and paper production. Within the following decade, at least 20 new paper companies were established in the Fox River Valley, including the Patten Mill and Winnebago Paper Company, both in Neenah in 1874; and the Menasha Paper Company in 1876, George A. Whiting Paper Company in 1882, Gilbert Paper Company in 1887, and the John Strange Paper Company in 1888, all in Menasha; the Ames Pulp Company's Appleton Paper and Pulp Mills in 1875, Patten Company in 1881, the Fox River Flour and Paper Company in 1883, and the Fox River Paper Company in 1887, all in Appleton; the American Pulp Company's Thilmany Mill in 1883 and the Badger Mill in 1886, both in Kaukauna.¹³³

By 1890, the Fox River Valley led the state in production of paper goods, ranking as the state's twelfth largest industry with Wisconsin as the nation's fifth largest producer of paper. Expansion of the industry during the following decade included the mill of Babcock and Shattuck, early founders of Kimberly-Clark, in West De Pere in 1892, and the Northern Paper Company and the Fort Howard Paper Company around the turn of the century in Green Bay. Paper manufacturing ranked as Wisconsin's eighth largest industry by 1905, with a total of 52 manufacturers in the state. Wisconsin ranked third in paper production nationally by 1910. The Thilmany Paper Company in Kaukauna was one of the first in the country to institute sulfate pulp processing for heavy kraft paper manufacturing in 1911.¹³⁴



Northern Paper Mills, Green Bay, 1910.
WHS # 31708

The early twentieth century saw a period of consolidation of paper mill management during which time many independent companies were forced to sell to a handful of large firms. Wood supply influenced innovation and new product development allowing the state's paper industry to compete nationally after the world wars, which led Wisconsin's papermakers to shift from producing mostly heavy newsprint and course wrapping paper to specialty products in the twentieth century, with scientifically controlled production replacing nineteenth century craftsman traditions. Paper manufacturing grew to be Wisconsin's third largest industry by 1948, with 57 separate mills in the state.¹³⁵

To this day, Wisconsin remains one of the leading producers of specialty papers in the country. While great advances in technology and product design have been made in the paper industry, the basic papermaking process has remained the same since the mid-twentieth century, and wood pulp continues to be the largest source for fibers in papermaking.¹³⁶

The manufacture of paper and pulp manufacturing machinery quickly became a major industry in the Wisconsin corresponding to the growth of the paper and pulp industries after the Civil War. Machine shops and heavy equipment manufacturing plants were often constructed near paper mills. Appleton also became a major supplier of paper and pulp manufacturing equipment by the 1870s, bolstered by the establishment of the Appleton Woolen Mills, Appleton Machine Company in 1887, Appleton Wire Works in 1896, Valley Iron Works in 1900, Wisconsin Wire Company in 1900. The first napkin-folding machine in the country was built in a small machine shop in Green Bay, where machine shops began to manufacture papermaking equipment after the establishment of paper mills in Green Bay. Other notable machine companies in that city included the Paper Converting Machine Company and Alwin Manufacture Company.¹³⁷

The Fox River Valley Industrial Properties Intensive Survey identified 48 resources associated with the paper industry. The dates of construction of these resources begin with the John Strange Paper Company in 1876 in Menasha and ends with the Menasha Corporation Printing Plant in 1975 in Neenah. Many examples can be found in all of the cities of the region, but particularly in Appleton, Green Bay, Neenah, and Menasha.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|----------------------------|-------------------------------------|-------------|---------------------------|
| Appleton | 600 E. Hancock Street | Tuttle Press Company | 1906 | Eligible |
| Appleton | 714 E. Hancock Street | Appleton Coated Paper Co. Lab | 1952 | Eligible |
| Appleton | 800 S. Lawe Street | Riverside Paper Company Office | 1939 | Surveyed |
| Appleton | 912 S. Olde Oneida Street | Filtration Plant | 1915 | Surveyed |
| Appleton | 110 N. Richmond Street | Marshall Paper Company | 1901 | Surveyed |
| Appleton | 430 E. South Island Street | Telulah Paper Mill | 1887 | Eligible ^A |
| Appleton | 600 S. Vulcan Street | Patton Paper Mill Office | 1940 | Contributing ^B |
| Appleton | 100 W. Water Street | Fox River Paper Company Office | 1942 | Contributing ^C |
| Appleton | 425 W. Water Street | Atlas Paper Mill | 1888 | Eligible ^D |
| Appleton | 501 W. Water Street | Vulcan Mill Hydroelectric Plant | 1909 | Eligible ^D |
| Appleton | 825 E. Wisconsin Street | Appleton Coated Paper Company Plant | 1907 | Eligible ^E |
| Fond du Lac | 21 W. Arndt Street | Wright Brothers Paper Box Co. | 1917 | Eligible |
| Fond du Lac | 981 S. Hickory Street | International Paper Company | 1968 | Surveyed |
| Green Bay | 339 S. Broadway | Scheffe Printing Company | 1928 | Surveyed |
| Green Bay | 1522 S. Broadway | Paper Novelty Company | 1932 | Surveyed |

| | | | | |
|-----------|--------------------------|--|------|-----------------------|
| Green Bay | 1919 S. Broadway | Fort Howard Paper Company | 1919 | Surveyed |
| Green Bay | 1666 Cass Street | US Celloprint Company | 1968 | Surveyed |
| Green Bay | 500 Day Street | Northern Paper Mills Office and Laboratory | 1901 | Eligible |
| Green Bay | 501 Eastman Avenue | Hoberg Paper and Fibre Company | 1922 | Surveyed |
| Green Bay | 345 S. Pearl Street | Bay-West Paper Company | 1910 | Surveyed |
| Green Bay | 831 Radisson Street | Green Bay Packaging Inc. | 1956 | Surveyed |
| Green Bay | 800 University Avenue | Charmin Paper Products | 1940 | Surveyed |
| Green Bay | 1700 N. Webster Court | Green Bay Packaging Headquarters | 1972 | Surveyed |
| Green Bay | 1800 N. Webster Court | Green Bay Packaging Garage | 1951 | Surveyed |
| Kaukauna | 300 Elm Street | Thilmany Paper Mill Warehouse | 1906 | Surveyed |
| Kaukauna | 600 Thilmany Road | Thilmany Paper Mill | 1919 | Surveyed |
| Kaukauna | 601 Thilmany Road | Outagamie Paper Company Warehouse | 1892 | Surveyed |
| Menasha | 430 Ahnaip Street | Gilbert Paper Company Office | 1919 | Eligible |
| Menasha | 460 Ahnaip Street | George Banta Publishing Company | 1910 | Surveyed |
| Menasha | 741 Fourth Street | Central Paper Company | 1941 | Surveyed |
| Menasha | 245 Garfield Avenue | Marathon Paper Carton Plant | 1919 | Surveyed |
| Menasha | 216 Railroad Street | School Stationary Corporation | 1925 | Surveyed |
| Menasha | 100 River Street | George A. Whiting Paper Company | 1888 | Eligible ^F |
| Menasha | 261 River Street | Marathon Paper Mill | 1928 | Surveyed |
| Menasha | 271 River Street | Marathon Paper Mill Office | 1940 | Eligible |
| Menasha | 190 Tayco Street | Wisconsin Tissue Mills | 1919 | Surveyed |
| Menasha | 69 Washington Street | John Strange Paper Company | 1876 | Eligible ^G |
| Neenah | 2255 Brooks Avenue | Menasha Corporation - Printing Plant | 1975 | Surveyed |
| Neenah | 128 N. Commercial Street | Badger-Globe Paper Mill | 1929 | Surveyed |
| Neenah | 135 N. Commercial Street | Neenah Paper Company | 1885 | Eligible ^H |
| Neenah | 249 N Lake Street | Kimberly-Clark Lakeside Mill | 1911 | Surveyed |
| Neenah | 401 N. Lake Street | Kimberly-Clark Headquarters | 1956 | Eligible |
| Neenah | 1915 Marathon Avenue | James River Corporation - Tech. Center | 1966 | Surveyed |
| Neenah | 2001 Marathon Avenue | Kimberly-Clark South Offices | 1956 | Surveyed |
| Oshkosh | 36 Broad Street | Knapp, Fowler and Company | 1869 | Surveyed |
| Oshkosh | 413 E. Murdock Avenue | Oshkosh Corrugated Box Mfg. Co. | 1928 | Surveyed |

^A Individually eligible and contributing to the proposed South Island Industrial Historic District

^B Contributing to the proposed South Island Industrial Historic District

^C Contributing as a potential expansion to the existing listed Fox River Paper Company Historic District

^D Eligible as the proposed Atlas Paper Mill Complex

^E Eligible the proposed Appleton Coated Paper Company Complex

^F Eligible as the proposed George Whiting Paper Mill Complex

^G Eligible as the proposed John Strange Paper Mill Complex

^H Eligible as the proposed Neenah Paper Mill Complex

Textiles and Clothing

Clothing production has not been a large industry in Wisconsin, though tanning and leather production has been common since the 1850s. Large tanneries were present in Milwaukee and in Green Bay by this time. Though not significant in the rest of the Fox River Valley, Green Bay

continued to produce leather and leather goods such as boots, shoes, and gloves in large quantities until the end of the nineteenth century.¹³⁸

Textile manufacturing was closely linked with the paper industry from the 1870s through the early twentieth century as the raw materials, either cotton rags, flax, or some other naturally grown grass, were shared. The paper industry had actively looked for alternatives to wood pulp since the 1870s and often considered reeds and grasses as an alternative. Though this did not materialize as a common paper product, it was used to produce textile such as rugs, carpets, and wallpapers until the 1920s and 1930s.¹³⁹

Leather was produced in Green Bay by a number of non-extant tanneries. This leather was often locally processed into gloves, mittens, boots, and shoes by companies such as the Fabry Glove Company and the Northern Glove Company, which both operated in the early twentieth century on a relatively small-scale. The Willow Grass Rug Company, unusual in the Fox River Valley, produced rugs and carpeting from native grasses in Green Bay during the early twentieth century.¹⁴⁰

Woolen mills often existed in the mid-nineteenth century in many of the cities of the Fox River Valley alongside lumber mills and flour mills. Similar to the others, the woolen mills often transitioned to paper in the 1870s and 1880s. Such mills, like the Menasha Woolen Mill, would purchase wool from local farms and process it using water generated power. The Jersild Knitting Company, established in 1911 with its large headquarters completed in 1918, was the descendant of one of these woolen mills in Neenah. The company would become one of the four largest clothing manufacturers in the United States during the 1920s and 1930s.¹⁴¹



Willow Grass Rug Company, Green Bay, 1912.
WHS # 31942.

In Oshkosh the Mondl Manufacturing Company produced leather shoes, sporting helmets, and aviator helmets from the 1920s to the 1950s. The city also had the large Oshkosh Clothing Manufacturing Company, which produced and sold cotton clothing across the country. The company, established in 1902, would become known by its moniker ‘Oshkosh B’Gosh’ in the post-war period.¹⁴²

The Fox River Valley Industrial Properties Intensive Survey identified seven resources associated with the textiles and clothing industry. The dates of construction of these resources begin with the Oshkosh Clothing Manufacturing Company in 1902 in Oshkosh and ends with the Northern Glove and Mitten Company in 1927 in Green Bay. Most of the examples of textile and clothing resources are found in Green Bay, Neenah, and Oshkosh.

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Evaluation</i> |
|-------------|--------------------------|------------------------------------|-------------|-------------------|
| Green Bay | 1514 Morrow Street | Northern Glove and Mitten Co. | 1927 | Surveyed |
| Green Bay | 1222 Velp Avenue | Willow Grass Rug Company | 1912 | Eligible |
| Green Bay | 1232 E. Walnut Street | Fabry Glove Company | 1907 | Surveyed |
| Neenah | 333 N. Commercial Street | Jersild Knitting Company | 1918 | Surveyed |
| Neenah | 1109 Henry Street | Natural Fiber Textile Company | 1924 | Surveyed |
| Oshkosh | 112 Otter Avenue | Oshkosh Clothing Manufacturing Co. | 1902 | Surveyed |
| Oshkosh | 203 Otter Avenue | Mondl Mfg. Company Office | 1922 | Surveyed |

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Architecture

Introduction

Architecture in Wisconsin has mirrored the trends and fashions that were evident in the rest of the United States. The Fox River Valley's historic industrial architectural stock is no different. This chapter includes a brief description of the major industrial building types evident in the Fox River Valley followed by representative examples of that particular type which were inventoried in the survey. A discussion of the prevalent building materials is also included with representative examples of buildings constructed of those materials. Lastly, a brief history of the architects who worked on these buildings is included along with a list of buildings that are associated with those persons or firms.

Industrial Architecture

The valley covers many sorts of manufacturing industries including Brewing and Bottling, Carriages, Wagons, and Motorized Vehicles, Distribution, Shipping, and Packing, Food Products, Masonry, Stone, and Cement, Metal Products, Miscellaneous Small Industries, Lumber and Wood Products, Paper Products, and Textiles and Clothing. However, a small number of building types, as will be discussed later in this chapter, were used by the wide range of operations. All the factory features, from its form and structures to loading dock, were related to the manufacturing process, and they played an important role in the industry's success as a tool of production. Factories evolved over time, from common building practice to specialized engineering, in order to provide a setting for profitable manufacturing. William Pierson's research on eighteenth century industrial architecture noted an interrelationship between factories and powering of machinery they housed. According to Pierson, the factory's architectural requirements were to provide suitable space for the machinery and bring it into the most efficient relationship with the source of power. He identified the steam engine, the use of metal in millwork, and the utilization of iron as a structural material as three outstanding technological innovations that governed industrial architecture during the nineteenth century.¹⁴³ The new factories were regarded as modern and vital resources of an industrial nation. Also, according to Tom Peters, the belief in progress manifested itself in building during the nineteenth century.¹⁴⁴ This kind of progress in industry includes the concepts of using science and technology for improving building materials and structures' engineering and helping the engineer to better control the production system and costs of manufacturing through the design of factories.

Factory buildings appear throughout the American cultural landscape. Manufacturing comprises the transformation of raw materials into finished products; thus, transportation access plays a key

role in the location and design of industrial buildings and facilities. The buildings of industry usually stand in small towns near streams that provided waterpower, along filled-in canals and forgotten turnpike arteries, close to sources of raw materials, and alongside commercial ports. Thus, the location of industrial buildings was primarily dictated by the dominant method of transportation at the time of construction. Early manufacturing interests in the Fox River Valley were located along waterways, which served multiple functions in the mid-nineteenth century. Power canals were used to drive machinery in adjacent factories, while rivers and canals also carried freight. Due to their strategic location, Fox River Valley cities, Green Bay in particular, turned into major transportation and manufacturing centers by the mid-1850s.¹⁴⁵

During the period of time between 1840 and 1940, as Bradley asserts, industrial building design evolved toward a single ideal, “the exploitation of natural light and ventilation in structures with maximum span and strength.”¹⁴⁶ This period also overlapped with the growth and expansion of American manufacturing industries and the construction of many factory buildings. This growth in American industry motivated the engineering of factory buildings as their numbers increased. The design of factory buildings evolved responding to the changes in physical space of the cities, as well as technological changes in power, construction materials, lighting, and freight transportation. Early industrial buildings were built of load-bearing masonry walls, which limited the size and number of windows. Their interior spaces were organized so that workstations were located closest to the windows to get the best light, while the darker central spaces were used for storage and movement of products. In multi-story buildings that relied solely on windows, this effectively limited the width of the building to a maximum of 60 feet, even with higher ceilings to allow larger windows.¹⁴⁷

Early industrial buildings were located close to the water and incorporated one or more oversize doors to accommodate freight, which could be hoisted from a wagon or barge. The railroad’s expansion and advancements in the stationary steam engine after the Civil War reduced the dependence on water for power and transportation, allowing manufacturers to locate their factories anywhere that was easily supplied with fuel and raw materials. As a result, much of the Fox River Valley industrial development in the later nineteenth century was served by steam and electric power and was organized along the rail corridors that radiated out from the cities centers. Many of these facilities were designed to accommodate rail-based freight, which entered and exited the factory along a rail spur.¹⁴⁸

One of the post-World War II period changes was the movement of some of the industries to the outer city and surrounding suburbs. This coincided with the shift to truck-based freight transportation. Therefore, later facilities typically incorporated vehicle loading docks, and most of the old industrial buildings that remained in use were modified or expanded to facilitate the use of truck freight. The emergence of the model factory movement during the late nineteenth century encouraged improvements in industrial hygiene and safety as well as in the appearance of industrial works. According to Bradley, “the high visibility of a plant in an urban area prompted attention to its appearance, though the prominence of a manufacturing works in a more rural location also led to the blending of architectural effect with economic dominance.”¹⁴⁹ Because manufacturers needed a stable and content workforce of skilled and general laborers that would not interrupt production, they were responsive to the argument that better-looking

factories would attract more desirable workers and hoped that an attractive environment would help control the workforce.¹⁵⁰

The best design solutions for factories that emerged during the innovative and experimental decades at the turn of the century became the standardized building types of the twentieth century. Standardized industrial buildings became widely available as steel-framed structures during the last decades of the nineteenth century.¹⁵¹ Repetition of uniform sized bays resulted in a similarity in the interior space from one industrial building to another. The bays were placed in a way to form relatively narrow, but long, structures, responding to the need for daylight with regular sized and placed window openings. This standardized interior space determined the placement of service elements. For example, in order to provide access and services to all portions of mills or industrial lofts, stair and utility towers were placed in a central location or evenly spaced along the length of the structure. Production sheds had regular forms for the same reasons and often were bilaterally symmetrical, with a taller gabled central bay flanked by lower lean-tos. Monitors were centrally placed, and skylights usually were spaced for even lighting and ventilation.¹⁵²

A new era of industrial architecture began in the 1930s, experimenting with new models of controlled conditions plants, based on the utilization of artificial lighting, air conditioning, and forced air circulation to optimize working conditions in structures. This new type of factory became common just before World War II and ended the era of factory design that sought to optimize natural conditions.¹⁵³ Factory design was no longer controlled by the need to maximize daylighting and later industrial buildings were built largely without windows. Many of the cities' older buildings that remained in use have been transformed to reflect this trend as well, and windows were in-filled or covered as artificial lighting and climate control were introduced.¹⁵⁴

Building Types

From the mid-nineteenth to the mid-twentieth century, industrial architecture usually consisted of three main types of buildings, production sheds, multi-story industrial lofts, and powerhouses. All the functional divisions of manufacturing were held in one story production sheds or in multistory industrial lofts. Since the industrial lofts and production sheds were usually well located and were adaptable to different kinds of manufacturing operations, they were adaptable and used by several operations. Some architects and engineers focused on solving factory design problems during the late nineteenth century. However, they brought little new to factory building projects. All those who planned industrial buildings and manufacturing works attempted to meet the same goals: factories that incorporated modern production methods, held the appropriate machinery and equipment, were adequately sized with a rational plan, and could easily be expanded to meet future needs.

Industrial Loft

The industrial loft building type is a multi-story building erected to house manufacturing operations, which was popular during the late eighteenth through the early twentieth century.

The term ‘loft’ came into use during the mid-nineteenth century to describe large, unpartitioned industrial buildings with low levels of finish. The term also commonly referred specifically to late nineteenth century multi-story buildings erected in urban areas to house a single or multiple commercial or industrial tenants. These buildings were developed to provide two or more stories with open workspace intruded upon as little as possible by vertical circulation and other service areas. The industrial loft building type and its program remained consistent despite variations over time due to height, size, and methods of construction.¹⁵⁵

From their late eighteenth century inception and through the late nineteenth century, these buildings were most often erected of stone or brick masonry exterior walls with an interior wood frame; however, they were also framed of wood and clad in wood clapboard siding or shingles. Paper mills, especially, were constructed of masonry in order to sustain heavy vibrating loads and for fire protection, as the destruction of paper mills by fire was a frequent occurrence. By the early twentieth century, construction of most industrial lofts, including paper mills, transitioned to steel frame or reinforced concrete construction with exterior masonry walls. They were generally large structures housing highly technical uses, these buildings were most often designed by trained industrial engineers or architects.¹⁵⁶

The exterior of industrial lofts reflected the utilitarian nature of their functions and were often articulated predominately by a regular pattern of windows for daylighting and ventilation. Windows commonly increased in area at the top story; skylights or roof monitors often provided additional lighting and ventilation. Other functional exterior features could include raised loading platforms, sometimes sheltered with awnings; loading bays with vehicular access doors; hoist ways; and occasionally exterior fire escapes, stair towers, power transmission belts, or utilities to keep floor areas unobstructed and limit the spread of fire. However, prominent architectural elements occasionally received embellishments, such as decorative window detailing or ornamental stonework.¹⁵⁷

The size of industrial lofts were heavily defined by the need to provide daylight to the interiors, especially for light manufacturing and finishing operations. Average buildings were 30 to 40 feet in width; increasing to up to 60 feet wide if higher ceilings were provided for light penetration to the center. A loft building’s length was further determined by the size of the operation it was to house, the limitations of mechanical power distribution, and the extent of the area that could be effectively supervised. By the mid-nineteenth century, industrial lofts were commonly several hundred feet in length, gradually becoming even longer.¹⁵⁸

Industrial lofts commonly had a flat or low-pitched roof, often with enclosed or exposed rooftop water tanks and elevator bulkheads. As companies grew, their facilities often gained additions or consisted of numerous connected or adjacent industrial lofts.¹⁵⁹

Selected examples of the Industrial Loft type

| <i>Address</i> | <i>Historic Name</i> | <i>City</i> | <i>Date</i> | <i>Evaluation</i> |
|----------------------|----------------------------------|-------------|-------------|-------------------|
| 600 E Hancock Street | Tuttle Press Company | Appleton | 1906 | Eligible |
| 42 S Brooke Street | Gurney Refrigerator Company | Fond du Lac | 1901 | Eligible |
| 520 N Broadway | Northern Cold Storage Company | Green Bay | 1920 | Surveyed |
| 1402 State Street | Automatic File and Index Company | Green Bay | 1920 | Eligible |

Production Shed

By the late nineteenth century, there was a desire for more open layouts, proximity of related operations for direct communication between departments, greater ease in materials handling, and more efficient production flow, which led to the prominence of the single-story “production shed.” This change to consolidate operations on one floor was prompted by the use of heavier machinery that operated at faster speeds and technological advances in electric drive, the powered crane, and the steel frame.¹⁶⁰

However, in wide-open and connected shop areas, separate rooms continued to be used for certain operations in order to contain dust and heat. The production shed building type is a single-story industrial building erected to produce and assemble specific, and especially large or heavy items, such as structural steel, metal castings, or motor vehicles. The height of the single-story varied considerably based on the function and product produced. The often long and low form was also suitable to manufacturing processes that require a high volume of ventilation due to heat or chemical requirements.¹⁶¹

The building type was usually arranged in a long rectilinear plan, with the process of manufacture or assembly following a linear path along the length of the building. Monitors and saw-tooth roof lines were common to provide light into the center of the otherwise open space. Mezzanines or side bays were also found along with adjacent production shed additions. The structure of production sheds was often steel to address the wide-open span and large spaces required by the building’s use. The exterior was usually clad with materials such as metal panels or brick veneer and had a significant percentage of glazing for light.¹⁶²

Selected examples of the Production Shed type

| <i>Address</i> | <i>Historic Name</i> | <i>City</i> | <i>Date</i> | <i>Evaluation</i> |
|---------------------------|-------------------------------|-------------|-------------|-------------------|
| 618 S. Olde Oneida Street | Appleton Machine Company | Appleton | 1890 | Eligible |
| 1438 Cedar Street | Wernig’s Sunlit Bakery | Green Bay | 1923 | Eligible |
| 1222 Velp Avenue | Willow Grass Rug Company | Green Bay | 1912 | Eligible |
| 216 Railroad Street | School Stationary Corporation | Menasha | 1925 | Surveyed |
| 501 S. Main Street | Leach Company Warehouse | Oshkosh | 1925 | Surveyed |

Office and Administration Buildings

Company offices were built as a separate structure or as a portion of the factory. During the mid-nineteenth century, the offices were often small two-story structures of masonry or wood construction. General offices were usually placed on the first story, and the second floor, with more quiet space and daylight, often housed drafting rooms. The company offices were often the only industrial building to be designed by an architect or to receive extensive architectural detail, to be designed by an architect. They frequently had “the quality of centerpiece.”¹⁶³ The company offices evolved during the twentieth century, turning into a larger administration building to accommodate increased executive and administrative staff and provide more modern drafting rooms.

Selected examples of Office and Administration Buildings

| <i>Address</i> | <i>Historic Name</i> | <i>City</i> | <i>Date</i> | <i>Evaluation</i> |
|-----------------------|----------------------------------|-------------|-------------|-------------------|
| 201 W. Walnut St | Northwest Engineering Office | Green Bay | 1920 | Surveyed |
| 1700 N. Webster Court | Green Bay Packaging Headquarters | Green Bay | 1972 | Surveyed |
| 430 Ahnaip Street | Gilbert Paper Company Office | Menasha | 1929 | Eligible |
| 271 River Street | Marathon Paper Mill Office | Menasha | 1928 | Eligible |
| 401 N. Lake Street | Kimberly-Clark Headquarters | Neenah | 1959 | Eligible |

Architects

Eschweiler & Eschweiler

Alexander Chadbourne Eschweiler, Sr., was born in 1865 in Boston, Massachusetts, to where his parents emigrated from Germany in 1852. The family later settled in Houghton, Michigan, and then Milwaukee in 1882. There, he attended Marquette University for one year before attending Cornell University to study architecture and graduating in 1890. Before completing his degree, he was employed in Milwaukee by James Douglas, Ferry & Clas, and Edward Townsend Mix. After graduation, Alexander returned to Milwaukee and worked in the office of Henry C. Koch for two years before establishing his own practice in 1892. The firm became known as Eschweiler & Eschweiler in 1923 after his sons, Alexander Jr., Theodore, and Carl, joined him in practice. Alexander Sr. designed several prominent buildings in Milwaukee, including Greene, Holton, Johnston, and Merrill Halls on the campus of present-day University of Wisconsin-Milwaukee; St. Thomas Aquinas Catholic Church; and the Milwaukee Gas Light Company. Alexander Sr. died in 1940.¹⁶⁴

Alexander Chadbourne Eschweiler, Jr., was born in Milwaukee in 1893. Alexander Jr. attended Marquette University for three years before studying for three years at Cornell University and graduating with a bachelor's degree in architecture in 1915. While at Cornell, he returned to Milwaukee during summers to work as a draftsman for his father's firm. After graduation, Alexander Jr. worked for Whitney Company Builders in New York. He became a registered architect in Wisconsin in 1920, and, with his brothers Theodore and Carl, joined his father in practice under the name Eschweiler & Eschweiler in 1923. During World War II, Alexander Jr. served in the U.S. Engineering Corps. Alexander Jr. died in 1951.¹⁶⁵

Theodore L. Eschweiler was born in Milwaukee in 1895. Like his father and brothers, he attended Marquette University before studying architecture at Cornell University, where he graduated in 1921. Theodore, with his brothers Alexander Jr. and Carl, joined his father in practice under the name Eschweiler & Eschweiler in 1923. Theodore became a registered architect in Wisconsin in 1926. During World War II, Theodore served as a 2nd Lieutenant in the U.S. Engineering Corps. Theodore died in 1966.¹⁶⁶

Carl F. Eschweiler, in the family tradition, attended Marquette University for a brief period before studying architecture at Cornell University, where he graduated in 1920. For six months, Carl worked in the architecture department at the U.S. Navy Great Lakes Training Camp and

then three months in the New York City office of Bertram G. Gooduehn before joining his father and brothers at Eschweiler & Eschweiler in 1923. Carl became a Wisconsin registered architect in 1926. Carl retired from the firm in 1960 and died in 1974.¹⁶⁷

By 1962, the firm became known as Eschweiler, Eschweiler & Sielaff. From 1966 to 1974, it was known as Eschweiler, Schneider & Associates, after which it operated briefly as Eschweiler & Schneider before closing in 1975.¹⁶⁸

Buildings associated with Eschweiler & Eschweiler in this survey include the following:

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Class</i> |
|-------------|--------------------------|-----------------------------|-------------|--------------|
| Menasha | 271 River Street | Marathon Paper Mill Office | 1928 | Eligible |
| Neenah | 135 N. Commercial Street | Neenah Paper Company Office | 1926 | Eligible |

Thomas O’Keefe

Thomas O’Keefe was born in Ireland in 1814. He married Mary Hanrahan in 1838, and the couple had ten children. The O’Keefe family immigrated to the United States, settling in Green Bay in 1850. He constructed a non-extant flour mill in Little Chute in 1863. O’Keefe moved his family to Appleton in 1865 to construct the non-extant Bradner Smith paper mill. He developed a career as a paper mill architect and built several in the Fox River Valley, including the Telulah Paper Mill in Appleton in 1887. O’Keefe is also credited with constructing the extant St. John Catholic Church in Little Chute and St. Mary Catholic Church in Appleton and the non-extant O.W. Clark Rake Factory, Pfenning Flour Mill, and Appleton Chair Factory in Appleton. He served one term as an alderman on the Appleton city council. By the turn of the twentieth century, O’Keefe lived at 451 Walnut Avenue in Appleton. He died in 1906.¹⁶⁹

Buildings associated with Thomas O’Keefe in this survey include the following:

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Class</i> |
|-------------|----------------------------|----------------------|-------------|--------------|
| Appleton | 430 E. South Island Street | Telulah Paper Mill | 1887 | Eligible |

Skidmore, Owings, and Merrill (SOM)

Louis Skidmore and Nathaniel Owings, brothers-in-law who began working together on the 1933 Chicago World’s Fair, established an architectural partnership in Chicago in 1936. Quickly successful, the partnership added an office in New York the following year. Architect-engineer John Merrill became a limited partner in 1939, and the firm became Skidmore, Owings, and Merrill, known to present day by its initials SOM. By the 1950s, it was one of the largest and most diversified architecture firms in the country and, in 1953, was lauded by *Architectural Review* as the best example of a group practice. SOM was one of the first major architectural firms in the country to promote itself corporately rather than its individual architects and throughout its history has employed many notable architects, engineers, and designers, including Edward Charles Bassett, Natalie de Blois, Gordon Bunshaft, David Childs, Robert Diamant, Myron Goldsmith, Bruce Graham, Gary Haney, Gertrude Kerbis, Fazlur Rahman Khan, Lucien Lagrange, Walter Netsch, Larry Oltmanns, Brigitte Peterhans, Adrian Smith, and Marilyn Jordan Taylor.¹⁷⁰

SOM is renowned for its iconic modernist designs from the mid-twentieth century, including the 1951 Manhattan House, 1952 Lever House Tower, and 1961 One Chase Manhattan Plaza in New York; the 1962 United States Air Force Academy Cadet Chapel near Colorado Springs, Colorado; and the 1969 John Hancock Tower and 1973 Sears Tower, the world's tallest building for nearly 25 years, in Chicago. Its diverse body of work since that time includes the 1987 Chase Tower in Dallas, 1999 Jin Mao Tower in Shanghai, 2009 Burj Khalifa in Dubai, the current tallest building in the world, and 2013 One World Trade Center in New York. To this day, SOM remains one of the largest and most influential architecture, interior design, engineering, and urban planning firms in the world with over 10,000 completed projects in over 50 countries with offices in New York, Chicago, San Francisco, Los Angeles, Washington D.C., Seattle, London, Hong Kong, Shanghai, Dubai, and Mumbai.¹⁷¹



Kimberly-Clark Headquarters, built in 1956, Neenah, November 1956. Hedrich-Blessing photograph collection, Chicago History Museum, Research Center. Exterior View B, perspective.

Buildings associated with Skidmore, Owings, and Merrill in this survey include the following:

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Class</i> |
|-------------|--------------------|-----------------------------|-------------|--------------|
| Neenah | 401 N. Lake Street | Kimberly-Clark Headquarters | 1956 | Eligible |

Frank J. Stepnoski & Son

Frank J. Stepnoski was born in Galacia, Austria, in 1880 and attended schools in Stanislau, Lemberg, and Vienna, Austria. He immigrated to New York in 1904, where he worked for three years for the architectural firm of Smith and Lazarus. Stepnoski moved to Oshkosh in 1907, where he married his wife Katerine. The couple moved to Fond du Lac in 1913 and designed several buildings. From 1915 to 1919, he worked primarily as an estimator and interior furnishings designer for the Moore and Galloway Company. He became a Wisconsin-registered architect in 1920 and re-established his architectural practice. In 1934, he was joined in practice by his son Sylvester J. Stepnoski under the name Frank J. Stepnoski and Son. The firm designed numerous buildings in Fond du Lac and throughout the state, including schools Chippewa, Fond du Lac, and Green Counties and a catholic church in Osceola, Wisconsin. Some of his notable projects in Fond du Lac included the Commercial National Bank Building, Moose Temple, Lakeside Park Pavilion, and the St. Joseph, St. Mary, and St. Patrick Catholic and St. Peter Lutheran schools. Frank served on the City of Fond du Lac's education and park boards and was an active member of several fraternal and professional organizations, including the Moose, Elks, Knights of Columbus, and the American Institute of Architects. Frank J. Stepnoski and Son designed the parent plant, office building, and Plant No. 3 at Giddings and Lewis Machine Tool Company, numerous buildings on the grounds of St. Lawrence Seminary, the Elizabeth Waters School, and the City County Safety Building. Frank Stepnoski died in 1952.¹⁷²

Sylvester Stepnoski studied architecture at and graduated from the University of Michigan before joining his father in practice under the name Frank J. Stepnoski & Son in 1934. After his father's death, Sylvester formed the partnership of Stepnoski & Peterson with its office at 25 E. Merrill Avenue in Fond du Lac. Sylvester Stepnoski designed Sabish and Woodworth middle schools, the 1970 St. Mary's Springs High School, and the 1967 Fond du Lac Public Library in the partnership of, which practiced from an office at. Sylvester Stepnoski died in 1988.¹⁷³

Buildings associated with Frank Stepnoski in this survey include the following:

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Class</i> |
|-------------|------------------------|-------------------------------------|-----------------|--------------|
| Fond du Lac | 142 N. Doty Street | Giddings and Lewis Machine Tool Co. | 1929, c.1940 | Eligible |
| Fond du Lac | 233 W. Division Street | Winnebago Cheese Company | 1925 | Eligible |

William Waters

William Waters was born in Delaware County, New York, in 1843. After attending the Rensselaer Polytechnic Institute in Troy, New York, he worked as an architect, engineer, and surveyor for a number of railroads before settling in Oshkosh in 1867, marrying Catherine Follett, and establishing an architectural practice. Major fires in Oshkosh during 1874 and 1875, resulting in a commercial, civic, and residential building boom that needed to be rebuilt, aided his career. Waters became very successful and arguably the most popular architect in the region during the late nineteenth century. His work included many notable civic and institutional buildings in Oshkosh, including the extant Oshkosh Public Library, Orville Beach Memorial Manual Training School, Oshkosh Grand Opera House, Trinity Episcopal Church, and the non-extant Chief Oshkosh Brewing Company and Oshkosh State Normal School. Waters also designed the Wisconsin Building at the 1893 World's Columbian Exposition in Chicago and courthouses, state normal schools, high schools, banks, hotels, and opera houses throughout the region and state. He died in 1917.¹⁷⁴



Photograph of the non-extant Chief Oshkosh Brewing Company, built 1911, Oshkosh, c.1978. Designed by William Waters. WHS # 62696

Buildings associated with William Waters in this survey include the following:

| <i>City</i> | <i>Address</i> | <i>Historic Name</i> | <i>Date</i> | <i>Class</i> |
|-------------|---------------------|----------------------------------|-------------|--------------|
| Oshkosh | 139 Division Street | Pabst Beer Warehouse and Station | 1890 | Surveyed |

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6

Survey Results

Introduction

Industrial properties intensive surveys are relatively new in Wisconsin. The first one covered the City of Milwaukee and was completed by Mead & Hunt in 2016. During that survey, 679 resources were inventoried, including 39 resources and two historic districts that were eligible for listing in the National Register of Historic Places. Since 2016, one property and one district have been nominated to the National Register, with another pending. In addition, six historic tax credit applications associated with the inventoried resources have been filed.

The Fox River Valley Industrial Properties Intensive Survey inventoried 290 resources, including 20 resources, six complexes, and one historic district that are eligible for listing in the National Register, as well as one proposed expansion of an existing National Register-listed historic district.

The two surveys are surprisingly similar in the ratio of resources identified to the total population of the communities surveyed. In general terms, the Milwaukee Industrial Properties Intensive Survey found a wide variety of historic industrial building types and functions, though there was an emphasis on heavy industry and the production of machinery along with industries closely related to the processing and shipping of agricultural goods. Likewise, in the Fox River Valley, there was a wide variety of historic industrial building types, though the functions varied, with clear importance on paper and metal industries.

Resources Currently Listed in the National Register of Historic Places

| <i>Historic Name</i> | <i>Address</i> | <i>City</i> | <i>Period of Significance</i> |
|-------------------------------|----------------------------|-------------|-------------------------------|
| Appleton Wire Works | 600 S. Atlantic Street | Appleton | 1896-1940 |
| Appleton Woolen Mills | 218 E. South Island Street | Appleton | 1890-1969 |
| J. B. Courtney Woolen Mills | 301 E. Water Street | Appleton | 1880-1943 |
| Northern Casket Company | 16 N. Brooke Street | Fond du Lac | 1905-1962 |
| L. A. Erhart Cigar Factory | 9 S. Main Street | Fond du Lac | 1890-1950 |
| Old Badger Plant | 777 Island Road | Kaukauna | 1907 |
| Eagle Paper and Flouring Mill | 600 Thilmany Mill | Kaukauna | 1872-1929 |
| Waite Grass Carpet Company | 300 E. Custer Avenue | Oshkosh | 1910-1966 |

Historic Districts Listed in the National Register of Historic Places

| <i>Historic Name</i> | <i>Address</i> | <i>City</i> | <i>Period of Significance</i> |
|---|--|-------------|-------------------------------|
| Fox River Paper Company Historic District | 405-415 S. Olde Oneida Street | Appleton | 1883-1939 |
| Broadway – Dousman Historic District | 200-400 blocks of N. Broadway and Dousman Street | Green Bay | 1873-1947 |
| Broadway – Walnut Historic District | 100 blocks of N. and S. Broadway and Pearl Street | Green Bay | 1879-1947 |
| Washington Street Historic District | 214-216 Washington Street | Menasha | 1930-1935 |
| Waterway Resources of the Lower Fox River - Multiple Properties | Fox River Waterways | Multiple | 1850-1941 |
| Paine Lumber Company Historic District | Congress Avenue, between High, New York, and Summit Avenue | Oshkosh | 1925-1928 |

Resources Eligible for Listing in the National Register of Historic Places

| <i>Historic Name</i> | <i>Address</i> | <i>City</i> | <i>Period of Significance</i> |
|---|----------------------------|-------------|-------------------------------|
| Tuttle Press Company | 600 E. Hancock Street | Appleton | 1906-c.1970 |
| Appleton Coated Paper Company Laboratory | 714 E. Hancock Street | Appleton | 1952-c.1970 |
| Telulah Paper Mill | 430 E. South Island Street | Appleton | 1887-c.1970 |
| Wright Brothers Paper Box Company | 21 W. Arndt Street | Fond du Lac | 1917 |
| Gurney Refrigerator Company | 42 S. Brooke Street | Fond du Lac | 1901-1936 |
| Winnebago Cheese Company | 233 W. Division Street | Fond du Lac | 1915-1953 |
| Fort Howard Lumber Company Warehouse | 1095 S. Broadway | Green Bay | 1890-1910 |
| Wernig's Sunlit Bakery | 1438 Cedar Street | Green Bay | 1923-1960 |
| Northern Paper Mills Office and Laboratory | 500 Day Street | Green Bay | 1929-c.1970 |
| Automatic File and Index Company | 1402 State Street | Green Bay | 1920-1928 |
| Green Bay and Western Railroad Grain Elevator | 420 Twelfth Avenue | Green Bay | 1917-1948 |
| Willow Grass Rug Company | 1222 Velp Avenue | Green Bay | 1912-1951 |
| Gilbert Paper Company Office | 430 Ahnaip Street | Menasha | 1919-1960 |
| William Gear Dairy | 333 First Street | Menasha | 1949-1967 |
| Marathon Paper Mill Office | 271 River Street | Menasha | 1940-1963 |
| Neenah Brass Works | 223 Edna Street | Neenah | 1907 |
| Kimberly-Clark Headquarters | 401 N. Lake Street | Neenah | 1956-c.1970 |
| Neenah Stove Works | 619 Main Street | Neenah | 1878-1948 |
| E. B. Hayes Machinery Company | 1100 High Avenue | Oshkosh | 1916-c.1970 |
| South Side Flouring Mill | 50 W. Sixth Avenue | Oshkosh | 1883-1945 |

Historic Districts Eligible for Listing in the National Register of Historic Places

The following is information on the six proposed historic complexes and two proposed historic districts eligible for listing in the National Register of Historic Places. These summaries include

a list of all resources included within the boundaries and if the resources are contributing or not contributing to the complex or district.

| <i>Historic Name</i> | <i>Address</i> | <i>City</i> | <i>Period of Significance</i> |
|---|---|-------------|-------------------------------|
| Appleton Coated Paper Company Complex | 825 E. Wisconsin Street | Appleton | 1907-c.1970 |
| Atlas Paper Mill Complex | 425-501 W. Water Street | Appleton | 1888-c.1970 |
| South Island Industrial Historic District | 618 S. Olde Oneida Street, 218 E. South Island Street, 401 E. South Island Street, 430 E. South Island Street, and 600 S. Vulcan Street | Appleton | 1881-1962 |
| Fox River Paper Company Historic District Expansion | 100 W. Water Street | Appleton | Extend to 1942 |
| Giddings and Lewis Machine Tool Company Complex | 142 N. Doty Street | Fond du Lac | 1929-c.1970 |
| George Whiting Paper Company Complex | 100 River Street | Menasha | 1888-c.1970 |
| John Strange Paper Company Complex | 69 Washington Street | Menasha | 1881-1969 |
| Neenah Paper Company Complex | 135 N. Commercial Street | Neenah | 1885-1956 |

Resources Eligible for Listing in the National Register of Historic Places

Appleton Coated Paper Company Laboratory

In 1952, the Appleton Coated Paper Company constructed a research laboratory building, located at 714 East Hancock Street in Appleton, as a part of a large building effort to expand the company. Previously, the site had been occupied by the Tuttle Press Company's storage yards and the Appleton Marble and Granite Works. Appleton Coated Paper Company was a national leader in the development and a production of paper chemistry and introduced new products along the lines of coated, thermal, and security paper products during the mid-century.¹⁷⁵



*Appleton Coated Paper Company Laboratory, 1952
714 E. Hancock Street, Appleton*

The Appleton Coated Paper Company was one of the pioneers of carbonless paper, which they produced in large quantities during the 1950s, 1960s, and 1970s, as well as the microencapsulation process. While Appleton Coated Paper Company did not invent this process, they did develop many applications that are familiar to modern consumers such as scratch and sniff surfaces, time-release aspirin and other drugs, encapsulated fragrances, and translucent papers. The company also produced coated plastic sheet products early in their development

during the 1970s. It is assumed that many of these advances and applications took place at this laboratory building.¹⁷⁶

The contemporary style building was purpose built as a research laboratory and offices serving an industrial purpose. The Appleton Coated Paper Company Laboratory is significant under Criterion C: Architecture as an excellent example of a mid-twentieth century industrial laboratory. It is also significant under Criterion A: History in the area of Industry for its role in the Appleton paper industry. The period of significance for the property would extend from 1952 to circa 1970, approximately fifty years ago.

Automatic File and Index Company

Frederick Straubel established the Automatic File and Index Company in 1901 following the development of the automatic expanding filing system. In 1920, the company moved into a new building at 1402 South State Street in Green Bay. The concrete frame and brick three-story industrial loft contained an office, manufacturing line, and warehouse. Straubel, the founder and inventor, developed rolling bearing extension slides, among forty other mechanized inventions, and the company produced complex wood filing cabinets and other devices, some of which were custom-made to specific purposes and scales. Straubel sold the company in 1928.¹⁷⁷



*Automatic File and Index Company, 1920
1402 State Street, Green Bay*

The Automatic File and Index Company is significant under Criterion A: History in the area of Industry for its role in the Green Bay manufactured goods industry. The period of significance for the property would extend from 1920 to 1928.

E. B. Hayes Machinery Company

The E. B. Hayes Machinery Company was established in 1916 with the intention of shifting the focus of Oshkosh foundries from supplying the lumber industry to producing parts of for automobiles and trucks. The Hayes Company primarily made steel axels and drive-shafts and was located at 1100 High Avenue. In 1919, Colonel Willard Rockwell purchased a controlling interest in the company and reorganized it as the Wisconsin Parts Company, expanding the plant from the large brick three-story industrial loft at the site's northwestern end.¹⁷⁸

The company expanded its manufacturing plant again in 1929 with a brick production shed addition and a three-story office addition along High Avenue. The same year, the company

acquired the Timken-Detroit Axle Company in Detroit, Michigan and was renamed the Rockwell Company, after Willard Rockwell who became the first president of the large regional firm.¹⁷⁹

During World War II, the company expanded further, producing axels and transmissions for hundreds of thousands of trucks and tanks. The Oshkosh Rockwell factory expanded again in 1953 along High Avenue to the southeast.

Eventually, the manufacturing plant became one of many Rockwell

International plants around the country and the world producing parts for trucks,

cars, printing presses, aircraft, power tools, and industrial automation. The plant was expanded to the rear during the 1970s and 1980s with steel frame additions and continues to operate as an axel manufacturer.¹⁸⁰



*E. B. Hayes Machinery Company, 1916
1100 High Avenue, Oshkosh*

The E. B. Hayes Machinery Company is significant under Criterion A: History in the area of Industry for its role in the Oshkosh metal products industry. The period of significance for the property would extend from 1916 to circa 1970.

Fort Howard Lumber Company Warehouse

Around 1890, the Fort Howard Lumber Company constructed a two-story timber frame warehouse along the main railroad line off of Broadway on the west side of the Fox River. The warehouse, located at 1095 South Broadway in Green Bay, maintains its timber frame structure and stone and concrete foundation. By 1900, ownership of the lumber yard had transferred to the McEachron and Dorherty Lumber Company, and, by 1907, it was a part of the Green Bay Box and Lumber Company. The warehouse continued to serve the same function through this period as a loading dock for freight trains coming to the industrial site. Most, if not all, of the surrounding historic buildings of the lumber yards are no longer extant.¹⁸¹



*Fort Howard Lumber Company Warehouse, 1890
1095 S. Broadway, Green Bay*

Since the 1930s, the building has continued to be used as a warehouse, most notably for the Green Bay and Western Railway. Some changes have been made to the structure of the building,

including the addition of a single-story steel structure to the north and various types of wood and metal siding. However, the basic form and materials have not changed much, and the auxiliary building possesses a high level of architectural integrity, especially considering the building type and location.¹⁸²

The Fort Howard Lumber Company Warehouse is significant under Criterion A: History in the area of Industry for its role in the Green Bay lumber industry. The period of significance for the property would extend from 1890 to 1910, when the lumber company went out of businesses at this site.

Gilbert Paper Company Office

The Gilbert Paper Company, founded by William Gilbert, Sr. and his four sons following a partnership with George Whiting in 1887, was the third largest paper mill established in Menasha. The company grew quickly, adding a second paper machine in 1891, and a third in 1919, when a large office was constructed for the company along Ahnaip Street. The one and one-half story brick office building, designed in the Georgian Revival style, was constructed in 1919 and designed by the Chicago-based architecture firm of Childs and Smith. This expansion also included the filling-in of the canal north of the mill site and the construction of a powerplant. The office was expanded to the rear, and a separate gatehouse was constructed in 1926.¹⁸³

By the 1950s, the Gilbert Paper Company was one of the largest in Wisconsin, focused on producing high-quality cotton fibre paper for bond and ledger uses. The company was purchased by the Mead Corporation in 1960 and a renovation of the office, which include a series of lower-level service garages, was completed in 1962. After being purchased by the Fox River Paper Company, the paper mill closed in 2001 and was demolished a few years later. All that remain of the mill and its history are a small gatehouse and the company office building, which presently serves as office space.¹⁸⁴



Gilbert Paper Company Office, 1919
430 Ahnaip Street, Menasha

The Gilbert Paper Company Office is significant under Criterion C: Architecture as an excellent example of an early twentieth century Revival style office building. The building is also significant under Criterion A: History in the area of Industry for its role in the Menasha paper industry. The period of significance for the property would extend from 1919 to 1960.

Gurney Refrigerator Company

The Gurney Refrigerator Company was established in Oshkosh in 1890, though it moved to Fond du Lac a few months later, when the company purchased the LaBelle Wagon Works. Three additions were made to the non-extant company buildings before 1901, when the site burned down. Only the northern most stone structure of the previous wagon works remained. The Gurney Refrigerator Company rebuilt its factory the same year at 42 South Brooke Street in Fond du Lac. The company produced non-ice box refrigerators for commercial sale and boasted 200 employees by 1910. A two-story addition and smokestack were added to the rear of the building in 1915, and a large non-extant addition was completed to the north in 1922. In 1936, the refrigerator company went out of business, and the industrial loft building was sold to the Wells Manufacturing Company, which made automotive ignitions, fuel pumps, and replacement parts.¹⁸⁵

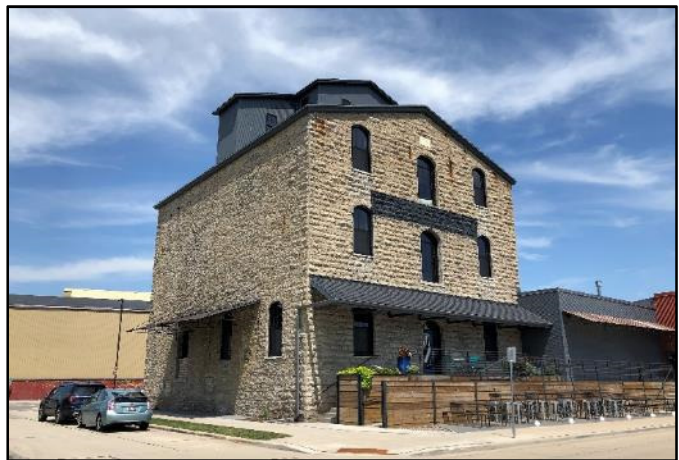


*Gurney Refrigerator Company, 1901
42 S. Brooke Street, Fond du Lac*

The Gurney Refrigerator Company is significant under Criterion A: History in the area of Industry for its local role in the Fond du Lac refrigeration industry. The period of significance for the property would extend from 1901 to 1936.

South Side Flouring Mill

The South Side Flouring Mill, a non-extant wood frame mill, burned down in 1883, and the owner, H. C. Gustavus, rebuilt the mill in stone the same year at 50 West Sixth Street in Oshkosh. Seven years later, the flouring mill was sold to H. P. Schmidt, who renamed it the Brooklyn Rolling Mills briefly and then the H. P. Schmidt Milling Company.¹⁸⁶



*South Side Flouring Mill, 1883
50 W. Sixth Avenue, Oshkosh*

The three-story limestone mill remains relatively unchanged from its original appearance, with the only alterations existing at the monitor along the roof and the single-story additions to the east. The mill stopped producing flour in 1945 but continued grinding grain for animal feed until it closed in 1982, the only remaining grain mill in Oshkosh for most of the twentieth century. In 1984, the property was renovated as the Granary Restaurant.¹⁸⁷

The South Side Flouring Mill is significant under Criterion C: Architecture as an excellent example of a nineteenth stone flour mill. It is also significant under Criterion A: History in the area of Industry for its role in the Oshkosh milling industry. The period of significance for the property would extend from 1883 to 1945.

Kimberly-Clark Headquarters

The Kimberly-Clark Company was established in Neenah by John A. Kimberly, Havilah Babcock, Charles B. Clark, and Frank C. Shattuck in 1872. The company's first venture was the non-extant Globe Mill in Neenah, which was the first mill in the state to produce newsprint entirely from linen and cotton rags. The company acquired the adjacent Neenah Paper Mill in 1878, which was replaced in the same location with a new mill complex in 1885. Kimberly-Clark also established the Atlas and Telulah Mills in Appleton during the 1880s, during which time the company had become the largest paper manufacturer in the Midwest. Another new mill, along with the construction of an entire community, was established in Kimberly in 1889. Additional mills were either purchased or constructed in DePere, Quinnesec Falls, Niagara, New York and Philadelphia, Pennsylvania during the 1890s. The company reorganized and incorporated as the Kimberly-Clark Company in 1906.¹⁸⁸

The company established a research, technical, and engineering department in 1914, which would go on to propel the company to further successes as it developed cellucotton products that could readily be made into popular consumer goods such as toilet papers, sanitary papers, disposable soft papers, and absorptive papers for brands like Kleenex and Kotex. The Kimberly-Clark also began expanding its marketing outside of the United States during the 1920s. The company continued to expand, using its scale and the popularity of its marketing campaigns to aid its consumer goods empire during the 1930s and 1940s. During the 1950s, the company embarked on a series of expansions including the acquisition of eight paper mills in Canada and the United States. Kimberly-Clark also invested in facilities outside of North America for the first, time, expanding into Mexico, United Kingdom, and France.¹⁸⁹

In 1953, Kimberly-Clark began planning for a new headquarters in Neenah. The Kimberly-Clark Headquarters building was constructed at 401 North Lake Street in Neenah in 1956. The building included three distinct sections: the two-story executive wing, the main office wing, and cafeteria and could host 800 employees. The building was designed by the Chicago architecture firm of Skidmore, Owings, and Merrill (SOM) in the International style. The headquarters building and campus was widely published in architectural magazines at the time and arguably became a model for future corporate campus work by SOM. The architecture firm had developed a close relationship with Kimberly-Clark in Neenah, designing a



*Kimberly-Clark Headquarters, 1956
401 N. Lake Street, Neenah*

large paper mill warehouse expansion in the 1930s, the home of one of the company's presidents, and the local bank. The building was constructed by local contractor Meyer Corporation and features an internal steel frame, flat roof, wide expanses of glazing, pebble-dash panels, and interior courtyards.¹⁹⁰

During the 1960s, Kimberly-Clark's success continued with additional expansions, the introduction of products such as Kleenex tissues, and the first trial tests of disposable diapers. Cottonelle brand, Wypall Wipes, and Huggies were introduced, and the company began the process of moving away from traditional rolled paper manufacturing, closing some of its plants across the United States in the 1970s. In 1980, the company moved its U.S. Service Products and Nonwoven Business Division from Neenah to Roswell, Georgia, and in 1985, Kimberly-Clark moved its headquarters from Neenah to Irving, Texas. Since that time, the Kimberly-Clark Headquarters building has served as office space for the corporation. Since the 1980s, the company introduced disposable training pants, premium bathroom tissue, baby wipes, underpants, disposable swim diapers, and a series of medical products while also acquiring the Scott Paper Company and becoming one of the largest consumer product corporations in the world.¹⁹¹

The Kimberly-Clark Headquarters is significant under Criterion C: Architecture as an excellent example of a mid-twentieth century modern corporate campus. It is also significant under Criterion A: History in the area of Industry for its role in the Neenah paper industry. The period of significance for the property would extend from 1956 to circa 1970, approximately fifty years ago.

Marathon Paper Mill Office

The Marathon Paper Company was established in Wausau in 1909 and combined with the Menasha Printing and Carton Company in 1917. A new Menasha facility was constructed in 1927 in the center of the city. The company expanded again in 1937. The three-story brick Marathon Paper Mill Office, designed by the architecture firm of Eschweiler and Eschweiler, was completed in 1940 and is now located at 271 River Street in Menasha. The company was officially renamed the Marathon Corporation in 1944. The carton plant of the Marathon Paper Mill expanded across the Fox River to the south in 1947 and purchased the Jersild Knitting Company of Neenah in 1952. The company was acquired by the James River Corporation in 1963. The mill primarily produced food packaging products until the 1980s, when the James River Company left the site. What remains



*Marathon Paper Mill Office, 1940
271 River Street, Menasha*

of the mill is now occupied by the Canadian firm TC Transcontinental, which also produces commercial packaging.¹⁹²

The Marathon Paper Mill Office is significant under Criterion A: History in the area of Industry for its role in the Menasha paper industry. The period of significance for the property would extend from 1940 to 1963. The Marathon Paper Mill site has a number of other buildings including a large two-story industrial loft with Art Modern style details. These other buildings, constructed since 1927, are not potentially eligible as a complex because of their lack of architectural integrity and the fact that many of the historic parts of the mill are now non-extant.

Neenah Brass Works

The Neenah Brass Works, located at 223 Edna Street in Neenah, was established and constructed in 1907 along the primary north-south railway line through the city. The small two-story industrial loft produced brass and copper fittings for local industrial clients. The business had eleven employees and continued to operate as a small foundry into the 1950s.¹⁹³



*Neenah Brass Works, 1907
223 Edna Street, Neenah*

The Neenah Brass Works is significant under Criterion C: Architecture as an excellent example of an early twentieth century small concrete loft. The period of significance for the property would be limited to the year of construction in 1907.

Neenah Stove Works

W. N. Moore, A.K. Moore, and B. W. Wells established the Neenah Stove Works in 1857 as the first iron foundry in Neenah. The site, located at 619 Main Street, was first occupied by the foundry in 1873, when the business was sold to Hiram Smith and DeWitt Clinton Wan Ostrand, who made foundry iron stoves. The company was sold again in 1878 to George Bergstrom, D. W. Bergstrom, and Havilah Babcock, who were all involved with the local paper industry and renamed the foundry the Bergstrom Brothers and Company Stove Works. The company also manufactured furnaces and plows.



*Neenah Stove Works, 1878
619 Main Street, Neenah*

George Bergstrom bought out his partners in 1904, when the company had approximately seventy-five employees, and renamed it simply the Bergstrom Stove Works.¹⁹⁴

The stove works consists of a four-story brick industrial loft and warehouse at the eastern end of the site with a series of single-story production sheds to the west and finally another three-story loft at the western end bracketing the foundry. The company shifted its focus to furnaces instead of stoves during the 1930s and was sold in 1948 to Lyall Williams, who operated a plumbing supply business. It was sold again in 1951.¹⁹⁵

The Neenah Stove Works is significant under Criterion A: History in the area of Industry for its role in the Neenah metal products industry. The period of significance for the property would extend from 1878 to 1948.

Northern Paper Mills Office and Laboratory

Northern Paper Mill, located at 500 Day Street in Green Bay, was established by Michael J. McCormick, W.P. Wagner, and Iver J. Terp in 1901 at the junction of the East and Fox Rivers on land previously occupied by the Murphy Lumber Company. The company had only 25 employees at first and was producing 800 tons of paper annually during the first five years of operation. The company expanded in 1904, and again in 1910, when it filled in the surrounding swamps to provide more land for development and storage. A sulphite mill was built adjacent to the wood pulp mill in 1916.¹⁹⁶



Northern Paper Mills Office and Laboratory, 1929 & 1931, 500 Day Street, Green Bay

In 1919, a large addition for added papermaking machines was completed, and, in 1921, a ground wood mill was finished. The addition of these paper machines made Northern the largest tissue manufacturer in the world for the following two decades. Northern Paper Mills produced all grades of rolled towels, napkins, and wrapping, but became most known for their brand of toilet paper “Northern Tissue” during the 1920s. Advertising at the time stressed the softness and cleanliness of the product.¹⁹⁷

In 1928, a large three-story storage building was added to the site north of the gabled roof brick buildings that preceded it. During the 1930s, the basic form of the Northern Mill was set with a number of production line buildings and warehouses oriented adjacent to each other on an east-west axis with a laboratory and office set off to the east. The laboratory was completed in 1929, and the hipped roof office building was constructed in 1931. The company employed over 300 people by 1932. The gatehouse and general storage facilities were added by the end of World War II. New paper making machines were installed in the 1950s along with added converting equipment, storage, loading, office space, and a print shop. Two-ply toilet paper was introduced

in the 1960s, and Northern continued to be a leader in the toilet paper industry and employed over 1,200 people in the 1960s and 1970s.¹⁹⁸

Early packaging and advertising for the company stressed a northern aesthetic of pine trees and snow. In the post war years, “American Beauties” and “Living Dolls” were featured with soft watercolor painted images of young girls with kitten and flower bouquets. Northern was purchased by Georgia-Pacific in 2002 and was sold again to a part of Koch Industries in 2005. The mill presently produces 70,000 tons of paper each year and employs 275 people.¹⁹⁹

Similar to some of the other large and active paper mills in the survey, the Northern Paper Mill is covered with a sprawling series of buildings and additions spanning a history from the turn of the century to the present. With this in mind, access to the rest of the complex and further study would be required to determine eligibility of the entire site. However, The Northern Paper Mills Office and Laboratory, completed in 1931 and 1929 respectively, and located near the eastern end of the mill site, are significant under Criterion A: History in the area of Industry for their role in the Green Bay paper industry. The period of significance for these buildings would extend from 1929 to circa 1970, approximately fifty years ago.

Green Bay and Western Railroad Grain Elevator

The Green Bay and Western Railroad constructed a large concrete set of grain silos in 1917. In 1928, the Strid Grain Company took over management of the ten elevators, expanding the facility. The property transferred to the Alart and McGuire Company in 1948. The elevators are the largest remaining example of their kind in Green Bay, which historically served as a significant hub for food transportation, packaging, and distribution. They are also an early example of reinforced concrete silo construction²⁰⁰



*Green Bay and Western Railway Grain Elevator, 1917
420 Twelfth Avenue, Green Bay*

The Green Bay and Western Railroad Grain Elevator is significant under Criterion A: History in the area of Industry for its role in the Green Bay grain and food industry. The period of significance for the property would extend from 1917 to 1948.

Telulah Paper Mill

The Kimberly-Clark Company was founded in 1872 by John Kimberly, Charles Clark, Havilah Babcock, and Frank Shattuck. The company, located in Neenah, first made newsprint exclusively, but soon added book paper and wrapping paper to their products. Kimberly-Clark made much of their paper entirely out of rags and linen, rather than wood pulp, and were the first mill in Wisconsin to use these materials extensively. The company expanded quickly,

purchasing the rival Neenah Paper Mill in 1874 and then expanding their first site at the non-extant Globe Mill in Neenah in 1876. The company constructed the Atlas Mill in Appleton the Badger Mill in Neenah in 1878.²⁰¹

In 1887, Kimberly-Clark established the Telulah Mill at 430 East South Island Street in Appleton. The mill was devoted to a diverse line of specialty paper products, such as colored book pages, and training and experimenting for young managers and engineers. By 1897, Kimberly-Clark, the largest paper company in the state, had expanded beyond the Fox River Valley into northern Wisconsin and the Upper Peninsula of Michigan. Demand for large quantities of refined, bleached, groundwood paper during World War I convinced management to switch production at the Telulah Mill in that direction.²⁰²



*Telulah Paper Mill, 1887
430 E. South Island Street, Appleton*

In 1920, Kimberly-Clark sold the large mill to the rival Fox River Paper Company, which had four nearby mills along the north side of Fox River. The mill was remodeled and repurposed to produce large quantities of writing paper, a transition that had already begun under the ownership of Kimberly-Clark. Production increased to 50 tons of paper a day, and the mill became the largest producer of bond paper in the nation until the 1940s. The non-extant Patton Mill to the north, adjacent to the Telulah Paper Mill, was also purchased by the Fox River Paper Company and converted into an associated warehouse. The Telulah Paper Mill consistently had over 500 employees during the 1920s through the 1940s.²⁰³

The mill itself is oriented along an east-west axis with the machinery placed over the tail race at the eastern end of the building. A warehouse addition to the north and an expansion to the south were completed in the early 1920s, likely as a part of the Fox River Paper Company's renovation of the building. Rows of windows can be seen along each of the three floors on all sides of the large painted brick building. The paper making machines were located at the eastern end of the building, shafting, papermaking, and materials were located along the long section to the west. A machine shop and power plant were located to the south, and storage was located on the upper floors and in a warehouse addition to the north.²⁰⁴

The Fox River Paper Company, owned by W. C. Wing, became a corporation in 1938 and consolidated much of its specialty production at the Telulah Mill in 1940 while closing some of their smaller mills in Appleton. The same year, a small, art deco, brick office was constructed opposite the mill. Consolidation continued as the Fox River Paper Company closed its other mills nearby from 1948 to 1955. The Telulah Paper Mill continued to operate through the 1980s.²⁰⁵

The Telulah Paper Mill is significant under Criterion A: History in the area of Industry for its role in the Appleton paper industry. The period of significance for the property would extend from 1887 to circa 1970. The mill is also potentially eligible for listing in the National Register under Criterion A: History in the area of Industry as a contributing resource to the South Island Industrial Historic District for its role in the history of the paper industry. The period of significance for the district would extend from 1887 to 1940.

Tuttle Press Company

The Tuttle Press Company was established in Elgin, Illinois in 1898 by A. F. Tuttle. The firm moved to Appleton in 1901, where the small business rented space until 1906, when it constructed a new plant at the corner of Union and Hancock Streets. The Tuttle Press Company, located at 600 East Hancock Street, printed on plain paper and tissue acquired from local paper mills. The two-story brick building served as a warehouse and printing press facility, producing wrapping paper among other products.²⁰⁶

According to fire insurance maps, the company occupied the northern half of the present site by 1911 and built two large additions in the following decade. The company also occupied the block to the east as a storage yard. By the 1940s, the business had expanded to fill out the entire city block with a single two-story concrete building. The building is presently occupied by Appleton Papers and Mach IV Motors, among others.²⁰⁷



*Tuttle Press Company, 1906
600 E. Hancock Street, Appleton*

The Tuttle Press Company is significant under Criterion A: History in the area of Industry for its role in the Appleton paper industry. The period of significance for the property would extend from 1906 to circa 1970.

Wernig's Sunlit Bakery

In 1923, Clarence Wernig established a bakery on the east side of Green Bay. Located at 1438 Cedar Street, the single-story brick building was one of the largest commercial bakeries in the region when it was completed. Wernig's Bakery advertised the manufacture of "Fluffy White" bread. The business was sold in 1927 and renamed Cobb's Sunlit Bakery, which manufactured "Sunbeam" bread. Cobb's Sunlit Bakery maintained a large fleet of trucks during the 1930s and 1940s for deliveries throughout the bakery's territory in Brown County, and the company rivaled the nearby Bohemian Baking Company, located at 1263 Main Street. The company was sold again in 1960 and renamed Mrs. Karl's Bakery, a subsidiary of the Interstate Bakeries Corporation, a national chain.²⁰⁸

The large brick and concrete industrial building span the block along Grove Street between Cedar and Morrow Streets. The original metal sash window openings are now filled with glass block. The building doubled in size in the 1930s with a large single-story expansion to the east in a similar style. A tall flour tank and garage at the northern end of the building were also additions. In 1950, a two-story office wing was added to the east side of the building. The property is presently still a bakery, owned and operated by TNT Crust.²⁰⁹



*Wernig's Sunlit Bakery, 1923
1438 Cedar Street, Green Bay*

The Wernig's Bakery building is significant under Criterion C: Architecture as an excellent example of an early twentieth century concrete and brick production shed. The period of significance for the property extends from 1923 to 1960.

William Gear Dairy

Charles and William Gear established the Gear Dairy in Menasha in 1883, which claimed the first local house delivery service in the city. In 1903, the dairy moved to a non-extant building at the corner of First and Milwaukee Streets. The business expanded to provide other products besides milk, including cream, buttermilk, half and half, and even eggs. This expansion led the company to an interest in mechanized and automated machines, and the dairy became one of the first regionally to introduce sealed milk bottling, pasteurization, homogenization, and added vitamins during the early and mid-twentieth century.²¹⁰



*William Gear Dairy, 1949
333 First Street, Menasha*

The Gear modern industrialized creamery required a modern industrialized building, and the company constructed a new facility at 333 First Street in Menasha in 1949. The Art Moderne style two-story brick dairy had a wing of garages to one side and in the rear to service the dairy's fleet of delivery trucks. The William Gear Dairy was purchased by Morning Glory Dairy, a larger operation, in 1967.²¹¹

The William Gear Dairy is significant under Criterion A: History in the area of Industry for its role in the Menasha dairy industry. The period of significance for the property would extend from 1949 to 1967.

Willow Grass Rug Company

In 1910, A. B. Fontaine organized the Willow Grass Rug Company and two years later constructed a large one-story building on a 7-acre site located at 1218-1226 Velp Avenue in Green Bay. The company cut grass in Brown County and processed it in these buildings, making woven rugs for consumers. The company expanded to the rear with a matching brick addition in 1919.²¹²

In 1924, the Central Wire Cloth Company bought the business and sold it again in the late 1940s. At that time, the Green Bay Box Company occupied the eastern building, an auto body repair shop was located in the western building, and Wisconsin Wholesaler occupied the warehouses on the north side of the site. A fire in 1951 destroyed many of the warehouse buildings in the rear, which were then replaced. After the fire, the Alwin Manufacturing Company, which produced custom designed dispensing units for paper napkins, occupied most of the site, moving from another location in Green Bay.²¹³



*Willow Grass Rug Company, 1912
1222 Velp Avenue, Green Bay*

The single-story brick building stretched out along Velp Avenue and the adjoining brick buildings to the east, all have high levels of architectural integrity possessing their original materials, organization, and fenestration.

The Willow Grass Rug Company is significant under Criterion C: Architecture as an excellent example of an early twentieth century small production shed. It is also potentially eligible for listing in the National Register under Criterion A: History in the area of Industry for its role in the Green Bay textile industry. The period of significance for the property would extend from 1912 to 1951.

Winnebago Cheese Company

The Winnebago Cheese Company was incorporated in Fond du Lac in 1906 by Frank Schujahn, George H. Lindsay, and A.G. Dana. Originally located on Forest Avenue, the firm moved to West Second Street by 1909, where they remained until they constructed a new facility. The extant two-story brick Winnebago Cheese Company building, located at 233 West Division

Street in Fond du Lac, was constructed in 1915. By 1920, Schujahn was the sole owner of the company. He died in 1932, and the company was purchased by Harmon Wheeler, who continued to operate the cheese company until 1953, when it was purchased by the Borden Company. Operations were transferred to Plymouth four years later. However, the building continued to operate as a cheese company until the 1980s, under different names.²¹⁴



*Winnebago Cheese Company, 1915
233 W. Division Street, Fond du Lac*

A three-story wing addition, designed by the architect Frank Stepnoski and completed by Immel Construction, was added to the west in 1925. A rear cold storage addition was completed in 1932, and a rear loading dock was added in 1943, both in matching red brick. The wholesale cheese company was one of a number in Fond du Lac during the first half of the twentieth century; however, many of the others are either non-extant or have been significantly altered.²¹⁵

The Winnebago Cheese Company is significant under Criterion A: History in the area of Industry for its role in the Fond du Lac dairy industry. The period of significance for the property would extend from 1915 to 1953.

Wright Brothers Paper Box Company

The Wright Brothers Paper Box Company was established in 1908 and constructed a new industrial loft in 1917, located at 21 West Arndt Street in Fond du Lac. The building maintains its historic appearance with its brick and concrete exterior, glass block windows, and lofted interior spaces. The small company specialized in the manufacture of cardboard containers. In 1976, the Wright Brothers Paper Box Company moved again to a new location on the south side of the city.²¹⁶



*Wright Brothers Paper Box Company, 1917
21 W. Arndt Street, Fond du Lac*

The Wright Brothers Paper Box Company is significant under Criterion C:

Architecture as an excellent example of an early twentieth century small industrial loft.

The period of significance for the property would be limited to the date of construction in 1917.

Complexes Eligible for Listing in the National Register of Historic Places

Appleton Coated Paper Company Complex

The Appleton Coated Paper Company was established by Charles Boyd in 1907. Located at 825 East Wisconsin Street in Appleton, the company's facilities were initially located along the railway line to the south facing North Meade Street. The main production facilities and warehouse aligned with the tracks at an angle. The two first buildings of the Appleton Coated Paper Company were constructed in brick. By the 1910s, the company specialized in making white porcelain enamel shelf paper and had developed a reputation for applied chemistry in the papermaking field, often working with larger paper manufacturers to developed coated, thermal, carbonless, and security paper products during the mid-century. The 1920s saw the company expand northward with a new factory along East Wisconsin Street and a large addition to the east.²¹⁷

By the 1940s, Appleton Coated Paper Company had acquired adjacent companies such as the Appleton Sewer Pipe Works and part of the Wisconsin Wire Works along Meade Street to the south, and the Kambo Food Stores and Fox River Tractor Company on Rankin Street south of the railroad tracks. During World War II, demand increased significantly with government contracts, and the company soon added an additional five warehouses and a laboratory to make up a larger complex of industrial buildings. Smaller production facilities were developed in Ohio and Pennsylvania in the 1950s.²¹⁸



*Appleton Coated Paper Company Plant, 1907
825 E. Wisconsin Street, Appleton*

Employees of the company completed a \$880 million buyout of the firm and renovated and expanded its Appleton facilities in 1992, acquiring and incorporating many of the surrounding industrial properties. The company had over 2,500 employees by 2001 and changed its name to Appvion in 2013. The company went bankrupt in 2018 and was sold to a number of its lenders, eventually being reorganized and purchased by the Midwest Paper Group the same year.²¹⁹

The Appleton Coated Paper Company Complex is significant under Criterion A in the area of Industry for its role in the Appleton paper industry. The period of significance for the property would extend from 1907 to circa 1970. The proposed complex is a cluster of buildings situated northeast of downtown Appleton along the main east-west rail line and has boundaries roughly delineated by East Wisconsin Avenue, North Meade Street, and the railroad. The complex began during the 1900s and was developed over the next century as a specialty coated papers manufacturer and researcher.

Atlas Paper Mill Complex

In 1878, the four founders of Kimberly-Clark expanded their paper milling business into Appleton with the construction of the Atlas Paper Mill, located at 425 West Water Street. During the following five years, two more smaller paper mills were constructed adjacent to the Atlas Mill: the Tioga and Vulcan mills. In 1888, the mill burnt down and was reconstructed the same year. The new mill was the largest in the state at the time with a \$125,000 investment and a 500-horsepower mill with three paper-making machines. The mill produced a wide range of products; however, most were common bond papers and heavy manila paper. The mill also introduced the first sulfite pulp mill process west of Pennsylvania in the late 1890s.²²⁰

By 1900, the mill had grown with brick additions on the north side of the mill facing a non-extant rail line, and a tail race of the river was directed under the mill itself. The adjoining Vulcan power plant was constructed by Kimberly-Clark in 1908 on the site of the Tioga and Vulcan Mills. The power plant generated electric power for the Kimberly-Clark's industrial sites along the Fox River in Appleton. The three-story gabled brick building has a number of historic additions including a long single-story wing to the east that was constructed in 1919.²²¹



*Atlas Paper Mill, 1888
425 W. Water Street, Appleton*

In 1920, the Atlas Paper Mill was converted to produce wallpaper, and, for the following thirty years, the mill was a national leader in decorative wallpaper production and had the first rotogravure press for printing wallpaper in a paper mill in the country. During and after World War II, wallpaper declined in popularity, and the mill began returning to printed paper manufacturing and installed a Flexographic printing press in 1961.²²²

In 1999, Kimberly-Clark donated the site to the Paper Industry Hall of Fame. A 52,000 square foot renovation, completed in 2005 by Stadtmueller and Associates, significantly altered the building. The Atlas Paper Mill building is now the Paper Discovery Center museum, and the Vulcan Power Plant is Fratellos Riverfront Restaurant. However, both buildings of the Atlas Paper Mill Complex retain their architectural integrity through their exterior appearance.²²³

The Atlas Paper Mill Complex is significant under Criterion A: History in the area of Industry for its role in the Appleton paper industry. The period of significance for the property would extend from 1888 to circa 1970. The proposed complex is situated near the center of the City of Appleton and has boundaries roughly delineated by West Water Street and the Fox River. The complex began during the 1880s and was developed largely over the next half-century as a significant paper mill. The proposed complex consists of a portion of the legal parcels at 425

West Water Street and 501 West Water Street associated with the contributing resources of the complex.

Giddings and Lewis Machine Tool Company Complex

The Novelty Iron Works, a foundry producing tools for the lumber industry, was established in Fond du Lac in 1874. This iron works was renamed the Giddings and Lewis Company after being purchased by George Giddings and O.F. Lewis in 1880. By the turn of the twentieth century, the company was renamed the Giddings and Lewis Manufacturing Company and produced sawmill machinery and steam engines. After the lumber industry declined, the company moved to produce other types of machine tools in support of heavy industry and manufacturing in eastern Wisconsin.²²⁴

In 1929, most of the Giddings and Lewis Complex was constructed. The large factory complex primarily consists of a one-story brick office wing and a series of tall and long brick production sheds with extensive glazing. Subsequent alterations were made in 1940. The company pioneered precise engineering of heavy machinery during the 1920s and 1930s and specialized in producing horizontal drilling, boring, and milling machines at this seven-acre plant. The company employed 700 people during the 1940s, while the specific abilities of its industry were valued during the war effort.²²⁵



*Giddings and Lewis Machine Tool Company, 1929
142 N. Doty Street, Fond du Lac*

Numerically controlled machines, first developed by the United States military, entered private development in the 1950s, with Giddings and Lewis producing the Numericord Controller in 1955. During the 1950s and 1960s, Giddings and Lewis continued to lead in the development of computer assisted automated production, which is presently common around the world. By the end of the 1960s, the company was one of five leading manufacturers of automation products internationally. The machine tool industry collapsed in the 1970s, and in 1982 the company was acquired by AMCA International. The Giddings and Lewis complex were purchased by the international mechanization company the Fives Group in 2013.²²⁶

The Giddings and Lewis Machine Tool Company Complex is significant under Criterion A: History in the area of Industry for its role in the Fond du Lac metal products industry. The period of significance for the property would extend from 1929 to circa 1970, approximately fifty years ago. The proposed Giddings and Lewis Machine Tool Company Complex is a cluster of buildings situated near the center of the City of Fond du Lac and has boundaries roughly delineated by West Johnson Street, Doty Street, Brooke Street, and the Fond du Lac Riverwalk. The complex began during the late 1920s and was developed over the next half-century as a

large machine factory and office. The proposed complex consists of a part of the legal parcel at 142 North Doty Street associated with the contributing resources of the complex.

Neenah Paper Company Complex

The Patton Paper Company was established in 1874 and located at 135 North Commercial Street in Neenah. In 1885, the mill was reorganized as the Neenah Paper Company and was purchased by members of the Kimberly-Clark Company's ownership in 1893. Though the small paper company complex was effectively a part of the growing Kimberly-Clark paper empire, it retained its name as the Neenah Paper Company, specializing in cotton bond and bleached writing paper.²²⁷



*Neenah Paper Company, 1926
135 N. Commercial Street, Neenah*

The main office of the small mill was constructed in 1926 in the Mediterranean Revival style and designed by the Milwaukee architecture firm of Eschweiler and Eschweiler. In 1956, when the company employed 340 people, it officially became a division of the Kimberly-Clark Corporation.²²⁸

The Neenah Paper Company Complex is significant under Criterion A: History in the area of Industry for its role in the Neenah paper industry. The period of significance for the property would extend from 1885 to 1956. The proposed Neenah Paper Company Complex is a cluster of buildings situated near the center of the City of Neenah and has boundaries roughly delineated by North Commercial Street and the Neenah Channel of the Fox River. The complex began during the 1880s and was developed over the next half-century as a small paper mill. The proposed complex consists of a part of the legal parcel at 135 North Commercial Street associated with the contributing resources of the complex.

John Strange Paper Company Complex

John Strange established the Strange Pail and Tub Factory in Menasha in 1881. By 1891, the company had shifted its focus and had become the John Strange Paper Company in the same location at what is now 69 Washington Street in Menasha. The small paper mill specialized in the production of craft paper, used for brown sacks and bags, and was one of the first in the country to produce this grade of paper. The focus of the company shifted again in the twentieth century to the production of cardboard boxes and containers. The main production shed building on the south side of the complex was constructed in 1902. The company expanded in 1948 with a renovation of its main plant and the construction of a mill office. By 1955, the small mill was

producing 250 tons of paper per year. The complex was purchased by the Menasha Corporation in 1969 and renamed the Menasha Paperboard Mill.²²⁹

The John Strange Paper Company Complex is significant under Criterion A: History in the area of Industry for its role in the Menasha paper industry. The period of significance for the property would extend from 1881 to 1969. The proposed John Strange Paper Company Complex is a cluster of buildings situated near the center of the City of Menasha and has boundaries roughly delineated by Washington Street and the Menasha Channel of the Fox River. The complex began during the 1880s and was developed over the next half-century as a small paper mill. The proposed complex consists of a part of the legal parcel at 69 Washington Street associated with the contributing resources of the complex.



*John Strange Paper Company, 1948
69 Washington Street, Menasha*

George A. Whiting Paper Company Complex

The George Whiting Paper Company was established in 1881 by George Whiting and his partner William Gilbert. Whiting purchased Gilbert's interest in the company five years later. In 1888, the paper mill exploded, and the ensuing fire killed fourteen bystanders and razed the mill. Whiting rebuilt the mill the same year at the same location at the present 100 River Street in Menasha.²³⁰

A large brick expansion to the east was completed in 1910. The complex also includes a prominent smokestack, a small one-story brick office building, and a series of concrete additions to the two main brick mill buildings, all of which were constructed by at least 1926. The T-shaped two-story brick mill remained small through most of its history and specialized in producing fine arts papers and scrapbook paper during the twentieth century. It was one of the few small independent paper manufacturers in the country during the post-war period. The mill closed in 2016 and is presently vacant.²³¹



*George A. Whiting Paper Company, 1888
100 River Street, Menasha*

The George A. Whiting Paper Company Complex is significant under Criterion A: History in the area of Industry for its role in the Menasha paper industry. The period of significance for the property would extend from 1888 to circa 1970, approximately fifty years ago. The proposed George A. Whiting Paper Company Complex is a cluster of buildings situated near the center of the City of Menasha and has boundaries roughly delineated by the end of River Street and the mouth of the Menasha Channel of the Fox River. The complex began during the 1880s and was developed largely over the next half-century as a small paper mill. The proposed complex consists of a portion of the legal parcel at 100 River Street associated with the contributing resources of the complex.

Districts Eligible for Listing in the National Register of Historic Places

Proposed Fox River Paper Company Historic District (Boundary Increase)

Fox River Paper Company Office

The Fox River Paper Company, the largest single paper manufacturer in Appleton in its time, occupied the north side of the Fox River with a complex of four mills: the Fox River Mill, Lincoln Mill, Ravine Mill, and Rag Mill, all constructed in the 1880s and 1890s and already listed in the National Register of Historic Places. The company continued to be successful well into the twentieth century, acquiring other paper mills and related industries in Appleton, and had over 400 employees by 1940.²³²

In 1942, the Fox River Paper Company constructed a small concrete Art Moderne office building, at 100 West Water Street, across the canal from their large complex of older paper mills. The mills on the north side of the river closed between 1948 and 1955, though the Fox River Paper Company continued after. Since the 1980s, the building has served as the Lawrence University Academy of Music, a non-profit organization affiliated with the university's music department that encourages musical education for young people through classes and lessons.²³³



*Fox River Paper Company Office, 1942
100 W. Water Street, Appleton*

Statement of Significance

The Fox River Paper Company Office is significant under Criterion A: History in the area of Industry as a contributing resource to an expansion of the boundaries of the existing Fox River Paper Company Historic District to include this building. The building maintains its architectural integrity and contributes to the history of the mill through the mid-twentieth century. The period of significance of the existing district extends from 1883 to 1939 and would be extended to at least 1942 to include the office.

Boundary Description

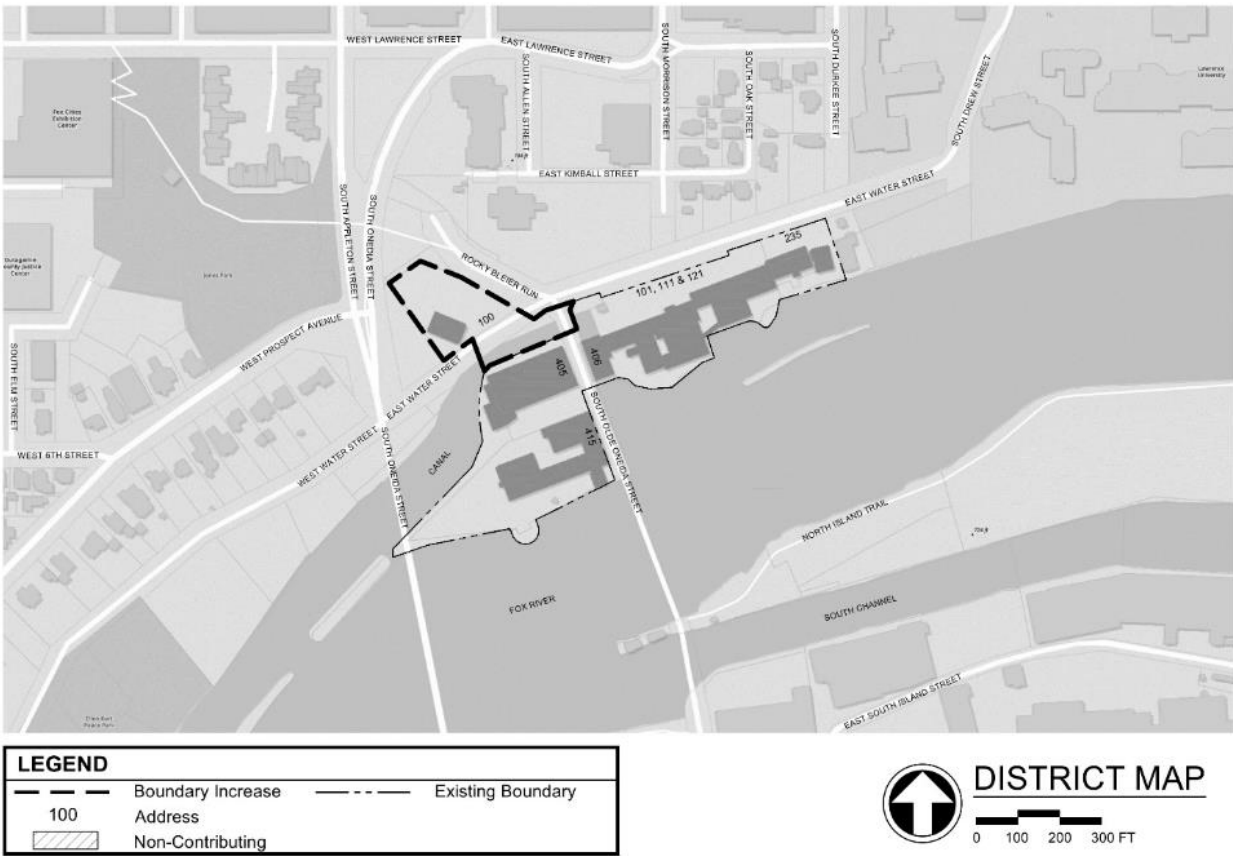
The proposed district consists of the legal parcels associated with the contributing resources within the proposed district expansion adjacent to the existing historic district along Water Street. The proposed boundary expansion is clearly delineated on the accompanying district map and encloses an area of 1.25 acres in addition to the 5.92 acres of the existing listed historic district. The boundaries of the proposed district enclose all the areas historically associated with the district's resources. The result is a cohesive district expansion that is limited to historic resources associated with the Fox River Paper Mill Company.

Building Inventory

The following inventory lists every resource in the proposed district and includes the address of the property, the historic name, the date or circa date of construction, and the resource's contributing (C) evaluation.

| Address | Historic Name | City | Date | Evaluation |
|---------------------|--------------------------------|----------|------|------------|
| 100 W. Water Street | Fox River Paper Company Office | Appleton | 1942 | C |

Proposed Fox River Paper Company Historic District Boundary Increase Map



Proposed South Island Industrial Historic District

Appleton Machine Company

The Appleton Machine Company was established in 1890 with a small, two-story brick production shed, located at 618 South Olde Oneida Street in Appleton, that served as foundry. The company was formed out of the previous Crosby Ketchum Blacksmith Shop, which had existed on the site dating back to 1857. There were other buildings on the site. However, it

appears that these are no longer extant. The foundry was expanded in 1911 with steel frame brick additions to the south, and it appears that more brick additions were created to the south from the 1920s through the 1940s, replacing the non-extant wood frame buildings of the machine company. A large contemporary style red brick addition was completed along the south side of the building in 1948.²³⁴



*Appleton Machine Company, 1890
618 S. Olde Oneida Street, Appleton*

The company's history closely followed the development of the large paper making industry surrounding it, making machinery and replacement parts for paper finishing, stock preparation, and grinding. During World War II, the company also produced torpedo warheads for the war effort. The Appleton Machine Company went out of business in the late 1950s, and the property is now owned by the Valmet Paper Company.²³⁵

Patton Paper Mill Office

The Patton Paper Mill was first established at a non-extant building in Neenah in 1874. The mill moved production to Appleton in 1885, occupying a site along the northern shore of the island in the Fox River. The non-extant Patton Paper Company Mill operated at this site through the 1950s. In 1940, the company, then owned by the adjacent Fox River Paper Company, constructed a small Art Modern style office along South Vulcan Street near the entrance to the mill site.²³⁶



*Patton Paper Mill Office, 1940
600 S. Vulcan Street, Appleton*

Telulah Paper Mill

The Telulah Paper Mill, located at 430 East South Island Street, is discussed previously as an individually eligible resource. More on its history and integrity can be found in the previous section of this chapter.

Valley Iron Works

The Valley Iron Works was established in a small brick building along the Fox River south channel in Appleton in 1882. The company expanded in 1893 and again in 1900. The iron works designed and built large paper-making machinery, often supplying the local paper mills in Appleton. By 1940, when the company expanded again with a series of new masonry buildings, the Fox Valley Iron Works rivalled the Beloit Iron Works in producing paper-making machinery in Wisconsin. Allis-Chalmers, the Milwaukee-based machine manufacturer, purchased the foundry in 1959. The site was renovated in 1962 and renamed the Allis-Chalmers Appleton Works. Allis-Chalmers constructed paper milling equipment machines at this location until 1981, when the foundry closed.²³⁷ The iron works consists of a series of large two- and three-story concrete and brick production sheds with glass block windows and a smaller two-story brick office.



*Valley Iron Works Company, 1934
401 E. South Island Street, Appleton*

Narrative Description

The proposed South Island Industrial Historic District is a well-defined cluster of five buildings situated along South Island Street in the center of the City of Appleton. The industrial area, nestled on Appleton Island, began in 1887 and was developed and filled in over the next five decades.

Statement of Significance

The proposed South Island Industrial Historic District was identified for its prevalence of notable industrial buildings constructed between 1887 and 1940, having local significance under National Register Criterion C: Architecture and Criterion A: History in the area of Industry. The district is comprised of five contributing resources, one of which, the Appleton Woolen Mills, is already individually listed in the National Register of Historic Places.

Boundary Description

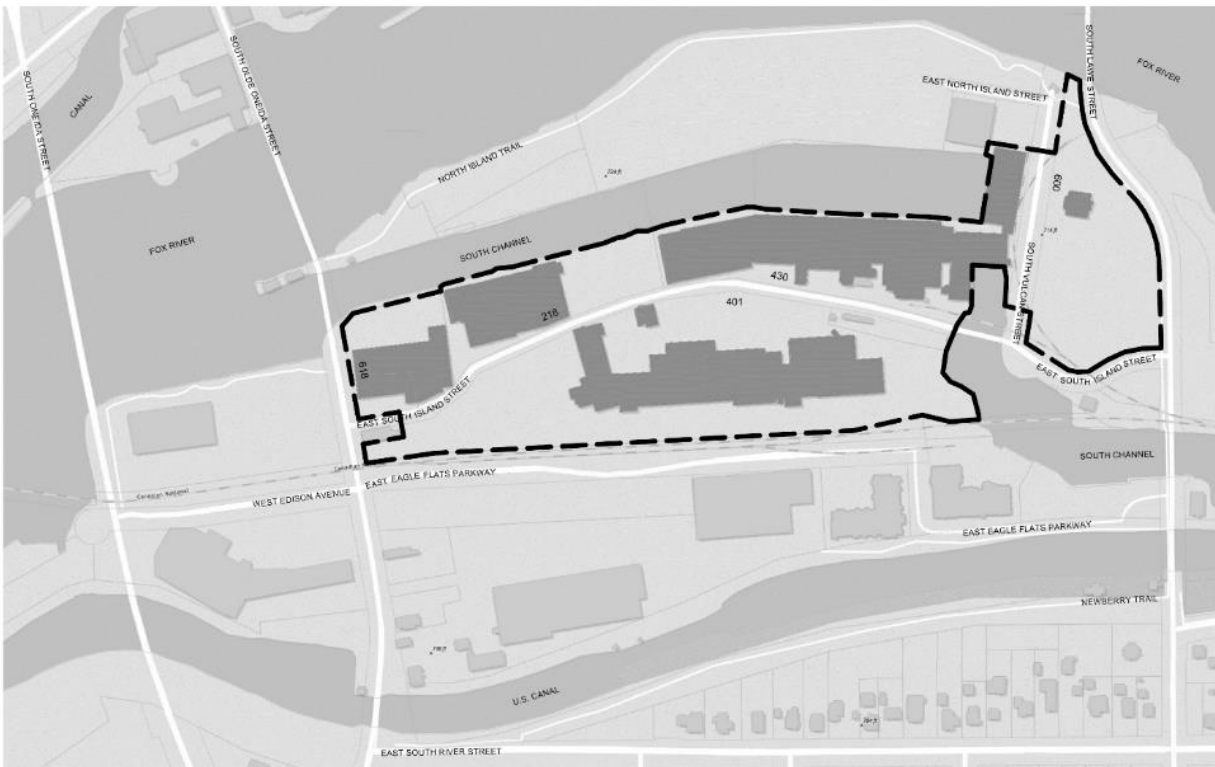
The proposed district consists of the legal parcels associated with the contributing resources within the proposed district. The boundaries of the proposed South Island Industrial Historic District are clearly delineated on the accompanying district map and enclose the area of 20.57 acres. The boundaries of the proposed district enclose all the areas historically associated with the district's resources. The result is a cohesive district that is limited to the historic industrial resources on the island.

Building Inventory

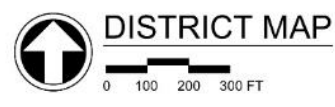
The following inventory lists every resource in the proposed district and includes the address of the property, the historic name, the date or circa date of construction, and the resource's contributing (C) or previously listed in the National Register of Historic Places (NRHP) evaluation.

| Address | Historic Name | City | Date | Evaluation |
|----------------------------|---------------------------|----------|------|------------|
| 618 S. Olde Oneida Street | Appleton Machine Company | Appleton | 1890 | C |
| 218 E. South Island Street | Appleton Woolen Mills | Appleton | 1881 | NRHP |
| 401 E. South Island Street | Valley Iron Works Company | Appleton | 1934 | C |
| 430 E. South Island Street | Telulah Paper Mill | Appleton | 1887 | C |
| 600 S. Vulcan Street | Patton Paper Mill Office | Appleton | 1940 | C |

Proposed South Island Industrial Historic District Map



| LEGEND | |
|--------|------------------|
| | Boundary |
| 100 | Address |
| | Non-Contributing |



Threats to Resources

Changes in modern conveniences and increasing public expectations have brought a great deal of pressure on older buildings. The Milwaukee Industrial Properties Intensive Survey identified 153 previously inventoried properties that had been demolished and 78 that no longer possessed integrity. The Fox River Valley Industrial Properties Intensive Survey identified 108 previously inventoried properties that had been demolished, including:

- 34 in Green Bay, including the National Register-listed Francis Blesch Brewery established in 1856 and the Alois L. Thomas Wholesale Cheese Company constructed in 1911
- 1 in Kaukauna, the South Kaukauna Grain Company constructed in 1894
- 22 in Appleton, including the Riverside Fibre and Paper Company established in 1893
- 8 in Menasha, including the large Gilbert Paper Company complex
- 5 in Neenah, including the Bergstrom Paper Mill complex established in 1915
- 23 in Oshkosh, which has undergone an extensive clearance of its riverside industrial resources during the last thirty years, including the National Register-listed Oshkosh Brewing Company and the Buckstaff Plant established in 1882
- 15 in Fond du Lac, including the Bechaud Brewing Company constructed in 1871

In addition, unsympathetic additions and alterations, including the replacement of original windows and siding with more modern materials, obscure unique historic details and compromise a resource's integrity. The Fox River Valley Industrial Properties Intensive Survey identified six previously inventoried properties that no longer possessed integrity. These trends are expected to continue into the future.

Future Needs

Additional Survey Areas

Despite the variation in the types of industrial resources identified, it is possible that future industrial surveys in others parts of the state, such as Racine and Kenosha, Janesville and Beloit, or Eau Claire and La Crosse, might yield similar results in terms of the number of historic resources inventoried and may identify unique industries to those areas as well.

National Register Nomination Funding

This intensive survey report has identified dozens of resources, complexes, and historic districts that are potentially eligible for listing in the National Register of Historic Places. In the future, grant money could be used to prepare the nominations.

The SHPO administers the Certified Local Government (CLG) program for the National Park Service. The federal law creating the program can be found in 36 CFR Part 61, Section 61.5 "Approved Local Programs." A CLG is any village, city, town, or county that has been certified by the SHPO and the Department of the Interior and meets basic criteria with regards to historic preservation. One of the main benefits of CLG status is a community's eligibility to apply for Wisconsin Historic Preservation Fund Subgrants to fund eligible activities, such as National

Register nominations. Green Bay, Appleton, Neenah, Oshkosh, and Fond du Lac all have CLG status and are eligible for this subgrant program.

The Fuldner Heritage Fund was created through a generous donation by the Jeffris Family Foundation and is administered by the SHPO. It supports National Register nominations of historically and architecturally significant properties in rural and small towns across Wisconsin. Kaukauna and Menasha may be eligible for funding for National Register nominations through this grant program.

Historic Tax Credit Incentives

Listing a resource, complex, or historic district in the National Register of Historic Places offers access to federal and state historic tax credits for substantial rehabilitation projects. See the Appendix for more information on the historic tax credit program or visit the Wisconsin Historical Society website at www.wisconsinhistory.org and click on Preserve Your Homes & Properties.

| AHI RECORD NUMBER | HISTORIC NAME | ADDRESS | CITY | CURRENT OWNER | OWNER ADDRESS | TOTAL SQUARE FOOTAGE | EST. AVE. FLOOR PLATE SIZE (SF) | CURRENT ZONING | PARCEL SIZE (ACRES) | POSSIBLE ENVIRONMENTAL ISSUES | PLANS OR SURVEY ON FILE |
|-------------------|---|----------------------------|-------------|--|--|----------------------|---------------------------------|----------------------|---------------------|-------------------------------|-------------------------|
| 40160 | TUTTLE PRESS COMPANY | 600 E. HANCOCK STREET | APPLETON | HANCOCK-ATLANTIC LLC | 200 E. WASHINGTON ST APPLETON, WI 54911 | 65,298 | 65,298 | GENERAL INDUSTRIAL | 3.28 | YES | NO |
| 240009 | APPLETON COATED PAPER COMPANY LABORATORY | 714 E. HANCOCK STREET | APPLETON | APPVION OPERATIONS INC | 825 E. WISCONSIN AVE APPLETON, WI 54912 | - | - | GENERAL INDUSTRIAL | 1.12 | YES | NO |
| 38962 | APPLETON MACHINE COMPANY | 618 S. OLDE ONEIDA STREET | APPLETON | FAHRENKRUG LAW LLC | 93 N. 15TH AVE WEST BEND, WI 53095 | 31,320 | 31,320 | GENERAL INDUSTRIAL | 1.13 | YES | NO |
| 29183 | VALLEY IRON WORKS COMPANY | 401 E. SOUTH ISLAND STREET | APPLETON | LYRAKE INVESTMENTS LLC | W8339 GRANDVIEW RD HORTONVILLE, WI 54944 | 117,137 | 58,569 | GENERAL INDUSTRIAL | 7.97 | YES | NO |
| 38959 | TELULAH PAPER MILL | 601 S. VULCAN STREET | APPLETON | FOX RIVER PAPER CO LLC | 3460 PRESTON RIDGE ALPHARETTA, GA 30005 | - | - | GENERAL INDUSTRIAL | 4.94 | YES | NO |
| 26971 | PATTEN PAPER MILL OFFICE | 600 S. VULCAN STREET | APPLETON | FOX RIVER PAPER CO LLC | 3460 PRESTON RIDGE ALPHARETTA, GA 30005 | - | - | GENERAL INDUSTRIAL | 6.09 | YES | NO |
| 38980 | FOX RIVER PAPER COMPANY OFFICE | 100 W. WATER STREET | APPLETON | LAWRENCE UNIVERSITY OF WISCONSIN | 711 E. BOLDT WAY SPC 28 APPLETON, WI 54911 | - | - | PUBLIC INSTITUTIONAL | 0.84 | YES | NO |
| 38969 | ATLAS PAPER MILL | 425 W. WATER STREET | APPLETON | ATLAS MILL LLC & PAPER INDUSTRY INTERNATIONAL HALL OF FAME INC | PO BOX 544 NEENAH, WI 54957 & 425 W. WATER ST #2 APPLETON, WI 54911 | - | - | GENERAL COMMERCIAL | 2.51 | YES | NO |
| 38985 | VULCAN MILL HYDROELECTRIC PLANT | 501 W. WATER STREET | APPLETON | J RESTAURANT LLC | 1621 CONGRESS AVE OSHKOSH, WI 54901 | 6,080 | 6,080 | GENERAL COMMERCIAL | 0.71 | YES | NO |
| 240016 | APPLETON COATED PAPER COMPANY COMPLEX | 825 E. WISCONSIN STREET | APPLETON | APPVION OPERATIONS INC | 825 E. WISCONSIN AVE APPLETON, WI 54912 | - | - | GENERAL INDUSTRIAL | 16.39 | YES | NO |
| 53357 | WRIGHT BROTHERS PAPER BOX COMPANY | 21 W. ARNDT STREET | FOND DU LAC | WRIGHT BROTHERS PAPER BOX COMPANY | PO BOX 963 FOND DU LAC, WI 54936-0963 | 9,100 | 4,550 | C-2 | 0.51 | YES | NO |
| 53235 | GURNEY REFRIGERATOR COMPANY | 42 S. BROOKE STREET | FOND DU LAC | CREI WELLS LLC | 9 SHEBOYGAN ST FOND DU LAC, WI 54935 | - | - | M-1 | 2.61 | YES | NO |
| 202121 | WINNEBAGO CHEESE COMPANY | 233 W. DIVISION STREET | FOND DU LAC | WOOLHETHER HOLDINGS LLC | 248 3RD ST FOND DU LAC, WI 54935 | - | - | M-1 | 0.81 | YES | NO |
| 53654 | GIDDINGS AND LEWIS MACHINE TOOL COMPANY COMPLEX | 142 DOTY STREET | FOND DU LAC | GIDDINGS & LEWIS MACHINE TOOLS LLC | PO BOX 590 FOND DU LAC, WI 54936-0590 | - | - | M-1 | 17.70 | YES | YES |
| 240038 | FORT HOWARD LUMBER COMPANY WAREHOUSE | 1095 S. BROADWAY | GREEN BAY | JM JM INVESTMENTS LLC | PO BOX 167 DALE, WI 54931-0167 | 21,000 | 21,000 | GENERAL INDUSTRY | 2.00 | YES | NO |
| 1981 | WERNIG / COBB SUNLIT BAKERY | 1438 CEDAR STREET | GREEN BAY | HC REAL ESTATE LLC | 508 ELIZABETH ST GREEN BAY, WI 54302 | - | - | COMMERCIAL ONE | 0.91 | YES | NO |
| 2145 | NORTHERN PAPER MILLS OFFICE | 500 DAY STREET | GREEN BAY | GEORGIA PACIFIC CONSUMER PRODUCTS LP | ATTN PROPERTY TAX DEPT PO BOX 105681 ATLANTA, GA 30348-5681 | - | - | GENERAL INDUSTRY | 42.66 | YES | NO |

| AHI RECORD NUMBER | HISTORIC NAME | ADDRESS | CITY | CURRENT OWNER | OWNER ADDRESS | TOTAL SQUARE FOOTAGE | EST. AVE. FLOOR PLATE SIZE (SF) | CURRENT ZONING | PARCEL SIZE (ACRES) | POSSIBLE ENVIRONMENTAL ISSUES | PLANS OR SURVEY ON FILE |
|-------------------|--|--------------------------|-----------|----------------------------|---|----------------------|---------------------------------|--|---------------------|-------------------------------|-------------------------|
| 2193 | AUTOMATIC FILE AND INDEX COMPANY | 1402 STATE STREET | GREEN BAY | KRUEGER INTERNATIONAL INC | PO BOX 8100 GREEN BAY, WI 54308-8100 | - | - | GENERAL INDUSTRY | 1.21 | YES | NO |
| 42707 | STRID GRAIN COMPANY | 420 S OAKLAND AVE | GREEN BAY | FOX RIVER ELEVATOR LLC | 815 W. MAPLE ST STANLEY, WI 54768 | 7,488 | 7,488 | GENERAL INDUSTRY | 1.98 | YES | NO |
| 42705 | WILLOW GRASS RUG COMPANY | 1218 VELP AVENUE | GREEN BAY | KANE EQUITY LLC | PO BOX 782 GREEN BAY, WI 54305-0782 | - | - | GENERAL INDUSTRY | 1.16 | YES | NO |
| 59518 | GILBERT PAPER COMPANY OFFICE | 430 AHNAIP STREET | MENESHA | PJC GROUP LLC | 430 AHNAIP ST MENASHA, WI 54952 | 6,624 | 6,624 | GENERAL INDUSTRIAL | 0.59 | YES | NO |
| 58930 | WILLIAM GEAR DAIRY | 333 FIRST STREET | MENESHA | JAMES P. MERRITT | 344 BROADWAY ST WRIGHTSTOWN, WI 54180 | 10,564 | 5,282 | GENERAL COMMERCIAL | 0.55 | YES | NO |
| 61052 | GEORGE A. WHITING PAPER COMPANY COMPLEX | 100 RIVER STREET | MENESHA | DANZ REAL ESTATE LLC | PO BOX 28 MENASHA, WI 54952 | - | - | GENERAL INDUSTRIAL | 2.78 | YES | NO |
| 69991 | MARATHON PAPER MILL OFFICE | 271 RIVER STREET | MENESHA | COVERIS FLEXIBLES US LLC | 50 INTERNATIONAL DR STE 100 GREENVILLE, SC 29615-4808 | - | - | GENERAL INDUSTRIAL | 8.57 | YES | NO |
| 69993 | JOHN STRANGE PAPER COMPANY COMPLEX | 69 WASHINGTON STREET | MENESHA | SONOCO US MILLS INC | 1 N SECOND ST TAX DEPT B04 HARTSVILLE, SC 29550-3300 | - | - | GENERAL INDUSTRIAL | 10.50 | YES | NO |
| 61680 | NEENAH PAPER COMPANY COMPLEX | 133 N. COMMERCIAL STREET | NEENAH | NEENAH PAPER INC | PRESTON RIDGE III 3460 PRESTON RIDGE RD STE 150 ALPHARETTA, GA 30005-2064 | - | - | GENERAL INDUSTRIAL | 8.12 | YES | NO |
| 61976 | NEENAH BRASS WORKS | 223 EDNA AVENUE | NEENAH | WW LLC | 5752 CTY RD T OSHKOSH, WI 54904 | - | - | GENERAL INDUSTRIAL | 0.74 | YES | NO |
| 68974 | KIMBERLY-CLARK HEADQUARTERS | 401 N. LAKE STREET | NEENAH | BADGERS II LLC | CAPITAL ACCOUNTING 400 GOODYS LN STE 100 KNOXVILLE, TN 37922 | - | - | GENERAL INDUSTRIAL | 37.68 | YES | NO |
| 63709 | NEENAH STOVE WORKS | 619 MAIN STREET | NEENAH | HAFEMEISTER MACHINE CORP | 635 MAIN ST NEENAH, WI 54956 | - | - | GENERAL INDUSTRIAL | 4.76 | YES | NO |
| 68294 | E. B. HAYES MACHINERY COMPANY / ROCKWELL WISCONSIN PARTS COMPANY | 1005 HIGH AVENUE | OSHKOSH | AXLETECH INTERNATIONAL INC | 1005 HIGH AVE OSHKOSH, WI 54901 | 621,225 | - | URBAN INDUSTRIAL RIVERFRONT OVERLAY | 31.97 | YES | YES |
| 70058 | H. P. SCHMIDT MILLING COMPANY | 50 W. SIXTH AVENUE | OSHKOSH | 50 WEST 6TH STREET LLC | 230 OHIO ST OSHKOSH, WI 54902-5825 | 10,233 | 3,411 | RIVERFRONT MIXED-USE PLANNED DEV OVERLAY | 0.24 | YES | YES |

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Appendix

WHAT IS THE HISTORIC PRESERVATION TAX CREDIT PROGRAM?

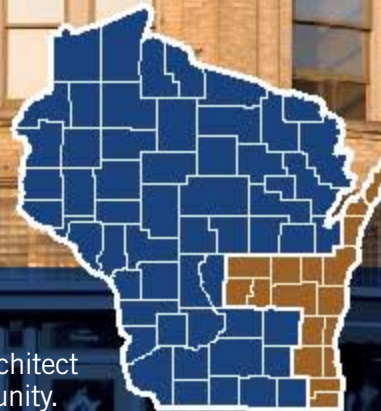
Commercial property owners who invest in the preservation of their buildings may be eligible for state and federal tax credits. Approved costs of 20% for state tax credits and another 20% for federal tax credits may be available for up to a total of 40% eligible tax credits.

ANNUAL STATE-WIDE AVERAGE

- \$283.7M** ▶ IN TOTAL PROJECT COSTS
- \$56.7M** ▶ IN STATE TAX CREDITS
- \$56.7M** ▶ IN FEDERAL TAX CREDIT



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Contact the preservation architect for your community.

WESTERN DISTRICT

JEN DAVEL
608-264-6490
jen.davel@wisconsinhistory.org

EASTERN DISTRICT

MARK BUECHEL
608-264-6491
mark.buechel@wisconsinhistory.org

INVEST IN YOUR COMMERCIAL BUILDING USING
TAX CREDITS

wisconsinhistory.org/taxcredits

DOES MY PROPERTY QUALIFY?

- 1 Property must be a “certified historic structure”
- 2 Listed on the State or National Register of Historic Places
- 3 Project must meet a minimum investment
- 4 Work must be approved in advance and meet historic preservation standards

What should I do first?

Prior to submitting your application contact the preservation architect assigned to your county to discuss your project and answer your questions.

Have a question about how to care for a commercial building?

Visit our website at wisconsinhistory.org/preserve-your-building to browse over 100 articles.



Additional information can be found online at wisconsinhistory.org/taxcredits



WHY SHOULD I PRESERVE MY PROPERTY?

Historic Preservation is intrinsically important for its ability to enhance community pride and to create a sense of rootedness and belonging. Through a connection with history, preservation can improve the quality of life and livability of communities. It also stimulates reinvestment and contributes to our economy, creating jobs in construction, architecture, interior design, engineering, real estate, accounting, tourism and more.

WHAT QUALIFIES FOR TAX CREDITS?

WHAT COSTS ARE ELIGIBLE?

All work inside and outside the building except movable equipment

WHAT COSTS ARE INELIGIBLE?

- Landscaping
- Paving
- New additions



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Guidelines for Planning Historic Preservation Tax Credit Projects in Wisconsin INCOME-PRODUCING TAX CREDIT PROGRAM

INTRODUCTION



State and federal programs require that all tax-credit related work must meet the Secretary of the Interior's Standards for Rehabilitation (or, simply, the Standards). This pamphlet is designed to provide you with guidance about how the Standards are interpreted for various types of preservation work; however, because

there are a wide variety of historic properties, it is impossible to provide a complete set of guidelines to address every situation. This pamphlet is directed to the most common preservation projects. If after reviewing this document you have additional questions about the proposed project, please feel free to contact one of the WHS preservation architects listed below: (by region)

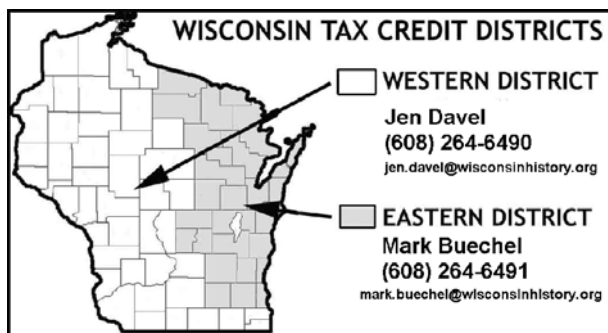
SITE WORK

Most types of site work are allowable, as long as: the work does not destroy significant archeological remains or landscape features; does not encroach on any historic buildings; and does not introduce incompatible new features to the site.

Regrading should be limited to areas away from the historic property or at the rear of the historic building. You should avoid changes in the ground level near the historic building. New plantings and sidewalks are usually not a problem as long as the character of the site is not changed. Parking areas should be located at the rear of a site and in most cases should not abut the historic building.



Archeological remains refers to any prehistoric or historic archeological deposits or features that may exist. Significant archeological resources affected by a project must be protected and preserved. If such resources must be disturbed, mitigation measures must be undertaken. If human remains are discovered, cease work at that location and contact Sherman Banker at the Wisconsin Historical Society at 608-264-6507.



BUILDING EXTERIOR

A primary facade is one that is visible from public rights-of-way and, in most cases, has significant architectural detailing. A secondary facade is one that is generally visible from public view, but may not contain as many distinguishing architectural features. A rear facade is one that is usually not seen by the public and contains little architectural detailing. As a rule, primary facades should be left intact, while rear facades may sometimes be altered more substantially.



REPAIR OF ORIGINAL FEATURES

Repair, rather than replacement, of any feature, such as railings, storefronts, column capitols, a dormer or a parapet, is always strongly encouraged. If replacement is necessary, documentation of the deteriorated condition of the feature should be submitted. Only those portions of any feature that are deteriorated should be replaced.



EXTERIOR BUILDING CLEANING

Removal of dirt or paint from exterior brick or stone is appropriate as long as it does not harm the building materials. (Because every method of exterior cleaning carries with it some risk of damage to masonry materials, you should consider carefully whether to clean the building at all.) In most cases, removal of dirt or paint is unnecessary in order to preserve a building.

The Standards specifically prohibit sandblasting in any form (except to clean cast iron, as discussed below). Other forms of blasting are equally damaging and therefore also prohibited such as soda blasting, corn cob blasting and nut shell blasting. High pressure water blasting is equally damaging. Water pressures above 1000 psi can damage most building materials. Water pressure can be used safely at 1,000 psi with the spray wand a minimum of 12" away from the surface.



Building materials vary widely in composition. Chemicals that may be applied safely to one building can result in severe damage to another. NPS requires that a cleaning test panel be applied to an inconspicuous part of the building prior to cleaning the entire building. The owner and/or architect should inspect the test panel for possible damage to the building materials, including mortar joints in masonry walls. The approved test area should be used as a standard by which the rest of the cleaning is evaluated.

Before cleaning metal elements, you need to determine if the metals are ferric or non-ferric. If exterior metal elements are ferric (iron-based) you need to determine if those elements are cast iron or coated metal. Generally, cast iron is used in storefront columns and trim; otherwise, metal trim is likely to be terne or zinc coated steel. Cast iron may be sandblasted to remove dirt or paint but coated steel should be hand-scraped. Sandblasting coated steel will remove the protective coating and will ultimately lead to severe rusting. We recommend that non-ferric metals simply be repainted.

TUCKPOINTING

Tuckpointing (also referred to as "repointing") refers to the replacement of deteriorated mortar in brick and stone walls. Only deteriorated mortar joints should be repointed. If done properly, the repointed joints will closely match the existing joints and should last for 30 years.



Hand chiseling is the method least likely to cause damage to the brick or stone.

Removing mortar with saws, grinders,

or power chisels must be done carefully and by an experienced mason. For example, if the mason is not experienced using a circular saw, it is quite easy to cut into the brick/stone at the head joint. Damaging the brick/stone during the repointing is not acceptable.

The composition of the new mortar must match the existing mortar. New mortar should contain enough hydrated lime to make it softer than the brick/stone. Unless examination reveals that the original mortar is unusually hard, the building should be repointed using mortar that is no harder than ASTM Type N, which consists of 1 part Portland cement, 1 part hydrated lime and 6 parts sand. ASTM Type O, is a slightly softer mortar consisting of 1 part Portland cement, 2 parts hydrated lime and 9 parts sand.

The appearance of the new joints should match those of the rest of the building. Mismatched



mortar joints can result in the building taking on a "patchwork quilt" appearance. (Above is an example of unacceptable repointing.) The primary concerns are the color of the replacement mortar and the tooling. White Portland cement can be used along with appropriate coloring agents to match existing mortar color. Using standard, gray Portland cement usually results in joints that do not match the original color. In addition, if the tooling of the new mortar joints does not match the original, they may appear to be wider than the rest.

We recommend that the mason complete a test panel (a sample area of repointed joints). Once the test panel is inspected to determine that the masonry has not been damaged and the mortar matches the appearance of the existing; the remainder of the building can be repointed.

REMOVAL OF BUILDING ADDITIONS

Demolition of existing buildings on/or adjacent to, the site of a historic building may be demolished if they do not contribute to the significance of the historic building or its context. On the other hand, just because a building or addition is not original to a property does not always mean that it can be demolished; it may be historically significant.

Evidence of whether a building is considered to be significant is often found in the National Register or State Register nomination for the property or district. Contact Joe DeRose, staff historian, at joe.derose@wisconsinhistory.org or 608/264-6512 for a determination of significance on any building proposed for demolition.

CONSTRUCTION OF NEW ADDITIONS

Building additions should be designed so that the character-defining features of the historic building are not changed, obscured, damaged, or destroyed. The appropriateness of a new addition to a historic building is determined largely by its size and location. An addition should be constructed on the least visible side, such that the historic building remains the most prominent element from the public view.

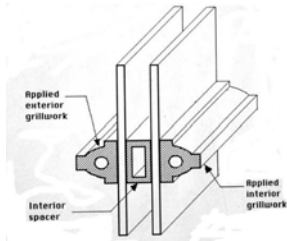
New design should always be clearly differentiated, so that the addition does not appear to match the historic building. Existing materials and detailing may inspire the new design but the addition should also stand as a contemporary design.

The physical connection between the historic building and the addition should be made as small and least physically disruptive as possible. The original massing of the historic building should be retained; meaning any addition should be offset at the corner. Both the link and offsetting the addition makes the process reversible. If, at some point, a future owner wanted to remove the addition, it would allow them to do so with minimal damage to the historic building.

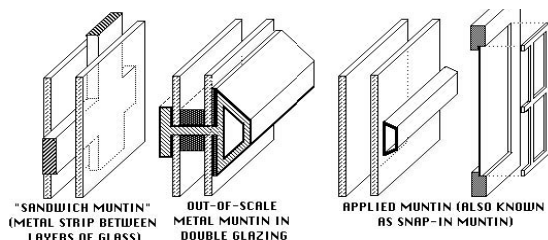
WINDOW REPLACEMENT

Historic features, such as windows, must be repaired before replaced whenever possible. If you desire replacement windows, you must demonstrate that the existing windows have deteriorated beyond repair. This means photographing all windows of a small commercial building or a representative grouping for each building elevation of a large commercial building. Both the interior and exterior conditions must be photographed. These photos should then be keyed to building elevation drawings.

If windows are in fact deteriorated beyond repair, their replacements must duplicate the appearance of the original windows, including the muntins (dividing bars), the proportions of the original windows, the thickness of the sash elements, the window material and finishes.



ACCEPTABLE REPLACEMENT MUNTIN



UNACCEPTABLE REPLACEMENT MUNTIN

Accurately recreating the muntins (window dividers) is an important detail of replacement windows. Muntins that are sandwiched between the glass, placed on just one side or the other, or that don't match the historic profile are unacceptable. Muntins must be permanently attached to the exterior, the interior and also have a spacer bar between the 2 panes of glass. In doing so, the depth of the original shadow lines is recreated.

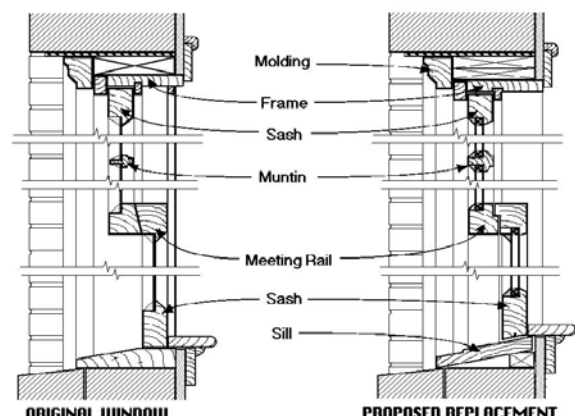
The use of tinted and reflective glass is not allowed. Low-E glass is allowable as long as the Visual Light Transmittance or VLT is 72 or higher.

Generally speaking, buildings 3-stories and less in height, wood windows are required to be replaced with wood windows. Buildings taller than 3-stories that have windows deteriorated beyond repair can replace the wood windows with wood or aluminum. It is acceptable to have wood replacement windows with metal clad at the exterior as long as the metal conforms in shape to the existing window moldings. The metal clad or aluminum cannot have an anodized finish but rather must have a powder-coated paint or baked on finish.

When aluminum windows are used as substitutes for wooden windows, the glass must be set back from the faces of the frames by approximately the same distance as in wooden windows which, typically, would have a putty line. To illustrate this concept, the glazing in wooden windows is held in place with either putty or wooden stops which set the glass approximately 1/2" back from the face of the window frame. On the other hand, the glazing in many aluminum windows is held in place by a metal flange. The result is that the glass is set back from the frame by only about 1/8" which causes the window sashes to look "flat" and out-of-character with most historic buildings.

To change window materials, you must be able to demonstrate that using the historic material would be technically or financially infeasible.

To demonstrate that the new windows match the old, you must submit comparative window section drawings, showing the head, sill, jamb, and muntin sections of the old and the new windows.



COMPARATIVE WINDOW SECTIONS

STORM WINDOWS

To improve the energy efficiency of the historic windows, you may wish to install interior or exterior storm windows. New storm windows can be either wood or aluminum. Aluminum combination windows are acceptable as long as the window tracks are mounted flush with the face of window openings and the proportions of the storm windows match those of the original windows. Aluminum storm windows must also have a painted or baked-on finish, rather than an anodized finish.

CHANGES TO WINDOWS

Original window patterns should not be changed on primary facades. On secondary facades, minor changes may be made, but these must be in keeping with the overall window patterns of those sides of the building. On rear facades with limited public visibility, more significant changes can usually be made; however, they must be in character with the rest of the building.



On masonry buildings, when original windows are closed-in, the infill material should match that of the wall and should be inset from the face of the wall at least two inches. Non-original windows can usually be closed flush to the wall surfaces with

materials to match the adjacent wall.

For new windows, the application should contain drawings similar to those specified in the window replacement section.

ROOF REPLACEMENT

Generally flat roofs that are not visible from the street can be replaced with modern roofing materials.

MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS

In most cases, mechanical, electrical and plumbing work will have no effect on the historic qualities of a rehabilitated building; however, these items must be addressed in the application. Installation of new mechanical systems should be described in the most detail, since it is likely to affect significant spaces.

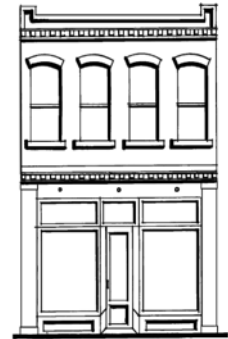
STOREFRONT RESTORATION

Rehabilitation of storefronts, either historic storefronts or those that have been altered requires careful consideration. The first step is to uncover features of the storefront that still exist. Often times when storefronts were altered, original features were simply covered rather than removed.



In doing so, you may find enough of the original storefront design to continue its restoration. If, after selective demolition, little or no original features exist, the next step is to locate any historic photos of the building.

Historic photos similar to the one above can be very helpful in recreating a lost storefront. If historic photos do not exist of the building, a new design will be needed. While considering the age and style of the building is important, there are common elements found on many commercial buildings such as sign boards, transom windows, and recessed entries. Storefront designs that vary from this traditional storefront design should be avoided unless you have historical documentation that supports the design.



INTERIOR TRIM ALTERATIONS

The Standards consider both highly decorated features (such as grand staircases) and characteristic features (such as original window trim) to be significant and these should remain intact. If original features have to be removed during construction, they should be reinstalled (or, if this is impossible, reproduced) in their original locations. Avoid moving original decorative elements to new locations as this can create an interior that looks to be original, but is actually a collection of original building artifacts applied in non-original locations over new construction. Likewise, interior trim for new walls should be generally of the same type and proportion as the original trim, but should not duplicate it exactly.

INTERIOR WALL ALTERATIONS

Significant interior spaces must be preserved. The Standards do not allow total gutting of a building, unless the interior has been completely altered in the past and possesses no significant features or spaces. Significant interior spaces include both those that are highly decorated and original (such as hotel lobbies) and those that are characteristic of the buildings in which they are contained (such as school auditoriums and corridors).

In evaluating which spaces can be changed on an interior, you should determine which spaces are primary and which are secondary. Primary spaces are those that are important to the character of a building and should always be preserved. Because there are a wide variety of historic buildings, each with its own type of significance, there are no absolute rules for identifying primary spaces.

In general, public spaces are primary spaces and should be preserved largely intact whereas non-public spaces may be more altered. For example, the public spaces in a school building would include the



corridors, entrance lobbies, stairwells, and auditoriums.

These should be left intact. On the other hand, the non-public spaces, such as

classrooms and offices, can be altered, provided that there are no highly significant features present. In office buildings, the public spaces would include the hallways, lobbies, and any decorative stairways. Public spaces in churches would include most of the interior features. On the other hand, there may be few or no public spaces in many warehouses and factories.

When interior walls are proposed to be changed, you will be required to submit both an existing and proposed floor plan. The existing floor plan should also illustrate what walls are planned to be removed as part of the project.

CHANGES IN ROOM FINISHES

Covering over of original finishes (such as stenciling), the removal of plaster or wooden elements (such as cornices or



wainscoting), or the application of textured wall paints on original plaster is not appropriate and should be avoided. Similarly, the removal of plaster to expose brick or stone is not appropriate. Historically, brick would be left exposed only in utilitarian structures such as mills, factories, or warehouses. Typical commercial buildings and residences would have had finished walls; usually plaster.

Avoid removing or permanently damaging decorative flooring; such as tile, marble or wood.

Lowering ceilings, particularly those in public spaces should be avoided. If you propose to lower ceilings, they should not be dropped below the level of the tops of the windows unless they are revealed upward at the windows for a distance of at least five feet from the outside walls. Installing plywood panels, spandrel panels, or opaque glazing in the upper portions of windows to hide suspended ceilings is not allowed. In spaces where the ceilings are to be lowered or repaired, and the original ceiling was plastered, you should install suspended gypsum drywall (or plaster) in lieu of suspended acoustical tile.

FOR FURTHER INFORMATION

Additional information regarding common historic building projects can be found within the Preservation Briefs published by the National Park Service. Copies of the both the Standards and Preservation Briefs are available on request from the Division of Historic Preservation.

The Standards are available on-line at: <http://www.nps.gov/hps/tps/standguide/>

The Preservation Briefs are available on-line at: <http://www.nps.gov/tps/how-to-preserve/briefs.htm>