

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

[By William J. Cummings and David Curtis, 1983]

INTRODUCTION

This booklet primarily covers the period 1920-1925 which, because of the building of the Ford Plant, was a time of great excitement and expansion for the community. The growth of the area is touched upon from the organization of the Village of Kingsford in 1923 until it being made a city in 1947.

The tour sites concern buildings which played an integral role in Ford's story and are located in the Ford Plant area and are also scattered across the cities of Kingsford and Iron Mountain. None of the sites are open for inspection. The museum, library and Festival Committee request that people on the tour do not intrude upon the property of the present owners.

The primary research sources for this booklet were *The Daily Tribune-Gazette* and *The Iron Mountain News*. A complete bibliography of Ford articles contained in these newspapers from 1920-1925 is available at the Dickinson County Library and the Menominee Range Historical Foundation Museum. For a much more in-depth treatment of the Ford story in Iron Mountain, the reader is urged to consult these articles. The Dickinson County Library has all early Iron Mountain newspapers on microfilm and two microfilm readers for patron use. Also many of these same articles are in the vertical file in the Local History and Genealogy Room of the library. The museum archives contain many sources and photographs of the period as well. The photographs included in this tour guide are courtesy of the museum.

These booklets will be available not only on the tour date, July 16, but also throughout the summer at the Dickinson County Library and its branches, the

Menominee Range Historical Foundation Museum and the Chamber of Commerce.

Acknowledgements go to Mid-Peninsula Library Cooperative for contributing the paper and printing, to **Frank Marsden**, printer, to **Renee Augustine** for manuscript preparation, to **Margaret Johnson**, to the **Dickinson County Festival of the Arts** for promotion of the tour, to **Tulio Chiesa** and **Jap Colantonio** for their oral histories, to **Lodal** and **Les Brisson**, **John Pipp** and **Mike Woller** and also **Larry Swartout**, **Ron Delo** and **Alan Enciso**.

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1983

(Maps of the Ford Plant area and the tour sites are contained on both sides of the back cover.)

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Long before 1920, the great iron ore mining boom had ended in Michigan's Upper Peninsula. Extensive mining operations were still being carried on by major mining concerns, but many smaller mines had been closed. The era of pine logging on a massive scale had ended almost two decades earlier, as the lumbermen following the pine to the West Coast. The economic future of the Upper Peninsula was uncertain at best.

In 1920, the population of the area which now comprises Kingsford was an even 40, consisting mainly of iron miners who worked in the Iron Mountain

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iron mines and had purchased a forty or two for farming in their spare time. There were no settled communities, no stores and no businesses of any kind. Twenty per cent of the land was cleared; eighty per cent was wild.

A year earlier, **Henry Ford** contacted **Edward G. Kingsford** by telephone, asking Kingsford to accompany him on a camping trip to discuss the reserves of iron and lumber in the Upper Peninsula. Ford had been considering these reserves as early as 1912, as he was interested in acquiring raw materials for his factories. Kingsford, the husband of Ford's cousin, **Minnie Flaherty**, had been a timber cruiser in his earlier years, and at the time was a real estate agent and Ford dealer in Iron Mountain.

The Ford Motor Company had been planning to locate a plant in the Upper Peninsula for some time, wanting to manufacture the wooden parts of Ford automobiles near the source of the raw materials and ship them directly to large branch assembly plants throughout the country. This would relieve the transportation and manufacturing congestion in Detroit, where about 98,000,000 feet of lumber were shipped annually to be made into car parts for shipment to these branch assembly plants.

By **1919**, Ford was ready to move. He informed Kingsford that he wanted to buy a large tract of land for the purpose of securing timber, mining iron ore and building a community. Kingsford found **313,447 acres** which had recently been purchased by the **Michigan Iron and Lumber Company** from the **estate of Thomas A. Brassey**, an English nobleman and capitalist, who had bought the lands in the western portion of the Upper Peninsula from **John M. Longyear** more than thirty-five years earlier.

Ford ultimately became the owner of **400,000 acres** of iron and timberlands in the counties of **Alger, Baraga, Dickinson, Houghton, Iron, Marquette and Menominee**, of which **350,000** were composed of hardwood forests.

Imagine the hopeful excitement generated throughout the peninsula when plans for the construction of a sawmill and body plant by the **Ford Motor Company** were announced early in **July, 1920**.

Iron Mountain's first formal announcement of these plans was published in the **July 7** edition of *The Daily Tribune-Gazette*, where an article on page three noted that **Henry Ford**, his son **Edsel** and **C.W. Avery**, general manager of the **Ford Motor Company**, had been in the city for a few hours that morning looking over a prospective site for the location of a factory to build Model T bodies and a big sawmill.

A number of Iron Mountain citizens had worked on behalf of the Ford Motor Company to secure options on about 900 acres of land south and west of the city limits extending to the Menominee River, according to an article appearing in the **July 8** edition of *The Iron Mountain Press*. The article also stated that the average price paid for this land was less than \$100 per acre.

The 160-acre farm south of Crystal Lake belonging to Joseph Mongrain was considered necessary for the completion of the tract desired by the Ford Motor Company, and was the center of considerable community controversy and concern for nearly two weeks.

While many rumors were circulated about the controversy, the following details are taken from a letter from **Joseph Mongrain** published in the July 9 edition of *The Daily Tribune-Gazette*. Mongrain stated that **Wilbur Thompson** and **M.J. Fox** had attempted to secure an option on

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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his property which he refused because his home was not for sale. He then stated that when **Henry Ford** asked him if he would sell at his own fair price, Mongrain told **Avery, Ford's agent**, he would sell for \$75,000. Avery offered Mongrain \$32,000, which Mongrain flatly refused. Thompson asked him if he would accept \$50,000, which Mongrain also refused, and then, that same evening, Thompson returned with Fox, and offered him \$32,000, stating that was the limit they could offer. When Mongrain refused that offer, they offered him \$40,000, again stating this was their limit, an offer Mongrain again rejected. Mongrain also denied a rumor which had been printed in the previous issue of *The Daily Tribune-Gazette* that he had agreed to the price of \$45,000.

That same Friday, **July 9**, a meeting was called in the city council rooms at 1:30 in the afternoon when a committee composed of **Dr. J.A. Crowell, G.P. Fugere, W.A. Henze, John Daprato** and **W.G. Monroe** was formed.

Thursday evening **J.A. Payant, G.P. Fugere, W.A. Henze, Peter Brouillire** and **Dick Trepanier** had visited with Mongrain and talked with him about the sale of his property. Mongrain, according to this group, agreed to do the "square thing," but would do business with Ford's representatives directly, and no one else.

The committee was to meet again at 7:30 Friday evening, after having conferred with the Ford representatives and Mongrain during the afternoon.

This committee began soliciting funds in the community in an attempt to raise \$30,000, the figure they thought would be required to add to the Ford offer to purchase the Mongrain farm. By noon on **July 12**, about \$8,000 had been raised, and the committee had only begun canvassing the city that morning. Although the rumor that Ford had decided to locate

his plant in **Republic** was circulating, solicitations were continued since Ford had not informed the committee of such a decision. Another rumor was that **Menominee** had not only offered the **Ford Motor Company** free land upon which to construct their factory, but had also offered the company a \$20,000 bonus for settling there.

By noon the following day [**July 13**], Tuesday, \$15,000 had been collected. The committee felt encouraged by the fact that the **Ford Motor Company** had notified persons who had been given options on their property to come and get their money. This seemed to leave little doubt that Iron Mountain was to be the site selected by the Ford Motor Company.

Iron Mountain supposedly was recommended by Ford's engineers and officials as the logical place for the plant. Advantages included the large, relatively level tract of land near the Menominee River which was also a potential power source, plus a favorable geographic location.

On Wednesday, **July 14**, a telegram from the **Ford Motor Company** was received stating the company **would not stand for Iron Mountain's raising \$30,000 to swing the deal in regard to the Mongrain farm.** The telegram further stated that the Ford Motor Company was then considering **Republic** as a possible location for the plant, according to the article in *The Daily Tribune-Gazette*. It was also reported in this article that **Joseph Mongrain** had gone to **Marquette** on Monday or Tuesday, and then he had left Marquette for **Detroit** upon having been requested to do so, the implication being that this request was made by the Ford Motor Company. Up to the time the telegram was received, the committee had collected \$20,000.

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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By Saturday, **July 17**, engineers for the **Ford Motor Company** were working on land purchased by the company where the body plant and sawmill were to be erected. This site was to be west of the City of Iron Mountain. According to *The Daily Tribune-Gazette*, since Friday a number of lots and some property had been sold in the city.

In a lengthy article under the headline "Facts About the Ford Plant for Iron Mountain" in the Monday, **July 19**, edition of *The Daily Tribune-Gazette*, information gathered from a personal interview with **Edward G. Kingsford**, Ford's representative in Iron Mountain, clarified some of the misinformation and rumors rampant in the city and the peninsula.

At that time **Kingsford** stated **Mongrain** had agreed to what seemed to be a satisfactory sale price, but whether or not the **Ford Motor Company** would accept it remained to be seen because the company had a very desirable site west of the city, almost directly west of the **Pollard farm near the Pine Grove Country Club**. **Kingsford** noted that this land had been staked out, and that the **Mongrain** land was also being staked out to see which best fitted the current plans for the factory site.

The following day [**July 20**] **Kingsford** reported that satisfactory arrangements had been made between the **Ford Motor Company** and **Joseph Mongrain** in regard to his land, but the selling price was not made public. By Thursday, **July 22**, the final site for the location of the body plant and sawmill had been decided, and that site was the south part of the **Mongrain** farm.

The beginning of the erection of sawmill and powerhouse only awaited the first shipment of cement and steel. Construction started on **July 29, 1920**, and Ford hired the first employees. The Ford building period extended from 1920 to

1925. To conduct sawmill, body plant and logging operations, Ford organized the **Michigan Iron, Land and Lumber Company** with himself as president and **Kingsford** as vice-president. **By August 2, 1920**, **Kingsford** had received **1,000 or more applications for work at the Ford plant**. At the end of the first year, 3,000 men were working on construction alone. **On January 27, 1922**, the first night shift in the history of the plant began work at the sawmill. In March of the same year, the first car parts were manufactured and shipped to Detroit.

The coming of Ford caused business to increase in all parts of the community. There was a boom in real estate and inflated prices for home purchases and rental property. Lots, streets and alleys were constructed and much Iron Mountain property was being torn up to make way for new construction. There were few homes for incoming Ford employees to purchase. Where homes were built, conveniences were lacking. **Kingsford Heights and the Ford Addition had private water systems and Breitung had no water system at all. There were no sewers.**

The only way to deal with these problems was for the area to **organize into a village**. The petition to organize was filed with the county commissioners on **May 24, 1923**, and was approved by the voters on **December 29**. A bond issue was approved early in **1924** for the **construction of a water system**. The system was put through in the summer of the same year when extensive street improvements were also made. The bond issue for the **sewage system** passed in **1925**.

The employment at the Ford plant reached a peak of **8,000** in the latter part of **1925**. Plant growth was at its greatest between **1922** and **1925**. From **1927** on, the plant decreased in activity. Part of the reason for this involved switching to

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Model A and V-8 cars from the Model T and the corresponding use of fewer and fewer wooden parts. In 1928, the plant was partially closed for the conversion of new machinery for the production of Model A's and employment was at a standstill. There was a slow-down again in 1938 and 1939. The production of station wagons began in 1940 and was halted in 1942 when the plant was converted for the production of World War II gliders. The first glider was completed in December, 1942.

In 1945, Henry Ford retired and his grandson took control of the company. Because the Upper Peninsula plant was not proving to be profitable, Ford began the process of closing down the unit. **The chemical plant was sold to the Kingsford Chemical Company in 1951. The body plant was closed in 1951, and Ford left town. Over 1,800 employees had to look for new jobs.**

As preparations were being developed for the closing of the Ford plant, steps were being taken to make **Kingsford** a city. The **petition to become a city** was approved by the voters on **March 10, 1947**. The city **charter** was approved on **August 7, 1947**.

RAILROAD

The laying of the railroad tracks to the Ford plant was one of the first construction projects. **The track ran from three blocks south of H Street along the south edge of the Mongrain farm and was three miles long.** The spur tracks were built from the **Chicago, Milwaukee & St. Paul Railroad** and entered each end of the plant.

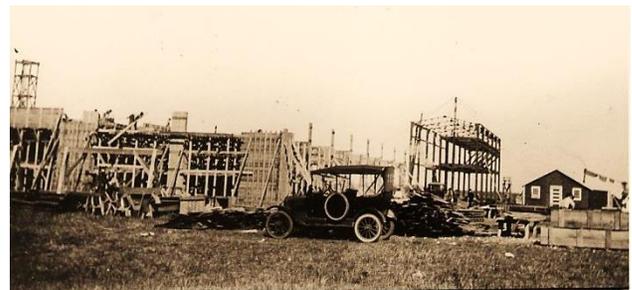
John Marsch, owner of the **Wisconsin & Michigan Railroad**, had the contract to build the railroad. Sixteen mules and four horses, arriving in two railroad cars from

Janesville, Wisconsin, helped lay the track. By **August 26, 1920**, a mile or more of the road had been built. By **September 9**, all grading work was completed and workmen began laying rails the following day.

Many of the original rails are still in existence on the former Ford property.

SAWMILL

Construction of the first of the Ford buildings, the sawmill, was completed over the course of one year. It was planned to be three times as large as the **Von Platen-Fox Mill in Iron Mountain**. The machinery for mixing concrete arrived **July 24, 1920**, and the cement arrived two days later when construction began. By **August 19**, the foundations were almost finished and structural work was about to begin. The exterior of the sawmill was completed around **December 4**. However, the first carload of logs for the sawmill arrived five days earlier. It was anticipated at that time than ten million feet of logs would be unloaded at the Ford property before the winter was over.



Sawmill Under Construction, Fall 1920

Although the sawmill was first tested Saturday, **July 9, 1921**, it was formally opened the following Tuesday **[July 12]**, with a band and ceremony marking the occasion. In the presence of **C.W. Avery**, **general manager of the Ford Motor**

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Company, E.G. Kingsford, vice-president of the Michigan Iron, Land and Lumber Company, and about 100 members of the Commercial and Rotary Clubs, the first logs were put through the new sawmill. At 1:30 p.m., a long blast of the mill whistle announced the start of the huge band saw. A few minutes later, spectators gathered on a platform to see the first log come up the chute from the hot pond. As it entered the mill building, it was christened by M.J. Fox with a cup of water. Then, it was rolled down the slanting rack ready to be placed on the new carriages.

log started on a rampage and headed for a group of Rotarians.



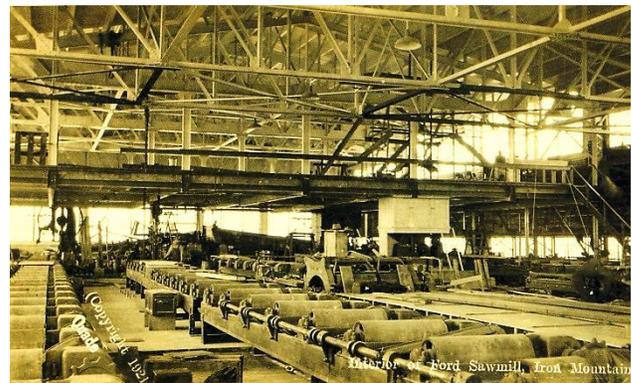
Ford Sawmill, ca. 1925-1930

The mill was said to be one of the most modern in the world at that time. The mill was so large that the town was unable to supply enough electricity to operate the machines. Therefore, Ford built a hydroelectric plant nearby on the Menominee River that could produce sufficient electricity.



Interior of Ford Sawmill, 1921

Robert Jenks was selected as the sawyer and Joe Bernette as the setter to perform the first cut of timber. Both men took their places at the controls. The log was thrown on the carriages and locked. Jenks moved a lever and the carriage rolled slowly up to the rapidly moving band saw. The first slab was then cut and the carriage moved into position for the second cut. The planks followed each other in rapid succession down the conveyor to the edger. The slabs went to the "hog" to be ground and conveyed to the boiler room. Just twenty minutes after the saw started, planks were received off the transfer. The process went smoothly except for some momentary excitement when a large maple



Interior of Ford Sawmill, 1921

The main logging company was at Sidnaw, 60 miles northwest of Iron Mountain. Kingsford was in charge of logging operations. The first year of the Sidnaw logging camp, only about a million board feet of logs were taken to Iron Mountain. On February 17, 1922, the

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

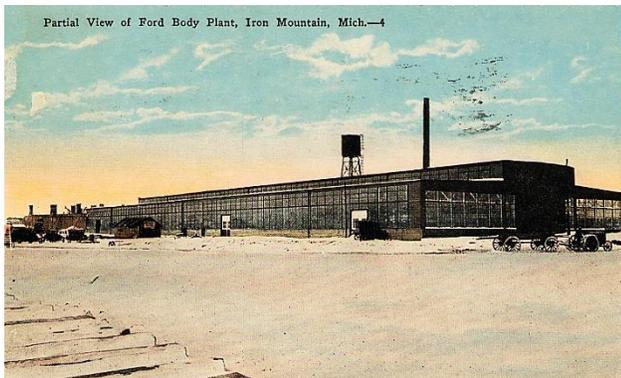
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sawmill crew cut 205,000 feet in sixteen hours. The company's hope was to reach 250,000 feet. Over the weekend of **March 18-19**, the day and night shifts combined cut 273,000 feet in sixteen hours.

Zam's Services currently occupies the former sawmill building. The building has been modified and is now only one story.

BODY PLANTS, DRY KILNS AND MAINTENANCE BUILDING

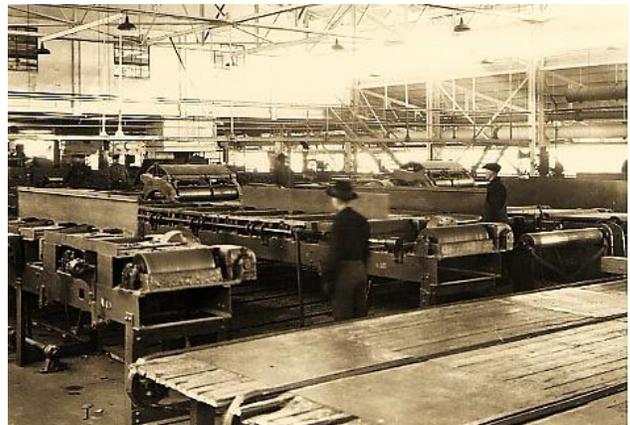
On **September 15, 1921**, the Worden-Allen Company, a Chicago contractor, was awarded the contract to build the first body plant, which would measure **360 feet by 120 feet**, and six dry kilns. The body plant would turn out wooden body parts for Ford touring cars and sedans. The dry kilns were used for drying freshly cut, green, hardwood lumber. This lumber had to be immediately taken from the sawmill and conditioned properly before its use in the manufacture of body parts.



Partial View of the Ford Body Plant, Iron Mountain, ca. 1925-1930

Even though the building was nearly completed by **December 22, 1921**, the first body plant could not begin operations due to a delay in the receipt and installation of fittings for the dry kilns. A second delay occurred on **February 29, 1922**, because

materials failed to arrive due to a railroad blockade. On **March 10**, machines were started in the body plant, turning out pillars for touring cars. The manufacture of other parts, including sills, door frames, floor boards and top ribs, was taken up later. The first shipment of front door pillars for the touring car model occurred **March 15, 1922**. This carload of several thousand parts was sent to the **Detroit factory**.



Body Plant Production, 1920's

On **May 29, 1922**, plans and specifications for a second body plant, measuring **460 feet by 120 feet**, a **100 foot addition** to the first body plant and **14 additional dry kilns** were announced. The contract was awarded to the Worden-Allen Company of Chicago on **June 17** and work began on **July 10**. This body plant was connected to the dry kilns, thus not exposing the lumber to the weather. The second plant was of concrete, glass and steel. A new type of roof was employed, using concrete slabs averaging 18 inches wide and seven feet long. These, placed side by side, formed a durable, waterproof roof. Each slab weighed 200 pounds and 7,759 slabs were used. **Construction of the new body unit, addition and dry kilns were completed in November.**

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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It was announced on **December 29** that more body units would be needed due to a doubling of automobile production. **On April 21, 1923, a contract was awarded to Worden-Allen for the construction of 32 additional dry kilns, a third body plant, measuring 640 feet by 120 feet, and extensions to the two present plants of 180 feet each to make all three plants of equal size.** Construction began on **May 10**, including a **maintenance building** which was located east of the **power plant** and housed the **machine shops** and other departments supplying repair parts for the entire plant. **The maintenance building was in use by September 1.** The additions to the first two body plants were also completed by that date and the third body plant was finished with the exception of the laying of the concrete floor, machinery foundations and the glazing of the steel sash. By **December 19**, the first two body plants were operating at full capacity but the third body plant had not yet been opened, although it was partly in operation by August 1. Construction was not concluded until the fall. Because of a lack of power, the unit could not be put into full operation until **March of 1924.**



South Side of Dry Kilns, ca. 1940-1950

Twenty-six dry kilns were in operation by January 16, 1924. Twenty-six more were under construction during that year. Each kiln in a battery of twenty-six took seven miles of piping. Total piping in all the kilns and the plants would have

reached to Chicago and back if placed end to end. **Each concrete kiln was 220 feet in length and 20 feet in width.** A single order for the kilns, on **May 26, 1922**, filled 60 to 70 railroad cars.

To this day, the three body plant buildings are intact and being used various Kingsford business firms. The dry kilns are also very visible on the property.

CHEMICAL PLANT

Ford Motor Company announced on December 29, 1922, that it was considering the construction of a chemical plant to take care of the waste slashings from the timber operations. The contract was awarded to the **Worden-Allen Company of Chicago** on **April 16, 1923.** The chemical plant was located north of the sawmill with the buildings extending westward.



Carbonization and Distillation Buildings, July 14, 1924

On **August 1, 1924**, the machinery and other equipment of the completed chemical plant were tested. By **September 27**, the plant was operating on a big scale. It was composed of two main buildings, each with four- and six-story sections. **The carbonization building, where the chemical process started, was 360 feet**

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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long and 90 feet wide. The distillation building, where the chemical products were made, was 300 feet by 90 feet. The buildings were furnished with heat by a steam power plant, a unique feature of which was a horizontal smoke stack 10 feet in diameter and more than 200 feet long, which connected the two big buildings and furnished heat for wood drying. The plant was equipped with a large chemical laboratory of the latest design. There was also a modern shipping and barreling department for the proper packaging of the various chemical products.



Charcoal Production

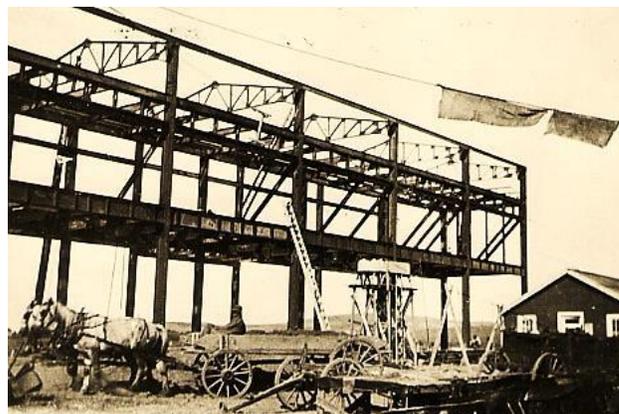
Every scrap of wood was used – even sawdust. The plant's capacity was 210 cords of wood per day. The amount of daily waste products was calculated, at the time, to be worth \$11,000. The chemical distillation plant reclaimed from every ton of scrap wood, 135 pounds of

acetate of lime, 612 gallons of 82 per cent methyl alcohol, 61- pounds of charcoal, 15 gallons of tar, heavy and light oils, creosote and 600 cubic feet of fuel gas. All of the products were used at the Ford plant or sold. The charcoal was manufactured into briquettes and offered on the market for fuel. The gases were used for fuel at the power plant.

The chemical plant was torn down after Kingsford Chemical Company left town. Only remnants are still visible on the Ford property.

POWER PLANTS

The original power plant was constructed during the fall of 1920 and the winter of 1920-1921 and provided the plant with power until a new power house had to be constructed.



Original Power Plant Under Construction, Fall of 1920

By October 31, 1923, a 1400 horsepower boiler was being water tested at the new power plant then under construction. Two of these boilers were being installed with two corresponding smoke stacks, each 190 feet high with an inside diameter of 14 feet at the bottom and 10 feet at the top. The original power

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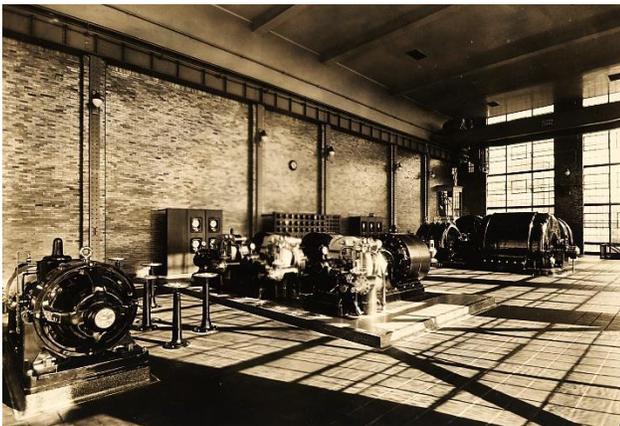
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house had four much shorter smokestacks. It was stated at the time that the two new smokestacks were the highest in the peninsula. By **December 19**, only part of the building was enclosed.

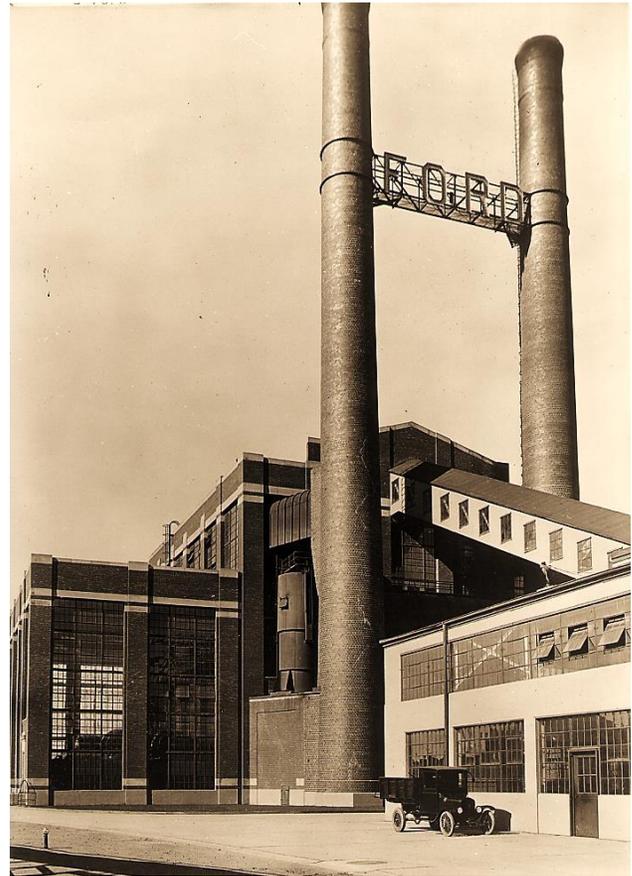


Original Power Plant with Ford Water Tank, ca. 1940

The power plant was constructed of steel and red face brick inset at various places with white stone and stood out from the rest of the plant structures because of its size and beauty. The imposing structure was centrally located with respect to the sawmill, wood drying kilns and the two buildings of the wood distillation plant.



Interior of the New Power Plant, ca. 1940-1950



New Power House with 190-Foot Tall Smokestacks, ca. 1925

The big power house contained four boilers of immense capacity. One of the boilers was used even before the building was completed because the power demands of the plant were so great. The old power house had a battery of eight boilers with a total rating of 2,800 horsepower. Each of the new boilers was rated at 1,361 horsepower and was capable of a 250 per cent overload. The four boilers had a capacity of 12,000 horsepower, more than four times that of the old plant. The new boilers burned oil, wood and other refuse. Between the new power plant and the new addition to the sawmill, there was a large steel connecting link that contained a runway and exhaust pipes conveying sawdust from every part of the plant for use

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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as fuel in combination with the oil. The bridge slanted upward from the mill to the power house at a sharp angle. The construction was of large, heavy steel girders. By **June, 1924**, construction work was almost completed.

The power plant has been torn down with the exception of the two huge smokestacks.

[NOTE: The Ford smokestacks were demolished on Friday, September 13, 2002, at 12:10 p.m. by a crew from Paschke Demolition, Green Bay, Wisconsin.]

OFFICE

On **September 9, 1920**, a large quantity of bricks arrived and construction was begun on the **Ford office building**. The office was located on **East Brown Street at the rear of the Carbis Meat Market on the Trenary property**. It was 35 feet by 65 feet on the foundations, had two stories and a partial basement and was constructed of brick and reinforced concrete. The building had eight large, roomy offices, four on each floor, and a large vault room. **Fred Parmelee** was the architect. It served as the office building for the Ford plant and, for a while, was the place where employees were hired.

By **December 12, 1923**, with the continued expansion in size of the plant, the Brown Street office was proving to be inadequate and, by **February 1** of the following year, Ford was actively planning to build a large, two-story office structure at the plant. On **May 24**, plans for moving the offices from Brown Street were begun. Construction of the new office building had been held up for a while with temporary office quarters being in the maintenance building. The employment office was finally housed in a separate building, a frame structure located near the big parking

reserve for the hundreds of cars owned by the workers.

The original office at **207 East Brown Street** is now occupied by **Coleman Engineering**.

[NOTE: This building was torn down when the First National Bank constructed its new structure which included the entire west half of the 200 block on the east side of South Stephenson Avenue.]

DAM

Exploratory work on the dam site began **February 13, 1922**. The construction contract was awarded to the **Stone & Webster Company**, of Boston, Massachusetts. **Meade & Seastone**, of Madison, Wisconsin, was the firm in charge of the engineering work. They were also consulting engineers for the **Peninsula Power Company**. By **May 12, 1923**, materials were received and work was begun.



Ford Hydroelectric Dam Under Construction, 1923-1924

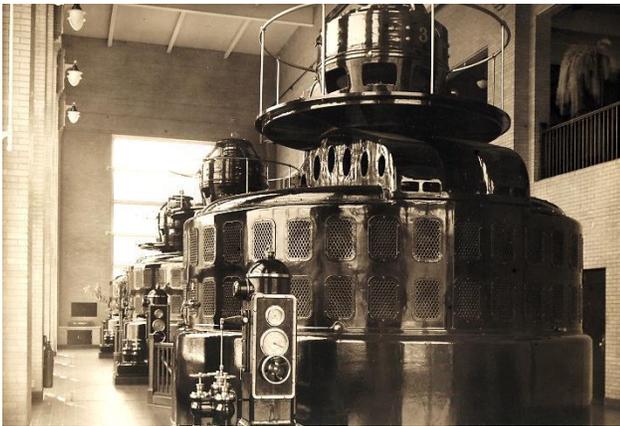
The dam was located southwest of the city, about midway between the two bridges over the **Menominee River**. The awarding of the contract was held up more than a year and a half, mainly because the

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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purchase of lands flooded by the backwater had not been completed. Some of the land owners were demanding a very high price for their lands.

By **February 1, 1924**, work on the dam was progressing very rapidly. Great headway was made during the fall and early winter when extremely favorable weather conditions prevailed. On **June 24**, the dam was completed and the three generators were ready to serve the Ford plant with 11,000 horsepower.

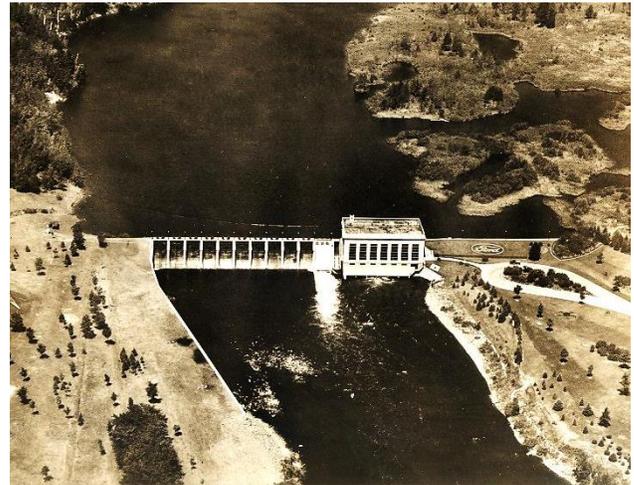


Turbine Room of the Ford Hydroelectric Plant and Dam, ca. 1940-1950

The Ford dam was much larger than the **Peninsula Power Company's dam**. It was constructed of a gigantic block of concrete more than 30 feet deep that was studded with ten huge iron gates, each weighing nine tons. The dam extended across the river a distance of 240 feet. The power house at the eastern end was 119 feet long while a wing, or core wall, on the Michigan side was 175 feet long. On the Wisconsin side, the wall measured 125 feet. About 18,620 cubic yards of concrete weighing 78,204,000 pounds were used in its construction.

The water held in check, by the Ford dam flooded land as far up the river as the **Peninsula Power Company dam at Twin**

Falls. It made miniature **Cowboy Lake** into a much larger body of water. Power from the dam was transported to the sawmill and body plants through a system of underground conduits. These wires carried 2,300 volts of direct current to a substation that converted the electricity to alternating current and stepped down the voltage to 220.



Ford Hydroelectric Dam and Power House on the Menominee River, ca. 1940-1950

The dam is currently being operated by the **Wisconsin Electric Power Company** and is located on **Cowboy Lake Road**.

FORD COMMISSARY

The site of the **Ford Commissary** was on the **southeast corner of South Carpenter Avenue and Woodward Avenue**. The store had a warehouse running back to the **Chicago, Milwaukee & St. Paul Railroad** tracks. Although it was operated to provide lower prices to Ford employees, it was open to the general public. Business was conducted on a strictly cash basis.

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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The construction contract was awarded to **G.A. Gustafson** in the amount of \$25,500. The basement was excavated on **May 31, 1922**, measuring 51 feet wide, 115 feet long and seven feet high. The foundation work began on the following week. The one-story building was of brick construction.



Ford Commissary or Ford Store, 101 South Carpenter Avenue, ca. 1926

The store opened for business on Monday, November 13, 1922, at 8:30 a.m. The business was under the management of Richard Boll, who had been engaged in business at Channing for many years. Twenty men and women were employed at that time, and delivery service was provided. Thirty-two people were employed at the height of the Ford boom.



Interior of Ford Commissary Showing Men's Clothing Display, ca. 1926

The store was stocked with staple and fancy groceries, men's and boys' working clothes, a complete line of shoes and fresh and salted meats. The meat market occupied one third of the floor. Cooling rooms for storage of fruits and vegetables were located in the basement. A chemical refrigerating plant was provided and a freezing showcase was used for display. The store had an electric meat sawing machine.

In about 1930 business was transacted in the following manner: upon entering the store, a card was given to the customer. The sales clerk was give the card for each purchase so that she could mark the price. At the completion of shopping, the card was presented to the cashier at a little booth by the door. The customer paid for the merchandise.

The Ford commissary is currently the **Hosking Tire Company** at 101 South Carpenter Avenue.

[NOTE: The Ford Commissary building is empty and in disrepair with holes in the roof in 2014.]

FILTRATION PLANT

On **August 2, 1922**, **G.A. Gustafson**, an Iron Mountain contractor, was awarded the contract for the installation of the filtration plant on the **southwest corner of Woodward Avenue and North Boulevard**. The bid was \$20,000. Work began five days later. The filtration plant was available for use by **September 7, 1923**, but was not put into operation until **October**. **Menominee River water** was used, supplying the **Ford plant, Ford lots** and the **Kingsford Heights** with drinking water.

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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Filtration Plant and Water Tower at Extreme Left at Western Edge of the Ford Addition, ca. 1930

A water tower was located next to the filtration plant. A second tower was located in the center of the plant proper, supplying water for plant use but not for drinking.

The filtration plant, although no longer in existence, occupied the site which is now **901 Woodward Avenue**.

HOSPITAL

Prior to the **Ford Hospital**, Ford employees were assessed \$1.10 per month for medical attention whenever required for themselves and their families. The medical firm of **Crowell, Belhumeur & Coffin** had the Ford contract. On **February 2, 1925**, this contracted medical practice was discontinued and men who became ill or injured while at work were cared for at company expense at the new Ford Hospital. The hospital was located in one of the largest Ford houses on Woodward Avenue and was remodeled for this purpose.

When it opened, the hospital had five beds in addition to an operating room and other departments. It had one of the best x-ray units in the Upper Peninsula at the time. The hospital was a duplicate, in miniature, of the mammoth **Henry Ford Hospital in Detroit**. **Dr. W.H. Alexander**, who came directly from the Detroit hospital, was in charge. Minor injuries were taken care of at

the first aid department at the Ford plant. More serious cases were taken to the hospital.



Ford Hospital at 733 Woodward Avenue, Dr. W.H. Alexander Standing Near Porch, ca. 1926

By 1930, the upper floor had three bedrooms for sick patients, an x-ray room and a bathroom. The waiting, operating, doctor's and nurse's rooms were all located on the main floor. An extension to the basement to the west created a small, darkroom used for developing x-rays.

The hospital is currently a private residence again, located at **733 Woodward Avenue**.

CLUBHOUSE

The Ford Motor Company provided a clubhouse, located on Woodward Avenue, for visiting officials. By May 22, 1925, some interior decorating and the furnishing of a few rooms were all that was needed to be done to complete the clubhouse. It had a lounging room furnished with a number of highly upholstered easy chairs and settees, and an up-to-date kitchen, the walls of which were brilliantly enameled in white. The second floor had rooms for Ford

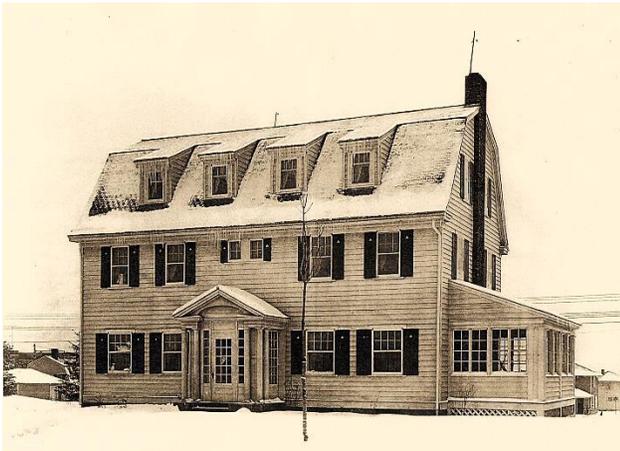
FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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officials who were visiting the plant. The clubhouse was officially opened about June, 1925.



Joseph Mongrain's Farm House (left) and the Ford Clubhouse (center) on the 700 Block of Woodward Avenue with the Ford Water Tower in the 900 Block of Woodward Avenue (right), ca. 1930



Ford Clubhouse at 713 Woodward Avenue, February, 1926

The clubhouse is currently a private residence, located at 713 Woodward Avenue.

FORD HOMES

One of the most serious problems confronting the **Ford Motor Company** was the lack of available homes for Ford employees. At times, industrial expansion

was retarded because of this problem. With the coming of the Ford Motor Company, rents in Iron Mountain increased substantially. In **1920** rents were from \$10 to \$15 a month. Three years later, rents, for a comparable house, had increased to \$40 to \$55. Homes valued at \$2,500 shot up to \$8,500. Lots in the \$150 to \$200 range increased to about \$600. Many of the Ford employees found themselves homeless with their wives and children often forced to live in other cities.

Some employees found it necessary to live in **Ford camp buildings located near the filtration plant on Hamilton Avenue**. Each of these buildings could accommodate 40 men, two to a room. A bath house, mess hall, kitchen and bake shop were included in this complex. The rent was \$1.50 per day.

By **February 16, 1924**, 200 men were living in the **bunkhouses** and no more could be accommodated. Because of the crowded housing conditions, a number of men constantly left the employ of the company. During the course of the year, the camp increased to ten or twelve bunkhouses, housing 300 men. Gradually during the year, with other housing plans in effect, the bunkhouses became unoccupied. On **December 12, 1924**, they were removed.

For a while, the **Ford Motor Company** (under the name of the **Michigan Iron, Land & Lumber Company**) announced on **August 19, 1920**, that it would erect **50 modern dwelling houses**. They were built in the **Crystal Lake district** and were ready for tenants in the fall of the year. The homes contained six and eight rooms and cost from \$4,000 to \$8,000 each. The lots had a frontage of 50 feet and a depth of 150 feet. Unlike the average company houses, each was a distinctive style of architecture. These homes were the

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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forerunners of the many that the company would eventually build.

The company also assisted the employees in the erection of their own homes by selling lots at a reasonable price and aiding them with construction. On **April 29, 1922**, the **Ford Motor Company** advertised for bids for **ten basements for Ford bungalows on a Detroit Avenue block**. These homes were built within the year.

Some homes were built in the area of the **Ford Addition**, across from the Ford store, as early as **1923**. On **February 1, 1924**, an extensive house building program in the Ford Addition was under consideration that planned to include anywhere from 250 to 1,000 dwellings. Construction was to begin by spring. These Ford houses were to be sold only to Ford employees and were not to be purchased for speculative purposes.



Street Work on Cass Avenue, Ford Addition, Showing Houses on South Side of the Street at (left to right) 721, 725 and 729, ca. 1925-1930

Ford announced on **May 16** that **100 of these homes would be constructed immediately**. They were sold for prices ranging from \$3,500 to \$5,500. They were placed **24 to a block**, and were kept in

good repair by men employed by Ford for that purpose. The homes had electric lights and indoor bathrooms. Most had three rooms downstairs, three rooms upstairs and a large cement basement. Some had five rooms, three on the ground floor and two upstairs. The smaller bungalows had five small rooms. Each house was wired for a telephone. The district was also improved with sidewalks being laid and streets graded.



700 and 800 Blocks of Cass Avenue, Looking West from the Ford Addition Park, ca. 1925-1930

Vacant land in the Ford Addition was left for a park. **The park was a block and a half square and situated between Woodward and Hamilton Avenues**. In **1928**, the park was equipped with tables, benches and garbage cans. A band stand was erected in **1929**. A concert occurred every Wednesday evening during the summer months. A cinder path was installed in **1930**. Tennis courts were also added.

One hundred homes was the sum total built in the Ford Addition in 1924. Eventually, about 160 homes were built on that part of the Ford property.

ACCORDING TO TOWNSHIP RECORDS, THE EARLIEST OWNERS OF THE KINGSFORD FORD ADDITION HOMES

FORD COMES TO IRON MOUNTAIN: THE BIRTH OF KINGSFORD

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[Date Following Owners' Names
Indicates Year House Was Built]

HAMILTON AVENUE

380 John and Mary J. Edyvean
384 Edward E. Robbins
388 Fred W. and Mabel A. Bennett
392 William Willman
396 Alwin G. and Edna M. Holland
400 Walter and Clara Doehler
404 Archie B. Hartleroad
408 John J. and Ann Weber
412 Clarence and Clarys Kermod
416 Fred and Edna A. Miller
420 Edmund E. and Beatrice Rabichaud
532 Miller E. and Ecce Willmott
536 Olaf R. and Madeline Westby
540 Ralph and Albina Vines
600 Joseph and Lucille Scott
604 John H. and Mary M. Chapman
608 Harry and Marjorie Hanson
612 William H. Thibault
616 Anthony J. and Violet Miresse
620 John and Bella Turk, Jr.
624 Michael W. and Lorraine Barenow
628 Felix and Katinka Witte
632 Arnold and Mabel Fosterling
636 Clark C. and Mildred McGregor
640 Patrick J. and Margaret Kennedy
700 Walter G. Carlson
704 Charles and Hazel Hanson
708 John M. and Blanche Kenney
712 August R. and Esther Carlson
716 John R. Vanitvelt
720 Clyde E. and Marta Devine
724 William T. and Anna J. Lobb
728 John and Clara Turk
732 Oscar W. and Edith C. Larson
736 Louis M. and Germaine Reese
740 George M. and Elizabeth Roosen
744 Louis and Cecelia LeMense
800 Frank S. and Alice Archibald
804 George W. and Olive Clements

808 Lawrence J. and Barbara Pennings

CASS AVENUE

373 Louis [Lewis] W. and Helen Chrispell
377 Joseph and Mary VanGasse
381 Oscar A. Olson
385 Walter H. and Beatrice Wiele
389 Edward C. and Dorothy Peterson
393 Walter W. and Maud E. Stoppel
368 Clarence A. and Jeannetta Ryan
(1923)
372 William Tayler (1923)
376 William J. and Victoria Thiebault
(1923)
380 Emil T. and Louise Drees (1923)
384
388 William S. [Willard B.] Moyle (1924)
392 Warren and Hazel Day (1924)
396 Guy R. Young (1924)
401 Victor L. and Helen Lough
405 Roy J. and Helen K. Burns
409 Emil Van Goethem
413 Joseph A. and Irene E. Funkey
417 Rodney L. and Marie E. Pecore
[Pecor]
421 William F. and Amelia Montgomery
425 Walter H. and Arletta Staple
429 Ernest H. and Anna Friestrom
400 Alvin E. and Ann Annear (1924)
404 Edward Chapman (1924)
408 Melcom H. Gailbraith (1924)
412 Fred and Mabel Hilbore (1923)
416 W.W. Thompson
420 W.W. Thompson
424 W.W. Thompson
428 W.W. Thompson
533 Thomas S. and Ruth E. Homes
537 Norman O. and Agnes Christensen
341 Samuel J. and Elizabeth Goodney
532 Benjamin and Marie Setterberg (1925)
536 George D. and Emma C. DeRocher
(1925)
540 Clifford G. and Mabel Wingmuth
(1925)
705 Raymond and June Steinke

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- 709 Fred W. and Pearl Brown
713 Ida Berg [Herman G. and Ruth I. Berg]
717 August F. and Olga Lempke
721 George and Winifred Henderson
725 Lucien J. and Anna Fontaine
729 Rudolph and Edith Dahlstrom
733 Carl R. and Charlotte "Lottie" Johnson
737 Thomas H. and Clara Hardgrove
741 Theodore A. and Esther Rogge
745 Robert and Hilda Abel
704 Lyle W. and Nettie Greene [Green]
708 Louis F. and May C. Graf
712 W.J. Fish
716 Harold L. Reed
720 Arthur L. and Amanda E. Dubuque
724 Axel E. and Ruth H. Smith (1926)
728 George A. and Ruth E. Ahlich (1925)
732 Telbert J. and Grace M. Bailey (1924)
736 Charles L. and Lorena S. Bessey (1925)
740 Edward O. and Elvira E. Lindquist (1925)
744 Tracy P. and Vidas Wales (1924)
805 Axel O. and Alice Swanson
809 Lowell L. and Naomi Jeanson
813 Bernard and Beatrice Weber
817 Edgar and Fannie LeBoeuf
821 Chester A. and Nydia Trethewey
825 Robert L. and Mary Schunk
829 Louis VanWolverler [John and Mildred VanWolverler]
833 Elmer A. and Doris A. Oberdorffer
837 Frank W. Beilke [Beilka]
841 Harold F. Anderson
808 Archibald Trescowklich
812 Fred and Alma Lefebvre
816 Edward E. and Ethel M. Franklin
820 Arne and Stella Voge
824 Harry L. and Mary C. Longpre
828 Frank J. and Eva D. O'Hearon
832 Lewis D. and Elizabeth Cady
836 Albert P. and Jennie Lindstrom
840 Ralph Nowack
844 Wilbur H. Kennedy
- 517 Andrew and Anna Sundin (1925)
521 Anton C. and Evelyn Noskey (1925)
525 Ralph H. Miller (1925)
529 Fred E. and Rose L. DeMolen (1925)
533 Carl G. and Inga C. Hanson (1925)
537 Arnold R. and Thyra R. Paulson (1925)
541 John W. Comensky (1925)
701
705 Fred J. and Jean Johnson [1935]
709
713
717
721 Lawrence W. and Bernice Hindes (1924)
725 Heine L. and Anna Munch (1925)
729
733 Ford Motor Company Industrial Hospital
737 Claude V. and Gladys Howard (1925)
741 John A. Sathers (1925)
745 Frank L. and Florence M. Lyberg (1925)
801 Alfred S. Berutti
805 Kenneth J. and Lillian Kennedy
809 Robert M. and Salome R. Smith
813 Joseph S. Francois
817 William R. and Blossom A. Froehlig
821 F. Earl and June H. Campbell
825 Charles O. and Martha M. Nygren
829 Harry E. and Elsie E. Bandbury
833 Joseph A. and Nellie M. Robichaud
837 Eric C. and Irma C. Wahlstrom
841 Edwin E. and Margaret A. Ordidge
845 John W. and Jane Bennet

RIPLEY STREET

- 120 Harold F. and Gwendolyn Skeels
200 John P. and Laura Gunville

SHERIDAN STREET

- 120 John P. and Maud Ryan
200 Harry R. and Elsie Pryor

WOODWARD AVENUE