

**TRANSPORTATION  
IN MICHIGAN HISTORY**

**SESQUICENTENNIAL SERIES**

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# TRANSPORTATION IN MICHIGAN HISTORY



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### INDIANS STARTED ROAD FROM FOOTPATHS TO FREEWAYS

By Philip P. Mason

They didn't know it at the time, but Indians were Michigan's first highway route location engineers. With few exceptions, the state's modern highways follow the course of the trails of the Indians who roamed the wilderness several thousand years before the coming of the white man.

These paths, worn deep by centuries of foot travel by the Indians, were located on high, dry ground along watersheds and streams. They connected main Indian villages and led to the rich hunting and fishing grounds of the region now known as Michigan. They linked the numerous rivers which covered the area, thus providing a continuous transportation system. Indian war parties used the trails in their attacks on enemy tribes and the villages and forts of the British and Americans.

#### Convenient Paths

Some of the Indian trails that criss-crossed Michigan were segments of well-known trails connecting the Atlantic seaboard and the plains states. Explorers, missionaries and fur traders used these convenient paths as they traveled westward to penetrate the frontier. Later, they provided a way through the wild country for thousands of settlers who poured into Michigan to carve out homes in the wilderness.

These trails should not be confused, however, with modern highways or even the crude wagon roads built by the early settlers. An Indian trail was merely a narrow path, about 12 to 18 inches wide, permitting only single-file travel. This gave the tribesmen some protection against surprise attack or ambush and spared them the tedious job of clearing a wider path. It was not until the coming of the white settlers, laden with supplies, that the trails were improved.

#### **Paths Expanded**

The use of the pack horse was the first step in the process of widening the pathways. Branches and bushes were broken off from each side of the trail and soon it was several feet wide. Later, when white settlers flocked to Michigan territory, bringing their possessions by oxen-drawn wagons, there was a need for even wider roads.

Rising to the call for aid, Congress appropriated funds for the survey and improvement of roads in the territory. Such road work consisted of cutting down trees and bushes as low as possible, filling the low and swampy areas with logs, and draining water holes. Even with improvements these roads soon developed ruts, and wagon travel was slow and sometimes dangerous. Decades passed before good gravel roads came into use. Indeed, it was nearly a century before paved roads were built in Michigan.

#### **"Great Sauk Trail"**

The most famous Indian trail in Michigan was the Great Sauk trail, which ran from Detroit to Chicago. Now US-12, this route

was in use centuries before the discovery of America. It is believed to have been first beat out of the wilderness by great herds of buffalo and other animals which roamed the Lower Peninsula.

Later, tribes of Chippewas, Potowatomi, Sauks and Fox, and other Indians of Wisconsin, Illinois and Michigan used the trail for the annual trips to Fort Malden, near Amherstburg, Ont., to receive gifts from the English government. It was used by these tribes in their attacks on Detroit during the American Revolution and the War of 1812.

The Great Sauk trail was first improved in the 1830s. Largely as a result of the activities of Father Gabriel Richard, Michigan Territory's delegate, Congress authorized the survey of a road from Detroit to Chicago in 1824.

At first, surveyors planned to build the road in a straight line between the two cities. When the plan proved impractical, they decided to follow the well-marked Sauk trail, which bypassed swamps, lakes and other natural obstacles to good travel. Thus, the Chicago Road, or US-12, as it was later called, came into being.

Other important trails intersected the Great Sauk trail at various points. Near Niles, where it crossed the St. Joseph River, other trails ran from it to all parts of Michigan and Indiana. From the head of Lake Michigan, a trail ran through Illinois to the Mississippi River.

The eastern terminus of the trail at Detroit was also a center of Indian transportation. Here routes shot out to key Indian villages in all parts of the Lower Peninsula. Many of these routes are now Michigan highways.

#### St. Joseph Trail

The St. Joseph trail ran east and west through the second tier of counties from Detroit to St. Joseph. This route became the famous Territorial Road, now basically following the route of I-94. The Grand River trail provided the course for the road that became US-16, later supplanted by I-96 from Detroit to Grand Rapids. Also running from Detroit was the Saginaw trail, later US-10 and M-54, and an Indian path from Detroit to Port Huron, now traversed by I-94. A section of the Great trail, which connected the Chesapeake Bay and the Mississippi River, ran through Michigan from Toledo to the head of Lake Huron. Detroit was an important stopping place on this route.

Saginaw, like Detroit, was also a center of Indian travel. From this spot trails ran to Cheboygan, Mackinaw City and Traverse Bay, following the present routes of US-23 and I-75. Minor routes made connections with the Grand River and the "Thumb" area of the state. Some historians believe there was also a main trail from Niles to Mackinaw City.

#### U.P. Marked, Too

The Upper Peninsula, too, was marked with Indian thoroughfares. The Sault-Green Bay trail traversed the peninsula from northeast to southwest, and later became US-2 and Michigan Route 35.

The Old Mackinac trail, which ran from the Sault to St. Ignace, is now US-2. There were several important trails in the western part of the peninsula. Michigan Route 26, which divides the Keweenaw Peninsula, was used for thousand of years by Indians in their migration to the rich copper deposits of the area. L'Anse, too, was a center of Indian activity and from this spot spread numerous trails, including the Lac Vieux Desert trail, which followed present US-141.

The L'Anse-Marquette Indian trail, which in turn became US-41, and Route 35 from Marquette to Escanaba, which follows the old Carp River trail, are two other Upper Peninsula highways with historic beginnings.

In addition to well-known Indian trails, hundred of smaller trails in all parts of the state were used by early settlers. In time, many of them became state highways.

Traces of the original Indian trails have now all but vanished from our landscape. Only in our imagination can we visualize the appearance of these narrow, foot-trod paths and the Indians who made and used them.

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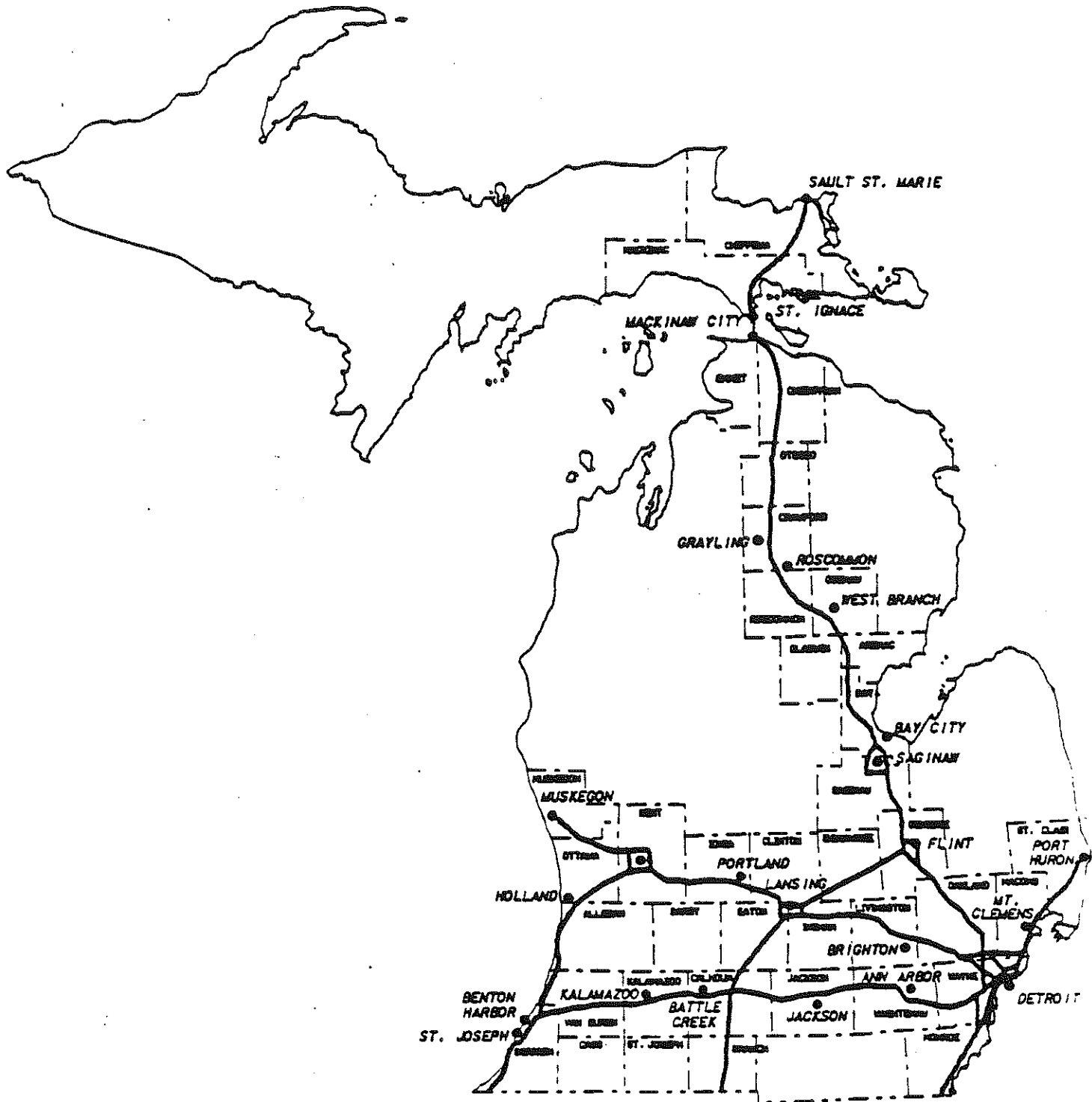
(Dr. Philip P. Mason is a professor of history at Wayne State University and has a special interest in the history of transportation.)

Contact: Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. (Phone: 571/373-2160)



Long before Michigan became a state, Indians beat down the narrow foot trails that basically set the course for many modern highways.





Michigan's 1,180-mile Interstate Freeway system, started in 1956 and now nearly complete, resembles the network of early Indian trails.

JAN-12-67

# Indians started roads: from paths to freeways

By Philip P. Mason  
Professor of History  
Wayne State University

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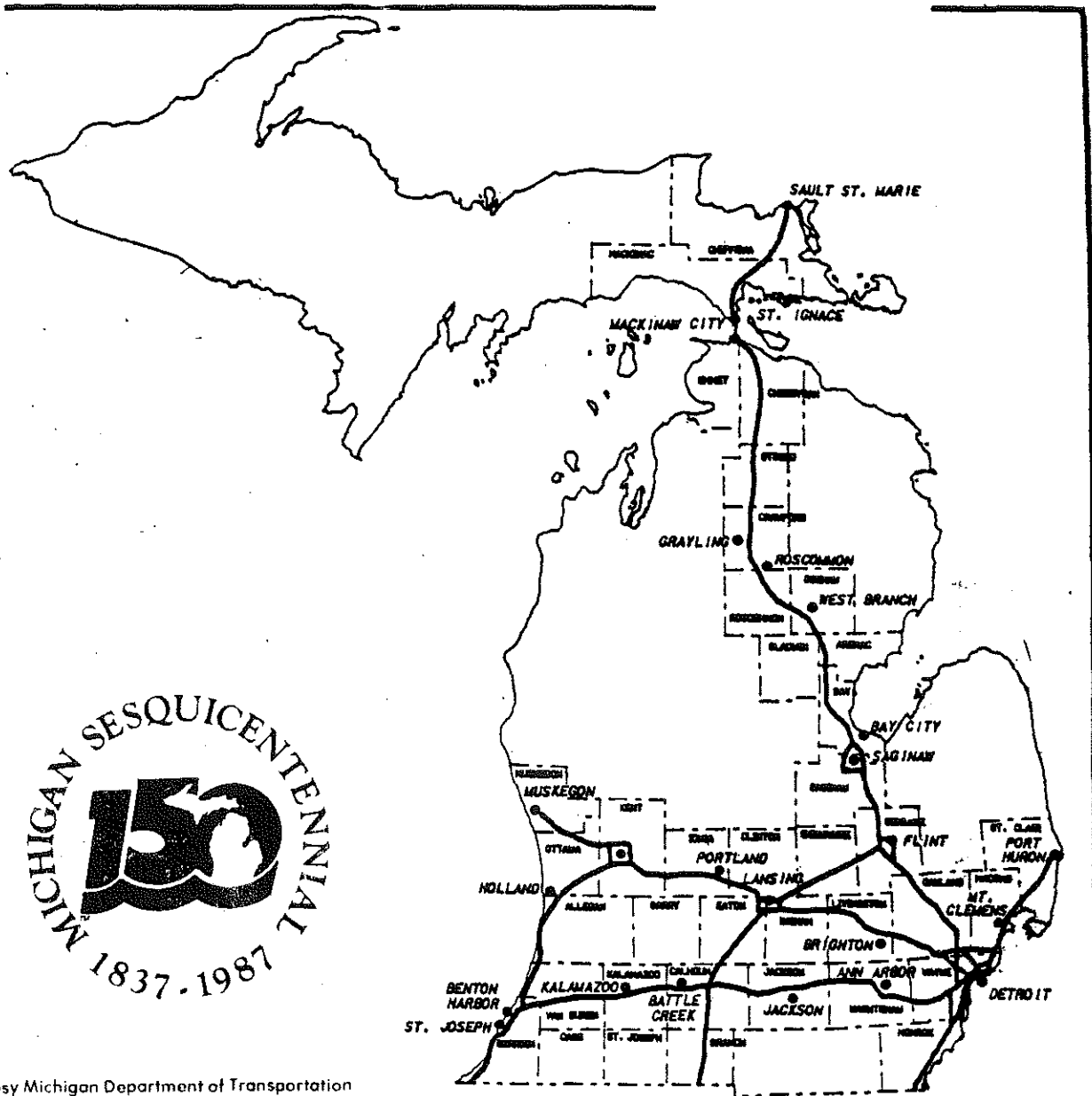
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Long before Michigan became a state, before Europeans even visited the state, Native Americans beat down the narrow foot trails that basically set the course for many modern highways.

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Maps courtesy Michigan Department of Transportation

Michigan's 1,180 miles in the Interstate Freeway system were put into construction in 1956. Now nearly complete, the freeway system resembles the network of early Native American trails.



# TRANSPORTATION IN MICHIGAN HISTORY



Following is another in a series of articles on interesting aspects of transportation in Michigan history. They are being distributed every few weeks as part of the Sesquicentennial celebration marking Michigan's 150th year of statehood.)

## TRANSPORTATION IN MICHIGAN HISTORY

### SLED DOGS CARRIED SUPPLIES, MAIL IN EARLY-DAY MICHIGAN

By A. Cecil Houghton

Up the ice-covered Grand River in the winter of 1837 came a team of harnessed dogs pulling a sled which contained an unusual cargo. They were hauling a printing press from Grand Haven into the Grand Rapids area for the newly established "Grand River Times," Kent County's first newspaper.

The first issue was published on April 18, less than three months after Michigan became the 26th state to enter the Union.

But for those sturdy dogs, the task of moving a heavy piece of equipment would have been much more difficult in a period when overland travel was slow and often hazardous.

The role of oxen and horses in Michigan's early transportation history is well known, but dogs also made a significant contribution.

Archaeologists conclude that Indians have been in Michigan since 11,000 b.c. and that the dog was their first domesticated animal. Through the successive trades with other tribes to the southwest, they eventually obtained horses, which were originally brought to America by the Spanish conquistadors in the 1500s.

Indian tribes reckoned their history from the time they

acquired the horse--which they called "the big dog"--and referred to what went before as "the dog days." Dogs were used for moving camp, hauling the Indians' personal belongings on their backs, pulling loaded travois in the summer and toboggan-type sleds in the winter.

Historical records confirm that the early pioneers in Michigan adopted many Indian ways, including the use of dogs for transportation. In territorial days and the early years of statehood, the mail was carried, on a regular route, all the way from Detroit to Sault Ste. Marie, via dog teams.

A Presbyterian missionary at the Soo in 1831 noted how the winter mails moved: "Two men on snowshoes drove dogs hitched to a toboggan, which carried a tent, blankets, food and a bag of mail. They went to the Straits, crossed the ice, and then went all the way down to Saginaw and Detroit....In a month or two, they would come back with news from the 'outside.'"

It is recorded that when a U.S. Post Office was established in Alpena, the first mail arrived on Jan. 17, 1858, drawn on a train pulled by three dogs following the shore of Thunder Bay on Lake Huron.

"The mail came regularly once a week in winter," the historian wrote, "while the only chance for mail in the summer was in case someone 'went below.'"

Records also indicate that the first white people in the western Upper Peninsula received their mail via dog team from Green Bay, Wis. Even as late as the 1930s, there was a dog team

mail route in the eastern Upper Peninsula from the Whitefish Point post office to the Vermillion Coast Guard station. Truman "Doc" McLean used five dogs to carry the mail, groceries, passengers, medicine and tools.

Photos, prints and drawings, as well as written records, document the use of dog trains for carrying mail, supplies and information between remote outposts.

A photo taken at the Straits of Mackinac in 1880 shows a team of three dogs pulling a sleigh, providing regular communication across the frozen waterway that separates the two peninsulas. Another photo shows a Rev. W. Poyseor traveling via dog sled to the congregations in his district--the lumber camps of the Upper Peninsula.

Today, dog teams are used for sport instead of for work. Racing dogs include Siberian huskies, Alaskan malamutes, Alaskan Indian dogs and Samoyeds. They can travel up to 35 or 40 miles an hour on a well-packed trail, but average 18 or 19 mph, partly depending on the terrain and snow depth.

The first documented sled dog race in Michigan was a children's competition in Ishpeming in 1910, with each child running one dog. That was only three years after the first race held in Alaska, a state that is now the locale of the famed 1,049-mile Iditarod race.

The sport of sled dog racing began to catch on in Michigan in 1959 and spread to other states. Eight competitions are scheduled through March 1, 1987, in locations ranging from



Battle Creek in the south to Newberry in the Upper Peninsula.

In Michigan's Sesquicentennial year, they will highlight the contribution of dog transportation through much of its history as a state.

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(A. Cecil Houghton of Grand Rapids is a sled dog racer and founder of the Great Lakes Sled Dog Association and the International Sled Dog Racing Association.)

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Following is a list of sled dog races scheduled in Michigan this winter:

Jan. 3 and 4, Muskegon and Grand Rapids; Jan. 10-11, Gun Lake, west of Hastings; Jan 17-18, Kalkaska and Bay City; Jan. 24 and 25, Grand Valley State College, Allendale; Jan. 31 and Feb. 1, Ft. Custer, Battle Creek; Feb. 21 and 22, Traverse City (Ranch Rudolph); Feb. 28 and 29, Newberry and Evart east of Reed City.

Earlier, races were held at Harrison Dec. 27 and 28.

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**DOGGING IT--**Sled dog racing is an increasingly popular winter sport in Michigan, harking back to the days when teams of dogs transported mail to northern settle-

ments. Dogs pre-dated horses as a transportation mode for early day Indians. Teams average 18 miles an hour in races, can go up to 40 mph on a packed trail.

# Sled dogs earned their keep in Michigan's earliest years

Here, based on A. Cecil Houghton's research, is an account of the role of sled dogs in Michigan from the early years to today:

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The sport of sled dog racing began to catch on in Michigan in 1959 and spread to other states.

(Photo on next page)



Michigan Department of Transportation

Doug Houghton and a six-dog team speed along in a race. Dogs have provided vital transportation in Michigan from prehistoric times until this century.



# TRANSPORTATION IN MICHIGAN HISTORY



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## TRANSPORTATION IN MICHIGAN HISTORY

### PLANK ROADS WERE THE RAGE IN 19TH CENTURY MICHIGAN

By Philip P. Mason

Lansing was still a "city in the forest" in 1852, but its settlers had cause for optimism as they gathered one hot July afternoon at the Seymour House to await the arrival of a stagecoach. It was not the first stage to arrive in the new capital, nor was it the arrival of a celebrity which attracted the crowd. The occasion was the formal opening of the Lansing-Howell Plank Road.

The stage was heard a mile away speeding over the new oak planks, but it was not until it came into sight that the crowd started cheering. In speeches which followed, James Seymour and other prominent Lansing citizens predicted a "new era" in travel and transportation. The new road, which joined the plank road from Howell to Detroit, would end the control of "king mud," they said, stimulate the economy of Ingham County, and provide Lansing's "first outlet to civilization."

Other towns and cities all over Michigan, and indeed, the rest of the country, were witnessing similar ceremonies, for the construction of plank roads had become a mania with the American people. Michigan was one of the leaders, in fact, the first

plank road in the United States was built in this state.

Although the movement lasted only a few decades, it represented a unique place in the development of Michigan's highway system.

#### Construction of Plank Roads

Plank roads should not be confused with "corduroy" roads, which also were popular in Michigan during the early 19th century. The latter were made by placing logs, often of different sizes, over a low or swampy area. Although depressions were filled with gravel or with smaller logs, the corduroyed road was usually rough and sometimes even dangerous. Logs floated and rolled in the liquid mud and horses were "frightened by the unstable footings."

Plank roads on the other hand, were made of boards, and as long as they were properly maintained, provided a smooth surface. They were constructed by laying planks of pine or oak, eight to 16 feet long and three to four inches thick, across "sleepers" or "stringers" which were placed parallel to the direction of the road. Ditches were dug on either side of the road to provide proper drainage.

#### First Plank Roads

Most highway authorities claim that the plank road was introduced in this country in New York in 1844. They overlook the conclusive evidence, however, that seven years earlier, in 1837, the Michigan State Legislature granted a charter to the Detroit, Plymouth and Ann Arbor Turnpike Company for a "timber road made of good, well-hewn timber." The Legislature granted

similar charters to other private companies. In 1844, for example, it authorized the construction of plank roads from Detroit to Port Huron and from near Sylvania, Ohio, to Blissfield, Mich. Two years later, charters were given to the Corunna and Northampton and the Marshall and Union City Plank Road companies.

So great had interest become in the construction of these privately-operated turnpikes that in 1848 the State Legislature passed a general Plank Road Law. It was no longer necessary to get a special charter from the Legislature in order to build and operate a plank road. The new law provided that any company could operate a plank road as long as it was constructed according to certain specifications, namely, that the road be two to four rods wide, 16 feet of which was to be "a good, smooth, permanent road, well drained by ditches on either side." At least eight feet of the road was to be covered with plank three inches thick. The law also provided that no grades were to be greater than one in ten and that the charters were to run for 60 years.

#### **Plank Road Companies**

Private control of plank roads, or turnpikes, as they were commonly called, reflected the failure of state and local governmental units to provide an adequate highway system. Despite the tremendous influx of settlers to Michigan in the decades after 1830 (the population rose from 31,640 in 1830 to 212,267 in 1840 and to 341,591 in 1850), the State of Michigan

did practically nothing to provide roads.

Local units of government made feeble attempts to build roads but the total results were hopelessly inadequate. Even the program of the federal government failed to meet the needs of Michigan settlers. Prior to 1837 Congress authorized the construction of a number of "territorial" roads, ostensibly for military reasons, but the construction of these roads proceeded so slowly that they failed to assist settlement. Thus the task of road construction fell by default to private corporations.

Financial support for the plank road companies came mainly from local sources. Well-to-do farmers, manufacturers, merchants and professional men invested in these ventures. Prominent backers of the Detroit-Howell Plank Road Company were Lewis Cass, Zachariah Chandler, Henry Ledyard, C. H. and Frederick Bush, C. C. Trowbridge and other influential Detroiters. These men were also stockholders in the Detroit-Mt. Clemens Plank Road Co. The Lansing-Howell Road was financed by James Turner, H. H. Smith and James Seymour of Lansing and businessmen from Howell, Fowlerville, Williamston and Okemos. Farmers along the way contributed materials and labor for the road. Additional capital was obtained from eastern capitalists.

The paid capital stock of the plank road companies varied greatly. Ninety thousand dollars was invested in the Detroit and Howell Plank Road Co. and only one thousand dollars in a venture in Sault Ste. Marie. Typical of the other company investments were: Adrian and Bean Creek, \$24,000; Detroit and Birmingham,



\$24,000; Ann Arbor and Whitmore Lake, \$12,000; Flint and Fentonville, \$18,000; Grand Rapids and Plainfield, \$20,000; Lansing and Howell, \$44,457; and Ontonagon and Rockland, \$20,000. In all, \$2,040,180 was invested in Michigan plank road companies.

#### Construction Costs

The cost of building plank roads ranged from one to three thousand dollars per mile, depending upon the condition of the road bed, accessibility of timber and gravel and the cost of labor. Bridges over rivers and streams were costly and put a heavy financial burden on the plank road companies. Toll houses also were added to initial capital outlay. Some companies, like the one which operated a road between Detroit and Mt. Clemens, purchased several stands of timber and a lumber mill on the Clinton River to guarantee an adequate supply of planks. Gravel pits also were purchased by many companies.

#### Tolls

The Legislature not only set up specifications for the construction of the plank roads, but they regulated the tolls as well. A charge of two cents a mile was made for a wagon or carriage drawn by two horses, and one cent a mile for every sled or sleigh so drawn. If more than two horses were used an additional charge of three-quarters of a cent per mile for each additional animal was levied. A toll of one cent per mile was made for a vehicle drawn by one horse, as well as for a horse and rider. Tolls of one-half cent a mile were levied for every score of ~~sheep, wire fence, or~~ "fat cattle," two cents a mile.

### Popularity of Plank Roads

Despite the tolls, plank roads were extremely popular during their heyday. As long as they were properly maintained they were a great improvement over the dirt roads, which were impassable during many weeks of the year. Trips which took from four to six days on dirt roads were cut by 10 to 14 hours over plank roads.

Plank roads were as popular in rural areas as in towns and cities. Farmers could carry greater loads to market, and many preferred to use the plank road rather than the railroad, which was being introduced in the state during the 1830's and 1840's. Plank roads, in fact, were often called "farmers railroads" by contemporaries who maintained that competition from plank roads would keep down railroad rates.

A total of 202 plank road companies received charters in Michigan during the nineteenth century. The longest plank road given a charter was to have run from Zilwaukee to Mackinaw City via Traverse City, a distance of 220 miles. The shortest was a one-mile plank road in Sault Ste. Marie.

Detroit was the terminus of eight plank roads which spread out like spokes in a wheel from the metropolis. Mt. Elliott, Michigan, Grand River, Woodward, Gratiot and Jefferson avenues were once plank roads. Plank roads were extremely popular in Grand Rapids where seven companies operated toll roads.

Monroe was another important center, with plank roads running to Dearborn, Flat Rock, Newport and Saline. Lansing plank roads connected Eaton Rapids, Mason, Howell, Ann Arbor and

Jackson with the capital city. Other cities with plank roads were Adrian, Ann Arbor, Dexter, Flint, Hastings, Hillsdale, Kalamazoo, Lapeer, Marshall, Niles, Ontonagon, Paw Paw, Plymouth, Pontiac, Saginaw, Tawas City, Utica and Wyandotte.

Scores of other plank roads were projected only on paper. Of the 202 companies which obtained charters only 89 actually built and operated plank roads. Indeed, of the 5,082 miles of plank road authorized by the Legislature, only 1,179 miles were every built.

#### Decline of the Plank Road

Despite the initial popularity of these roads and the hopes of their promoters, the "plank road craze" did not last long. The roads remained in good condition for the first three or four years, but after that they needed constant attention. Planks loosened, warped and decayed and had to be replaced often. It was estimated that annual repairs cost from 20 to 30 percent of the original cost of the road.

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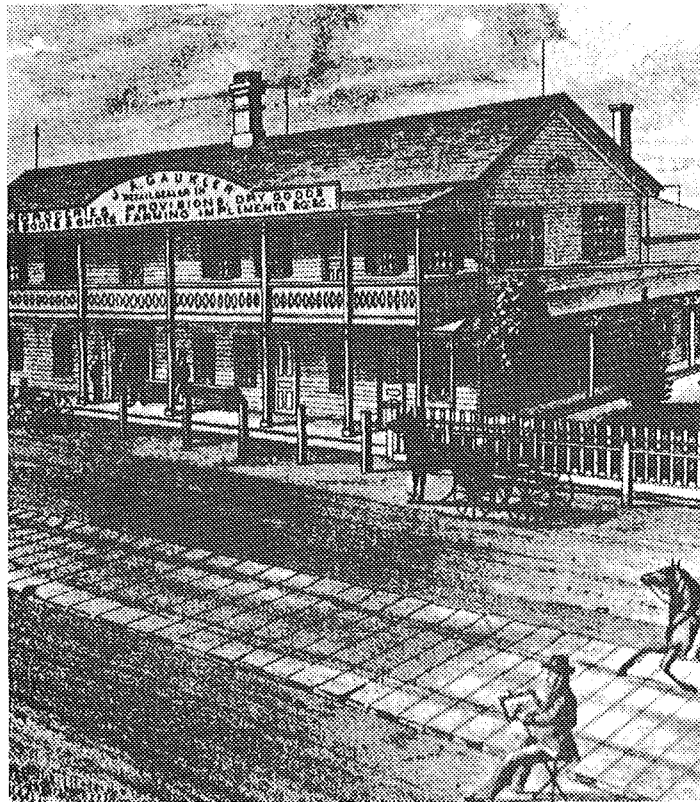
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By 1900 only 23 of the original 89 plank roads were in operation, and of these only a short stretch of Detroit-Howell road was actually made of planks. In the first decade of the 20th century the remaining private roads, coming increasingly under public scorn, were turned over to the state or purchased by street railway companies.

###

(Dr. Philip P. Mason is a professor of history at Wayne State University and has a special interest in the history of transportation.)

Contact: Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. (Phone: 571/373-2160)



**TRAVELING IN STYLE** -- Eighty-nine plank roads, like this one running to Detroit along the present route of Gratiot Avenue in Macomb County, were built in Michigan in the Nineteenth Century. They were made of boards of pine or oak, eight to sixteen feet long and three to four inches thick.

Sesqui Series

# The rise and fall of Michigan's plank roads

This latest Official Michigan salute to the state's sesquicentennial was written by Dr. Philip Mason, professor of history at Wayne State University.

Lansing was still a "city in the forest" in 1852, but its settlers had cause for optimism as they gathered one hot July afternoon at the Seymour House to await the arrival of a stagecoach.

It was not the first stage to arrive in the new capital, nor was it the arrival of a celebrity which attracted the crowd. The occasion was the formal opening of the Lansing-Howell plank road.

The stage was heard a mile away speeding over the new oak planks, but it was not until it came into sight that the crowd started cheering. In speeches which followed, James Seymour and other prominent Lansing citizens predicted a "new era" in travel and transportation. The new road, which joined the plank road from Howell to Detroit, would end the control of "king mud," they said, stimulate the economy of Ingham county and provide Lansing's "first outlet to civilization."

Other towns and cities all over Michigan, and indeed, the rest of the country, were witnessing similar ceremonies, for the construction of plank roads had become a mania with the American people. Michigan was one of the leaders, in fact, the first plank road in the United States was built in this state. Although the movement lasted only a few decades, it represented a unique place in the development of Michigan's highway system.

Plank roads should not be confused with "corduroy" roads, which also were popular in Michigan during the early 19th century. The latter were made by placing

logs, often of different sizes, over a low or swampy area. Although depressions were filled with gravel or with smaller logs, the corduroyed road was usually rough and sometimes even dangerous. Logs floated and rolled in the liquid mud and horses were "frightened by the unstable footings."

Plank roads on the other hand were made of boards, and as long as they were properly maintained, provided a smooth surface. They were constructed by laying planks of pine or oak, eight to 16 feet long and three to four inches thick, across "sleepers" or "stringers" which were placed parallel to the direction of the road. Ditches were dug on either side of the road to provide proper drainage.

Most highway authorities claim that the plank road was introduced in this country in New York in 1844. They overlook the conclusive evidence, however, that seven years earlier, in 1837, the Michigan state legislature granted a charter to the Detroit, Plymouth and Ann Arbor Turnpike Co. for a "timber road made of good, well-hewn timber." The legislature granted similar charters to other private companies. In 1844, for example, it authorized the construction of plank roads from Detroit to Port Huron and from near Sylvania, Ohio to Blissfield. Two years later, charters were given to the Corunna and Northampton and the Marshall and Union City Plank Road companies.

So great had interest become in the construction of these privately-operated turnpikes that in 1848 the state legislature passed a general plank road law. It was no longer necessary to get a special charter from the legislature in order to build and operate a plank road. The new law provided that any company could operate a

plank road as long as it was constructed according to certain specifications, namely, that the road be two to four rods wide, 16 feet of which was to be "a good, smooth, permanent road, well drained by ditches on either side." At least eight feet of the road was to be covered with plank three inches thick. The law also provided that no grades were to be greater than one in ten and that the charters were to run for 60 years.

Private control of plank roads, or turnpikes, as they were commonly called, reflected the failure of state and local governmental units to provide an adequate highway system. Despite the tremendous influx of settlers to Michigan in the decades after 1830 (the population rose from 31,640 in 1830 to 212,267 in 1840 and to 341,591 in 1850), the State of Michigan did practically nothing to provide roads.

Local units of government made feeble attempts to build roads but the total results were hopelessly inadequate. Even the program of the federal government failed to meet the needs of Michigan settlers. Prior to 1837 Congress authorized the construction of a number of "territorial" roads, ostensibly for military reasons, but the construction of these roads proceeded so slowly that they failed to assist settlement. Thus the task of road construction fell by default to private corporations.

Financial support for the plank road companies came mainly from local sources. Well-to-do farmers, manufacturers, merchants and professional men invested in these ventures. Prominent backers of the Detroit-Howell Plank Road Co. were Lewis Cass, Zachariah Chandler, Henry Ledyard, C.H. and

Frederick Bush, C.C. Trowbridge and other influential Detroiters. These men were also stockholders in the Detroit-Mt. Clemens Plank Road Co. The Lansing-Howell Road was financed by James Turner, H.H. Smith and James Seymour of Lansing and businessmen from Howell, Fowlerville, Williamston and Okemos. Farmers along the way contributed materials and labor for the road. Additional funding was obtained from eastern capitalists.

The paid capital stock of the plank road companies varied greatly. Ninety thousand dollars was invested in the Detroit and Howell Plank Road Co. and only one thousand dollars in a venture in Sault Ste. Marie. Typical of the other company investments were: Adrian and Bean Creek, \$24,000; Detroit and Birmingham, \$24,000; Ann Arbor and Whitmore Lake, \$12,000; Flint and Fentonville, \$18,000; Grand Rapids and Plainfield, \$20,000; Lansing and Howell, \$44,456; and Ontonagon and Rockland, \$20,000. In all, \$2,040,180 was invested in Michigan plank road companies.

The cost of building plank roads ranged from one to three thousand dollars per mile, depending upon the condition of the road bed, accessibility of timber and gravel and the cost of labor. Bridges over rivers and streams were costly and put a heavy financial burden on the plank road companies. Toll houses also were added to initial capital outlay.

Some companies, like the one which operated a road between Detroit and Mt. Clemens, purchased several stands of timber and a lumber mill on the Clinton River to guarantee an adequate supply of planks. Gravel pits also were purchased by many companies.

The legislature not only set up specifications for the construction of the plank roads, but they regulated the tolls as well. A charge of two cents a mile was made for a wagon or carriage drawn by two horses and one cent a mile for every sled or sleigh so drawn. If more than two horses were used, an additional charge of three-quarters of a cent per mile for each additional animal was levied. A toll of one cent per mile was made for a vehicle drawn by one horse, as well as for a horse and rider. Tolls of one-half cent a mile were levied for every score of sheep or swine; for every score of "neat cattle," two cents a mile.

Despite the tolls, plank roads were extremely popular during their heyday. As long as they were properly maintained they were a great improvement over the dirt roads, which were impassable during many weeks of the year. Trips which took from four to six days on dirt roads were cut by 10 to 14 hours over plank roads.

Plank roads were as popular in rural areas as in towns and cities. Farmers could carry greater loads to market, and many preferred to use the plank road rather than the railroad, which was being introduced in the state during the 1830's and 1840's. Plank

roads, in fact, were often called "farmers railroads," by contemporaries who maintained that competition from plank roads would keep down railroad rates.

A total of 202 plank road companies received charters in Michigan during the nineteenth century. The longest plank road given a charter was to have run from Zilwaukee to Mackinaw City via Traverse City, a distance of 220 miles. The shortest was a one-mile plank road in Sault Ste. Marie.

Detroit was the terminus of eight plank roads which spread out like spokes in a wheel from the metropolis. Mt. Elliott, Michigan, Grand River, Woodward, Cratiot and Jefferson avenues were once plank roads. Plank roads were extremely popular in Grand Rapids where seven companies operated toll roads.

Monroe was another important center, with plank roads running to Dearborn, Flat Rock, Newport and Saline. Lansing plank roads connected Eaton Rapids, Mason, Howell, Ann Arbor and Jackson with the capital city. Other cities with plank roads were Adrian, Ann Arbor, Dexter, Flint, Hastings, Hillsdale, Kalamazoo, Lapeer, Marshall, Niles, Ontonagon, Paw Paw, Plymouth, Pontiac, Saginaw, Tawas City, Utica and Wyandotte.

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## TRANSPORTATION IN MICHIGAN HISTORY

### "KING MUD" ONCE RULED THE ROADS

By Edward J. Boucher

Even as a territory before 1837, Michigan had a governor-- never a king.

Yet, references to a ruling monarch of sorts appear in writings of early state officials, notably Horatio S. Earle, the first state highway commissioner, who declared war on the "mighty monarch mud, who rules the road to the exclusion of everyone."

Why such a fuss over something so simple as mud?

To a large degree, the history of early roadbuilding in Michigan is a history of a fight against mud. When roads turn to mud, nothing moves, not even horses or pedestrians, much less motor vehicles.

With the exception of the western Upper Peninsula and a few other hilly areas, the first settlers found Michigan terrain flat to gently rolling -- good news for roadbuilders, travelers and transportation.

The bad news was that Michigan, now nicknamed the "Water Wonderland," had 36,000 miles of streams and rivers to be bridged or forged, 11,000 lakes to be avoided and an estimated 11 million acres of wetlands to be circumvented. Another impediment was the



heavy clay loam soil that turns to mud every spring, and every time it rains.

Testifying to the necessity of roads for survival in a new land, Nineteenth Century Michigan law required all male inhabitants over 21 to perform work, or pay for work, on roads in their respective areas. The only exceptions stated in the law were "disabled veterans, paupers, idiots and lunatics."

Despite what was then an all-out effort to construct and maintain wagon roads, every spring - and when it rained -- "King Mud" took over the roads, stopping all travel and transportation except by rail or water.

Early settlers fought back with brush, sticks, stones, hay and logs laid down on roads. The first real -- although short lived -- victory over mud came in 1837 when the Michigan Legislature granted a charter to a private road company to construct a plank toll road between Ann Arbor, Plymouth and Detroit. In 1848, the Legislature passed a general plank road law, authorizing any company to build and operate plank toll roads. Lumber then was plentiful in Michigan.

The so-called plank road craze was on, with a total of 202 companies receiving charters for operation. Eventually, 1,179 miles of plank road were constructed and operated in Michigan.

For the first time in state history, horse-drawn and pedestrian traffic was free to travel during spring thaws.

Yet, water -- and mud -- began to demolish planks almost as soon as they were laid. Aided by Michigan's humidity, mud

splashed up from the roadbed, preventing planks from drying. Under such conditions, planks had to be replaced every three years. The cost of maintaining plank roads put many private road companies into bankruptcy. By 1900, virtually all plank roads had disappeared.

King Mud was back.

By then, however, roadbuilders were experimenting with brick, asphalt, stone, wooden blocks and combinations of clay, gravel and sand. Bricks were introduced in the 1870s and asphalt in the 1880s. Builders gave more attention to the road base and to draining water from roads before it could be churned to mud.

Clay for bricks was plentiful in Michigan and throughout the Midwest. Bricks were easy to replace and stood up well under traffic. It was easy to repair a brick road surface.

Brick surfaces, however, were rough and slippery when wet or covered with snow or frost. They played havoc with steel-rimmed wagon wheels and early motor trucks and cars with hard rubber tires. As vehicle speeds increased, more and more brick-surfaced roads disappeared, usually under some form of asphalt covering. Some brick surfaces still survive in many cities and towns. Bricks, however, normally were used only in cities and towns, not on long stretches of roadway between cities.

Today, all of Michigan's 9,500-mile system of highways and freeways is paved with either concrete or asphalt as are nearly all of the 18,000 miles of city streets.

Only 39,000 miles of the 89,000-mile system of county roads are paved, leaving a 50,000-mile playground for King Mud. These

roads are usually surfaced with mixtures of clay, gravel, sand or stone with improved drainage, making travel possible most of the year -- give or take a little mud or dust.

For most Michigan motorists and transporters, the battle with King Mud has been won.

The war, however, still goes on. Every spring, mud briefly rises from beneath pavements to create potholes to pester motorists. On the unpaved roads, mud sometimes make a complete comeback, although usually only for brief periods.

There, motorists still get stuck and spin their wheels-- and curse mud -- just as their forebears did years ago.

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(Edward J. Boucher is a free-lance writer formerly associated with the Michigan Department of Transportation and Secretary of State.)

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**WHEN "KIND MUD" RULED MICHIGAN ROADS--**The frustration of automobile driving in the early decades of the century is depicted in the contortions of this unlucky motorist trying to dislodge his car from a

mud-clogged road. A massive building program in the 1920s brought asphalt and concrete highways to Michigan and pulled it out of the mud.

AUG-27-27

# TRANSPORTATION IN MICHIGAN HISTORY — When 'King Mud' Ruled Roads

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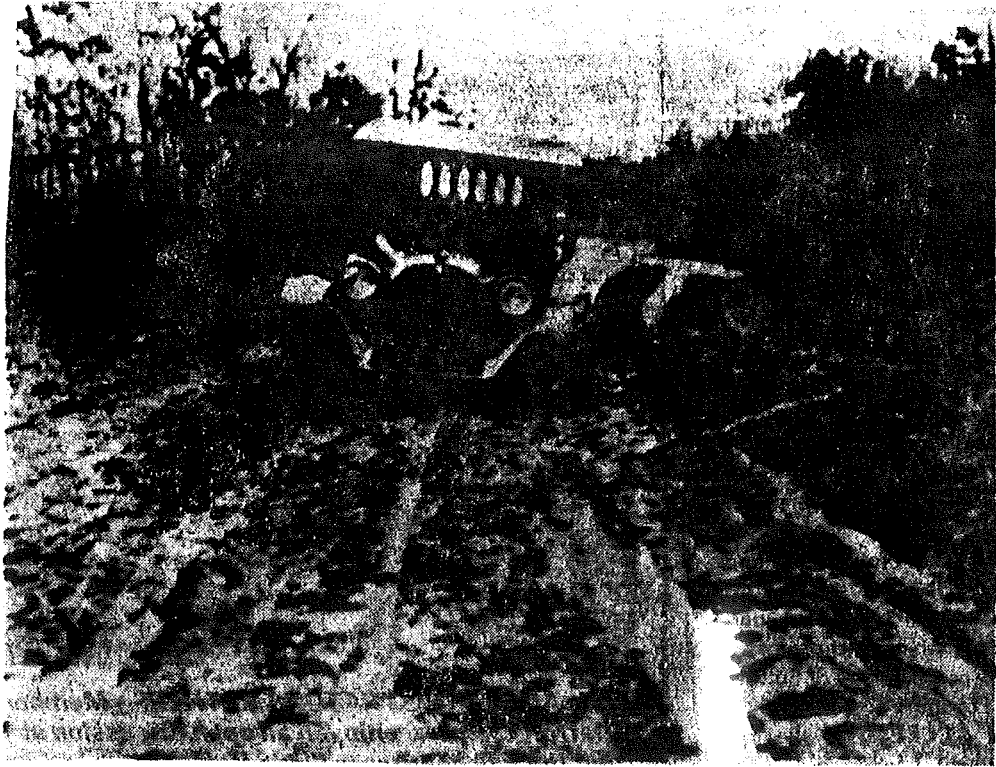
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# TRANSPORTATION IN MICHIGAN HISTORY



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## TRANSPORTATION IN MICHIGAN HISTORY

### MICHIGAN--A STATE OF HIGHWAY "FIRSTS"

By Tom Shawver

Concrete roadways coursing through woods and farmlands are a taken-for-granted fact of life in a nation with the best highway system in the world.

So are the white center lines that separate opposing lanes of traffic and the painted yellow lines that mark no-passing zones.

Four-way, three-color traffic lights are commonplace at busy intersections.

What they have in common is that all were conceived in Michigan, transportation "firsts" in the early decades of the 20th Century when the automobile came to the fore as the predominant mode of travel.

The Wayne County Road Commission built the world's first mile of rural concrete highway in 1909. It was completed in less than three months along Woodward Avenue between Six Mile and Seven Mile roads at a cost of \$13,537.

Engineers and roadbuilders from far and near came to see how concrete stood up under the traffic of that period. The experiment was a success, speeding the development of modern

highways in Michigan and throughout the country.

Edward N. Hines, the far-seeing chairman of the road commission, came up with another innovation that has been called the most important traffic safety device in the history of auto transportation. He called it the "center line safety stripe" and it was simply a stripe of white paint down the middle of the road to keep traffic on the right side where it belonged.

The center stripe first appeared on narrow bridges along River Road near Trenton, Mich., in 1911 and then on all pavements in the county. Later it was adopted nationally.

Fred W. Green, who was governor of Michigan from 1927 through 1930, first suggested painting a yellow line on hard-surface highways with hills and curves having restricted sight distances. The State Highway Department tried out "Green's yellow line" in 1928 and liked it. So did motorists, who found it took the "guess and go" out of driving. Like the white center line, the idea caught on nationally.

The world's first four-way traffic signal with red, green and amber lights appeared in 1920 at the intersection of Woodward Avenue and Fort Street in downtown Detroit. It was the invention of William L. Potts of the Detroit Police Department.

Later, he devised an electrical interconnection of the signals of 15 traffic towers so that they could be controlled by a police officer from a single location. The network was the forerunner of today's sophisticated electronic traffic control systems.



Appropriate to the auto-making capital of the world, Michigan scored many other highway firsts. Among them:

1912--William B. Bachman Sr., of Detroit, a founder of the Automobile Club of Michigan, began marking roadside telephone poles in different colors to designate different routes. By 1920 he had banded 2,000 miles of Michigan highway poles. His work was the forerunner of a national system of uniform signing of highway systems.

1919--Herbert F. Larson, engineer-manager of the Iron County Road Commission, set up picnic tables in a forest preserve along US-2 in the Upper Peninsula. A state historical marker there cites it as the nation's first such roadside rest and recreation facility.

1922--The first practical highway snow plow developed in the United States was designed and built by Edward C. Levy, city public works superintendent in Munising. It was mounted on runners and consisted of two wooden wings, each 10 feet high and 20 feet long. The wings were retractable, permitting the plowing of a city street, county road or alleyway. Several Upper Peninsula cities bought the plows, but they became obsolete a few years later with the advent of rotary, angle and V-plows mounted on the front of trucks.

1923-1927--The nation's first intercity superhighway was an eight-lane divided marvel, built on an 18-mile stretch of Woodward Avenue between Detroit and Pontiac. It had a 40-foot median for public transit service.

1929--Using planks salvaged from old guardrail, Ionia County engineer Allan Williams built picnic tables and set them up along old US-16 in Ionia County. Soon they became a symbol of Michigan hospitality along the entire highway system, and other states followed suit.

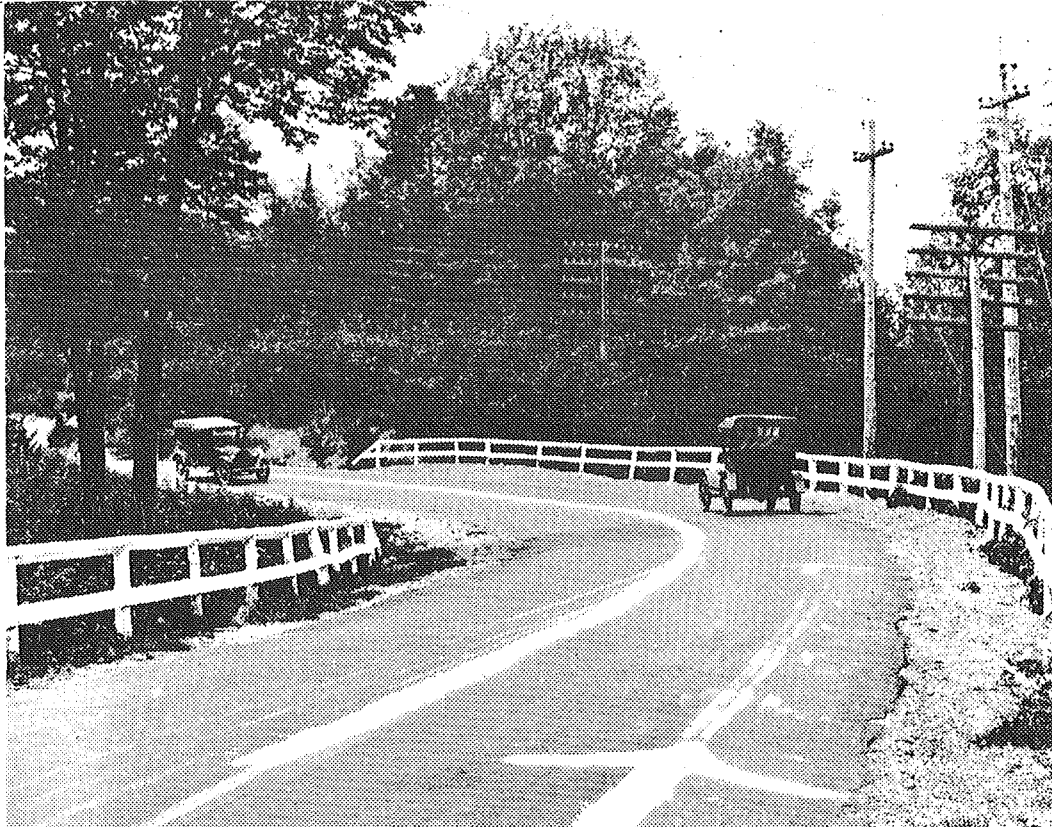
1935--The nation's first permanent highway travel information center, built along old US-12 near New Buffalo, at the Indiana border, was the brainchild of State Highway Commissioner and later Gov. Murray D. Van Wagoner. The state's 11 such centers now host more than two million visitors a year, promoting Michigan's multi-billion dollar tourist industry.

1952--The first five-lane highway was established in Detroit, allowing a center lane for left turns. It frees the other four lanes for through traffic and cuts down on rear-end collisions.

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(Tom Shawver is public information administrator for the Michigan Department of Transportation.)

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**STAYING ON THE RIGHT SIDE OF THE ROAD**—A handpainted arrow supplemented the centerline dividing traffic lanes on a dangerous curve of a northern Michigan

highway about 1917. The centerline, one of the most important highway safety devices ever conceived, was invented in Michigan in 1911.

JUN-23-67

## Transportation in Michigan History

# A state of highway 'firsts'

By Tom Shawver  
Michigan department of  
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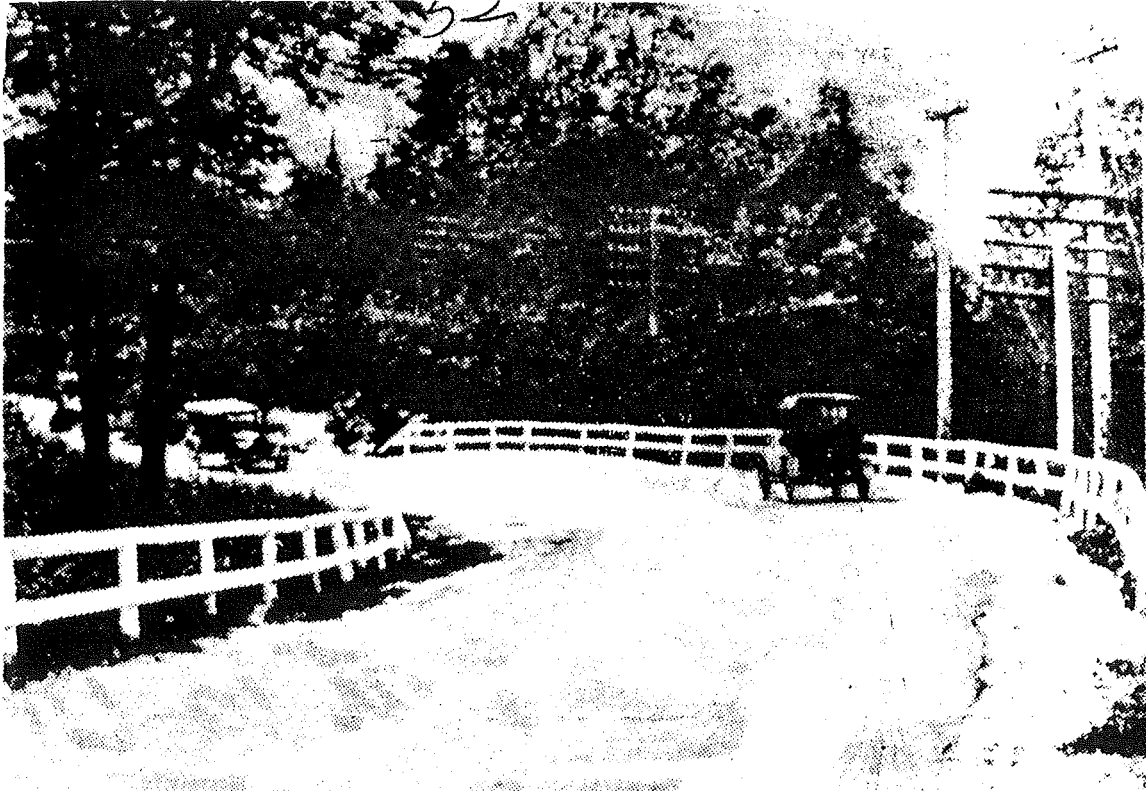
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(Photo on next page)



A handpainted arrow supplemented the centerline dividing traffic lanes on a dangerous curve of a northern Michigan highway about 1917. The centerline, one of the most important highway safety devices ever conceived, was invented in Michigan in 1911.



# TRANSPORTATION IN MICHIGAN HISTORY



(Following is another in a series of articles on interesting aspects of transportation in Michigan history. They are being distributed every few weeks as part of the Sesquicentennial celebration commemorating Michigan's 150th year of statehood.)#10

## TRANSPORTATION IN MICHIGAN HISTORY

### IRON TRUSS BRIDGES ARE A DISAPPEARING BREED

By Edward J. Boucher

There were the Whipples, Howes, the Pratts, the bowstrings and the highs and the lows.

They were the picturesque wrought-iron truss bridges of the last half of the 19th Century and the early years of the 20th.

Some, like the Pratts, Whipples and Howes, bore names of their inventors. Others, like the lows, highs and bowstrings, were names for appearances.

They carried Michigan wagon roads over rivers and streams -- an indispensable role in a state boasting more than 36,000 miles of such streams and rivers.

In addition to wagon and foot traffic, they also served as fishing sites and local attractions, providing pleasant, life-long memories for many who grew up nearby. Many a child, using toy "erector" sets, has spent long hours fashioning truss-type bridges of miniature metal parts similar to those used in the real thing.

Once numbered in the thousands, general deterioration, obsolescence and accidents have reduced the number of truss

(MORE)

bridges in Michigan to about 400. Most are on lesser-traveled roads and streets, and each passing year eliminates more.

The oldest, a 150-foot-long truss carrying Maple Road over the Huron River at Ann Arbor, was constructed in 1876.

Early Michigan settlers built bridges with the most available material -- wood. Because of inherent weight and load-bearing qualities, however, timber could generally be used only in short span. Even when bridges were covered, wood did not stand up well in Michigan's generally wet climate.

Wrought iron truss bridges, made of slim, light beams and rods, could be built in a factory, dismantled, shipped by rail and then transported in small sections by wagon to the bridge site. Wrought iron outlasted wood.

The only serious threat to the truss structures were the old, massive steam traction engines. These were relatively few in number, however, and so obviously heavy that operators -- confronted with strict legislation -- pretty much kept them off old trusses.

Although the truss bridge played a vital role in bringing Michigan highway transportation into the 20th Century, it was the new century, with its heavier and faster motorized vehicles, that ended the popularity of that particular design.

In 1865, a rudimentary steam car, now on exhibit in the Henry Ford Museum in Dearborn, made a brief appearance on Michigan roads. Although it caused scant notice at the time, it

(MORE)

was the harbinger of times to come. The countdown was on for truss bridges on highways.

Motorized vehicles began to appear in the 1890s and by 1905, the first year of vehicle registration, a total of 2,188 were recorded by the state. By 1920 -- 15 years later -- a total of 416,420 were registered. Today, there are more than seven million.

An inherent weakness of the truss, at least for modern transportation, is that all the weight is carried on beams or posts on both ends of the bridge within a few feet of passing vehicles. A wagon hitting the beams did no damage, but impacts from faster, heavier cars and trucks toppled many trusses into the river below.

In addition, many old trusses could only accommodate one lane of wagon traffic and could not be widened. To accommodate two lanes of motorized vehicles, they had to be demolished and replaced, usually by the simpler "cantilever" design, which has no superstructure and can be widened.

State, county and city engineers tried to defend the trusses with weight and speed limits. Due to the largely unknown nature of the iron in older trusses, however, accurate analysis of the capacity of many bridges was impossible. Overloads continued to be a major cause of truss bridge failure.

Today, the Michigan Department of Transportation maintains a list of all bridges in the state, including old trusses, to help

(MORE)



procure funds for replacement and repair. In addition, the department maintains a list of bridges that are either eligible for addition to the National Historical Register for actual preservation or for maintaining a historical record of the bridge after demolition.

The news for truss bridge buffs is not all bad. On several occasions in recent years, local admirers have successfully preserved them for future generations to enjoy.

The city of Allegan in 1983 came up with \$215,000 to match a federal grant of \$419,000 for the reconstruction of a one-lane truss bridge that carries a local street over the Kalamazoo River. Local interests in Frankenmuth took over and preserved two truss bridges scheduled demolition.

###

(Edward J. Boucher is a freelance writer formerly associated with the Michigan Department of Transportation and the Secretary of State.)

(Editor: You may obtain a list of all the truss bridges in Michigan, with location and year built, by writing to MDOT Public Information at P.O. Box 30050, Lansing, MI 48909.)



# TRANSPORTATION IN MICHIGAN HISTORY



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## TRANSPORTATION IN MICHIGAN HISTORY

### BICYCLISTS LED THE WAY TO GOOD HIGHWAYS

By Edward J. Boucher

Driving on any crowded highway or freeway today makes it hard to believe that bicycles once ruled the road in Michigan.

And it takes more imagination to believe that the bicycle-- not the motor car -- led Michigan out of the mud onto the paved roads of the 20th Century.

For a brief period of time from the 1880s to shortly after the turn of the century, anyone who could afford a "wheel" was king of the road.

The first bicycles, known as "wheels," were simply a big wheel with pedals coupled to a small wheel. Not for everyone, they were hard to mount and harder to ride. Most of the weight was directly over the big front wheel, causing riders to be thrown over the handlebars on rough roads or going downhill.

The bicycle, invented by a game warden in Germany in 1816, soon spread to America and by 1868 enjoyed growing popularity, particularly among younger and more athletic groups.

The original bicycle, with two wheels of equal size, resembled modern bicycles more than the subsequent bicycles produced in the 1860s and 1870s. In 1885, an Englishman named J. K. Starley invented the so called "safety bicycle" with two equal

wheels that was easier and safer to ride. This set the stage for the bicycle craze that hit the United States during the "gay nineties".

Today, most bicycles look alike, but toward the end of the 19th Century, every manufacturer, inventor and bicycle mechanic tried to outdo each other designing and producing a better bicycle.

There were bicycles with big wheels in front and in back, bicycles with two wheels in front and one in back, bicycles with four wheels, tandem bicycles, bicycles with seats between the wheels and bicycles with steam and gasoline motors.

The military developed bicycle divisions with folding bicycles, bicycles to carry machine guns and fast bicycles to carry messages. Telegraph companies, with miles of line to patrol, used bicycles fitted with maintenance gear. Circus performers used special bicycles for high-wire acts and trick riding and thieves and pickpockets used them for fast get-aways on crowded streets.

A new industry sprang up to provide bicycle assessories, including carbide lamps, clothing and medical treatment for bumps, bruises, broken limbs and sore muscles. Around 1888, women began to ride, ushering in new concepts in dress. Manufacturing techniques, including production lines, electric welding, improved metals and wider use and demand for road maps prepared the way for development of the automobile.

For the first time in the history of the human race, a the bicycle offered mobility for recreation and work to those whose

previous range of travel was bounded by trolley and railroad lines, the cost of maintaining a horse and buggy, or by aching feet.

But beyond the bone-jarring brick and cobblestone paving of city streets of the time, touring bicyclists faced mud, sand, loose gravel, angry farmers and, more often, no roads at all.

To improve roads, Michigan bicyclists organized into the League of American Wheelmen (LAW). Under direction of president Horatio S. Earle of Detroit, the militant LAW began a campaign to promote and organize roadbuilding bees and prod local governments into improving existing roads. Before 1905, roadbuilding responsibilities were shared by townships, cities, counties and, sometimes, private organizations.

Earle lost no time campaigning for a law to establish a state highway department to coordinate a statewide system of highways.

In 1901, he and the LAW founded the Michigan Good Roads Federation and he became known as "Good Roads" Earle. After passage of LAW-supported legislation to establish the state highway department, he became the first state highway commissioner. His first act was to declare war on what he called "King Mud," the ruler of the unpaved roads of the era.

This intensive campaign early in the century convinced voters to support good roads in Michigan and led directly to Michigan's present all-weather, paved system of highways -- well ahead of most other states.

What happened to the bicycle? During the 1890s, the first

"horseless carriages" began to appear on Michigan roads. At first considered a toy, within a few years it replaced the bicycle as a means of transportation and recreation.

Present day estimates show three to four million bicycles in Michigan, or approximately half of the number of registered motor vehicles. But the only state highway still ruled by the bicycle -- and shared with horses -- is M-185 circling scenic Mackinac Island, where motor vehicles are banned.

###

(Edward J. Boucher is a free-lance writer formerly associated with the Michigan Department of Transportation and Secretary of State.)

Contact: Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. (Phone: 517/373-2160)



**WHEN BIKES WERE "IT"--**  
Stylish Mrs. Frank Abbey  
pedals down a street in Grand  
Ledge, Michigan, in 1896.  
Bicycles vastly outnumbered  
automobiles in the early years  
of the century, and cyclists  
were Michigan's first good-  
roads advocates.

SEP-21-87

# Bicycles once ruled Michigan's roads

By EDWARD J. BOUCHER  
Special Writer for MDOT

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# TRANSPORTATION IN MICHIGAN HISTORY



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## TRANSPORTATION IN MICHIGAN HISTORY

### OLD CHICAGO ROAD, NOW I-94, IS STILL MICHIGAN MAIN STREET

By Edward J. Boucher

Interstate 94, carrying traffic between Port Huron, Detroit and Chicago, is Michigan's first, busiest, and, by any measure, most famous freeway.

It runs through the highway corridor that helped develop Michigan territory into a state in 1837, played a national role in developing the American Midwest and took on an international role in World War II.

The final link of I-94 was opened Nov. 29, 1971, in a snowstorm at the state line near New Buffalo. It provided a "free way"--free from crossroads, traffic lights, mud, swamps, fallen trees and swarms of mosquitoes--between Port Huron, Detroit, Chicago and points west to the I-94 terminus in Billings, Mont.

The opening, in a sense, brought to a conclusion a project begun by the U.S. Congress in 1824 with appropriation of \$3,000 for surveying a military wagon road between Detroit and Chicago.

Prior to 1824, Indians and early settlers followed either the Great Sauk Indian Trail along present US-12 through the southern tier of Michigan counties or the St. Joseph Trail through the second tier, now the route of I-94.

Michigan's Detroit-Chicago route, together with Lake Erie, Lake Ontario, the St. Lawrence River and, later, the Erie Canal between Albany and Buffalo, formed a route followed by settlers from the east coast to territories of the new American nation.

Prompting the American Congress to improve the route were fresh memories of the War of 1812 when the British made quick and frequent raids into both states and territories, which were difficult to defend because of poor roads.

By 1830, two stage coaches a week carried passengers, mail and goods between Detroit and Chicago. Many famous taverns, including the Walker Tavern at Cambridge Junction, now operated as a state museum, helped ease the rigors of early travel across southern Michigan.

The Chicago Road, also called the Chicago Turnpike, and still later, the Old Chicago Road, left Detroit on Michigan Avenue, now US-12. It passed through Ypsilanti, Ann Arbor, Chelsea, Grass Lake, Jackson, Parma, Albion, Marshall, Battle Creek, Kalamazoo, Paw Paw, Coloma, Stevensville, Bridgman, Benton Harbor, St. Joseph and New Buffalo. During the 1920s, that part of the route along Lake Michigan was known as the West Michigan Pike. The entire route also was known as the Michigan-Detroit-Chicago, or MDC, on many early road maps.

The southern route, known as the Chicago Trail, parted company with the Chicago Road at Ypsilanti and followed what is now US-12 across the southern tier of counties, through Saline, Jonesville, Coldwater, Quincy, Bronson, White Pigeon, Niles, Three Oaks and New Buffalo.

Since 1824, the actual roads, trails and paths followed by Detroit-Chicago traffic have changed constantly. When official and systematic numbering of state highways and routes began in 1926, names of cross-state highways became less important and many have been forgotten. However, many local remnants and pieces of the Chicago Road and the trail still bear the names "Chicago" and "Detroit," attesting to their past service to traffic between the two cities.

World War II wrote another chapter in the history of the Detroit-Chicago Route. The war caught America unprepared, with the Allied cause suffering many early and serious setbacks.

To reverse the tide, the war had to be carried to the Axis powers, and that meant bombers--by the thousands.

Safe from enemy attack and near the skilled Detroit labor pool, the flatlands near Ypsilanti were chosen for construction of the largest bomber factory on the North American continent. There the Ford Motor Co. began turning out the famed B-24 Liberator bomber.

To assure a flow of 42,000 workers in and out of the factory every 24 hours, the Willow Run Expressway, Michigan's first full freeway, was constructed in a crash program on the same war priorities as the factory itself.

Underscoring its importance, President Franklin D. Roosevelt himself inspected the freeway while it was under construction.

It opened to traffic in the fall of 1942, a bare 11 months after work began.

When Congress funded the nation's interstate highway program in 1956, and construction of Interstate 94 began, the original pavement of the Willow Run Expressway was incorporated into the freeway.

Barring frequent construction and repairs necessary to maintain current volumes of traffic, the trip between Chicago and Detroit today is a matter of hours. And literally hundreds of thousands of vehicles travel along the route every day of the year.

###

(Edward J. Boucher is a freelance writer formerly associated with the Michigan Department of Transportation and the Secretary of State.)

Contact: Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. (Phone: 517/373-2160)

AUG-17-67

# I-94, area's history roll along together

By Edward J. Boucher  
special writer

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# TRANSPORTATION IN MICHIGAN HISTORY



(See photo enclosed)

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## TRANSPORTATION IN MICHIGAN HISTORY

### POOR SIGNING MADE IT TOUGH TO GET FROM HERE TO THERE

By Edward J. Boucher

Prior to 1927, Michigan motorists -- or motorists in any other state -- could never be sure of reaching a destination over unfamiliar roads.

Educated guessing and cross-examining local gentry were part of every trip. The reason: lack of standardized road signs and few, if any, accurate highway maps.

What happened in 1927 and why did it take so long for the nation and the states to coordinate something so seemingly simple as standard highway signing and numbering and printing accurate highway maps?

The preamble of the U.S. Constitution mentions promotion of post roads as a federal responsibility. Road for defense and moving goods and mail were one of the first concerns of the emerging American nation.

Immediately after the American Revolution, the federal government voted funds for construction of "military" roads in Michigan territory. It wasn't until 1905, however, that the Michigan Legislature enacted legislation to oversee road building in the state. Previously, construction, maintenance, signing and

mapping of roads was mostly an uncoordinated effort. It involved townships, counties, cities, villages, public roadbuilding "bees" and private touring associations, including the Dixie and Lincoln Highway associations and the bicyclists who formed the League of American Wheelmen.

The trouble was that the same organizations that helped construct highways also helped name and number them. The result was a mass of different and sometimes conflicting colors, numbers, bands and names painted or attached to roadside rocks, barns, telephone poles, buildings and posts of all lengths.

Earlier and slower horse-drawn traffic was not seriously bothered by lack of consistent signing and maps, but by the 1890s the Wheelmen who rode the newly-invented bicycles farther and farther from home began to demand better roads and signing.

Appearance of the automobile after the turn of the century compounded the problem and by the 1920s, the owners of horse-drawn traffic and more than one million registered motor vehicles in Michigan had serious problems finding their way over unfamiliar territory.

Actually, the state got into the highway signing and map-making business under Michigan Act 19 of Public Acts of 1919. Among other things, the new law directed the state highway commissioner to "cause all state trunkline routes to be distinctly marked by signs and guideposts of a uniform design as may be deemed necessary for the public convenience and to cause

to be published a map of the State of Michigan showing thereon the state and county road system."

The act also called for numbering state highways and showing the numbers of the map.

The State Highway Department, now the Department of Transportation, designed a diamond sign 15 inches in length and 13 1/2 inches wide with the words STATE TRUNK LINE and carrying an M and a route number. But that only worked in Michigan. Interstate travel was another matter.

By 1925, the volume of complaints over confusion in highway signing reached Washington and the American Association of State Highway Officials (AASHO).

AASHO then petitioned the Secretary of Agriculture, who then supervised public roads in the U.S., to name a joint board to develop an interstate numbering and marking system covering the principal highways of the nation.

One of those serving on the board was Michigan State highway Commissioner Frank Rogers. His suggestion and rough drawing of a shield displaying the letter "U.S." and a number was adopted as the official road marker for all routes throughout the country.

A lot of study, controversy and compromise went into the board's recommendation to number principal east-west routes across the nation in multiples of 10 -- even numbers -- and north-south routes in multiples of five -- odd numbers.

States were free to number their own remaining internal



routes with their own individual state logo and number, as Michigan did under Act 19 in 1919.

AASHO was to have control over all future numbering and changes in interstate highway routes. The entire plan was voluntary but was adopted by all states and the federal government in 1925.

On the night of May 2, 1927, temporary card markers showing the new U.S. routes in Michigan were placed over existing signs.

The following morning motorists awoke to a new era of standardized highway signs with consistent numbers throughout Michigan and the United States.

The system was so well designed that it continues in use today with only slight modifications.

When the nation's new Interstate system of freeways was begun in 1956, the original AASHO numbering system, together with Frank Rogers' shield, was used to designate the entire 42,500-mile system.

Today, all that's needed to get across the state is an accurate map and a tank of gas.

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(Edward J. Boucher is a freelance writer formerly associated with the Michigan Department of Transportation and the Secretary of State.)

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**WHEN TELEPHONE POLES MARKED THE WAY--** Credit for developing the first systematic road-marking system in the U.S. goes to William B. Bachman (above) of Detroit, who in 1912 began marking roadside telephone poles in different colors to designate different routes. By 1920 he had banded 2,000 miles of Michigan highway poles, the forerunner of a national system of uniform signing that came into existence in 1927.

SEP-21-67

# Michigan roads: Guesswork was a sign of the times

By EDWARD J. BOUCHER

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(Photo on next page)



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Credit for developing the first systematic road-marking system in the U.S. goes to William B. Bachman (above) of Detroit, who in 1912 began marking roadside telephone poles in different colors to designate different routes. By 1920 he had banded 2,000 miles of Michigan highway poles, the forerunner of a national system of uniform signing that came into existence in 1927.



# TRANSPORTATION IN MICHIGAN HISTORY



(Following is another in a series of articles on interesting aspects of transportation in Michigan history. They are being distributed every few weeks as part of the Sesquicentennial celebration commemorating Michigan's 150th year of statehood.) #9

## TRANSPORTATION IN MICHIGAN HISTORY

### MOTORISTS ONCE FREE-WHEELED WITHOUT LICENSES

By Edward J. Boucher

Your two-color vehicle license plate and plastic-covered State of Michigan driver license displaying the unflattering "mug shot" were items unknown to many of our fathers and grandfathers.

State registration of vehicles did not begin until 1905 and driver licensing was not undertaken by the state until 1919. Before then, anybody could drive anything anywhere--roads permitting--with no license or plates.

Records from the Secretary of State's office show a total of 2,188 motor vehicles were registered in 1905. Last year 6.3 million licensed drivers registered 7.7 million vehicles for use on the state's 118,000-mile system of highways, roads and streets.

Before 1905, some cities registered commercially-used horse-drawn vehicles and simply used the same paper forms to register motor vehicles.

From 1905 to 1910, a small round metal tag served as a registration for motorized vehicles. It was usually fastened on the dashboard, but motorists also were required to display the number on the rear of the vehicle. This was done by mounting the number on a larger license plate, usually made of leather and measuring six by 14 inches.

The year 1910 marked the first time metal license plates were issued in Michigan. These were made of porcelain-covered steel and displayed three or four white numbers on a black background with the abbreviation "MICH" and the year.

The porcelain plates were issued until 1915 when the state began using stamped metal plates that resembled those issued today. Since then, Michigan plates have run the gamut of colors from the olive green of 1918 to the light purple of 1936, from the dull silver of 1961 to the maroon of 1941, 1944, 1957 and 1971. Most popular of all probably was the red, white and blue plate issued in 1976 to commemorate the nation's bicentennial.

Sixty-eight years ago, on July 1, 1919 Michigan Gov. Albert Sleeper obtained the first Michigan driver license from Secretary of State Coleman E. Vaughn. Probably the leading to driver licensing was the return of the "engine-oriented" doughboys from World War I service in France. As large numbers of these young men began driving, they caused concern for the safety of pedestrians and of non-motorized vehicles. That same year, the legislature granted the Michigan Secretary of State power to discipline careless drivers, leading to today's point system for driving infractions. The photo was added to the driver license in 1965.

The first driver license was printed on linen-backed paper. It had no renewal date. Applications were taken by local and state police or sheriffs, and the licenses were issued by the Secretary of State.

Today, the majority of Michigan's licensed vehicle operators

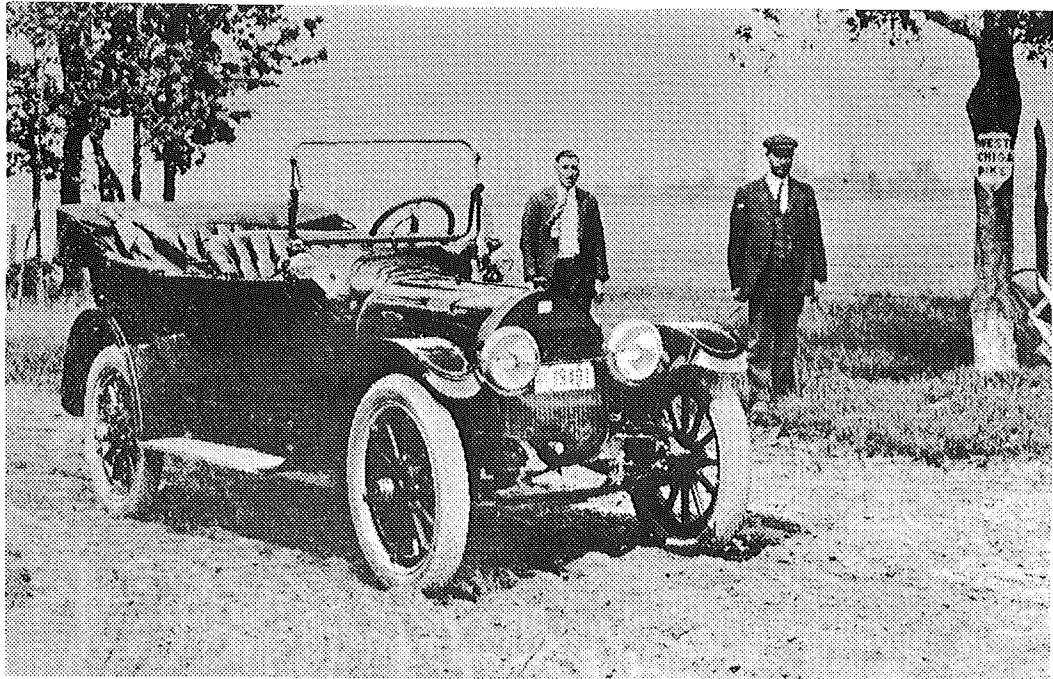
receive licenses by mail or through the approximately 180 branch offices operated statewide by the Secretary of State.

When Michigan was organized as a state, the Secretary of State kept minutes of meetings, vital statistics and records of crops and cattle and weather. He also was the custodian of laws passed by the legislature. Today the Motor Vehicle Division with responsibility for vehicle registration and driver licensing is the largest operation in that department

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(Edward J. Boucher is a freelance writer formerly associated with the Michigan Department of Transportation and the Secretary of State.)

Contact: Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. (Phone: 517/373-2160)



**"WE WANT BETTER ROADS"** — Five digits sufficed on Michigan license plates when good-roads advocates took to the roads in the years before World War II to promote

upgrading the highway system. These two participants on a "pike tour" in 1914 stopped for a photo on the West Michigan Pike at the Benzie-Leelanau county line.



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## Guest editorial

# Driver licenses weren't a thing of the past

Your two-color vehicle license plate and plastic-covered State of Michigan drivers license displaying the unflattering "mug shot" were items unknown to many of our fathers and grandfathers.

State registration of vehicles did not begin until 1905 and driver's licensing was not undertaken by the state until 1919. Before then, anybody could drive anything anywhere — roads permitting — with no license or plates.

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Sixty-eight years ago, on July 1, 1919 Michigan Governor Albert Sleeper obtained the first ever Michigan driver license from Secretary of State Coleman E. Vaughn. Probably leading to driver licensing was the return of "engine-oriented" doughboys from World War I service in France. As large numbers of these young men began driving, there was concern for the safety of pedestrians and non-motorized vehicles. That same year, the legislature granted Michigan Secretary of State power to discipline careless drivers, leading to today's point system for driving infractions. The photo was added to the driver license in 1965.

The first driver license was printed on linen-backed paper. It had no renewal date. Applications were taken by local and state police or sheriffs, and the licenses were issued by the Secretary of State.

Today, the majority of Michigan's vehicle operators receive licenses by mail or through approximately 180 branch office operated statewide by the Secretary of State.

When Michigan organized as a state, the Secretary of State kept minutes of meeting, vital statistics and records of crops and cattle and weather. He also was the custodian of laws passed by the legislature. Today the Motor Vehicle Division

with the responsibility for vehicle registration and driver licensing is the largest operation in that department.

Edward J. Boucher is a freelance writer formerly associated with the Michigan Department of Transportation and the Secretary of State.



"ENDANGERED SPECIES" -- Iron truss bridges, once numbered in the thousands in Michigan, now total only about 400. This one, built in 1880 over the Grand River at Lyons, has been demolished and replaced with a modern structure. Some trusses are being preserved for their historic value.

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# TRANSPORTATION IN MICHIGAN HISTORY



(Following is another in a series of articles on interesting aspects of transportation in Michigan history. They are being distributed every few weeks as part of the Sesquicentennial celebration marking Michigan's 150th year of statehood.) #11

## TRANSPORTATION IN MICHIGAN HISTORY

### BUSY FERRY FLEET PRECEDED MACKINAC BRIDGE

By Tom Shawver

Nov. 1, 1957, closed one chapter in the history of Michigan transportation and opened another. On that bright fall day, the 350-foot icebreaker ferry Vacationland, one of the most powerful ships on the Great Lakes, sailed across the Straits of Mackinac for the last time.

An hour or two later, the magnificent new Mackinac Bridge, the longest suspension bridge ever built, opened to traffic after three and a half years of construction. With its completion, the fleet of state-owned ferries that had transported passengers and vehicles across the straits since 1923 went out of service, permanently.

Construction of the five-mile-long bridge, a centuries-old dream, was a proud accomplishment for the people of Michigan. Most travelers, though, viewed the passing of the state ferries with mixed emotions.

For them, the leisurely trip across the straits was a pleasant experience and, for many, it was the nearest they came to a shipboard voyage.

(MORE)

The ferries plied the narrow gap that separates Michigan's two peninsulas seven days a week, the year around. Service was rarely suspended because of bad weather, but there were times when strong winds jammed ice into dock areas, trapping even the big Vacationland, queen of a five-ferry fleet.

There were other delays when auto traffic got heavy. In the November deer-hunting season, thousands of hunters jammed the docks and the adjoining highway while they waited to board the ferries. Vendors did a lively business selling hot pasties and other items to impatient drivers and their passengers eager to move on to the Upper Peninsula.

The state ferries operation came into being through an act of the State Legislature, which reacted to public displeasure with the infrequent and expensive ferry service for motor vehicles provided by railroad ferries. The State Highway Department--now the Michigan Department of Transportation--started the service July 31, 1923, with the Ariel, a small carferry operating in the Detroit River between Detroit and Walkerville, Ont. Buying and fitting it to pass marine inspection cost the state \$19,000.

Before ice stopped the service on Nov. 21 that year, the Ariel, with a capacity of only 20 cars, had hauled 10,351 cars across the straits. That was many more than the railroad boats, with their irregular schedules, would have carried.

Recognizing the need for the service, the highway department bought two more used boats late in 1923, bringing them from the East

(MORE)

Coast to Detroit. There they were lengthened so they could carry 40 cars each and rechristened the City of St. Ignace and City of Mackinaw City. Both went into service the following summer, leading to the sale of the tiny Ariel.

Ferry traffic at the straits nearly quadrupled in the second year, with more than 38,000 vehicles making the crossing. A third boat, the Straits of Mackinac, joined the fleet in 1928.

Winter service began in 1931, first under an arrangement for a railroad icebreaker to carry cars across the straits during the cold months and then, in 1936, under a lease that put the railroad icebreaker Sault Marie in service on a regular schedule.

Business at the straits kept growing, and so did the ferry fleet. In 1937, the highway department bought the City of Cheboygan, a converted Lake Michigan carferry. Then came two larger rebuilt car ferries, the City of Munising in 1938 and the City of Petoskey in 1940. The smaller St. Ignace and Mackinaw City were sold to the federal government for service on the Atlantic Coast.

The first of the ferries specially designed to carry straits traffic was the 10,000-horsepower Vacationland. Built for \$4,475,000 at the Great Lakes Engineering Works in River Rouge, Mich., it was 350 feet long, with a 75-foot beam. The Vacationland, half again larger than the largest of the other ferries, carried nearly 150 cars and trucks. Its arrival raised the fleet capacity to about 500 vehicles.

By the time the five-vessel went out of business in 1957, it was carrying between 900,000 and one million vehicles a year.

(MORE)

All five vessels were sold and put to other uses. The Straits of Mackinac carried passengers between Mackinaw City and Mackinac Island until 1968 as part of a fleet owned by a group of former ferry employees.

Later Peterson Builders, Inc., of Sturgeon Bay, Wis., bought the ferry and converted it into a floating dormitory of sorts for Navy men sent for training and shakedown cruises aboard ships built by the company. Today, it is a mere storage barge.

The City of Munising and City of Cheboygan served as floating warehouses for Edward H. Anderson, a major potato grower and dealer on Washington Island off the tip of Wisconsin's Door Peninsula in Lake Michigan. About 10 years ago, they were towed to Italy after being sold for scrap.

The City of Petoskey had met the same fate in 1961.

The Vacationland, pride of the fleet, led a somewhat more glamorous life. After hauling truck trailers between Detroit and Cleveland, it was sold to a private company in 1961 and as the Pere Novel it churned back and forth across the Gulf of St. Lawrence carrying vehicles and passengers.

The Province of British Columbia bought the vessel in 1967, renamed it the Sunshine Coast Queen and towed it to the Pacific Coast for ferry service there. A \$600,000 alteration job increased its capacity to 220 cars. Later, it was bought for service in Alaska, but reportedly never went into operation.

(MORE)

There was talk of bringing the Vacationland back home for duty on Lake Michigan by a private company, but nothing happened. Later the ship was said to be headed to a scrapyard in Shanghai but sank in the Pacific in December 1987 about 100 miles off the coast of Washington.

Meanwhile, traffic at the Mackinac Bridge has climbed to about three million vehicles a year, more than three times what the fleet of ferries carried in its best year.

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(Tom Shawver is public information administrator for the Michigan Department of Transportation.)

Editor:

This is the last of the Sesquicentennial series. Copies of any or all of the 10 previous articles may be obtained by writing to the Public Information Office, Michigan Department of Transportation, P.O. Box 30050, Lansing, MI 48909. The titles are as follows:

1. Indians Started Road from Footpaths to Freeways
2. Sled Dogs Carried Supplies, Mail in Early-Day Michigan
3. Plank Roads Were the Rage in 19th Century Michigan
4. "King Mud" Once Ruled the Roads
5. Michigan--A State of Highway "Firsts"
6. Bicyclists Led the Way to Good Highways
7. Old Chicago Road, Now I-94, is Still Michigan Main Street
8. Poor Signing Made it Tough to Get from Here to There
9. Motorists Once Free-Wheeled Without Licenses
10. Iron Truss Bridges are a Disappearing Breed



**FERRY "QUEEN" GOES TO HER GRAVE--**The carferry Vacationland, one the queen of a state-owned fleet of ferries at the Straits of Mackinac, reportedly sank in heavy seas and went to the bottom of the Pacific in December enroute to a scrapyard in Shanghai. The entire ferry fleet was sold by the state after the opening of the Mackinac Bridge in 1957. Only one of the ships is still afloat, and it is a mere storage barge in Wisconsin.



## A SUMMARY OF THE DEVELOPMENT OF MICHIGAN'S RURAL ROAD SYSTEM

Michigan's rural road development first began with General Lewis Cass in 1813 who enlisted the support of Congress for road construction; both as a means of speeding up Michigan's settlement and of bolstering military defenses.

Federal troops were used in the construction of the Detroit-Toledo Road as well as roads from Detroit to Saginaw, Port Huron, Grand Rapids, and Chicago; however, after Michigan became a state in 1837, this Federal assistance was withdrawn. Because the state had little money to spend for road purposes, the roads previously built soon fell into a condition of disrepair. In an attempt to continue the development of a road network, private plank road companies were formed and work was begun on the construction of designated plank road routes, but unfortunately, these private toll roads turned out to be unsuccessful and were discontinued around 1850.

A territorial law in 1827 had established the township as the basic unit of road administration which was further perpetuated by the revised State Constitution of 1850, which caused all roads previously built to be transferred to the jurisdiction of the townships. This township administration was basically premised on the fact that the maintenance, improvement, and construction of the road system was primarily the responsibility of the people who lived along the roads. This concept generated the "statute labor system", which required the property owner to work the roads a certain number

of days each year, depending upon the value of his property, or else commute his labor by a cash payment to the township. Those residents who did not own property along a road were assessed one day's work a year or an equivalent tax. The roads built under this system generally connected farms with a trading center.

As the demand for more extensive travel increased it was felt that there should be an administrative unit developed that had a wider tax base than the township. Thus, in 1893 the County Road Act was passed, which permitted, by a vote of the residents, any county to appoint or elect a county road commission which was empowered with the authority to consolidate various township roads into a county-wide system. Counties which voted to adopt a county road system were authorized to levy road taxes up to three mills. The adoption of this county road system was slow in developing, with the last county voting the system in, in 1923.

By 1900, nearly \$100 million had been spent in Michigan to build and maintain a 68,000 mile road system. At this time only 200 miles were surfaced with stone or macadam and less than 8,000 miles with gravel. The rest were sand or clay.

In 1901 a committee, headed by Senator Horatio Earle, advocated a constitutional amendment to remove the existing prohibition against using state funds for road improvement. In 1905 an amendment was passed authorizing the state to build or aid in the building of public wagon roads. At this time the legislature created a State Highway Department and appointed Horatio Earle as the first State Highway Commissioner. In 1913 the legislature set up a 3,000 mile State Trunkline system with

the townships given the responsibility for building these highways.

With the rapid growth of automobile ownership, it became obvious that the motorist should bear a share of the cost of road development, thus in 1913 the legislature initiated the user-tax concept by imposing a horsepower tax on motor vehicles, the revenues from which were restricted for road purposes. Two years later the user-tax was extended to include the weight of motor vehicles. Half of this weight tax was allocated to the state and half to the counties and townships. However, in an attempt to continue the recognized need for locally-raised funds, the Covert Act was passed which authorized property owners to initiate road construction by petition with one-half the cost to be borne by the land owners through special assessment.

In 1916 additional monies were made available for roads through the Federal Aid Road Act. A further stimulus was realized in 1919 when the Michigan voters said yes to a \$50,000,000 highway bond issue.

During the mid-twenties, motor vehicle registrations doubled, thus creating demands far beyond the capabilities of available revenues. In 1925 the legislature abolished the horsepower tax, kept the weight tax, and created a tax of 2¢ per gallon on gasoline.

The 2¢ gas tax proved highly successful and with public support, was increased to 3¢ a gallon in 1927.

The capability of highway financing took a sharp turn downward at the onset of the depression in the late twenties resulting in a major reform in the administrative and financial structure that had evolved over the past 40 years. In 1931 the McNitt Act was passed, which was initially intended as a property

tax relief measure. This legislation required the 1,269 separate Township Road authorities to turn over their 68,000 miles of roads to the jurisdiction of the 83 County Road Commissions over a five-year period. This completely terminated the authority of any township in Michigan to have a public road under their jurisdiction. Prior to the McNitt Act, the County Road Commissions had approximately 17,000 miles of roads under their control, which had been developed to a standard compatible with existing traffic demands. However, with a road system now totaling 85,000 miles, the Road Commissions were faced with an unenviable challenge. The McNitt Act provided that only an additional \$4,000,000 be made available annually to the counties from the gas and weight tax fund to support the maintenance and improvement of this new-found 68,000 miles of roads, generally consisting of self-improved or unimproved roads which did not permit economical maintenance. Further restrictions were imposed by a three mill tax limit for levies imposed by townships for road purposes. This 3 mill limitation still prevails, however, up to 6 mills can be levied by a majority vote of the township residents.

Allocations from motor vehicle revenues were insufficient to meet the counties increased road obligations. At the same time, imposition of a 15 mill property tax limitation by constitutional amendment in 1932 made it difficult for the counties to raise local taxes for highway purposes. Thus, the counties were forced to curtail improvements on their more-important Primary Road Systems in order to maintain their newly acquired Local Roads, thus creating an overall reduced quality in road development. This situation generally prevailed until the passage of Act 51 in 1951.