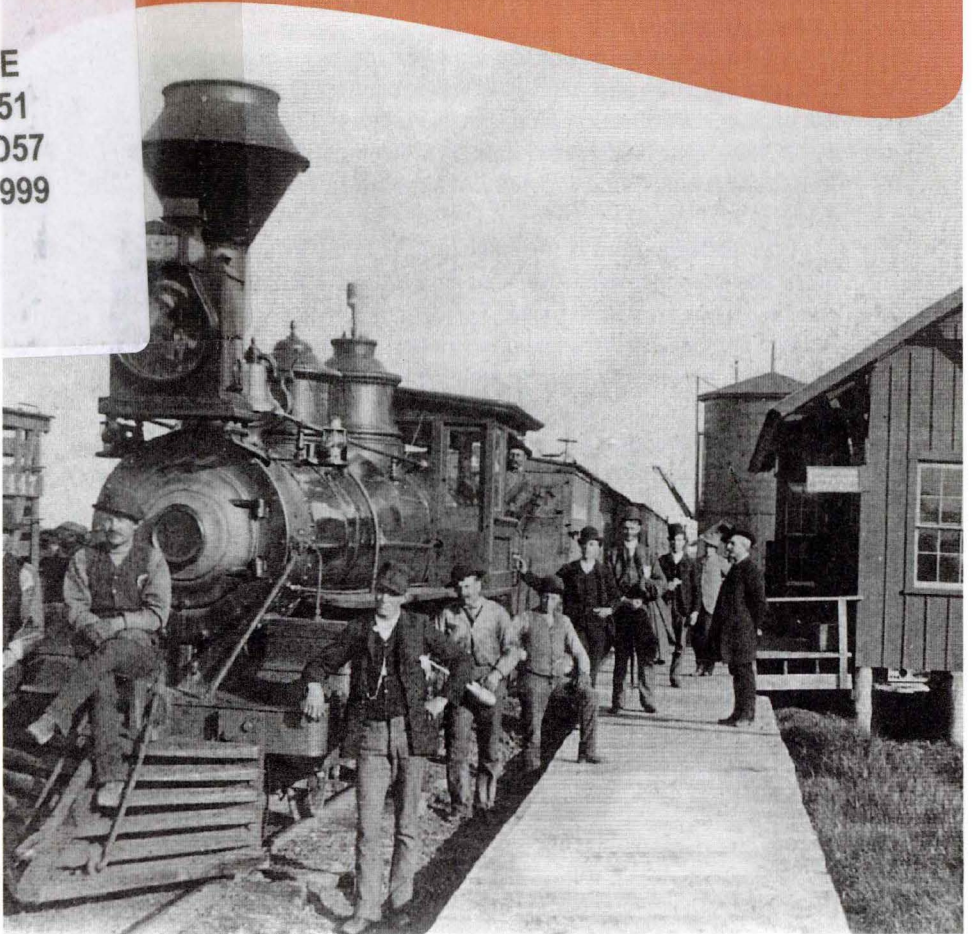


Approaching the turn of the century

Discovering historic Iowa transportation milestones

HE
151
.D57
1999



Introduction

In studying and forming an understanding of Iowa's transportation history, we must surely develop a reverence for the lifestyles which preceded ours. Achieving a greater understanding of our past, we are better prepared to plan our future as we say farewell to the 20th century and move forward into the 21st. In the words of Oliver Wendell Holmes: "I believe the greatest thing in this world is not so much where we stand as in what direction we are moving... and the further backward you can look, the farther forward you can see."

To help Iowans gain a better understanding of our state's rich transportation past, the Iowa Department of Transportation has produced a collection of materials including this booklet, the 1999-2000 Iowa Transportation Map, a video entitled *A History of Iowa's Rivers, Roads, Rails and Runways*, and a traveling photo exhibit.

In addition, Iowa is fortunate to have many local organizations, and the state-owned museum and historic sites, working to preserve the history of our state. Listed in the back section of this booklet are the addresses and descriptions of many sites that offer visitors an opportunity to see a wide range of transportation-related artifacts.

The information and photographs are organized in time sequence. However, you will note that many of the transportation eras overlap. The booklet begins with Iowa's pre-settlement era and concludes with the historic highway and transit program that was signed into law by President Clinton in 1998.

As you can imagine, condensing this much Iowa history into a booklet-sized resource was a monumental challenge. Making selections and abbreviating the information resulted in some difficult editorial choices. However, we hope this publication will inspire readers to learn more about our rich, rewarding past, and to visit and experience some of Iowa's historic sites.

Before Settlement

Ten thousand years ago nomadic hunters followed game through Iowa. Later, Native Americans plied Iowa's rivers in canoes or dugouts.

Early Exploration

To French explorers *Father Jacques Marquette and Louis Joliet* traveling down the Mississippi River in 1673, the land which would become Iowa was "Pays Inconnu," the unknown land west of the great river. The explorers landed their canoes on the west bank of the Mississippi on June 25, 1673, and became the first Europeans to set foot on Iowa land, claiming it for France. The landing was near the mouth of the Iowa River in what is now Louisa County.

On April 30, 1803, the land we know as Iowa became part of the territory of the United States. It had been included in the \$15 million Louisiana Purchase transaction made with Napoleon Bonaparte in the Treaty of Paris. The average price per acre was three cents. After the purchase, President Thomas Jefferson selected *Captains Meriwether Lewis and William Clark* to lead an expedition to explore the headwaters of the Missouri River and find an overland route to the Pacific Ocean by way of the Columbia River. Their expedition (1804-06) passed along the western border of Iowa, where they explored the region and made observations about its geography, and plant and animal life. *A monument erected in 1935 on a bluff north of Council Bluffs marks the site where Lewis and Clark held council with the chiefs of the Oto and Missouri American Indian tribes. Further north, at Sioux City, a 100-foot tall monument marks the burial place of the only person to die on the historic journey. Expedition member Sergeant Charles Floyd became ill and died suddenly near present-day Sioux City. He was buried on Aug. 20, 1804, on a hill on the Iowa side of the Missouri River. Watch for the Lewis and Clark Trail signs along Interstate 29 as it follows the Missouri River in Iowa.*

In 1805 *Lieutenant Zebulon M. Pike* poled his keelboats up the Mississippi and passed the Iowa shore during the famous Pike Expedition which set out to discover the source of the Mississippi River.

Settling Along the Banks of the Mississippi

Iowa's oldest cities are found along the Mississippi River. The river towns were the commercial hubs of pioneer Iowa. Many early settlers who established these economic centers arrived by flatboat, raft or keelboat. Settlers usually built boats large enough to carry a family and all its possessions, including a few hogs, chickens and cows. Until the arrival of steamboats, keelboats were the primary means of transporting people and freight up and down the rivers. More streamlined than flatboats, keelboats had long rudders that extended from the rear of the boat; sometimes they had masts and sails.

Early Pioneers

Beyond the Mississippi, pioneers headed west on land for the new territory which had been opened in 1833. They came on foot, on horseback, in prairie schooners or in covered wagons. With no roads (and no bridges) to rely on, they followed American Indian trails in their search for a place to call home.

Navigating the Missouri and Iowa's Interior Rivers

Throughout the history of Iowa, river towns and riverboats played key roles in both transportation and economic development. However, successful travel on Iowa rivers other than the Mississippi depended on high water levels. Flatboats and barges carried supplies and navigated the **Missouri River** until the completion of the transcontinental railroad in 1869. In 1819 the *Western Engineer* (the first steamboat to pass along an Iowa border) reached Council Bluffs. In 1857 there were 46 boats operating on the Missouri. However, this waterway was difficult to navigate and obstructed by many snags.

In July 1841 Lieutenant John C. Fremont carried out a War Department survey of the **Des Moines River** (the only one which completely crosses the state) from the Racoon River fork to the point where it enters the Mississippi. From 1850 to 1865 approximately 30 steamboats traveled the Des Moines River to Fort Des Moines and, at times, even as far as Fort Dodge. However, because steamboats depended on high water levels, Congress declared in 1865 that the Des Moines River was unnavigable. After the declaration, smaller boats were used on the Des Moines River to carry supplies and grain.

In the late 1830s and early 1840s, flatboats of about 50 feet in length floated grain and other products down the **Iowa and Cedar rivers**. At one point, eight different flatboats, keelboats and barges navigated the Iowa and Cedar rivers when high waters made it possible. The first large riverboat to come to Cedar Rapids was the *Maid of Iowa*. The steamboat was the first built in Iowa and was owned by Mormon leader Joseph Smith. It carried Mormon settlers to Cedar Rapids in 1844, then went on up the Cedar River to Waterloo. A month later the steamboat left for St. Louis, loaded with wheat. It was supposed to make regular runs between the two cities, but never returned. The *Maid of Iowa* did, however, make trips on the **Skunk River**. The railroad reached Cedar Rapids in 1859 and hastened the demise of the riverboats used for commerce. The last large steamer to run in Cedar Rapids was in about 1866. Eventually, the federal government deemed the Cedar River "unnavigable" because of its shifting sandbars and shallow depths.

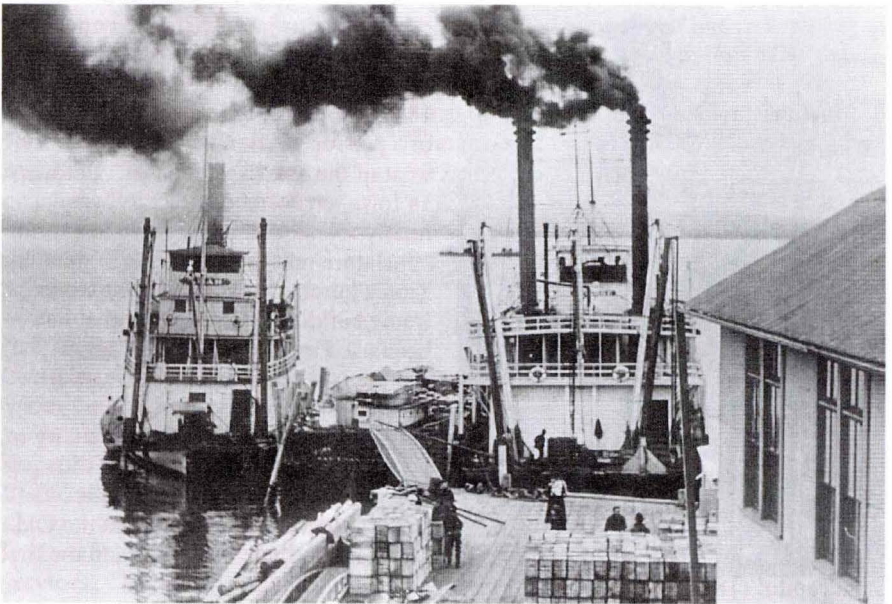
Dragon Trails

In 1835 Lieutenant Colonel Captain Stephen Watts Kearny and the First Regiment of Dragoons blazed a trail through Iowa, following the course of the Des Moines River. The Dragoons were a lightly armed cavalry organization authorized by Congress in 1833. The term "Dragoon" originated in England where it applied to certain cavalry forces. The name was taken from the word "dragon," a short, large-bored musket or carbine that was carried by these early soldiers. The Dragoons played an important part in opening the Iowa frontier, establishing what are now known as the "Dragoon Trails." *Today you can travel this scenic 200-mile corridor along the Des Moines, Boone and Racoon rivers by following the Dragoon Trail signs.*

Steamboat Era

Steamboats reigned on the Mississippi and Missouri rivers in the early to mid-19th century. The first steamboat to pass along Iowa's eastern border was the *Virginia*. In 1823 it made a round-trip between St. Louis, Missouri, and Fort Snelling, Minnesota. Often portrayed as a glamorous means of travel, steamboats had their drawbacks. For one thing, travel was limited to the basic north-south flow of the rivers. In addition, rivers were impassable for several months of the year due to ice and varying water levels, and rapids posed a problem as well. The "golden age" of the Mississippi River steamboats ended as the lumber industry diminished and railroads came to dominate transportation. *At the Mississippi River Museum in Dubuque, visitors can meet explorers, pilots and riverboat gamblers in life-size exhibits that cover 300 years of river history.*

Tales of Iowa's steamboat era are many - from snags to fires to sinking ships. Among the most notable tales is the saga of the *Bertrand*. In late March 1865 the ill-fated vessel set out from St. Louis on a journey up the Missouri River to Montana Territory. On April 1, 1865, she hit a snag in the river and sank in 12 feet of water, approximately 25 miles north of Omaha. In 1969, after years of searching for the wreck and its precious cargo of mercury, the *Bertrand* was discovered nearly intact under 30 feet of silt and clay. *The De Soto National Wildlife Refuge Visitors Center houses and displays artifacts from the famous Bertrand cargo collection.*



Steamboats on the Mississippi River at Le Claire.

Des Moines River Locks and Dams

In 1846 the federal government authorized the Des Moines River Land Grant, which was to be used for developing navigation on the Des Moines River. The sale of certain public lands was to be used to finance the construction of the locks and dams. There were to have been 28 locks and eight dams built to make the Des Moines River navigable from its mouth to the Raccoon Forks (at Des Moines), but these ambitious plans were never completed due to floods and financial problems. The money and supplies were transferred to the railroad companies to hasten the construction of railroads connecting Iowa towns.

In 1846 a massive stone masonry lock and dam was built at Bonaparte as part of the Des Moines River Project. The lock walls and dam shoulders there are the only ones remaining of the old Des Moines River Navigation Company System. Parts of the lock can still be seen in Bonaparte's historic Riverfront Park.

Early Territorial Government



The first Iowa territorial legislature met in the Old Zion Church in Burlington.

White settlement began in Iowa with the Black Hawk Purchase in 1832. On June 1, 1833, Iowa became part of the Michigan Territory. On July 4, 1836, after Michigan achieved statehood, Iowa became part of the Wisconsin Territory. The second session of the Wisconsin Territorial Legislature convened in Burlington, Iowa, in November 1837.

Finally, two years later on July 4, 1838, the Iowa Territory was carved out of a portion of the Wisconsin Territory west of the Mississippi River. Before an Iowa territorial capital city was finally selected, the first Iowa territorial legislature met in Burlington in the Old Zion Church. The original two-story frame building in Burlington that had been used by the Wisconsin Territorial Legislature had been destroyed by fire. The final location of the Iowa Territory's capital city was Iowa City in Johnson County. The capitol building, which was constructed in the early 1840s, is known today as the Old

Capitol. It served as the last capitol of the Iowa Territory (1842-1846) and the first state capitol (1846-1857).

Government Land Surveys

The government land surveys in Iowa, conducted from 1836 to 1859, began in the southeast corner of the state and proceeded to the northwest corner. The system established the one-mile grid system of roads as the land was developed and roads were opened on the section lines.

Iowa's First Territorial and Military Roads

With territorial status (1838) came the need for inland transportation routes. On Dec. 14, 1838, the first governor, Robert Lucas, approved a law requiring the establishment of a road from Keokuk to Iowa City - known as the first "official" road in the territory.

On December 31, 1838, Congress passed a bill appropriating \$20,000 for Iowa's first "military" road. Language in the bill required that the road pass through as many county seats as practical. Once signed by President Van Buren on March 3, 1839, the funding allowed Iowa's first official territorial road to be extended from its ending point in Iowa City to Dubuque.

When completed, the combined territorial and military road passed through the cities of Dubuque, Cascade, Monticello, Ivanhoe, Solon, Iowa City, Ainsworth, Crawfordsville, Mount Pleasant, Hillsboro and Keosauqua.

Primitive road building techniques were employed during the construction of the military road. Lyman Dillon, a Dubuque merchant, was employed to plow a furrow from Iowa City to Dubuque to serve as a guide for road builders. Dillon hitched his five oxen to a heavy plow and plowed a deep, straight furrow from Dubuque to Iowa City. This segment of the road was known as "Dillon's Furrow."

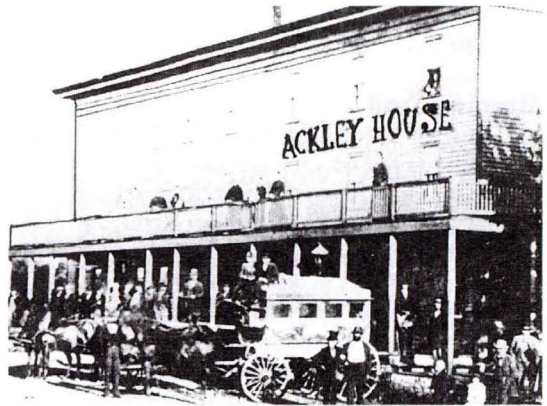
Traveling by Stagecoach

Stagecoaches made their way to Iowa to meet the need for mail delivery to western settlements. Equipped with seats for passengers, stagecoaches became a popular means of passenger travel. The first regular stagecoach line in Iowa began operating in 1838 and ran twice weekly from Burlington through Fort Madison and Montrose to

St. Francesville, Missouri - an 18-hour trip of 45 miles. The standard fare was "ten cents, per mile and a fence rail." The male passengers used the fence rail for removing "sloughed-down"

coaches. Prior to the postal laws of 1845, the mail rate on the stage for a folded single sheet delivered more than 400 miles was 25 cents. The first stages were described as "wagons without springs and with white muslin tops, drawn by two horses." Towns near stagecoach stops benefitted financially due to increased demand for lodging, meals, and livery stable and blacksmith services. Despite its popularity, many problems plagued travel by stage. Mud and plank

roads, winter blizzards, prairie fires and robberies added up to discomfort and long delays. Stages gave way to the railroad or the "Iron Horse" when smaller communities received rail connections. The last coach of the Western Stage Company left Des Moines on July 1, 1870.



Stagecoach stop at Ackley.

Territorial Road Scandal

Territorial roads were established by territorial commissioners who had the authority to locate roads virtually anywhere they pleased. By the end of the 18-year territorial road period (1838-1856), the routing of the roads rapidly degenerated into a mere scheme to acquire and influence votes and pay political debts. The practice was put to a stop in 1857 by the Third Constitutional Convention. Article 4 of Sec. 30 provided that the General Assembly shall not be involved in the laying out, opening, or working on roads or highways.

Ferries

The first license to operate a man-powered ferry crossing from Illinois into Iowa was received by James White of Hancock County, Illinois, to operate to Fort Madison. Horse-powered ferries followed in 1841. The first steam ferry was operated by John Wilson in 1852 in Davenport. The first license for regular ferry service across the Des Moines River was issued to John B. Scott, who operated the business with his brother, Willson Alexander Scott.

Balloons

The fascination with flying in Iowa dates back to the balloon era. An unmanned, gas-filled balloon flight occurred in Burlington on July 4, 1845. The first manned balloon - *Hercules* - was piloted by Professor Silas Brooks at Burlington in 1856. Following the Civil War, balloon ascensions and races were popular at fairs and city celebrations. *The National Balloon Museum in Indianola houses a collection of ballooning artifacts and memorabilia depicting the history of hot-air and gas ballooning, ballooning events and personalities.*

Statehood

On December 28, 1846, Iowa became the 29th state in the Union and the first free state west of the Mississippi.

Mormon Trail

Between 1846 and 1869, about 70,000 Mormons seeking refuge from religious persecution crossed southern Iowa using oxen-drawn wagons or handcarts. The trail started in Nauvoo, Illinois, traveled across Iowa, connected with the Great Platte River Road at the Missouri River, and ended near the Great Salt Lake in Utah. The trek by the Mormons is considered perhaps one of the single most important journeys made in America's history. This corridor became the transportation route for successive waves of emigrants, trappers, soldiers, stagecoach drivers and Pony Express riders. *The Prairie Trails Museum of Wayne County in Corydon features a Mormon Pioneer Trail exhibit with an authentic oxen-drawn wagon. Also available is a motor vehicle tour route administered by the National Park Service. The tour closely follows the trail's historic route and is marked by Mormon Pioneer National Historic Trail signs. The route begins in eastern Iowa at Montrose in Lee County (Sugar Creek Camp). It follows U.S. 218 northwest to Iowa 2, and then west to Leon in Decatur County. The route continues north on U.S. 69 to Osceola, then west on U.S. 34 to Creston, north on Iowa 25 to Greenfield, and then west on Iowa 92 to Council Bluffs.*

Pony Express Riders and ‘Buffalo Bill’ Cody

Ranked among the most remarkable exploits to come out of the American West was the Pony Express. During its brief 19 1/2 months of operation (April 1860 to November 1861), the Pony Express delivered mail and news between St. Joseph, Missouri, and San Francisco, California. Although none of the 157 Pony Express



“Buffalo Bill” Cody.

relay stations were located in Iowa, one of its most notable riders was an Iowan: Col. William F. “Buffalo Bill” Cody. The famous rider was born February 26, 1846, near Le Claire in Scott County, Iowa. The Cody family left Iowa in 1853 when Bill was a young boy. At age 14 he was employed as a Pony Express rider, one of the youngest on the line. After some months of employment, he was transferred to the Slade Division in Wyoming where he made the longest non-stop ride – from Red Buttes Station to Rocky Ridge Station and back – when he found that his relief rider had been killed. The distance of 322 miles over one of the most dangerous portions of the entire trail was completed in 21 hours and 40 minutes using 21 horses. Cody later

went on to become a soldier, buffalo hunter and owner of the Wild West Show. Cody earned his nickname “Buffalo Bill” as an efficient and skillful buffalo hunter providing meat for workers on the transcontinental railroad. He was one of the greatest showmen of his day, bringing the thrill of America’s Wild West to the world. Cody died on Jan. 10, 1917, at the home of his sister in Denver, Colorado. *Visit the Cody homestead in Princeton and the Buffalo Bill Museum in Le Claire for an insightful look back in time.*

Plank Roads

Construction of the first plank road in Iowa was authorized by the Second General Assembly. The initial project was to be 94 miles of graded toll road from Bloomington (Muscatine) in Muscatine County to Tipton in Cedar County, and on to the county seat of Benton County (later described as Vinton). During the years 1849-1851, the General Assembly authorized nearly 600 miles of plank roadway in the state. However, no more than 50 miles was actually built. Failing to generate the expected revenue (the toll for a wagon drawn by two horses was 2 1/2 cents per mile), the era of the plank road in Iowa ended by 1860. A notable leader in the movement for the plank road was James Wilson Grimes (1816-1872), a Whig from Des Moines County. He worked for the establishment of a plank road to Mount Pleasant before he became governor of Iowa (1854-1858). The Iowa General Assembly did authorize construction of three plank roads radiating from Burlington in 1849. One of those was completed in 1851 as far west as Mount Pleasant.

First Railroad Bridge

In 1853 the Railroad Bridge Company was authorized to build, maintain and use a railroad bridge across the Mississippi River near Rock Island, Illinois. The bridge was completed April 14, 1856. The first train, a locomotive and eight cars, crossed it two weeks later on April 22, 1856. Within less than a month, on May 6, 1856, the steamboat *Effie Afton* hit the bridge. The boat caught fire and was destroyed. A part of the bridge was destroyed as well, putting it out of commission for months. The steamboat company sued the railroad, calling the bridge a river hazard. Defending the railroad company was a young attorney from Illinois: Abraham Lincoln. The first trial ended in a hung jury, but subsequent lawsuits and appeals ended with the railroad company victorious, and the trains were allowed to continue to cross the Mississippi River. After this bridge was built, steamboats played a subordinate role to the railroads. *The bridge has been removed, but the site is still identified by markers.*

Wooden Covered Bridges

Wooden covered bridges were built in Iowa between 1855 and 1884. The bridges were roofed to keep the rain, snow and ice off the flooring and beams, thus preventing rotting of the wood and prolonging their life. Young couples found them a romantic place to slowly ride through in a buggy which led to calling them "kissing bridges." *Scattered across the countryside of Madison County near Winterset are six of Iowa's historic covered bridges. A Covered Bridge Festival is held in Winterset in early October each year. Other original bridges in Iowa are located in Keokuk, Marion and Polk counties.*

Early Railroad Era

The early railroad era in Iowa was filled with railroads chartered but not built; bankruptcies, insolvencies and reorganizations of many that *were* built; and lines that were named and renamed time after time. By 1860 there was 655 miles of trackage built in Iowa. Railroads made significant contributions toward develop-



Train station at Okoboji.

ment of permanent communities in Iowa. In 1867 the first railroad that traversed the state to the Missouri River was completed. By the early 1870s railroads had significantly altered the economic structure of Iowa. As a growing state, Iowa had emerged from its era of subsistence farming to become a commercial farming state. *Iowans and visitors are encouraged to stop and enjoy the numerous railroad attractions in Iowa including museums, excursions, displays and restored depots.*

The Great Road

As the pioneers traveled west across the Iowa prairie they often became lost. To help these westbound travelers, two men in 1856 plowed a pathway from Sioux City to Webster City. This path became known as "The Great Road." *The portion of U.S. 20 between Webster City and Sioux City closely follows the old pathway.*

First Transcontinental Railroad

On July 1, 1862, President Abraham Lincoln signed the Pacific Railroad Enabling Act, under which the Union Pacific was chartered and the building of the first transcontinental railroad was authorized. Construction of the railway began in December 1863. It ran westward from Council Bluffs across the plains and over the Rocky Mountains. In 1866 General Grenville Mellen Dodge (1833-1916) of



General Dodge.

Council Bluffs resigned his military commission to accept an appointment to serve as chief engineer for the Union Pacific Railway. Dodge succeeded his friend, former employer, notable surveyor and fellow Iowan Peter Dey, who had resigned from the position. On May 10, 1869, the Union Pacific Railroad and the Central Pacific Railroad (built eastward from Sacramento, California) met at Promontory Point, Utah, to complete the first transcontinental railroad. Although Council Bluffs, Iowa, was designated by President Abraham Lincoln on November 17, 1863, as the railroad's eastern terminus, train service between that city and Omaha was not available until completion of the first railroad bridge (single track) across the Missouri River in 1872. Prior to that time, freight and passengers were ferried across the river. *Grenville Dodge was one of Iowa's foremost citizens and one of the nation's greatest railroad builders. He began his career as a surveyor for the Illinois Central Railroad in 1851. From 1855 to 1861 he supervised railroad construction in Iowa. During the Civil War Dodge built roads, bridges and railroad lines*

for the Union Army. He died in Council Bluffs and is buried in a tomb in Walnut Hill Cemetery. The Grenville M. Dodge House built in 1869 was designated a National Historic Site in 1963. The Iowa National Guard's training campground, Camp Dodge, was named in honor of General Dodge.

Early Road Building (1860-1900)

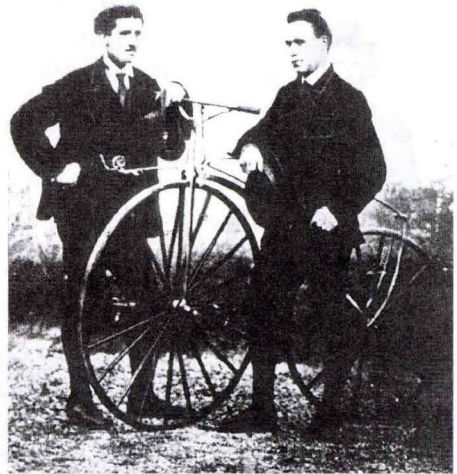
Most of Iowa's roads were opened for travel by township trustees who graded ditches and did some dragging of the roadway bed to form a primitive grade. There was little road grading during these early years. Plans were seldom prepared in advance of work. Estimates of costs were unheard of. Distances were measured by "stepping off" or "wagon loads." The workers were mostly farmers working out their road tax in the easiest way possible. In 1858, male residents of townships were required to do two day's work annually upon the roads. By 1900 Iowa had 104,000 miles of road open to travel - all rural mileage was dirt. There were no motor vehicles on the roadways yet, and 20 miles of travel was a long journey for a farm team and wagon.

Horsecars

Horse- and mule-drawn streetcars traveled on iron tracks down city streets in Iowa's larger cities in the late 1860s and early 1900s. The city of Des Moines received the first franchise for a narrow-gauge horse-car line to run from the Polk County Courthouse to the foot of Capitol Hill. Speeds of four to six miles per hour were possible.

Cycling Craze

Prior to the 1860s cycling had been a fad taken up by a small number of enthusiasts. Then, almost overnight, cycling became a huge social phenomenon in the United States, France and England. During this period, people talked about "velocipedes" and "velocipeding." The words "bicycle" and "bicycling" did not come into circulation until the late 1800s. The invention stimulated a new form of recreation and style of traveling. In fact, the desire of bicycle riders and manufacturers for good cycling routes is said to have been a catalyst in Iowa's Good Roads movement.



Introduced in 1865, the Velocipede, or "fast foot" featured pedals applied directly to the front wheel.

Mississippi River Locks and Dams

The first major improvement to navigation on the Mississippi in Iowa commenced in 1867 with the construction of the Des Moines Rapids Canal near Keokuk. It was about eight miles in length and 750 feet wide in the narrowest stretches. It contained three navigation locks and cost more than \$4 million - a remarkable achievement and expenditure for its time. Bypassing the rapids, it served navigation for 35 years.

Great Train Robbery

Jesse James and his notorious gang of outlaws staged the world's first robbery on a moving train the evening of July 21, 1873. The gang had learned that \$75,000 in gold was to come through Adair, Iowa, on the recently completed Chicago, Rock Island and Pacific railroad line. When the train came along, the rail was jerked out of place, plunging the engine into the ditch. The gang members climbed into the express car, forced the guard to open the safe, but found only \$2,000 in currency. The gold shipment had been delayed. *A locomotive wheel marks the site of the robbery along county road G30 (old U.S. 6) west of Adair.*

Cessna Airplanes

Clyde Vernon Cessna (1879-1954), was born at Hawthorne, Iowa, in December 1879. During the latter part of 1880 his family moved to Kansas. Growing up, Cessna exhibited an aptitude for mechanics and became an expert at repairing farm machinery and early automobiles. In 1911 he set out to build an airplane. In the late 1920s, Cessna formed Cessna Aircraft Company of Wichita, Kansas. During his life he played an important role in the development of general aviation, and the company he founded went on to lead in the private plane market. Cessna was inducted into the National Aviation Hall of Fame in 1978.

Lorenzo Coffin

When railroad brakemen fell to their deaths in the 1880s the tragedies attracted little attention - that is until Lorenzo Coffin, a successful farmer and preacher, was appointed to the State Railroad Commission in 1883. Appalled by the high number of casualties, Coffin went to work getting laws passed, over strong railroad opposition, requiring the installation of automatic brakes and couplers on railroad cars.

Early Road Marking

In the 1800s there were no organized systems for guiding travelers crossing Iowa. Travelers often became lost. Local residents who had grown tired of giving directions made and placed many of the first road signs. At the time there were no established guidelines for naming the routes. Frequently, associations and community groups designated route names and erected their own markers. These routes carried names such as the Star Route, Red Ball Route, Tall Corn Highway and Lincoln Highway. Markers were painted on posts, poles, rocks and buildings. Eventually, there were so many different markers that travelers became almost as confused as they were before the signs went up.

Electrified Streetcars (Trolleys)

The invention of steam power and electrification soon replaced the public transit system's dependence on animal power. Electric power for use by the transportation industry was introduced by the Broad Gauge Railway Company in 1886 to operate streetcars on Locust Street and Grand Avenue in Des Moines. These first electric streetcars were put into service on December 20, 1888, becoming the second electric railway in the United States. By the beginning of the 1920s, a combination of automobile competition, poor financial condition of the streetcar industry, and an inability to meet riders' needs brought an end to this mode of transportation.

The 'Horseless Carriage' and Iowa's Automobile Builders

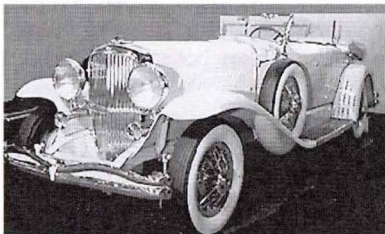
Few inventions have had more impact on 20th Century America than the automobile. For instance, as automobiles (and tractors) replaced horses, farmers devoted less and less acreage to oat production. That made room for more profitable crops such as corn and soybeans. Also, garages, filling stations and parking meters replaced blacksmith shops, livery stables and hitching posts.

The first automobiles displayed in Iowa were shown at a fair in Linn County in 1899. In 1905 there were 799 horseless carriages or motor cars in Iowa. At first they were merely regarded as a curiosity, and few people saw the practical application of such contraptions. However, by 1915 Iowa ranked first in the nation in the number of automobiles per capita (147,078 registered vehicles). By 1927 there was one motor vehicle for every 3.31 persons, and automobiles were responsible for 85 percent of total highway traffic in the state.

The following Iowans were among the first Americans to build and produce successful automobiles:

In 1892, **J.C. Duncan** gained fame when he drove his "steam wagon" from Davenport to Bettendorf.

In 1893, two Des Moines men, **Dr. Lew Arntz and William Morrison**, designed and produced a three-seated "horseless carriage" powered by 12 storage batteries. It was exhibited at the World's Fair in 1893. Although the "Morrison Electric Car" was a big hit with fairgoers, it was not a hit with car buyers since it was slow and required recharging every 50 miles.



1929 Duesenberg Model J.

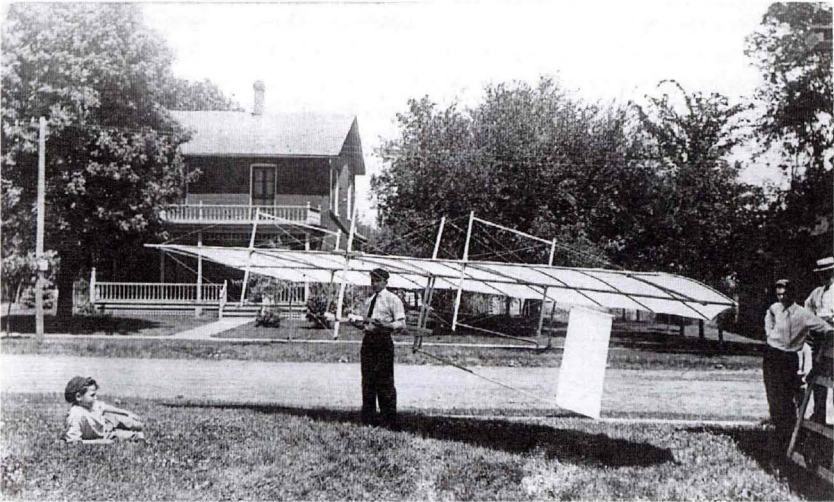
Brothers **Fred S. and August Duesenberg** (1876-1932 and 1879-1955, respectively), were German-born mechanical masterminds raised in Rockford, Iowa, in a large immigrant family. They taught themselves the principles of transportation engineering and designed and built their first car, the Marvel, in Des Moines in about 1904. The brothers then went to Indianapolis, where the Duesenberg Automobile and Motors Company was established in 1920. The custom-built Duesenberg was considered the finest car in the world. It was also the most *expensive* luxury automobile in the world, sold only to the very affluent.

William Colby, a Mason City businessman, organized the Colby Motor Co. He built a factory in 1911 in Mason City and turned out a trend-setting line of handmade autos at the rate of four per day. At its peak, the company employed 250 men at salaries of 35 cents an hour. Ultimately driven out of the market by stiff competition from Detroit, the company folded in 1915. *The only known Colby automobile is on display at the Kinney Pioneer Museum in Mason City. It is a 1911 Model D Semi-racer.*

Several other automobile manufacturing firms, many of them short-lived, also sprang up in Iowa - the **Des Moines** (1902), the **Monarch** (1907-09), the **Wells** (1910-11), and the **Cannon** (1912.) Henry Ford established a **Ford** assembly plant at 18th and Grand in Des Moines that operated from 1920 to 1932. Fred Maytag and George Mason teamed up to finance the manufacture of the **Maytag** automobile line. It has been estimated that 1,500 of the Maytag automobiles were manufactured by 1911 in Waterloo. *An original Mason-Maytag automobile is on display at the Grout Museum of History and Science in Waterloo.*

Gliders

Glider flight had been proven practical by German and American engineers. In 1898, Carl Bates, a 14-year-old from Clear Lake, built and flew the first man-carrying glider in Iowa. He also built the first monoplane glider ever flown.



Carl Sterling Bates of Clear Lake stands in front of one of the early gliders he built and flew in Iowa.

Unique Transit Projects

The Dubuque 'Incline'

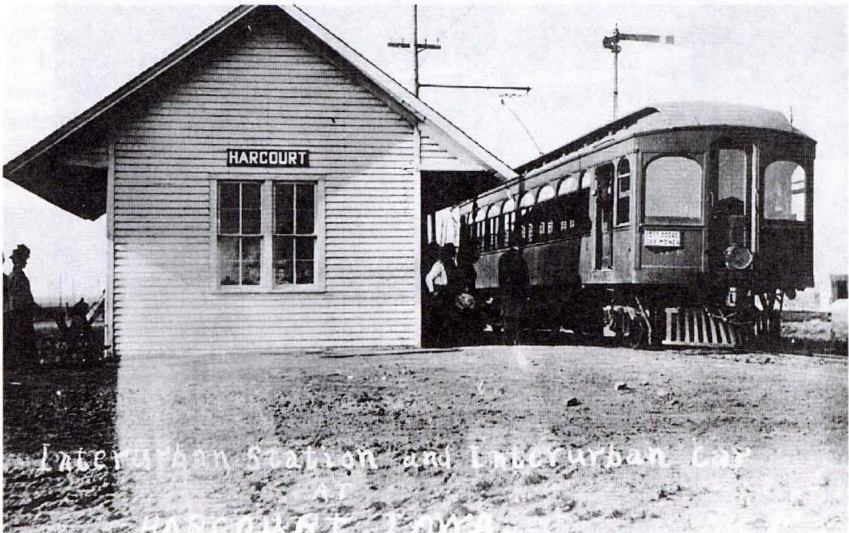
A Dubuque cable car line was built by J.K. Graves, a banker and builder of street railways. In 1882 Graves built a steam-operated cable car on an incline from Fourth and Bluff streets to the top of the hill, known after settlement as Fenelon Place. Destroyed by fire, the system was purchased by his neighbors, refurbished, and continues to operate today, using electric power.

The Sioux City Elevated

An experimental transit system, Iowa's first (and so far its last) elevated railway, attracted national attention. The third elevated system in the nation, the Rapid Transit Company opened in 1891. The Panic of 1893, however, forced many business organizations, including the Rapid Transit Company, into bankruptcy. It was later abandoned, unable to compete with the electrified street railways.

Interurbans (1898-1970)

Evolving from street railways or trolleys, interurbans connected regional cities and towns to nearby rural communities. Although many were steam powered initially, interurbans were eventually electrified. Originally providing passenger service, the interurbans expanded into freight, which was more profitable. Service peaked in 1920, thereafter succumbing to the same trends which forced abandonment of street railways. Throughout the 1920s, segments of the interurbans were abandoned, as were routes on street railway systems. There were eight remaining interurbans operating in Iowa in 1950: Tama and Toledo; Cedar Rapids and Iowa City; Des Moines and Central; Fort Dodge, Des Moines and Southern; Waterloo Railways; Charles City Western; Mason City and Clear Lake; and Southern Iowa Railways. These lines were later either abandoned or acquired by other railroad lines. The last line was acquired in 1970.



The interurban pulls into the station at Harcourt.

Kate Shelley Bridge

Known as the longest, highest, double-tracked railroad bridge in the world, the Kate Shelley Bridge opened in 1901 over the Des Moines River near Boone. It was 184 feet above the valley floor and 2,685 feet long. The bridge was named for the legendary teenage heroine of Iowa and American railroad history. Shelley's fame stemmed from her 1881 exploits in stopping the eastbound Atlantic train from running over a damaged trestle during a heavy rainstorm, and assisting in the rescue of a brakeman and engineer from an engine that had fallen into flooded Honey Creek. She was rewarded by being named station agent at Moingona by the Chicago and North Western railway. *To experience the early railroad era, visit the Kate Shelley Railroad Museum and Park located at 1198 232nd Street, Moingona, Iowa. In the restored depot, visitors can learn about the dramatic story of legendary heroine - Kate Shelley.*

Wright Brothers

Bishop Milton Wright and Susan Catharine Wright lived in Cedar Rapids from 1878 to 1881. Bishop Wright was a firm disciplinarian and official in the United Brethren Church. Together they had four sons and one daughter. Two sons, Orville and Wilbur, gained worldwide renown for their invention of the "world's first power-driven, heavier-than-air machine in which man made free, controlled and sustained flight." The invention was flown by the Wright brothers at Kitty Hawk, North Carolina, on December 17, 1903. Their "aeroplane" opened the era of aviation.

First Concrete Paved Street

Eagle Street (now named First Avenue Southwest) in Le Mars was paved in July 1904. It was the first concrete street paved in Iowa and the second in the nation. The half-block section ran from Sixth Street south to the alley (between the Union Hotel and the Kehrberg Store). Considered an experiment, it was paid for by two private sponsors, M.A. Moore of the hotel and C.H. Kehrberg, owner of the dry good store across the street. The street was laid out in six-foot diagonal squares and the riding surface was scored into four-inch squares to prevent horses from slipping.

Corn Gospel Trains

Railroads were used to further agricultural education and extension activities. Initiated by P.G. Holden, a corn breeding specialist, the Iowa "Seed Corn Gospel Trains" covered the state between 1904 and 1906. An estimated 145,700 Iowans heard the lectures about seed corn, crop rotation, manure handling and hog production.

Motor Vehicle Registration

On April 12, 1904, the 13th Iowa General Assembly first required the registration of motor vehicles and regulated their use on the highways. The registration fee was \$1. The certificate of registration was a round aluminum tag measuring 3 1/2 inches in diameter. The numbered plates were to be affixed to the front and rear of the car. In 1904, the number of motor vehicles registered in Iowa was 931.

Good Roads Trains

During 1904-1905 the Burlington and the Chicago and North Western railroads each ran "Good Road" trains over their lines in Iowa. The purpose of these demonstration train tours was to advocate the use of the split log drag, commonly known as the King Drag, on dirt roads. Promoter D. Ward King of Missouri traveled on the trains to instruct local residents on the construction and use of his drag. The drag created a crowned and hardened surface that provided better drainage and a smoother surface. The drag consisted of two 10- or 12-foot half logs or planks secured to each other by iron straps and pulled by a horse.

Rules of the Road

In 1904 the speed limit in the business sections of Iowa towns and villages was "not to exceed one mile in six minutes." In the outer limits of towns the rate was "one mile in four minutes," and in the country districts, speed was limited to "20 miles per hour." Good brakes, a horn and lamp were required on all motor vehicles. Drivers of cars were required to stop to allow teams of horses to pass and, when necessary, to assist drivers by leading the horses past the motor vehicles. In 1911 the 34th Iowa General Assembly changed the speed limit to a guideline of "care and prudence" on the part of the driver, with a maximum of 25 mph. The minimum age limit of operators was also established in 1911 at 15 years of age.

The Highway Commission

A legislative act by the 30th Iowa General Assembly, signed by Governor A.B. Cummins on April 13, 1904, declared that "Iowa State College at Ames, shall act as a highway commission." The primary purpose was to provide a bureau of information. The first principal work was to make a general study of the road problem in Iowa. This work was assigned to the divisions of Engineering and Agriculture. Thus, Anson Marston, dean of engineering, and C.F. Curtiss, dean of agriculture, became the first Iowa highway commissioners. Although handicapped by a lack of funds, the commissioners were charged with devising and adopting highway plans, conducting highway construction demonstrations, disseminating information to county supervisors, and keeping a record of all important operations. In July 1911 the entire highway commission staff consisted of three full-time and two part-time employees who received their salaries from Iowa State College. This arrangement prevailed until 1913.

Unfortunate Fame

An attorney from Hampton, F. D. Harriman, gained an unfortunate place in Iowa history on the night of September 29, 1905, when he became the first person in the state to be killed in an automobile accident. His vehicle was speeding along at 30 mph when Harriman lost control while coming down a hill. The car hit a bridge and plunged, with its passengers, into the ditch. Harriman was killed.

Tourist Road Routes

In 1913 an act of the 35th Iowa General Assembly provided for the registration of tourist routes. The act permitted volunteer organizations to sponsor certain roads and register them, thus protecting the routing, the marker design and color, and the wording of their particular road slogans. The River-to-River Road from Davenport to Council Bluffs through Des Moines, organized in 1908-09, was the first and perhaps best known of these routes. Increasing to more than 100 in number before passing out of existence, these organizations performed a valuable service of bolstering road improvement.

Motorcycles

Motorcycles came under the jurisdiction of Iowa law on February 26, 1909. The required registration fee of \$2 was also established.

Iowa's First Plane Flight

Arthur J. Hartman piloted Iowa's first "aeroplane" flight which took place on the fairway of the old Burlington Country Club. The plane rose 10 feet into the air before coming down so hard that it damaged the undercarriage. According to records, some 46 flights by 23 aviators were made over different cities in Iowa during the years between 1910 and 1911.

State Highway Use Tax

In 1911 the legislature established Iowa's first highway use tax. Annual vehicle registration fees were established. (Electric or steam-powered motor vehicles, \$15; motor bicycles or motorcycles, \$3.) Fifteen percent of the funds collected went to the state treasury; the remainder was apportioned among several counties. The funds were to be used only for highways.

Passenger Bus

In April 1911 the Red Ball Transportation Company opened the first regular passenger bus line in Iowa, operating between Charles City and Waverly. Two days after opening, heavy rains washed out the road and bus service was suspended for the following five weeks.

The 'Three-Member' Iowa State Highway Commission

On April 9, 1913, in response to an act of the 35th Iowa General Assembly, the Iowa Highway Commission was separated from the Iowa State College, becoming a separate entity: a three-member "Iowa State Highway Commission." The commission then appointed the chief engineer as the chief executive, responsible for organizational and technical details. The newly created commission was given control over all county and township road officials. However, the law continued to allow county supervisors and township trustees to be in charge of the roads and funds under the supervisory control of the commission. The Iowa State Highway Commission ended its 62-year existence in 1975 with the creation of the Iowa Department of Transportation.

National Transportation Leaders

Several Iowans made significant contributions to modern highway engineering and construction. For nearly 50 years, from 1900-1950, Thomas H. MacDonald and Fred R. White helped set the state and national direction in this field.

Thomas H. MacDonald was born in Leadville, Colo., on July 23, 1881, but was raised in Montezuma, Iowa. He was employed by the Iowa Highway Commission in 1904 after receiving a civil engineering degree from Iowa State College. His senior thesis was written on the topic of the "Good Roads" problem in Iowa. MacDonald was named chief engineer for the Iowa State Highway Commission in 1913, serving until 1919.

When he first joined the Iowa Highway Commission in 1904, MacDonald was its only full-time employee and oversaw its limited responsibilities. When he left in 1919, the commission had 156 employees, an annual payroll of more than \$100,000, and provided oversight for the state's primary road system.

On July 1, 1919, MacDonald was appointed chief engineer of the U.S. Bureau of Public Roads in Washington, D.C. He headed that agency until 1953, leading the nation in highway research and planning. He was awarded the Medal of Merit by President Harry Truman for outstanding service during World War II.

Fred R. White grew up in Iowa and received his degree from Iowa State College in 1907. He served as chief engineer for the Iowa State Highway Commission for 33 years, from 1919 until retirement in 1952. His record of accomplishments in highway progress is well-documented, both on the state and national levels. White guided the commission through hard-surfaced paving, the Great Depression and World War II.

Keokuk Dam

One section of the Upper Mississippi River that required more than a wing dam to facilitate shipping was at the Des Moines River Rapids at Keokuk. In 1913 a lock and dam was constructed there, which deepened the river channel for 50 miles upstream and created a pool which covered the rapids and even the canal which had been dug to bypass them.

American Record Setter

One of the most famous flyers of this early period was **William "Billy" C. Robinson** of Grinnell, who was internationally recognized for piloting mail planes in Canada, and was well known in central Iowa as well. His most successful exploit, a non-stop mail flight from Des Moines to Chicago, was sponsored by the *Des Moines Capital and Chicago Tribune* in 1914. Weather conditions and a fuel shortage cut the flight short, but Robinson flew a distance of 300 miles, exceeding the American record by 125 miles. While attempting to break the altitude record, he crashed and was killed. *The engine of the ill-fated plane is preserved in the museum at Grinnell College.*

An Aviation 'First'

In the early 1920s J. Herman Banning (originally from Oklahoma) went to Chicago with the dream of becoming a pilot. When he tried to enter aviation school, no school would admit him because of his race. So he took lessons from Ray Fisher of Des Moines and moved to Ames to attend Iowa State College. Banning became the first black citizen to receive a pilot's license from the government - number 1324.

Martin Bomber

Glen Luther Martin (1886-1955), born Jan. 17, 1886, in Macksburg, Iowa, was one of America's pioneer aircraft builders. Becoming a leading military plane manufacturer, he developed the "Martin Bomber." A familiar sight on the battlefield, it played an important part in the Allied victory in World War II. Before he turned to manufacturing planes (1910-14), Martin was also one of the country's best known "barnstormers." Martin was inducted into the National Aviation Hall of Fame in 1966.



Martin B-26B "Marauder" Bomber.

Barge Line

Except for the Diamond Joe Line of the past, the only barge line located in Iowa is owned by the Alter Company. It was organized by Frank R. Alter in Davenport in 1916. *Still in existence today, the company has terminals in New Orleans, St. Paul, La Crosse, and at its main base in Davenport.*

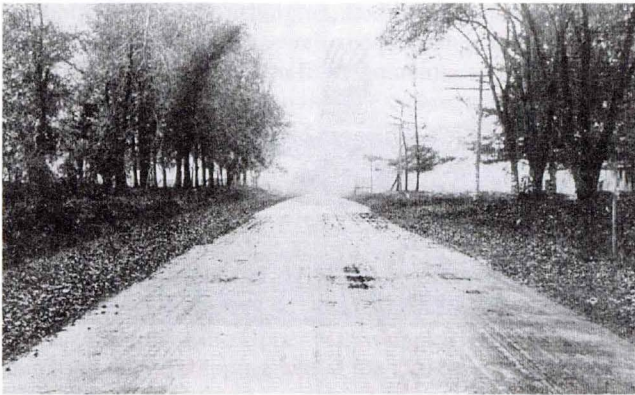
'Gravel Bees'

From 1916-17 it was common practice for communities wanting to improve roads leading into market centers to sponsor what were known as "gravel bees." For these events, a superintendent was selected for the day and citizens either came in person and worked, or donated funds which were used to employ someone else to do the work for them. At times, 200-300 people with horse or mule teams and road working equipment gathered to put the more important roads into good condition.

First Acceptance of Federal Aid for Roadways- First Mile of Concrete Highway

In 1916 Congress appropriated \$75 million in federal aid for road building. The money was apportioned among the states over a period of five years. Iowa's allotment was \$146,000 per year. The federal aid had to be matched dollar for dollar by the state. To meet this requirement, the state treasurer set aside an amount equal to the federal allotment from the motor vehicle registration fund. In 1917 northern Iowa received the first benefits of these federal funds - **Federal Aid Paving Project No. 1**. The money was used to construct four and one-half miles of a 16-foot wide, portland cement concrete section of road between Mason City and Clear Lake, near what is now U.S. 18.

Construction began September 12, 1913, and was completed October 9, 1913, starting west of Mason City at the entrance to the Cerro Gordo County Home, and running east one mile.



The first mile of concrete road in the state, poured in 1913, on the route of what is now U.S. 18 between Clear Lake and Mason City.

Impact of World War I

In April 1917 the United States declared war on Germany. For the rest of that year and until the armistice in November 1918, Iowans felt the impact of World War I, including an effect on roads. For instance, the labor shortage curtailed even basic maintenance activities. Construction work during this period was greatly hampered since the engineering force was diminished, steel was commandeered and road building materials in general were high in price. Because of the difficulty of securing draftsmen, a Women's Drafting Department was established in 1918 by the Iowa State Highway Commission. Twenty young women were trained in mechanical drawing, and within a few weeks were able to trace plans for actual use. From the initial group of women, 10 were retained permanently, under a female supervisor. Highway commission member Anson Marston was commissioned as a major in the Iowa Engineers on October 16, 1917. As a lieutenant colonel, Marston returned to Ames following the close of the World War and resumed his duties as dean of engineering at Iowa State College and as a Highway Commissioner. When the war ended, the federal government had on hand vast quantities of equipment suitable for roadwork. Iowa received 228 motor trucks, 29 Ford automobiles, 13 tractors, 2 concrete mixers, 3 road graders and miscellaneous tools and supplies.

First Iowa Road Map

Iowa's first official road map was completed in 1919. The map showed the 6,000-mile inter-county federal aid road system which the legislature had authorized the Highway Commission to select. The map also showed the 10,000-mile county system and the 88,000-mile township system. An example of the traffic rate at that time, an average of 300 vehicles per day traveled on county roads. The maps were prepared by the commission's Women's Drafting Department. The data used was from various government maps, and also from the collection of detailed field information. Prior to this time motorists relied on travel guides like the "blue book" published by private concerns which used their own maps and numbering systems.

Iowa's Primary Road System

The 38th Iowa General Assembly gave Iowa a big boost toward road improvement in 1919. The legislature envisioned a state road system of approximately 6,400 miles of hard-surfaced roads distributed among the 99 counties - officially known as the "Primary Road System." It linked nearly every county seat with towns of 1,000 or more population. The law also established a Primary Road Fund to finance construction and maintenance, and a comprehensive plan by which the entire system was to be improved.

Bonds for Roads

The passage of the Primary Road Law also authorized any county in the state to vote on the issuance of bonds to speed up the improvement of the primary roads in that county. Black Hawk County was the first to hold an election, on June 3, 1919, with a favorable majority approving \$1.5 million in bonds to hard-surface the county's primary road system. County after county followed suit, and before they were through virtually all had voted and issued such bonds. In other words, the counties - not the state or federal government - were going in debt to pay for these primary road system costs. The last of the bonds was retired on July 1, 1950.

World Famous Aviators

Three internationally famous pilots are linked to early Iowa aviation history.

Clarence Duncan Chamberlain (1893-1976), born in Denison, Iowa, in 1893, captured the nonstop, long-distance record by flying from New York to Berlin, and was the first to fly a paying passenger across the Atlantic Ocean. In April 1927, at age 34, Chamberlain gained world-wide fame by breaking the world endurance record in his Bellanca monoplane: he stayed in the air 51 hours and 11 minutes. This was six hours beyond the world's nonstop record and 10 hours longer than Charles Lindbergh's historic nonstop flight to Paris. In 1976 Chamberlain was inducted into the National Aviation Hall of Fame.

Charles Augustus Lindbergh (1902-1974) flew in and out of many locations in Iowa and dedicated several airports. During August 1927 Lindbergh visited several Iowa cities on a nationwide tour sponsored by the Daniel Guggenheim Fund which was established to promote aeronautics. On a stop at the Moline, Illinois, airport on August 19, 1927, the citizens of Davenport, Rock Island, Moline and East Moline presented Lindbergh with a ring symbolizing their admiration for the famous aviator.

Amelia Mary Earhart (1897-1937?), America's famous aviatrix, moved to



Amelia Earhart.

Des Moines in 1908 as a young girl. At age 10 she saw her first airplane at the Iowa State Fair. She left Des Moines in 1914 and moved to Chicago. In October 1922 Earhart began participating in record-breaking attempts and set a women's altitude record of 14,000 feet. She was the first woman to fly across the Atlantic (June 1928) and made the first solo flight from the Atlantic to the Pacific Coast (September 1928). Shortly thereafter she visited several Iowa towns on a series of lecture tours. In 1929 she formed the now-famous women pilots' organization, the Ninety-Nines. In 1932 she was the first woman to successfully make a solo flight across the Atlantic. In 1935 she made a trans-Pacific flight from Hawaii to California. On June 1, 1937, she began her attempt to become the first woman to fly around the world. On July 2, 1937, her last voice transmission was heard, "KHAQQ calling Itasca. (U.S. Coast Guard cutter) We must be on you but cannot see you... gas is running low..." The fate of Amelia Earhart has fascinated Americans since she and her navigator, Fred Noonan, disappeared during that flight. Some believe the two drowned because their plane ran out of fuel. Others believe they were killed or captured by the Japanese. But there is no firm evidence to prove any of the theories.

First Commercial Air Freight Flights to Iowa

The Iowa City airport was the first in the state to be used on the Chicago-to-Omaha commercial air freight route. On Jan. 8, 1920, the first consignment was transported: 400 pounds of mail for Omaha and meat for a banquet in honor of General John Pershing. On the return trip, the plane carried a hog for a banquet at the Congress Hotel in Chicago.

U.S. Airmail

In May 1920 the first regular consignment of U.S. airmail reached Iowa City. The package contained a motion picture destined for Maquoketa. Iowa City became a stop on the second leg (Chicago-to-Omaha) of the east-west transcontinental air route.

John Woodward

In 1920 John Percy Woodward, a Mitchellville native, was the first Iowan to fly mail on a scheduled route. He crashed on November 7, 1920, in a blinding snowstorm near Cheyenne, Wyoming. Woodward Airport at Salt Lake City was named in his honor.

Highway Safety

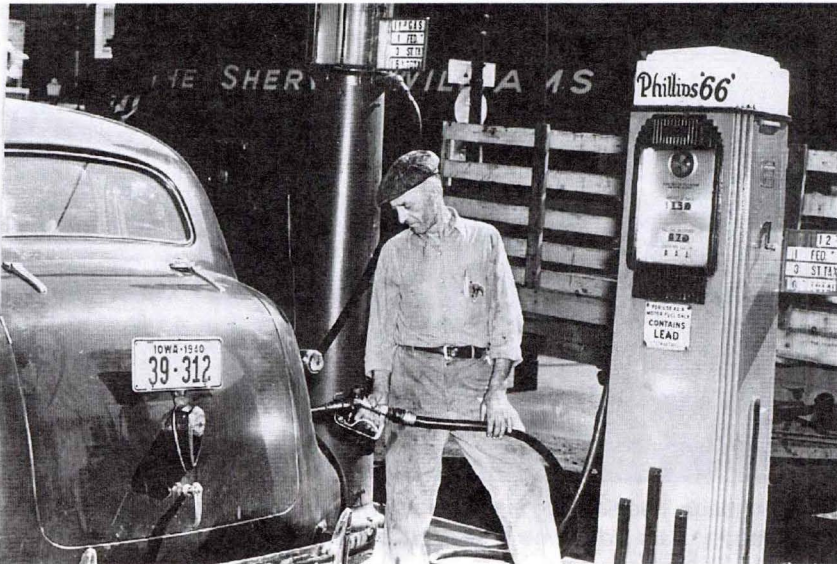
For safety reasons, legislative and Highway Commission directives in 1921 were issued relative to glaring headlights. Plain lenses were banned. Painting a portion of plain glass to obstruct offending rays of light was most common. Some motorists used froth from foaming beer, smearing it over the glass and allowing it to dry. However, the practice ended when Prohibition was enacted (Jan. 16, 1920), prohibiting the manufacture and sale of alcohol.

First Gasoline Tax

A gasoline tax was recommended by the Highway Commission in its 1922 annual report. This was the first official mention of the gasoline tax in Iowa. A bill to impose such a tax passed both the Iowa House and Senate, but was vetoed by Governor N.E. Kendall as unconstitutional. In 1925 the matter came before Iowa's 41st General Assembly, where legislators passed the first motor vehicle fuel tax bill which did become a law in the state of Iowa. The law levied two cents per gallon on gasoline sold for use in the state. Revenues were split three ways: one-third to the primary road fund, one-third to the counties for county roads, and one-third for township roads.

Numbering License Plates

In January 1922 every Iowa county was given an individual prefix number for its license plates. This prefix was followed by a dash and the number assigned to the individual motor vehicle. These early plates used black numbers on a white background, a color scheme selected by Iowa and five other states.



License plate, 1940.

Iowa State Highway Commission Building

Promptly after the 40th Iowa General Assembly directed the Iowa State Highway Commission to construct an office building, the citizens of Ames raised \$16,500 for the purchase of five acres of land west of the Des Moines branch of the Chicago and North Western railroad lying along the Lincoln Highway. The tract was presented to the state and leased for seven years in 1922 with the option to purchase 18 acres after two years. The original Highway Commission building was completed in 1923 and occupied June 1, 1924. On December 1, 1924, the employees on the Commission force numbered 255. Of those, 103 were engaged in construction work.

Coming 'Out of the Mud'

Before hard-surfaced roads, Iowa was an island of mud. When it rained, Iowa's rich soil became a sticky quagmire. Iowa's roads gained a national reputation that caused interstate travelers to avoid the state. The 1924 edition of the *Official Road Guide to the Lincoln Highway* warned, "It is a folly to try to drive on Iowa dirt roads, during or immediately after a heavy rain. Time will not be saved by attempting it."

Early earthen roads were improved by dragging crudely built wooden blades behind a team of horses. The drag smoothed the surface of the road after it rained, filling in ruts and creating a center crown to shed water. But this was a never-ending task.



Before good roads, people living in the country mostly walked or used a horse and buggy or wagon. Cars didn't always start, were often jacked up, and the roads were too bad for cars, anyway.

By the mid 1920s the automobile was here to stay and getting Iowa “Out of the Mud” was a necessity. The Highway Commission started a push toward surfacing the roadways. And this was an opportune time, since grading and hauling granular material provided jobs for farmers who were hit hard by the Depression. Iowa’s big push lasted until World War II put a halt to major road construction.

Billboards and Advertising Signs

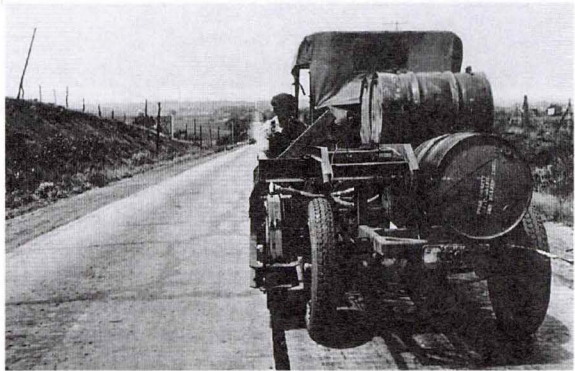
Billboards and advertising signs were banned from the right-of-way in 1924 because they interfered with safe views of highways and distracted motorists’ attention from warning signs. County supervisors and attorneys were charged with enforcement.

U.S. Route Numbering System

In 1925 Congress approved a national road numbering plan of U.S. routes to alleviate confusion created by the increasing number of major routes which bore names that changed from state to state. Thomas MacDonald and Fred White of the Highway Commission played a prominent role in formulating the U.S. numbering system. The work of renumbering and remarking the U.S. routes was completed in 1926. Highways were numbered with even numbers running east and west, and odd numbers running north and south. The standard federal marker consists of a U.S. shield bearing the name of the state and the road number. The familiar black and white shields have guided American motorists ever since.

Black Center Lines

To reduce head-on collisions when cars moved too close to the center of the road, in 1926 Iowa began painting a center black line on every mile of primary road pavement as a reminder that vehicles should be on the right-hand side of the road. In 1954, the continuous black center line was replaced with a dashed, white-reflectorized line and yellow no-passing lines on all heavily traveled roads.



Black lines being painted on the roadway.

Iowa's Primary Highway Route Numbering System

In 1926, after the U.S. route numbering system was established, Iowa went to work establishing its own numbering system for primary roads. The intent was to establish a system that did not duplicate the federal route numbers. A standard symbol, a black-and-white circular sign with the word "Iowa" on the top and road number on the bottom two-thirds, was adopted. Each main traveled road was given a specific number. That number was painted on telegraph poles or specially built poles at intersections, corners and crossroads. This system replaced the numerous registered route markings and names.



Iowa's primary highway route numbering system replaced markings such as these.

First Primary Road Law

An important step in the highway legislative progress was made by the 41st Iowa General Assembly when it turned over to the Highway Commission the maintenance of the primary road system. The Primary Road Law of 1924 removed all authority over maintenance from the county boards of supervisors who had previously been in full control of this work. Funds necessary to carry out this maintenance were given to the Highway Commission.

Primary and Secondary Roads

The Primary Road Act of 1927 divided Iowa roads into two systems, primary and secondary. The primary roads included those main market roads that connected all county seat towns, cities, and main market centers. Secondary roads were all public highways except primary roads, state roads and highways within cities and towns. This forward-looking act remains on the statutes of Iowa today.

Iowa's First Commercial Airline Passenger Flight

Iowa's first commercial airline passenger flight occurred when a single-engine Boeing mail and passenger biplane carried one passenger - Jane Eads, a 20-year-old reporter for the *Chicago Herald*. She flew from Maywood, Illinois, to Iowa City in 1927. The plane was piloted by Ira A. Biffle of Lincoln, Nebraska, who was Charles Lindbergh's first instructor.

Five-Member Highway Commission

The law creating the Iowa State Highway Commission was changed in 1927 by the 42nd Iowa General Assembly to increase to five the number of members of the Highway Commission. All members were to be appointed by the governor and confirmed by the Senate, with no more than three members coming from the same political party.

'Good News'

In 1928 the *Des Moines Register and Tribune* purchased a five-person Fairchild cabin monoplane. This was the first privately owned plane of its class in the country, and the first airplane owned and operated by any newspaper in the United States with a pilot on full-time pay. The plane's name, "Good News," was selected through a statewide contest in which thousands of people participated. In addition to serving as a means of getting photographs and stories to readers as quickly as possible, the plane promoted better aviation and airports in Iowa.

First Scheduled Airline in Iowa

Midwest Airways Corporation, owned by Cedar Falls native John Livingston, operated the first scheduled airline in Iowa, flying between Waterloo and Des Moines. The service began in 1928 and the price for a round trip was \$18. Regulation of commercial airlines began in 1938.

First Asphalt Paving Job

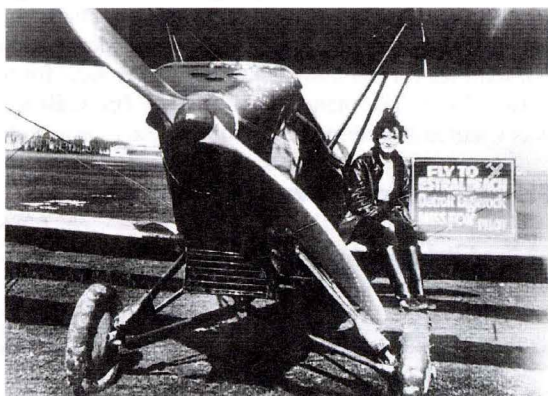
Iowa's first paving job using asphalt concrete was completed in 1928. The contractor required that a "royalty" fee be paid on the project. Fred White, chief engineer for the Highway Commission at that time, said the payment of royalty fees by the highway department would never happen again. Thus, it wasn't until the 1950s that asphalt concrete was again considered for use on primary roads through the regular state construction lettings.

Traffic Weight and Motor Vehicle Regulation

A special session of the 43rd Iowa General Assembly held in 1929 gave authority to the Highway Commission to regulate traffic loads on the primary roads and to vary these in accordance with seasonal changes. The Commission was also authorized to establish traffic rules governing the use of motor vehicles on the primary roads.

First Iowa Woman to Earn a Pilot's License

Ila Fox, the first woman born in Iowa to earn a pilot's license, was one of twin girls born at Callender in 1904. On September 1, 1929, Fox received private pilot's license number 7738, the first issued to an Iowa woman. Soon thereafter she received a letter from Amelia Earhart asking her to join a new organization for women pilots. She agreed and became a charter member of the famous Ninety Nines.



Ila Fox, the first woman born in Iowa to earn a pilot's license.

Iowan Becomes First Stewardess

Cresco native Ellen Church became the first airline stewardess in the country. She had approached the traffic manager of Boeing Air Transport (United Air Lines) with her idea of hiring nurses to serve passengers. Still somewhat skeptical of the idea, the board of directors did hire Church as the chief stewardess. Church subsequently hired seven more nurses and helped design their uniforms. The women began working on May 15, 1930.

Mud Jack

In the late 1920s Iowa State Highway Commission mechanic John Poulter invented a device to raise pavements through hydraulic pressure. Initial use of the mud jack took place in the Burlington area and was included in a commission report dated December 1930. The machine forced a slurry of earth, water and portland cement through pre-drilled holes in the pavement. A national report about the invention led to commercial production of the "mud pump," or "mud jack," by National Equipment Company of Milwaukee, Wisconsin. The process proved effective because it allowed traffic to continue on an adjacent section of the pavement while the mud jack worked.

Streamlined Passenger Trains

What was probably the most glamorous and profitable period of railroad passenger service in Iowa began in the 1930s and 1940s with the introduction of the diesel-powered lightweight streamlined passenger trains. It ended in the 1960s. The sleek cars offered luxurious amenities such as airconditioning, reclining seats, sleepers, buffets, and adjustable footrests. Popular streamliners that served Iowa during this period included the Burlington "Zephyrs," Rock Island "Rockets," Chicago & North Western "Gold Coast," and the "Land of Corn."

Locks, Dams and Channels on the Mississippi River

Recognizing the tremendous potential of inland waterways, on July 3, 1930, Congress authorized the U.S. Army Corps of Engineers to make the Upper Mississippi a commercial waterway. Within 10 years (1930-40) 24 low-level dams were built and the nine-foot channel was completed, opening a new era in the life of the Upper Mississippi River.

Driver License Issuance

In 1931 the Secretary of State was given the responsibility of issuing Iowa driver licenses. In 1938 the Iowa Legislature shifted that duty to the Iowa Highway Patrol. In 1975, the legislature again shifted responsibility, this time to the Iowa Department of Transportation.

Pipelines

Pipelines moving liquid products began service in the early 1930s. The Great Lakes Pipeline System (now the Williams Pipeline Company) was the first "products" line approved for construction in 1931, with terminals at Des Moines, Omaha and later at Coralville.

Highway Safety Patrol

Convinced something had to be done about highway safety, Mrs. Alex Miller, a popular Iowa Secretary of State, did something for which she had no legislative authority by creating a highway patrol. In 1934 she converted a group of 15 motor vehicle inspectors on her payroll into an organization to combat "Road Hogs, Drunken Drivers, Excessive Speeders and Unsafe Cars." Since there were no funds available, officers furnished their own uniforms. John Hattery of Nevada was the first patrol chief. He was paid \$200 per month and was required to work 72 hours per week. In 1939, the legislature transferred the patrol from the Secretary of State's office to a new Public Safety Department.

First Paved Transcontinental Highway

The Lincoln Highway became the first paved transcontinental highway in 1935. The roadway was started in 1913 and spanned the continent from New York City's Times Square to Lincoln Park in San Francisco. It passed through 12 states, including Iowa, and was designated an "official automobile route." The 3,389-mile route was originally little more than a one-lane dirt road, and it offered travelers few comforts and plenty of adventure. The Lincoln Highway was renamed U.S. 30 when the U.S. route numbering system was adopted.

Wartime Conditions

The entry of the United States into the Second World War in the 1940s brought many obstacles and some bright spots to Iowa's transportation system. Manufacture of automobiles was prohibited as plants converted to production of tanks, aircraft engines and ordnance. Tires were rationed and recapped to conserve the supply. States were requested to reduce highway speeds to 35 miles per hour to save rubber, fuel and engine wear. Severe shortages forced gasoline rationing. Highway traffic declined by 35 to 40 percent. On the bright side, railroad revenues tripled between 1940 and 1944.

Reasonable and Proper

In 1942 an Iowa constitutional amendment was adopted and the speed limit was defined as "reasonable and proper."

Highway Construction Curtailed

By April 1942 the federal War Production Board stopped all *new* highway construction in excess of \$5,000, unless certified as essential to the war effort. Five highways leading to Iowa's war installations qualified: the Iowa Ordnance Plant near Burlington, the Des Moines Ordnance Plant near Ankeny, the Sioux City Air Base, the Federal Hospital near Clinton, and the Naval Training Base near Ottumwa.

Alaska-Canadian Military Highway

As World War II escalated, construction contractors throughout America were called upon to serve the needs of the war. Several Iowa contractors played an important role in the war effort diverting their efforts away from Iowa to build the Alaska portion of the Alaska-Canadian Military Highway. At the peak in 1942, a workforce of 1,200 people endured the bleak and wintry weather some 3,600 miles from home. Working around the clock from August to December 1941, Iowa contractors (known as The Alaska Highway Expeditionary Force) built some 250 miles of the highway.

World's First Slipform Paver

One of the most important events in Iowa's highway construction history came in 1947 when engineers experimented with the invention of a revolution-



ary device: the slipform paver. Highway Commission laboratory chief James Johnson developed the slipform paver, which placed concrete slabs without the use of side forms or supports. This

The world's first slipform paver, developed by Highway Commission lab chief James Johnson in the late 1940s.

process allowed pavers to place and finish more than one mile of concrete highway per day. By 1955 commercial firms had built a functional slipform paver and national acceptance for its use was gained.

Highway Research

From 1913 through 1949, highway research was conducted on an informal basis and was geared to individual projects. In 1950 the Iowa State Highway Commission organized the Highway Research Board whose members included the deans of engineering at the State University (University of Iowa), and the Iowa State College (Iowa State University), six county engineers and three members of the Highway Commission. *The Iowa Highway Research Board continues to direct and recommend transportation research today.*

Korean War Impact

1951 was a difficult year for road building and maintenance. Steel and cement shortages resulted from the Korean War, and the national rearmament prevented initiation of paving and bridge projects and completion of others. The situation did not improve materially until 1953.

Ice Removal

In the winter of 1953-54, salt was first used experimentally on a limited number of Iowa roadways for removal of ice.

Interstate Highway Construction

On June 29, 1956, President Dwight D. Eisenhower signed the Federal-Aid Highway Act of 1956 creating a national system of interstate and defense highways. This set off the biggest highway building boom in the nation's and Iowa's history. Iowa's first segment of interstate highway, I-35/I-80 at the southwest edge of Des Moines, was opened in 1958.

World's First Aluminum Girder Highway Bridge

In the late 1950s steel became scarce and delivery was limited. This caused a serious problem for the fast-paced construction of the interstate system. In response, the Highway Commission looked for a substitute material and sought out aluminum. The agency worked with the aluminum producers and private contractors to construct a welded aluminum highway overpass on 86th Street in Urbandale over Interstate 35/80. Spanning 222 feet, the deck was 30 feet wide. The structure was opened on September 24, 1958. The bridge performed well until it had to be replaced in the early 1990s when the interchange was reconfigured.

Federal 'Bonus' Program for Signs

In 1958, to prevent a proliferation of advertising billboards along the interstates, federal officials drew up regulations banning certain signs from a 660-foot swath along the right-of-way. Instead of mandating compliance, they offered states a bonus payment for enforcing the regulations. Many states, including Iowa, delayed acceptance of the offer.

Air Marking

Air marking, which began in 1959, was one of the earliest priorities of the Highway Commission. An air marker was the name of the town painted on top of the roof of a local building in 10-foot high letters so the name was clearly legible from an altitude of 3,000 feet.



Experimental "No Passing Zone" signs erected in Dec. 1958 on U.S. 30 from Clinton to the Missouri River. Photo taken east of Ames.

'No Passing' Sign

Another first with Iowa roots was the introduction in 1959 of the "no passing" pennant sign. The sign was created at a time when the Iowa State Highway Commission stressed the importance of highway safety through increased signage. The no passing pennant was subsequently adopted and included in the national *Manual on Uniform Traffic Control Devices for Streets and Highways*.

Speed Limit Change

In 1959 the Iowa Legislature passed laws setting specific speed limits. On primary roads, the daytime limit was 70 mph and the nighttime limit was 65. On interstates, the daytime limit was 75, the nighttime limit was 65, and the minimum speed allowed was 40 mph.

Bridge Deck Overlay

Instead of replacing an entire bridge when the deck began deteriorating, the Highway Commission experimented with placing a new one-inch portland cement concrete "overlay" on the bridge. The first test project was conducted in 1964 on a 240-foot bridge in northwest Iowa in Sac County. This combination deck removal and overlay process came to be called the "Iowa Method." This method is now universally accepted and is preferred because the bridge can be reopened to traffic as soon as the concrete has cured.

Full-depth, No-subbase Hot-mixed Asphaltic Concrete for Interstates

A section of Interstate 80 east of Iowa City built in 1964 is believed to be the first section of interstate highway in the country with hot-mixed asphaltic concrete as the full depth of the pavement structure, resting on earth with no lower base or subbase.

Highway Beautification Act of 1965

In response to the slow acceptance of the federal bonus program for signs, and spurred on by Lady Bird Johnson's mid-1960s "highway beautification" campaign, federal officials wrote a set of mandatory signage regulations; states were to write complying legislation. In 1965, President Lyndon Johnson signed this "Highway Beautification Act." In 1972 Iowa passed legislation in compliance with the national Highway Beautification Act. Iowa's law, however, fixed a problem with the federal rules by banning advertising devices *visible* from the interstate (or primary highways). This was done to correct the problem of "jumbo" signs being erected just beyond the 660-foot mark.

Continuous Reinforced Steel

The first use of continuous reinforced steel in paving took place in Iowa in 1966. It later became a nationally accepted process. The steel was placed by a newly developed machine and eliminated a substantial amount of hand labor.

Interstate Toll Bridge Act of 1967

In 1967 the Iowa Legislature passed the Interstate Toll Bridge Act. On October 21, 1970, the official groundbreaking ceremony was held for the \$5.1 million toll bridge at Muscatine.

Freeway-Expressway System

In 1968 a freeway-expressway system was approved by the Highway Commission to serve traffic needs in the years following completion of the interstate program. The 833-mile freeway system consisted of four-lane divided highways with access via interchange only. The 1,139-mile expressway system was also designed with four-lane divided highways with access via interchange and selected at-grade public road connections.

Amtrak

Fearing national rail passenger service would cease after a steady decline in passenger-miles, Congress passed an act in 1970 creating the National Passenger Corporation, originally known as "Railpax," but later changed to "Amtrak." Amtrak was created to operate rail passenger service over a basic intercity network selected by the U.S. Secretary of Transportation. In 1971 Iowa's original Amtrak system included three routes: The *San Francisco Zephyr*



Amtrak arrives at Mount Pleasant.

which operated across the southern counties on the Chicago-San Francisco route; The *Southwest Chief*, which traveled through Fort Madison and provided service between Chicago and the West Coast; and the *Black Hawk*, which offered service between Chicago and Dubuque until September 1981.

Logo Signing

In 1975 Iowa became one of the first states to put commercial names/logos on official service signs along the interstate. Iowa's logo sign policy became a model for other states.

55 mph Speed Limit

In the midst of an energy crisis touched off by conflict in the Middle East, President Richard Nixon in 1973 signed the Emergency Highway Energy Conservation Act, reducing the maximum national speed limit to 55 miles per hour.

Iowa Department of Transportation

Replacing individual modal agencies, the Iowa Department of Transportation was created by the 65th General Assembly on July 1, 1974, to promote more orderly and effective planning and funding programs for a balanced system unique to the state's needs. Victor Preisser was selected as the first director of the department. He began his duties in January 1975.

Iowa Transportation Commission Created

In 1974 the Iowa Transportation Commission was formed, consisting of seven members (with no more than four from the same political party) appointed by the Governor, and subject to Senate confirmation. Serving four-year terms, the members' responsibility is to periodically review programs of the department and make all major policy decisions. The Transportation Commission continues to serve the citizens of Iowa today.

24-hour Truck Permit Center

In 1976 the nation's first 24-hour-a-day, seven-day-a-week truck permit center was established by the Iowa Department of Transportation's Motor Vehicle Division. This "one-stop shopping" concept was an instant hit with the trucking industry.

Recycled Concrete

In 1976 the Iowa Department of Transportation's Highway Division began research which led to the nation's first recycled portland cement concrete pavement.

Right-Turn-On-Red

In 1977 the Federal Highway Administration issued national standards for permitting right-on-red turns at traffic signal-controlled intersections on the nation's highways and streets.

Curb Removal

A three-year program to eliminate the “infamous” curbs remaining on Iowa’s 18- and 20-foot pavements was completed in 1980. More than 1,300 miles of curb was removed.

Vehicle Laws

To spread out the workload of the county treasurers, a law was passed in Dec. 1983 to “stagger” vehicle registration renewals. Instead of everyone renewing in January, the owner’s birth month is now used as the registration date.

Interstate Completed

Iowa’s interstate system was completed in 1985 when I-380 between Cedar Rapids and Waterloo was finished. It took 27 years and over \$1 billion to complete Iowa’s entire interstate system.

Seat Belts

In 1986 Iowa passed a law requiring seat belts to be used by all drivers and front seat passengers. Seat belt use is still the single most effective way to save lives and reduce injuries on Iowa roadways.

‘Fast Track’ Paving

In 1986 the Iowa Department of Transportation introduced a new paving concept called “Fast Track.” The process caught worldwide attention because the fast-drying capability allowed for traffic to be back on a road within 36 hours.

One of Iowa’s Largest Natural Disasters

In July 1993 Iowa experienced one of the state’s largest natural disasters - a major flood. In addition to causing loss of life and property, the flood damaged or washed away many roadways. At one point during the disaster, more than 63 roads were closed and three bridges totally destroyed.

55 mph Speed Limit Repealed

President Bill Clinton signed the National Highway System Designation Act of 1995 which included provisions to repeal the federal involvement in setting speed limits. The speed limit on many of Iowa’s four-lane, divided highways was raised by the Iowa Legislature from 55 mph to 65 mph.

TEA-21

On June 9, 1998, President Clinton signed into law the Transportation Equity Act for the 21st Century (TEA-21). This landmark bill increased funding for surface transportation programs in Iowa by nearly 40 percent over the following six-year period. The record investment levels strengthened Iowa’s commitment to building safe and efficient highway and transit systems.

Iowa museums and other sites that offer historic transportation-related items

Although DOT staff members have compiled an extensive listing of sites offering transportation-related items for public viewing, this listing is not intended to be inclusive. The DOT recognizes that transportation is an intrinsic part of Iowa's history and many more artifacts exist.

Many of the facilities listed below are staffed by volunteers who maintain irregular visiting hours for the public. Other sites are open only by appointment. Therefore, it is highly recommended that visitors call ahead to determine the hours of operation for each location.

Northwest

Albert City Historical Museum

212 N. Second St.
Albert City, IA 50510
712-843-5684

A five-building museum complex that preserves the history of Albert City, including a two-story depot. On display are a baggage cart and other railroad memorabilia, nine restored early 1900 cars, a 3/4-scale stagecoach, buggy and sleigh.

Cylinder Heritage Center

101 Iowa St.
Cylinder, IA 50528
712-424-3293

Artifacts from the town's history and railroad items.

Gowrie Depot Historical Museum

N. Beek St., Laurel Park
Gowrie, IA 50543
515-352-3567

Collection of memorabilia that represents the evolution of community life in Gowrie. Housed in original train depot.

L. M. & O. Railroad Museum

508 South Neptune St.
Marathon, IA 50565
712-289-0988

Depot originally from Laurens, Iowa, has been restored and furnished. Complex features a restored cabooses, business car, 1000 feet of track and rides for school children.

Clark's Antique Acres Museum of Area History

2151 213th Ave.
Milford, IA 51351
712-338-2147

Museum complex includes over 1,000 pictorial and written histories of the Iowa Great Lakes Region and its surrounding communities. On display are over 5,000 old business advertisements, a large collection of area memorabilia and many items of historical interest. Large displays include a horse-drawn school bus, wagons, sleighs and numerous types of farm equipment, along with railroad items, and antique automobile items.

Lyon County Historical Society Museum Complex

110 - 1/2 N. Story
Rock Rapids, IA 51246
712-472-3101 or
712-472-2029

Museum complex includes former Rock Island depot museum, cabooses, livery stable and historic house.

McCallum Museum and Brunson Heritage House

Sibley Park, Fifth St. and Eighth Ave.
Sibley, IA 51249
712-754-3882

Museum pieces include a cutter or "one horse open sleigh" used in the 1900s by the Conrad Hattendorf family of Ochevedan, a surrey used by the same family, a 1908 Sears auto buggy, and a circa 1900s chainless bicycle.

Sergeant Floyd Riverboat Museum and Welcome Center

1000 Larsen Park Rd.
(Interstate 29, exit 149)
Sioux City, IA 51100
712-279-0198

This vessel plied the Missouri River for 50 years as the flagship of the U.S. Army Corps of Engineers construction fleet. See the history of Missouri River transportation and view America's largest display of scale model Missouri River steamboat and keelboat models. Special focus on the 1804 Lewis and Clark Expedition.

Mid America Air Museum

Sioux Gateway Airport
(Interstate 29, exit 141)
6715 Harbor Drive
P.O. Box 3525
Sioux City, IA 51054-3525
712-252-5300

Noted as one of the very best aviation artifact museums in the United States. Displays of general, commercial, sport and military aviation. Eleven aircraft along with Flight 232 crash exhibit. A true hands-on aviation science museum with a reference library and theater.

Sergeant Floyd Monument

One-half mile east and one mile north of Exit 143 on I-29
Sioux City
100-foot-tall stone obelisk overlooking Sioux City and the Missouri River Valley. Marks the burial place of Sergeant Charles Floyd, the only member of the 1804 Lewis and Clark Expedition to die en route.

West Central

Western Historic Trails Center

3434 Richard Downing Ave.
(Interstate 80, exit 1B)
Council Bluffs, IA 51501
712-366-4900
Interpretive center for the Lewis and Clark Trail, Mormon Pioneer Trail and California Trail. Exhibits include information on the diminishing use of the trails, with the rise of railroads and, later, automobile transportation.

Historic General Dodge House

605 Third St.
Council Bluffs, IA 51503
712-322-2406
Victorian house-museum built by Grenville and Mrs. Dodge in 1869-70. Dodge was a Civil War general, railroad builder, banker and politician.

Lewis and Clark Monument and Scenic Overlook

Rainbow Point, north on Eight St.
Council Bluffs, IA 51501
712-325-1000
Monument honors the expedition of Lewis and Clark in 1804 and their historic, strategic meeting with the Oto Indians.

RailsWest Railroad Museum and HO Model Railroad

1512 S. Main St.
Council Bluffs, IA 51501
712-323-5182
An 1899 Rock Island depot houses an HO scale operating model railroad, an O scale operate-it-yourself model, and an extensive collection of artifacts and memorabilia. Also on display are a Union Pacific RPO car and a Rock Island caboose.

DeSoto National Wildlife Refuge

1434 316th Lane
Missouri Valley, IA 51555
712-642-2772
DeSoto Visitor Center houses and displays artifacts from the *Bertrand* cargo collection. The *Bertrand* was a mountain packet sternwheeler built in 1864. It was specially designed for the shallow, narrow rivers of the West. Despite her navigational adaptations, the *Bertrand* hit a snag and sank on April 1, 1865, its first journey up the Missouri River.

Kiwanis Museum Complex

N. 12th St.
Onawa, IA 51040
712-423-1801
C & NW railroad depot with more than 800 items of railroad memorabilia.

Lewis and Clark Keelboat Display

Lewis and Clark State Park
21914 Park Loop
Onawa, IA 51040
712-423-2829
Full-size replicas of Lewis and Clark Expedition keelboat and two pirogues used to explore up the Missouri River in 1804.

Guthrie County Historical Village

206 W. South St.
Panora, IA 50216
515-755-2989
Features Milwaukee railroad depot and caboose, two covered wagons and several vintage automobiles.

Southwest

Taylor County Historical Museum

1001 Pollock Blvd.
Bedford, IA 50833
712-523-2041
Circa 1907 round barn, moved from Lenox and restored. Housed horses used with horse-drawn vehicles such as the cutter and high-wheeled wagon.

C.B. & Q. Restored Depot

Union County Tourism
P.O. Box 471
208 W. Taylor
Creston, IA 50801
515-782-4405
Depot located at 116 W. Adams, Creston. View the restored railroad depot built in 1899. Marbled floors and tiled columns and walls are focal points of this magnificent two-story building which houses railroad artifacts. A restored railroad caboose is located one block to the west of the restored depot.

Mount Pisgah/Mormon Trail

Near Lorimor, Iowa
515-782-4405
Visit the winter camp of the first Mormon Trek from Nauvoo, Ill., to Salt Lake City, Utah. Monument erected in memory of the thousands who did not survive that winter.

Mills County Historical Museum

Glenwood Park, Hwy. 34
Glenwood, IA 51534
712-527-5038
Museum complex includes a caboose, Native American artifacts, wagons and antique cars and trucks.

Iowa museums and other sites that offer historic transportation-related items

Although DOT staff members have compiled an extensive listing of sites offering transportation-related items for public viewing, this listing is not intended to be inclusive. The DOT recognizes that transportation is an intrinsic part of Iowa's history and many more artifacts exist.

Many of the facilities listed below are staffed by volunteers who maintain irregular visiting hours for the public. Other sites are open only by appointment. Therefore, it is highly recommended that visitors call ahead to determine the hours of operation for each location.

Northwest

Albert City Historical Museum

212 N. Second St.
Albert City, IA 50510
712-843-5684

A five-building museum complex that preserves the history of Albert City, including a two-story depot. On display are a baggage cart and other railroad memorabilia, nine restored early 1900 cars, a 3/4-scale stagecoach, buggy and sleigh.

Cylinder Heritage Center

101 Iowa St.
Cylinder, IA 50528
712-424-3293

Artifacts from the town's history and railroad items.

Gowrie Depot Historical Museum

N. Beek St., Laurel Park
Gowrie, IA 50543
515-352-3567

Collection of memorabilia that represents the evolution of community life in Gowrie. Housed in original train depot.

L. M. & O. Railroad Museum

508 South Neptune St.
Marathon, IA 50565
712-289-0988

Depot originally from Laurens, Iowa, has been restored and furnished. Complex features a restored cabooses, business car, 1000 feet of track and rides for school children.

Clark's Antique Acres Museum of Area History

2151 213th Ave.
Milford, IA 51351
712-338-2147

Museum complex includes over 1,000 pictorial and written histories of the Iowa Great Lakes Region and its surrounding communities. On display are over 5,000 old business advertisements, a large collection of area memorabilia and many items of historical interest. Large displays include a horse-drawn school bus, wagons, sleighs and numerous types of farm equipment, along with railroad items, and antique automobile items.

Lyon County Historical Society Museum Complex

110 - 1/2 N. Story
Rock Rapids, IA 51246
712-472-3101 or
712-472-2029

Museum complex includes former Rock Island depot museum, cabooses, livery stable and historic house.

McCallum Museum and Brunson Heritage House

Sibley Park, Fifth St. and Eighth Ave.
Sibley, IA 51249
712-754-3882

Museum pieces include a cutter or "one horse open sleigh" used in the 1900s by the Conrad Hattendorf family of Ocheyedan, a surrey used by the same family, a 1908 Sears auto buggy, and a circa 1900s chainless bicycle.

Sergeant Floyd Riverboat Museum and Welcome Center

1000 Larsen Park Rd.
(Interstate 29, exit 149)
Sioux City, IA 51100
712-279-0198

This vessel plied the Missouri River for 50 years as the flagship of the U.S. Army Corps of Engineers construction fleet. See the history of Missouri River transportation and view America's largest display of scale model Missouri River steamboat and keelboat models. Special focus on the 1804 Lewis and Clark Expedition.

Mid America Air Museum

Sioux Gateway Airport
(Interstate 29, exit 141)
6715 Harbor Drive
P.O. Box 3525
Sioux City, IA 51054-3525
712-252-5300

Noted as one of the very best aviation artifact museums in the United States. Displays of general, commercial, sport and military aviation. Eleven aircraft along with Flight 232 crash exhibit. A true hands-on aviation science museum with a reference library and theater.

Sergeant Floyd Monument

One-half mile east and one mile north of Exit 143 on I-29
Sioux City
100-foot-tall stone obelisk overlooking Sioux City and the Missouri River Valley. Marks the burial place of Sergeant Charles Floyd, the only member of the 1804 Lewis and Clark Expedition to die en route.

West Central

Western Historic Trails Center

3434 Richard Downing Ave.
(Interstate 80, exit 1B)
Council Bluffs, IA 51501
712-366-4900
Interpretive center for the Lewis and Clark Trail, Mormon Pioneer Trail and California Trail. Exhibits include information on the diminishing use of the trails, with the rise of railroads and, later, automobile transportation.

Historic General Dodge House

605 Third St.
Council Bluffs, IA 51503
712-322-2406
Victorian house-museum built by Grenville and Mrs. Dodge in 1869-70. Dodge was a Civil War general, railroad builder, banker and politician.

Lewis and Clark Monument and Scenic Overlook

Rainbow Point, north on Eight St.
Council Bluffs, IA 51501
712-325-1000
Monument honors the expedition of Lewis and Clark in 1804 and their historic, strategic meeting with the Oto Indians.

RailsWest Railroad Museum and HO Model Railroad

1512 S. Main St.
Council Bluffs, IA 51501
712-323-5182
An 1899 Rock Island depot houses an HO scale operating model railroad, an O scale operate-it-yourself model, and an extensive collection of artifacts and memorabilia. Also on display are a Union Pacific RPO car and a Rock Island caboose.

DeSoto National Wildlife Refuge

1434 316th Lane
Missouri Valley, IA 51555
712-642-2772
DeSoto Visitor Center houses and displays artifacts from the *Bertrand* cargo collection. The *Bertrand* was a mountain packet sternwheeler built in 1864. It was specially designed for the shallow, narrow rivers of the West. Despite her navigational adaptations, the *Bertrand* hit a snag and sank on April 1, 1865, its first journey up the Missouri River.

Kiwanis Museum Complex

N. 12th St.
Onawa, IA 51040
712-423-1801
C & NW railroad depot with more than 800 items of railroad memorabilia.

Lewis and Clark Keelboat Display

Lewis and Clark State Park
21914 Park Loop
Onawa, IA 51040
712-423-2829
Full-size replicas of Lewis and Clark Expedition keelboat and two pirogues used to explore up the Missouri River in 1804.

Guthrie County Historical Village

206 W. South St.
Panora, IA 50216
515-755-2989
Features Milwaukee railroad depot and caboose, two covered wagons and several vintage automobiles.

Southwest

Taylor County Historical Museum

1001 Pollock Blvd.
Bedford, IA 50833
712-523-2041
Circa 1907 round barn, moved from Lenox and restored. Housed horses used with horse-drawn vehicles such as the cutter and high-wheeled wagon.

C.B. & Q. Restored Depot

Union County Tourism
P.O. Box 471
208 W. Taylor
Creston, IA 50801
515-782-4405
Depot located at 116 W. Adams, Creston. View the restored railroad depot built in 1899. Marbled floors and tiled columns and walls are focal points of this magnificent two-story building which houses railroad artifacts. A restored railroad caboose is located one block to the west of the restored depot.

Mount Pisgah/Mormon Trail

Near Lorimor, Iowa
515-782-4405
Visit the winter camp of the first Mormon Trek from Nauvoo, Ill., to Salt Lake City, Utah. Monument erected in memory of the thousands who did not survive that winter.

Mills County Historical Museum

Glenwood Park, Hwy. 34
Glenwood, IA 51534
712-527-5038
Museum complex includes a caboose, Native American artifacts, wagons and antique cars and trucks.

Iowa Aviation Museum

Greenfield Municipal Airport
Greenfield, IA 50849
515-343-7184

One of three airplane museums in the state. Home of Iowa Aviation Hall of Fame. Eleven early aircraft and two military aircraft on display.

Kline Museum

Main Street
Prescott, IA 50859
515-335-2352

Collection of antique cars including the fully restored 1911 Carter car.

Greater Shenandoah Historical Museum

405 W. Sheridan
Shenandoah, IA 51601
712-246-1669

Artifacts, displays and videos of early radio, KMA-Earl May, KFNH-Henry Field and the nurseries.

Life in the 1850s in the nearby Mormon settlement of Manti. The old Wabash depot and Morning Star country school house at Sportsman Park. While in Shenandoah visit the restored Burlington Northern depot.

North Central

Hobo Museum

51 Main Ave. S.
Britt, IA 50423
515-843-3867

The only hobo museum in existence. Offers a fascinating look at the interwoven histories of hobos and the railroads.

Restored Railroad Depot

302 S. Main
Clarion, IA 50525
515-532-2256

Restored depot houses railroad memorabilia.

Iowa Trolley Park

E. Main St.
Clear Lake, IA 50428
515-357-2159

Take a 15-minute ride on restored electric trolleys including an interurban and an open Brill.

Dows Depot Welcome Center

Train and Depot streets
Dows, IA 50071
515-852-3595

Period railroad items and local history items displayed in 1896 railroad station.

Quasdorf Blacksmith Wagon Museum

Train and Depot streets
Dows, IA 50071
515-852-3595

Restored 1899 building listed in the National Register of Historic Places holds displays of antique tools, equipment, books and methods of the blacksmith, wagon- and wheel-making, and machine and welding trades.

Grafton Heritage Depot/Museum

Main St.
Grafton, IA 50440
515-748-2337

Turn-of-the-century depot includes waiting room, depot agent's office and freight room.

Kinney Pioneer Museum

Municipal Airport entrance, Hwy. 18 W.
P.O. Box 421
Mason City, IA 50402-0421
515-423-1258

515-357-2980 off-season phone

View antique cars, including the only original "Colby" (manufactured in Mason City) known to be left in existence.

Van Horn's Antique Truck Museum

15271 North St.
Mason City, IA 50401
515-423-0550

Off-season phone 515-423-9066

Large display of commercial vehicles from 1908 to 1931, antique gas pumps and advertising signs. Museum open daily May 25 through Sept. 22.

Mitchell County Historical Society Cedar Valley Memories

18791 Hwy. 9
Osage, IA 50461
515-732-1269

Houses Iowa's first gas-powered car.

Depot/Caboose Riverfront Park

Third St., east of Hwy. 14
Parkersburg, IA 50665
319-346-1365

Visit restored 1935 depot and 1947 caboose with railroad pictures and items.

Country Relics Village

Hwy 17, North - 3290 Briggs Woods Rd
Stanhope, IA 50246
515-826-4FUN (4386)
www.countryrelicsvillage.com

Located on an operating family farm, this 16-building, early 1900s complex, includes the original 1882 Stanhope Chicago Northwestern depot, a McCormick Machines Implement dealership, a restored 1915 International motor truck, and a 1923 Model T Ford housed in the early Standard Oil service station. The population of 103 "dummies" and visitor participation brings life to this intriguing "stroll into the past."

Central

Iowa Department of Transportation Library

800 Lincoln Way
Ames, IA 50010
515-239-1200

Houses a collection of transportation-related archival materials, historic photographs and additional historical publications.

Boone & Scenic Valley Railroad

225 10th St.
Boone, IA 50036
800-626-0319

An operating educational, non-profit railroad museum highlighting the history of railroading in Iowa. Full scale trains using steam, diesel, or electric power operate daily Memorial Day weekend through the end of October. The museum's first-class "City of San Francisco" car ran through Boone in the 1950s as part of the "City of San Francisco" passenger train. "The Iowan" was the last commercially produced steam locomotive in the world. "The Charles City Western" electric trolley runs most weekends through the summer months.

Kate Shelley Railroad Museum and Park

1198 232nd St.
Moingona, IA 50036
515-432-1907

Restored depot where visitors learn the dramatic story of teenager Kate Shelley's warning of upcoming danger to a passenger train. Railroad memorabilia and artifacts relating to Shelley's life. Rock Island Rocket passenger car houses theater with video presentation of the Kate Shelley story.

Trainland U.S.A.

3135 Hwy. 117 N.
Colfax, IA 50054
515-674-3813

Operating toy-train museum depicts the development of the railroad across the United States. Frontier, steam and diesel eras are represented. Full-size railroad items on display including a 1928 Rock Island passenger car.

State of Iowa Historical Building

600 E. Locust St.
Des Moines, IA 50319
515-281-5111

Offers a hands-on approach to exploring Iowa's past. Features three planes that hover in the airspace above the first floor lobby (a Curtiss pusher biplane, Bleriot XI monoplane and a modified Benoist tractor biplane). The planes serve as a tribute to Iowa's early aircraft builders and pilots. See other artifacts related to transportation history in the exhibits "You Gotta Know the Territory," "Hay Days: the Horse in Iowa History," and "We've Gotcha Covered: the Iowa Insurance Story."

Grinnell Historical Museum

1125 Broad St.
Grinnell, IA 50112
515-236-3252

Attraction includes a carriage house with three buggies and a surrey - all manufactured in Grinnell.

Greene County Historical Society Museum

106 E. State St.
Jefferson, IA 50129
515-386-8544

Available for viewing are wagon tools, models of the Greene County coal mine, covered wagons, and WWI model planes. Greene County was the first county to pave the Lincoln Highway the full length of the county from east to west. Several historic bridges found along the highway. A Lincoln Highway marker graces the Greene County courthouse. On display at the country school and pioneer museum at the Greene County fairgrounds are various Lincoln Highway artifacts, maps and books.

Lincoln Highway Bridge

Just off Hwy. 30
Tama, IA 52339

Built in 1915 as part of the first U.S. transcontinental highway, this is the only Lincoln Highway bridge still in existence.

South Central

Historical and Coal Mining Museum

100 W. Maple, Hwy 2
Centerville, IA 52544
515-856-8040

Houses collection beginning with the settlement period of 1843. Detailed information on the Mormon Trail of 1846 and artifacts from the trail are on display. Exhibits include a buggy, sleigh, firehose wagon, and coal cars that were drawn by horses and ponies.

Moravia Wabash Depot Museum

800 W. North St.
Moravia, IA 52571
515-724-3777

Depot is an example of a rural combination depot used in the early 1900s. Railroad artifacts are on display with an operational model train layout. Features a restored railroad section car.

Moulton Historical Society Museum

Hwy. 202
Moulton, IA 52572
515-642-3384
Railroad artifacts.

Prairie Trails Museum of Wayne County

515 E. Jefferson (Hwy. 2)
Corydon, IA 50060
515-872-2211

Mormon Pioneer Trail exhibit with authentic oxen-drawn wagon. An award-winning exhibition traces the area's history through the evolution of its transportation network from prairie trails, to stagecoach lines, the coming of the railroad, the Good Roads Movement, and today's highway system. Features the first automobile in Wayne County, a 1902 Holman buggy car, and 16 horse-drawn vehicles.

National Balloon Museum

1601 N. Jefferson
U.S. 65/69
Indianola, IA 50125
515-961-3714

Houses a collection of ballooning artifacts and memorabilia depicting the history of hot-air and gas ballooning, ballooning events and personalities.

Marion County Historical Village

Willets Dr.
Knoxville, IA 50138
515-842-5526

Visit the historic stagecoach inn. Antiques and artifacts are on display.

Airpower Museum, Inc.

22001 Bluegrass Rd.
10 miles west of Ottumwa, northeast of Blakesburg
515-938-2773

Museum on a 30 acre airfield. Features various periods of aviation via models, engines, propellers, photos and original art. Twenty aircraft are on display, including WWII models.

Dumonts' Museum of Dreamworld Collectibles

Three miles south on Hwy. 149
255th Street
Sigourney, IA 52591
515-622-2592

The museum features a large collection of restored antique tractors, horse-drawn equipment, buggies, gas engines, household items, toy trucks, farm toys, dolls, dishes and many miscellaneous collectibles.

Bridges of Madison County

Winterset Chamber of Commerce
Winterset, IA 50273
515-462-1185

The six historic covered bridges are scattered across the countryside in Madison County.

Northeast

Ice House Museum

Cedar Falls Historical Society
First and Clay streets
Cedar Falls, IA 50613
319-266-5149

Built in 1921, the Ice House offers exhibits of ice harvesting equipment, early automobiles, and artifacts from the late 1800s and early 1900s that show the settlement and development of the Cedar River Valley.

Victorian Home and Carriage House Museum

Cedar Falls Historical Society
308 West Third St.
Cedar Falls, IA 50613
319-266-5149

Features the collection of O scale operating models of the Chicago Great Western railroad from the estate of the late William J. Lenoir of Tampa, Florida. Lenoir was a master model railroad builder who was internationally known for building highly detailed O scale steam locomotives. The collection consists of hand-built, brass steam locomotives, gas-electric cars, passenger cars, freight cars, railroad structures, and an operating layout.

Behrens-Rapp Tourist Information Station

Cedar Falls Historical Society
First and Clay streets
Cedar Falls, IA 50613
319-266-5149

In 1925, the Behrens brothers built this gas station which was originally located on the corner of Waterloo Road and 14th Street. In 1993 the station was moved to its present location and serves as a visitor information center. Installed at the station are several restored gas pumps.

Red Barn Model Railroad Museum

Rte. W. 69, one mile north of Dundee
Dundee, IA 52038
319-924-2482

Operating and fixed displays of Lionel, American Flyer and Marx toy trains and trolleys dating from early 1900s. HO scale railroad featuring steam and diesel locomotives from famous American railroads. Full-size railroad items also on display.

Lockmaster's House Heritage Museum

Lock and Dam Lane
Guttenberg, IA 52052
319-252-1531

Visit one of the last remaining lockmaster's houses on the Mississippi River. Photos depicting construction of the lock and dam are on display.

Museum of River History

61 S. Front St.
Lansing, IA 52151
319-538-4231 or
319-538-4641

Displays highlight Lansing's early development as a Mississippi River town, including steamboating, commercial fishing and clamming, the pearl button industry, and ice harvesting. Also on display are original handmade commercial and recreational wooden boats, and an extensive photo collection.

Old Bradford Pioneer Village

2729 Cheyenne Ave.
Nashua, IA 50658
515-435-2567

This pioneer village includes a depot and caboose.

Hub City Heritage Railway Museum

26 Second Avenue
Oelwein, IA 50662
319-283-1176

Old railroad depot with refurbished railroad cars and memorabilia, including two locomotives and a gift shop.

Oelwein Area Historical Society Museum

900 block of Second Ave. S.E.
Oelwein, IA 50662
319-283-4203

View railroad memorabilia and other displays.

Grout Museum of History and Science

503 South Street
Waterloo, IA 50701

Area history. Permanent exhibit, "Engine of the Heartland" with emphasis on transportation, agriculture and the industrial revolution. An original Mason-Maytag automobile on display.

Vinton Railroad Depot and Museum

Benton County Historical Society
P.O. Box 22
Vinton, IA 52349
319-472-5939

1999-2000 marks the centennial of the construction of the depot which today houses a fine collection of railroad memorabilia. A Rock Island caboose is also on display.

East Central

Duffy's Collectible Cars

250 Classic Car Ct. S.W.
Cedar Rapids, IA 52404
319-364-7000

One hundred finished collector cars from the 1940s through the 1960s, gas pumps and automobile memorabilia.

Granger House -

Marion Historical Museum, Inc.

970 10th St.
Marion, IA 52302
319-377-6672

Don't miss the 1879 brick carriage house with original horse-drawn vehicles.

Pioneer Heritage Museum and Historical Resource Library

675 E. South St.
Marengo, IA 52301
319-642-7018 or
319-642-3054

View 1930 filling station, 1929 handmade race car, and Rock Island depot in museum complex.

Chicago, Rock Island and Pacific Depot

100 Railroad St.
Wilton, IA 52778
319-732-2470

Renovated 1898 brick depot still in its original location. Displays feature the history of the railroad in Wilton.

East

Cable Car Square

Fourth and Bluff streets
Dubuque, IA 52001
319-583-5000

Stroll the square, visit 30 charming shops and eateries, horse-drawn carriage rides, trolley rides. Restored 1800 and 1900 Victorian homes and mansions nestled in the mighty bluffs of the Mississippi River.

Fenelon Place Elevator Company

512 Fenelon Pl.
Dubuque, IA 52001
319-582-6496 or 319-588-2357

At the base of the bluffs visit the world's steepest, shortest scenic railway. Erected in 1882, the lift is 296 feet in length, elevating passengers 189 feet. Magnificent view of the Mississippi River and three states.

Mississippi River Museum and Mathias Ham House

Third St. Ice Harbor
Dubuque, IA 52001
319-557-9545

The Mississippi River Museum offers a fun, hands-on exploration of America's best-loved river - the Mississippi. It is the largest river museum north of Memphis covering 300 years of river history. The five-acre campus is located at the historic Ice Harbor and includes the award-winning film "River of Dreams" narrated by Garrison Keillor; more than 30 historic boats, including the national landmark steam dredge William M. Black; and many interactive exhibits. Open daily, year-round, 10 a.m. to 5 p.m. In addition to the museum, experience life along the Mississippi during the golden era of steamboating. Mathias Ham's stately country villa stands today as a reflection of its wealthy builder. The elegant American and European furnishings inside exemplify the opulent Victorian lifestyle of a booming river town during the pre-Civil War period.

Buffalo Bill Museum/The Lone Star Steamer

200 N. River Dr.
Le Claire, IA 52753
319-289-5580

Memorial and tribute to native son William F. "Buffalo Bill" Cody, as well as a museum of steamboat and pioneer history. Wooden-hull sternwheeler on display with a model of the "black box" used on airplanes, which was invented by an Iowan, James E. Ryan (1904-1973).

Buffalo Bill Cody Homestead

28050 230th Ave.
Princeton, IA 52768
319-225-2981

One of the homesteads of the Cody family, built of stone in 1847 by Buffalo Bill's father. View restored home, stagecoach and buffalo.

Rock Island Arsenal Museum

Bldg. 60
Rock Island Arsenal
Exhibits depict the history of the arsenal and Arsenal Island.

Southeast

Snake Alley

Between Washington and Columbia streets on Sixth St.

Burlington, IA 52601
Possibly Burlington's most famous landmark, Snake Alley has been called the "Crookedest street in the world" in Ripley's *Believe it or Not*. It consists of five half-curves and two quarter-curves and drops 58 feet over a distance of 275 feet.

Santa Fe Depot Museum Complex North Lee County Historical Society

814 10th Street
P.O. Box 285
Fort Madison, IA 5627
319-372-7661

The Santa Fe Depot Museum Complex, located in the former A.T.&S.F. Railroad Historic District, invites tourists of all ages to enjoy railroad history in a site located next to the main line of the Burlington-Northern Santa Fe railroad. View antique fire engines, a restored Santa Fe caboose, and more than 60 BNSF trains daily on a pedestrian overpass located next to the museum.

Keokuk River Museum and Observation Area

Victory Park at Johnson Street
Keokuk, IA 52632
800-383-1219

This museum on the George M. Verity (S.S. Thorpe) is a retired paddlewheel steamboat built in 1927 and retired in 1960. Photos of 19th century riverboats and artifacts of steamboat era are also displayed on this national historic landmark. Pedestrian access to view of river traffic, lock, railroad bridge and 1891 depot, as well as seasonal waterbird activity.

Miller House Museum

318 N. Fifth St.
Keokuk, IA 52632
800-383-1219

1857 home of U.S. Supreme Court Justice Miller, interprets Victorian lifestyle and economic development of Iowa's Half Breed Tract from horsepower to aviation, especially hydroelectric power. Special exhibits include the building of the dam and powerhouse.

Keokuk's Observation Deck

First and Blondeau Streets
Keokuk, IA 52632
800-383-1219

Keokuk has preserved its history by converting the old vehicular swing span bridge into an observation deck. Visitors are invited to enjoy the wood planked lighted deck, offering a bird's eye view of the Mississippi.

Lock and Dam 19/Hydroelectric Plant

523 N. Water St.
Keokuk, IA 52632
800-383-1219

The canal that split the treacherous Des Moines Rapids on the Mississippi at Keokuk was replaced in 1913 by Lock and Dam 19 and the Hydroelectric Plant - an engineering marvel of its time. The lock was replaced in 1957 by the 1200-foot structure, which is still one of the longest on the river.

Keokuk National Cemetery

1701 J St.
Keokuk, IA 52632
800-383-1219

Soldiers wounded on southern battlefields in the Civil War were transported up the Mississippi River on hospital boats to Keokuk where there were seven Civil War hospitals. Often the trip was futile and many soldiers found their final resting place in Keokuk National Cemetery. It was one of the original twelve designated by Congress at the same time as Arlington, was the first west of the Mississippi River and is the only one in Iowa.

Midwest Old Threshers Heritage Museums

405 E. Thresher Roads
Mount Pleasant, IA 52641
319-385-8937

Interpretive exhibits, electric trolleys, steam trains, traction steam engines, and antique tractors on display.

Bentonsport National Historic District

Scenic Byway J-40 in Van Buren County
Bentonsport, IA 52565
319-592-3579

Visit this 1840s river town with its century-old iron bridge and walkway.

Selected Bibliography

Boone County Historical Society. *Trail Tales, The Journal of Boone County History*. Boone, Iowa: Boone County Historical Society.

Cross, Steven C. *Under the Golden Dome*. Des Moines, Ia: Iowa General Assembly, 1970.

Eichringer, J.W. *Iowa Roads: Historical Sketch of Developments in Administration 1838-1929*.

Highway Research Board. *Proceedings*. Washington, D.C.: National Academy of Sciences, 1921-1974. [available at the Iowa Department of Transportation library, Ames, Iowa.]

Iowa State Highway Commission. *Annual Reports*. Ames, Iowa: Iowa Highway Commission, 1904-1974. [available at the Iowa Department of Transportation library, Ames, Iowa.]

Kimball, Stanley B. *Historic Resource Study, Mormon Pioneer National Historic Trail*. Washington, D.C.: United States Department of the Interior/National Park Service, 1991.

Klein, Maury. *Union Pacific: the Rebirth 1894-1969*. New York, N.Y. Bantam Doubleday Dell Publishing Group, Inc., 1989.

Landis, Leo. *Building Better Roads: Iowa's Contribution to Highway Engineering 1904-1974*. Ames, Iowa: Center for Transportation Research and Education, Iowa State University, 1997.

Neville, Brenda. *Seasons of Change, Reflections Upon 75 Years of Service to Iowa*. Des Moines, Iowa: Associated General Contractors of Iowa, 1997.

Pellegreno, Ann Holtgren. *Iowa Takes to the Air, Volume I*. Story City, Iowa: Aerodrome Press, 1980.

Pellegreno, Ann Holtgren. *Iowa Takes to the Air, Volume II*. Story City, Iowa: Aerodrome Press, 1986.

Petersen, Wm. J. *Steamboating on the Upper Mississippi*. Iowa City, Iowa: State Historical Society of Iowa, 1968.

Posten, Margaret L. *This is the Place - Iowa*. Ames, Iowa: Iowa State University Press, 1965.

Ritchie, Andrew. *King of the Road, An Illustrated History of Cycling*. Berkley, Calif.: Ten Speed Press, 1975.

State Historical Society of Iowa. *Palimpsest Magazine*. Iowa City, Iowa: State Historical Society of Iowa.

Thompson, William. *Transportation in Iowa: A Historical Summary*. Ames, Iowa: Iowa Department of Transportation, 1989.

Wilson, D. Ray. *Iowa Historical Tour Guide*. Carpentersville, Illinois: Crossroads Communications, 1986.

STATE LIBRARY OF IOWA



3 1723 02118 5699

Produced by



**Iowa Department
of Transportation**

Media and Marketing Services

800 Lincoln Way

Ames, IA 50010

515-233-7964