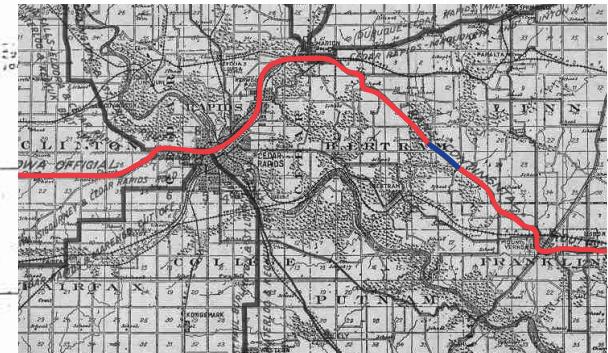
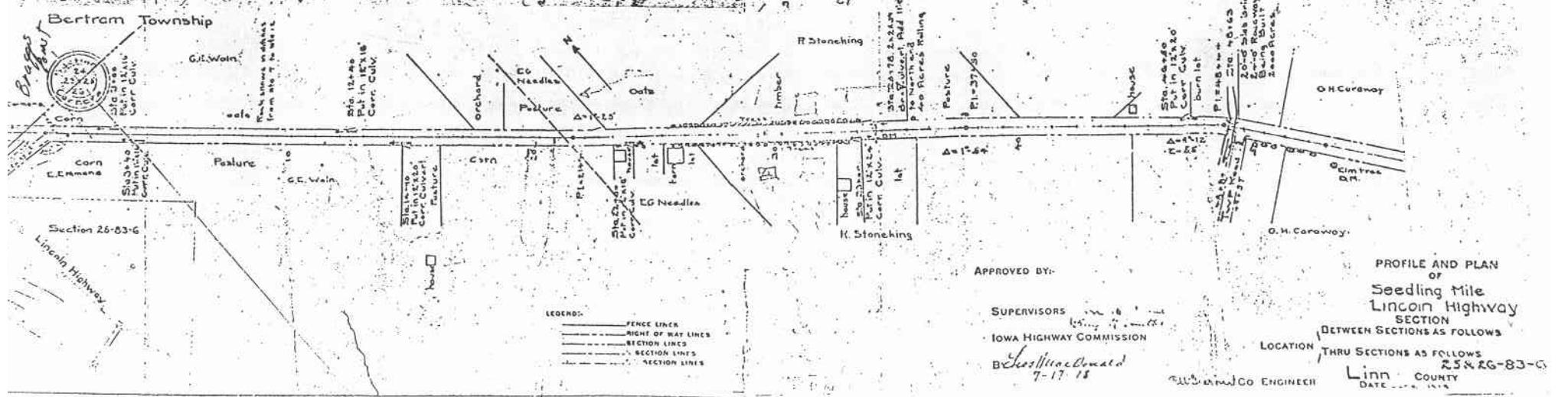
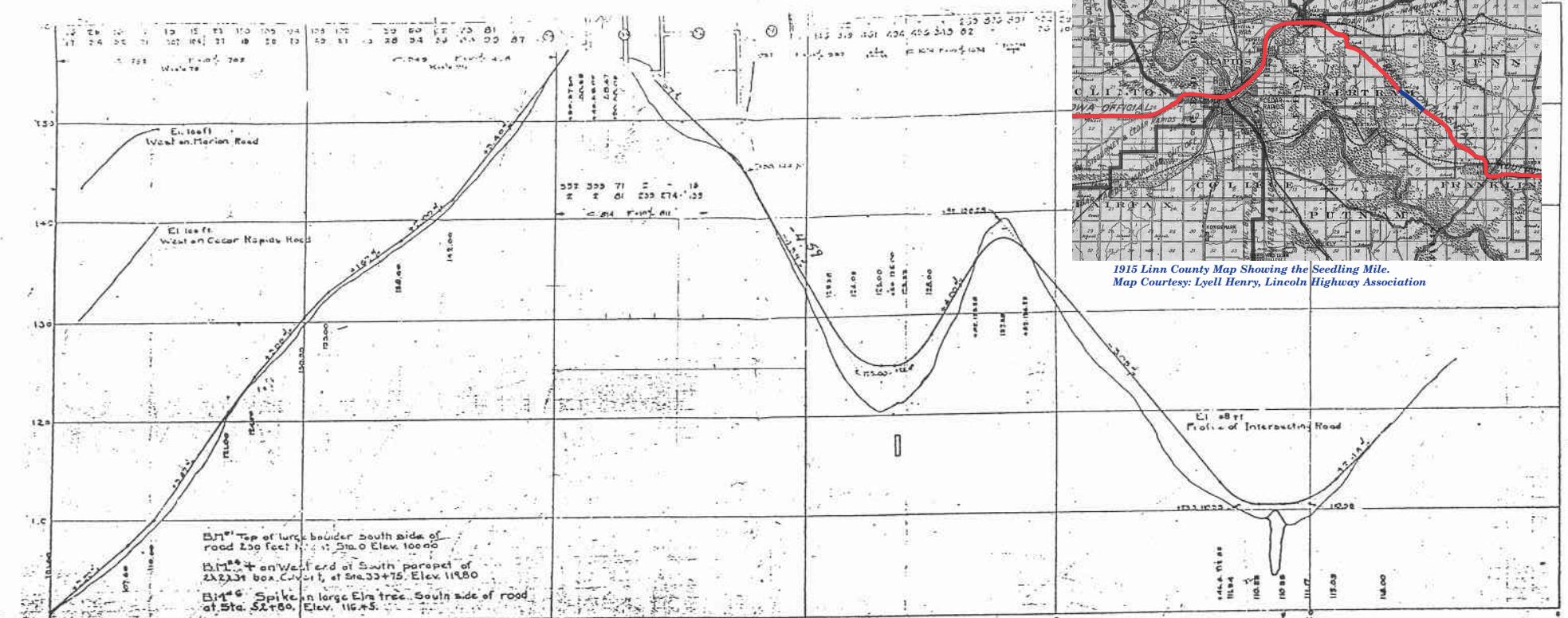


# The Lincoln Highway Association's “Object Lesson:” The Seedling Mile in Linn County, Iowa

LINCOLN  
HIGHWAY

1921 Photo of Mid-Section of Seedling Mile view to the northwest  
Photo Courtesy: Iowa Department of Transportation, Ames



Original Plan for the Linn County Seedling Mile  
Courtesy: Linn County Engineer's Office

# The Lincoln Highway Association's "Object Lesson:" The Seedling Mile in Linn County, Iowa

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*The Seedling Mile in Linn County, Iowa, was part of the Lincoln Highway Association's so-called "object lesson" program that sought to graphically demonstrate, in the paving of selected one-mile demonstration sections, the benefits of concrete paving to improving road travel across the nation. Constructed in 1918-19, this Seedling Mile became much more than an object lesson and served as something of a battleground between two municipalities—Marion and Cedar Rapids—in their struggle over the county seat and their place on the Lincoln Highway. The Seedling Mile eventually became part of a continuously paved section of the Lincoln Highway between Chicago and Cedar Rapids, with the whole of the Lincoln Highway in Iowa paved in some fashion by the 1930s. In 2002, Linn County reconstructed Mt. Vernon Road from the City of Mt. Vernon to the west end of the Seedling Mile impacting the historic road section. An agreement between concerned government agencies resulted in this publication in partial mitigation of the impact to this historic road section under the guidelines of the National Historic Preservation Act.*

Valuable assistance to this project was provided by:

Steve Gannon and Brad Ketels, Linn County Engineer's Office  
Hank Zaletel, Librarian, Iowa Department of Transportation Library, Ames  
Dr. Richard Thomas, Mt. Vernon  
Mary Bennett, Archivist, State Historical Society of Iowa, Iowa City  
Van and Bev Becker, Iowa Lincoln Highway Association  
Paul Walker, Iowa Lincoln Highway Association  
Liz Michaels, Lehigh Cement Company, Mason City  
Richard and Jean Moore, Mt. Vernon  
Wayne Gogler, Mt. Vernon  
Iowa Lincoln Highway Association  
Genealogical Society of Linn County, Iowa  
University of Iowa Library Special Collections, Iowa City

Lu Barron, James Houser, and Linda Langston, Linn County Board of Supervisors  
Lowell Soike and Ralph Christian, State Historical Society of Iowa  
William Kreuger, Librarian, Iowa Masonic Library, Cedar Rapids  
Lyell Henry, Iowa Lincoln Highway Association  
Bob and Joyce Ausberger, Iowa Lincoln Highway Association  
David Pyles, Ames  
Tracy Farrell, Holcim, Inc., Mason City  
Willis and Catherine Bachman, Cedar Rapids  
Larry Beatty, Shellsburg  
The History Center, Cedar Rapids  
*The Gazette*, Cedar Rapids  
Ruth Heikkinen, National Park Service  
Kathleen Dow, University of Michigan Library

*Document sponsored by Linn County, Iowa, through an agreement with the Iowa Department of Transportation in cooperation with  
the Federal Highway Administration and the State Historical Society of Iowa.*

2004

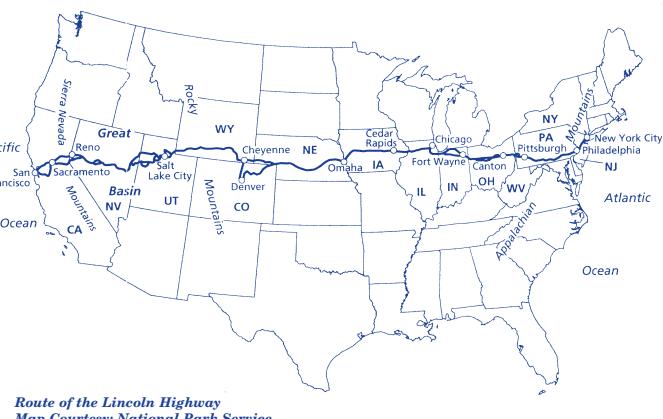
## THE LINCOLN HIGHWAY

On September 14, 1913, following months of publicity and speculation, the Lincoln Highway Association (LHA) announced the official route of the nation's first transcontinental highway, to extend from New York City to San Francisco. The idea had originated with Carl Fisher, founder of the Prest-O-Lite Company, which manufactured carbide headlights for automobiles. Fisher had also launched the hugely popular Indianapolis 500 at his brick-paved Indianapolis Motor Speedway in 1911.<sup>1</sup>

In 1912, there were approximately one million motor vehicles registered in America—up from only 8,000 in 1900—but few improved roads. Of the 2.5 million miles of roadway existing throughout the country, the vast majority were dirt roads that were often impassable when wet. Experiments with concrete as a road material had only recently begun, with the first mile of concrete road poured in 1908, near Detroit. Long-distance travel by car was still very much a novelty. Doing so definitely required a taste for adventure.<sup>2</sup>

Although the Good Roads Movement, aimed at improving the condition of the nation's roads, had been gaining momentum since the late 19<sup>th</sup> century, there was still little central administration and no federal funding for road construction when Fisher began planning his highway. He had realized that for long-distance automobile travel to be practical, a network of reliable, all-weather roads must be built.

The “Coast-to-Coast Rock Highway” Fisher envisioned was to be a grand boulevard across America, threading together historic routes and the main streets of towns from the Atlantic to the



Route of the Lincoln Highway  
Map Courtesy: National Park Service

Pacific. By 1913, the highway's route was mapped out by the Lincoln Highway Association, a group put together by Fisher of car company executives and others interested in his plan. Under the leadership of LHA president Henry B. Joy, a route was finally selected. Starting in Times Square, New York City, the route traversed a total of 3,389 miles through thirteen states: New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Colorado, Wyoming, Utah, Nevada, and California. The route ended at the Pacific Ocean in Lincoln Square, San Francisco. After it was suggested to Fisher that perhaps his highway would benefit from a more patriotic-sounding name, he approached the Lincoln Memorial Road Association, who readily turned over the name of their defunct highway. Thus was born the “Lincoln Highway”.<sup>3</sup>

From 1913-1917, most of the improvements to the highway were initiated at the local level. Corporate contribution was largely limited to the cement donated to communities paving mile-long sections known as “seedling miles”—part of Joy’s “object lesson” for improvement. Fisher’s original goal of building a crushed-rock highway in time for the 1915 Panama-Pacific Exposition had by this time been replaced with the longer-term goal of paving the entire rural portion of the route with cement.<sup>4</sup>

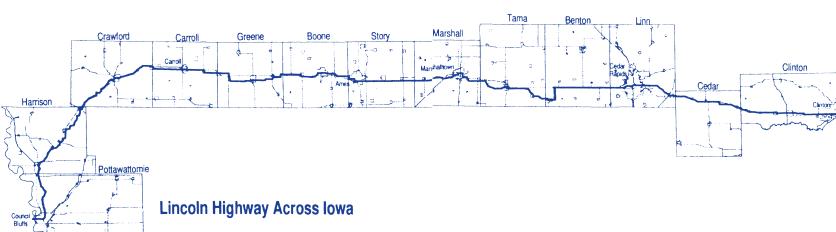
It was due in large part to the LHA’s efforts to educate the public as to the value of good highways that substantial progress was made toward paving the route in the years after World War I. In addition to the object lesson of the seedling miles, the association dramatically demonstrated the need for improved roads after persuading the government to send a military convoy across the country over the Lincoln Highway in July 1919. The much-publicized trip brought a sense of urgency to the nation’s need for reliable roads, and contributed to the successful passage of both local bond initiatives and increased federal funding for highway construction. By 1920, most of the highway east of Indiana had been paved. Extensive improvements to the remaining portions of the highway were made following passage of the Federal Highway Act in 1921, although parts of the western route would never be paved.<sup>5</sup>

The establishment of a federal system led eventually to the end of named highways. In 1925, the maze of crisscrossing named highways was replaced with a reorganized system of numbered highways. As part of this plan, and over the objections of the LHA, the Lincoln Highway was divided into several different numbered routes.<sup>6</sup>

## THE LINCOLN HIGHWAY IN IOWA

There was never any question among the LHA directors that the nation's first transcontinental highway would pass through Iowa; they needed a route to connect Omaha and the Platte River Route with Chicago, so of course the highway must pass through Iowa and Illinois. President Joy later remarked that it was these two states that presented the biggest challenge in planning the highway. Because of the relatively flat terrain, there were any number of routes that could be taken across these states, all of them equally unimproved.<sup>7</sup>

In Iowa, the bridge at Clinton was selected as the route's Mississippi crossing, and Joy traveled the state many times trying to determine the best means of connecting the two rivers. The route's 358 miles through the state passed through thirteen counties. Beginning at Clinton and heading west, these were: Clinton, Cedar, Linn, Benton, Tama, Marshall, Story, Boone, Greene, Carroll, Crawford, Harrison and Pottawattamie. The main towns the western-bound traveler passed through were Cedar Rapids, Tama, Marshalltown, Ames, Boone, Jefferson, Carroll, Denison, Logan and Council Bluffs.<sup>8</sup>



Source: *The Lincoln Highway Historic Byway Inventory and Evaluation by Decision Data & Tallgrass Historians L.C., 1998*

The Lincoln Highway through Iowa consisted mainly of unimproved dirt roads. When dry, these roads made an "excellent" highway; in fact, Iowa's earthen roads had been compared by foreigners with the best French roads.<sup>9</sup> In wet weather, however, it was a different story. The state's rich soil then was transformed into what motorists called "gumbo...a particularly vicious and viscous and generally impassable brand of mud peculiar to that state."<sup>10</sup> Travelers were advised against even attempting to cross the state in rainy weather.

By 1913, the good roads movement seemed to be making headway in Iowa. That year a county road system was implemented, creating a network of "main-traveled roads" under the administration of county supervisors.<sup>11</sup> The counties through which the Lincoln Highway route passed "replaced scores of culverts and bridges with concrete and/or steel structures, improved curves and railroad crossings, and widened the roadway to the standard cross section established by the State Highway Commission."<sup>12</sup>

Despite this progress, Iowa was still notorious as one of the worse "mud states," and it was hoped that the Federal Road Act of 1916, providing federal highway funds to states, would result in permanent highway construction in Iowa. However, to qualify for the funding, states first had to comply with certain conditions. The act required states to provide matching funds, and the financing of road paving proved to be a challenge in Iowa. Opposition was especially vigorous among farmers, who saw it as unwelcome interference in local affairs by elites and outsiders (described by one farmer as "one-hoss lawyers in patent leather boots") for a cause that they deemed unnecessary, but more importantly, one that came at their expense.<sup>13</sup> The legislature ended up voting to accept the federal aid in 1917, matching it with motor vehicle licensing fees.

Until 1924, the only paved sections of the rural part of the Lincoln Highway in Iowa were in Greene and Linn counties. Part of the delay in paving was due to the State Highway Commission's requirement that extensive preliminary grading must be completed first. The other problem was funding. Between 1919 and 1926, no new county bonds for road improvements were approved.<sup>14</sup>

The way was cleared for further paving of the Lincoln Highway in Iowa by the Federal Highway Act of 1921, a bill that the LHA helped to draft. This act would involve the federal government directly in the business of building roads for the nation. With the federal government now assuming what the LHA had believed to be its proper role in highway construction, the LHA could now cease its central administration role. However, it did not foresee that this would lead ultimately to the dismantling of both the Lincoln Highway and the LHA.<sup>15</sup>

By 1928, the entire length of the Lincoln Highway across Iowa was either graveled or paved. By 1931, paving of the Lincoln Highway from New York to Missouri Valley, Iowa, had been completed. Within the next few years, the remaining portion connecting to Council Bluffs would also be reconstructed, completing the paving of Iowa's portion of the Lincoln Highway.<sup>16</sup>

### THE LINCOLN HIGHWAY ASSOCIATION

Carl Fisher's proposal of a coast-to-coast all-weather highway met with an enthusiastic response—at first. Within a month of publishing his Ocean-to-Ocean Highway Bulletin, a million dollars had been pledged to the project. By the following spring, however, donations from the auto industry had fallen off. Determined to find some way to get his highway built, Fisher convened a series of private meetings with Detroit capitalists in the spring of 1913. The group consisted of men with ties to the auto and highway construction industries.

They included: Henry Joy, president of Packard Motor Car Company; Roy Chapin, president of Hudson Motor Car Company; Emory W. Clark, president of the First National Bank of Detroit, who would later become president of Nash Motor Company; Arthur Paddington, a promoter friend of Fisher's involved with the good roads movement; and Henry E. Bodman, Joy's attorney. On July 1, 1913, this group officially incorporated itself into the Lincoln Highway Association. Henry Joy became the organization's first president.<sup>17</sup>

Despite being named vice-president, Fisher would play a less central role in directing the efforts of the association. This position now belonged to President Henry Joy. He and the other newly-elected officers framed a statement of purpose for the organization, stating the association's primary aim: "To procure the establishment of a continuous improved highway from the Atlantic to the Pacific, open to lawful traffic of all description without toll charges: such highway to be known, in memory of Abraham Lincoln, as 'The Lincoln Highway.'"<sup>18</sup>

Joy and the directors turned the building of the highway into a national cause, titling their public announcement of the route "An Appeal to Patriots." In their "Proclamation of the Lincoln Highway Association," issued

a month later, they explained how construction of the memorial highway was the "patriotic burden" of the states and counties through which the route passed.<sup>19</sup>

Joy conceived of the organization's proper role as that of facilitating good roads activities at the local level and coordinating them into a national effort. A vigorous publicity campaign was launched. In addition to providing articles and photographs regarding the highway to newspapers and magazines, a bimonthly magazine, *The Lincoln Highway Forum*, was published by the LHA, which also produced short motion pictures showing the progress of the highway.<sup>20</sup>

To initiate improvements on the highway at the local level, Joy and the directors implemented a multi-tiered organizational system of volunteer "consuls" to represent the association and promote its interests. The state consuls often created consular districts in addition to a network of county and town consuls. By 1920 there were 250 such volunteers working at the local level to educate the public and encourage local improvements.<sup>21</sup>

The ultimate aim of the LHA was the construction of a permanent, paved highway. By 1914 Joy had determined that this road must be constructed of concrete, not macadam or gravel. Although more expensive initially, concrete's durability made it the most suitable material for constructing a permanent road. To persuade states and counties to fund such an undertaking, Joy came up with the idea of the Seedling Mile program to encourage communities in rural states along the route to pave mile-long sections of the highway; these, it was hoped, would in turn create interest in additional improvements.<sup>22</sup>



Paving the Lincoln Highway East of Colo c. 1928.  
Note use of larger gasoline driven concrete mixer by this time.  
Photo Courtesy: Iowa Department of Transportation, Ames



Paving of the Seedling Mile in Linn County, Iowa, in 1918.  
Photo Courtesy: Iowa Department of Transportation, Ames

Despite the effective campaign of public education the LHA waged on many fronts, the event that turned the tide of national opinion was World War I. According to the LHA's 1920 bulletin, "The war finally made roads a national question instead of a local issue."<sup>23</sup>

In 1927, the LHA officially disbanded. Their last act was the enlistment of the Boy Scouts of America to memorialize the route by placing 3,000 concrete markers bearing a bronze bust of Lincoln along the entire length of the highway. Only a fraction of these markers remain in their original locations.<sup>24</sup>

### THE "OBJECT LESSON" OF SEEDLING MILES

The object lesson of the so-called "Seedling Mile" was an integral part of the Lincoln Highway Association's early educational program aimed at demonstrating to all the benefits of paving the nation's roadways.<sup>25</sup> Concrete was the recommended paving material.

The easiest way to prove anything is by demonstration, and that is the principle upon which the Lincoln Highway is founded. It is a demonstration to the country at large of just what good roads, permanent roads, will do for the prosperity and happiness of the community. In most instances, the Lincoln Highway Association can persuade the communities to build their own demonstrating sections of Lincoln Highway; again, "seedling miles" are necessary—miles built of cement furnished by the Association, upon the theory that one permanent mile established and built under the proper specifications will lead to further connecting miles of the same standard. And this theory has never failed to work out.<sup>26</sup>

To that end, the LHA required these paved miles be located out in the rural countryside, at least six miles from any town, at places where the topography made road travel difficult. The idea was that once a driver was on the paved mile and could speed along unfettered and then suddenly dropped back onto an unpaved, often mud, road, that the drama of this contrast would demonstrate better than any other means the wisdom of paved roads.

That concrete was the recommended pavement by the LHA was based in part on road tests that had noted superior aspects to cement paving for

durability, better gas mileage, and less wear-and-tear on automobile tires. By 1924, approximately 650 miles of the Lincoln Highway had been paved with concrete—nearly 20% of the entire route between New York and San Francisco.<sup>27</sup>

By tying their good roads campaign to themes of progress and economic prosperity for both the urban and rural dweller,<sup>28</sup> the LHA hoped to appeal to the broadest audience and to convince that good roads were good for all. America's love affair with the automobile had already begun, and good roads were the key to the automobile's success.<sup>29</sup>

The LHA also tied their advocacy of hard surfacing to "economy in maintenance and economy in operation" as borne out by hard pavement testing, with this idea bearing "early fruit except in Iowa."<sup>30</sup> Ironically, despite early experiments and "road school" training carried out by the State Highway Commission at Iowa State College in the early 1900s-1910s, Iowans remained resistant to road paving, lagging behind other states and earning Iowa the unwanted moniker of "The Gumbo State."<sup>31</sup>

The Iowa difficulty developed first during the efforts to establish Seedling Miles; Secretary Pardington [of the LHA] found that under Iowa laws the counties, which had full control of all road matters, were powerless to finance hard-surfaced highways even when the cement needed for the work was donated. The irony of this situation was that the Iowans were spending enough in maintenance to have amortized the cost of hard-surfaced construction in a few years. [LHA] President Joy said they were practically rebuilding their dirt roads every summer and having them washed out by storms or torn up by struggling traffic every winter.<sup>32</sup>

Even when the state was shamed by the national press by the poor condition of her roads, the Iowa legislature was slow to act. By 1922, the state had only 334 miles of paved road, translating into only 5% of the total road mileage. In Iowa "negative rural sentiment carried the day and the roads stayed dirt" until the unequal property-tax structure that placed a greater burden on the farmer "and created a general dislike for the notion of expensive, high-type roads"<sup>33</sup> was finally relieved by federal funding and amending state law.

One event may have gone a long way towards influencing the people of Iowa as to the wisdom of paved roads. This was the November 11, 1922, Iowa-Minnesota football game. A heavy rainstorm following the game rendered the surrounding roads impassable. Nearly 500 cars mired down in the mud along the main road between Iowa City and Cedar Rapids, with another log-jam along the road to Davenport. The estimated 1500 stranded fans, including a number of out-of-staters, had to sleep in their cars, find refuge in local farm houses, or slosh through the mud to the interurban railroad. The *Chicago Tribune* even took note of the muddy mess, accenting the poor condition of Iowa's roads.<sup>34</sup> "Enough was enough," and "the next spring the legislature reversed all previous stands and authorized the counties to issue bonds for road-building, the bonds to be retired from the proceeds of a state gasoline tax."<sup>35</sup> The voters followed suit as counties began to approve bond issues for paving projects across the state.

The first Seedling Mile along the Lincoln Highway was built near Malta, Illinois, in 1914. This was followed by seedlings built in Whiteside County, Illinois (1915), Grand Island, Nebraska (1915), Kearney, Nebraska (1915), Linn County, Iowa (1918-19), Paulding County, Ohio (1919), and the "remarkable" six-mile stretch of seedling pavement laid near Fremont, Nebraska in 1919-20. Initially these roads could be as narrow as ten feet wide, with standards soon raised to a minimum of 16 feet and up to 18 feet by 1918.<sup>36</sup>



1921 Photo of East end of Linn County Seedling Mile view to northwest.  
Note Harry Stoneking's bungalow on right.  
Photo Courtesy: Iowa Department of Transportation, Ames

When the LHA came to Iowa to promote the idea of Seedling Miles, they announced that they had 8,000 barrels of donated cement available for construction of four miles of concrete pavement in four different counties in the state. Unfortunately, "it developed that there were legal obstacles in Iowa state laws and the gift could not be accepted."<sup>37</sup> By 1915, the LHA still had over 22,000 barrels of cement that had not been applied for and "offered 3,000 barrels to any community that would build one mile of concrete road on the Lincoln Highway."<sup>38</sup> Preference for the remaining allotment was to be given to counties in Iowa, Nebraska, and Wyoming. Even then, problems arose, delaying some seedling miles for several years. The seedling mile in Iowa was just one such example, with Linn County finally building the first seedling mile section in 1918 and opening it to traffic the following summer. This would be among the last of the seedling miles built along the Lincoln Highway. The LHA had concluded by that time that the program had served its purpose as an object lesson and refocused its attention on other concerns.

No seedling miles were constructed after 1919. By the spring of that year the heavy traffic of munitions-laden trucks rolling over the Lincoln Highway to the Atlantic seaboard had so thoroughly demonstrated the value of hard-surfaced improved highways that the cement manufacturers felt it unnecessary to make further donations toward such missionary work. At the same time, the Lincoln Highway Association had seen the results of the seedling mile construction spread so far, and the value of the concrete road become so generally accepted, that it felt further activity of this character was not needed. It accordingly turned its attention toward improvement of those western sections where the states were financially unable to bring the highway up to the standard desired.<sup>39</sup>

After World War I, the LHA moved away from the promotion of Seedling Miles to concentrate in part on the development of standards for road construction. The LHA proposed the construction of an "Ideal Section" as the next "object lesson" in road construction. Recommended features of the Ideal Section included a 100-foot right-of-way, 10-inch thick reinforced concrete slab paving, overhead lighting for nighttime driving, rounded corners, shallow curves, guard rails, warning signs, removal of visual obstructions, prohibition of advertising signs, underground utilities, dirt shoulders on each side of the pavement, elimination of the side ditches, provision of a foot path for pedestrians, and abolishment of railroad grade crossings. Public

facilities such as restrooms, tourist parks, and campsites were recommended as amenities that should complement ideal highway construction.<sup>40</sup>

Unlike the seedling mile sections, which were purposefully built in locations that posed transportation problems, the Ideal Section was to be built at a flat location that posed no extraordinary drainage challenges. Locations were considered in Ohio, Indiana, Illinois, Iowa, and Nebraska; however, by 1921, it had been determined to build the Ideal Section in Lake County, Indiana. The 40-foot wide, 7,162-foot long concrete road was completed in 1922 at a cost of over \$166,000.<sup>41</sup>

In 1927, the LHA, having largely fulfilled its original mission, closed its offices. The highway itself was no longer officially called the Lincoln Highway, with the route now numbered as federal routes 1, 30, 30N, 30S, 530, 40, and 50 across the length of the highway. In Iowa, the route was designated as Highway 30. However, unofficial interest in the Lincoln Highway continued in the ensuing years as evidenced by the concrete markers that were placed along the route in 1928 and by the revival of the Lincoln Highway Association in 1992. Today the mission of the LHA is to promote the study, preservation, and enjoyment of the historic Lincoln Highway.<sup>42</sup>

### THE SEEDLING MILE IN LINN COUNTY, IOWA

While the Linn County Seedling Mile was not the first stretch of rural concrete pavement in the state—that honor went to the 14-foot wide concrete pavement laid in 1908 near Eddyville's Highland Cemetery<sup>43</sup>—it was the first “Seedling Mile” of concrete pavement along the Lincoln Highway in Iowa. Linn County had competed with Greene, Marshall, and Pottawattamie counties for this honor. The July 1917 *Lincoln Highway Forum* noted that Linn County was assured delivery of 3,000 barrels of cement donated by the Northwestern States Portland Cement Company of Mason City, Iowa; however, by September 1917, the *Forum* was touting Marshall County as the site of Iowa’s “first” Seedling Mile, with that county having made a formal application for 3,100 barrels of cement to be supplied by the Marquette Cement Manufacturing Company of Chicago. Grading for this mile was reportedly already underway. However, actual

construction of Iowa’s first (and only official) Seedling Mile began in Linn County in August 1918, with the segment completed in June 1919. The November 1918 *Forum* noted the nearing completion of Linn County’s Seedling Mile as well as the assurance that two more miles would be constructed “early in 1919”—the long-awaited miles in Marshall and Pottawattamie counties. However, by this time, the Seedling Mile program was all but defunct. The *Forum* noted that there had been a ban on road building activities during World War I, which may account for some of the delays.<sup>44</sup> However, it is suspected that Linn County leaped to the forefront to obtain “first” status because of delays or problems in the delivery of the cement to the other counties.



1908 Photo of concrete paving near Eddyville, Iowa. Note use of hand mixer.  
Photo Courtesy: State Historical Society of Iowa, Des Moines.

also seemed to wield local power, with the *Cedar Rapids Gazette* crowing that Linn County’s “recent progress in road improvements” was thanks to Edward Killian’s “energy” and “keen business management.”<sup>46</sup> The paper went on to note that Killian began promoting the idea of free cement to build a seedling mile after having been appointed the county consul for the LHA. Private subscriptions and matching funds from the Board of Supervisors would help fund the project. While the cement was donated by the Northwestern States Portland Cement Company through the LHA, the county would end up paying \$2100 just to haul it to the job site.

The *Mt. Vernon Record* reported on June 19, 1918, that Linn County was to have one mile of paved road, with Edward Killian helping to secure the

\$8400 donation.<sup>47</sup> Actually, the section was a little less than one mile in length by “about two hundred feet.”<sup>48</sup> By July 7, 1918, the *Cedar Rapids Gazette* reported that the paving project was “assured,” with the location to be “eastward of the point where the road known as the ‘short cut’ connects with the Lincoln Highway.”<sup>49</sup> The cement was being delivered and stored in local barns by July 17<sup>th</sup>, with the bids for construction of the Seedling Mile opened on July 22<sup>nd</sup>.<sup>50</sup> Three firms submitted bids: the Ford Paving Company of Cedar Rapids, Perry Jayne of Cedar Rapids, and Cook and Keane of Dubuque. However, the bids were rejected because they were deemed “excessively high.”<sup>51</sup> The project was re-bid, with only two bids submitted this time from the Ford Paving Company and Cook and Keane. The Ford Paving Company had the low bid of \$3.15 per square yard (down two cents per square yard from their original estimate) but was subsequently persuaded by the State Highway Commission to reduce their bid to \$2.84 per square yard. The reduction was based on the negotiated change from two-course concrete paving to one-course concrete paving using Muscatine gravel as aggregate instead of crushed rock.<sup>52</sup>

A contract was finally signed on August 1, 1918.<sup>53</sup> The local newspaper noted that “Mike Ford is said to have the county by the nape of the neck, and he knows it.” This was because in order to meet the targeted deadline of November, it would be necessary to move more than a hundred tons of material *a day* from Mt. Vernon out to the strip to be paved—a distance of five to six miles. Ford reportedly had the crushed rock in the vicinity “tied up in contracts, so that no one else [could] buy their crushed rock at a price that [would] allow them to make a favorable bid.”<sup>54</sup> Mike Ford guaranteed the project would be finished in the fall.<sup>55</sup> In fact, the contract specified a completion date of November 1, 1918, and “that the time of completion of said work is of the essence of this contract.”<sup>56</sup> The deadline would not be met.

The original construction specifications for the Seedling Mile required both Type A and Type B concrete pavement 16 feet wide. Type A pavement was to consist of a single course of concrete the full depth of the pavement. Type B pavement was limited to two courses of concrete—a base course and a wearing course. Both Type A and B pavement was to be reinforced with steel. However, the compromise involved the substitution of gravel for crushed rock aggregate and the elimination of the two-course pavement to a one-course concrete pavement that was to be 7½ -inches thick at the center thinning to 6 inches at the outside edges for a 1½ inch crown.<sup>57</sup>

The concrete was to be poured between either four-inch plank side forms or rigid steel forms held in place by stakes and bracing. The forms were to be left in place not less than 24 hours after the concrete had been laid. It was specified that there would be no expansion joints “except as shown on the plans,” with each day’s run of concrete forming “a monolithic concrete slab.”<sup>58</sup> In actuality, the end of each pouring “was allowed to taper off on the ground” leaving “the next pouring thin at the start on the stop” resulting in cracks that eventually had to be filled with asphalt.<sup>59</sup> There were also specifications for a wooden guard rail to be painted white and for lateral drains.

While work on the Seedling Mile had begun by late August of 1918, the pavement was not completed until June of the following year. One problem was difficulty in finding enough laborers for the project.<sup>60</sup> Other problems, outlined by R.W. Gearhart, the Linn County Engineer at the time, included the “leisurely” way that the Ford Paving Company got the equipment out to the job site; difficulties in transporting the gravel from the Northern Gravel Company in Muscatine by rail, owing to a shortage of open-top cars at the time, ten straight days of rain, and equipment breaking down.<sup>61</sup> The United States’ growing involvement in World War I probably contributed to supply and shipping delays as well as the labor shortages.



1918 Photo of grading for Linn County Seedling Mile.  
View to northwest from mid-section of mile.  
Photo Courtesy: Iowa Department of Transportation, Ames

Gearhart did note that the “contractor’s equipment was excellent,” consisting of the following:

A Type-O-Thew steam shovel for grading; a Type-O-Thew steam clam shell used for unloading the gravel and sand from the cars and loading it into two large five-ton Velie trucks. Also several smaller trucks and wagons drawn by horses were used in delivering the material from Mt. Vernon to the job. A large Foote mixer was used for mixing and placing the concrete. Water was supplied by means of a two-inch pipe line from a creek at one end of the job. A steam engine and force pump being kept at work continually during working hours. In this manner plenty of water was always on hand for mixing concrete, operating steam shovel, and roller and for sprinkling sub-grade and finished concrete. The roller was a ten-ton tandem roller. Steel curb forms were used for the edge of the pavement.

The specifications called for a belt and roller finish on the surface of the pavement and after some delay the contractor furnished the necessary equipment which consisted of a new ten-inch belt, and a very light twelve-inch metal roller. The cut shows the belt and roller in use. The roller is made by nailing fourteen-gauge galvanized metal on two wooden discs with a rod through the center with a long handle attached. This equipment worked very nicely and gave an elegant finish to the concrete.<sup>62</sup>

The *Mt. Vernon Record* commented on Mike Ford’s progress in the September 25, 1918, issue. It was noted that a short strip of concrete paving had been laid and that much of the roadway had been graded ready for paving but that “it is not at all likely that the paving [would] be completed this fall.”<sup>63</sup> The newspaper also made note of Ford’s construction techniques and equipment:

One of the secrets of Mike Ford’s success as a contractor is shown in his work here. The first thing he did was to rent a strip of ground alongside the short line of Willis Fawcett. He has the cars of gravel and sand set in on this track, and unloaded with a steam shovel. It takes about one hour to unload a car of sand or gravel. The local pulled in with a car of sand one morning, and before the local was out of Lisbon the car was reported empty.



1918 Photo of construction in progress on Linn County Seedling Mile.  
Note use of steam-powered mixer.  
Photo Courtesy: Iowa Department of Transportation, Ames

A steam shovel also does the work cutting down the roads where grading is necessary. The big shovel takes one bite out of the bank, depositing it in a dump wagon, then another bite and the wagon is full. When the shovel needs to be moved the big crane is swung around, the heavy plank it runs on is hooked onto it, and it swings around, dragging the plank into place ahead of it, looking like nothing in the world so much as an elephant swinging a plank around with its trunk. The engineer then runs the shovel ahead onto the plank releasing another, which is picked up in the same way when needed.

Thus far twenty-seven cars of sand and gravel [have] been unloaded. The cars are coming in regularly now and there should be little delay from this cause. However, it is not at all likely that the paving will be completed this fall. In fact such a thing appears to be outside the range of possibilities. But at any rate it will be completed some day.<sup>64</sup>

By October, 9, 1918, the *Mt. Vernon Record* noted that the pavement was "growing slowly" and that part of the problem was that "sufficient help cannot be secured."<sup>65</sup>

The paving is now laid to about the top of the hill just this side of the entrance to the Waln farm. The paving makes a pretty sight down the roadway, and will look even more beautiful to the traveler that strikes it on a muddy day...

The Ford gang, with their steam shovel, have graded the roadway east, and are keeping well ahead of the paving crew. The pavers, by the way, work on alternate days. They can use up as much sand and gravel in one day as can be hauled out in two. The grade through that mile will be a pleasant one to travel. The hollow at the T.C. Stoneking place has been filled three or four feet, and the hillsides cut down an equal amount, giving a very light and easy grade.

On May 21, 1919, the *Mt. Vernon Record* noted that the paving "was about in" and that the road would soon be opened.<sup>66</sup>

By June 18, 1919, the road had finally opened to traffic as well as controversy, as there were immediate concerns about the condition of the pavement. One complaint concerned a "hump" on the "Stoneking Hill" that became evident shortly after the concrete had been laid. However, greater concerns involved visible cracks that had opened lengthwise of the slab and the lack of true expansion joints, although it was noted that "on the whole, the paving is in very good condition."<sup>67</sup> The cracks were "given immediate attention" and over the decades the pavement proved to be a "fairly good surface, though its width [was] the basis of much criticism."<sup>68</sup>

People of Iowa have heard a great deal about the Linn County Seedling mile of concrete road. Many have praised it. Some have condemned. Users say it is great. Engineers say it is a fine piece of construction. Some, usually those who have never seen the road, only heard about it, have worried themselves sick over the cost of it. These, however, most all seem to live outside of Linn County. No sickness for those who live alongside the road or near enough to make use of it. After pounding along for hours on the dirt either side of the road, to come suddenly and unexpectedly upon this stretch of beautiful white roadway, makes one think of an oasis in

the desert, a shade tree on a hot, burning prairie, or a cool flowing spring when you're thirsty. It looks good to a man longing for a real road. Before you utterly condemn these Linn County people for having gone crazy and spent \$34,936.81 building this road, take a run out over the Lincoln Highway east of Cedar Rapids, look at this stretch, note the homes adjoining it, picture yourself living along it, and then question yourself whether you blame them or not. You know time is fleeting and you're only going to live once and what you get out of life, this time round, is all you're absolutely sure of. Strange to say, with others half sick with worry over the cost of it, you find the Linn County People, who built the road, almost to a unit perfectly satisfied with what they got for their money, and seemingly enjoying life along it. It certainly is good looking, as the picture indicates.<sup>69</sup>

The Seedling Mile was located approximately halfway between Cedar Rapids, Marion, and Mt. Vernon on what had historically been an old wagon road and stagecoach trail. It was situated in an area where road conditions were historically problematic. The location also had political implications for Cedar Rapids and Marion, with both communities fighting for the county seat designation and access to the Lincoln Highway. Neva Stoneking, who lived along this roadway starting in 1914, noted "since both Marion and Cedar Rapids were hoping to get the 'seedling mile,' it was decided to put it an equal distance from the two towns...hence, the town that worked the hardest could hook up with the new paving."<sup>70</sup>



1921 Photo of Linn County Seedling Mile.  
View to southeast towards mid-section.  
Photo Courtesy: Iowa Department of Transportation, Ames

Other members of the Stoneking family, whose farms lined the Seedling Mile, included Jean Moore, daughter of Harry Stoneking. She recalled that when the Seedling Mile was being paved the laborers lived in a tent camp across the road from her father's house. Her grandmother cooked meals for the workers, many of whom were Russian immigrants, although she remembered one Irishman named Dinty O'Leary among the crew. "When her family became disabled by influenza late in 1918, some of the workers milked for them and slipped the milk pail through the kitchen door quickly to avoid being infected."<sup>71</sup>

### LOCAL POLITICS AND THE SEEDLING MILE

While the intent of the Seedling Mile was to promote additional paving projects in the county (and the state), it did not have immediate results in Linn County that were desired. The east and west connections out from the Seedling Mile would not be fully completed for another six years. Delays were related to funding difficulties as well as a political power struggle between the cities of Marion and Cedar Rapids. Marion had long been the county seat of government and was situated on the original route of the Lincoln Highway through Linn County. Cedar Rapids, meanwhile having long surpassed Marion in both population and industrial/commercial development and coveted the county seat designation and a more direct connection to the Lincoln Highway, bypassing Marion altogether. Cedar Rapids was finally successful in wresting the county seat away from Marion in November 1919, shortly after the completion of the Seedling Mile. This set the stage for bond issues to fund paving projects in the county including the connections east and west of the Seedling Mile. The first proposal was to pave from the west end of the Seedling Mile into Cedar Rapids along what had come to be known as a short cut along the old Davenport-Tipton-Cedar Rapids road.<sup>72</sup>

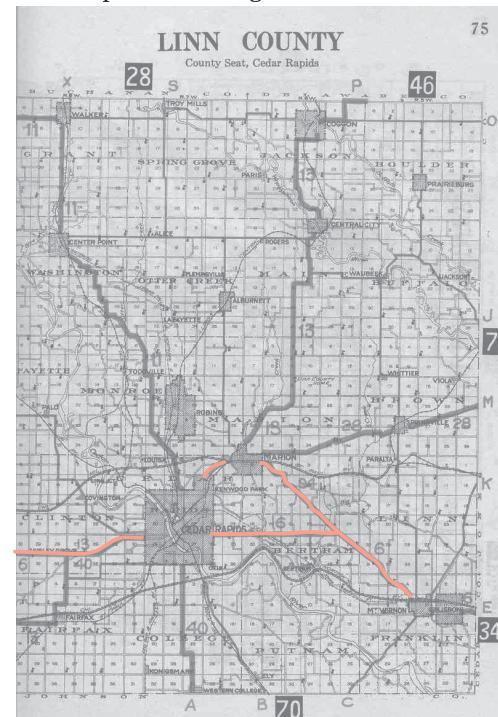
Marion citizens were "mad as hell" about this attempt to cut them off from the Lincoln Highway, and rural landowners were loath to agree to road paving funded largely through tax assessments. At least one road meeting in Coggon degenerated into egg-throwing and man-handling of paving proponents. The *Marion Weekly Sentinel* observed "that the goods roads question is one of the most important factors in the progress of a community is certain, and Marion could not afford to be negligent in doing her utmost to keep the Lincoln Highway in the present course."<sup>73</sup> However, by June of 1918, a proposal was floated to straighten the short cut at "Emmons corner,"

which was at the west end of the Seedling Mile. This was seen as the first official step towards removing the Lincoln Highway from Marion and sending it over the short cut to Cedar Rapids.<sup>74</sup>

Despite efforts by the City of Marion to pave the connecting roads to the Seedling Mile, and the defeat of several county bond issues by the alliance of Marion citizens and rural farmers, the Cedar Rapids short cut paving project was finally completed October 1, 1921. Once the short cut was paved, it provided a direct link to the Lincoln Highway effectively cutting Marion off the route.<sup>75</sup>

The new courthouse in Cedar Rapids was completed in July 1925, the same year that the paving of the section of the Lincoln Highway from the Cedar County line to the east end of the Seedling Mile was finally completed. At that point, one could drive from Cedar Rapids to Chicago on a continuous paved road, thus sealing the rerouting of the Lincoln Highway directly into Cedar Rapids, bypassing Marion altogether.<sup>76</sup>

Despite the local delays and political controversy, the Seedling Mile program, even in Iowa, had the desired effect of the LHA's "object lesson" of demonstrating the utility and cost-effectiveness of concrete pavement for rural roadways. As such, it played perhaps a small but notable role in helping to bring Iowa "out of the mud" even though it took longer to accomplish that goal than first hoped. By 1930, the *Des Moines Register* was able to proclaim that "Iowa Has Stepped Out of the Mud!" because, except for several short



Route of the Lincoln Highway in 1924 through Linn County showing the Cedar Rapids Cut-off.  
Map Courtesy: Lyell Henry, Lincoln Highway Association

segments, the Lincoln Highway had been completely paved along with 2,000 other highway miles in the state.<sup>77</sup>

### THE MAJOR PLAYERS IN LINN COUNTY'S SEEDLING MILE



W.G Haskell.  
Source: Official Register of the State of  
IA, 1919-20.  
Courtesy: W.M. Kreuger, Iowa Masonic  
Library, Cedar Rapids

Senator W.G. Haskell had been born near Bradford, Iowa, in 1857. He was a member of the Cedar Rapids City Council from 1896-1902 and was credited with helping to establish the Cedar Rapids parks system. He held numerous civic leadership posts including Commercial Club president, member of the River Front Commission, and Chair of the State Park Commission. He was elected to the State Senate from Cedar Rapids in 1916, 1920, and 1924, and died while in office in 1927 at the age of 69. He started his career with the Burlington, Cedar Rapids, and Northern Railroad. He worked first in Vinton, Iowa, and Sioux Falls, South Dakota, before settling in Cedar Rapids where he served as a traveling freight agent. He remained with the railroad for 20 years before embarking on a new career in 1893 in the coal and wood business as a jobber and wholesale dealer. This business grew into the W.G. Haskell Coal Company. Subsequent endeavors included formation of the Johnson Gas Appliance Company and president of the Anderson Land Company, Mound Farm Realty, and the Republican Printing Company. He also served as a director of the Allison Hotel and the Merchants National Bank. Among his noted achievements during his senate tenure were securing appropriations for a children's hospital at the University of Iowa and being a strong advocate for good roads and parks in the state. His advocacy for good roads in Linn County began with his promotion for the Lincoln Highway Seedling Mile. To that end, he also served as District Officer for the Lincoln Highway Association.<sup>78</sup>

Edward Killian and his brother A.L. Killian moved to Cedar Rapids from Wahoo, Nebraska, where the Killian family had been in the retail business for many years. The brothers followed suit in Cedar Rapids July 29, 1911, with the opening of The Killian Company Department Store at the corner of 1<sup>st</sup> Avenue and 3<sup>rd</sup> Street East. The store was a major fixture in Cedar Rapids' retail industry until 1982. Edward Killian served as the president from 1911 to 1933, with his brother assuming the company presidency in

1934. Edward also served as the Linn County Consul for the Lincoln Highway Association and was one of the primary promoters of the Seedling Mile and the whole of the Lincoln Highway through Linn County. A July 11, 1918, newspaper article trumpeted "Take Off Hats to Edward Killian" for his role in securing the Seedling Mile pavement in Linn County "due to his energy and persistence."<sup>79</sup> While his motives were certainly for the greater good of the county as a whole, his own business also benefited from good roads and the paving of the Lincoln Highway. In 1924, the *Official Road Guide of the Lincoln Highway* contained an advertisement for Killian's department store that touted it as "the largest department store in Iowa on the Lincoln Highway" and noted that it had public restrooms, a Bureau of Information, a sub post office, and a tea room.<sup>80</sup>



Edward Killian.  
Photo Courtesy: The Gazette, Cedar Rapids,  
Iowa

The cement for the Linn County Seedling Mile project was donated by the Northwestern States Portland Cement Company of Mason City, Iowa. This company was founded in 1906 by the MacNider family, with another cement plant opened in the same town in 1910—the Lehigh Portland Cement Company. Since the 1980s, Northwestern States has been the Mason City facility for Holcim (US), Inc., a subsidiary of Holderbank, a Swiss cement company.<sup>81</sup>

The contractor for the Seedling Mile project was the Ford Paving Company under the direction of Mike Ford, who came to Cedar Rapids in the 1880s



The Killian Co.  
Cedar Rapids, Iowa  
The largest department  
store in Iowa on the  
Lincoln Highway. Rest Room,  
Bureau of Information,  
Sub Post Office, Tea  
Room—Good Food at Rea-  
sonable Prices.

Ad for The Killian Co.  
Source: The Complete Official Road Guide of the Lincoln Highway  
Pub. by Lincoln Highway Association, Detroit, MI 1924

and first worked as a barber in the city. In 1895 Ford entered into the contracting business with R.C. Delahunt under the company name of Ford & Delahunt. This company evolved into Ford & Snoffer and finally the Ford Paving Company. Ford's first contract was for "the Vernon Ditch" Cedar Rapids' E Avenue sewer project, with the company's largest project having been a 10-mile paving contract in Bismarck, North Dakota. Mike Ford died in Cedar Rapids on July 6, 1920, nearly a year after the completion of the Seedling Mile. At the time of his death, his company had paving contracts in Tama, Hartley, Strawberry Point, and Orange City, Iowa, as well as one in Shardon, Nebraska. His obituary called Ford "one of the best known paving contractors in the middle west."<sup>82</sup>

### THE HAPPY VALLEY GAS STATION

The Happy Valley gas station was situated on the south side of the road at the east end of the Seedling Mile. It was built in 1928 by Harry Stoneking, whose family had lived along this roadway long before it became part of the Lincoln Highway. Typical of early gas stations along the Lincoln Highway, this canopied building was across the road from Harry Stoneking's bungalow house, which had been built c.1913.<sup>83</sup>

Willis Bachman of Cedar Rapids recalled his boyhood days living in the Happy Valley gas station in the years 1938 to 1942. His family rented the station from Harry Stoneking and they managed the business, which sold Skelly gasoline and oil.

There were two hand-operated gas pumps and eventually one electric pump. The electric pump was used intermittently as the electric power was not very reliable. The family also operated a lunch counter inside the station. A row of booths, a counter serving only cold meat sandwiches and pop. No beer. There were two pool tables in a back room (how was it possible to play pool without beer?), a small kitchen that served the entire family, one bedroom barely large enough for two double beds, and an indoor bathroom about the size of a small closet



Happy Valley Gas Station in the 1930s.  
Photo Courtesy: Willis Bachman  
and Van & Bev Becker, Cedar Rapids, Iowa

containing only a stool. In the winter the station was heated only by locally cut wood....

On Sunday mornings, the neighbors would come to the station to pick up their newspapers. By afternoon there were baseball games (home plate was down by the creek; right field up by the highway) and the lunch counter menu expanded to include the only hot food item – hot dogs. By evening, there were midget races. Yes, automobile races! A close neighbor brought a scraper and shaved about 3 inches of sod to form an oval track west of the baseball diamond. The track was flat with no banking or pit area. The cars were what we refer to today as midget racers. The name of local star/owner/driver Dick Hobel was mentioned as a prominent organizer and racer.<sup>84</sup>

While the gas station itself was never robbed, there was a close brush with John Dillinger's gang in the late 1930s. One morning the Bachmans awoke to find the highway strewn with newspapers. "It seems that one of the Chicago gangsters (John Dillinger) had a run-in with the local law and was leading a hot pursuit back toward Chicago."<sup>85</sup> The gangsters threw out newspapers from their car to plaster the windshields of their pursuers, an attempt that was less than successful and primarily resulted in a mess on the highway. The gangsters managed to escape anyway.

The gas station ceased operations in the 1940s, with the building subsequently converted completely into a residence.<sup>86</sup> More recently it had stood vacant until it was partially demolished a few years ago. The ruin of the gas station today stands sentinel near the east end of the Seedling Mile.



Happy Valley Gas Station in the 1990s.  
Photo Courtesy: Paul Walker, Lincoln Highway Association

## THE LINN COUNTY SEEDLING MILE TODAY

In 2002, the Linn County Engineer's Office reconstructed Mt. Vernon Road from the city limits of Mt. Vernon west to what historically had been the western terminus of the Seedling Mile. The historic right-of-way, drainages, and pavement of the stretch of road that once contained the Seedling Mile were widened and reconstructed. In the process, 48% of the Seedling Mile pavement was overlaid with new concrete, with 52% of the older pavement completely replaced. Steps were taken in the design and materials of the new roadway to pay homage to the historic significance of the Seedling Mile. These steps included use of concrete surface pavement for this nearly one-mile stretch, with scored lines demarcating an older pavement width, and a stone marker with the LHA logo to be placed near the west end of the Seedling Mile, among other actions. The current booklet is the final contribution to the commemoration of the Seedling Mile in association with the Mt. Vernon Road reconstruction project.

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1995    *The Lincoln Highway Iowa, Volume I.* The Patrice Press, Tucson, Arizona.

Hokanson, Drake

1988    *The Lincoln Highway: Main Street across America.* University of Iowa Press, Iowa City.

Landis, Leo

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

Mount Mercy College

1996    *On the Lincoln Highway: Iowa's Main Street, A sesquicentennial exhibit featuring the Lincoln Highway in Iowa, 1913-1966.* Mount Mercy College, Cedar Rapids, Iowa.

## ENDNOTES

<sup>1</sup> Drake Hokanson, *The Lincoln Highway: Main Street Across America* (Iowa City: University of Iowa Press, 1988), pp. 5-6, 14-15; Richard J. Maturi, *American History* 29 (June/July 1994), p. 2.

<sup>2</sup> Rebecca Conard, *The Lincoln Highway in Greene County* (National Register of Historic Places MPDF, 1992), p. E2-5; Hokanson, *The Lincoln Highway*, pp. 6-7, 18, 75; Maturi, *American History*, p. 2; George May, "The Good Roads Movement in Iowa," *Palimpsest* 46:2 (February 1965), pp. 68-72, 96; Bruce E. Seely, *Building the American Highway System: Engineers and Policy Maker*, (Philadelphia: Temple University Press, 1987), pp. 14, 17-18, 32-35.

<sup>3</sup> Hokanson, *The Lincoln Highway*, p. 9, 17, 42-43; *Lincoln Highway Forum*, "Why the Lincoln Way Route?," *The Lincoln Highway Forum*, 6 (Spring/Summer 1999), p. 15; Maturi, *American History*, p. 3.

<sup>4</sup> Decision Data and Tallgrass Historians L.C., *The Lincoln Highway: Historic Byway Inventory and Evaluation* (Ames: Iowa Department of Transportation, 1998), p. 3; Hokanson, *The Lincoln Highway*, pp. 17-19; Maturi, *American History*, p. 3.

<sup>5</sup> Decision Data and Tallgrass Historians L.C., *The Lincoln Highway*, pp. 4-5; Hokanson, *The Lincoln Highway*, pp. 85, 102; Seely, *Building the American Highway System*, pp. 71-72; Maturi, *American History*, p. 5.

<sup>6</sup> Ibid., pp. 20,87, 108-132; Decision Data and Tallgrass Historians L.C., *The Lincoln Highway*, p. 5; Maturi, *American History*, pp. 5-6.

<sup>7</sup> Conard, *The Lincoln Highway in Greene County*, p. E7; Hokanson, *The Lincoln Highway*, p. 52.

<sup>8</sup> Conard, *The Lincoln Highway in Greene County*, p. E8; Hokanson, *The Lincoln Highway*, p. 52.

<sup>9</sup> May, "The Good Roads Movement," p. 67.

<sup>10</sup> Lincoln Highway Association (LHA), *A Picture of Progress on The Lincoln Way* (Detroit, Michigan: The Lincoln Highway Association, January 1920), p. 20.

<sup>11</sup> May, "The Good Roads Movement," p. 85.

<sup>12</sup> Decision Data and Tallgrass Historians L.C., *The Lincoln Highway*, p. 4.

<sup>13</sup> May, "The Good Roads Movement," p. 80; Mike Keller, "Lincoln Highway was Main Street of the Nation," *Cedar Rapids Gazette* (July 31, 1983); LHA, *A Picture of Progress*, p. 20.

<sup>14</sup> Conard, *The Lincoln Highway in Greene County*, pp. E17-E19; Hokanson, *The Lincoln Highway*, p. 78; Keller, "Lincoln Highway was Main Street"; May, "The Good Roads Movement," pp. 108-109.

<sup>15</sup> Hokanson, *The Lincoln Highway*, pp. 108-110; LHA, *A Picture of Progress*, pp. 31, 39.

<sup>16</sup> Decision Data and Tallgrass Historians L.C., *The Lincoln Highway*, p. 5; Conard, *The Lincoln Highway in Greene County*, pp. E20-E21.

<sup>17</sup> Conard, *The Lincoln Highway in Greene County*, p. 13; Hokanson, *The Lincoln Highway*, pp. 7-8, 11; Lincoln Highway Forum, "The Lincoln Highway: Its Ideals, Plans, and Purposes," *The Lincoln Highway Forum* 6 (Spring/Summer 1999), p. 13.

<sup>18</sup> Hokanson, *The Lincoln Highway*, p. 11.

<sup>19</sup> Ibid., p. 15; Lincoln Highway Forum, "The Lincoln Highway," pp. 12-13.

<sup>20</sup> Ibid., pp. 11-12, 38.

<sup>21</sup> Hokanson, *The Lincoln Highway*, p. 15; LHA, *A Picture of Progress*, p. 37.

- <sup>22</sup> Hokanson, *The Lincoln Highway*, p. 18-19; LHA, *A Picture of Progress*, pp. 4, 8, 10.
- <sup>23</sup> Ibid., p. 14
- <sup>24</sup> Hokanson, *The Lincoln Highway*, pp. 110-111, 130; Maturi, *American History*, pp. 5-6.
- <sup>25</sup> *The Lincoln Highway: The Story of a Crusade that made Transportation History* (New York: Dodd, Mead & Company, 1935), p. 78.
- <sup>26</sup> Henry B. Joy, "What the Lincoln Highway Means to the Countryside," *The Countryside Magazine* (June 1915), p. 317.
- <sup>27</sup> Experimental road paving tests were carried out by the Iowa State Highway Commission in cooperation with the Good Roads Section of the Engineering Experiment Station at what was then Iowa State College (now Iowa State University) in the early 1910s (Iowa Highway Commission Service Bulletin Vol. VII, No. 9 [September 1919], pp. 6-15); "Concrete Wherever Practicable," *The Lincoln Highway Forum* (January 1924).
- <sup>28</sup> Joy, *The Countryside Magazine*, pp. 317-353.
- <sup>29</sup> Ibid., p. 353.
- <sup>30</sup> *The Lincoln Highway: The Story of a Crusade*, p. 245.
- <sup>31</sup> Leo Landis, *Building Better Roads: Iowa's Contribution to Highway Engineering 1904-1974* (Ames, Iowa: Center for Transportation Research and Education, Iowa State University, 1997); Dave Rasdal, "In 1912, coast-to-coast a dream," *Cedar Rapids Gazette* (September 28, 1998).
- <sup>32</sup> *The Lincoln Highway: The Story of a Crusade*, p. 245.
- <sup>33</sup> Hokanson, *The Lincoln Highway*, pp. 97-98.
- <sup>34</sup> "Hundreds of Motors Mired in Mud near North Liberty, Many Spend Miserable Night," *Cedar Rapids Gazette* (November 13, 1922); "Stormswept Highways End Visitors' Hope," *Iowa City Press-Citizen* (November 13, 1922); Irving B. Weber, *Historical Stories about Iowa City, Volume 2* (Iowa City: Iowa City Lions Club, 1979), p. 232.
- <sup>35</sup> *The Lincoln Highway: The Story of a Crusade*, pp. 245-247; Gregory M. Franzwa, *The Lincoln Highway Iowa, Volume I* (Tucson, Arizona: The Patrice Press, 1995), p. 15.
- <sup>36</sup> "Chronology and Outline of the Activities of the Lincoln Highway Association: 1908-1928," The Lincoln Highway Collection Catalogue, Transportation History Collection, Special Collections Library, University of Michigan, Ann Arbor; *The Complete Official Road Guide to the Lincoln Highway*, 4<sup>th</sup> edition (1921), p. 50; *The Lincoln Highway: The Story of a Crusade*, pp. 128, 134-135; Ivan E. Prall, "The First Seedling Mile," *The Lincoln Highway Forum* 2(1) (Fall 1994), pp. 41-43.
- <sup>37</sup> *The Lincoln Highway: The Story of a Crusade*, p. 129.
- <sup>38</sup> Ibid., p. 133.
- <sup>39</sup> In reality, some seedling miles were not completed until late in 1919 or even into 1920 (see *The Complete Official Road Guide to the Lincoln Highway*, p. 50); *The Lincoln Highway: The Story of a Crusade*, p. 137.
- <sup>40</sup> "Trend of Road Highway Construction Shown in Lincoln Highway Ideal Road Specification," *Iowa State Highway Commission Service Bulletin* IX(1) (January 1921), p. 11; *The Lincoln Highway: The Story of a Crusade*, pp. 198-200.
- <sup>41</sup> Lincoln Highway Association, *An "Ideal Section" on The Lincoln Highway* (Detroit, Michigan, c.1920), pp. 3-4; "Some Facts About the Ideal Section," undated anonymous typescript, Vertical Files, Iowa Department of Transportation Library, Ames.
- <sup>42</sup> Drake Hokanson, "Seedling Mile: The first mile of concrete highway paving in Linn County was fine if you could get to it," *Iowan* 17 (Fall 1968) p. 53; "Trend of Road Highway Construction Shown in Lincoln Highway Ideal Road Specification," *Iowa State Highway Commission Service Bulletin* IX(1) (January 1921), pp. 10-11; Mount Mercy College, *On the Lincoln Highway: Iowa's Main Street, A sesquicentennial exhibit featuring the Lincoln Highway in Iowa, 1913-1966* (Cedar Rapids, Iowa: Mount Mercy College, 1996).
- <sup>43</sup> Sweeten, Lena, "Concrete Pavement at 330<sup>th</sup>, Eddyville, Wapello County, Iowa," Iowa Site Inventory Form 62-00026, State Historical Society of Iowa, Des Moines (1998).
- <sup>44</sup> *The Lincoln Highway Forum* (September 1917), p. 3, (July 1917), p. 6, (August 1918), p. 1, (November 1919), p. 7.
- <sup>45</sup> Marvin Oxley, *History of Marion, Iowa, 1917-1927, Volume V* (Marion, Iowa: Marion Public Library, 1946).
- <sup>46</sup> "Dream of Paved Roads Leading Into Cedar Rapids at Last Coming True," *Cedar Rapids Gazette* (July 16, 1918).
- <sup>47</sup> *Mt. Vernon Record* (June 19, 1918).
- <sup>48</sup> "Seedling Mile Contract was Let for Gravel Pavement This Afternoon," *Marion Weekly Sentinel* (August 1, 1918).
- <sup>49</sup> "Mile of Paved Road on Lincoln Highway in County Assured," *Cedar Rapids Evening Gazette* (July 6, 1918).
- <sup>50</sup> "To Open Paving Bids," *Mt. Vernon Record* (July 17, 1918).
- <sup>51</sup> Of the original bids, Cook and Keane from Dubuque had a lower bid on the paving contract, but a higher bid on the grading, culverts, and other work. It was noted that this firm was tied up financially and could not proceed with the work ("Seedling Mile to Cost Linn County Too Much," *Mt. Vernon Record* [July 24, 1918]; see also Linn County Board of Supervisors' Minutes July 22, 25, and 26, 1918; "Bid Again on Seedling Mile," *Mt. Vernon Record* [July 31, 1918]). The project was finally awarded to the Ford Paving Company, which had lowered its bid to \$2.84 per square yard (Hokanson, *Iowan*, p. 23).
- <sup>52</sup> "Seedling Mile Contract was Let on Last Thursday," *Mt. Vernon Record* (August 7, 1918); R.W. Gearhart, Linn County Engineer, "Linn County 'Seedling Mile' of Concrete Pavement on Lincoln Highway Stopped by Freezing Weather," *Iowa State Highway Commission Service Bulletin* VII(1) (January 1919), p. 4.
- <sup>53</sup> Ibid., pp. 3-4.
- <sup>54</sup> "Bid Again on Seedling Mile," *Mt. Vernon Record* (July 31, 1918).
- <sup>55</sup> "Seedling Mile Contract was Let for Gravel Pavement this Afternoon," *Marion Weekly Sentinel* (August 1, 1918).
- <sup>56</sup> Iowa Highway Commission, *Specifications for Grading and Paving One Mile of the Lincoln Highway in Sections 26 and 25, T. 83, R. 6, Linn County, Iowa* (1918), copy on file Genealogical Society of Linn County, Iowa.
- <sup>57</sup> "Seedling Mile Contract was Let for Gravel Pavement this Afternoon," *Marion Weekly Sentinel* (August 1, 1918); "Seedling Mile Contract was Let on Last Thursday," *Mt. Vernon Record* (August 7, 1918).

<sup>58</sup> Iowa Highway Commission, Specifications for Grading and Paving One Mile of the Lincoln Highway in Sections 26 and 25, T. 83, R. 6, Linn County, Iowa (1918), copy on file Genealogical Society of Linn County, Iowa.

<sup>59</sup> "The Truth About the Seedling Mile," *Mt. Vernon Record* (August 20, 1919).

<sup>60</sup> "Detour soon on Highway," *Mt. Vernon Record* (August 21, 1918); "Paving Growing Slowly," *Mt. Vernon Record* (October 9, 1918).

<sup>61</sup> Gearhart, *Iowa State Highway Commission Service Bulletin* (January, 1919), p. 4.

<sup>62</sup> *Ibid.*

<sup>63</sup> "Some Paving in on Highway," *Mt. Vernon Record* (September 25, 1918).

<sup>64</sup> *Ibid.*

<sup>65</sup> "Paving Growing Slowly," *Mt. Vernon Record* (October 9, 1918).

<sup>66</sup> "Paving About In," *Mt. Vernon Record* (May 21, 1919).

<sup>67</sup> "Seedling Mile Opens at Last," *Mt. Vernon Record* (June 18, 1919); "The Truth About the Seedling Mile," *Mt. Vernon Record* (August 20, 1919).

<sup>68</sup> Marvin Oxley, *History of Marion, Iowa, 1917-1927, Volume V* (Marion, Iowa: Marion Public Library, 1946), page 35.

<sup>69</sup> *Iowa State Highway Commission Service Bulletin VII(7-8)* (July-August 1919).

<sup>70</sup> Dale Kueter, "Seedling Mile Helped Get Iowa Out of Mud," *Cedar Rapids Gazette* (March 10, 1974).

<sup>71</sup> Roland Krekeler, "'Seedling mile' gave birth to highway," *Cedar Rapids Gazette* (October 28, 1990).

<sup>72</sup> Walt Carstens, "Tipton Farmer Held Priority on Lincoln Highway Markers," undated newspaper clipping, Vertical Files, Iowa Department of Transportation Library, Ames, Iowa.

<sup>73</sup> "Marion Meets Allotment in Highway Campaign," *Marion Weekly Sentinel* (March 28, 1918).

<sup>74</sup> "Lincoln Highway to be Straightened at Emmons," *Mt. Vernon Record* (June 26, 1918); "Lincoln Highway to be Straightened at Emmons," *Marion Weekly Sentinel* (June 27, 1918).

<sup>75</sup> The Henry W. Horst Company completed the 6.5 miles of concrete pavement between the west end of the Seedling Mile to Cedar Rapids' east city limits (*Iowa State Highway Commission Service Bulletin IX[11-12]*, [November-December 1921], p. 4); Franzwa, *The Lincoln Highway Iowa*, pp. 14-15; Marvin Oxley, *The History of Marion, Iowa, 1838-1927* (Edited by the Students of Marion High School's Independent Learning Class, 1994-1995), pp. 482, 489; "Marion to gravel six miles of Lincoln Highway," *Mt. Vernon Record* (July 17, 1918); "Commercial Club Plans More Highway Paving," *Marion Weekly Sentinel* (August 15, 1918); "Marion to gravel six miles of Lincoln Highway," *Mt. Vernon Record* (July 17, 1918).

<sup>76</sup> A "Committee of Twelve" was formed in 1923 composed of delegates from Linn County's towns and rural townships. The group's goal was to prepare a road improvement program for Linn County that everyone could support. They pursued enabling legislation for local bond issues to pay for gravel and crushed rock roads and helped lobby for the new state road legislation in 1924 (James W. McCutcheon, "'Democracy' took Linn out of mud," *Cedar Rapids Gazette* [August 17, 1983]). Also see, Franzwa, *The Lincoln Highway Iowa*, page 15; Oxley, *The History of Marion, Iowa, 1838-1927*, p. 505.

<sup>77</sup> Sara Gaarde, "History of Lincoln Highway recalled," *Mt. Vernon Hawkeye-Record* (April 24, 1986).

<sup>78</sup> "Senator Haskell's Funeral Tuesday," *Cedar Rapids Evening Gazette and Republican* (April 18, 1927); *Biographical Record of Linn County, Iowa* (Chicago: S.J. Clarke Publishing Company, 1901), pp. 492-493; "Senator W. G. Haskell Dies," *Des Moines Register* (April 18, 1927); Hokanson, *The Lincoln Highway*, p. 8.

<sup>79</sup> "Take Off Hats to Edward Killian," Unidentified newspaper article dated July 11, 1918, Vertical Files, The History Center, Cedar Rapids, Iowa.

<sup>80</sup> "Killian's: The end for 71-year-old firm?" *Cedar Rapids Gazette* (September 2, 1982); "The Killian store: A chronology," *Cedar Rapids Gazette* (December 7, 1983); *Cedar Rapids City Directory* (Rockford, Illinois: McCoy Directory Company, 1918, 1933, 1934); *The Complete Official Road Guide of the Lincoln Highway* (Detroit, Michigan: Lincoln Highway Association, 1924), p. 347.

<sup>81</sup> Liz Michaels, Manager of Public Affairs for Lehigh Cement Company, Mason City, Iowa (telephone interview with Lisa Randolph, August 18, 2003); Tracy Farrell, Human Resources Director, Holeim, Inc., Mason City, Iowa (telephone interview with Lisa Randolph, August 19, 2003); "Mason City History," [www.masoncitytourism.com](http://www.masoncitytourism.com), website accessed August 18, 2003.

<sup>82</sup> "Funeral of M. Ford to be Held on Thursday; Burial in Mt. Calvary," *Cedar Rapids Evening Gazette* (July 7, 1920).

<sup>83</sup> Jean Stoneking Moore (personal interview with Leah Rogers, November 11, 1993); "Happy Valley Gas Station," Iowa Site Inventory Form 57-00681, State Historical Society of Iowa, Des Moines.

<sup>84</sup> Van and Bev Becker, "Have Spare Tire, Will Travel," *Along the Lincoln Highway* 5(2) (Spring/Summer 2000), p. 4.

<sup>85</sup> Van and Bev Becker, "Have Spare Tire, Will Travel," *Along the Lincoln Highway* 5(3) (Summer/Fall 2000), p. 4.

<sup>86</sup> Jean Stoneking Moore (personal interview with Leah Rogers, November 11, 1993).



1921 Photo of Seedling Mile view to the southeast.  
Photo Courtesy: Iowa Department of Transportation, Ames



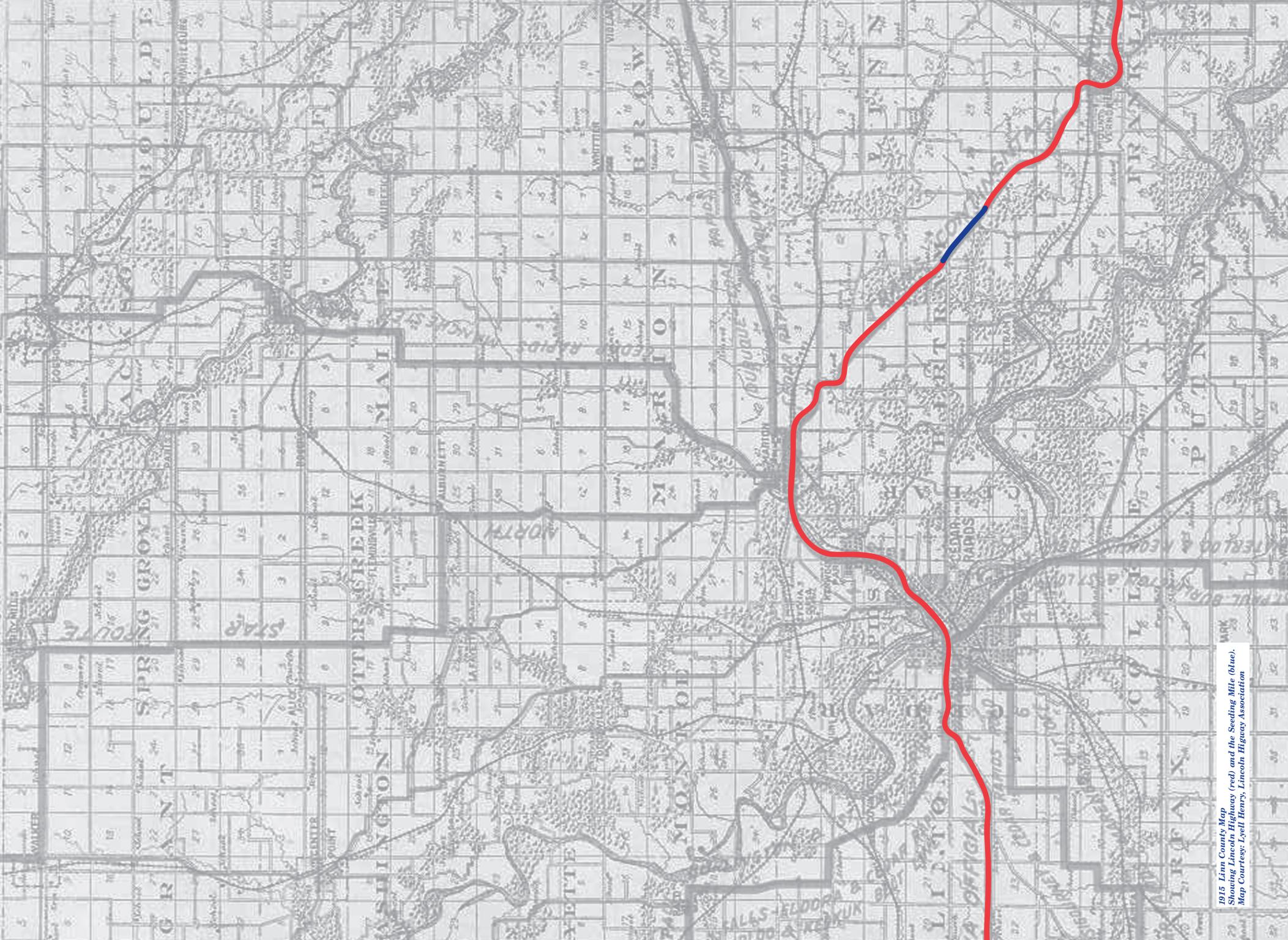
Same view to southeast in 2003.  
Photo By: Tallgrass Historians L.C.



1928 Photo of Seedling Mile view to the northwest.  
Photo Courtesy: Iowa Department of Transportation, Ames



Same view to northwest in 2003.  
Photo By: Tallgrass Historians L.C.



1915 Linn County Map  
Showing Lincoln Highway (red) and the Seeding Mile (blue).

Map Courtesy Lyell Henry, Lincoln Highway Association