



HISTORY CORNER

Wisconsin implements first numbered highway system in the United States

With the advent of the good roads movement beginning in the 1890s and gaining prominence in the early 1910s, trails and roads were given colorful and descriptive names. Examples include the Lincoln Highway, Dixie Overland Highway, the Old Spanish Trail and the Yellowstone Trail. Boosters of these roads formed associations to promote their trails, publishing guides and newsletter, holding annual conventions, and promoting their roads for the economic opportunities they brought to cities and businesses along their route.

In the early days of automobiles, the named trails were valuable. But as the number of both automobiles and named trails increased, so did the problems caused by these routes. Many trails served little transportation need or were routed through dues paying cities rather than the shortest, best route for motorists. Furthermore, many of the routes overlapped, and rivalries among trail boosters and associations left motorists uncertain of which route to take. Serious questions were raised about the intentions of the trail promoters, especially about maintenance of the roads for safe travel.

Wisconsin highway officials were among the first to show concern. In fact, State Highway Engineer Arthur R. Hirst told a National Road Congress in January 1918 that:

"The ordinary trail promoter has seemingly considered that plenty of wind and a few barrels of paint are all that is required to build and maintain a 2000-mile trail."

Acting on their concerns, Wisconsin became first State to replace trail signs with numbers. A 1917 State law that required the creation of a State trunk highway system of up to 5,000 miles included a provision requiring uniform guide and warning signs for the system. Before developing the guide and warning signs, Wisconsin implemented a new numbering plan. The trunk lines were numbered in order of their length in miles, from 10 upward, the idea being that every highway number should contain two digits.

The standard marker was a triangle, with "State Trunk Highway" at the top, the number in larger figures in the center, and the abbreviation "Wis" in the lower point. Arrangements were made for the counties to begin simultaneous installation of the signs at an agreed upon zero hour on May 24, 1918. Within a week, the counties had posted the signs on telephone and telegraph poles, fences, culverts, trees, and walls.



Hirst's successor, Wisconsin State Highway Engineer John T. Donaghey recalled:

"Previous to its installation, the ordinary method of directing travel was by referring to forks in the road, schoolhouses, red barns, and various other more or less convenient objects. Immediately on the installation of the marking system, all that was necessary was to say, for instance: "Take No. 12 until you meet No. 21 and follow 21 to your destination." A single, concise sentence, incapable of being misunderstood, took the place of the intricate and incomprehensible descriptions which previously were the only possible method of directing travel."

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CHAPTER 175

AN ACT to repeal sections 1312, 1313, 1314, 1315, 1316 and 1317 of the statutes, relating to state roads; to create seven new sections of the statutes to be numbered 1312, 1312a, 1313, 1314, 1315, 1316, and 1317, and to create subsections (4) and (5) of section 20.49; and to amend subsections 5 and 6 of section 1636—47, subsection 5 of section 1636—48, subsection (3) of section 20.04, and subsection (2) of section 20.49, of the statutes, relating to automobile license fees and their distribution to state and counties, **creating a state trunk highway system**, providing for federal, state, and county cooperation in the construction and maintenance thereof, and making an appropriation. ...

... Section 1313. 1. The commission shall, as soon as practicable after the passage and publication of this act, lay out a system of main travelled roads, inter-connecting every county seat and every city with a population of five thousand and over, which system of roads, when laid out and approved by the commission, shall be **known as the state trunk highway system**. The total mileage of all roads and streets included in the state trunk highway system shall be not more than five thousand (5,000) miles. Prospective roads as yet not public highways may be included in said system ...

... 13. (a) After the final selection of the trunk system, said commission shall cause the various lines of highway comprising such system including the connecting streets in cities and villages to be distinctly marked with some standard design placed on convenient objects along such routes. Said design shall be uniform on all parts of the trunk system except **that numbers shall occur therein corresponding with the numbers given the various routes by the commission**, which numbers shall coincide with the numbers placed on the official map or maps issued by said commission. No similar design shall be used for marking other routes in Wisconsin.

August 25, 1955

Memorandum, System of Numbering State Trunk Highways for Guidance of Travelers, Historical Background.

By M.W. Torkelson, Director of Regional Planning, Wisconsin Bureau of Engineering for the State Highway Commission of Wisconsin

The legislature of 1907 enacted two laws providing for the layout of county systems of highways for county aid purposes. The first state aid highway law (1911) provided for the laying out of county systems of prospective state highways by the respective county boards. With the increase in the use of automobiles, it soon became apparent that the system would be much more serviceable if the improvements were concentrated on certain continuous routes. So in 1915 and 1916 the State Highway Department was urging the county boards to lay out county trunk systems, and a very few did.

The first federal aid highway law was enacted in 1916, and this was the force that resulted in the first state trunk highway law of 1917. Its draftsmen were W.O. Hotchkiss and A.R. Hirst. John T. Donaghey undoubtedly contributed some ideas.

One of its provisions, probably the most important, was the provision for a state trunk highway system of 5,000 miles, to which federal aid projects would be confined. This system was required to interconnect all county seats and cities with a population of 5,000 or more. I shall not go into the procedure followed in laying out the system, but simply say that the layout was accomplished during the summer and fall and possibly finished in the early winter of 1917. The system was required to be marked, signed and maintained by the state.

The administrative procedure for the maintenance of highways contemplated the use of county forces with reimbursement by the state. The signing of the system held no special problems, but there was a great deal of discussion about how the system should be marked. Prior to that time, there was considerable use of the so-called Blue Books, where the long-distance traveler was guided by certain landmarks along the highway (turn right at the red barn, go 3 miles west to the white schoolhouse, there turn left and go 4 miles south to the church, etc.). This, of course, was quite unsatisfactory. A number of "trails" had been organized, among them the Cannon Ball Trail, marked by a red circle, and the Indian Head Trail, with a rather elaborate marking. Possibly the earliest was the Yellowstone Trail, whose distinctive marking was a daub of yellow paint on convenient objects on the roadside. These trails were organized by private associations and supported by funds raised through the contributions of cities that were traversed by the proposed routes. The associations did not hesitate to change the routing of the trails if a particular city failed to give satisfactory service in raising of funds, and there was, of course, some confusion. Another system had been discussed, at least, in the East, if not put into effect. The theory back of this was that directions could be indicated by markers of various colors painted along the roadsides.

The determination to use numbers to mark the state trunk highway system laid out in Wisconsin in 1917 was reached at a meeting held in the offices of the State Highway Commission here in Madison beginning Monday, January 7, 1918 and continuing through Saturday, January 12. At that

meeting I proposed that the various highways be designated by numbers shown on a map. This was simply a variant of the "trail" system whereby certain definite routes were indicated by name. This system had certain obvious disadvantages in that it afforded great opportunity for rivalry in advertising. Also, the actual placing of the marking of objects along the roadside required much labor and space if actual words were to be spelled out. Imagine, for instance, spelling out "Yellowstone." The substitution of numbers for names was a very simple thing and not an original idea. It had been used many times for purposes other than the designation of highways before that, and it seemed to me to be the most simple and natural thing to do, besides being the most effective. Nevertheless, there was considerable discussion, and Mr. Hirst at first opposed it on the ground that those using it would be obliged to carry a map. This argument seems rather strange at this time, but it nevertheless was used.

However, the number system was adopted at this meeting, and then came discussion as to how it was to be used. In this, John T. Donaghey took a prominent part. It was soon decided that certain routes for continuous marking would be selected. The first of these was what is now U.S. 51 from Beloit to Hurley and thence west to Ashland and Superior. It was soon decided that the longest continuous route should bear the lowest number, and that the low numbers in general would follow the longest routes in reverse order of length. I do not recall just where No. 11 was located¹, but No. 12 was located exactly as U.S. 12 is today, except for some small relocations.

Quite early in the discussion Mr. Donaghey made the point that the designation of any particular route as No. 1 would be bound to cause great dissatisfaction, and the same with others of the smaller numbers. It was therefore decided that no single digit numbers should be used, that the lowest number should be 10, and this was the number accorded to the Beloit-Hurley-Superior route.

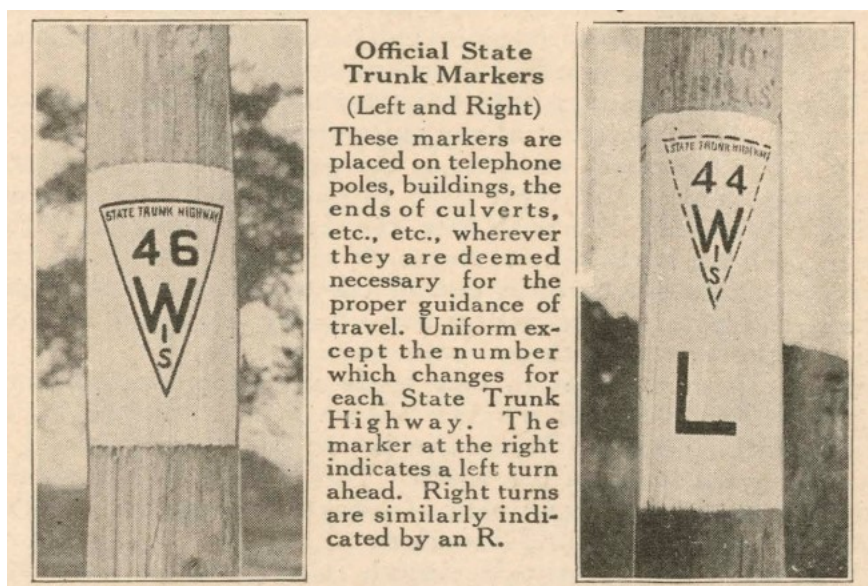
After the decision to adopt the number system had been made, and the numbers had been accorded to the various routes on the 5,000 mile system, plans were made to have a marking crew organized in each county, and the entire system was marked in a single week during the month of May 1918. In general, stencils were used and the numbers were painted on convenient objects, just the same as the trail markings had been painted in the early days. The first state trunk highway map was printed, and gasoline and oil companies took very early notice of the system and got out maps. Other states did the same. The next two states to mark their highways were Iowa and Minnesota², and the system soon spread all over the country.

It was not until 1924, however, that the U.S. system was marked³. It was decided that in general the even numbers should be on east and west routes, the odd numbers on north and south routes, that the major north and south highways should have a zero as the second digit, and the east and west route the figure 1 as the second digit⁴. The installation of the U.S. marking in Wisconsin made it necessary to make considerable changes in the numbers then used, and it was decided there would be no duplications in state and U.S. numbers, that the U.S. numbers leading to Wisconsin would be continued through Wisconsin. That is how U.S. 2 and U.S. 8 came to be established in Wisconsin.

One of the provisions of the 1917 law was that there should be a distinctive state marker. To meet this requirement the triangle was devised, but it soon became apparent that it served no really useful purpose after the public had become educated to the idea of the numbering. The long vertical axis made it necessary to use a lot of space, much of which was useless. So what remains of it today in the official state marker is merely a vestige.

Much more could be said on this point but the foregoing covers the principal features.

1. Visitors to the *Wisconsin Highways* website will know precisely where the original route of STH-11 led: from Madison to Superior via Richland Center, La Crosse and Eau Claire.
2. This statement is not quite accurate, as we know today Michigan was the second jurisdiction in the world to number and post their state highway designations in 1918-19. According to the Iowa Department of Transportation, that state did not mark their state highways until 1926 (although numbered routes appeared on highway maps as early as 1921), while the Minnesota Department of Transportation notes 1920-21 as the timeframe when their first 70 routes were designated.
3. Also not quite correct. According to Robert V. Droz on his excellent *US Highways* website, "Preliminary planning of routes to be included began in 1924. A list of proposed route numbers was ready in late 1925. The final list of US highways was agreed upon on November 11, 1926."
4. Again, an unfortunate mix-up. Since east-west routes feature even numbers, the major east-west routes would be the ones with zero as the second digit. Likewise, as the north-south routes are odd-numbered, the major ones would feature 1 as the second digit.



Sources:

- Main narration - *Federal Highway Administration, State Highway Commission of Wisconsin, and the Wisconsin Department of Transportation.*
- Images - *Wisconsin Historical Society and State Highway Commission of Wisconsin.*
- Memo - *Robert Spoerl via Christopher Bessert and Wisconsin Highways website.*