

REPORT
OF
JOINT BOARD
ON
INTERSTATE HIGHWAYS

OCTOBER 30, 1925

APPROVED BY
THE SECRETARY OF AGRICULTURE
NOVEMBER 16, 1925

J-1

October 26, 1925.

The Honorable,

The Secretary of Agriculture.

Sir:

The Joint Board on Interstate Highways, the appointment of which was approved by Hon. Howard M. Gore, then Secretary of Agriculture, on February 20, 1925, and which was created at the request of the American Association of State Highway Officials "To undertake immediately the selection and designation of a comprehensive system of through interstate routes, and to devise a comprehensive and uniform scheme for designating such routes in such a manner as to give them a conspicuous place among the highways of the country as roads of interstate and national significance", has brought its work to a practical conclusion and submits its report which comprises recommendations in line with the purpose of its creation, maps and photographs illustrating its recommendations and conclusions, and a statement regarding the inception and purpose of its work.

Recommendations

1. It is recommended that the trans-continental and interstate routes of major importance, as selected by the Joint Board and shown on the map accompanying this report, be hereafter known as United States Highways."
2. It is further recommended that the system of designation by numbers, as shown on the map referred to, be adopted, as a means of designating the routes selected.
3. It is further recommended that a distinctive marker, as shown by the photograph marked Exhibit A, be adopted for use by all the States in marking the designated routes on the ground. The term "Marker" is used to indicate only the shield with the number, and all warning, caution and directional signs are indicated by the term "Sign".
4. It is further recommended that the series of directional, caution and other signs, shown by the accompanying photographs marked Exhibits B to V, be adopted as uniform standard signs for appropriate use as needed on all the designated routes.

5. It is further recommended that the Bureau of Public Roads be designated as a central agency to draft and furnish to the several state highway departments, as may be requested by them, any further necessary signs in harmony with those recommended by this present report, and that such additional signs shall become thereupon a part of the uniform series, to be installed and appropriately used in the same manner and under the same conditions as herein recommended for the present signs.

6. It is further recommended, in order to increase the familiarity of the traveling public with the standard signs, and thereby promote the safe use of highways, that the standard signs be recommended to all state highway departments for general use where appropriate on all roads under the jurisdiction of those several departments.

7. It is further recommended that the Department of Agriculture, which is entrusted with the administration of the Federal Highway Act (42 Stat. 212) and earlier acts of Congress related thereto, adopt the policy of admitting as a part of the estimates for Federal Aid Road Construction the cost of procuring and erecting the standard signs and markers on all federal aid projects current, on all such projects previously constructed under the said Federal Highway Act (42 Stat. 212), and on all parts of the designated routes open and safe for travel.

8. It is further recommended that the Association of State Highway Officials be entrusted with the designating and adoption of a permanent interstate highway and boundary monument, and that the erection of the monument be admitted as a part of the construction cost of federal aid projects in the same manner and under the same conditions as recommended above for signs.

9. It is further recommended that through the highway departments of the several States the use of any other distinctive markers, except those required administratively by the several States, shall be discouraged on the designated routes, and that the use of the shield as a marker be limited to the United States Highways.

10. It is further recommended that each State, in which such authority does not now exist, be urged to empower its highway department to provide a uniform system of designating, marking and signing all roads under State jurisdiction.

11. It is further recommended that this report with its map and exhibits be transmitted by you, and if you so elect, with your approval, to the American Association of State Highway Officials and to all of the state highway departments for their information and accord in all matters pertinent to this report that affect the designated routes.

Inception, Creation and Personnel

At the 1924 annual meeting of the American Association of State Highway Officials at San Francisco, action was taken on November 20, requesting the Secretary of Agriculture to appoint a board composed of representatives of the State highway departments and of the Bureau of Public Roads in the following language:

"This Association hereby requests the Secretary of Agriculture, in cooperation with the several States to undertake immediately the selection and designation of a comprehensive system of through interstate routes and to devise a comprehensive and uniform scheme for designating such routes in such a manner as to give them a conspicuous place among the highways of the country as roads of interstate and national significance."

"To more satisfactorily carry out these suggestions and obtain speedy and satisfactory results, this Association requests the Secretary of Agriculture to appoint a Board to be composed of members of the Bureau of Public Roads and of the State highway departments to cooperate in formulating and promulgating a system of numbering and marking highways of interstate character."

The request having been laid before the Secretary, he concurred, and under date of March 2, 1925, appointed a board composed of the following persons:

Bureau of Public Roads Members

- Mr. Thomas H. MacDonald, Chairman,
Chief of Bureau.
- Mr. E. W. James, Secretary,
Chief, Division of Design.
- Mr. A. B. Fletcher,
Consulting Highway Engineer.

State Members

Mr. James Allen,
State Highway Engineer,
Olympia, Washington.

Mr. Robert M. Morton,
State Highway Engineer,
P. O. Box, 1103,
Sacramento, California.

Mr. Preston G. Peterson,
Chairman, State Road Comm.,
Salt Lake City, Utah.

Mr. James A. French,
State Highway Engineer,
Santa Fe, New Mexico.

Mr. C. M. Babcock,
Commissioner of Highways,
St. Paul Minnesota.

Mr. O. A. Brown,
State Highway Commissioner,
Dickinson, North Dakota.

Mr. B. H. Piepmeier,
Chief Engineer,
State Highway Commission,
Jefferson City, Missouri

Mr. Cyrus S. Avery,
Chairman, Department of Highways,
Oklahoma City, Oklahoma.

Mr. W. O. Hotchkiss,
Chairman, State Highway Commission,
Madison, Wisconsin.

Mr. A. H. Hinkle,
Superintendent of Maintenance,
State Highway Commission,
Indianapolis, Indiana.

Mr. Frank F. Rogers,
Commissioner of Highways,
Lansing, Michigan.

Mr. Lou A. Boulay,
Director, Department of Highways,
Columbus, Ohio.

Mr. Frank T. Sheets,
Chief Highway Engineer,
Springfield, Illinois.

Mr. Henry G. Shirley,
Chairman, State Highway Commission,
Richmond, Virginia.

Mr. C. P. Fortney,
Chairman, State Road Commission,
Charleston, West Virginia.

Mr. H. C. Dietzer,
State Highway Engineer,
Jackson, Mississippi.

Mr. Charles H. Moorefield,
State Highway Engineer,
Columbia, South Carolina.

Mr. William G. Sloan,
State Highway Engineer,
Trenton, New Jersey.

Mr. F. S. Greene,
Superintendent of Public Works,
Albany, New York.

Mr. John A. MacDonald,
State Highway Commissioner,
Hartford, Connecticut.

Mr. William F. Williams,
Commissioner of Public Works,
State House,
Boston, Massachusetts.

According to the resolution of the State highway officials, the representatives were to be officially connected with the respective State highway departments, and in consequence of this condition it subsequently became necessary to make changes in the membership as original appointees severed their connections with their State organizations. The changes and substitutions made were as follows:

Mr. Roy A. Klein,
State Highway Engineer,
Salem, Oregon.
(to replace Mr. James Allen)

Mr. I. J. Moe,
State Highway Commissioner,
Valley City, North Dakota.
(to replace Mr. O. A. Brown)

Reasons for the Action

The action by the State highway officials was induced by conditions which had existed for several years in connection with the expanding program of highway construction, and which were becoming aggravated as sentiment in favor of road construction spread and the building program assumed a more and more definite order and system. These conditions flowed from the well-intended efforts and the enthusiasm of local and commercial interests to secure the obviously desirable and necessary fruition of the road building program of the country. Numerous organizations, commonly known as trail associations, had promoted the marking of through routes, some extending entirely across the United States, some interstate in character and extending across two or more States, others of a more or less local significance only. In some cases the promotion of routes was done for the purpose of furthering road building by arousing, developing and maintaining local public opinion. Some were promoted more or less directly for commercial purposes, many were organized and maintained to promote and advertise some purely localized interests. Frequently the routes selected were chosen to develop scenic beauties, and had little thought of any other commercial value than that of leading tourists through particular sections of the country, and bringing to these sections the advantage of the tourist trade. Occasionally a route was laid out along very direct lines in an effort to secure the construction of a short and direct route between important centers of population. In a great many cases the routes were the result of an entirely selfish promotion to exploit good roads sentiment and provide salaries for paid officials of the various organizations.

These routes were named by their respective organizations after some person of distinction in the locality or in American history, for some place of greater or less note, or for memorial or sentimental reasons. Some undertook to perpetuate historic trails of early fame. In most cases some attempt

to mark the routes was made in return for the local support given to the organization; in a few cases actual road construction was furthered by the organization. In most instances, however, a more or less careless marking was all that a community got for its outlay, which ranged from a few hundred dollars annually to as much as \$5,000 in extreme cases.

Although no records had ever been systematically collected in an effort to cover the whole field, there appeared in the official files of the States and of the Bureau of Public Roads evidence that at least 250 marked trails existed in the country. These were sponsored by at least one hundred regularly organized associations supporting some kind of headquarters and issuing maps, advertising, or other promotion material. It is impossible to estimate the cost to the public of these activities; but when the 150 trails are omitted for which no record of a definite organization appears in the record, it may conservatively be estimated that the 100 active organizations handled at least \$6,000 per year, or a total of \$600,000.

In the course of the growth and development of these marked trails, several undesirable features appeared which led directly to the action which was taken by the Association of State Highway Officials.

(a) The Overlapping of Routes

When it is considered that the work done by the numerous trails organizations was entirely without correlation of any kind, it is not surprising to find that the routes selected and marked or mapped overlapped each other frequently, thereby causing confusion. Specific cases were studied in connection with the work of the Joint Board in which as much as 70 per cent of the entire length of a marked trail lapped other routes. In many cases 40 or 50 per cent of the mileage of one route lapped others and sometimes as many as eleven different marked trails were involved in parts of greater or less length in a single trail. One section of road is known to have carried eight different sets of route markers for a considerable distance. Two and three different sets of markers on the same road were common; and four and even five sets of markers were not infrequently found. This confusion finally resulted in complaints from the public that road marking was becoming in many cases more annoying than helpful.

(b) Duplication of Routes

On the other hand, it was almost as common to find two or more separate roads bearing the same designation. One of the most vigorously promoted routes has at several points three alternate lines, and over most of its length there exists a duplicate location. This resulted from the fact that in promoting the route and inviting local support interested organizations made their layout where they could secure local support, and being

morally too weak to reject financial support offered them by an alternate route, they accepted both routes and both sets of contributions. In a great many cases such alternate routes exist among the marked trails, and very few of them were entirely free from this objectionable feature. There are also routes which branch and are a collection of routes rather than a single route. This condition of having two or more different roads carrying the same route designation was as confusing as having several designations applying to the same route, and was equally productive of complaint.

(c) Faulty Location

In determining the locations of the routes marked by the trails organizations the line of least resistance financially was ordinarily taken. The line was routed where the most financial support could be secured. This condition often introduced into the named trails details of location and alignment that could not be defended on economic or engineering grounds.

(d) Resistance to Correction or Change

Finally there was developing more and more resistance to any departure from the marked trails when, in the course of a State road program, it became desirable to construct or reconstruct a road, lay out or extend the State road system, or adopt routes for continuous or priority construction. The interests back of the individual route protested the interests of the community as a whole, and exerted their influence to make good showing to their supporters regardless of the real intrinsic merit of their location. This meant that faulty locations and improperly adjusted priority of construction were threatening to affect seriously the road-building program.

It may fairly be said that the conditions recited prevailed among the marked trails as a whole. There were conspicuous cases of public spirited work, by men of wide vision, who under careful management were promoting worthily the construction of connected roads, and doing much to improve highway transport conditions in the country, but these organizations working independently and having no co-ordinating agency could not be expected to develop a unified and correlated system of routes. Such organizations still have an important work to do in moulding and guiding an enlightened public opinion with respect to local road matters in the communities where they are interested. This can be done by fostering conservative ideas regarding construction, better and more economical maintenance of roads, and a fuller respect for highway regulations and for the highway itself.

However objectionable from the point of view of orderly, economic and technically sound development the work of the trail organizations may have been in a large proportion of cases, it must be very clearly understood that they met and to some degree filled a public demand. Their number, and their increasing number, are a certain indication of this. The public was apparently willing to pay a considerable sum annually for certain definite results which were sought in connection with the road program considered on broad interstate lines. These results were not being secured by any authorized official agency, and the successful, continuous bids for support that were made by trails organizations and responded to generously by community interests indicated that the public opinion favored strongly the systematic planning, development, and construction of the connected route and the correlated system of highways.

These conditions, although not applying to all marked trails, did characterize the trails situation as a whole, and it was becoming apparent from complaints received by state highway organizations that unless some official agency undertook the systematic correction of existing conditions surrounding the marked trails, it might be undertaken unofficially with results that would be embarrassing and perhaps seriously detrimental to the road program of the country.

It was apparent, therefore, to officials familiar with road conditions that the matter of selecting and designating through routes of transcontinental and interstate character was timely and important.

If this task were to be undertaken, it would furnish, moreover, an unsurpassed opportunity for taking some desirable steps in the direction of promoting the safe use of the highways by introducing uniformity among danger, caution, and directional signs. This is a matter that had been receiving much attention from a number of cooperating agencies. Among these agencies were:

- The Bureau of Standards
- The Conference on Street and Highway Safety
- The National Safety Council
- The Council of National Research
- The American Engineering Standards Committee
- The Bureau of Public Roads
- The Westinghouse Company
- The General Electric Company
- The American Association of State Highway Officials.

Much had been done by these bodies in studying the question of a color code for signals and signs, of devising shapes, symbols, sizes, color combinations and general design of warning devices for use in connection with traffic.

Practically none of these agencies was in a position to secure the actual use of the devices they might recommend. They were advisory only, and it was clearly the province of some such body as the state highway department to introduce the results of the studies made.

The Association of State Highway Officials, therefore, introduced into their resolution the second general feature of the work of the Joint Board, which was to adopt a system of uniform signs and markers for use on the selected system of interstate highways. It was and is confidently believed that the introduction of a set of uniform markers, and caution and danger signs on the selected routes throughout the country will result in a reasonable time in the extended use of the same uniform devices on a much enlarged mileage of state and county roads. The large variety of signs now used will be replaced by emblems of uniform appearance, everywhere indicating the same degree of danger or need for caution in traveling the highways of the country. This will promote safety by eliminating confusion, and will create an impression on drivers because of consistent and general use.

Methods of Procedure Adopted by the Joint Board

The first meeting of the Joint Board was called for April 20, 1925, at the office of the Bureau of Public Roads in Washington, D. C. In advance of the meeting a proposed agenda outlining the matters to be discussed was prepared and sent to all members in order that the work of the Board might be given advance consideration and thereby expedited. The agenda is attached to this report as Appendix I.

The meeting was held as scheduled and consumed two days. The action taken is shown in Appendix II, and consisted in organizing, laying down a definite procedure for acquainting all the States with the activities of the Board, and outlining definite policies to cover the work.

The essential feature of the procedure was a series of Group Meetings to which all States were to be invited to send official representatives authorized to act for the State in designating a tentative system of interstate routes of major importance. The Groups were six in number and meetings were subsequently called at convenient meeting points for the members of each Group. An outline of the Group, the places and times of meeting and other details are shown in Appendix III attached.

An important policy of the Board was the decision to hold no hearings. This action was taken advisedly and from developments in the course of the work demonstrated itself to be entirely sound. Had hearings been held a general invitation to trail organizations, and to all other civic bodies interested in road construction and

promotion must have been issued. The number of such delegations desiring to appear would have prolonged the work of selection unreasonably if, indeed, it would not have defeated the whole undertaking. To have invited a special group of organizations or local interests to attend hearings to the exclusion of others would have been impossible in an official body like the Board. Questions raised at such hearings would inevitably have resulted in placing the Board in the position of an arbiter among the numerous trail organizations and other local interests; and such an event would have embarrassed the Board to so serious a degree that its purpose would probably have been defeated.

Moreover, there was available through the several state highway departments and in the Bureau of Public Roads a large amount of information available to all States and to the Board in assisting them to arrive at definite conclusions regarding the respective merits of roads or routes under consideration.

Further, had the Board permitted itself to be placed in a position of selecting in toto certain predetermined routes, like the marked trails, because they existed in that particular status, and of similarly rejecting other marked routes, a difficult legal question might have been raised. The Government, at no time and through no agency, had ever officially recognized any system of marked trails or routes except the primary or interstate classification of the federal aid highway system, and no authority had ever been given to any governmental agency to such end. The Joint Board, therefore, felt it necessary, if not indeed imperative, that its task be so handled as to preclude any appearance of giving an official status to any predetermined route or combination of routes.

The Group Meetings produced a tentative system of approximately 81,000 miles of road, distributed as shown in Table 1 of Appendix V, and representing 2.8 per cent of the total public road mileage of the country.

This tentative system was then referred to a meeting of the Board in Washington, August 3-4, and was there adjusted and reduced to approximately 50,100 miles, as shown in Table II of Appendix V. Separate maps of each State were then prepared and submitted to the respective States for confirmation, with the privilege of making such minor alterations and corrections as might to them appear necessary or advisable. Such changes as were made involved generally interstate sections of routes only and in only five instances were any changes required at state line connections. The total mileage is shown on Table III of Appendix V, and is approximately 75,800 miles.

The confirmations by the several States of the tentative routes adopted by the Board at the full meeting of August 3-4 were considered final, and the routes are shown on the map accompanying this report and are described in terms of the control points of the federal aid system, as already approved by the Secretary of Agriculture in Appendix VI.

Attention is called especially to the fact that the procedure of the Board gave every State easy and ample opportunity to submit its own original suggestions and recommendations; to review these after action by the Board in making such adjustments as were deemed necessary or desirable to effect a satisfactory distribution of routes and connections at state lines; and finally to make additional changes in cases where a State believed the Board had failed to give consideration to all the pertinent facts or had acted on insufficient or faulty data.

The Method of Arriving at Uniform Designs for Markers and Signs

At the April meeting of the Board a design for a standard route marker was suggested. The design was sent to all the States with a request for comments on that design, or suggestions for some other one suitable for the purpose. Actual samples were made of the suggested design in pressed metal, in cast aluminum and in cast iron to demonstrate the practicability of the design and get some idea of its probable cost. The adopted design was based on the results of the above procedure.

In arriving at a decision relative to the large variety of other signs and markers required in a uniform series a comprehensive study of all standardized signs available was made by a special committee of the Board and a series of designs in colors was worked out and submitted to the Board at the August meeting. In the final results the Board has embodied the recommendations of all the best thought on the subject with possibly one exception where there is still some disagreement. This detail involves the color code and is not considered vital. In general the details of the designs are based on the recommendations of the American Association of State Highway Officials supplemented by the work of the American Engineering Standards Committee and its numerous sponsor bodies. These details include shape, symbol, significance, color code and other details of design where such are prescribed.

A complete set of directional, caution, danger signs and route markers are submitted with this report as Exhibits. The designs show colors and dimensions and all designs are so devised that they are subject to reproduction in pressed metal, cast iron, cast steel, cast aluminum and wood. The report of the sub-committee on signs is attached as Appendix VII.

The System of Interstate Highways

The routes recommended by the Joint Board and confirmed by the several States are shown on the map accompanying this report.

So far as possible the routes selected have adhered to the federal aid highway systems already approved for the several States. Practically all of the States, however, have some small margin within the legal limit of seven per cent which comprises the full federal aid system, and this margin has allowed minor departures from the approved federal aid systems. These new sections, as may be required, can at the request of the respective States, be added to the federal aid systems and in some instances States have already filed applications for such additions.

As already indicated by the Mileage Tables, it was obviously necessary to exceed in some States the three per cent prescribed by law for a primary system of roads. To have arbitrarily adhered to the three per cent limit in several Western States would have resulted in omitting many desirable and needed routes. In the country as a whole, however, the total mileage of routes selected by the Joint Board is 2.6 per cent of the total certified public road mileage and, therefore, is within the three per cent primary classification permitted by law.

Having selected a system of routes for uniform marking, the question of designation was considered and an effort made with gratifying success to introduce an orderly arrangement of routes. In general, the scheme involves the use of even numbers for routes carrying east and west bound traffic, and odd numbers for the north and south routes. An unbroken numerical sequence was not possible unless lines of prevailing flow of traffic were to be entirely neglected. Such lines cross each other and demand that numerical order be sacrificed in a few cases. These are, however, so few and slight that the value of the numbering scheme is not diminished for practical purposes. The routes given continuous designations have been carefully considered and so far as possible are those

- (1) which are carrying on the whole the heaviest long distance traffic,
- (2) which the States contemplate improving to high standards, and
- (3) which are in the construction program for early improvement.

Conclusion

The Joint Board has included among its recommendations that the Secretary of Agriculture refer this report to the several State highway departments and to the Association of State Highway Officials. This recommendation is made in order to accomplish the practical application of the work of the Board both as respects the designation and marking of interstate routes and the adoption and erection of uniform traffic signs. It is known to the Board that several States are now awaiting

a final decision on these matters to introduce state-wide systems of highway marking. Other States have indicated their intention at once to introduce the recommended scheme on the routes it pertains to and perhaps eventually extend the plan to other State roads; and some States will undertake to introduce the plan as replacements of present markers and signs become necessary.

The Board has had unmistakable evidences during its sittings that the task assigned it was timely and necessary to a proper development of the correlated state highway systems. Its efforts, if successful, will provide a practicable channel for putting into effect recommendations for improving the usefulness, the safety and the convenience of the public highways.

APPENDIX I.
JOINT BOARD

14

FOR DESIGNATING INTERSTATE HIGHWAYS

Proposed Agenda for First Full Meeting of Board.

Tentative date: April 20, 1925.
Tentative place: Bureau of Public Roads,
Washington, D. C.

Note:

At this first full Board meeting it is desirable that matters of policy as set forth in the Agenda be as definitely determined as possible, but it will not be necessary to discuss details except as affecting a color code for signs. It will be desirable to come to a decision, if possible, regarding the principal colors to be used on signs because numerous orders have been placed and filling of the orders is being delayed until this Board has acted on the question of colors.

PROGRAM

1. Determine Scope of Board Work

- (a) To designate interstate routes.
- (b) To adopt a uniform system of marking such routes.
- (c) To secure uniform legislation to provide for such marking.

2. Adopt Policies to Prevail in Designating Routes, Covering the Following Points-

- (a) Shall trail organizations be recognized by the Board-
 - (1) By hearing?
 - (2) By submitting briefs?
 - (3) By no method?
- (b) Shall designated routes be named or numbered?
- (c) Shall a mechanical and prearranged system of numbering, or shall a promiscuous system of numbering be adopted?
- (d) Shall an effort be made to follow existing numbers in some States, or shall a scheme be adopted without reference to existing State numbers?
- (e) Shall an effort be made to establish a correlation between other numbered State routes and the designated routes?
- (f) Shall the Board recommend that after the Interstate routes have been designated, trail associations in good standing, operating without profit, be authorized by permission of the respective State highway departments, to name and mark routes for sentimental, memorial, or patriotic reasons, under restrictions covering-
 - (1) Type of sign,
 - (2) Avoidance of overlapping routes,
 - (3) Choice of a single route,
 - (4) Continuity of route,
 - (5) Permission of all States concerned and
 - (6) Routes to follow single numbered route.

3. Adopt Policies Regarding Signs and Markers Involving-

- (a) Uniformity,
- (b) Size,
- (c) Shape,
- (d) Color,
- (e) Location on road,
- (f) Variety of use,
 - (1) Route markers,
 - (2) Directional signs,
 - (3) Caution and danger signs,
 - (4) Boundary markers, city line, etc.
- (g) Special Federal aid markers to locate Federal aid projects,
- (h) Design and manufacture.

4. Determine Organization of Board and Nature of Meetings-

- (a) Group organization,
- (b) Local group meetings,
- (c) Circulation of information among States,
- (d) Release publicity.

APPENDIX II.

ACTION TAKEN BY THE
JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS
FIRST FULL MEETING
April 20 - 21, 1925,
Washington, D. C.

ACTION TAKEN AT MEETING OF JOINT BOARD ON INTERSTATE
HIGHWAYS AT ITS FIRST FULL MEETING - April 20, 1925.

Moved that it be the sense of this meeting that we adopt a uniform system of through route marking for the United States, based on numbering and that a uniform shape and type of route marker, to be adopted later, be selected for the marking of these routes through the different States. CARRIED.

Moved that it be the sense of this Body that Resolution No. 5 regarding trail marking, as adopted by the American Association of State Highway Officials at its last annual convention in California, be adopted as the policy of this Board. CARRIED. (Resolution is attached)

Moved that the Secretary of this meeting request each State to submit for the consideration of this Board a design for a marker of national significance to be acted on later. CARRIED.

Moved that it be the sense of this Body that the recommendations of the Sub-Committee on Traffic Control and Safety of the American Association of State Highway Officials, as adopted by said Association at its last annual meeting at San Francisco be adopted as the preliminary standards for traffic warning signs to be used by this Body; except that the specification as to the use of lemon yellow as the color for the background of said signs be determined after further investigation by this Body; and, be it the sense of this Body further that the standards as finally perfected and adopted by this Body be recommended to the American Association of State Highway Officials and other highway officials having jurisdiction over the highways of this country as standards for their adoption. CARRIED. (Recommendations are attached.)

Moved that it be the sense of this Body that each State, where the authority does not exist, empower its State Highway Department to provide a uniform system of marking and signing for the roads under State jurisdiction. CARRIED.

Moved that it be the sense of this Body that no discussion along the line of numbers to be adopted for these routes be had until the system of arterial highways for the United States is selected. CARRIED.

RESOLUTION No. 5

REGARDING TRAIL MARKING

WHEREAS, this Association has adopted the report of the Subcommittee on Traffic Control and Safety, recommending the immediate selection of transcontinental and interstate routes from the Federal-aid road system, said roads to be continuously designated by means of standard highway marking signs and protected by standard traffic warning signs; and

WHEREAS, this system of highways when established and marked will satisfy the demand for marked routes on the part of transcontinental and interstate traffic, thus meeting the need which has been met in the past in a measure by the marked trails established by the reputable trails associations; and

WHEREAS, many individuals have sought to capitalize the popular demand for interstate or cross-country routes by organizing trails, collecting large sums of money from our citizens and giving practically no service in return, with resulting discredit to the reputable trails associations which have heretofore rendered distinct public service by stimulating highway improvement, maintenance, and marking; now, therefore, be it

RESOLVED: That this Association hereby recommends to the several States that the reputable trails associations now existing be permitted to continue their markings during their period of usefulness, pending the establishing of the proposed marking system, unless such action shall conflict with the marking systems and policies now in force in the several States; and be it further

RESOLVED: That no trail association be permitted to establish further routes on State or Federal-aid routes; and be it further

RESOLVED: That we hereby warn the citizens of this nation to investigate carefully the responsibility of trails organizers and demand convincing evidence insuring proper expenditure of funds before contributing to or otherwise supporting such agencies.

RECOMMENDATION OF THE AMERICAN ASSOCIATION
OF STATE HIGHWAY OFFICIALS REGARDING PRECAUTIONAL AND
DIRECTIONAL SIGNS.

It is recommended that this Association go on record as approving the following:

A. For luminous signs or signals -

- (1) Red to indicate danger or stop.
- (2) Yellow to indicate caution or slow.
- (3) Green to indicate go.

B. For non-luminous signs -

In view of the fact that the effectiveness of non-luminous signs depends upon visibility at night under automobile headlights, we recommend the use of a light background, preferably lemon yellow, with black lettering as a color scheme for these signs. The present knowledge of other color combinations does not justify a further recommendation at this time.

C. Shapes of non-luminous signs -

- (1) Railroad warning sign Round
- (2) Danger or Stop sign Octagonal
- (3) Caution or Slow sign Diamond shaped
- (4) Look or Attention sign Square
- (5) Road markers Some characteristic or conventional shape different from the above.
- (6) Directional and Informational sign Rectangular

ACTION TAKEN BY THE JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS FIRST FULL MEETING April 21, 1925 (Continuation
of April 20 meeting).

Moved that the Chairman of this Joint Board be asked to group the several States in such manner as will best promote the study of the roads to be selected and marked under the supervision of this Board; that group meetings be held at which representatives from each of the States involved and from the Bureau of Public Roads be present, at which meeting or subsequent meeting a study of the proposed routes to be selected and marked in each State be made; that joint meetings of related groups be held when necessary; that these groups report their recommendations to this Board for review, adjustment and ultimate adoption. CARRIED.

Moved that it be the sense of this Board that in laying out the highways to be recommended for adoption as part of the proposed uniformly marked system of interstate highways each State be requested to bear in mind the following purposes:

1. The connection of important centers with those reasonably direct lines which will be improved at the earliest possible date.
2. The dispersion of traffic over a sufficient number of alternate routes to promote safety and ease of maintenance.
3. The selection of approximately 1 per cent or less of the total highway mileage of the State as of greatest importance; of a second 1 per cent approximately as of secondary importance; and a third 1 per cent approximately as of tertiary importance; and that these suggested percentages be increased in sparsely settled States. CARRIED.

Moved that it is the sense of this Board to adopt as a preliminary and tentative standard for the interstate highways to be selected, the following color scheme: For all route markers and directional signs, black lettering on white background; for all warning or caution signs, black lettering on lemon yellow background, and that this tentative recommendation be submitted to each of the States for their comments and recommendations before being finally adopted by this Joint Board. CARRIED.

Moved that it is the sense of this Board that green be used as a luminous sign as indicated under Section A, No. 3, to indicate "go" instead of "look or attention." CARRIED. (See Recommendation of American Association of State Highway Officials.)

(April 21, continued)

Moved that it is the sense of this Board that the design here suggested be sent out to the different States asking them to submit their comments on this type of design for use as a marker on the interstate highways to be selected. CARRIED. (Copy of the design referred to will be furnished each State Highway Dept.)

Moved that it is the sense of this Board that specifications be drafted for the size and shape of warning signs and that tentative standards be set up for the directional signs. CARRIED.

The Chairman appointed as a Committee on Signs, to report at the next meeting, the following:

- E. W. James, Bureau of Public Roads, Chairman.
- F. F. Rogers, Michigan.
- A. H. Hinkle, Indiana.

APPENDIX III.
MEMBERSHIP LIST OF
JOINT BOARD ON INTERSTATE HIGHWAYS.

-22-

Bureau of Public Roads Members

Mr. Thomas H. MacDonald, Chairman.
Chief of Bureau.
Mr. E. W. James, Secretary.
Chief, Division of Design.
Mr. A. B. Fletcher, consulting Highway Engineer.

WESTERN GROUP - 11 States.

Washington, Oregon, Idaho, Montana, Utah, California, Nevada, Arizona, New Mexico, Colorado, and Wyoming.	Mr. Roy A. Klein, State Highway Engineer, Salem, Oregon. Mr. Preston G. Peterson, Chairman, State Road Com., Salt Lake City, Utah.	Mr. Robert M. Morton, State Highway Engineer, P. O. Box 1103, Sacramento, California. Mr. James A. French, State Highway Engineer, Santa Fe, New Mexico.
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MISSISSIPPI VALLEY GROUP - 11 States.

North Dakota, South Dakota, Minnesota, Nebraska, Iowa, Kansas, Missouri, Oklahoma, Arkansas, Texas, and Louisiana.	Mr. C. M. Babcock, Commissioner of Highways, St. Paul, Minnesota. Mr. B. H. Piepmeier, Chief Engineer, State Highway Commission, Jefferson City, Missouri.	Mr. Cyrus S. Avery, Chairman, Dept. of Highways, Oklahoma City, Oklahoma. Mr. I. J. Moe, State Highway Commissioner, Valley City, North Dakota.
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LAKES GROUP - 6 States.

Wisconsin, Michigan, Indiana, Illinois, Ohio, and Kentucky,	Mr. W. O. Hotchkiss, Chairman, State Highway Com., Madison, Wisconsin. Mr. Frank F. Rogers, Commissioner of Highways, Lansing, Michigan. Mr. Frank T. Sheets, Chief Highway Engineer, Springfield, Illinois.	Mr. A. H. Hinkle, Superintendent of Maintenance, State Highway Commission, Indianapolis, Indiana. Mr. Lou A. Boulay, Director, Dept. of Highways, Columbus, Ohio.
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SOUTHERN GROUP - 9 States.

Virginia, West Virginia, North Carolina, South Carolina, Tennessee, Georgia, Alabama, Mississippi, and Florida.	Mr. C. P. Fortney, Chairman, State Road Commission, Charleston, W. Va. Mr. Charles H. Moorefield, State Highway Engineer, Columbia, South Carolina.	Mr. Henry G. Shirley, Chairman, State Highway Commission, Richmond, Va. Mr. H. C. Dietzer, State Highway Engineer, Jackson, Mississippi.
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NORTH ATLANTIC GROUP - 5 States.

New York, New Jersey, Pennsylvania, Maryland, and Delaware.	Mr. F. S. Greene, Superintendent of Public Works, Albany, New York.	Mr. William G. Sloan, State Highway Engineer, Trenton, New Jersey.
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NEW ENGLAND GROUP - 6 States.

Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.	Mr. John A. MacDonald, State Highway Commissioner, Hartford, Connecticut.	Mr. William F. Williams, Commissioner of Public Works, State House, Boston, Massachusetts.
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JOINT BOARD ON INTERSTATE HIGHWAYS.

Final Schedule of Group Meetings.

WESTERN GROUP

San Francisco, California
May 15 - 10 A.M.

Highway Commission Room,
State Building.

MISSISSIPPI VALLEY GROUP

Kansas City, Missouri.
May 27 - 10 A.M.

Parlor B,
Hotel Baltimore.

LAKES GROUP

Chicago, Illinois.
June 3 - 10 A.M.

Illinois Department of Public Works
Room 1404 Kimball Building,
308 South Wabash Avenue.

SOUTHERN GROUP

Atlanta, Georgia.
June 8 - 10 A.M.

Bureau of Public Roads,
514 Glenn Building,
Cor. Spring and Marietta Streets.

NORTH ATLANTIC GROUP

New York City, N. Y.
June 15 - 10 A.M.

Board Room, A.E.S.C.
Engineering Societies Building,
33 West 39th Street.

NEW ENGLAND GROUP

Boston, Massachusetts.
June 18 - 10 A.M.

Board Room,
Department of Public Works,
State House.

May 5, 1925.

JOINT BOARD ON INTERSTATE HIGHWAYS

-25

REPORT OF GROUP MEETINGS.

The following brief memoranda of the six group meetings and the working map accompanying this report indicate the progress of selection of interstate highways. The interest of the States in the matter is clearly shown by the very large percentage of attendance. Of the eleven Western States eight sent personal representatives to group meetings; of the eleven Mississippi Valley States nine had personal representatives; of the six Lakes States all sent representatives; of the nine Southern States all sent representatives; of the five Middle Atlantic States two sent representatives; and of the six New England States all sent representatives. Every Board member was present at his respective group meeting, and in some cases States sent three or four representatives. States not represented in person generally furnished maps and correspondence indicating their choice of routes with the result that in the course of the group meetings all but two States have taken the opportunity to express themselves definitely regarding the routes selected.

Trails associations raised no serious difficulties at any meeting, although at Kansas City, Chicago and Atlanta numerous representatives of these organizations appeared quite evidently expecting to be heard. In no case, however, were any outside representatives permitted to appear before the meetings, but in all cases it was necessary in courtesy to meet these trails representatives outside of the meeting and talk with them regarding the situation. At Kansas City the number of visitors was so large it was suggested that they make arrangements for their own meeting in a separate place where a brief statement might be made to them, explaining the work of the Board. In every case the trails representatives appeared to recognize the difficulties raised by the multiplicity of marked routes and the varying degrees of responsibility of the trails organizations, and seemed satisfied that the Board was giving every practicable and fair consideration to the general trails situation throughout the country.

At the California meeting the two automobile associations gave no support to any particular routes, but were unofficially heard following the group meeting on the question of signs and markers. This situation arose because of the large investment and established policy of these associations in marking the California highways as a part of their association activities.

Certain elements in the work should be considered by the full Board because it was found that no definite attitude had been assumed with respect to these large details.

For instance, the Northeastern States held the attitude toward the system that the routes should be of a transcontinental character and that an interstate route that extended only through two or three States should not be included. It would have clarified the situation somewhat if the conflicting ideas of interstate vs. transcontinental had been given better definition and obviously, if the system as now laid out is to be diminished, a distinction in these ideas will have to be developed.

In the Western group the general attitude was that roads of immediate importance should be included and the understanding seemed to prevail that additional routes would be added from time to time. At the Chicago meeting on the other hand the attitude appeared to be that the States of that group were prepared to lay out at this time a system of interstate connections that would comprise all likely routes for an indefinite period, and the other roads built in the future would be tributary to the system now planned.

There follows a tabulation showing the per cent of the seven per cent system, and the per cent of the total public road mileage represented by the selected routes as the system now stands.

TABLE SHOWING APPROXIMATE MILEAGE OF INTERSTATE ROUTES
 Selected by the Joint Board,
 And Its Relation to State and 7 Per Cent System Mileage.

<u>State</u>	<u>Certified Miles</u>	<u>Total 7 Per Cent</u>	<u>Joint Board Selection (approximate)</u>	<u>Per Cent of Certified Mileage</u>	<u>Per Cent of 7 Per Cent System</u>
Alabama	56,551	3,958	1,600	2.8	40
Arizona	21,400	1,498	1,440	6.8	96
Arkansas	71,960	5,037	1,760	2.5	35
California	70,000	4,900	2,591	3.7	51
Colorado	48,000	3,360	2,299	4.8	68
Connecticut	12,000	840	296	2.5	35
Delaware	3,800	266	100	2.6	38
Florida	27,548	1,928	1,652	6.0	87
Georgia	80,892	5,662	2,190	2.7	39
Idaho	40,200	2,814	1,308	3.3	46
Illinois	96,771	6,774	3,440	3.6	50
Indiana	70,946	4,966	2,288	3.3	46
Iowa	109,113	7,638	2,947	2.7	39
Kansas	124,143	8,690	2,540	2.1	38
Kentucky	53,000	3,710	1,220	2.3	33
Louisiana	40,000	2,800	1,226	3.1	44
Maine	23,104	1,617	1,028	4.3	64
Maryland	14,810	1,037	370	2.5	35
Massachusetts	20,525	1,436	380	1.9	26
Michigan	75,000	5,250	2,970	3.9	56
Minnesota	103,050	7,213	2,530	2.5	35
Mississippi	53,000	3,710	1,626	3.1	44
Missouri	111,510	7,805	3,550	3.2	45
Montana	67,100	4,697	2,160	3.2	46
Nebraska	80,272	5,619	2,074	2.6	37
Nevada	22,000	1,540	580	2.6	38
New Hampshire	14,112	988	341	2.4	34
New Jersey	17,120	1,198	405	2.4	34
New Mexico	47,607	3,332	1,634	3.4	49
New York	81,873	5,731	1,125	1.3	20
North Carolina	60,000	4,200	2,330	3.8	55
North Dakota	106,202	7,434	1,400	1.3	19
Ohio	84,497	5,915	3,453	4.1	58
Oklahoma	112,698	7,889	2,120	1.8	27
Oregon	41,825	2,928	1,906	4.5	65
Pennsylvania	90,000	6,300	1,062	1.2	17
Rhode Island	2,368	166	90	3.8	54
South Carolina	52,318	3,662	1,260	2.3	35
South Dakota	115,390	8,077	1,226	1.1	15
Tennessee	65,204	4,564	1,485	2.3	33
Texas	182,816	12,797	3,925	2.2	31
Utah	24,057	1,684	1,141	4.8	68
Verment	14,900	1,043	566	3.7	54
Virginia	53,338	3,733	2,614	4.4	70

TABLE SHOWING APPROXIMATE MILEAGE OF INTERSTATE ROUTES
(Con'd)

<u>State</u>	<u>Certified Miles</u>	<u>Total 7 Per Cent</u>	<u>Joint Board Selection (approximate)</u>	<u>Per Cent of Certified Mileage</u>	<u>Per Cent of 7 Per Cent System</u>
Washington	42,428	2,969	1,384	3.4	47
West Virginia	31,629	2,214	1,225	3.9	55
Wisconsin	78,800	5,516	2,385	3.1	43
Wyoming	<u>46,320</u>	<u>3,242</u>	<u>1,854</u>	<u>4.0</u>	<u>57</u>
Total	2,862,197	200,347	81,096	2.8	40

GROUP MEETING AT SAN FRANCISCO

May 15, 1925.

The following members of the Board were present:

Preston G. Peterson, Utah.
Rey A. Klein, Oregon.
R. M. Morton, California.
J. A. French, New Mexico.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

L. E. Laird, Wyoming.
W. C. LeFebre, Arizona
Geo. W. Borden, Nevada.

Letters and maps were submitted from the following States showing their selection of major intersstate routes: Washington, Idaho, Montana, and Colorado. Seven States were thus represented in person and four by letter.

The meeting was held in the Board Room of the State department in the State Building at San Francisco.

The regular work of the meeting was carried on expeditiously and in entire harmony, and the selection of the major routes was done almost without any difference of opinion. All necessary adjustments on the major routes were at once made and the only feature of the work which will require serious review is the elimination of routes within the States of the group which were added after the interstate connections were practically agreed upon. There appeared to be a very strong tendency to add such additional routes and I made it clear to the meeting that I believed such additions should be considered tentative and subject to the review of the full Board at the next meeting.

No representatives of trails organizations or named routes asked to be heard at San Francisco and representatives of such organizations, whom I saw there, appeared to be very well satisfied that the work of the Board would be fairly done so far as the trails organizations are concerned. Representatives of the Automobile Association of California and of the Southern California Automobile Association were present, however, and after consultation with Mr. Morton and Mr. Toy it appeared advisable to allow

these gentlemen to present their views on the question of signs before the members of the group meeting. An opportunity was, therefore, given to both of these organizations to make a statement, and both agreed to file briefs covering completely certain aspects of their work which might be affected by the standardization of signs and markers on the interstate highways. There was no discussion whatever with these gentlemen and their statements were accepted as submitted.

At San Francisco there was considerable pressure to have a statement released regarding the work of the meeting and Mr. Morton felt that there should be such a statement made officially because the papers would certainly publish something on the matter and might issue confused accounts unless there was a uniform release. A statement was, therefore, furnished each of the San Francisco papers.

GROUP MEETING AT KANSAS CITY

May 27, 1925.

-31-

The following Members of the Board were present:

C. M. Babcock, Minnesota.
B. H. Piepmeier, Missouri.
O. A. Browne, North Dakota.
C. S. Avery, Oklahoma.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

L. D. Blauvelt, Colorado.
F. R. White, Iowa.
Z. E. Sevison, Wyoming.
J. W. Holden, Iowa.
William Collinson, Iowa.
Roy Johnson, Oklahoma.
J. M. Page, Oklahoma.
F. J. Gentry, Oklahoma.
R. L. Cochran, Nebraska.
W. H. Rhodes, Oklahoma.
Frank Lenham, Texas.
R. C. Limerick, Arkansas.
W. H. Root, Iowa.
W. V. Buck, Kansas.
J. W. Gardner, Kansas.
L. F. Davidson, Kansas
W. H. Lynch, B.P.R.
W. C. Markham, A.A.S.H.O.

The meeting was held in parlor D of the Baltimore Hotel and again there was practically complete harmony in the selection of the major routes. The first choices of adjacent States were not always continuous, but the first and second choices were generally sufficient to secure complete correlation. One adjustment was made by agreement between Iowa and Missouri.

After the experience in San Francisco an effort was made to avoid the tendency of the States to fill in additional routes within the group States and was generally successful, but there was a marked tendency to add,

as of major importance, more routes than should in all probability be finally included, and this is a matter which should have careful consideration by the full Board.

The meeting at Kansas City appears to have attracted considerable attention among trail organizations and there were between 50 and 60 representatives of various trails in the city to attend the meeting. Mr. Piepmeier announced that a number had made inquiry of him and he had uniformly advised that it was useless for them to attend as the meeting would be executive in character. There was, however, considerable pressure from these organizations to be heard, some of the delegates had come from Oklahoma and Texas understanding that they would be heard, so the announcement was circulated that if all interested persons could arrange to get together in one place that a brief statement would be made to them regarding the work of the Board, the proposed selection of routes, and the uniform marking. Such an informal meeting was held in a room of the hotel other than parlor D where the group meeting occurred, and Mr. James and Mr. Avery, at different times, addressed the representatives of the trail organizations. The statements made seemed to satisfy these organizations and they very clearly agreed that the work proposed by the Board was entirely satisfactory to them and passed a motion to that effect.

On the whole, the trail organizations so far appear to be taking a very sensible and broad attitude toward the work of the Board.

GROUP MEETING AT CHICAGO
June 3, 1925.

-33-

The following Members of the Board were present:

W. O. Hotchkiss, Wisconsin.
F. T. Sheets, Illinois.
A. H. Hinkle, Indiana.
L. A. Boulay, Ohio.
F. F. Rogers, Michigan.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

J. T. Donaghey, Wisconsin.
E. N. Todd, Kentucky.
J. T. Voshell, B. P. R.

The group meeting for the Lakes States was held in Room 1404, Kimball Building, Chicago, convening at 10 A. M. on June 3.

The work of selection was continued in entire harmony. In the course of the work it developed that sentiment of the Board members present inclined toward the selection of practically a complete system at this time rather than the selection of an abbreviated system to be augmented in the future from time to time. Opinion was that for any reasonable period into the future the needs for through routes could be sufficiently foreseen to lay out a system which would be final for a long period of years.

Each member was requested to furnish a larger scale map than available at the meeting showing the selections actually made in each State and indicating by appropriate means those routes which the States believed should be continuous in designation.

GROUP MEETING AT ATLANTA, GA.

June 8, 1925.

The following Members of the Board were present:

C. P. Fortney, West Virginia.
H. G. Shirley, Virginia.
C. H. Moorefield, South Carolina.
H. C. Dietzer, Mississippi.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

Frank Page, North Carolina.	J. N. Holder, Georgia.
J. G. Creveling, Jr., Tennessee.	R. E. Adams, Georgia.
C. N. Bass, Tennessee.	H. G. Spahr, Georgia.
S. W. Mullins, Mississippi.	J. L. Cresap, Florida.
W. S. Keller, Alabama.	R. L. Bannerman, Florida.
W. R. Neel, Georgia.	R. E. Toms,)
W. T. Anderson, Georgia.	J. T. Marshall,) B.P.R.

The group meeting for the Southern States was held at the office of the Bureau of Public Roads in the Glenn Building, June 8th at 10 A.M., and continuing in session, except for luncheon, until about 5 P.M.

All connections delivered to this group were at once agreed upon by the States concerned and the work of putting through the main roads was done without any serious disagreement. In two cases, however, the selection had to be left open, but the solution in one of these cases was clearly indicated and agreed upon in general terms. Between Athens, Georgia and Anderson, South Carolina, a connection will be made on a main through route. The exact location will depend upon the location of the free bridge over the Savannah River in this general vicinity.

In Mississippi from Grenada northward two recommendations were received from the State itself: one for a direct connection with Memphis, which is obviously the direct route; and the other for a location by Holly Springs which will somewhat reduce the total mileage, but give no direct northern connection except by way of Memphis, which will substantially increase travel distance.

After the main routes were agreed upon there was the same tendency noticeable to fill in within the group. Additional routes were inserted which did not involve connection with adjacent groups, but which very substantially increased the mileage in several of the States in the Piedmont region. After the routes were finally agreed upon, it was felt by several members that there would have to be a more or less substantial culling of the mileage in this region and perhaps throughout the States of the group.

GROUP MEETING AT NEW YORK CITY

June 15, 1925.

-35-

The following Members of the Board were present:

F. S. Greene, New York.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

E. E. Reed, New Jersey.
H. E. Neal, Ohio.

The group meeting of the North Atlantic States was held in the Beard Room of the A.S.C.E. in the Engineering Societies Building at 10 A. M. June 15, 1925.

Pennsylvania, Maryland and Delaware were not represented, but correspondence from Delaware indicated their willingness to accept decisions of the Board, and a personal conference with Mr. Mackall indicated that the principal roads through Maryland were so obvious that he thought it would be unnecessary for him to be present. No word was received from Pennsylvania.

Mr. Neal of Ohio was present especially to complete unadjusted connections with Pennsylvania, which were left open by Mr. Boulay at the Chicago meeting, and these were made as far as they could be made by the group representatives without conference with Pennsylvania.

A general examination of the field map as brought to this group meeting at once produced the impression that too many roads had been selected and Mr. Greene of New York was especially desirous of reducing the mileage and the layout in New York was made accordingly. Mr. Greene said he thought he would on his own initiative send a copy of his State map to the other States in order that they could more clearly get his idea of a desirable density of transcontinental routes. He felt that the whole system should be very carefully gone over by the Joint Board with a view to eliminating a large number of alternates, short cuts and cross roads, which could not fairly be considered as of transcontinental significance, or even of major interstate importance.

Except for the general difference of attitude there was no lack of harmony at this meeting. All connections delivered to the group were met and carried to the New England line.

GROUP MEETING AT BOSTON, MASS.

-36-

June 18, 1925.

The following members of the Board were present:

William F. Williams, Massachusetts.
John A. MacDonald, Connecticut.
E. W. James, B. P. R.

State Representatives were present by invitation as follows:

A. W. Dean, Massachusetts.
S. C. Pillsbury, Massachusetts.
G. H. Delano, Massachusetts.
Paul D. Sargent, Maine.
F. E. Everett, New Hampshire.
F. A. Gardner, New Hampshire.
S. B. Bates, Vermont.

G. H. Miller,) B. P. R.
T. M. Keene,)

The group meeting of the New England States was held in the Board Room of the Department of Public Works, State House, Boston, at 10 A.M. June 18, 1925.

All interstate routes delivered to the New England group were continued without question and entire harmony existed within the group in designating through routes.

Mr. Sargent of Maine suggested extensions of the present Federal Aid Highway System in his State to make Canadian connections and these are shown on the working map.

There was a general feeling that more routes have been introduced in the country as a whole than should be adopted and in order to make the layout in New England of about the same density as that existing elsewhere in the East, additional roads were inserted within the group, which could be eliminated if necessary on a further consideration of the whole system.

Considerable time was given to the discussion of signs and Massachusetts especially through Mr. Williams has been active in developing an interstate marker of which a casting in aluminum was available at the meeting.

APPENDIX IV.

JOINT BOARD ON INTERSTATE HIGHWAYS

-37-

Second Called Meeting

August 3, 1925.

Washington, D. C.

Bureau of Public Roads
Rooms 508-510.

AGENDA

(1) Report of Group Meetings.-

Consideration of the report will involve adjustment of a few connections left open at the group meetings for consideration by the Board; and the possible reduction, increase, or revision of mileage and routes, suggested by the groups.

(2) Final Discussion on Nomenclature.-

- (a) Naming, or
- (b) Numbering,
- (c) Scheme to be followed.

(3) Report on Details of Signs.-

The Committee on Signs will be prepared to submit full sized drawings in color.

(4) Final Report of Joint Board.-

- (a) What form will the report take?
- (b) Shall it be referred to the Association of State Highway Officials?
- (c) What recommendations shall be made to the Secretary of Agriculture?
- (d) Drafting Committee to write report.

ACTION TAKEN BY THE
JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS
SECOND FULL MEETING
August 3 - 4, 1925.
Washington, D. C.

ACTION TAKEN BY THE JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS SECOND FULL MEETING, Aug. 3, 1925 (Morning Session)

-39-

Moved and seconded that it be the sense of this Board that as the first step in the process of considering the system of interstate highways resulting from action taken at the group meetings, the Bureau of Public Roads call group meetings of this Board from the States here represented, in the same manner as was done when the original system was laid out, and the revisions as made in this series of group meetings of this Board be then submitted back to this Board for consideration, after which we can take such steps as wisdom will show. CARRIED

ACTION TAKEN BY THE JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS SECOND FULL MEETING, August 3, 1925 (Afternoon Session)

Moved and seconded that it be the sense of this Board that State representatives be heard at this meeting. CARRIED

Moved and seconded that it be the sense of this Board that the system to be selected be numbered rather than named. CARRIED

Moved and seconded that it be the sense of this Board that the Acting Chairman appoint, from the membership of this Board, a Committee of five, the Acting Chairman of the Joint Board to be Chairman of the Committee, for the purpose of presenting for the approval of the Board, a scheme for numbering this system of interstate highways. CARRIED

Moved and seconded that it be the sense of this Board that the numbers of the U.S. routes insofar as possible not exceed two digits; that all States be requested not to use for their State routes the shape of marker which is adopted for the U.S. routes; and also that the duplication of numbering of State routes and U.S. routes be left to the discretion of the various States, and if they desire to carry the State number along with the U.S. number that that be left to their discretion. CARRIED

Moved and seconded that it be the sense of this Board that a shield with white background and black lettering, as referred to in paragraph 7, sub-paragraph 1, of the Report of the Committee on Signs, be formulated in sizes 15" and 16", with the name of the State omitted, and offered for the consideration of the Board tomorrow. CARRIED

(Report of the Committee on Signs attached)

Moved and seconded that it be the sense of this Board that an arrow be used with the confirmatory sign at the actual turn in the route. CARRIED

Moved and seconded that paragraph 7, sub-paragraph 2, of the Report of the Committee on Signs, providing for a second marker, separate from the shield marker, containing the letters R and L for right and left turns, be approved. CARRIED

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 3, of the Report of the Committee on Signs, be approved on the basis of the 24-inch sign, and that we recommend that insofar as it may be possible under the several State laws that yellow background be used instead of white, and that we recommend to the several States that these modifications be provided for by further legislation if possible. CARRIED
(Report of Committee on Signs attached)

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 4, of the Report of the Committee on Signs, providing for the use of the standard octagon as to shape, with yellow background and black lettering, be approved. CARRIED

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 5, of the Report of the Committee on Signs, be approved with yellow background and black lettering. CARRIED

Moved and seconded that it be the sense of this Board that sub-paragraph 5-A, be added to the Report of the Committee on Signs, detailed wording to be phrased by the Acting Chairman, recommending the adoption of the square sign, 24" by 24", instead of diamond shape, for the purpose of indicating "look or attention;" to be used sparingly where there is not need of caution or slowing up in driving, but where the driver's attention should be arrested, at such places as schools, hospitals, churches, etc., and that we have yellow background with black lettering. CARRIED

Moved and seconded that paragraph 7, sub-paragraph 6, of the Report of the Committee on Signs, be approved as to size, leaving the matter of slat signs to the discretion of the States. CARRIED

ACTION TAKEN BY THE JOINT BOARD ON INTERSTATE HIGHWAYS
AT ITS SECOND FULL MEETING, Aug. 4, 1925 (Morning Session)

Moved and seconded that paragraph 7, sub-paragraph 7, of the Report of the Committee on Signs, be approved as representing the sense of this Board. CARRIED (Report of Committee on Signs attached)

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 8, of the Report of the Committee on Signs, be disapproved, and that we recommend that the various States erect, in the form of a more permanent marker, what seems to them to be a suitable monument for the State line. CARRIED

Moved and seconded that it be the sense of this Board that the Committee on Signs of this Board, which has had the preparation of these signs, go further into this matter of preparing a standard type of monument, to be used by the States at their discretion at State boundaries, county boundaries and other important places; and that the Committee submit back to this Board designs which may be collected from the State Highway Departments or outside parties interested, giving consideration to the matter of holding public contests to interest artists and other persons of designing talent in the creation of a marker to be considered permanent. CARRIED

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 9, of the Report of the Committee on Signs, be referred back to the Committee for re-drafting. CARRIED

Moved and seconded that it be the sense of this Board that paragraph 7, sub-paragraph 10, of the Report of the Committee on Signs, be referred back to the Committee for re-drafting. CARRIED

Moved and seconded that the last paragraph of the Report of the Committee on Signs be approved as representing the sense of this Board. CARRIED

Moved and seconded that the preceding motion be amended by adding that the Bureau of Public Roads be the central agency referred to in the last paragraph of the Report of the Committee on Signs. CARRIED

Moved and seconded that it be the sense of this Board to reconsider the action taken yesterday, relative to putting the name of the State on the road marker. CARRIED

Moved and seconded that it be the sense of this Board that the type of shield to be adopted, carry the name of the State in the union and U.S. and route number in the lower part of the shield; the design to be as submitted by the Committee and the size of the sign to be determined later. CARRIED

Moved and seconded that it be the sense of this Board that the correspondence submitted by the Acting Chairman of the Board, regarding specific routes, numbers and similar matters here discussed, be referred back to him with instructions to prepare suitable replies in conformity with the action of the Board in each case. CARRIED

Moved and seconded that it be the sense of this Board that a drafting Committee of three, with the Acting Chairman as Chairman, be appointed to compile the findings of this Board and put them in form to be presented to the Secretary of Agriculture.

Moved and seconded that this motion be amended to recommend that the report be submitted in turn to the American Association of State Highway Officials and all of the States. MOTION AND AMENDMENT CARRIED

Moved and seconded that it be the sense of this Board that the so-called South Tier road in southern New York be added to the system of routes. CARRIED

Moved and seconded that it be the sense of this Board that the road east from Clovis, New Mexico, to Vernon and meeting the road in southern Oklahoma, be added. CARRIED

Moved that it be the sense of this Board that the route from Charleston to Savannah along the Atlantic Coast, be added, the exact routing to be agreed upon by the State of South Carolina and the Bureau of Public Roads. SECONDED AND CARRIED

Moved and seconded that it be the sense of this Board that the map as it now stands amended, as to the extent and general location of a system of U.S. routes to be marked, be approved by this Board; and that this map be sent out to the various States for their confirmation. CARRIED

Moved and seconded that it be the sense of this Board that the Acting Chairman of this Meeting appoint a Chairman of each group for the purpose of carrying out the confirmation of this map by the States through group action. CARRIED.

The Acting Chairman appointed the following Group Chairmen, the Groups of States to be the same as used at the Group meetings:

Western Group,	P. G. Peterson, Utah.
Mississippi Valley Group,	B. H. Piepmeier, Missouri.
Lakes Group,	Frank T. Sheets, Illinois.
Southern Group,	H. C. Dietzer, Mississippi.
North Atlantic Group,	W. G. Sloan, New Jersey.
New England Group,	W. F. Williams, Massachusetts.

(Afternoon Session).

Moved and seconded that it be the sense of this Board that the matter of selecting a scheme for numbering this system of highways be referred back to the Numbering Committee without instructions. CARRIED.

Moved and seconded that it be the sense of this Board that the type of shield to be adopted measure 16" from tip to tip. CARRIED.

Moved and seconded that it be the sense of this Board to disapprove the use of the same number on alternate routes; but that it be left to the discretion of the Numbering Committee to use that method if no other method seems to meet the exigencies of the situation. CARRIED.

Moved and seconded that it be the sense of this Board that we adjourn to the call of the Chairman. CARRIED.

TABLE I SHOWING APPROXIMATE MILEAGE
Selected at Group Meetings.

State	Certified Mileage	State Selections	Per Cent of Certified Mileage
Alabama	56,551	1,600	2.8
Arizona	21,400	1,440	6.8
Arkansas	71,960	1,760	2.5
California	70,000	2,591	3.7
Colorado	48,000	2,299	4.8
Connecticut	12,000	296	2.5
Delaware	3,800	100	2.6
Florida	27,548	1,652	6.0
Georgia	80,892	2,190	2.7
Idaho	40,200	1,308	3.3
Illinois	96,771	3,440	3.6
Indiana	70,946	2,288	3.3
Iowa	109,113	2,947	2.7
Kansas	124,143	2,540	2.1
Kentucky	53,000	1,220	2.3
Louisiana	40,000	1,226	3.1
Maine	23,164	1,028	4.3
Maryland	14,810	370	2.5
Massachusetts	20,525	380	1.9
Michigan	75,000	2,970	3.9
Minnesota	103,050	2,530	2.5
Mississippi	53,000	1,626	3.1
Missouri	111,510	3,550	3.2
Montana	67,100	2,160	3.2
Nebraska	80,272	2,074	2.6
Nevada	22,000	580	2.6
New Hampshire	14,112	341	2.4
New Jersey	17,120	405	2.4
New Mexico	47,607	1,634	3.4
New York	81,873	1,125	1.3
North Carolina	60,000	2,330	3.8
North Dakota	106,202	1,400	1.3
Ohio	84,497	3,453	4.1
Oklahoma	112,698	2,120	1.8
Oregon	41,825	1,906	4.5
Pennsylvania	90,000	1,062	1.2
Rhode Island	2,368	90	3.8
South Carolina	52,318	1,260	2.3
South Dakota	115,390	226	1.1
Tennessee	65,204	1,485	2.3
Texas	182,816	3,925	2.2
Utah	24,057	1,141	4.8
Vermont	14,900	566	3.7
Virginia	53,338	2,614	4.4
Washington	42,428	1,384	3.4
West Virginia	31,629	1,225	3.9
Wisconsin	78,800	2,385	3.1
Wyoming	45,320	1,854	4.0
Totals	2,862,197	81,096	2.8

TABLE II SHOWING APPROXIMATE MILEAGE OF ROUTES SELECTED BY JOINT BOARD August 3 and 4, 1925.

State	Certified Mileage	Diminished System	Per Cent of Certified Mileage
Alabama	56,551	1,123	2.0
Arizona	21,400	890	4.2
Arkansas	71,960	1,125	1.6
California	70,000	2,220	3.1
Colorado	48,000	1,355	2.8
Connecticut	12,000	190	1.6
Delaware	3,800	20	0.5
Florida	27,548	1,200	4.4
Georgia	80,892	1,060	1.3
Idaho	40,200	1,065	2.6
Illinois	96,771	2,160	2.2
Indiana	70,946	1,240	1.7
Iowa	109,113	1,280	1.2
Kansas	124,143	1,780	1.4
Kentucky	53,000	710	1.4
Louisiana	40,000	1,050	2.6
Maine	23,104	710	3.1
Maryland	14,810	285	1.9
Massachusetts	20,525	290	1.4
Michigan	75,000	973	1.3
Minnesota	103,050	2,045	2.0
Mississippi	53,000	1,123	2.1
Missouri	111,510	1,615	1.5
Montana	67,100	2,150	3.2
Nebraska	80,272	955	1.2
Nevada	22,000	622	2.8
New Hampshire	14,112	45	0.3
New Jersey	17,120	150	0.9
New Mexico	47,607	1,540	3.2
New York	81,873	1,197	1.4
North Carolina	60,000	885	1.5
North Dakota	106,202	760	0.7
Ohio	84,497	1,535	1.8
Oklahoma	112,698	885	0.7
Oregon	41,825	1,180	2.8
Pennsylvania	90,000	700	0.8
Rhode Island	2,368	76	3.1
South Carolina	52,318	770	1.5
South Dakota	115,390	975	0.8
Tennessee	65,204	970	1.5
Texas	182,816	3,100	1.7
Utah	24,057	948	4.0
Vermont	14,900	348	2.3
Virginia	53,338	660	1.2
Washington	42,428	1,160	2.7
West Virginia	31,629	350	1.1
Wisconsin	78,800	1,390	1.8
Wyoming	46,320	1,275	2.8
Totals	2,862,197	50,137	1.7

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TABLE 111 SHOWING TOTAL MILEAGE CONFIRMED BY STATES.

State	Total State Mileage : as Certified	Approximate Mileage : Selected by Board	Per Cent of Certified Mileage
Alabama	56,551	1,260	2.2
Arizona	21,400	1,567	7.4
Arkansas	71,960	1,538	2.1
California	70,000	2,543	3.6
Colorado	48,000	2,430	5.1
Connecticut	12,000	310	2.6
Delaware	3,800	186	4.9
Florida	27,548	1,565	5.7
Georgia	80,892	1,510	1.9
Idaho	40,200	1,296	3.2
Illinois	96,771	2,520	2.6
Indiana	70,946	1,807	2.5
Iowa	109,113	2,775	2.5
Kansas	124,143	2,990	2.4
Kentucky	53,000	904	1.7
Louisiana	40,000	1,301	3.3
Maine	23,104	937	4.1
Maryland	14,810	465	3.1
Massachusetts	20,525	502	2.4
Michigan	75,000	2,567	3.4
Minnesota	103,050	2,762	2.7
Mississippi	53,000	1,532	2.9
Missouri	111,510	2,676	2.4
Montana	67,100	2,464	3.7
Nebraska	80,272	1,855	2.3
Nevada	22,000	908	4.1
New Hampshire	14,112	296	2.1
New Jersey	17,120	412	2.4
New Mexico	47,607	2,103	4.4
New York	81,873	1,319	1.6
North Carolina	60,000	1,798	3.0
North Dakota	106,202	1,336	1.26
Ohio	84,497	2,077	2.5
Oklahoma	112,698	2,146	1.9
Oregon	41,825	1,900	4.5
Pennsylvania	90,000	1,215	1.3
Rhode Island	2,368	76	3.2
South Carolina	52,318	1,236	2.4
South Dakota	115,390	1,412	1.2
Tennessee	65,204	1,308	2.0
Texas	182,816	4,209	2.3
Utah	24,057	1,541	6.4
Vermont	14,900	549	3.7
Virginia	53,338	1,543	2.9
Washington	42,428	1,391	3.3
West Virginia	31,629	615	1.95
Wisconsin	78,800	1,989	2.5
Wyoming	46,320	2,243	4.8
Totals	2,862,197	75,884	2.65

APPENDIX VI.

DESCRIPTIONS OF THE INTERSTATE ROUTES
SELECTED, WITH NUMBERS
ASSIGNED.

- Route No. 1- From Fort Kent, Maine, to Houlton, Bangor, Rockland, Brunswick, Portland, Portsmouth, New Hampshire, Newburyport, Massachusetts, Boston, Providence, Rhode Island, Narragansett Pier, New London, Connecticut, New Haven, Bridgeport, New York City, Jersey City, New Jersey, Newark, Trenton, Morrisville, Pennsylvania, South Langhorne, Philadelphia, Oxford, Bel Air, Maryland, Baltimore, Washington, D. C., Alexandria, Virginia, Fredericksburg, Richmond, Petersburg, Henderson, North Carolina, Raleigh, Rockingham, Cheraw, South Carolina, Columbia, Aiken, Augusta, Georgia, Swainsboro, Waycross, Jacksonville, Florida, St. Augustine, Miami.
- 2- From Houlton, Maine, to Calais, Bangor, Rumford Falls, Manchester, New Hampshire, Montpelier, Vermont, Burlington, Rouses Point, New York, and from Sault Sainte Marie, Michigan, to St. Ignace, Crystal Falls, Bessemer, Duluth, Minnesota, Bemidji, Grand Forks, North Dakota, Devils Lake, Minot, Williston, Havre, Montana, Belton, Bonners Ferry, Idaho.
- 3- From Colebrook, New Hampshire, to Plymouth, Concord, Manchester, Lowell, Massachusetts, Boston.
- 4- From Portsmouth, New Hampshire, to Dover, Concord, White River Junction, Rutland, Vermont, Fort Edward, New York.
- 5- From the United States-Canadian line near Newport, Vermont, to St. Johnsbury, Bellows Falls, Springfield, Massachusetts, Hartford, Connecticut, New Haven.
- 6- From Provincetown, Massachusetts, to New Bedford, Fall River, Providence, Rhode Island, Hartford, Connecticut, Danbury, Brewster, New York.
- 7- From the United States-Canadian line near St. Albans, Vermont, to Burlington, Rutland, Pittsfield, Massachusetts, Canaan, Connecticut, Amenia, New York, White Plains, Mt. Vernon.
- 9- From the United States-Canadian line near Champlain, New York, to Chestertown, Glens Falls, Albany, Kingston, Jersey City, New Jersey, Perth Amboy, Toms River, Absecon.

- Route No. 10 - From Detroit, Michigan, to Kalamazoo, Chicago, Illinois, Madison, Wisconsin, Eau Claire, St. Paul, Minnesota, Little Falls, Moorehead, Fargo, North Dakota, Jamestown, Bismarck, Glendive, Montana, Miles City, Billings, Livingston, Butte, Missoula, Coeur d'Alene, Idaho, Spokane, Washington, Waterville, Seattle.
- 11- From Rouses Point, New York, to Watertown, Syracuse, Binghamton, Scranton, Pennsylvania, Harrisburg, Chambersburg, Hagerstown, Maryland, Winchester, Virginia, Staunton, Bristol, Knoxville, Tennessee, Chattanooga, Birmingham, Alabama, Tuscaloosa, Meridian, Mississippi, Hattiesburg, New Orleans, Louisiana.
- 12 - From Detroit, Michigan, to Saginaw, Ludington, Manitowac, Wisconsin, Stevens Point, Neillsville, Ellsworth, Minneapolis, Minnesota, Wilbur, Ortonville, Milbank, South Dakota, Selby, Lemmon, North Dakota, Miles City, Montana.
- 13 - From Philadelphia, Pennsylvania, to Wilmington, Delaware, Dover, Salisbury, Maryland, Pocomoke, Cape Charles, Virginia, Virginia Beach, Norfolk, Elizabeth City, North Carolina, Washington, New Bern, Wilmington.
- 14 - From Winona, Minnesota, to New Ulm, Brookings, South Dakota, Huron, Pierre, Midland.
- 15 - From Petersburg, Virginia, to Emporia, Halifax, North Carolina, Wilson, Goldsboro, Wilmington.
- 16 - From Milwaukee, Wisconsin, to Portage, LaCrosse, Albert Lea, Minnesota, Jackson, Luverne, Sioux Falls, South Dakota, Chamberlain, Midland, Rapid City, Deadwood, Gillette, Wyoming, Buffalo, Worland.
- 17 - From Bennettsville, South Carolina, to Florence, Charleston, Yemassee.
- 18 - From Detroit, Michigan, to Lansing, Grand Haven, Milwaukee, Wisconsin, Madison, Prairie du Chien, Mason City, Iowa, Spencer, Hull.
- 19- From Pittsburgh, Pennsylvania, to Washington, Uniontown, Morgantown, West Virginia, Clarksburg, Gauley Bridge.

- Route No. 20 - From Boston, Massachusetts, to Springfield, Pittsfield, Albany, New York, Auburn, Batavia, Buffalo, Erie, Pennsylvania, Cleveland, Ohio, Maumee, South Bend, Indiana, Chicago, Illinois, Rockford, Dubuque, Iowa, Waterloo, Webster City, Sioux City, O'Neill, Nebraska, Chadron, Lusk, Wyoming, Casper, Shoshoni, Greybull, Yellowstone National Park, Idaho Falls, Idaho, Pocatello, Twin Falls, Boise, Payette, Pendleton, Oregon, Umatilla, The Dalles, Portland, Astoria.
- 21 - From Cleveland, Ohio, to Massillon, Cambridge, Parkersburg, West Virginia, Charleston, Princeton, Wytheville, Virginia, Sparta, North Carolina, Statesville, Salisbury, Charlotte, Chester, South Carolina, Columbia, Branchville, Yemassee, Savannah, Georgia, Darien, Kingsland, Jacksonville, Florida.
- 22 - From Elizabeth, New Jersey, Phillipsburg, Reading, Pennsylvania, Harrisburg, Clarks Ferry, Bellefonte, Dubois, New Castle, Youngstown, Ohio, Cleveland.
- 23 - From Mackinac, Michigan, to Alpena, Bay City, Flint, Ypsilanti, Toledo, Ohio, Marion, Columbus, Chillicothe, Portsmouth.
- 24 - From Pontiac, Michigan, to Flat Rock, Toledo, Ohio, Defiance, Ft. Wayne, Indiana, Peru, Kentland, Gilman, Illinois, Peoria, Rushville, Quincy, Palmyra, Missouri, Monroe.
- 25 - From Toledo, Ohio, to Findlay, Dayton, Cincinnati, Lexington, Kentucky, Richmond, Corbin, Knoxville, Tennessee, Asheville, North Carolina, Greenville, South Carolina, Greenwood, Augusta, Georgia.
- 26 - From Ogallala, Nebraska, to Bridgeport, Torrington, Wyoming, the Federal aid road north of Wheatland.
- 27 - From Cheboygan, Michigan, to Grayling, Lansing, Marshall, Ft. Wayne, Indiana, Richmond, Cincinnati.
- 28 - From Ontario, Oregon, to Dayville, Prineville, Eugene, Florence.

- Route No. 29 - From Gastonia, North Carolina, to Spartanburg, South Carolina, Greenville, Anderson, Hartwell, Georgia, Athens, Atlanta, Lagrange, Opelika, Alabama, Tuskegee.
- 30 - From Atlantic City, New Jersey, to Philadelphia, Pennsylvania, Lancaster, Chambersburg, Pittsburg, Canton, Ohio, Marion, Lima, Ft. Wayne, Indiana, Valparaiso, Joliet, Illinois, Geneva, Clinton, Iowa, Cedar Rapids, Marshalltown, Boone, Dennison, Council Bluffs, Omaha, Columbus, Nebraska, North Platte, Cheyenne, Wyoming, Rawlins, Granger, Evanston, Echo, Utah, Park City, Salt Lake City.
- 31 - From Mackinac, Michigan, to Ludington, Benton Harbor, South Bend, Indiana, Peru, Indianapolis, Louisville, Kentucky, Glasgow, Nashville, Tennessee, Columbia, Pulaski, Decatur, Alabama, Birmingham, Montgomery, Evergreen, Mobile.
- 32 - From Chicago, Illinois, to Mendota, Rock Island, Iowa City, Iowa, Des Moines, Atlanta, Omaha, Nebraska.
- 34 - From Sheffield, Illinois, to Galesburg, Burlington, Iowa, Ottumwa, Oceota, Red Oak, Omaha, Nebraska.
- 36 - From Indianapolis, Indiana, to Tuscola, Illinois, Decatur, Springfield, Jacksonville, Hannibal, Missouri, Macon, Chillicothe, St. Joseph, Seneca, Kansas, Belleville, Nerton, Colby.
- 38 - From Lincoln, Nebraska, to Fairmont, Holdrege, Culbertson, Imperial, Sterling, Colorado, Greeley.
- 40 - From State Road (Wilmington) Delaware, to Baltimore, Maryland, Frederick, Uniontown, Pennsylvania, Wheeling, West Virginia, Zanesville, Ohio, Columbus, Richmond, Indiana, Indianapolis, Effingham, Illinois, St. Louis, Missouri, Columbia, Kansas City, Topeka, Kansas, Manhattan, Beloit, Colby, Limon, Colorado, Denver, Craig, Duchesne, Utah, Provo, Salt Lake City, Wendover, Wells, Nevada, Winnemucca, Wadsworth, Emigrant Gap, California, Sacramento, Davis, San Francisco.
- 41 - From Towers, Michigan, to Menominee, Green Bay, Wisconsin, Appleton, Fond du Lac, Milwaukee, Chicago, Illinois, Attica, Indiana, Terre Haute, Vincennes, Evansville, Henderson, Kentucky, Greenville, Hopkinsville, Clarksville, Tennessee, Nashville, Murfreesboro, Chattanooga, Calhoun, Georgia, Atlanta, Macon, Tifton, Valdosta, Lake City, Florida, Gainesville, Ocala, Brooksville, Tampa, Bradenton, Sarasota, Punta Gorda, Ft. Myers, Naples.

- Route No. 42 - From Cleveland, Ohio, to Mansfield, Delaware, Xenia, Cincinnati.
- 45 - From Chicago, Illinois, to Kankakee, Urbana, Effingham, Fairfield, Vienna, Paducah, Kentucky, Fulton, Jackson, Tennessee, Corinth, Mississippi, Tupelo, Columbus, Meridian.
- 46 - From Limon, Colorado, to Colorado Springs, Buena Vista, Glenwood Springs, Grand Junction.
- 48 - From Manteca, California, to Hayward, San Jose.
- 49 - From Jackson, Miss., to Hattiesburg, Gulfport.
- 50 - From Annapolis, Maryland, to Washington, D. C., Winchester, Virginia, Clarksburg, West Virginia, Parkersburg, Chillicothe, Ohio, Cincinnati, Seymour, Indiana, Bedford, Vincennes, Lawrenceville, Illinois, Salem, St. Louis, Missouri, Jefferson City, Sedalia, Kansas City, Baldwin, Kansas, Council Grove, Herington, McPherson, Garden City, La Junta, Colorado, Pueblo, Salida, Montrose, Grand Junction, Green River, Utah, Price, Ely, Nevada, Eureka, Wadsworth.
- 51 - From Hurley, Wisconsin, to Stevens Point, Portage, Madison, Jonesville, Rockford, Illinois, Mendota, Bloomington, Decatur, Vandalia, Cairo, Bardwell, Kentucky, Fulton, Union City, Tennessee, Dyersburg, Memphis, Hernando, Mississippi, Grenada, Jackson, Brookhaven, McComb, Hammond, Louisiana, New Orleans.
- 52 - From Newport News, Virginia, to Richmond, Burkeville, Lynchburg, Lexington, Covington, Lewisburg, West Virginia, Charleston, Huntington, Ironton, Ohio, Portsmouth, Cincinnati, Indianapolis, Indiana, LaFayette, Fowler.
- 53 - From Superior, Wisconsin, to Eau Claire, LaCrosse, Caledonia, Minnesota, Waukon, Iowa, McGregor, Dubuque.
- 54 - From Nevada, Missouri, to Fort Scott, Kansas, Iola, Eureka, Wichita, Greensburg, Dodge City.
- 60 - From Chicago, Illinois, to Bloomington, Springfield, St. Louis, Missouri, Rolla, Springfield, Joplin, Vineta, Oklahoma, Tulsa, Oklahoma City, El Reno, Sayre, Amarillo, Texas, Tucumcari, New Mexico, Santa Fe, Los Lunas, Gallup, Hotbrook, Arizona, Flagstaff, Barstow, California, Los Angeles.

- Route No. 61 - From the United States-Canadian line to Grand Marais, Minnesota, St. Paul, Winona, LaCrosse, Wisconsin, Viroqua, Prairie du Chien, Dubuque, Iowa, Davenport, Burlington, Keokuk, Hannibal, Missouri, St. Louis, Fredericktown, Cape Girardeau, New Madrid, Blytheville, Arkansas, Marion, Memphis, Tennessee, Clarksville, Vicksburg, Natchez, Baton Rouge, Louisiana, New Orleans.
- 62- From Ashland, Kentucky, to Lexington, Frankfort, Louisville, West Point, Owensboro, Henderson, Paducah, Charleston, Missouri, Poplar Bluff, West Plains, Ozark
- 63 - From Des Moines, Iowa, to Ottumwa, Lancaster, Missouri, Macon, Jefferson City, Rolla, West Plains, Powhatan, Arkansas, Jonesboro, Turrell.
- 64 - From Conway, Arkansas, to Ft. Smith, Muskogee, Oklahoma, Tulsa, Pawnee, Enid, Perry, Buffalo, Guymon, Des Moines, New Mexico.
- 65 - From St. Paul, Minnesota, to Faribault, Albert Lea, Mason City, Iowa, Iowa Falls, Ames, Des Moines, Osceola, Princeton, Missouri, Chillicothe, Waverly, Marshall, Sedalia, Springfield, Harrison, Arkansas, Clinton, Conway, Little Rock, Pine Bluff, McGehee, Tallulah, Louisiana, Vidalia.
- 67 - From Fredericktown, Missouri, to Poplar Bluff, Pocahontas, Arkansas, Newport, Little Rock, Benton, Washington, Texarkana, Mt. Pleasant, Texas, Greenville, Dallas.
- 69 - From Leon, Iowa, to Bethany, Missouri, Cameron, Excelsior Springs, Kansas City.
- 70 - From Morehead City, North Carolina, to New Bern, Goldsboro, Raleigh, Greensboro, Salisbury, Asheville, Knoxville, Tennessee, Crossville, Nashville, Jackson, Memphis, Forrest City, Arkansas, Little Rock, Hot Springs, DeQueen, Hugo, Oklahoma, Durant, Ardmore, Wichita Falls, Texas, Crowell, Plain View, Farwell, Clovis, New Mexico, Ft. Sumner, Socorro, Springerville, Arizona, Holbrook.

- Route No. 71 - From International Falls, Minnesota, to Bemidji, Wadena, Glenwood, Granite Falls, Worthington, Spencer, Iowa, Carroll, Red Oak, Maryville, Missouri, St. Joseph, Kansas City, Nevada, Joplin, Bentonville, Arkansas, Fayetteville, Ft. Smith, DeQueen, Texarkana, Shreveport, Louisiana, Alexandria, Baton Rouge.
- 73 - From Vinita, Oklahoma, to Muskogee, Eufola, Atoka, Durant, Sherman, Texas, Dallas.
- 74 - From Whiteville, North Carolina, to Rockingham, Wadesboro, Charlotte, Gastonia, Asheville.
- 75 - From the United States-Canadian line near St. Vincent, Minnesota, to Moorhead, Ortonville, Luverne, Sioux City, Iowa, Council Bluffs, Omaha, Nebraska, Nebraska City, Sabetha, Kansas, Topeka, Independence, Bartlesville, Oklahoma, Tulsa, Henryetta.
- 76 - From Wilmington, North Carolina, to Marion, South Carolina, Florence, Sumter, Columbia, Newberry, Greenville.
- 77 - From Omaha, Nebraska, to Lincoln, Beatrice, Marysville, Kansas, Junction City, Herington, Eldorado, Winfield, Ponca City, Oklahoma, Perry, Oklahoma City, Purcell, Ardmore, Gainesville, Texas, Dallas, Corsicana, Huntsville, Houston, Galveston.
- 78 - From Charleston, South Carolina, to Branchville, Aiken, Augusta, Georgia, Athens, Atlanta, Anniston, Alabama, Birmingham, Winfield, Tupelo, Mississippi, Holly Springs, Memphis, Tennessee.
- 80 - From Savannah, Georgia, to Swainsboro, Macon, Talbotton, Columbus, Montgomery, Alabama, Selma, Meridian, Mississippi, Jackson, Vicksburg, Tallulah, Louisiana, Monroe, Shreveport, Marshall, Texas, Dallas, Fort Worth, Eastland, Sweetwater, Pecos, Van Horn, El Paso, Las Cruces, New Mexico, Lordsburg, Rodeo, Douglas, Arizona, Tucson, Florence, Phoenix, Gila Bend, Yuma, Holtville, California, El Centro, Jacumba, San Diego.
- 81 - From the United States-Canada line to Pembina, North Dakota, Grand Forks, Fargo, Sisseton, South Dakota, Watertown, Madison, Yankton, Norfolk, Nebraska, Columbus, Geneva, Hebron, Belleville, Kansas, Salina, Newton, Wichita, Medford, Oklahoma, Enid, El Reno, Waurika, Ringgold, Texas, Decatur, Ft. Worth, Hillsboro, Waco, Belton, Austin, San Antonio, Laredo.

- Route No. 85 - From the United States-Canada line to Williston, North Dakota, Medora, Buffalo, South Dakota, Deadwood, New Castle, Wyoming, Lusk, Wheatland, Cheyenne, Greeley, Colorado, Denver, Colorado Springs, Pueblo, Trinidad, Raton, New Mexico, Des Moines, Dalhart, Texas, Amarillo, Clarendon, Vernon, Wichita Falls, Bowie.
- 87 - From Browning, Montana, to Great Falls, Armington, Livingston, Gardner, Yellowstone National Park, Moran, Wyoming, Riverton, Lander, Rawlins.
- 89 - From Thistle, Utah, to Richfield, Junction, Panguitch, Kanab, Flagstaff, Arizona.
- 90 - From Jacksonville, Florida, to Lake City, Tallahassee, Marianna, Pensacola, Mobile, Alabama, Gulfport, Mississippi, Slidell, Louisiana, New Orleans, Houma, Lafayette, Lake Charles, Orange, Texas, Beaumont, Houston, Gonzales, San Antonio, Uvalde, Del Rio, Sanderson, Alpine, Marfa, Van Horn.
- 91 - From Great Falls, Montana, to Butte, Dillon, Idaho Falls, Idaho, Pocatello, Brigham, Utah, Salt Lake City, Provo, Juab, Filmore, Beaver, Parowan, St. George, Las Vegas, Nevada, to an intersection with Route No. 60.
- 92 - From Daytona, Florida, to Orlando, Kissimmee, Lakeland, Tampa.
- 94 - From Naples, Florida, to Miami.
- 95 - From the United States-Canada line to Bonners Ferry, Idaho, Sand Point, Coeur d'Alene, Lewiston, Grangerville, Weiser, Payette.
- 96 - From Rosenberg, Texas, to Victoria, Beeville, Alice, Falfurrias, Edinburg, Brewsville.
- 97 - From the United States-Canada line to Oroville, Washington, Entiat, Ellensburg, Yakima, Goldendale, Wasco, Oregon, Prineville, Klamath Falls, Ashland.
- 99 - From Blaine, Washington, to Seattle, Tacoma, Olympia, Vancouver, Portland, Oregon, Salem, Eugene, Grants Pass, Ashland, Yreka, California, Redding, Red Bluff, Willows, Davis, Sacramento, Manteca, Merced, Bakersfield, Los Angeles, San Bernardino, Indio, El Centro.

- Route No. 101 - From Port Angeles, Washington, to Aberdeen, Astoria, Oregon, Tillamook, Newport, Reedsport, Port Orford, Crescent City, California, Eureka, Ukiah, San Francisco, San Jose, Salinas, King City, San Luis Obispo, Santa Barbara, Los Angeles, Capistrano, San Diego.
- 102 - From Gladstone, Michigan, to Marquette, Humboldt.
- 109 - From South Glens Falls, New York, to Troy, Poughkeepsie, New York City.
- 110 - From Detroit, Michigan, to Ypsilanti, Coldwater, Elkhart, Indiana.
- 111 - From Harrisburg, Pennsylvania, to York, Baltimore, Md.
- 112 - From Fremont, Wisconsin, to Oshkosh.
- 113 - From Dover, Delaware, to Berlin, Maryland, Pocomoke.
- 118 - From Dodgeville, Wisconsin, to Dickeyville.
- 120 - From Shoshoni, Wyoming, to Riverton.
- 124 - From Peoria, Illinois, to Galesburg.
- 127 - From Lansing, Michigan, to Jackson, Adrian, Toledo, Ohio.
- 130 - From Camden, New Jersey, to Trenton.
- 131 - From Travers City, Michigan, to Cadillac, Grand Rapids, Kalamazoo, Pigeon River.
- 138 - From Sterling, Colorado, to Julesburg, Nebraska.
- 140 - From Atlantic City, New Jersey, to Penns Grove.
- 141 - From Green Bay, Wisconsin, to Sheboygan, Milwaukee.
- 150 - From Shoals, Indiana, to French Lick, New Albany.
- 151 - From Madison, Wisconsin, to Fon du Lac.
- 160 - From Baxter Springs, Kansas to Coffeyville, Independence.

- Route No. 161 - From Dubuque, Iowa, to Marion, Iowa City, Mount Pleasant, Keokuk, Missouri.
- 165 - From McGehee, Arkansas to Monroe, Louisiana, Alexandria, Leconte, Oakdale, to Route No. 90 near Lake Charles.
- 170 - From Greensboro, North Carolina, to Danville, Virginia, Lynchburg, Lexington.
- 180 - From Caballo, New Mexico, to Lordsburg, Solomonville, Arizona, Globe, Comet Peak.
- 181 - From Austin, Texas, to Gonzales, Victoria, Port Lavaca.
- 185 - From Denver, Colorado, to Fort Collins, Laramie, Wyo.
- 187 - From Armington, Montana, to Grass Range, Billings, Ft. Custer, Sheridan, Wyoming, Buffalo, Casper, Muddy Flat.
- 190 - From Slidell, Louisiana, to Covington, Hammond, Baton Rouge.
- 191 - From Brigham, Utah, to Cotterel, Idaho.
- 192 - From Kissimmee, Florida, to Melbourne.
- 199 - From Grants Pass, Oregon, to Crescent City, California.
- 201 - From Brunswick, Maine, to Augusta, Waterville, Norridgewock, Bingham, United States-Canada line.
- 210 - From Motley, Minnesota, to Carlton.
- 211 - From New Market, Virginia, to Alexandria.
- 218 - From Austin, Minnesota, to Charles City, Iowa, Cedar Falls, to Route No. 30.
- 220 - From Cody, Wyoming, to Denver.
- 230 - From Lancaster, Pennsylvania, to Harrisburg.
- 231 - From Montgomery, Alabama, to Dothan, Marianna, Florida.
- 240 - From Frederick, Maryland, to Washington, D. C.

- Route No. 241 - From Hopkinsville, Kentucky, to Springfield, Tennessee, Nashville.
- 250 - From Baldwin, Kansas to Emporia, Newton, Hutchinson, Dodge City, Garden City.
- 260 - From Oklahoma City, Oklahoma, to Okemah, Henryetta, Warner.
- 270 - From Asheville, North Carolina, to Murphy, Cleveland, Georgia, Gainesville, Lawrenceville.
- 280 - From Phoenix, Arizona, to Ashfork.
- 285 - From Raton, New Mexico, to Las Vegas, to Route No. 60.
- 301 - From Fredericksburg, Virginia, to Saluda, Yorktown, Lee Hall.
- 310 - From Laurel, Montana, to Deaver, Wyoming, Greybill.
- 311 - From Roanoke, Virginia to Martinsville, Winston-Salem, North Carolina, High Point, Asheboro, Pinehurst, Aberdeen.
- 320 - From Route No. 20 in Oregon to Weiser, Idaho.
- 330 - From Geneva, Illinois, to Chicago.
- 340 - From Manhattan, Kansas, to Junction City, Salina, Russell, Oakley, Cheyenne Wells, Colorado, Limon.
- 341 - From Perry, Georgia, to Hawkinsville, Baxley, Jesup, Brunswick.
- 350 - From La Junta, Colorado, to Trinidad.
- 360 - From Amarillo, Texas to Farwell, Clovis, New Mexico, Boswell, El Paso.
- 370 - From Socorro, New Mexico, to Caballo, Las Cruces.
- 380 - From Tucson, Arizona, to Nogales.
- 401 - From South Hill, Virginia, to Clarksville, Oxford, North Carolina, Durham, Pittsboro, Sanford.

- Route No. 410 - From Aberdeen, Washington, to Olympia, Tacoma,
Yakima, Wallula, Walla Walla, Lewiston, Idaho.
- 411 - From Bristol, Virginia, to Middlesboro, Kentucky,
Corbin.
- 420 - From Umatilla, Oregon, to Wallula, Washington.
- 430 - From Geneva, Illinois, to Elgin, Crystal Lake.
- 441 - From Ocala, Florida, to Orlando.
- 450 - From Route No. 50, Utah, to Moab, Monticello,
Cortez, Colorado, Durango, Alamosa, Walsenburg.
- 460 - From Los Lunas, New Mexico, to Route No. 70.
- 470 - From Willard, New Mexico, to Albuquerque.
- 501 - From Burkeville, Virginia to Halifax, Roxboro,
North Carolina, Durham.
- 511 - From Bristol, Tennessee, to Johnson City,
Morristown, Straw Plains.
- 530 - From Granger, Wyoming, to Kemmerer, McCammon, Idaho.
- 550 - From Montrose, Colorado, to Durango.
- 560 - From Gallup, New Mexico, to Cortez, Colorado.
- 630 - From Echo, Utah, to Ogden.

REPORT OF COMMITTEE ON SIGNS - JOINT BOARD ON INTERSTATE HIGHWAYS.

July 30, 1925

To Mr. Thos. H. MacDonald,
Chairman, Joint Board on Interstate Highways.

At the meeting of the Joint Board on April 20, a committee consisting of Mr. James of the Bureau of Public Roads, Mr. Hinkle of Indiana, and Mr. Rogers of Michigan, was appointed to consider and recommend to the Joint Board detailed designs for a series of road markers, danger signs, etc., with the understanding that the work would be based on the action of the Joint Board as indicated in its resolution at the April meeting.

The action of the Joint Board in April was to adopt shapes and color combinations for signs of varying significance, and to submit tentatively a design for a highway marker to be used on the interstate highways, and this action constituted the starting point of the committee work.

A careful study and tabulation were then made of all available signs and markers used by the several States. This tabulation showed all the dimensions including size and stroke of letter, use of symbol, and other details necessary in deciding on dimensions to be recommended by the committee. From this tabulation a series of signs has been designed adhering as closely as possible to the prevailing dimensions, with the exceptions noted, and following as nearly as practicable existing and prevailing practices in the several States.

Your committee submits herewith a collection of full size drawings in color, for your consideration, and points out the following general characteristics, which have been developed as fully as practicable in the entire series of signs. Following the recommendations of this Body, of the American Association of State Highway Officials and numerous other agencies, which have been for many months considering the question of highway signs, your committee has attempted to develop in a series of signs, four different distinguishing characteristics having reference to the use of the sign, viz., shape, color scheme, wording and symbol.

In doing this we have adhered without deviation to the final report of the Sectional Committee on Color Code of the American Engineering Standards Committee, as well as to the resolution of this Joint Board. Your committee is not entirely agreed as to some details which will be pointed out later, but is agreed on the following general scheme which has been developed in the designs submitted to you, viz., the over-all dimensions, a set of signs of comparatively uniform size, details subject to standardization, such as width of margin and form of letter, and use of standardized symbols. Symbols

recommended by the A. E. S. C. have been adopted. Attention has been paid to the possibility of production in quantity, using either wood, pressed metal, cast steel, cast iron, or cast aluminum. With respect to posts, the committee submits designs using a rolled steel shape, pipe, concrete and wood. The committee makes no recommendation regarding reflecting or luminous signs, assuming only that these shall conform in shape and color scheme with the series of non-luminous signs.

In designing the posts, the pitch and arrangement of bolt holes are so devised that the posts may be made in quantity and any sign may be used on any post without reboring or special adjustment of any kind.

Your committee submits a series of designs which is obviously not complete, but which furnishes samples of practically all signs likely to be used as follows:

(1) Road Marker - The size of this sign has been increased from 13 $\frac{1}{4}$ to 15 inches tip to tip vertically, meeting by this change a general criticism of the original design. No other change was made.

(2) Left and Right Route Markers - The committee submits these markers in a design similar in outline to the route marker, this, in order that the two may be immediately associated in the mind of the observer.

(3) Railroad Sign - This sign is submitted in two sizes, 24 and 28 inches in diameter, respectively. The 24-inch sign is now widely standardized, being used by both the eastern and western railroad associations and most of the States. This sign, however, because of its shape looks smaller than the other signs, and for that reason a 28-inch alternate design is submitted, without recommendation, for action by the Board.

(4) Stop Sign - This sign is submitted as a regular octagon and as an elongated octagon. The Sectional Committee of the A. E. S. C. embodied in its report a recommendation that extension horizontally, as in semaphores, should indicate "stop" and extension vertically should indicate "go." In conference with Dr. Lloyd of that committee, he suggested the elongated octagon as being desirable because it is more closely in accord with the committee's recommendation. These alternates are submitted for the action of the Joint Board.

(5) Caution Sign - A series of caution signs of generally uniform design is submitted with recommendation that they be adopted. These signs conform in all details with recommendations of various committees interested in the question of signs. Symbols are used wherever recommended and in the form recommended by such committees.

(5-A) Look or Attention Sign - A series of signs in conformity with the action of the Association of State Highway Officials, is recommended for use where extreme caution or reduction of speed is not always necessary, but where attention of the driver should be specifically directed to conditions requiring care in driving. This sign would be used sparingly to draw attention to school zones, hospital zones, etc. The design recommended is a square sign with yellow background and black lettering, of the same general type and size as the caution sign.

(6) Directional Sign - This sign is made with a 36-inch standard width, the height to be altered as necessary, and a schedule of heights for 4, 5, 6, 7 and 8 line signs is given. On this design an attempt was made to work out a uniform scheme for mentioning points on the route, but was discarded as not being practicable in view of the great variety of conditions. In general, it is believed desirable to mention all points in their order of distance, but no other schematic arrangement is believed practicable.

(7) Named Signs for Physical Features - This sign is made with a standardized height of 12 inches, the length to vary as necessary.

(8) State Line Signs - This sign is given a standard width of 36 inches, the height to vary as necessary.

(9) Speed Limit Signs. - This sign is 20 inches by 30 inches and aims to emphasize the rate of speed by placing the mileage number at the top.

(10) Side Town Directional Signs - This sign is for use in designating distances to towns not on the interstate highway, and is generally similar to the directional sign recommended above.

All of these signs are recommended by your committee except alternates above noted.

Your committee fully understands that additional signs may be necessary, but it believes this series covers the general type of all signs likely to be used and in order to provide for such additional signs as may be required later by the several States, makes the following recommendation:

Whenever a State desires a new standardized sign for any purpose, it shall submit a request with suggestions to some

central agency, either a State highway department appointed for that purpose, or the Bureau of Public Roads. The desired sign will then be designed in harmony with the existing standards, and the State making application shall be furnished with a full size drawing in color. All other States will at the same time be furnished with prints and description of the sign so that any other State wishing to make use of the same sign may do so with the assurance that it is adopting a standardized design.

Respectfully submitted,

COMMITTEE ON SIGNS

MAINE

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SODUS CREEK

TRENT 4
ELKVILLE 10

← HUNTINGTON 10
← LEXINGTON, KY. 148
→ CHARLESTON, W.VA. 43
→ NORFOLK, VA.

20
MILES
SPEED
LIMIT

