

HIGHWAY ACHIEVEMENTS AND PROSPECTS

by

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The story of American highway development as it has been written thus far contains at least three significant dates. They are the year 1891, in which the first State aid law was passed in New Jersey, July 11, 1916, the day on which President Wilson signed the Federal aid Road Act, which brought the Federal Government into active copartnership with the States, and November 9, 1921, when the passage of the Federal Highway Act laid the basis for the building of an inter-state or national highway system.

It would be difficult to decide which of the acts which distinguish these dates has had or is destined to have the greatest and most far-reaching influence upon the progress of highway building and highway transportation in the United States.

The organization of that first highway department in the State of New Jersey was the first great experiment in the series of departures from accepted principles which have lifted the highways of the nation from the place of local mismanagement to that of scientific control and development on a State and national basis. It proved to be a distinctly successful experiment not only in the pioneer State, but in each of the 30 States which year by year, and one by one recognized the benefits of the new plan and adopted it, prior to 1916.

In one sense the participation of the government, secured through the passage of the Federal aid Road Act in that year was not so much an experiment as an extension of the benefits of the plan of State control, by effecting the organization of highway departments in the remaining 17 States. In the long run the creation of these State departments and the strengthening of others will prove to be the most important of the results of the act-- more important even than the thousands of miles of road which have been improved with the money appropriated. The increase in the proportion of work conducted under the control of the States from 27 per cent to 80 per cent in the space of less than six years is an accomplishment of fundamental importance and the efforts of that accomplishment of the Federal aid Road Act will be felt long after the immediate benefits of the roads improved have been forgotten.

In another sense the first Federal act was decidedly an experiment, and one which happily has proved as successful as the first. I refer to the very great degree of accommodation and cooperation required of the States and Federal Government. While the principle of Federal grants in aid was not applied for the first time in the Federal aid Road Act, no preceding cooperative measure had called for the same degree of mutual good will and forbearance. Roads had previously been held to be the peculiar concern of the locality, and even the transfer of control from the counties to the States had met with strong opposition. Five years ago the idea of a national system of roads met with no practical acceptance, as twenty years ago the conception of State roads was beyond the vision of a people as local minded in all that affected the development of their highways

as their ancestors a century before. The complete removal of these old barriers of local prejudice and the upbuilding of an association of State highway departments working in close cooperation with the Federal government through the Bureau of Public Roads, is the happy result of five years experiment and development under the Federal aid Road Act.

We are now fairly launched upon our third great experiment under the Federal Highway Act which was approved last November, and again the experiment is evolutionary in character rather than revolutionary. The first act built up a great Federal and State cooperative organization for the building of highways, and provided for the combined organizations the means with which to test their capacity and efficiency by practice. The new act corrects the few defects that were found in the five years of trial and lays down a program for the construction of a great system of interstate and inter-county roads. As we set out to follow the program planned for us we look forward to the time not far removed when we shall have a national system of connected roads, each road a link in the national chain, bearing its due proportion of interstate traffic, yet each a local road as well, serving with well placed lateral roads to distribute and collect the traffic of the rural sections.

The passage of this act with its provision for systematic development of our highways on a national basis and the emphasis it lays upon the duty of maintenance is the greatest highway accomplishment of the past year, transcending in importance even the magnificent

advance which has been made in construction. The most important duty of the coming year is that of laying the foundation upon which the systems required by the law will be built up.

There can be no doubt as to the clear intent of the law to provide for a system of roads which shall include those which are now and which after improvement will become the major traffic lines. But we must not minimize the importance of local traffic. In carrying the terms of the act into effect our conception should be that a choice of highways shall be made which, regardless of the order of improvement, will eventually join into a well conceived network crossing both county and State boundaries. Thus, while the immediate need of a State or a district may determine the priority of construction, each new link will bring nearer the completion of the system as a whole. State and Federal agencies are a unit in their determination to work out the requirements of the law on substantially this basis, and we may confidently look forward to material progress during this year.

From the standpoint of construction and maintenance we have made greater progress in 1921 than in any previous year. Approximately \$600,000,000 have been spent by National, State and local governments, about \$420,000,000 for construction and \$180,000,000 for maintenance.

The set-back in the condition of the roads, resulting from lack of maintenance during the period of the war has been made up by increased maintenance and rebuilding, and our mileage has been extended so that the roads are in far better condition today than they have

ever been in our history.

The Federal aid program has advanced with a rapidity little short of startling to those unfamiliar with the steady progress made in previous years in the preliminary stages of surveying and planning. In July 1920, four years after the passage of the Federal aid Road Act there had been entirely completed 1,677 miles of road and projects aggregating 14,940 miles were 30 per cent complete making an equivalent completed length of approximately 6,000 miles. A year later and five years after the passage of the act the mileage entirely completed was 7,469 and the 17,978 miles under construction were 50 per cent complete, so that the equivalent completed length was over 16,000 miles, a gain of 10,000 miles during the year. In seven months after the last anniversary of the act, that is on February 11, 1922, the mileage of road entirely completed had increased to 13,867 miles and including the completed portion of projects under construction there was an equivalent completed length of over 24,000 miles of road, or more than enough to encircle the earth at the equator. The total length of all projects approved up to the same date, including completed projects and projects in the construction and pre-construction stages, was 35,751 miles.

For the ensuing year the prospect is that the uncompleted work on the 15,000 miles of roads which are under construction will be dispatched promptly, and the 6,700 miles now in the pre-contract stages will be placed under construction and pushed to completion as rapidly as possible. But there will be no let-up in the energy with which the work will be prosecuted, the mileage opened to traffic

may be expected to fall off on account of the delayed appropriation of funds in extension of the preceding appropriations, which operated to prevent the institution of new work last year.

The portion of the several appropriations including the last, unobligated on January 31 was \$81,348,341. At the rate at which the money has been absorbed heretofore this amount would have been entirely taken up in approved projects in less than a year. On account of the time lost last year the rate will not be quite so great, but there should be no further delay in appropriating funds for the continuance of the program for at least another 5 year period.

In attempting to forecast the progress that will be made during the coming year there are a number of opposing factors to be considered, some of which operate to encourage an extensive program and others which tend to a limitation of our efforts. On the one side, as tending to promote a large program there are; (1) The recognized need of universal easy and cheap transportation facilities; (2) The known inadequacy of present highway facilities to meet the demands of the actual and potential traffic; (3) The proved benefits of the highways in return for the investment that is made. On the other side, tending to limit the program there are: (1) The funds available; (2) the economic situation; (3) Prices and costs of highway improvement.

The Need of Universal Easy and Cheap Transportation

It is perhaps unnecessary to dwell on the needs for easy and cheap transportation. The improvement of our means of transportation as much as any other factor has been responsible for the economic growth of this country. A striking example of what the lack of

transportation may mean to a nation is afforded by the deplorable condition of China. When recently there were thousands starving in parts of that country and food was being sent from America, there was excess production of food in other provinces of the same country that could not be obtained because of lack of internal transportation facilities. In the United States our railroads alone would save us from such extreme disaster, yet we have come to a realization since the war that even our highly developed railroad transportation system is not sufficient to meet the needs of our people. We have seen corn burned as fuel in place of coal because of a transport barrier raised between the producers and the consumers of corn and coal, and it has been brought home to us that adequate transportation is as necessary to the prosperity of the United States as ample production.

Related Response to Demand for Highways.

Every automobile and every motor truck that has been added to the registration books in a score of years has added to the strength of the demand for suitable highways. While there is perhaps no close relation between the rate of increase of these vehicles and the rate at which we should add to our highway facilities yet the fact that we now have 10,000,000 motor vehicles in need of suitable highways upon which to operate is the sufficient reason for our determination as implied in the Federal Highway Act to build up in this country a great net-work of roads penetrating to every section. There is need at once for the entire system; it could not be more acutely felt had we twenty million potential users instead of ten. There was practically the same need five years ago

when we had less than four million, but we have just begun to comprehend their significance and to translate our understanding into action. We are making a belated response to the demand they present for connected highways upon which to operate, and because we have delayed there is the greater reason for an accelerated rate of construction.

Highway Benefits Proved.

We are convinced that we shall benefit by the construction of these roads. We do not need to seek that benefit along the indirect route of property value enhancement, we find it in the direct use we are able to make of the roads themselves. We find it in the multiplied traffic that passes over our modern roads, in the fleets of motor trucks plying between cities carrying commodities from the producer directly to the consumer, in the farm trucks loaded down with the fruit of the soil moving from the farm to the market, in the growth of a passenger bus service that numbers vehicles by the thousand. Most strikingly we find it in a use of the highways by automobiles which, measured in passenger miles, is more than twice the service rendered by the railroads.

The Response Limited by Funds Procurable

Recognizing the need for improved transportation facilities and believing in the ability of the highways to provide the desired means, understanding that the need is the more pressing by virtue of our failure to heed the demand of close to a decade, there is every reason for an intensive drive to complete at least a minimum system of roads at the earliest possible moment. The rate at which we shall

actually move toward that end, - the program for this present year and the succeeding year will be limited by the funds available, the funds procurable and the prices and costs of highway improvement. Our estimates of the amount of money available for 1922 are as high as \$720,000,000 - from all sources, Federal, State and local. Very likely a portion of this money will not actually be available. The Federal portion can be definitely counted upon - the money is already provided and ready for immediate use. The portion which is to come from State bonds is probably equally certain, but I look for a probable decrease in the funds obtainable from local bond sources and from State and county taxes, on account of the generally unfavorable economic situation.

At the root of that situation is a particularly severe agricultural depression.

Forty per cent of our population is on the farms and more than 40 per cent of our buying power comes from these same farms. If the prices these people are receiving for their crops were such as prevailed in 1919 and the earlier part of 1920, they could pay increased rates without inconvenience, but they are not receiving such prices. If the prices of the things they need were low in proportion, there would be no embarrassment, but the trouble is that, whereas the prices the farmer receives for his crops are lower than before the war, the prices he pays for the things he needs are from 25 to 75 per cent above the pre-war level, hence the purchasing power of the major farm crops is probably lower than at any time in our history, and this has very much to do with the nation-wide

industrial and business depression. It has very much to do, as a matter of course with the rate at which funds will be procurable for road construction when as by our present methods, we are deriving fully 50 per cent of our construction funds from farm sources.

What those funds will buy in the way of highway improvement is the other limit placed upon our production of highways. In this connection there is a ray of hope in the reduced wage that has been accepted by labor. Wages paid on Federal aid projects in January are almost down to the pre-war level. The prevailing hourly rate in the East is 30 cents, in the South 25 cents, in the Pacific States 45 cents. These are but little higher than the standard wages of five years ago, and they are reflected in the reduced costs of grading and other operations which do not involve manufactured materials and transportation. The prices for certain classes of material and the freight rates have not come down proportionately, but the slight reduction that is observable, taken with the marked reduction in grading costs, has resulted in a very appreciable reduction in the cost of road building as a whole. The price reductions noted thus far and the generally upward tendency in the purchasing power of money lead me to the belief that we shall be able to carry on a program of construction and maintenance this year only slightly less extensive than that of last year, if it be not fully as extensive, and that we shall be able to do so with an appreciably smaller expenditure.