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Why Highway Planning Surveys - Now?

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Twenty-eight years ago I paid my first visit to Knoxville. I came then, as one of a group of young men that formed the staff of the Southern Railway's Good Roads Train. Our purpose was to sow the seeds of a desire for improved roads among the people of this State. As I look about me here tonight I see some indication that we sowed a good crop.

In all Tennessee, at that time, there were few roads that anyone would have called good. Down in Madison County the late W. S. Keller was building a county system of macadam roads that later led to his appointment as Alabama's first State highway engineer, and won for him a firm place among the early leaders of the highway profession.

But here in East Tennessee, I think I am not mistaken in saying, there was as yet no similar progress; and there were still large areas in which

a primitive isolation had not yet been penetrated by any road suitable for wheeled vehicles. To illustrate the handicap of bad roads there was a story that we told our Good Roads Train audiences, that had its setting in one of those very roadless fastnesses of this section of the State.

It was the story of an earlier good roads emissary who, when he had pushed his way on horseback into a mountain hollow, was surprised to find it abounding in a remarkable crop of corn. For so large a crop there must, he thought, be some use beyond the obviously small subsistence requirements of the small mountain community. Yet, thinking of the difficulties of his own entrance into the valley, he could not imagine how it would be possible to get such a crop <u>out</u> to a larger market. Pointing back over the way he had come he said to the owner of one of the more luxuriant fields, "Surely, you can't get all this corn <u>out</u> over <u>that</u> road." "No, Stranger,"

the native answered, "they ain't no chanct to git hit out that way. But, when we git it made into likker, hit's plumb, downright easy to fight it out."

At that time, of my first visit to Knoxville, this country stood upon the threshold of the pioneer period of road improvement. Four years later, in 1915, the Tennessee State Highway Commission was created; and in one more year the Federal Aid Road Act was passed.

We meet here tonight at what is virtually the end of that pioneer period and the beginning of a new and secondary stage of road improvement, in which many of the conceptions, and policies, and practices that have become familiar to us must be re-examined and adapted to new conditions. It is such a re-examination and review that we have undertaken in the State-wide highway planning surveys.

We sometimes are asked the question: "Why make these surveys now, when the job of road building is so nearly done?" It is a question that reflects

a conception of road improvement as a process of lasting creation. You build a road and there it is - there to stay; then you build another, and another; and sometime you get them all finished; then you are done with road building, and you can use the tax money for something else. Well, you and I know that road building isn't like that. It is a never-ending process. As long as wheels revolve over our highways there must go on a constant process of repair, and renewal, and revision of the highway facility. And, far from being nearly done with road building at this time, we have actually only just begun. We have reached the end of a period of hurried and provisional construction to get usable roadways under a rapidly growing traffic that has been constantly outstripping our best efforts. With the most urgent wants of the traffic now supplied, and the rate of traffic growth settling down to a more gradual climb and a more predictable goal, we are now entering a period when planning of the future form and extent of the highway system as a whole has come within the range of feasibility.

When I first came to Knoxville there were only 700,000 motor vehicles in the whole United States; but every two years their number was doubling. No one could form the slightest idea of their eventual numbers. Perhaps, even, like the bicycle they would soon cease to increase, and the motor car again like the bicycle, would prove to be just another passing fad. There were wiseacres who said so.

But year followed year, and instead of falling off, the rate of increase in motor vehicle registration increased, and in the good old American way we were soon saying, "Excuse our dust; but watch us grow! There ain't no stoppin' us." Every year's new models were classier and downright better than the last. And, if a skeptic hinted of "saturation point," the wiseacres - the same that once talked knowingly of fads - perished the thought and poohpoohed the idea. And, sneaking another look at the heaven-pointed curve of registration increase, the skeptics generally decided to let the matter drop.

The point is that as long as the registration curve headed upward without sign of bending no man could even guess how far it might go. And, road-builders, seeing more to do than they could possibly get done with the money in sight, contented themselves with doing the obvious things - which generally consisted of getting some kind of cover over the mud on as many miles as possible - and letting the future take care of itself.

If anyone says that was short-sighted, I am going to disagree - emphatically! It was what practical men (may we not also say wise men) always do when they are confronted with a similar situation, they feel their way. They do first things first. They meet imperative needs partially; and so partially meet more needs.

In 1921 the designation of a Federal-aid highway system and the establishment of a policy to spend on that system only until it should be satisfactorily improved was the wisest of planning. It was doing first things first. And so also was the

similar creation of State highway systems and the similar restriction of State expenditure to those systems. The roads that were included in the State and Federal-aid systems were in practically all cases clearly the most important of the country's roads. No mistake in sticking to them - so reasoned the planners of 1921; and their reasoning was good reasoning. They were wise planners.

When the men that planned the State systems and the Federal-aid system began improving those systems they followed what they called a stage-construction policy. They built by stages. Remembering that neither they nor even the wisest of their contemporaries could so much as hazard a guess of the ultimate future of the motor vehicle, the adoption of that policy must stand also as a wise decision. That was planning, too. It was provisional planning which is the only kind of planning that comports with a period of rapid and unpredictable growth. Build so far as possible to meet the present need; but so build as to supply a foundation for future better building.

That was the essence of the stage construction policy - and for the time of its adoption it was the only fitting policy - the only practicable policy. It was wise planning.

But the wisest of policies, continued in force when the conditions to which they were fitted have passed, become, like twisted signposts, pointers of misdirection. And the road building conditions of the teens and twenties and the early thirties - the conditions to which these policies of which we have spoken were fitted - have now definitely changed.

The soaring curve of motor registration has turned toward the level. There are now in Tennessee alone more cars and trucks than there were in the whole country when the Southern Railway's Good Roads Train of 1911 whistled its way into the Knoxville yards.

In the United States there are now 30,000,000 motor vehicles where then there were 700,000. But the numbers of these motor vehicles are no longer

doubling every two years. In fact it is quite easy to see and quite safe to predict that by 1960 - twenty-one years hence - there will be no more than 40,000,000, perhaps not more than 38,000,000.

It may be somewhat more venturesome to assert that the form and performance of the future vehicle will change as little as its numbers; but if so, it is a venture that experts of the motor industry are willing to risk, when, in the soberness of the conference room, they talk to us.

No longer, as in the teens and early twenties, are many of our most important roads wholly unimproved. Instead, there is scarcely any part of our country that cannot be reached from any other part by travel over surfaced highways, which for the most part are both mudless and dustless. Undeniable defects there are in these highways, but they are not the utter deficiencies of the days of our road building beginnings.

No longer is the pattern of the movement over these highways an evanescence, changing radically with yearly changes in the performance ability of the motor vehicle, and with the steady enlargement of the circle of its possessors to include larger and larger numbers of those less and less wealthy. Instead, we approach a condition of stability in vehicle ownership and use.

Under these changed conditions road building policies that formerly were proper and wise become inadequate and insufficient half measures. Cautious restriction of improvement effort to highways clearly important may now give way to a distribution of betterment effort according to a measured ascertainment of the relative use values of all highways.

The singling out of certain roads for special attention becomes less necessary and a balanced attention to the whole highway system, to assure a consistent improvement of all its parts, becomes more advisable.

When we thus turn our gaze from concentration upon the selected systems of our past good policy, to a wider view of the whole road and street system, we see that there are parts of the whole system that formerly we excluded from our plans for good and sufficient reasons, that now, for reasons equally good, have come to merit our closer and very particular attention.

For instance, we deliberately excluded city streets from our State and Federal-aid systems in the twenties - because city streets were then so far superior to the main rural highways as to seem beyond the need of attention. Today, as we lift our eyes from a close inspection of the main rural highways, we find that the fitness of many of those highways to perform their duty in a balanced scheme of highway transportation exceeds that of many of the already overburdened city streets to which they deliver their added weight of traffic.

And while, as State and Federal officials, we have been concentrating upon the main rural highways, we find that beyond those highways an improvement of the lesser roads has been going on under local government administration, that has largely increased the improved mileage of such roads. As the effort that has brought about that improvement has been less definitely coordinated, so we now find it to be less consistent, when measured either by the absolute standard of its own need, or the relative standards of comparison with other parts of the whole system.

We know that improvement has been extended to many such roads the traffic use of which drops close to the minimum of zero. But we see that there are other miles, of which a greater use is made, that are not yet adequately improved. We realize that it is in these lesser branches of our highway system that there lurks the greatest possibility of wasted effort, effort wasted because it has no real purpose, either for the economic or social benefit of the

country or its people. And we sense that we should ascertain as quickly as possible not only the desirable limits to which such improvements should be carried, but also the real goals of economic and social development to which all further local road improvement should consciously be made to contribute. Concretely, we speak of these economic and social goals in terms of desirable land uses.

In the pioneer period through which we have passed, the emphasis of our road building science has been placed upon questions of physical road design. It was necessarily so. We had to learn a new art of road building to cope with the new and intenser forces applied by the new vehicle. The physical researches of the last two decades have made possible the design of modern pavements and road surfaces, of subgrades and all the other elements of the road structure that are well adapted to the needs. Physical problems remain for study today, but the emphasis, as we pass from the pioneer to the

secondary phase of road improvement will be placed more and more upon economic studies, which previously it has been either unprofitable or impossible to pursue.

Unprofitable? Would it ever have been unprofitable to undertake such studies as we are now beginning? Yes, actually unprofitable. It is unprofitable always to study any movement, while it is still so formless as to reveal no definite trends. And that, over much of the past period, has been the character of highway traffic by the motor vehicle. Largely unprofitable also would have been such studies as those by which we now seek to establish the probable life expectancy of various parts of the highway structure, simply because our highways were not yet old enough to have revealed the tendency and probable duration of their lives.

With most of the major trends definitely established it now becomes profitable to study them. At the same time we reach a point in the progress of highway improvement at which it becomes desirable to relinquish

provisional policies and seek to define, however tentatively, ultimate goals. We approach a point of diminishing returns in our further development work that should not be passed. It becomes less and less important to push development further, and more and more desirable that what has already been done shall be brought to a state of greater consistency within itself. Ultimate relations between the highway transportation, that is our special concern, and other forms of transportation need to be set upon a proper plane of coordination. Within the frame of highway transportation itself there is need for a better adjustment of the road to the vehicle and vice versa. And, highly important, is the need to develop a more stable and defensible system of highway finance.

It is such reasons as these which I have mentioned that explain the nature and content of what we call the State-wide highway planning surveys. And it is for reasons such as I have described that these surveys have not previously been undertaken and yet are imperatively needed now.

We have made a beginning in Tennessee and in 45 other States - a beginning only. We cannot see the end of what we have started, because there is no end. In their initial form the studies are designed to gather much basic data, which the future studies will only need to revise and, by less elaborate or rather more routine processes, keep current. But the planning surveys are not to be thought of as a short sally after facts from the walls of ignorance, but rather as the sustained march of a great public business toward a goal of more rational administration, founded upon a determined and constantly reverified need for its services.

With this conception of the character and purpose of the surveys, we are trying to think less of the customarily expected "Reports" of our studies, and more of the ingestion of the facts and relationships discovered into the inward organism of the highway departments, and their eventual digestion as revised policies and practices, consistent with the changing needs.

Reports, as such, are desirable mainly because it is necessary that the public be informed of what the departments are learning, that the people may be given an opportunity to revise their conceptions in accord with those of the official agencies. And reports are beginning to issue that will accomplish exactly this purpose.

A few days ago the President forwarded to Congress with his endorsement a report by the Bureau on the feasibility of a suggested system of trans-continental toll highways. We found the proposal to be "not feasible," and we proposed instead a rather broadly conceived alternate that we were daring enough to call a Master Plan for the Highways of the Nation.

Printed copies of our report will shortly be available, and I hope you will all study it with patience and a certain sympathy. Whether our proposals are as sound as we think them, will be determined by the verdict of the jury of which such groups as yours are the most capable of informed judgment.

But what I want to say here of the report is that it could not possibly have been made had we not had at our disposal the partial, yet very convincing and consistent results of the planning surveys in many States. We made some rather novel suggestions, and we point to what we believe are some errors of the past that are crying aloud for correction. I am not going to mention the suggestions or hint at the errors. I want to arouse your curiosity. You may satisfy it by reading the report.

If, then, you agree with us, and if your agreement is shared by other groups and especially by the Congress of the United States and the legislatures and governments of the States, a new turn will be given to accustomed highway policies, and you may credit that, if it happens, as the first major triumph of the highway planning surveys.