## Future Prospects, Both Encouraging and Discouraging, for Indiana Roads

JOHN H. LAUER Chairman, State Highway Commission of Indiana Indianapolis

Although any forecast for the immediate future of Indiana's state highway system must be presumptive, as we have no way of knowing what action will be taken by the Legislature on our request for funds, I shall attempt to give you a brief but comprehensive picture of our problems as we of the Commission see them.

During the war years the enormous program of construction and maintenance of our state highways, like all non-military construction, with few exceptions was completely halted. As a result, the highway program is five years behind schedule in construction and reconstruction, and we are faced with a tremendous maintenance problem growing out of the punishment many of our state roads suffered in carrying necessary war materials. The Commission relaxed weight permit regulations during the war because practically all the cargo being moved was closely related to the war effort. Therefore, as a result, the heavy truck took an increasingly detrimental toll.

When war was declared, many of our state roads then being constructed were, of necessity, deprived of steel reinforcement. Consequently these roads are not wearing as they should.

Our equipment is badly worn and inadequate (the average age of the state highway truck today is ten years) and, in addition to that, maintenance costs have increased 38%. Construction costs for roads are approximately 75% higher, and bridge construction costs are from 95 to 100% higher than in 1940.

Our engineers have recently concluded a long and minute investigation which overlooked no details of the highway system and during which they examined every mile of state roads in Indiana, including city streets, and every bridge in the system. The purpose of this examination was to determine the immediate needs for repair and construction or reconstruction. In other words, to establish as nearly as possible just how much money will be required to remedy the severe punishment the system received during the war, and to bring up to minimum standards for the traffic using them the many miles of state roads which have been incorporated into the highway network in the past years.

Many of these secondary roads which have been incorporated into the system are inadequate, contain weak and narrow bridges, and will require large sums of money at once if they are to be safely and economically used. Every locality in the state is urging that some section of county or city thoroughfare be taken into the state system, and hundreds of miles have been added in recent years. If the present trend continues, that factor in itself will require additional revenue or else the practice must be curtailed. The State Highway Commission constantly has been requested for funds by the public without thought of income to increase the service we have given.

It may be that the citizens of Indiana and the Commission have lost sight of the purpose for which the highway commission was established—which was to construct, reconstruct, improve, and maintain a system of highways to carry the arterial traffic of the state.

## UNPROFITABLE ROADS

In order to please various sections of the state, it has been the policy to add certain county roads to the state system. In practically all instances they are low-traffic-count roads that do not fit into the original scheme of the state system handling the through arterial traffic.

When these roads are acquired by the Commission, the local communities are well satisfied with one type of surface; however, it is usually only a short time until their requirements change and they demand a much higher type. To meet this requirement it is necessary for the Commission to take money from some other road to maintain this recent acquisition.

Very often the Commission finds itself in the bad graces of the community because it has relieved the county of such a road and the residents along the road, as soon as it becomes a responsibility of the State, object to the manner in which it is maintained, even though it is better taken care of than ever before.

To state it briefly, the highway commission got itself into trouble by adding this road. As Al Smith used to say, "Let's look at the record". During the period from July 1, 1936, to June 30, 1945, the State Highway Commission has expended \$10,267,287.75 for maintenance alone on roads that have been taken over from the counties and made state highways. In many cases this has been a poor investment be-

cause the majority of these roads do not begin to have an income comparable to the amount of money that is expended on them for maintenance alone—not considering funds that must be spent on them for road and bridge construction.

It seems inconceivable, but in the fiscal year of 1945 alone these additions accounted for 31% of the total direct maintenance charges that were expended on the state highway system.

I would like to call your attention to just a few specific examples of what I mean. For obvious reasons we will give only their location in some general section of the state rather than describe specific roads.

In the southern part of the state we have a road 20 miles long that was taken over from the county in December, 1943. From that time until June 30, 1946, it has earned \$13,050.45 and has cost us \$89,673.86, a deficit of \$76,423.41.

In the same part of the state we have  $4\frac{1}{2}$  miles of road taken over from the county in 1938. The income from that road is \$6,700, but we have been required to spend \$36,160.69—or a deficit of \$29,460.69.

In the northeastern part of the state 6.10 miles, from October, 1937, to June, 1946, earned \$7,963.50, and cost \$48,995.75—a loss of \$41,032.21.

In the same part of the state another 7.4 miles of road from 1937 to 1946 cost \$75,211.07, with an income of \$27,436, or a loss of \$47,775.

In the eastern part—4 miles from November, 1940, to June, 1946, had an income of \$4,329.76 and an expenditure of \$14,267.73, showing a loss of \$9,937.97.

In the north central part of the state there is a road 7.7 miles long that from 1987 to 1946 earned \$13,348 and cost \$61,721.70 to maintain, which is a loss of \$48,373.70. Another road in this section is 13.4 miles long and for the same period of time had an income of \$31,070.56 and an expenditure of \$105,105.24—a loss of \$74,034.68.

In the extreme northern part of the state there is a road 13.5 miles long that for the same length of time had an income of \$34,569.48 and an expenditure of \$100,048.40, or a loss of \$65,478.92.

Let's ponder this situation for a moment. Are we giving more service than is required by the roads similar to the ones that have been described? Should we increase the hazards and decrease the economic good of the better roads by putting the money on the roads that are not contributing their share?

It is probable that while the state has many miles of highway which are not paying their way, each county system has many miles that are in the same category. On many such county roads as few as five or ten families live, and they are the only ones who get any appreciable benefit from these sections. If the income from such roads were used to maintain them, the maintenance would certainly be negligible. These roads are being provided for a few people alone. In such cases as this is it logical to expect other citizens who are using the heavy traffic arteries to pay for this purely local service?

Maintenance and construction of roads are dependent upon the income from the motor vehicle. When the income from a local road does not pay for the service requested by the people who live on this local road, why then should not the people who live on it make up a portion of the difference in cost?

## STATE ROUTES THROUGH CITIES

Let's talk over the state highways in cities and towns. Without any addition to our source of income, mind you, the state highway commission was required from January 1, 1938, to maintain, construct, reconstruct, and improve all city streets which followed state routes in all cities of over 3,500 population. From that time until June 30, 1946, the highway commission has expended \$12,092,761.43 on those city streets.

Is it logical for the State Highway Commission to continue to take over certain county roads that do not conform to the original functional intent of the Commission? Will it be possible for the Commission to continue to maintain these low-traffic-count roads in a manner incompatible with its income? If these services are to be rendered, where is the money coming from?

## A SURVEY OF NEEDS

Referring again to the survey of our engineers, the results of this serious and exacting examination show that the State of Indiana must in the near future invest the sum of \$529,051,400 in order to place our highway system in the minimum condition required by the demands of present-day traffic. If this sum seems fantastic, I might mention the amount of money that the State of California believes it will be necessary to spend during the next few years in order to bring its highway system up to the necessary level. California, with its 13,700 miles of state highways (only one-third more than our own) is asking for \$2,800,000,000 for this purpose, more than  $5\frac{1}{2}$  times our requirements. With motor-vehicle accidents costing the nation  $1\frac{1}{4}$  billion dollars and thousands of lives a year, and modern highway design demonstrably able to

cut accidents significantly, the cost is not high and the benefits are immeasurable. New Jersey claims that recent changes in engineering design reduced accidents by 76%.

Another important factor in the need for new roads and new design is the tremendous traffic load which we face in the next few years. A well-known statistical analyst has predicted that 40,000,000 cars are expected to be on the nation's roads by 1950 and that the highway hauling of vegetables, milk, live poultry, livestock, and inanimate freight is all expected to increase the necessity for adequate road and bridge design and construction.

The same source predicts that within the next few years 7,000,000 trucks will be in use in the nation, as compared with the present peak of 4,800,000. Of necessity, a proportionate share of this huge future will be using Indiana's roads.

Our roads and bridges must be ready for them if we are to maintain our place as an integral part of the nation's transportation system. There are 1,200 substandard bridges in our state highway network today. These bridges are in immediate need of replacement, and highway engineers estimate that this item alone will cost \$53,000,000. The hazard as well as the economic loss to the motorist is graphically illustrated by the fact that state highway bridges are failing at the average of one per month.

Federal acts of 1944 allocate sizeable sums of money for use on the state highways, provided the Commission will match the sum with dollar for dollar of state money. We have always been able to take advantage of the allotment of federal monies, and our failure to match it would be a severe loss to the citizens of Indiana.

Construction and maintenance costs are high; it is becoming increasingly difficult to compete with private industry in bidding for the services of engineers; the demand for better and safer highways is increasing.

However, if adequate funds are forthcoming which will enable us to carry out the program which we have planned, I believe Indiana's future road prospects are good, and see no reason why the State's road system should not continue to be one of the finest.