

The new decade promises to be a critical period in the nation's transportation program. On these pages, leaders in the transportation field present their views of what the future may hold and how highway departments can meet the challenge of the coming years.



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S WE EMBARK on a new decade in the passage of time, there is a feeling of excitement and anticipation over what the future may hold. Of one thing we can be certain: there will be new problems and new challenges in every facet of American life.

The federal-aid highway program, which has given the United States the world's finest highway-transportation system, will also face new demands and uncertainties. The program has been in existence more than 5 decades and in each one of them an expansion of its scope and direction took place. However, the basic purpose—the safe and efficient movement of people and goods—has always remained unchanged.

What will the 1970's hold in store for the highway program? With no Nostradamus to help, we can only assess the future in terms of what has taken place in the past. But we are reasonably sure that the number of motor vehicles will continue to increase and that the nation's urbanization will continue to grow.

This year's motor-vehicle registration of almost 105 million is seen rising to 130 million in 1980, while travel is expected to increase from 1.016 trillion miles to 1.5 trillion in 1985, a jump of 45 per cent. Today 70 per cent of our population lives in urban areas, and this figure is expected to climb to almost 80 per cent in 1985.

Slightly more than half of all motor-vehicle travel in the United States now takes place in urban areas. Urban travel is increasing at a rate equivalent to doubling every 15 to 20 years, which is roughly twice the rate of urban population growth. Logic then dictates that the major effort of the federal-aid highway program in the next decade must be in urban areas where the chief transportation problems are found.

Mass transit, either by rail or bus or both, must play an increasing role in urban transportation, but there is nothing in the foreseeable future to eliminate or reduce the need for a continuing highway program at a continued high level to meet the need for mobility on the part of our expanding population.

The greater emphasis on new construction will probably occur in the suburban and exurban areas, rather than in the core cities. This doesn't mean we should not complete the 7,210 miles of urban freeways provided for in the interstate highway system. If we are to have an integrated system, these routes are a must.

However, the center cities will still need more highway capacity to cope with the growing number of vehicles. Some of it will be supplied by the Federal Highway Administration-sponsored Traffic Operations Program to Increase Capacity and Safety. Under TOPICS, better use of existing streets is made through traffic-engineering techniques that avoid expensive reconstruction projects.

These techniques include improved signal systems, channelization, pavement marking, signing, turning lanes at intersections, installation of reversible lanes and control systems, upgrading of highway lighting and provision of bus turn-outs. We are hopeful that TOPICS will help relieve vehicular congestion and will step up the flow of traffic in some areas by 25 per cent.

Additional capacity could be provided if large numbers of motorists were able to park their cars at fringe parking stations outside a central business district and use rail or bus transit to ride to and from work. Federal-aid highway funds can now be

used to provide these parking facilities, which will keep some cars off city streets.

Every mode of transportation that can help move people or goods will have to be utilized in the future. In those areas of high population density where rail transit can do an excellent job, rail facilities should be provided. In areas where rail transit is impractical, improved bus transit should be made available. It must be kept in mind that a switch of 50 persons from their own cars to bus transit can bring a reduction of 30 cars on city streets. Exclusive or preferential bus lanes can make bus transportation more attractive.

Looking beyond the immediate future, and after the 42,500-mile interstate network is completed, what do we anticipate? Prescience grows somewhat murkier, but studies already made or to be made provide a basis for making predictions.

In 1968, the Department of Transportation submitted to congress the National Highway Needs Report, made in accordance with legislation enacted in 1965. This dealt with the period 1973-1985 and was the first of a series of reports to be submitted every 2 years on the highway needs of the nation.

The report estimated that for the period studied, the capital cost of roads and streets needs would average \$17.4 billion per year, more than double the \$8.5 billion per year current rate. The report suggested there will be only a modest growth in the extent of our existing national road network. In 1916, we had nearly 3 million miles of roads and streets. Since then, the total has increased by only about 700,000 miles—to some 3.7 million miles, but many of these have had to be improved.

Termination of the interstate program was recommended on completion of the presently authorized system. But this doesn't mean there is no need for more freeways. States estimated there was a need for some 53,000 miles of freeway improvements on systems other than the interstate.

The highway-needs study made a recommendation that was acted upon by congress in the Federal-Aid Highway Act of 1968. It requires the Department of Transportation to make a study of the nation's entire road network and to classify our roads and streets in accordance with the functions they perform.

The classification study will be followed by two related studies. One will be an estimate of cost of needed improvements on each of the functional systems. The other will deal with highway-user benefits that will flow from such improvements. The needs and benefits study will supply the data for a larger and much more comprehensive 1972 highway-needs study. This, in turn, will form the basis for recommendations on the type and size of the program needed to meet future highway requirements and on the form and extent of the future highway systems.

While the crystal ball to the future may be cloudy and somewhat difficult to read, I will hazard a guess that the highway program of the future will continue to have as its chief goal—as it had in 1916—the safe and efficient movement of people and goods.