OPERATING PROBLEMS ON THE KENTUCKY INTERSTATE HIGHWAY SYSTEM

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To many of us who have been exposed to the glowing visions of the Interstate System painted for us by Public Relations specialists, it may come as something of a surprise to learn that there are operating problems on this, the best system of highways we know how to build. To be sure, I do not now suggest that any of the problems found to date, or those known to be coming soon, are of such magnitude as to cast even a shadow upon the highly desirable features of the system being built to today's standards. These problems are, however, worthy of our consideration here, because their early solution will greatly enhance the comfort, convenience, and safety of the Interstate System motorist. Some of the problems to be discussed here are with us now; acceptable solutions are being developed for them, and it is hoped that this public airing may help us find solutions to those which remain.

It might be appropriate to discuss briefly why there are operating problems. Basically, there is no significant body of experience available relating to operations on rural free limited access facilities of considerable length.

Motoring needs can not, therefore, be clearly defined. To be sure, we do have, extensive local experience with turnpike operations, but there are basic differences between freeways and turnpikes that will take some time to become clearly evident. The signing standards for the interstate have been developed from turnpike experience to a large extent. There are signing needs on the interstate, however, which do not exist on turnpikes, i.e., such things as weigh stations and lack of service facilities. Some of the problems to be discussed here must await actual operating experience before standards can be developed for their treatment.

Here in Kentucky, we have encountered problems just about as early as possible, in the construction stage. There have been many discussions of the matter of whether signs should be let to separate prime contract, or whether they should be handled as a sub-contract item incident to the final paving contract. We have tried them both ways, and the result has at least, been uniform; we have yet to get all signs up in time for the ribbon-cutting. Before anyone misunderstands, I am not suggesting that the opening of these facilities be delayed one moment beyond the time the public can use them.

I do strongly suggest, however, that we must recognize that motorists are going to drive on these facilities at high speeds, both day and night, and that they deserve to have signs in place which can be read and reacted to in safety and comfort. Some states are opening interstate segments for long periods before modern signs are added. We have had an opportunity to drive some of these
routes here, and in other states, and the need for larger signs is obvious. The temporary signing provided by the states in such instances is costly, and, in Kentucky at least, represents a considerable strain on available dollars and manpower. We take the view that the signs are an integral and necessary part of the system, and that they should be there from the beginning.

Our efforts are now being directed toward ways to speed the initial sign installations. For example, efforts are now being made to develop standard sign support devices, particularly for overheads, in order to eliminate long, tedious design checking on an individual basis. Another hangnail has been the natural reluctance of sign contractors to buy materials far enough in advance to insure delivery. One approach to this might be a method whereby the contractor could be paid for a portion of all materials purchased, fabricated and suitably stored, with final payment to follow final field erection.

The method is already proven in other highway construction areas. It might also be applicable to street lighting projects where similar problems have been encountered. Probably the most serious aspect of separate sign contracts is the matter of having to have two prime contractors on the job at the same time. Some conflicts are inevitable, but are probably not insurmountable.

Interstate development in Kentucky, both rural and urban, has followed and will follow the pattern of new construction paralleling old crowded arteries such as US 60, US 25, and US 31W. As interstate segments open, we are faced with difficult terminal situations, both where the interstate ends and where the connector rejoins the parallel route. We will probably never be able to eliminate all accidents at these points, because of the difficulties in getting all people down from 65 or 70 MPH to 25 MPH ramp speeds, or even stop conditions. We have, however, evolved some signing and squeezing techniques which appear effective in confining exit traffic to a single lane, and in bringing about appropriate speed reductions. We are now beginning to find out that we can actually leap-frog these traffic control devices to the next terminal point at some cost saving. One recent example that went off smoothly saw these warning and control devices shifted the morning of the ribbon-cutting.

This matter of opening segments before sign contracts are concluded has given us another interesting sidelight. In one recent section, the contractor made a special effort to place the large important guide signs, and our District forces gave meticulous attention to the terminal situations. Some one, however, overlooked the speed limit signs, with the net effect that our regular 60 day/50 night car and 50 day/40 night truck speed limits prevailed. We had to hurry in with special signs to make lawful the intended 65/60 day/night limits, but this wasn't done until some motorists had been cited. Incidentally, in passing, you might be interested to know that at least some rural Kentucky interstate segments will shortly be marked for 70 MPH, for all vehicles, both day and night. Here again, then, we see a relatively minor problem resulting in inconvenience and cost to motorists, than can be overcome if we can find the ways to get signs in before the ribbon-cutting.

Kentucky now has opened six rest areas on the interstate system. In two of these, rest room facilities are available in the summer, but not in the winter. In four of these, we have only provided the paved parking area, that is, no comfort facilities are available either winter or summer.

I have no doubt whatever that appropriate facilities will ultimately be provided, as soon as we develop policies as to the level of service required. In the meanwhile, we in Traffic have blithely had a sign contractor install big beautiful blue “Rest Area” signs as a part of the initial signing. I suspect that some tourists have some doubt as to how to advise the youngster in the back seat, after entering the rest area in eager anticipation. What should we do? Should we advise that there is a rest area, but that its closed? There will, of course, be no good solution until we have developed firm policies on the service
levels to be provided and maintained, and enlightened policy may well have to await additional operating experience. How far should the states go with these services is a question yet to be answered. Rest rooms heated to home temperature levels may prove too inviting for the local itinerants to resist. Inviting picnic areas might encourage so much local usage as to usurp the intended purpose. There is general agreement that telephones would be very useful, and this has been proven already in some other states. How about safe drinking water and informational bulletin boards? Should we go all the way to staffed information centers for tourists? What about vending machines? I ask these questions only to point up the magnitude of the task facing the policy makers in each state. While there are basic federal guidelines available, the decisions must really rest with each state.

In passing this area, let me just introduce a matter that will grow in magnitude as we go along. Government is building a system of roads different in character from any we have ever had. The toll roads, for example, made provision for normal, and in some instances emergency, service needs. But the interstate system can have no such commercial facilities. Government has recognized that we must advise interstate motorists where they can obtain such things as gas, food and lodging, but there are still many pitfalls beyond this point. Any level of gas service is acceptable, obviously, but what quality of food, lodging and service justify our placing of these inviting signs? How many rooms must the motel have to rate a sign? How often must they change sheets? How far down the side road must they be before you don't put up a sign? 1 mile? 10 miles? Picture if you will the weary traveler who has passed many spots "looking for a better one" who get off at our invitation about 10:00 P.M., drives 5 miles down the side road, only to find the restaurant closed and the motel full.

One state is now considering an electric system whereby motel operators flip individual switches when they fill up, with the last such switch turning off the sign out on the interstate. Similar arrangements might be practical for restaurant and filling station people as they close each night.

Consider briefly the plight of the motorist stranded because of engine trouble, or perhaps out of gas, or perhaps in need of medical attention. Does government have a responsibility to find and assist these individuals? There are those who say that government must do just this, simply because of the nature of the system we are building. There are even those who stand ready now to place roving gasoline trucks on the system to minister to the needs of the unfortunate, although their motives may not be completely humanitarian. They, of course, have their eyes on the goodwill available from the recipients of their service, and could not be expected to overlook the advertising possibilities on the side of the truck.

Actually, people now experience some difficulty identifying their location when they find it necessary to send for help. Mileposts will help on this, but policy requires zero mileage at the west and south state boundaries. Our locations are not sufficiently tied down yet to permit us to figure out where the mileposts are to go. This should suffice for my introduction of the formidable work yet to be done in connection with the provision of adequate freeway patrolling, normal services, and assistance in emergencies.

Let me cite one other knotty problem that may have to wait some time for a really acceptable solution. We are going to build some weigh stations on the interstate system, but we, in Traffic, can't find out exactly how they are going to be operated. Other weigh stations have been used for enforcement by the Departments of Motor Transportation and Revenue, and of course, by the Highway Department. It does not appear that they will be in continuous use, however, and there are no national sign standards for weigh station signs. We have, therefore, had to develop special expensive changeable message signs which can be remotely controlled from the station house to advise truckers when to enter, or not enter. We suspect that many other states are doing the same thing now, and this is certainly an area where there should be uniformity between the states.
The traffic need on weigh stations, then, is for national uniform sign standards at an early date.

It would not be appropriate for me to overlook one of our more obvious problems, that of placing and maintaining adequate pavement markings. It seems that paving projects seldom finish in August during the most favorable striping weather. Rather, the ribbons have a habit of being cut in November or December. For us to stripe in such weather as then prevails is almost a waste of paint, for we know we can not retain the markings through the winter. Unhappily, this problem will be with us until better materials or methods are found and made practical. Interestingly, this problem has been found to be much more severe on cement pavements than on bituminous pavements, for reasons still unknown to us. In cooperation with the Division of Research and others, we are hopeful that we can soon begin to find some of the answers.

I would like now to present some slides made on our interstate system, and which serve to illustrate some of the problems we have been discussing. Before doing so, however, I would like to make a small sales pitch to those city and county officials here today especially, and to those others of you who deal with these fine people. Just last year, the Manual on Uniform Traffic Control Devices for Streets and Highways was revised and republished by the US Department of Commerce. It is interesting to note that this revision was fully approved and endorsed by both the National Association of County Officials, and the American Municipal Association, as well as the other previous sponsors. We highly recommend this guidebook to city and county officials, as it can be very helpful in leading us to uniformity and consistency in the design and application of all traffic control devices. They are available from the Supt. of Documents at Washington 25, D. C., for $2.00 each.