

RIGHT-OF-WAY MAINTENANCE PROBLEMS

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There are two groups of right-of-way problems. The first is concerned with physical details, such as maintenance, repairs, and improvement of the surface and adjacent areas including ditches, slopes, recreational facilities and general appearance. The second group would include the intangible items involved in the right-of-way which the public should have in respect to unimpeded movement over a highway, or perhaps it may be called the rightful claim upon the highway departments for the most courteous consideration.

Maintenance of physical details is never static. The type of maintenance which today is adequate, tomorrow becomes insufficient for the ever increasing demands of the traveling public. One only needs to look back a few years to see how far we have progressed in this respect. While there are more details to be dealt with, fortunately there are more mechanical aids with which they may be accomplished. In respect to these aids, there is much room for study concerning the simplification of operation and use. Altogether too many sizes and kinds of equipment are being demanded by the engineer which brings about a needless expense on the part of the manufacturer. As Mr. J. L. Harrison of the U. S. Bureau of Public Roads states, - "Not only the size and capacity of equipment should be of interest to us, but its functional adequacy". It is believed that this term might be the measure of merit of much of what we do in maintenance of the right-of-way, and that whenever the work is over-done in one respect it may mean leaving undone desirable work in another.

As one travels about the country, this varied intensity of attention to the several details of maintenance is most striking. For example, in some States much attention is given to the maintenance of berms and ditches, so that traffic feels entirely safe in using the full width of the pavement. In other States, these items are partially neglected, with sharp breaks at the pavement edge with the consequent reduction in utility of the pavement as traffic avoids this edge by one or two feet. In other words, the "functional adequacy" of the pavement is impaired when the adjacent details of maintenance are overlooked.

In this connection, attention is drawn to the paper by Mr. George Hamlin of Connecticut, presented at the 1938 Meeting of the Highway Research Board. ¹ The value of this careful berm and gutter work was well shown during the recent flood in his State, when little damage occurred

¹ - Shoulder Hardening Treatment in Connecticut, Proceedings, Highway Research Board, Volume 18.

on roads so protected even though submerged and subjected to considerable scour. The prevention of pavement damage and loss of berms in this one instance probably more than justified all the cost of the work over the last ten years, to say nothing of all the current advantages which have been enjoyed in the meantime.

The right-of-way should be developed not only for the safe movement of traffic, but for its safe stopping. In many States one is obliged to travel miles before finding a berm wide enough and firm enough so that a vehicle may be safely driven off the pavement. More attention should be given to this matter, and it would seem to be not too much to ask that at least once in every mile there should be provision for safe parking well removed from the pavement. As a rule, this simply means advance planning if not in construction at least in maintenance operations. All too frequently one observes the maintenance gang removing material from slopes and ditches and dumping it directly across the road, when by carrying it for some little distance the berms could be widened to provide these safe stopping areas at more frequent intervals.

It is of course but one step further to the item of landscape treatment of the right-of-way. This includes the development of possible recreational areas and the planting and care of trees and shrubs. All of this has been well presented in previous papers, but will bear further emphasis. In the travels of the past year, many beautiful areas within the right-of-way limit were observed which would have made fine places to stop, rest and picnic, except for the fact that the bank was so steep that no possible means of safe access was apparent. It would be a simple matter at such areas to provide approach paths and it is certain that the public approval gained would far outweigh any cost involved. It is safe to say that all such work will be done once we begin thinking in these terms. It is not that the physical obstacles are great but simple that as yet not enough attention has been directed to the matter.

The second phase of this matter of maintenance of the right-of-way is the public relations side. Without going too much into the principles outlined by Dale Carnegie, it may be questioned whether the various maintenance departments are giving the fullest consideration to public reaction. It is believed that some of the antipathy occasionally shown by the public would be prevented by means of certain little attentions which would indicate more consideration of public feelings.

For example, recently in a trip under rather unpleasant weather conditions, the writer came to a line of cars which had stopped and of course which stopped him. This line of several hundred cars extended as far as could be seen around the curve. Very quickly the line extended back of the writer's car. No one seemed to know just what was the

cause of the delay which continued for something like 45 minutes. At the end of that time the procession of cars moved on and finally the cause of the obstacle was seen, viz; the backfilling of a small bridge. Of course immediately adjacent to the bridge was a sign notifying the public that the bridge was under construction. Entirely apart from the fact that on a road of that traffic volume, a detour bridge would have been warranted, nevertheless the uneasy feeling of the various people waiting, would have been allayed had the sign been placed one-half or more back on either side of the bridge, indicating that a delay would be experienced and what was going on. As it was, several hundred motorists cursed the highway department and left the scene with a feeling of resentment, all of which was needless.

Another instance, perhaps unimportant and perhaps not the fault of the highway department but nevertheless happening on a State marked route, occurred on a Saturday night at a street partially barricaded, but with a policeman detouring traffic. There was therefore no indication of any kind as how to proceed and how to get back on the State route. This was also a heavily travelled route and the result was the needless crowding of several thousand cars into the business section of the city, all of which used up time and energy, and provoked resentment. People in this state of mind are prone to accident and it is believed that the prevention of such happenings is the duty of highway departments through proper coordination and cooperation with city officials through whose areas the State route may pass.

I think that Professor Ben Petty of Purdue recently stated the matter rather concisely when he said that the establishment of a detour around a State route made that detour for the time being the State route itself, and that it was the duty of the department to see that traffic moved over that detour as comfortably as possible. It is believed that this is a problem of right-of-way maintenance that deserves much greater attention.

In conclusion it may be stated that highways are a business and that the economics which govern them are the same as for any other business. The best ones will get the traffic. The favored routes will be selected for several reasons; (1) the ease of operating a vehicle over them; (2) the saving of time and energy which they afford, and (3) the beauty of the immediate countryside which is observed from them. The maintenance engineer must be a "jack of all trades" but contrary to the old saying, he must be a master of them as well. It is inevitable that maintenance shall require a greater and greater part of all highway expenditures. In fact the day will come when maintenance of the right-of-way will be the entire problem. It is not too soon to be giving attention to all of the intimately connected details, even though some of them have not been considered previously as coming within the province of the engineer.