

that caused some personal injury. They questioned why did the ditch have to be there; and it did not have to be.

Mr. CONSTANDY. You know, this thing ought to concern more people; in this field of highway safety you hear a variety of opinions. Usually the opinion is there was a nut behind the wheel or he was drunk. People seem to be looking for some defect in the driver's behavior. But frequently, in the final analysis, when you look at where the automobile stopped, it stopped suddenly against some object that did not have to be there.

At the scene of the accident more people should be concerned over the signpost or the obstacle that did ultimately stop the vehicle. I think that way we may have more progress toward improvement of the roadway.

Mr. LUNDSTROM. Well, this work that you mention and the removal of these obstacles was continued then, and by 1962 all of the major roads on our proving ground had been regraded and the roadside obstacles removed as necessary.

Mr. CONSTANDY. Before you began this undertaking, did you research the existing design standards and current practices as followed by highway departments and toll roads?

Mr. LUNDSTROM. Yes. We do have at our proving ground a plant engineering department fully responsible for the design of our roadways and we did ask them to review the practices that were being used throughout the country to determine whether or not we could find suggestions for improvements of our road systems.

Now, I remember quite well that they reported to us the construction techniques and the design characteristics that we were using were typical of State roads throughout the country.

In looking at some of the design guidebooks, I do recall seeing the statements made that roads built to minimum standards are not the safest roads. And there was strong evidence that too often roads were built to minimum standards.

Mr. CONSTANDY. And hence not the safest roads?

Mr. LUNDSTROM. Correct. And herein lies part of the problem. So it was simply a matter of the proving ground deciding to build considerably above minimum standards.

Mr. CONSTANDY. Did you survey existing roads and turnpikes in the hope of finding a model safe highway?

Mr. LUNDSTROM. We surveyed many miles of roads, sent men on cross-country trips to look at what practices were being used. I would not say that we were looking for a model, but we were looking for new ideas. And we did not find too much of benefit. We could identify the same problems on the public highway system as we were finding on the proving ground itself.

Mr. CONSTANDY. And were you able to find a single mile of the Interstate System or any toll facilities which did not have obstacles, ditches, which could be potentially lethal if a car should run off the road at legal operating speed?

Mr. LUNDSTROM. No. We had challenged our people to find this, a piece of public road that was free of all roadside hazards 1 mile in length. And to this date my men have never reported to me, and I have never personally found, a road of this type.

Mr. CONSTANDY. Thank you.