

have a rather steep slope, guardrails were placed but then you come to a cut through the rock, where there was not any slope of any kind, just a sheer rock wall, and in none of these sections did I find any guardrail at all, and I wondered if you or the members of this panel would care to comment on that.

Mr. CONSTANDY. Mr. McEwen, we will have examples of that as we go through these slides. In a couple of projects at least there were some situations of that kind.

Mr. McEWEN. I will be happy to hold the question if we are going to come to slides on this.

Mr. CONSTANDY. Mr. Wilkes?

Mr. WILKES. That was a point I was going to make, that most of the guardrail that has been installed on a project is on the basis of standards developed by each individual State and that the designer can only roughly indicate where in his opinion the guardrail would be required and it is most desirable to feel the engineer constructing the project be allowed sufficient latitude to add or delete a guardrail as a project is developed, but the guardrails, like so many other items of highway hardware, are generally installed from standards that are developed by each State.

Mr. CRAMER. Well, Mr. Chairman, I wanted to ask if the panel or any of its members could give the committee a recommendation as to what can be done as an incentive to bring the existing highways up to proper safety standards. Now, we gave a 0.5 percent bonus by legislation in 1958 to the States for billboard control. We didn't hesitate to do that for beauty. What can we do to encourage the States to do a job on safety on the present highways? Does any member of the panel have any thoughts? We want to face that question.

Mr. WILSON. I think every State has some type of program where they are going back and looking at their present highway system. The Bureau of Public Roads asked us a couple of years ago to start a program of spot improvements where accidents were happening. There were places where accidents were apt to happen, and we have gone into a considerable program and I am sure other States have, too, although they have not given us any more funds to spend on this program. The money that has been spent comes out of our regular Federal-aid appropriations, but almost any highway department, in taking a look at their accident-prone locations and analyzing what can be done toward accident reduction, I think, would certainly want to get into this in some depth.

Mr. CRAMER. How much is California spending on safety?

Mr. WILSON. Our safety program, which involves merely spot improvements, or projects where safety is a primary consideration, is up to about \$15 million annually. We do about 600 projects per year from a mere placing of a sign—a few dollars' cost—to up to a million dollars per project. This was as a result, or we had a program going prior to it, where we made a very detailed inventory of our State highway system and turned up about 4,000 locations that met the criteria we had established, which was about five accidents per year on a one-tenth mile section of roadway. We took a look at these 4,000 locations and decided on about 700 of them we could do something with ordinary traffic-type improvements, channelize, curve signals, this sort of thing and now we are in a 3-year program to, you might say, wipe out these 700 places and we are on a level now of doing