

If you are talking, for example, about such things as what we popularly categorize as roadside construction, such as signs, guardrail, that kind of thing, as a practical matter these should be reviewed while the construction is going on and change orders made in the design plans if they are not being done properly. So that in that instance a correction can be made as late as today.

However, in laying out the basic line and grade for a highway certain results flow from this. The extent of your fill, the depth of your cuts, the location and length of major structures, once those designs are accomplished, to go and redo those requires a complete reengineering of the whole project.

For example, one of the things that I am very interested in is the extent to which we can have gentle slopes on a fill portion of a project. One of the factors that is the result of recent research is the application of photogrammetric procedures in which you can have a rapid and completely accurate calculation of a number of design alternatives, one of the results of which is a balancing of earthwork.

In other words, you take the dirt from the cut and put it in fill so you do not have to borrow any or you do not have to waste any.

To the extent that a line or grade is changed, then you have to go back and recalculate all of that earthwork, and this for all practical purposes results in a complete redesign of the project.

Now in summary, the answer is on some items you can do it as late as today. On other items it is a basic fundamental part of the design, and once established it almost impossible to undo without starting all over again.

Mr. McCARTHY. Thank you very much, Mr. Bridwell.

Mr. CLEVELAND. Mr. Chairman.

Mr. McCARTHY. Mr. Cleveland.

Mr. CLEVELAND. I just want to ask a question for the record. In connection with the construction by the State highways of the Interstate System particularly, and also the other Federal-aid highway systems, is it not a true statement that all of this highway design is done under standards that have the stamp of approval by the Bureau of Public Roads?

Mr. BRIDWELL. Yes, sir. By statute, the standards applicable on the Interstate System are those developed by the American Association of State Highway Officials in cooperation with the Bureau of Public Roads and are approved by the Secretary of Transportation.

Mr. CLEVELAND. And you certainly have the right to either change or suggest changes or veto any of those standards that you people feel might be conducive to unsafe highways, is that not correct?

Mr. BRIDWELL. Yes, sir; that is correct. Because the statute gives the Secretary final authority in this matter. He can accept and therefore, presumably, modify or reject any standard that he wants to.

Mr. CLEVELAND. Thank you. That answers my question.

Mr. JOHNSON. Mr. Chairman.

Mr. McCARTHY. Mr. Johnson.

Mr. JOHNSON. Thank you, Mr. Chairman. I have just one or two questions here for Mr. Bridwell.

As I understand it, all the money for highway safety that is provided for in your budget comes out of the general fund.