

I realize that some of you have some additional comments, which would be helpful and would enhance the record, but we would be appreciative if you would give your opinions as an evaluation of what you have seen overall on these projects.

Can we begin with you, Mr. Wilson?

Mr. WILSON. Well, as engineers in this field of endeavor, our mission is twofold, as I see it.

First we have got to keep the vehicle on the road by providing him with wider shoulders, wider travel lanes or wider roadways, delineation mark lines, and things of this nature.

The second thing is that we have got to prepare for the inevitable and that is when the vehicle leaves the highway. We must give the motorist a reasonable chance to avoid injury and death.

I would like to call this building-in a forgiving quality in the roadside.

This forgiving quality can take many forms, all of which we have discussed in the past few days. I do not think it will be necessary to elaborate on the specific items because my remarks regarding them are already a matter of record.

However, I am deeply concerned about what I have seen.

I believe there is knowledge available, knowledge that has been tested and proven. There is more experimentation going on right at this point that will help build in this forgiving quality that I mentioned.

Our attention has previously been concerned primarily with the single-vehicle wreck. We must not lose sight of the fact that some of these same features that cause the problem for the single car have caused the multiple-car wreck.

The limited-access facility has brought with it some problems concerning which our own accident records, until just recently, were not telling us the full story of just exactly what was happening.

To assure that good design practices are followed, I mention just two items. First, for the past several years we have been having operational reports made on completed facilities. These operational reports have been made by patrol officers, design engineers, traffic engineers, maintenance engineers, and people who are familiar with the area.

These operational reports lead to improved design standards and have in fact been instrumental in not only changing standards for our future projects, but have been making immediate modifications to recently completed work.

It is not unusual to go back and see things that need to be changed almost immediately after a project is finished, once the roadway is placed under traffic, and you can see what the behavior of traffic actually is.

Second, in order to forestall the construction of obsolete work, we have recently formed a review team to look at projects in the planning stage. Design engineers, traffic engineers, and other disciplines are making recommendations to change contract plans before the work commences.

I think here is one of the most fruitful areas and is resulting in many, many changes which will be beneficial.

I think that this process of review should continue on through the construction phase as well. And obviously from the pictures that we