

There is one point I would like to make. I talked to a group of maintenance engineers from our department not too long ago regarding use of curbs and dikes. They said if we had fewer of them, we would have to do less sweeping, which would cut our maintenance costs.

Where you have a vertical curb, dirt is allowed to accumulate there and must be swept away; it will not go away by itself.

Mr. CONSTANDY. Thank you, Mr. Wilson. Mr. Skeels?

Mr. SKEELS. Curbs seem to fall into the category of signs and gores; they should be eliminated wherever possible. And in many of the cases we have seen, it seems as though it would be possible. Certainly if they are placed in front of guardrails, they hinder the performance of the guardrail and they should never be placed there.

If you have to have a curb for erosion control, it should be as low and as mountable a curb as possible.

Mr. CONSTANDY. Thank you. Mr. Huff?

Mr. HUFF. A historical point, we inherited the curbs from the cities long ago. They were, I believe, used at that time primarily to keep the buggies from running up on the ladies' lawns and making them all mad.

Mr. CONSTANDY. This is an oldtime beauty program.

Mr. HUFF. They had a place for their purpose. Incidentally, a lot of the cities still have the same need for curbs for the same reason on the local streets where traffic does not go over 35, 45, or 50 miles an hour. But in my opinion, vertical curb over about 2 inches high has no place on a high-speed freeway closer than 12 to 15 feet, and if possible, eliminate them even that close wherever it is possible at all.

Now, there are in this country, including my own State, many, many medians that have been built with raised curbs of 6 or 8 inches or higher.

I have been told that many people have a lack of depth perception. To all of those people, a curb will look like any other surface; it will look flat. They are liable to run into it thinking it is a flat surface.

Because of the success of the so-called flush median with no curb, we built the guardrail just as if it were on part of the pavement, the only difference being a difference in color or texture of the material in the median; no separation by elevation.

Mr. CONSTANDY. Thank you, Mr. Huff. Mr. Wilkes?

Mr. WILKES. In summary, I think we can all agree that there is too great use of curbs in our freeway designs. Mr. Huff mentions, many designers feel that because this highway is located in an urban area it demands a curb and gutter. Many designers have discovered that this is not a true assumption, so we will say obviously we have used too many curbs in our highway designs.

Mr. CONSTANDY. Thank you, Mr. Wilkes. Mr. Ricker?

Mr. RICKER. I would agree with what Mr. Huff said about the history of curbs.

There was one other point that might be mentioned. Some of the slides showed curbing in the median with the apparent intent of finding grass in between the curbs. This is very expensive and hazardous to maintain. On many highways, the grass has been removed and replaced by other materials that require little or no maintenance.