AASHO road test reports were just out and it was assumed that pavement performance equations contained therein constituted a valid means of estimating pavement life if traffic and pavement thicknesses were known.

It is now firmly established, however, that this is not the case, and that the AASHO road test equations do not provide a valid estimate of pavement life, nor of changes in pavement life. That reliance on these old assumptions cannot be supported.

Documentation for this statement rests in the fact that more than $1 million was spent in 1968 for research, which is being undertaken in an attempt to adapt the AASHO findings to local conditions that—in other words, to the different States—so that they will be suitable as a design tool. If the road tests predict pavement life or the changes, such research would not be necessary.

Additionally, it has been stated in the report of one of these types of research projects and entitled "Application of AASHO road test results to Alabama conditions." This report is dated August 1967. It reads as follows—this is on page 37 of the conclusions:

The import of all the preceding investigations, analyses, and discussions is to illustrate the fact that the AASHO road test equations cannot be applied directly or indirectly to Alabama conditions, except at the hazard of gross under or over design, depending upon a specific problem.

Factually, therefore, the question must rest on the detailed knowledge of the various States about their own highways and upon their own evaluations. Since AASHO has accepted the 20,000 pound single and the 34,000 pound tandem, it is our obvious feeling that these weights are considered to be not out of line in most of the States.

I think also, since you brought up the question of pavement maintenance costs, I would like to refer to a recent study which was done under the national cooperative highway research program—it is report 42 and it is entitled "Interstate Highway Maintenance Requirements and Unit Maintenance Expenditure Index."

This was an in-depth study of maintenance procedures and costs of selected highway sections in regular service. It covers many of the aspects of maintenance programs, followed by the State highway departments.

Now, of pertinence to this question is the part of the report which deals with the details of the data collected for maintenance costs, for payments and for shoulders. It is contained on pages 43 and 44 of the document.

I also would indicate that this research was done in five States, which contain a range of axleload from 18,000 single to 22,000 single and up to 44,000 pounds tandem. So we have a representative sample across axleloads.

Of variables that were examined in attempting to make this maintenance study were a total of 18, and I think I will go through this rather rapidly to give you the degree of depth of the investigation. They had age in years, they had age figures squared, age figures cubed, average daily traffic volume, commercial average daily traffic volume; they had the square root of the ADT, the square root of the commercial ADT, and they had other combinations between age and ADT. They had annual average precipitation. The terrain factor, snowfall in inches, numbers of days of snowfall, average annual temperature,