

Alvin C. Benkelman



The work of Alvin C. Benkelman on the structural design of flexible pavements has had an international impact. In addition, a device that he was instrumental in developing is now used throughout the world for measuring deflections of flexible pavements under loaded vehicles. Called the "Benkelman Beam", it was developed when he was research engineer on the WASHO Road Test.

Much of his early work had to do with soils as related to highway construction. After graduating from the University of Michigan in 1919 with a Bachelor of Science Degree in Engineering, Mr. Benkelman joined the Illinois Highway Department. With them, he served as soils engineer on the famous Bates Road Test, the first large-scale test of its kind in the United States.

After this project was completed, he handled a variety of assignments as a highway research engineer with the Bureau of Public Roads (BPR). Then, in 1928 he joined the Michigan State Highway Department as research engineer to direct studies of soils, frost action and performance of pavements in service.

Mr. Benkelman returned to BPR in 1934 and was placed in charge of research on the structural design of flexible pavements. In this position he worked on the large Hybia Valley (Virginia) test track and was research engineer on the WASHO Road Test.

In 1956, he joined the staff of the Highway Research Board (HRB) to serve as flexible pavement research engineer on the AASO Road Test. He had been an active member of the design department of HRB since 1932 and had also served as Chairman of the Committee on Flexible Pavement Design from 1937 to 1956.

He is the author of more than 50 technical reports dealing with soils and with the structural design of pavements. As an anonymous author, he also wrote large parts of the WASHO and AASHO Road Test Reports.

In 1962, Mr. Benkelman was awarded the Roy W. Crum Distinguished Service Award by the Highway Research Board in recognition of his outstanding record of accomplishment in highway engineering research.

Elected: 1965