## REPORT OF SUBCOMMITTEE ON ROADSIDE DEVELOPMENT ECONOMICS

Frank H. Brant, Chairman Landscape Engineer, North Carolina State Highway and Public Works Commission

Maurice J. Day, Oklahoma State Highway Commission F. M. Guirey, Arizona State Highway Department J. M. Hall, Iowa State Highway Commission Henry J. Schnitzius, Indiana State Highway Commission

The efforts of the Subcommittee on Roadside Development Economics during the past year have been directed along two general lines: First, to collect statistical information showing roadside development's contribution to highway safety and economy of maintenance, and also to assemble "case histories" of specific instances where accurate statistics are not available but where results show convincingly that safety has been increased or maintenance costs have been decreased by roadside development operations; second, to seek a basis for collection of accurate records in the future that will provide desired information on the effect of roadside development on highway maintenance costs.

In an effort to assemble all the information available at present and obtain suggestions on which to base future subcommittee activities, a simple, informal questionnaire was distributed to those in charge of roadside development work in all States. As a supplement to this questionnaire, the subcommittee resorted to a study of a limited number of published reports of roadside development operations and accomplishments to obtain additional information pertinent to its work.

## Conclusions

There were enough replies to the questionnaire to represent a fair cross-section of the country, and an analysis of the answers points toward several rather obvious conclusions, as follows:

1. Accurate statistics on maintenance costs before and after roadside development are practically non-existent. The few cost figures available are not in sufficient detail and are in a form that will not permit comparison among the various States or evolution of any practical conclusions. 2. Accident records, although much improved over several years ago, are not adaptable to segregation to show the effect of roadside development upon highway safety, and it is doubtful that any practical methods of keeping records or breaking down existing records can be set up at present without the subcommittee having additional facilities and personnel.

3. "Case-histories" showing effect of roadside development on safety or on maintenance cost, although interesting as records, do not form a research approach to the subject and do not give any opportunity for comparison among the separated individual examples.

4. With ever increasing integration of roadside development work into regular construction and maintenance, there is less and less possibility for comparing roadside development projects with sections of highway without roadside development. In other words, it is the application of good landscape principles, such as "streamlined" cross-sections and soil erosion control, to regular construction and maintenance that increases safety and decreases maintenance cost, regardless of whether or not special roadside development funds or separate roadside development projects are used. In many cases, where special roadside development funds are used only for planting, developing of safety turnouts, waysides and similar strictly landscape features, maintenance costs will increase, but such increases will already have been more than compensated for by savings brought about by the previous application of landscape principles ("streamlined" cross-section and erosion control practices) in original construction.

5. Accounting procedures in the several States are so variable that it is almost impossible to set up a uniform method of showing the effect of roadside development on cost of maintenance. Members of the subcommittee (and probably many others who are handling roadside development work in their respective States) are not in a position to handle special cost accounting on roadside development work, but must depend upon the regular accounting divisions of their organizations, and the existing variations in accounting procedures prevent any collection of comparable data from the various States.

## Recommendations

The conclusions of the subcommittee have not been reached without careful consideration. The failure to obtain satisfactory data in 1939 was at first thought to be due to insufficient coverage of the country, but the more extensive 1940 survey, instead of bringing to light more conclusive data, has only shown more clearly the lack of the type of basic records that are necessary if any practical summary is to be obtained without setting up special facilities for studying such a specialized phase of accident analysis and cost accounting. Therefore, the subcommittee makes the following recommendation: That the assembly of "case-histories" be continued in close collaboration with the work of two other existing subcommittees. Contributions of roadside development to highway safety and snow control originate chiefly from improved cross-section and logically fall within the field of work of the Subcommittee on Highway Types and Roadside Areas. Contributions of roadside development to reduction of highway maintenance cost result principally from control of soil erosion, and logically fall within the field of work of the Subcommittee on Erosion.