

THE PRESENT TREND OF HIGHWAY DEVELOPMENT

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which has been all too prevalent in the rapid development of our country highway systems. I refer to inadequate preparation and drainage of our sub-grades, fostered by the false idea that the cost for such work would make the total cost prohibitive. Political pressure and popular demand for the rapid construction and the greatest possible mileage of improved roads for a given amount of money has been, to a great extent, responsible for this state of affairs. However, this subject is receiving an increasing amount of attention and is being most carefully investigated by the Government and a number of public service bodies and technical societies, the work of the various organizations being correlated by the Advisory Board on Highway Research of the National Research Council of the United States.

There is one other common fault in the utilization of old roads for foundations which has often resulted disastrously. This is the over-estimation of thickness of the old road. All too frequently we have laid an expensive pavement on an old road, actually 3 inches or less in thickness when it had been estimated as not less than 6 inches or 8 inches thick. Macadam and gravel roads wear away rapidly in comparison with other types and because records show that a large tonnage of road metal has been used in the construction and maintenance of the old road it does not by any means follow that most of such material is still on the road. It is very essential, therefore, accurately to determine the existing thickness of the old road before utilizing it as a foundation.

Wherever possible the old road should be left undisturbed rather than to scarify and re-shape it, which destroys much of the stability that compression under traffic has brought about. It is quite necessary that the old surface be trued up before the wearing course is laid but if the reconstruction bituminous mixture in existing depression will be completed in one operation the placing of a usually prove to be the best practice. If the existing road is not sufficiently thick to serve as a foundation it may conveniently be reinforced with a thin course of black base mixture before the wearing course is laid.

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