

FINANCING ROAD IMPROVEMENTS*

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FINANCING road improvements is a problem in which the municipal engineer should be much interested and which he should be somewhat familiar. While the actual cost of building a road, or the method of acquiring the funds, do not enter into its theoretical design or practical construction, still they have a direct bearing on the type and standard that should be adopted for any particular locality.

An Economic Question

Generally speaking, roads are established and maintained in a country for the purpose of developing its commercial and industrial life. Doubtless the development of a country's social life is much affected by the roads existing within its borders. In fact the benefits ensuing from good roads taken from the latter viewpoints are almost immeasurable. Nevertheless, the commercial aspect of the question is the one generally viewed by municipal authorities and engineers when planning the construction of a road or system of roads, and the problem of determining the standard to be constructed in a given case resolves itself into a question that is largely economic. Therefore, before such road is built in that community, the question should be asked and established: Will the benefit secured from the construction of a certain high standard of road justify the financial expenditure involved?

Some people have a tendency to adopt the principal that the best, meaning the most expensive, is the cheapest in the end. This is only true to a very limited extent in road construction and where actual traffic conditions demand (or where it may be reasonably presumed that in the near future they will demand) the highest standard of construction. The type of road that should be built is one that will produce the necessary convenience with the least annual overhead cost for maintenance, in addition to interest on initial expenditure.

Roads being a public utility, the cost of producing them should be shared by all on as fair and equitable a basis as can be devised, and to this end the principal of government assistance is justifiable, especially on main trunk roads and main roads to markets.

Manitoba's Policy

In Manitoba, the provincial government assumes certain proportions of the cost of building the aforementioned class of roads under the provincial Good Roads Act, 1914. On main trunk roads radiating from the larger centres of population and connecting enroute the towns and villages, the proportion borne by the province as a whole is $66\frac{2}{3}$ per cent. of the cost, the balance being paid by the municipality or municipalities through which the road passes, each municipality affected bearing $33\frac{1}{3}$ per cent. of the cost of the section within its boundaries. The larger portion of the cost of these roads is borne by the government on the assumption that they are used to a greater extent by non-residents of the municipalities through which they pass than by the local residents, a condition which with the increased use of the automobile as a popular mode of long distance travelling, will be largely augmented in the future.

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On main market roads, the province pays $33\frac{1}{3}$ per cent. of the cost of constructing earth roads, and 50 per cent. of the cost of gravel, macadam or other types of a higher standard than the common earth grade. The extra assistance is given on the superior type of road on account of the heavy cost of obtaining the materials suitable for road surfacing in many of the municipalities of Manitoba, and also an incentive to the municipalities to undertake the building of gravel and stone roads on their main lines to markets.

The cost of bridge construction on the two systems above mentioned is shared by the province in the same proportion as on road construction. On bridges which are not situated on a good roads system under the meaning of the act, the government also contributes to the cost of their construction to the extent of 50 per cent. of the cost of permanent structures entailing an expenditure of \$200 or over, and $33\frac{1}{3}$ per cent. on structures of a temporary nature such as timber and costing \$500 or over.

The funds to provide for government assistance to municipalities under the Good Roads Act, 1914, are borrowed as a capital charge on the province, being raised by the issuance of provincial bonds or debentures. The present act provides for the issuance of \$2,500,000, of which up to the present time about \$1,250,000 has been used.

Municipalities May Issue Debentures

The act also gives the municipalities power to issue municipal debentures to defray their share of the cost of works being performed in the improvement of roads, limiting the amount that can thus be raised by a municipality to 6 per cent. of the total assessed valuation of all its taxable property, and as shown on the last revised assessment roll of the municipality. The rate of interest that may be paid on such debentures is limited to 6 per cent., and the currency of the debentures must not exceed 30 years. They are retired within the stated time by equal annual payments of principal and interest, thus eliminating the necessity of a sinking fund or of making other provisions for the repayment of principal at the expiration of the debenture period.

The retiring of rural municipal debentures by the serial or fixed annual amount method, has much to commend it over other methods, as in many rural districts the establishing of a sinking fund for this purpose imposes an undue responsibility on a rural council, the members of which in many cases are inexperienced in handling this class of business, and unless the trust funds were deposited with the banking institutions of the province at a considerable loss of interest, their reinvestment would be more or less precarious.

Government Guarantees the Debentures

The policy of the government of the province in this respect is to relieve the municipal authorities of this responsibility by insisting on the issuance of serial debentures, which, with the guarantee of the government of the province endorsed thereon, makes them a more acceptable investment to the purchaser, and a safer business transaction for the municipality. No indebtedness by which the security of the municipality is mortgaged, should be incurred without the consent of the ratepayers affected. The Manitoba Good Roads Act requires the assent of a majority of the ratepayers actually voting to a by-law authorizing the council to issue the stipulated amount of debentures before such authority is legal and binding.