

WIDTH OF ROADS FROM THE POINT OF VIEW OF ECONOMY.

AN article appeared in the September issue of "Conservation" showing that in some instances wide streets may be actually cheaper than narrow ones. The author is Mr. R. Thomas Adams, senior town-planning adviser to the Local Government Board of Great Britain and recently appointed to act in the same capacity for the Commission of Conservation, Canada.

Some points in Mr. Adams' article are given below:

The advantage of wide roads is sometimes questioned. Where they are made in advance of requirements they may impose an extra burden on the existing ratepayers, for the benefit of posterity. This burden may be too great, even having regard to the ultimate benefit which may be derived, but of course this entirely depends on the degree of width and the extent of cost incurred. No definite standard of width can be satisfactory for adoption under all circumstances.

The ultimate economic gain to the community is one factor, but it is only one factor, in giving the matter consideration. The local circumstances may make it necessary for each road to be considered on its merits. The cost of expropriating land, the existence of buildings, the physical character of the site, the immediate gain as distinct from the prospective gain to the community must all be considered. There are, however, some general principles which afford us guidance in regard to these matters; for instance, where it is definitely known that a road will be required for use as a surface railway or tramway the width of the road should of course be greater than where such use is not contemplated.

There is no necessity for a road to be actually constructed in advance of traffic requirements. On that point there need be no difference of opinion. The sole question is whether the land should be acquired or earmarked for the road in advance of the full width being required. The investment made by the community to-day for the benefit of the future citizens may therefore be limited to the acquirement of the extra land. The construction can be spread over as long a period as may be desirable, but if the land is not purchased at the outset it may be assigned to private uses, such as the erection of expensive buildings, which would make it prohibitive to carry out the widening when actually needed. These possible losses and hindrances to the future development of a town must of course be considered, as well as the question of immediate gain, but the immediate gain, or rather absence of loss, probably makes the wider appeal to the ratepayers.

It is therefore of interest to have an example such as that afforded by the construction of a wide road at Liverpool, England. The city engineer of Liverpool has made extensive experiments in the making of wide roads round the suburbs of the city. Recently he demonstrated to his council that it was cheaper to make a road 120 feet wide than 80 feet wide.

A brisk demand for the product of the paper and pulp mills in the interior of Newfoundland has resulted from conditions growing out of the war in Europe. Steamers are rapidly arriving to take on board cargoes for England. It is expected that the mills will be obliged to supplement their present equipment, and it is anticipated that new pulp and paper concessions will shortly be in operation.

The cost of the two roads, 80 feet and 120 feet wide respectively, is given by the city engineer as follows:

Comparative cost of widening a 40-foot road to 80 feet (tramways paved) with widening to 120 feet (tramways in grass).

Widening to 80 Feet.

Cost of land, 13½ yds. @ 5s.	£3: 6: 8
Street works per yard lineal	£7: 2: 6
Tramways (including paving) 1 yard @	
£6: 15: 0	£6: 15: 0
	£17: 4: 2
	= £30, 286 per mile

The above estimate provides for the reconstruction of the old road to suit new levels.

Widening to 120 Feet.

Land for new road, 13½ yds. @ 5s.	£3: 6: 8
Street works per yard lineal	£4: 13: 7
Tramways (in grass) including land, 1 yd.	
@ £6: 16: 8	£6: 16: 8
	£14: 16: 11
	= £26, 128 per mile

This estimate does not provide for any alteration to the old 40-foot road.

It will be observed that in order to make the 80-foot road it is necessary to reconstruct the old road to suit the new levels, but that no such reconstruction is necessary in the case of the wider road. It is also important to note that the estimate for the 120-foot road includes the cost of the extra 40 feet of land for tramway purposes.

These circumstances are of course special to a certain extent. Instances might occur where the reconstruction of the old road would be necessary in either case. But even then the only extra cost per yard in making the wider road would be one-eighth the difference between £6: 15 and £6: 16: 8, the cost per yard of the tramway.

In this case the important point is that it is much cheaper for the Liverpool corporation to make a road 120 feet wide than 80 feet wide. All the ultimate advantages to the city are therefore additions to the immediate gain. The latter, however, is not limited to the saving of cost. In Liverpool they are finding out that these wide tree-planted roads are having the effect of keeping the homes of the well-to-do citizens within the city boundaries. Those who will not erect large houses in narrow uninteresting tramway routes are building them on the spacious highways which Mr. Brodie is constructing. Liverpool has for a long time suffered from the migration of its large ratepayers into outside districts. This not only increases the rates all round in consequence of lowered rateable value, but removes from the city those who, while in residence, subscribe to its charities and take an interest in its social life. That the policy of making wide avenues with grass margins is helping to retain these well-to-do inhabitants within the city limits is one of the indirect advantages which Liverpool claims.

Milwaukee has a refuse incinerator with a total capacity of 300 tons a day. A 6,000 kw.-hr. turbo-generator is driven by the steam raised in a 200-h.p. boiler. The current from the generator is to be transmitted to a flushing-tunnel pumping station, some two miles distant, which will pump lake water into the north end of the Milwaukee River for flushing and cleaning purposes.