

# The Canadian Engineer

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## GROWTH OF INTEREST IN TOWN PLANNING

AN interesting announcement was made this week to the effect that the University of Toronto had established a course in town planning, with Mr. Thos. Adams as lecturer. The course is designed particularly for students of the senior years in civil engineering. This is, according to Dean Mitchell, but the commencement of a new series of courses, embracing the broad principles of civics generally, town planning and landscape architecture.

This announcement is significant of the general interest which is being shown all over Canada on the subject of town planning. This interest is not confined to any particular class, but all who are at all public-spirited and have the best interests of the country at heart are becoming more and more seized of the importance of dealing with this problem before our communities have grown to such proportions in a haphazard fashion as to make the task of effecting changes, to say the least, very discouraging.

City planning, in reality, should begin with the inception of the city, and the first step is to so locate the city as to provide the particular physical features which experienced city planners will have decided are necessary.

The locating of a site for a new town raises many questions which must be dealt with in order to effect a well-planned city. The position of railroads already constructed or possible; the highways to and from cities already established and their distance from this embryo city; the natural and artificial waterways, with possible facilities for making use of them for commerce; the topography of the site, which will affect the economic and healthful distribution of the residents; the cost and utility of improvements; the supply of water, fuel and other necessities of life are all factors requiring earnest attention.

Following the location of a city comes the laying out of streets and the zoning of the city into districts for residential, business and industrial or manufacturing purposes, and the planning of parks and other public places. Street planning and zoning are interdependent, for traffic and other conditions vary according to the district. Problems relating to parks and public buildings are also intimately related to the street plan. Street planning includes location, width and improvement of the roadway, which features involve considerable study as to how best serve the citizens in providing means of transportation for themselves and the commodities used by them from one part of the city to another. The multiplication of the lines of communication determines the layout of the streets. Intercommunication by telephone and telegraph, and the proper spacing of buildings for sanitation and harmony, also enter into this problem. Easy and safe grades are desired, and the widths of streets required are those which will give ample room for traffic purposes, for pavement and public utility accessories, and for a plentitude of light and air to buildings. The general adoption in Canada of a limit of sixty-six feet in least width has undoubtedly been a good thing, for there has thus been secured a street entering the class of a secondary thoroughfare.

Buildings and structures of all kinds demand much detailed design. A small cottage should be so designed as to be of good appearance and comfortable, and so placed on its lot as to obtain the maximum of fresh air and sunlight, consideration being paid to the utility of the remaining space. More important buildings require increased attention to these details and to others peculiar to their class. The height of business buildings may be accurately figured out to provide the greatest degree of economy, utility, beauty and sanitation, and service connections to buildings from sewer, lighting, power, heating, telephone and other public utility systems present important features in the design.

City planning must include the design of transportation systems, yards and docks, and lands segregated for industrial use. Parks and playgrounds must be made to serve their purpose, and innumerable other items have to be planned in laying out and constructing a city, in which work the engineer plays a large part.

The work which the wise town planner can do, and is doing, for some communities should be enough to convince the most rabid anti-town planner of the wisdom of looking well ahead when this all-important subject is under discussion.

## SCIENCE AND ENGINEERING

ALTHOUGH there is no distinct line of demarcation, one is often led to believe that the relationship between science and engineering should be more clearly defined. If engineers would more generally recognize that there is a line of demarcation, it is less likely that in many cases they would enter upon schemes of an impracticable and, therefore, wasteful character.

It is true scientists and engineers are both engaged in a study of the forces of nature and of ways and means to properly control these forces, so that they may be rendered more serviceable to mankind. But the work of the scientist precedes that of the engineer. It leads him into unexplored fields and reveals the suitability of these fields for exploitation and development; such is the work of the purely scientific man. Nevertheless, it is perspective in nature, and must eventually pass the muster of a combination of engineering and business ability before it is presented to the world for assimilation and use. In other words, the purely scientific mind must relinquish its conquest to the engineer and the financier in order that it may be judged productive and worthy of development. It is at this point that the engineer takes hold of the problem. If he intrudes earlier than this he is encroaching on the field of the scientist and hazarding his reputation as a reliable engineer.

Some time ago the dangers of a situation such as this were well portrayed in "Engineering," of London. That