trial wage-earner. Moreover, they are a constant invitation to the building of rear houses, another vice for which the working man pays, if not with cash, at least with life and blood.

Transportation

The intensity of the use to which land is put has a particular bearing on the question of the daily movement of the population, without going into questions of technique on the control of the area and height of buildings, or the legal questions involved; we may consider the significance of this question, as it affects the requirements of a city, especially transportation.

I believe it is the custom of every city outside of New York to crave a distinguishing skyscraper. As a matter of fact, New York investors in skyscrapers have long since become disillusioned, as the average high building in New York brings a return of about 2%. The first skyscraper pays excellently for a time--its offices are light and airy and highly desirable, but once flanked by others, the returns soon reach the unprofitable level. Excessively intensive use of land has actually proven uneconomical to the property owners responsible.

Intensive use of land is moreover a liability to the community. Lower Manhattan could not empty itself into its own streets. Intensive use of building lots should call for correspondingly wide streets. Europe does not build towers of Babel such as one finds in New York, and such as other cities imitate. Intensive use calls for a corresponding provision of land for open space-of land for streets on which pedestrian, wheeled and car traffic may be accommodated. It is especially related, therefore, to the provision of street car service.

As a matter of fact, zoning in New York City grew out of the evident necessity for limiting the heights of buildings. The Heights of Buildings Commission soon discovered that it would be necessary to discriminate between sections of the city in any effort to regulate heights. A zoning commission was the logical consequence. Limitations on the intensity of use have therefore a very direct bearing on other city planning problems. In particular, the limitations on the possibility of providing transportation demand limitations on the use of land.

Enough has been said to indicate that the zoning of a city-that is, the determination of the character and intensity of its use-has a very definite bearing on every phase of city planning.

Does Zoning Pay?

I think I ought to add that zoning is one of the fundamentals of city planning which, fortunately, costs nothing except the costs of administration. I believe, too, that by permitting a careful anticipation of the city's future needs, it saves the city thousands of dollars that would otherwise be wasted. If time were available, I should like to discuss how zoning protects and stabilizes property values, how it protects the property owner against depreciation and the refusal to renew loans, how it protects the moneylender who loans on property, and how in general it protects the valuation on which the city bases its taxes.

W. A. McLean, Deputy Minister of Highways for Ontario, in an address to the Electric Club, Toronto, gave an outline of the present highway situation in Ontario. The need of the province in this connection is, he said, for a system of highways with continuous maintenance which would be reasonably passable. Ontario might well, he thought, increase its expenditure on good roads, but, on the other hand, economy must be practised, and roads built in proportion to the traffic which they accommodate. Close to large cities, where there is a heavy concentration of traffic, construction must be heavy in proportion, while similar construction in rural districts would not be justified. It would be out of the question to adopt one type of roadway throughout the province. There are, he said, 142,000 miles of highway in Ontario, and a large proportion of this mileage is surfaced road.

ETHICAL AND PRACTICAL SIDES OF TOWN PLANNING*

BY NOULAN CAUCHON Consulting Engineer and Town Planner, Ottawa

THE basic idea in town planning is the ethical side of the question; that is, man's right to live and the necessity for the survival of the race. One cannot recall too frequently Ruskin's great saying that "there is no wealth but life."

The fulfilment of this principle is accomplished through the technique of economics, such as controlling transportation, width of streets, height of buildings, the area of lots which may be covered, and the cubical contents of the rooms and buildings thereon. These are all but means toward the end of securing sunlight and air and the other conditions which are indispensable to health and amenity; and in the final analysis to secure the highest efficiency in the unit of manpower and consequently the maximum of production.

This is the justification for town planning as understood to-day. The artistic side of it evolves as the truthful expression of the purpose in view.

90% of City Buildings Doomed

As is frequently reiterated, a city no more than an individual can live unto itself. It depends upon its environment for the nature of its development; that is why in our planning there should be no hard and fast line separating urban and rural conditions; the one should blend into the other; they are complementary to each other.

You should plan broadly and largely, and with vision to the measure of your faith in the future of the country, as that is the basic power sustaining the development of the While your plans should be exhaustive, they should only be carried out as your progress and needs warrant. You should not only plan the future extensions of your city towards the country, but you should also replan your existing

I believe that in twenty-five or thirty years, practically 90% of all the buildings existing in our Canadian cities will have disappeared and been replaced by others more suitable to the purpose. The buildings will have disappeared from one of three causes:-

First, a number of them will have fallen down.

Second, a number will have been burned down.

Third, others will have been torn down by reason of the development of the city demanding new construction to meet the economic necessity of greater earning power to carry the charges on the increased values of the land.

The problems of Hamilton are the problems of every other city and town in Ontario to the degree of their population and development, and what Hamilton is to be congratulated upon is the manner in which it has fearlessly tackled these problems and is seeking their solution.

Railway Problem Comes First

The first thing which must be tackled is the solution of the railway problem, which is a special one on its own merits in every locality, due to physical and other conditions. I have had the privilege of making, in collaboration with W. F. Tye, of Montreal, a report on the railway situation in Hamilton. This report was accepted unanimously by the city council of Hamilton, who are still fighting for its accomplishment. Subsequently I made a report to the Hamilton Plan Commission on the general development of the city, resting upon the economic conditions of the surrounding country.

The whole of Eastern Canada from Quebec westerly to about Brandon, Man., is absolutely dependent upon the United States for its supply of coal, and should that fail, or to the extent that it may fail, must our railways, our industries and even our home fires slacken to a point unpleasant to contemplate. The moral to be drawn from that is that we must develop our potential water power to lessen as much as possible in certain directions our dependence upon coal. But we

*Address delivered last week at the Southwestern Ontario Town Planning Conference.