

100 feet in width. Directness of route should be sought for main highways, free from the right-angled turnings, abrupt endings, irregular crossings and collision points caused by rectangular planning. On hilly sites reasonable curves, with a clear vision of a hundred yards at all points, should be substituted for straight, steep grades. Sharp curves should be avoided, and those existing should be abolished. Bad grades should be avoided, particularly at intersections. More than four streets should not be made to converge at one point unless large traffic space is provided at the point of convergence. Frequently the rounding of sharp angular corners at street junctions will do more to relieve congestion than widening of the interior of the street.

The street railway systems of cities should be planned or re-planned with the object of securing general convenience, and not for the interest of a few property owners. New by-pass streets should be created, in many cases, in preference to widening the existing streets, so as to distribute traffic rather than concentrate it. Main radiating routes should be supplemented by wide circular routes at the inner and outer circumference of the city, so as to distribute the traffic before it reaches the centre.

In residential areas, narrow streets should be designed and restrictions made, limiting the height of the residences to two or three storeys and preventing change in character of buildings. Narrow streets should be so planned as to discourage through traffic. The whole street system should be planned of various widths in relation to building use and density and prospective traffic requirements. Intersections should be planned to secure that all traffic may move either at right angles or in a gyratory form in a circle of ample radius (not less than 100 feet).

Building set-back lines should be fixed on all streets, especially where streets of comparatively narrow width cross, so as to permit of a better view of the intersection and of all approaching vehicles.

Streets up to 50 feet in width should be constructed at the expense of the owners of the frontage land on the following principles: When any land is sub-divided for building purposes the owners at the time of sub-division should be made to construct the street and sewer, as well as to grade the street, up to certain minimum standards but not to include a finished surface. This is customary in many American cities, and is the British practice in all cities. It secures good access to all buildings when erected, prevents the scattered development and long mileage of vacant lots to be seen in many suburbs, which is a source of great expense to the city, and obviates the dangerous and unhealthy mud-ways that constitute a great part of our suburban thoroughfares. In proportion as we improve the construction of our secondary streets we shall lessen the concentration of traffic on the main thoroughfares. The foundation and a partial surface construction of the street having been made prior to, or simultaneously with, building, a finished surface should be provided by the city when a half or two-thirds of the street frontage is built upon, and this should be assessed against the lot-owners. When, for purposes of general traffic, streets have to be wider than 50 feet, the extra cost should be met by the city and be a charge on the inhabitants at large.

Buildings.—The ideal to be aimed at in regard to height of buildings should be to limit the height to the width of the street in the front and to the width of the space between the rear walls of buildings. Only thus can we give effect to our measures to prevent congestion and secure the benefit of street improvements. The amount of superficial area of a lot to be built upon should

not exceed 75 per cent. in business areas and 50 per cent. in residential areas, except on corner lots.

These standards may seem to be so much in advance of present-day practices as not likely to receive the sanction of public opinion, but the time is approaching when they will be adopted and enforced. Cities should be zoned for purposes of limiting heights and densities in different districts and prescribing manufacturing, business, residential and other uses of property—the street system having been simultaneously planned to suit these different uses. This has been done in New York and other cities, but the standards so far attainable are not yet adequate to reduce possible congestion. The spreading out of cities on a more even basis, less congested in some parts and less blighted or scattered in other parts, is not only essential to relieve congestion and secure safety, but is needed to secure a more equitable distribution of property values in the interest of owners.

In regard to most of the details regarding building regulation by city planning schemes no definite rules can be laid down. It is of the essence of city planning that consideration be given in schemes to the variety of local conditions and circumstances, and that expert judgment should be used to deal with these instead of the present rule-of-thumb method. In connection with regulations to secure better safeguards for public safety, we have still much to learn, and more encouragement should be given to scientific investigation into the whole subject. Past experience will not necessarily guide us as to what we should do in the future. City planning has to deal with growth, and growth means change. Our schemes will only be successful if they are sufficiently elastic to permit adjustment to new conditions as these occur. Thus every city should have a permanent organization to give undivided attention to the development of its plan as a means of securing, among other things, the safety of its citizens. Such an organization exists in several cities in the United States.

Open Spaces.—Canadian cities are, generally speaking, adequately provided with open spaces for recreation, but in those rare instances where such spaces are in the right place and are properly distributed to be accessible to the population, it has been the result of accident and not of design. The reduction of street space in residential areas and the lessening of building density on lots should be made more practicable and beneficial if it is accompanied by the provision of playgrounds in every district. Such provision is necessary to lessen the usage of the street for purposes of play. Large parks are of great value to a city, but they do not lessen the need for recreation spaces in close proximity to the homes of the people.

Building permits of some of the western cities for the month of September show a great improvement. In Winnipeg the total is \$144,850, against \$94,800 in the same month last year. The total permits for the nine months this year are less than that of the corresponding period last year, but in the latter case there was included \$475,000 for the parliament buildings, which would more than account for the difference. In Regina the figures for the month of September, 1917, are almost trebled. In Calgary the permits for the nine months of this year have crossed the million mark for the first time since 1914.

The Belgian government already has taken steps to compute the enormous total of the damage done to property in Belgium by the Germans during their occupation of the country, said a cablegram received on the 20th inst., by the Belgian Legation. The Council of Ministers met at Havre and adopted measures for verifying claims for damages to civilian and public property. These will be employed as a means for determining the total compensation to be demanded.