

# Essentials of Town Planning

By D. P. REAY

It can be said with considerable justification that the end of the war will soon be in sight. As a consequence the Canadian public is becoming acutely aware of the necessity for thinking and acting on post-war issues now, rather than waiting placidly for a peace to once again catch them unprepared.

As regards to domestic issues, discussion tends swing around the elaboration of ways and means of keeping the post-war national income as near as possible to its present level of eight billion, and insuring that effective employment is provided for the 1,800,000 odd Canadians who will be gradually released onto the labour market from the armed forces and the war industries during the demobilization period.

Many well publicized areas for new employment come to mind at once. Feeding Europe and Asia and helping to provide the necessities of life to put these continents on their economic feet again; this field we hope will provide a ready market for our exportable surpluses. The development of plastics, electronics, chemurgy and a host of new major and minor industries are just over the horizon; they will take a proportion of our war trained technical personnel, although their future role in the Canadian economy has probably been exaggerated. But we have recently become more conscious than ever before that the potential source of most of our post-war prosperity lies in utilizing our own natural resources and national skills for the improvement of our own environment through the medium of widespread housing activity and public works programmes. The discrepancy between the clean efficiency of much of our war material and the painfully obvious congestion and meanness of our living and working areas has become very obvious to many

people. It is therefore not surprising to find that both the Government and the major parties base their predictions of full post-war employment to a considerable extent on the sharing by government and industry of job opportunities, even the most conservative proposals containing some programme of public works including housing, while the more enthusiastic and radical not only make government sponsored public works and public housing the major factor in the creation of full employment and a better environment, but tackle public health, public education, public economic security and public employment as well.

The issue then is not whether we are going to get public works and widespread housing or not,—we are, but whether they are going to be of sufficient extent to fulfill the need, and whether they are going to spend public money either intelligently or wastefully; either according to carefully drawn up plans of development or by a policy of political hit or miss expediency. The decision depends largely on the ordinary man's consciousness and understanding of the issues involved, and the public stand he takes on them.

There are two facts about housing that are insufficiently appreciated: briefly, one is that although every one needs good housing, only about one-quarter of the population can afford to pay for it under present financial arrangements and present wage scales: and even if these arrangements be drastically revised, a good third of the population will still have to have their new homes paid for by public money and donated to them if they are to get a new home at all. This will always apply, except in the unlikely event of everyone in the country deciding to live in tents or agreeing to be paid the same wage. The other point, which is hardly ever appreciated at all, is common to both housing and public works and lies in the fact that both are immobile: they are rooted to the ground

---

EDITOR'S NOTE: D. P. Reay, B.Arch., M.Sc., A.R.I.B.A., is a graduate of Liverpool University, and held a Commonwealth Fellowship in Architectural Construction at Columbia University, New York City, from 1937 to 1939.

on which they are built: they cannot be driven around like automobiles, sailed about like battleships, or pushed around like electric refrigerators. In other words we have to be sure that we build them in the right place in order to get the maximum use out of them. If we make a mistake, they can't be moved. A school is obviously of little use built where there are no children, a house loses most of its living efficiency if a glue factory is built next door. Their respective locations have to be planned in order that their functions will not interfere but will blend harmoniously and reinforce each other. This seems so obvious as to be childish yet our towns, villages and cities have been in the past and are almost entirely in the present operated on the assumption that they be split up into small sections known as lots, which can be bought and sold, and with which the owners can do entirely as they please within pretty broad limits.

Decisions on both of these points lie at the root of any physical reconstruction programme. If we do not settle the first satisfactorily we will simply not produce enough houses and those we do produce, will not be for the people most in need of them. If we do not settle the second, we will put what houses we do build in the wrong places, where their efficiency will be very much reduced or disappear altogether, and where they may aggravate the already serious mechanical and financial troubles the vast majority of our towns have got themselves into precisely because they took, in the past, no intelligent precautions to ensure that what was built, was sited in the right place.

Let us elaborate on these two points with particular reference to the smaller town and village in which the greater part of the Canadian people live.

The facts of Canadian housing were dealt with by Professor Higgins in the winter edition of **Public Affairs**. His carefully studied figure of 100,000 needed new homes per annum in the post-war decade exceeds other estimates which vary from a minimum total of 300,000 to over

500,000. Little private enterprise housing is built for monthly rents as low as \$25.00.

Figure I

**Monthly Earnings and Rentals of Male Employees (Heads of Families) in Canada**

Annual Earnings	Monthly Rental	Urban %	Rural %
Under \$500	\$ 8.30	11.8	32.2
\$ 500-\$ 750	8.50-\$12.50	8.9	15.1
750- 1000	12.50- 16.70	12.7	12.4
1000- 1250	16.70- 20.80	20.0	15.2
	Less Than \$21.00	53.4%	74.9%
\$1250-\$1500	\$20.80-\$25.00	12.1	7.6
1500- 2000	25.00- 33.00	19.1	10.8
2000- 2500	33.00- 41.70	8.0	3.9
2500	42.00	7.6	2.9

1. Includes all wage-earners and salaried persons who are heads of families. In rural areas farm labourers, etc., are included but not farmers. According to the 1941 Census of the 12 million inhabitants of Canada, 6,100,000 live in urban and 5,900,000 in rural areas.
2. Figures from Report on Social Security or Canada King's Printer, Ottawa, 1943. p. 23.
3. Earnings include income from salaries, commissions, etc., but not pensions, investment income or relief payments.

Making the usual assumption that a family should not pay more than one-fifth of its income in rent, fig (1) shows clearly the vast numbers of Canadians whom the new houses built by unaided private enterprise cannot touch. Economies resulting from legislation similar to the National Housing Act tend to bring new housing down as far as the \$1,250 a year income. This is done mainly by making Government loans available for approved housing at low rates of interest with long amortization periods. New developments have to be large in scale, enabling them to be carefully planned, thus reducing the cost of streets, utilities and financing. Large scale planning in turn enables a degree of mass production to be introduced, reducing the cost of materials and labour by simplification of the building process. Finally if a degree of land use control is insisted upon, future speculation in land values can be prevented, and high taxes, congestion and blighted areas guarded against. These measures together result in a saving of about one-

third of normal costs and bring good housing to a wider segment of the population. With the lower income group however, the gap between the economic rent and the rent this group can afford to pay can only be bridged by a state subsidy in one form or another.

This is true of every country even if its interests rates are low or its wage levels high; it is even true in countries where the cost of new housing land has been reduced to a negligible quantity. It is particularly true in rural and farm housing, where incomes are low and the advantages to be derived from large scale construction and site development are absent, and additional factors in the form of farm buildings and out-houses enter the picture. Subsidies are admittedly expedients, ways of redistributing our national income. But there are two essential features of modern housing economics, cheap land and cheap money, without which the higher housing standards produced by careful large scale planning are impossible to achieve. And vice versa, the possibility of reducing the cost of land and money depends on the planning approach "Primarily, it is a matter of taking the whole housing operation out of the speculative market, and thereby not only improving the long time quality of the product but puncturing inflated speculation land prices and the prohibitive costs of speculative financial methods. For the unit cost of developed land is the most important single factor of original cost in determining the amenity of a housing project. And the cost of money is the most substantial item among the variables which determine the rental scale." (C. Bauer, *Modern Housing*.)

The bulk of these broad facts concerning housing are not altogether unknown. Not so the facts concerning the obsolete structure of our towns, large and small, of their shaky financial condition, of the necessity for the control of their future growth and for the deliberate use of a national housing movement as an integral part of their rejuvenation. Few people are really aware of the inadequacy of their towns when compared with what

they might be. They have grown with little or no control and their present physical frame work and land use pattern are obstacles to present day technical and social development. Correction has been infrequent and piecemeal. In the larger towns, automobiles and streetcars take the population to the outskirts, leaving near the centre low income blighted areas, which rapidly become run down and cannot afford either to keep themselves in repair or pay in taxes a fraction of the cost of their necessary municipal services. Tax delinquency becomes usual as assessed valuations are frequently pushed up out of all proportion to the lands potential use value. The income groups who can afford to pay taxes can also afford to leave the town for the outskirts and so a vicious circle sets in, alleviated to a considerable extent by war conditions, but due to return should we retain the present tax and physical structure of our towns. They will again be faced with sinking revenues and increasing expenditures and compelled, owing to their dependence on real estate taxation, to maintain assessments and raise the tax burdens as urban blight spreads and tax delinquencies increase. The parts of our towns have become maladjusted and are inefficiently related one to the other.

The only solution is complete revision of the municipal tax structures and the gradual rebuilding of large sections to stabilize and even up values and spread them over a larger area and to make the town "work" in a mechanical sense. The financial burden of such rebuilding is obviously beyond the power of most municipalities and the provision of provincial and federal funds to be spent in conjunction with government financed or sponsored housing is the only way out of the impasse.

If we assume that such a conclusion is agreed upon we are ready to consider what measures should be taken and what principles are involved if we are to insure that this construction is to be adequately planned and efficiently built.

In the past town planning has frequent-

ly been something of a farce in towns which had town planning commissions as positive planning is next to impossible without some degree of public control of land use. By one means or another land use control must be vastly extended, either through the cooperative pooling of land ownership rights into larger development units or through a parallel policy of land acquisition by the municipality or through legislation giving the municipality greater powers of either compulsory acquisition of land or land use control. As the town and the region around it form an interlocking economic and cultural unit to be developed as such, a similar policy is called for with regard to unbuilt up areas beyond town limits. A very brief check through those towns and countries which have contributed most to housing and town planning progress reveals that such progress varies directly as the degree of public control over the land on which the town is built.

Together with an extended degree of land use control must go an extensive educational program directed towards making the planning approach to the problems of human environment more familiar to the average man, and also towards training the technicians who will be necessary for producing the surveys which form the fact finding preliminaries essential to any planning activity. Planning is for the planned not the planners and every attempt should be made through radio, service clubs, trade unions, professional associations and fact finding agencies along the lines of Public Opinion Polls to explain the cooperative scientific approach to environment which is town planning and to ascertain what the needs and desires of the people are. As the field of public housing design and administration has heretofore been a neglected one, competent architects, engineers, and administrators must be trained in calculated numbers and a controlled expansion of trained personnel carried out in the building and allied trades. To cut costs and generally increase output per man hour the whole construction industry

may have to be recast as an integrated industry and not as it is now, a collection of craft unions, sales conscious equipment manufacturers, raw material producers, superfluous retailers, contractors, speculative builders, architects and engineers. This is a complicated and involved question, the solution to which is long overdue.

Town planning and large scale housing will come in Canada with public demand and this will only arise when the public is convinced that the environment consciously planned according to human needs expressed through democratic channels is superior to the environment which is the result of unregulated growth. It is therefore essential that the public be given a clear visual picture of this new environment in addition to an understanding of the mental approach that brings it about, the financial and fiscal measures necessary to implement it, and the methods by which the citizen can make his desires known to influence its pattern.

Let us look briefly at the town and see what major trends would regulate its growth, assuming that the application of what Lawrence Orton calls "informed insight to the solution of the town's developmental problems" becomes a reality.

A town is for living and working in: one is educated and spends one's leisure time there. Transportation and the distribution of goods, people and utilities tie these three basic elements of living; working, recreation and education together into a whole. Each family needs (a) a dwelling with plenty of light and air, safe open space outside the door for the children, local stores and a nursery school within a few minutes walk, and (b) the centre of the town with its civic facilities in the way of larger stores, cinemas, markets, high schools, etc., within walking distance if possible and certainly within quick driving distance. Our place of work should enjoy a similar location. These simple and obvious requirements would be accepted by nearly

Figure Two. This diagram shows clearly the complete disconnection between pedestrian and vehicular traffic. Mothers go shopping and children go to school via the garden and park area when they walk, and via the access road and car park when they drive.

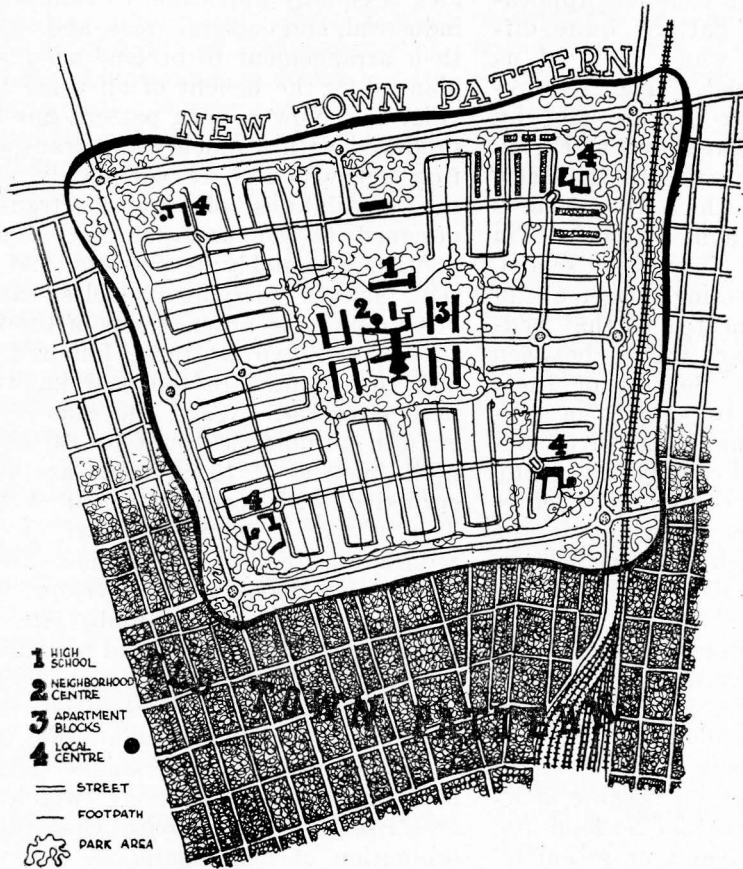
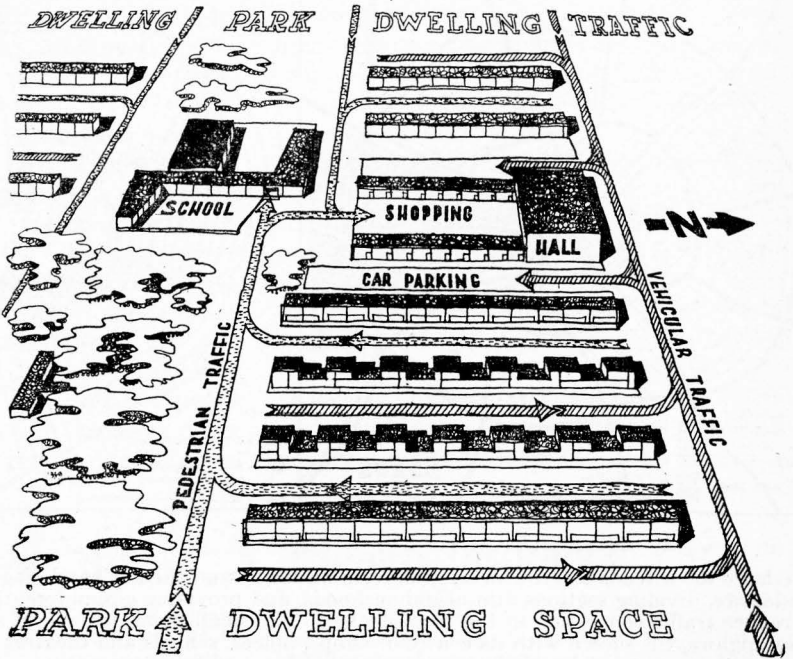


Figure Three. The complete neighbourhood unit. Enclosed between fast highways, entrances are at controlled points. The centre is in a park on to which all dwelling areas open and contains high apartments, shops, offices, theatres and the main high schools. There are four or five subsidiary shopping centres with smaller schools; from any point it is possible to drive to the centre or subsidiary centres crossing a main road only once; if walking by foot path from any point to the centre a road is crossed only once.

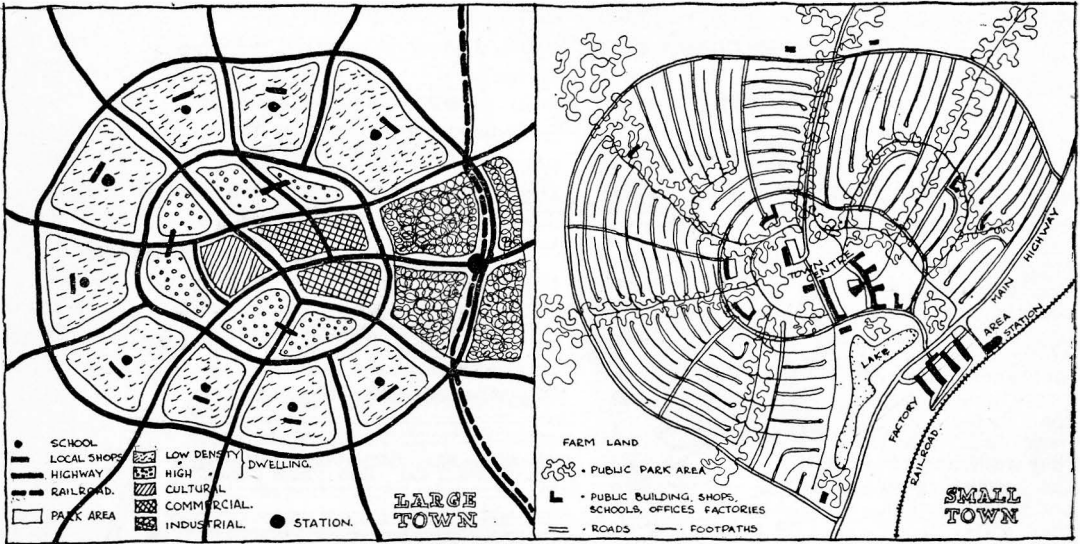


Figure 4

The large town tends to grow in a radial form naturally and the left hand diagram organizes existing tendencies, dividing sections into neighbourhoods, and providing circumferential roads in park areas to reduce traffic congestion in the town centre. The small town, instead of stringing out along the main highway, is shown with its centre of shops, offices, schools and theatres set to one side in park space and surrounded by living areas connected by road and foot path.

everybody and yet their conscious application produces a city pattern quite different from that to which most of us have been accustomed. The requirement explained under (a) are met by a pattern similar to that shown at Fig. 2. This forms what one can call the basic cellular unit out of which the town is built. A group of homes sufficient in number to support a nursery school, local shops, and meeting place, all of these being interconnected so that pedestrian and vehicular traffic between them do not meet. Several of these units join together to support a preparatory school and more extensive communal facilities, and finally all group together around a community centre the dominant feature of which is the high school and which contains all the facilities for normal day to day living for that area. Thus is the dwelling neighbourhood unit idea formed (Fig. 3). The advantages of such cellular growth are obvious and indeed our society struggles to reach such a pattern now but is thwarted largely because of an obsolete street system and because of its almost total lack of control over land use.

This neighbourhood unit or precinctal

idea is equally applicable to commercial, industrial, and cultural areas, and enables their arrangement to become adequately planned for the benefit of all using them (Fig. 4). Now a town pattern has been produced with a much wider transportation net which more adequately meets the possibilities of modern transport designed to get us from one place to another as quickly as possible. At present streets carrying vehicles capable of 60 mph cross other streets of the same type every two or three hundred feet and the results are too well known to need stressing. Again, the same streets contain automobiles built for 50 and 60 mph, bicycles at 15 mph and are finally sprinkled with pedestrians at 4 mph. The result of course is that speed is reduced to the lowest common denominator and that friction develops which is detrimental to life and limb. An urban transportation system should be similar to a piping layout where each material flows in its own pipe and enters fittings to do its work at controlled points (Fig. 3, 4).

Consideration of these simple elements leads to general conclusions, which only give rise to serious debate when the co-ordination of neighbourhoods into very

large communities is involved. These problems do not concern us here as we have limited our discussion to the towns and villages in which most urban Canadians live.

However enough has been shown to make clear some of the forms which emerge in the town when its functions are encouraged to grow and integrate logically. Arranging for such tendencies to replace an obsolete town plan over a period of years through the agency of a loosely knit master plan is no easy job. It demands a city or town planning commission composed of a small number of competent persons who can keep the broad picture of the town's development

in front of them, who have co-ordinating control over the other municipal departments and who have a competent research and planning staff backed by an enlightened and lively public interest expressed at public hearings and through the press. And it needs financial measures and land use control legislation to enable the commission to plan positively and not merely negatively. It is only through the formation of such empowered commissions now and their thorough survey and preparation of the ground before the reconstruction period comes upon us, that the physical structure of our urban and small town environment can be changed permanently for the better.

## Dispute over the U. S. Health Insurance Act

By ALTON A. LINFORD

WHAT Dr. Morris Fishbein, editor of *The Journal of the American Medical Association* calls the "Thirty Years War" of American Medicine against public health insurance reached a new high in intensity during the past year, provoked anew by the filing in the United States Congress of the Wagner-Murray-Dingell Bill. Organized medicine, through its national, state and local journals and, more importantly, through its propaganda front: "The National Physicians Committee for the Extension of Medical Service," organized and conducted the most ambitious and extensive counter-campaign in its long history. Individual doctors, newspapers, magazines, columnists and ordinary citizens have been the object of a barrage of pamphlets, leaflets, syndicated editorials, articles, and radio addresses aimed at the defeat of this bill. Large commercial drug companies, doctors and other individuals have responded generously to a nationwide appeal for funds to keep the printing presses and the radio working overtime to turn out this material.

The uniform and persistent theme of the campaign has been that this bill represents an attempt on the part of a clique of "bureaucrats" in Washington to centralize more government in Washington at the expense of the States; to "destroy the private practice of medicine" and to substitute for it an article variously referred to as "socialized medicine," "bureaucratic medicine," and "political medicine," to set-up a one-man "dictatorship" over United States medicine under which people would have to go to a doctor assigned by a Washington bureaucrat, and under which doctors would be regimented to the extent of being placed on salary and being told where to practice and whom to treat.

This campaign has had the support generally of private business, especially the large pharmaceutical manufactures, the retail drug stores, the press and such organizations as the American Bar Association and the Catholic Welfare Council.

The sponsors of the bill are the two large labor organizations: American Federation of Labor and the Congress of Industrial Organization. Other groups supporting the measure are the Lawyers' Guild, the Physicians' Forum, and the

EDITOR'S NOTE: Professor Linford is with the Department of Social Economy of Simmons College, Boston.