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# JOURNAL R. A. I. C. J U L Y 1 9 4 8

**W**E make no apologies for writing this month about Toronto. It is too hot, and too humid, to transport oneself either physically or mentally to some distant or more equable climes. So often one hears that Toronto has pursued its course, over the century and more since it was an incorporated city, without cultural or other upheavals that would disturb the even tenor of its ways. To the superficial observer (and there were many who came to Toronto to celebrate Sunday, July 4th) the pulse of the city is tested by closed gas stations and movie houses, and the absence of Sunday baseball. The more discriminating visitor would see the Queen City on the march in town planning and, if not on the march, at any rate, on the way, toward a recognition of modern architecture.

**T**OWN PLANNING has always been a disturbing element in our municipal life. Outside experts may plan Vancouver or Winnipeg or Ottawa, but only a Torontonian could plan Toronto. Only he would understand our peculiar attitude toward life in general, and only he, if he were wise, would understand the significance of the daily press, the T.T.C. and the Orange Order.

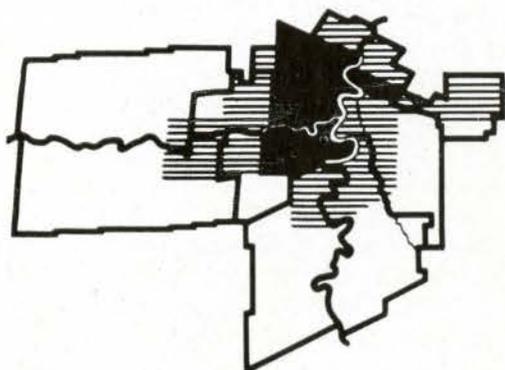
**P**AST schemes, of little merit, as one views them in historic perspective, have crashed on one or all of these peculiar local reefs. Today, an all Toronto team is not only planning but putting its plans into action, without criticism except where foreign advice was sought on a particular point. That, of course, was inevitable. Many of us have contributed something to planning, on paper, but few have lived to see their schemes, even in part, carried out with an army of men, bull dozers and every kind of modern mechanical equipment. The most distressing part of the process is the massacre of trees and half a dozen streets look like Guadalcanal after bombardment. We welcome the planning, but unfortunately Toronto cannot afford the loss of its trees. Mr. Dunnington Grubb represents a group who would like to see Toronto's maples and elms replaced by little English plane trees or Washington cherry trees. We wonder if he is still of that opinion now that our street architecture stands out with a nakedness that is positively embarrassing. London, Bath and Paris use trees as colour and shade, and as a foil to an architecture that has dignity and continuity of material and form. If we, in Toronto, did not know it before, we now can see that we used trees for shade and for the concealment of our older domestic architecture. Fortunately many of our streets were lined with trees in double rows and only one now has been affected. Above St. Clair, Spadina Road (pronounced Spad-i-na by the vulgar; Spad-eé-na by the genteel and Spád-i-naw by the pedant) had but one row, and, over night, appeared as a street poised on the brink of imminent decay. We had not noticed it before. Hundreds of noble trees have been cut down, and, so far as we know, nothing is being done to replace them. The present situation will be a test of the planning board's sensitivity to the tawdriness which they have exposed, and action this coming winter in tree planting would add greatly to the board's prestige. Town planning should not be viewed solely from the point of view of the traffic engineer.

**A** MONTREAL friend surprised us by saying that he had the impression that more modern architecture was to be seen here than in his own city. Mr. Arthur Rank has made his contribution in several parts of the city, and good as some of his theatres are one hopes that their influence will not be felt on less frivolous architecture. There is a danger. The university is agog with a first-class modern building, a book room, nestling in the shadows of the pseudo Norman University College by Cumberland and the perpendicular Gothic Hart House Tower by Sproatt. The building is small and temporary, but even so it took courage on the part of the Board of Governors to approve it. Its presence may jar the older professor who was unaware that he was living in an age of steel, and that a new architecture had been born. On the other hand it will stimulate the minds of the undergraduate who had been accustomed, at the University, to look at books in the dim Miltonian light of an abbey cum fortress; and it will be enormously encouraging for students in the School of Architecture to see, in actuality, a modest example of the architecture in which they believe. There are rumblings in Toronto that presage great things.

*Editor*

# METROPOLITAN PLAN • GREATER WINNIPEG

## F O R E W O R D



LIKE so many communities on this continent and elsewhere, the urban area of Greater Winnipeg is composed of a number of autonomous municipal units whose political boundaries bear no particular relationship to the physical development of the community. From time to time in the past, these boundaries were changed or expanded, largely to incorporate newly developing residential areas into existing municipalities, or to establish them as separate political units. Of late years, however, no such adjustments have been made, and many of the political lines of demarkation have become difficult to identify on the ground. This, of course, is not a characteristic peculiar to Greater Winnipeg, but is common to a great many larger urban centres. At present, the urban area extends from the City of Winnipeg outward into eleven other cities or municipalities surrounding it.

In common again with many other metropolitan areas, Greater Winnipeg's physical and economic problems are not bounded by municipal limits and the area is one economic unit within the framework of our regional and national economy. In the matter of planning for sound physical growth and improvement in the future, therefore, the problem is not one delimited by the municipal boundaries of one unit or another, but embraces the entire urban area and its environs.

By  
ERIC W. THRIFT  
Director

# ORGANIZATION OF METROPOLITAN PLANNING FOR GREATER WINNIPEG

The current planning work in Greater Winnipeg is not by any means the first direct planning of the physical community that has been attempted, as I shall make clear a little later. The present form of organization, however, is the first of its kind which has been attempted for this area, and is one which has been none too common in the planning field up to the present time.

During the war years the need for sound basic thinking about the development of our communities as places to live and work, seemed to be thrown into clearer focus. Perhaps this is a characteristic of human nature during times of stress, that we see fundamental truths with a clearer vision than we do when we do not feel our way of life is in immediate jeopardy. At any rate, during the war the need for some comprehensive forethought was understood quite readily, and the basic principle that an urban area is not made up of a lot of unrelated units, but is a single functional entity, was accepted as a necessary premise to sound planning. Thus, when the Post-War Reconstruction Committee of the Manitoba Government invited representatives from the various municipalities of Greater Winnipeg to sit together to discuss this problem, there was ready agreement, and the Metropolitan Planning Committee was formed by the cities and municipalities, to study the future of the whole area. This included the cities of Winnipeg and St. Boniface, the towns of Tuxedo and Transcona, the village of Brooklands, and the municipalities of Assiniboia, Charleswood, Fort Garry, East Kildonan, St. James, St. Vital and West Kildonan. The Committee consisted of two representatives from each of the twelve units, two representatives from the Provincial Government, and a secretary. It was agreed that the cost of the work would be borne by all participating municipalities on a per capita basis with some initial assistance from the Provincial Government. This organization work took place during the winter of 1943-44.

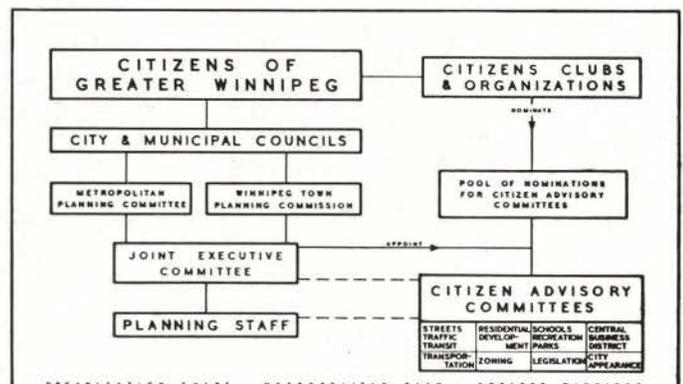
In May of 1944, the Winnipeg City Council appointed a Town Planning Commission, consisting of the Mayor, three Aldermen and seven citizen members and a secretary. The Commission was appointed under powers acquired as a result of a referendum submitted to the electorate in 1931, on the question of whether a Town Planning Commission should be appointed and what its general form should be. After several meetings this body brought forth a set of objectives for its operation and considered the possibility of appointing a well qualified consultant.

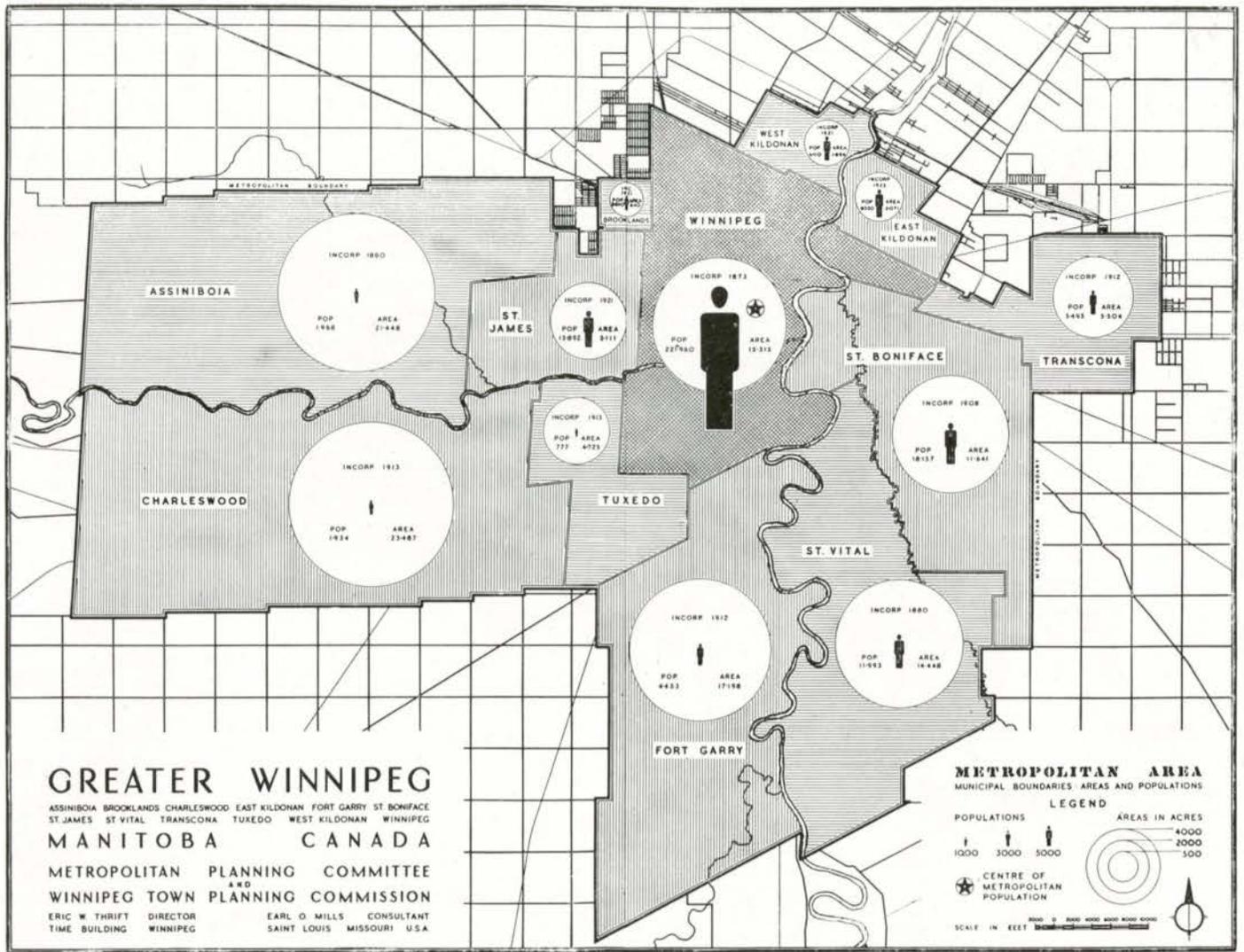
Thus, by the middle of 1944, there were two planning bodies in existence in the Greater Winnipeg area. Before either the Metropolitan Planning Committee or the Winnipeg Town Planning Commission was able to

initiate actual work, it was realized that there was a certain duplication of effort, and that many of their objectives were similar. A joint meeting was therefore arranged on June 19, 1944, and as a result the Joint Executive Committee on Metropolitan Planning of Greater Winnipeg was formed on July 10. This Committee was composed of eleven members, five from the Metropolitan Planning Committee, five from the Winnipeg Town Planning Commission, plus a chairman elected by the Committee.

With this stronger organization and the knowledge that some of the benefits of federal assistance, particularly in connection with housing, in the post-war period would only be available where sound planning was being done, it was decided to work towards the development of a comprehensive master plan for Greater Winnipeg. After communicating with various town planning organizations and experts in Canada and the United States in an effort to locate a consultant of wide experience, Earl O. Mills, Planning Consultant, of St. Louis, Missouri, U.S.A. was appointed on November 13, 1944, to supervise the development of a comprehensive plan. A local staff of six members was engaged and planning offices were established at 605 Time Building, Winnipeg.

In order that the planning work might benefit from the best thinking and advice in the metropolitan area, working advisory committees, varying in size from nine to fifteen members, are being appointed to study each of the several phases of the plan and they collaborate in the preparation of the comprehensive plan. The members of these committees are being selected from panels of names submitted by various organizations in the metropolitan area, as individuals who, because of their special knowledge or civic interest in the various problems under consideration, are able to contribute to the enhancement and effectiveness of the objectives sought. Committees comprise both public officials and citizen representatives.





This aspect of the planning operation has been considered most important by those responsible for carrying on the work. As well as obtaining the benefit of the thinking of those people in the community who are best qualified to deal with various problems another purpose was to gain a broader base of active participation within the community.

#### Former Planning in Greater Winnipeg

As mentioned above, the Metropolitan Planning organization was not the first planning body in the Winnipeg area. The initiation of the first effort is reported to have taken place at a dinner meeting held in a church hall in South Winnipeg some time late in 1910 or early in 1911. A paper entitled "Good Citizenship" was presented by Mr. William Pearson and after some discussion, the group formed a committee on Town Planning with Mr. Pearson as chairman, and outlined a program of activity. This embraced such important subjects as the development of public knowledge and opinion on civic affairs, the study of existing conditions on housing, streets, traffic, parks and the like, and the suggestion of remedial measures where possible.

About the same time the Winnipeg Industrial Bureau formed a Town Planning Committee and Mr. Pearson was also selected as chairman of this group, which included the mayor and other important civic leaders. Through the cooperative efforts of these two committees in developing public opinion and in placing the whole subject of planning before the City Council, the latter had the City Charter amended to obtain power to appoint a City Planning Commission. On June 5, 1911, a by-law was passed appointing such a commission, with the then mayor, Mr. Sanford Evans, as chairman, six aldermen, the Municipal Commissioner of Manitoba, and one representative each from the Architects' Association, Builders' Association, Real Estate Exchange, Trades and Labor Council, Board of Trade, Industrial Bureau, University of Manitoba, Provincial Board of Health, Winnipeg Parks Board and the Winnipeg Electric Company as members.

This Commission was not given power to prepare a plan, but was instructed to make a report to the City Council. While its terms of reference were quite broad, namely "to consider and report to the City Council upon a City Planning scheme," the Commission approached

the problem in a specific, businesslike manner. Six Committees were appointed to study and report on the following subjects—

Social Survey	River Frontage and Dockage
Housing	Aesthetic Development
Physical Plan	Traffic and Transport

It is interesting to note that even at this stage the Commission did not confine its work to its own membership. Rather, the above committees were appointed from among the citizens at large who had special knowledge and understanding of the various subjects to be studied. In each case, however, a member of the Commission served as chairman. The parallel between the principle adopted then and that being followed now is striking.

A further demonstration of the breadth of outlook of this early Commission was the fact that it realized the metropolitan nature of its problem and therefore invited and accepted as honorary members, representatives from the adjacent municipalities of St. Vital, St. Boniface, Kildonan, Springfield and Rosser. Incidentally, some of the present suburban municipalities had not yet been formed.

Early in 1913 the Commission presented its report to the Winnipeg City Council. While it had operated on a limited appropriation, this did not detract greatly from the quality of the report nor preclude the Commission from drawing some definite conclusions and making positive recommendations. Along with its conclusions and recommendations on disorderly development, land crowding, poor construction, housing, use and height control, parks and playgrounds, thoroughfares, boulevards, railways and many other things, the Commission recommended the appointment of a permanent Commission with trained technical assistance. As a result, the Greater Winnipeg Plan Commission was appointed on June 1, 1914, composed of four citizens and the Mayor. Professor A. A. Stoughton, newly appointed head of the School of Architecture, University of Manitoba, provided the technical assistance. The outbreak of World War I caused the cancellation of the Commission's appropriation and such results as it managed to achieve were largely gained through the efforts of Professor Stoughton. Through lack of funds to operate, the Commission finally went out of existence.

The report of the 1911 Commission contained a recommendation that the Provincial legislature should be approached to pass a general Housing and Town Planning Act. Between the appearance of the report in 1913 and 1916, a good deal of effort was put behind this idea so that in the latter year the Manitoba Legislature passed the Manitoba Town Planning Act. This Act was later amended, and in 1924 a new act was passed. Again in 1940 its amendments were consolidated in a general consolidation of many of the acts of the legislature. This act gives the municipalities and town in the province, power to create a Town Planning Commission,

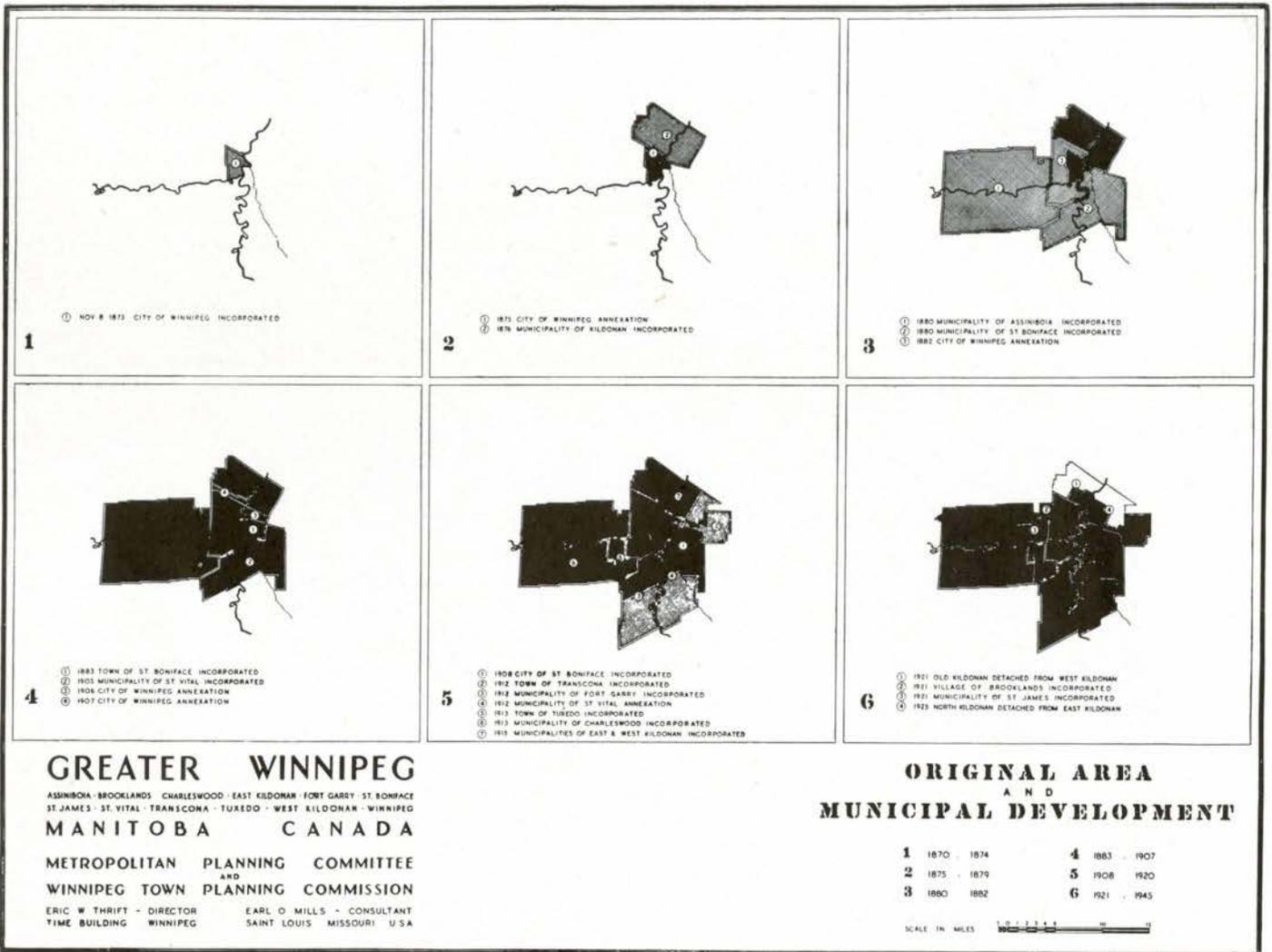
and to prepare and adopt town planning schemes under certain regulations provided in the act. Several of the municipalities in the metropolitan group have adopted scheme under the act. These include East Kildonan and Tuxedo in 1925, Fort Garry in 1928 and St. James in 1930. These town planning schemes consist almost wholly of zoning regulations and could properly be termed Zoning By-laws. In the City of Winnipeg, through powers provided in its charter, City Council passed the first Zoning By-law in 1927. The regulations in this By-law were applied first to limited residential area, and were gradually extended to other areas throughout the city by separate by-law. There are still certain sections of the city which do not come under this zoning regulation.

### Growth and Development

Knowledge of the background of the city's development is of invaluable assistance in assessing its problems and in pointing a way toward their solution. The conditions causing its establishment and its present economic reasons for existence are essential parts of that background.

The establishment of Winnipeg had its origin in the part time encampments of the Indians who inhabited the region around the junction of the Red and Assiniboine Rivers. It was a natural stopping place and therefore became the divisional and transfer point for fur traders and settlers. The white man's early activities in the area were motivated by the trading of furs, and the commercial importance of the site therefore has been significant from the beginning. This is evident in the fact that both the Hudson's Bay Company and the Northwest Company established fur trading posts in the locality. After agricultural settlement started in the area in 1812 with the coming of the Selkirk settlers from Scotland, the need for facilities for retail trade increased, but such trade was slow in establishing itself in the face of the almost complete monopoly by the Hudson's Bay Company, and until 1851 there were only two independent concerns. Through the late 1850's and the 1860's, however, new settlers arrived and therefore new businesses were established. Such early development provided the necessary impetus to the incorporation in 1873, of the City of Winnipeg, which followed the establishment of the Province of Manitoba by only three years. At that time the city appeared to have a guaranteed future as a distributing and manufacturing centre, located as it was almost at the agricultural centre of the North American continent. In the 1880's railway connections were developed to the East and with the completion of main line connections and numerous branch lines, the former isolation of Manitoba came to an end, and trade expanded and improved.

While trade had actually started in furs, nearly all branches of commerce and industry were soon represented. As settlement and agriculture extended beyond the immediate vicinity of the Red River, the vast



trade in furs was eventually exceeded by that in grain. As early as 1881 grain commission houses were established in Winnipeg, and in 1887 the now famous Winnipeg Grain Exchange was formed.

Along with tremendous development in the grain trade, an important trade in farm implements was built up. Cattle trade in the west also increased in importance and since the only railway line passed through Winnipeg, it became an unloading, sorting and export reshipping base, and abattoirs and packing houses found a fertile field.

Development of manufacturing was comparatively slow considering the rapid growth of agriculture and the associated trades. As population increased and greater prosperity developed, however, the demand for manufactured goods brought about the establishment of a number of factories to fulfill these requirements, and the city which had already become the major distributing centre in the west, began to take on some industrial importance.

As the railway systems of Canada grew and developed, the main railway yards and car handling facilities in the west were established in Winnipeg and local

branch lines as well as the main transcontinental routes were connected to this hub. Because all of the movement to the vast areas of the west was drawn through the city it became known as the "Gateway to the West."

While all this was going on, of course, the urban community had been expanding and although the city had grown greatly through annexation the development exceeded these boundaries, and many of the surrounding municipalities came into being largely as dormitory or residential areas.

To keep pace with the growing demands of the urban population, hydro-electric power was developed on the Winnipeg River in 1911, resulting in the cheapest electric power on this continent. In 1919 a new water supply system to replace wells, was constructed bringing fresh water from an arm of the Lake of the Woods some 90 miles away.

Whereas Winnipeg had grown into the primary distribution centre in Western Canada after the turn of the century later on a change in the freight rate structure caused much of this distribution and reshipment business to be transferred to other centres in the west.

Furthermore, the opening of the Panama Canal saw the use of cheaper ocean shipping to bring goods to Vancouver relieving Winnipeg of more of its distribution business.

Industry began to develop more rapidly during the twenties, however, and helped to overcome some of the set-back. The establishment of large meat packing plants to avoid the excessive weight losses in shipping to eastern markets led to the growth of the largest stock-yards in the British Commonwealth.

The larger employment producing establishments are now in the fields of retail and wholesale trade, meat packing, railways, manufacturing and service establishments.

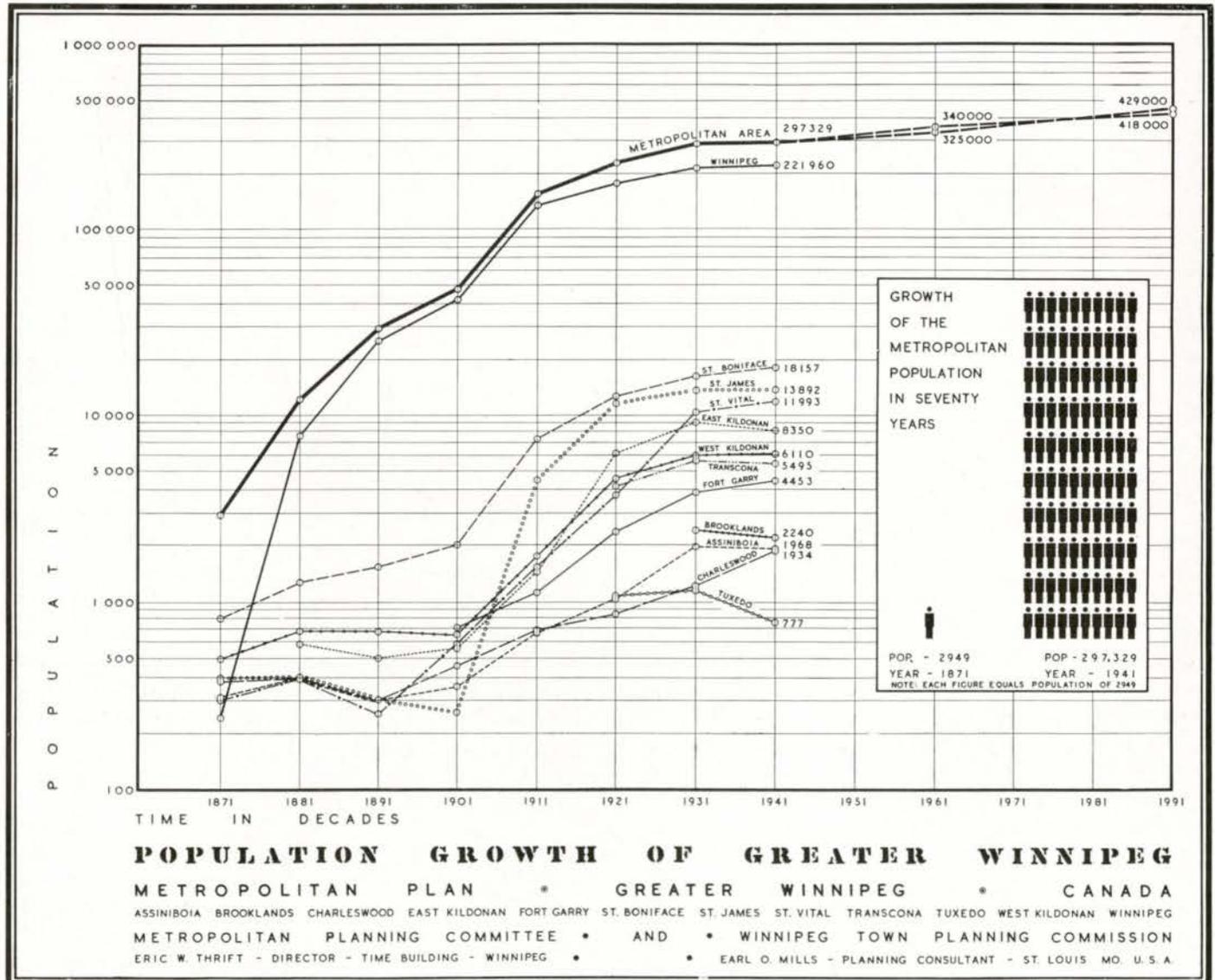
### Population

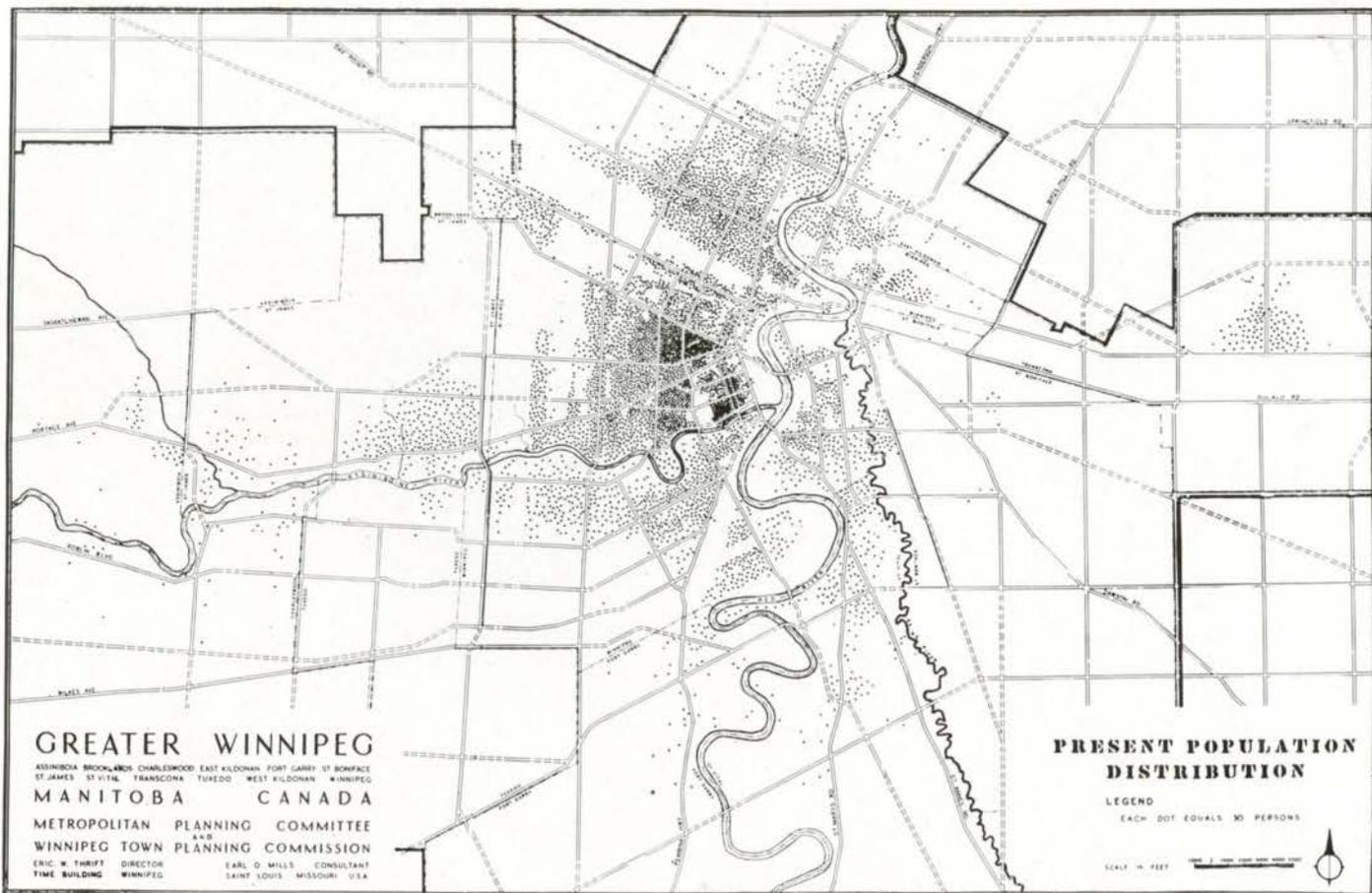
The characteristics of the population of an area are obviously basic to the development of the area as a community. The facts regarding various population characteristics of Greater Winnipeg have therefore been

gathered and some analysis made of them as one of the bases necessary for sound planning.

In 1871, the total population of the area was less than 3000. Incorporation of the city took place in 1873 and during the following four decades a rapid increase developed. It was not regular at all times since immigration came in an uneven flow and the population growth characteristics of the various municipal units show a great deal of variation throughout this period. From 1921 onward, growth has been much steadier, but the amount of growth has dropped until during the 1930 decade the population did not retain its own natural increase.

By comparing the Greater Winnipeg growth characteristics with that of the Province of Manitoba and then the three Prairie Provinces, it became evident that the Greater Winnipeg population is more closely related to the whole of the Prairies than to the Province alone, thus reflecting the economic growth of the prairies with its main centre in Winnipeg.





### Racial Origin

There is a great diversity of racial origin in the population of Greater Winnipeg, lending the color and background of inherited custom which adds immeasurably to the cultural warmth of the community. According to the 1946 census which classified people according to their mother tongue, the heaviest proportion, 72%, is made up of those whose origin goes back to some parts of the British Isles, England, Scotland, Ireland or Wales, or other English speaking areas. The 5.2% of the population of French speaking origin, is concentrated largely in the City of St. Boniface, about the spot where the first French Canadians settled in the area and the first Roman Catholic mission was built. In 1946, 2.7% of the population was of German speaking origin; 4.2% of Yiddish origin; 2.8% of Polish origin; and 8.8% of Ukrainian origin, which was larger than any group other than that from the British Isles. Other European races including Icelandic, Italian, Russian, Swedish and a few lesser groups are included in another 5.5%. All of these have enriched the cultural and social aspects of the life of Greater Winnipeg through the retention of many of their native skills, languages, and customs.

### Age Groups

As with most urban population, the average age of the population is increasing.

In the 1931-41 decade the average increase of births over deaths was 7.8% per thousand, which is known as

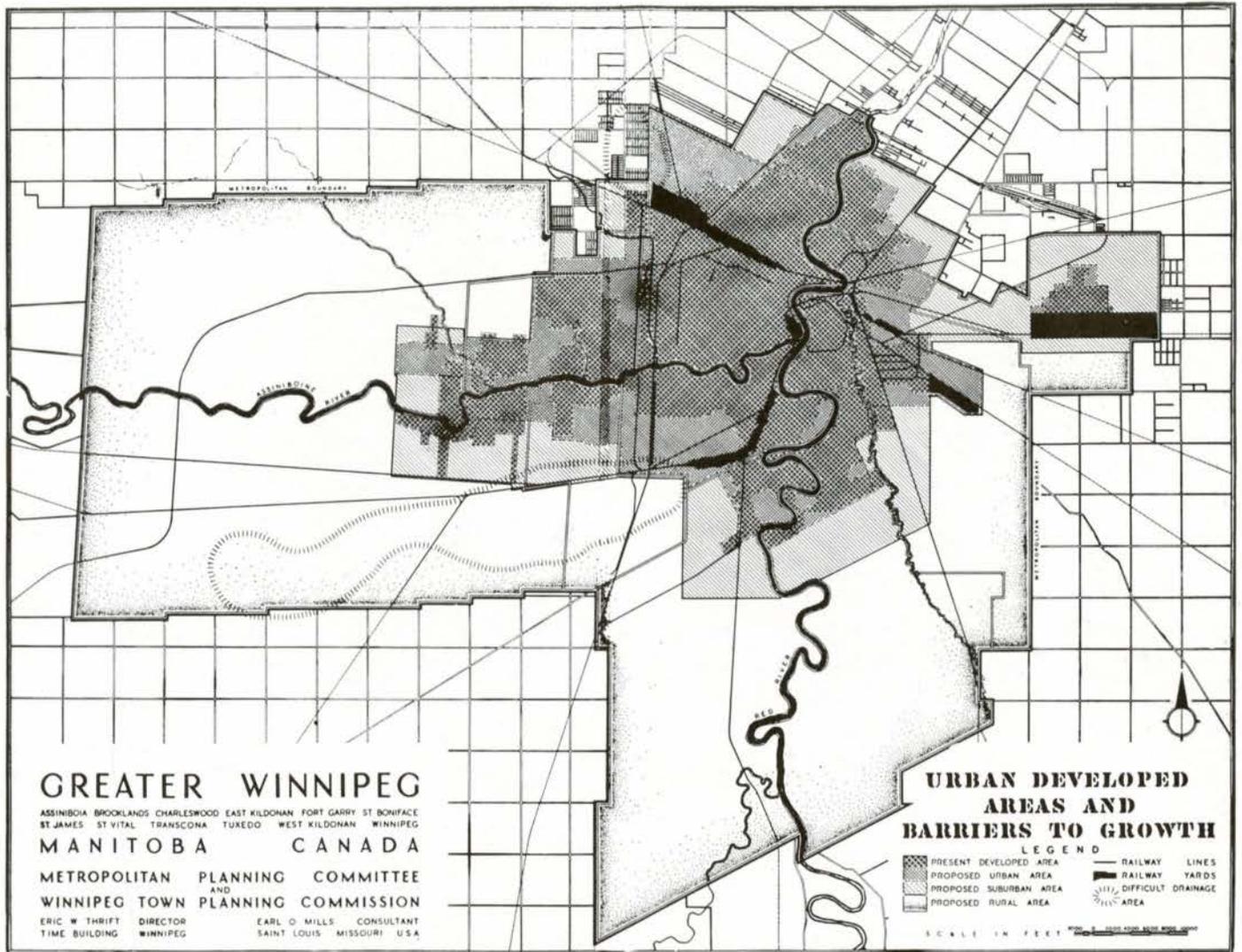
the natural increase. This is a 0.78% increase. When it is revealed that the actual increase is only 0.2% then it is evident that this area was not maintaining its existing level and that there was a movement of population out of the area during the depression years. From further study of these and other characteristics there is evidence that any appreciable population increase will have to be dependent upon industrial growth rather than agricultural expansion in the surrounding region.

### Future Population

Relating the population growth characteristics to the physical characteristics of the area reveals that urban growth is likely to extend along the banks of the two rivers, the Red and the Assiniboine. This is due in large part to the flatness of the terrain and the difficulty of drainage and gravity sewage flow at any great distance from these rivers. In order to discourage unwise attenuation, therefore, some regulations will be necessary to control this growth so that it is an economical one and not a sporadic and costly one.

### Population Density

Population density in the area varies a great deal from one place to another, largely because some of the municipalities contain extensive agricultural areas with their resultant sparse population. Within the "developed" or urban area we see a variation from 1.79 persons per developed acre in Tuxedo, a suburb of large houses, to

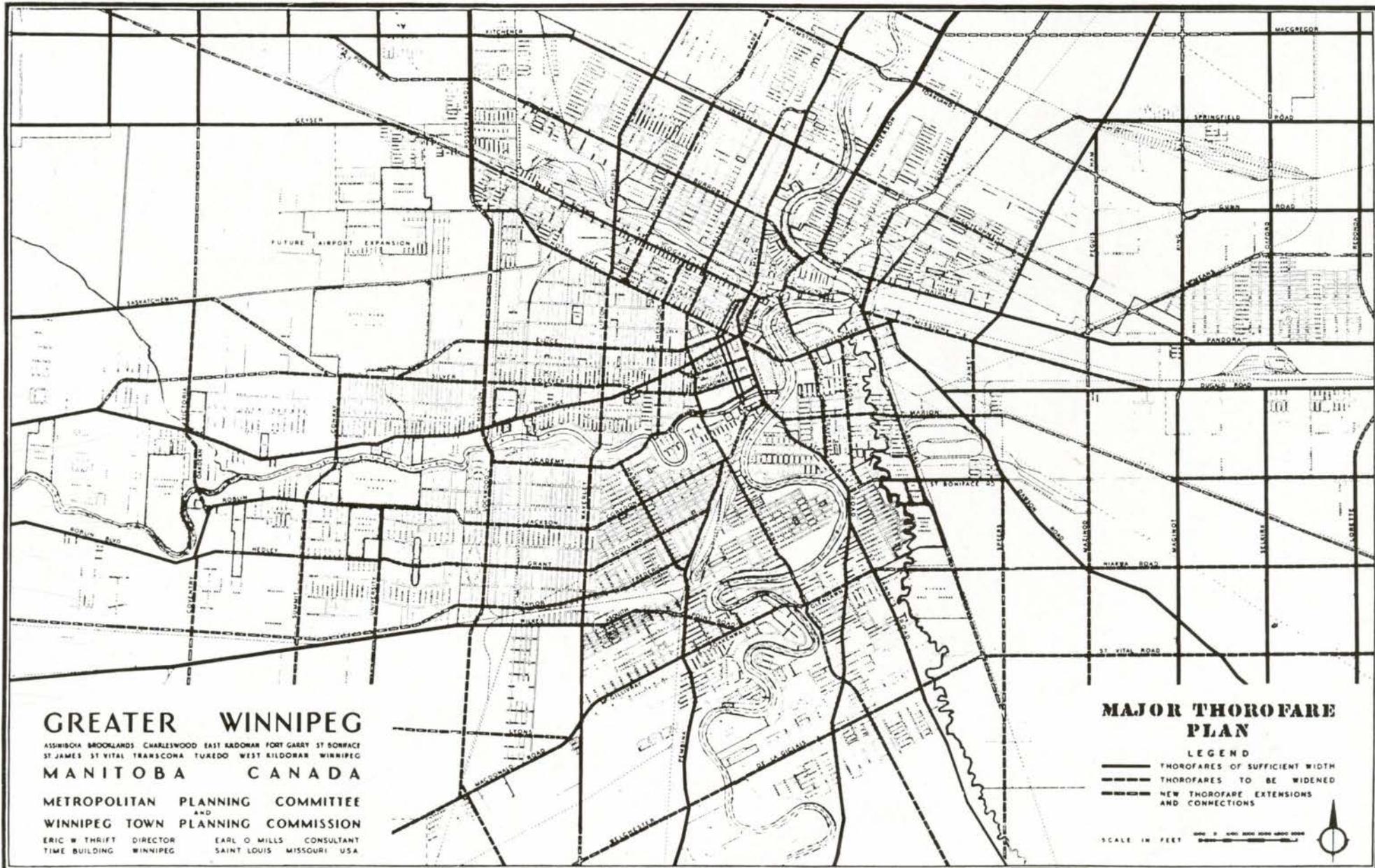


27.2 persons per developed acre in the City of Winnipeg, where the greatest concentrations occur. The metropolitan area shows a mean figure of 19 persons per acre over the whole of the urbanized area. This is a desirable density and it is to be hoped that the zoning and other regulations proposed will help to prevent too great a departure from this standard.

It is obviously desirable, however, to have a more even distribution of population over the whole urbanized area of Greater Winnipeg. Concentration of population leads to congestion which often brings with it attendant evils in poor social, physical and economic conditions. On the other hand, a too thinly scattered development greatly increases the cost of providing utilities and public services, which places an undue burden of debt upon the municipal body. Zoning regulations that have been proposed by the Metropolitan Plan, requiring adequate space in residential areas and controlling sporadic development will, we hope, go a long way toward achieving more reasonable and balanced distribution of population and, therefore, more healthful and economical development.

### Urban Development

The map "Urban Developed Areas" gives some idea of the manner in which urban development has taken place in the Greater Winnipeg area. It indicates clearly the ragged fringes of this development and relates it to the proposals that have been formulated in connection with the zoning regulations and district map for the establishment of urban, suburban and rural zones. It also indicates the precautions which have been recommended to prevent the present limited attenuation from extending beyond reasonable economic limits and becoming a ribbon development, which is most expensive from the standpoint of service and transportation. The long stretches of sewer and water lines, road construction and transportation facilities needed to serve such attenuated development adequately, place an unwarranted burden of cost upon the general budgets of municipalities. It can also turn trunk routes into sluggish channels by its continuous interference with through traffic. Therefore, adequate planning of subdivisions and the proper relationship between future development and existing conditions with respect to sewer and water,



# GREATER WINNIPEG

ASHBOURNE BROOKLANDS CHARLESWOOD EAST RADONAR FORT GARRY ST BONIFACE  
 ST JAMES ST VITAL TRAFALGAR TUZEDO WEST BILDONAR WINNIPEG  
**MANITOBA CANADA**

METROPOLITAN PLANNING COMMITTEE  
 AND  
 WINNIPEG TOWN PLANNING COMMISSION

ERIC W THRIFT DIRECTOR EARL O MILLS CONSULTANT  
 TIME BUILDING WINNIPEG SAINT LOUIS MISSOURI USA

## MAJOR THOROFARE PLAN

- LEGEND**
- THOROFARES OF SUFFICIENT WIDTH
  - - - - - THOROFARES TO BE WIDENED
  - NEW THOROFARE EXTENSIONS AND CONNECTIONS

SCALE IN FEET

roads, arterial roads, transportation and other similar factors, has a vital bearing on the economic as well as the physical success of such future development.

One of the other factors which has a rather vital bearing on urban geography is the topography of the region. Winnipeg is situated on flat prairie land that was covered by ancient Lake Agassiz during the Ice Age. This level shallow plain extends some 60 to 70 miles westward. The absolutely flat terrain makes drainage difficult, but it also provided no barriers to the establishment of rail lines and roads in whatever direction it was deemed desirable to run them. Typical of rivers in territory of this nature, the Red and Assiniboine which meet at Winnipeg, are slow and meandering, bending and turning in every direction. This creates loops which are accessible only by roundabout routes or via bridges. This and the drainage difficulties are the sort of problems created by this conformation.

### Planning Program

The following discussion deals with the various aspects of the planning work individually. These obviously are only parts of what must be a coordinated whole, and in studying them continuous reference must therefore be made to the studies and proposals developed in all the other fields.

### Thorofares and Traffic

Before considering a system of major trafficways to serve the Greater Winnipeg area, the data usually necessary as a background to such study and as a foundation upon which to build was gathered. This included plans of the present street system, present widths of streets, the extent to which the street system had been developed with roads and other services and a study of the reasons for the present form of the street system. This latter revealed that the foundation for the street system has been the old parish lot system of subdivision, which had been established by the early colonists. Each settler wanted access to the river, so their farms or "lots" were laid out as long, narrow strips leading away from the river. The variation in lot width, the different angles of the lots grouped into the various parishes and similar irregularities were not conducive to an orderly and easily planned development for those who followed. Winnipeg is fortunate that the street system of today works as well as it does, in spite of urban subdivision having been worked out within the limits established by the river lots.

The unit of measurement was the chain, and of course this is reflected, as it is in many places, in the width of streets, the most common of which is the 66-foot or one-chain street. Wider ones were provided at one and one-half chains (99 feet) and some few at two chains (132 feet). Winnipeg's two most important thorofares, Portage Avenue and Main Street, are typical examples of these generous street widths, both being 132 feet wide.

Many of these wider streets provide an excellent foundation for the establishment of a well connected and direct system of main traffic routes throughout the area. The proposed Major Thorofare Plan attempts to make the most practicable use of this heritage of wide thorofares in Greater Winnipeg, so that in the future they can be built into an integrated network. This proposed system is shown in Plate 6.

The widths recommended for the paving of the streets in the thorofare system were based upon the widths required for lanes of moving and parked cars. On minor residential streets moving traffic lane widths of 9 feet and parking lanes of 8 feet were recommended with the standard residential street providing one parking lane and two moving lanes or a total pavement of 26 feet. On thorofares a moving traffic lane width of 12 feet and a parking lane width of 9 feet were recommended. This means that a secondary carrying two lanes of moving traffic and two parking lanes would require a pavement width of 42 feet, a major thorofare carrying four lanes of moving traffic and two parking lanes plus a four-foot divider strip would require 70 feet of paving and a major thorofare having six lanes of moving traffic and two parking lanes plus a divider strip would require 94 feet of pavement.

Incorporated in the recommendations set out in the report dealing with streets and thorofares, are a series of basic principles for application as a set of regulations to control the development of subdivisions in order to ensure that conflict is avoided and that unnecessary hardship and expense in the future is precluded.

Since the time that the thorofare studies were started, many problems have arisen in connection with current development work, for example, the determination of future widening alignments (homologations) and the planning or replanning of street system for new development. Typical of such studies are those shown in Plates, 7, 8, and 9.

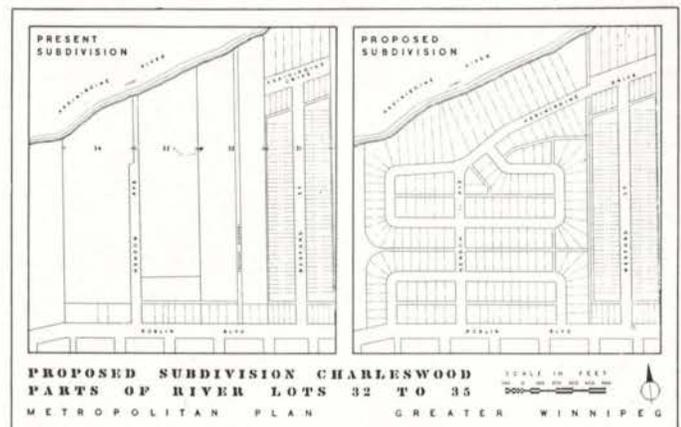
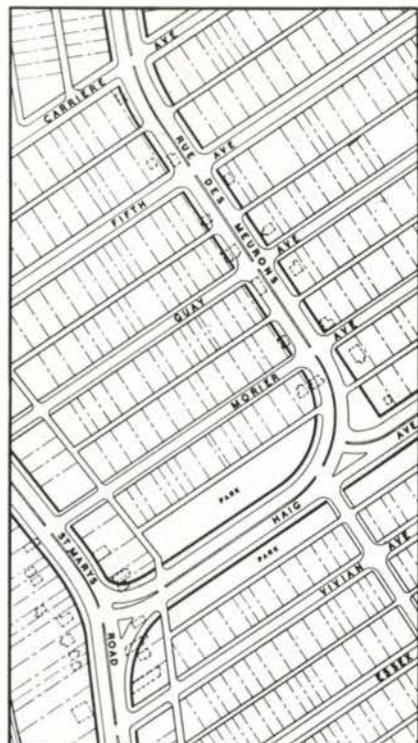


PLATE 7

### Transit

The service offered by a transit system, whether operated by a private company or by the public through its officers, is generally acknowledged to be essential to



EXISTING CONDITION · INITIAL DEVELOPMENT · LONG RANGE DEVELOPMENT

**PROPOSED CONNECTION IN ST VITAL  
ST MARYS ROAD TO RUE DES MEURONS**

METROPOLITAN PLAN

G R E A T E R   W I N N I P E G

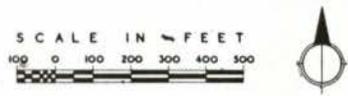


PLATE 8

the proper functioning of the large urban community. Transit facilities exert a major influence upon urban growth and development in Greater Winnipeg as in most other cities, and properly handled they can be very useful tools in moulding the future form of a city.

In the past the provision of transit service has been the cause of the development of many sections as residential areas in the outlying parts of many urban centres. In recent years, however, the increase in automobile ownership has created a formidable competition to transit systems. This ever-growing auto traffic volume has created problems of its own in congestion of streets and demand for more and more parking space. Such conditions have caused transit authorities in the U.S.A. to study the moving capacity of buses and street cars as compared with private automobiles in terms of numbers of people on a given unit of street space within a given period of time. The study has indicated that a single moving traffic lane on a street with grade crossings can carry in a similar period 13,500 passengers in street cars, 9,000 in buses or 1,575 in private automobiles. This points to the obvious fact that if more people used transit service in their movement about the city it would relieve the traffic congestion. It then becomes a problem of designing a transit system and providing it with

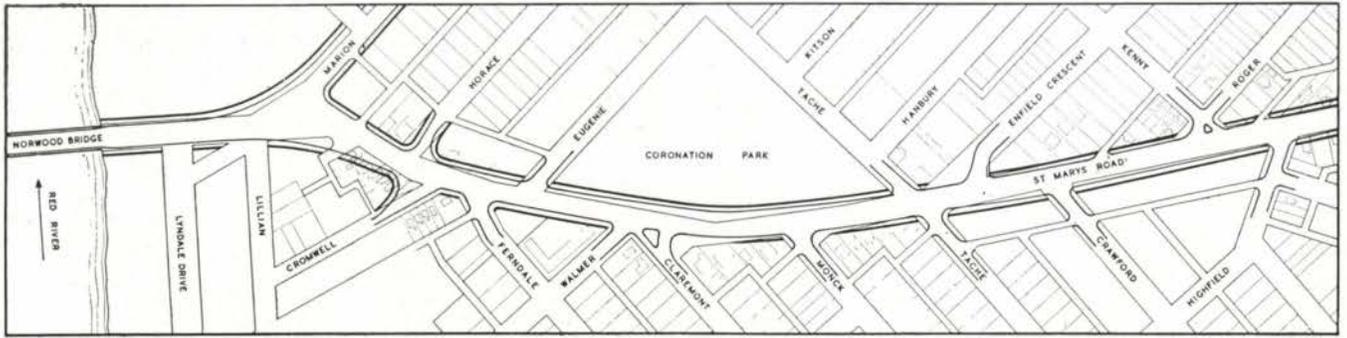
equipment that will in the future attract the public to its use and help to relieve the seemingly inevitable motor congestion.

Transit facilities in Greater Winnipeg have been growing ever since the introduction into the city of horse cars in May 1882. Ten years later electric cars were put into service and this new company bought the horse cars two years later and took them out of service. Over the years the system has grown and been modified in many ways. Routes that were at one time served by street cars are now served by buses or the newer trolley coaches.

**Present Facilities**

The backbone of the present system of transit service in Greater Winnipeg, shown in Plate 10, is the Portage Avenue—North Main Street car route. Several of the other routes have been changed from street car to trolley coach operation in recent months which has altered the pattern of route operation and connection considerably.

The flat terrain of the area has been advantageous in developing transit lines but the meandering nature of the rivers has created pockets which are difficult to serve efficiently. In some measure this is also indicated in



## PROPOSED ST MARYS ROAD WIDENING ST BONIFACE AND ST VITAL

METROPOLITAN PLAN

GREATER WINNIPEG

SCALE IN FEET  
100 0 100 200 300 400 500



PLATE 9

Plate 10. This drawing illustrates a further problem of the transit service. Within the thirty-minute walking range of the centre of the city we find almost a third of the total population. This is an important factor in accounting for the 35% differential between winter and summer demand for service. Thus, the greatest loads come in the winter, a season when the climatic conditions make operation more difficult.

Together with such studies as these, consideration was given to the relative flow of transit vehicles on the various routes, unnecessary multiplicity of service, the relative time required to reach all parts of the area and other data dealing with passenger volumes, route and vehicle efficiency headway, and the like.

### Proposals:

As well as suggesting an improved plan for the eventual development of the transit route system, several other matters were considered and proposals formulated with respect to them. In doing so, certain standards were adopted generally based on accepted standards recommended by the American Transit Association and other authorities.

The standard service area of any transit line was accepted as being the area within one-quarter mile of the line. This is about a five-minute walk which is considered a reasonable maximum. Where density of

development is not sufficient to make lines pay, then walking distances frequently must be a little greater.

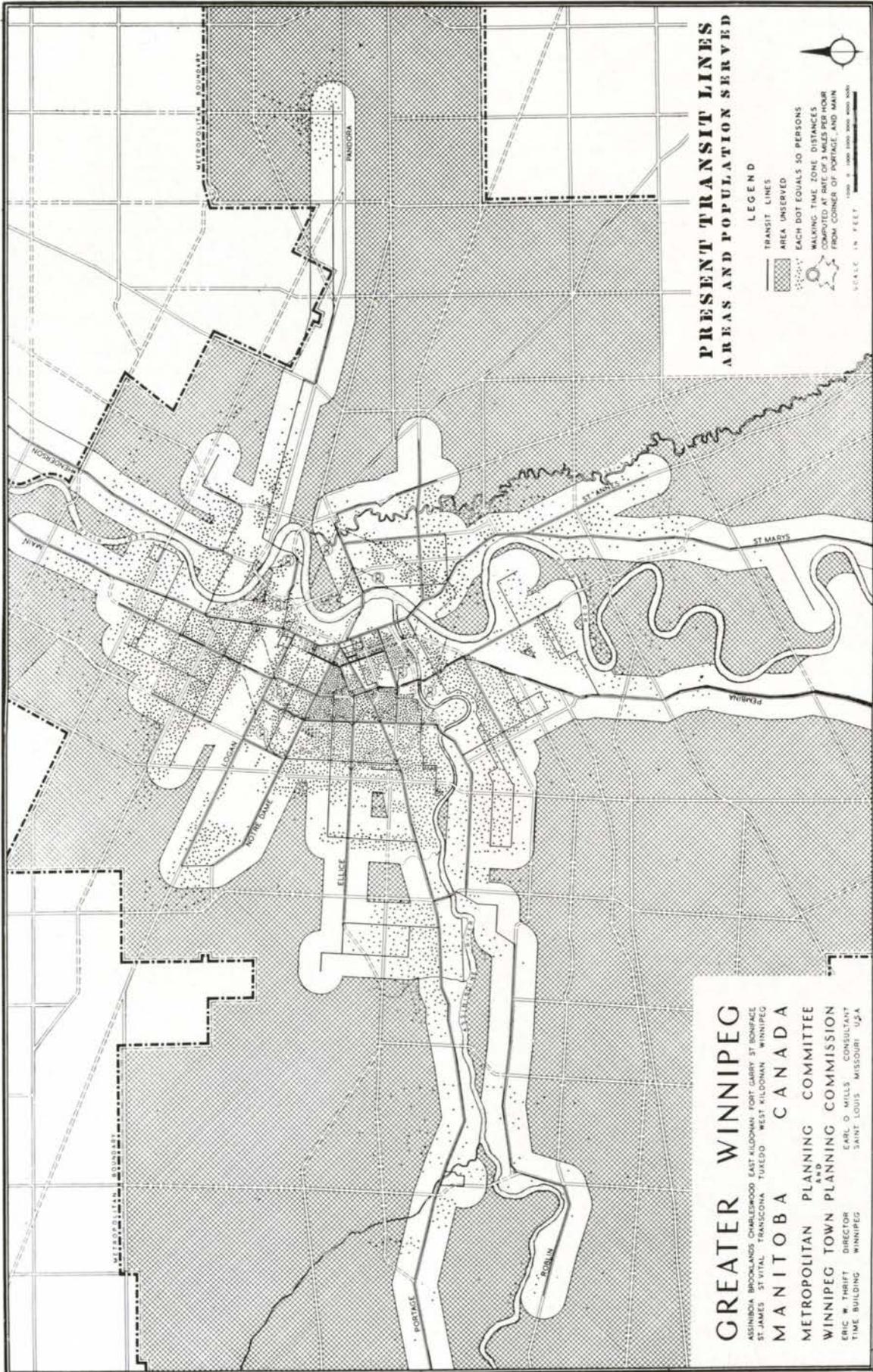
The standard accepted for headway was a 15-minute interval between cars and buses for minimum service. This would, of course, have to be reduced considerably during peak hours.

The Canadian Transit Association has published figures indicating that street cars perform most efficiently on routes requiring headways up to five minutes, the trolley coach on routes requiring headways of from five to ten minutes, and motor buses on routes requiring headways of twenty minutes or more. The nature of the route and the ease with which the vehicle can be manoeuvred also affect this question.

It was suggested that the maximum number of through routes be established (that is, routes which go straight through rather than loop in the Central Business District) consistent with load characteristics.

In the location of new routes and the relocation of present ones it was strongly recommended that the transit routes make the maximum possible use of the streets designated as major thoroughfares.

Several other matters are dealt with, such as equipment standardization, fare collection at downtown stops, the location and arrangement of bus stops and the value of an Origin-Destination survey.



**PRESENT TRANSIT LINES  
AREAS AND POPULATION SERVED**

**LEGEND**

- TRANSIT LINES
- AREA SERVED
- EACH DOT EQUALS 50 PERSONS
- WALKING TIME ZONE DISTANCES COMPUTED AT RATE OF 3 MILES PER HOUR FROM CORNER OF PORTAGE, AND MAIN

SCALE 1 IN. = 1000 FEET

**GREATER WINNIPEG**  
 ASINBOYA BROOKLANDS CHARLEWOOD EAST KILDONAN FORT GARRY ST BONIFACE  
 ST JAMES ST VITAL TRANSCONA TUKELO WEST KILDONAN WINNIPEG  
**MANITOBA CANADA**  
**METROPOLITAN PLANNING COMMITTEE**  
**WINNIPEG TOWN PLANNING COMMISSION**  
 ERIC W. THRETT DIRECTOR  
 TIME BUILDING WINNIPEG  
 CARL O. WELLS CONSULTANT  
 SAINT LOUIS MISSOURI U.S.A.

PLATE 10

Plate 11 indicates the system of routes proposed for eventual development.

Throughout the studies on this subject the planning body was fortunate in having the close cooperation of the Transportation Department of the Winnipeg Electric Company, which operates the transit system. The value of close cooperation and an understanding of common problems is born out by the fact that in a current three million dollar modernization program, the transit company is closely following the Metropolitan Plan recommendations.

### Transportation

The studies on transportation were divided into four classifications – Rail, Air, Motor and Water – and are discussed in that manner.

### Railways

Any study of Greater Winnipeg makes it obvious that the railways have played an extremely significant part in its development. Its original location was determined before the railways were built but the large areas occupied by rail yards and the numerous lines fanning in almost every direction have established a pattern over the area which has affected all other development.

Before the Dominion Government amalgamated the several railway systems which made up the Canadian National Railway in 1922, three transcontinental lines passed through Winnipeg and had established extensive yards, shops and terminals in the area. These were the Canadian Pacific Railway, the Grand Trunk Pacific and the Canadian Northern. Of these the Canadian Pacific Railway yards in Winnipeg are considered the most extensive yards owned and operated by one private railway company in the world.

At present there are two large transcontinental systems, the C.P.R. and the C.N.R., together with two small railways, the Midland Railway of Manitoba and the Greater Winnipeg Water District railway which operate into Winnipeg. Plate 12 indicates the extent of railway and other transportation facilities in Greater Winnipeg, and notes many of their characteristics.

There are several instances of duplications of lines, and of course, the common problems of a multiplicity of grade crossings, of blighted areas adjacent to rail facilities, and of poor integration of rail and street systems.

All of the difficulties of railway development as it relates to the urban community cannot be solved by ripping up and moving lines. It is generally a process of adaptation and evolution on both sides, toward a more satisfactory condition for both railway and community. A coordinated program for common improvements, based upon a comprehensive study of present and potential development of the area, is clearly advantageous to the railways and to the community as a whole.

Plate 13 indicates some changes of a physical nature that have been proposed. These involve –

- (a) Removal of the Harte Subdivision of the C.N.R. in south-west Winnipeg, and use of the Gladstone subdivision for main line traffic.
- (b) Removal of a spur line in St. Boniface running through the middle of this City's residential area.
- (c) Removal of a section of the Winnipeg Beach Subdivision of the C.P.R. which runs through an extensive residential area in North Winnipeg and West Kildonan.
- (d) Removal of portions of the Oak Point Subdivision of the C.N.R. which operates through Brooklands, southward on the St. James-Winnipeg boundary and across the Assiniboine River through south-west Winnipeg. Since it parallels a C.P.R. and Midland Railway right-of-way at a short distance, it was recommended that the three lines operate in a common right-of-way or on common trackage.

Together with these proposals, the elimination or protection of grade crossings and other similar suggestions for future improvement are made.

### Air Transport

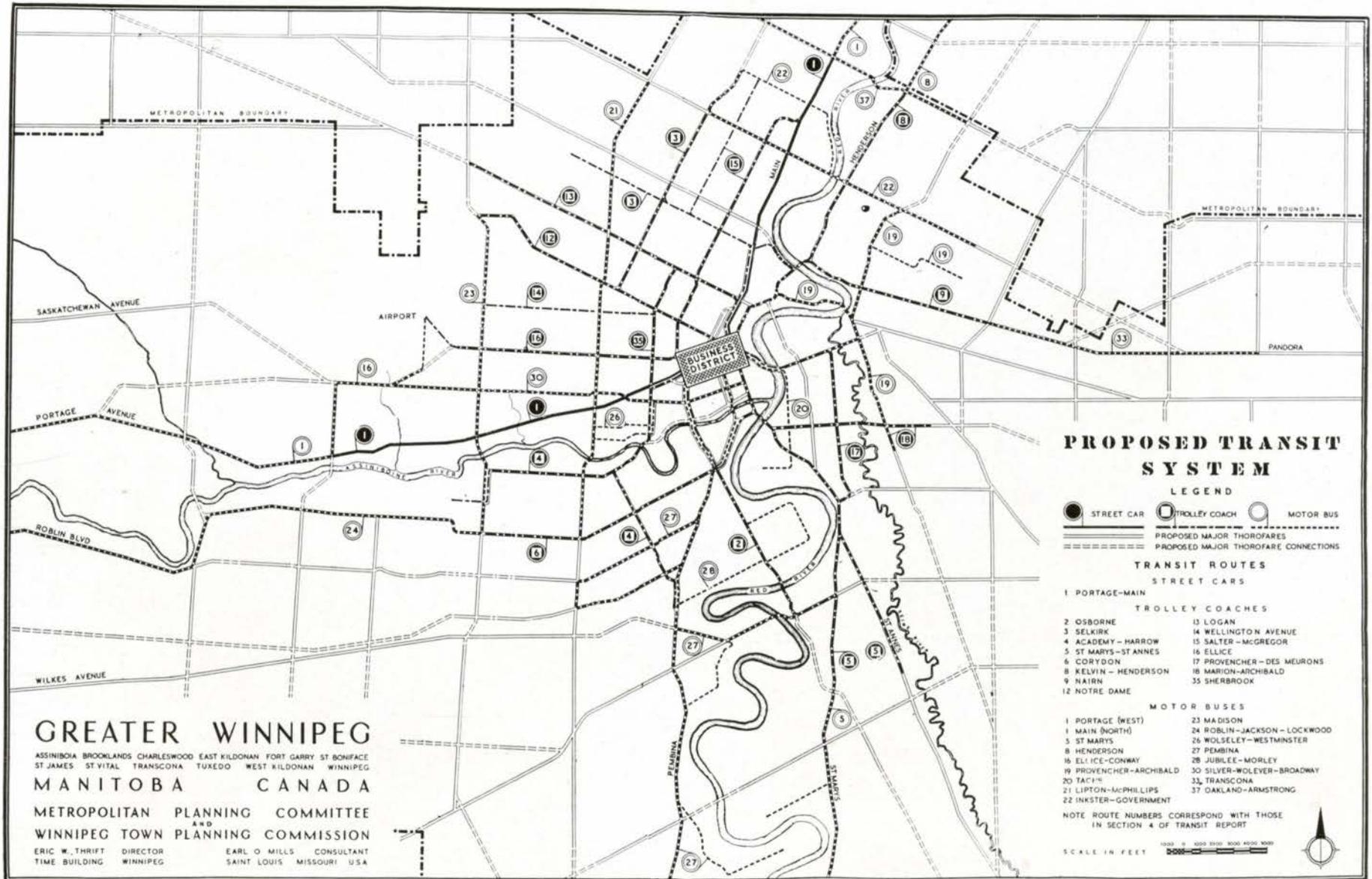
Air activity in the Winnipeg area has been going on since before World War I. It has generally been based upon two services, bush flying into the north and main line commercial development. There has been, however, extensive activity and development in private flying and military flying.

Stevenson Field, the present airport for Greater Winnipeg, was originally established on 160 acres of land in St. James in 1928. This field has been expanded and developed ever since, until it now serves as a base for commercial air lines, for R.C.A.F. operation, private flying, flying training and for aircraft servicing. It is the central repair and overhaul base of Trans-Canada Airlines and Canadian Pacific Airlines.

Unlike most larger airports, Stevenson Field is within fifteen minutes drive of the centre of Winnipeg, and is connected thereto by a direct route. The proximity, however, is not without its drawbacks, since it involves low flying over built-up areas for landings and take-offs and the noise is extremely disturbing in those areas.

Looking to the future, it was obviously necessary to expand the airport and extend the runways if the larger four-motor type transports were to be accommodated. This has been under way for some two years now and the railway line which formerly bounded the north side of the field has been relocated as shown in Plate 14, and the field extended northward. Longer runways have been provided and T.C.A.'s four-motor transports have been placed in service on the transcontinental run.

It is generally felt that Stevenson Field is adequate, and with present changes, will serve the needs of the larger transport planes just recently put into service. It is also felt, however, that there will be a considerable increase in private flying, and that at some time in the near future, it might be necessary to segregate some of



### PROPOSED TRANSIT SYSTEM

- LEGEND**
- STREET CAR
  - TROLLEY COACH
  - MOTOR BUS
  - PROPOSED MAJOR THOROFARES
  - - - PROPOSED MAJOR THOROFARE CONNECTIONS

- TRANSIT ROUTES**
- STREET CARS**
- 1 PORTAGE-MAIN
- TROLLEY COACHES**
- 2 OSBORNE
  - 3 SELKIRK
  - 4 ACADEMY - HARROW
  - 5 ST MARYS - ST ANNES
  - 6 CORYDON
  - 8 KELVIN - HENDERSON
  - 9 NAIRN
  - 12 NOTRE DAME
  - 13 LOGAN
  - 14 WELLINGTON AVENUE
  - 15 SALTER - MCGREGOR
  - 16 ELLICE
  - 17 PROVENCHER - DES MEURONS
  - 18 MARION - ARCHIBALD
  - 35 SHERBROOK
- MOTOR BUSES**
- 1 PORTAGE (WEST)
  - 1 MAIN (NORTH)
  - 5 ST MARYS
  - 8 HENDERSON
  - 18 ELLICE - CONWAY
  - 19 PROVENCHER - ARCHIBALD
  - 20 TACHÉ
  - 21 LIPTON - MCPHILLIPS
  - 22 INKSTER - GOVERNMENT
  - 23 MADISON
  - 24 ROBLIN - JACKSON - LOCKWOOD
  - 26 WOLSELEY - WESTMINSTER
  - 27 PEMBINA
  - 28 JUBILEE - MORLEY
  - 30 SILVER - WOLFEVER - BROADWAY
  - 33 TRANSCONA
  - 37 OAKLAND - ARMSTRONG

NOTE ROUTE NUMBERS CORRESPOND WITH THOSE IN SECTION 4 OF TRANSIT REPORT

SCALE IN FEET

0 1000 2000 3000 4000 5000

**GREATER WINNIPEG**  
 ASSINIBOIA BROOKLANDS CHARLESWOOD EAST KILDONAN FORT GARRY ST BONIFACE  
 ST JAMES ST VITAL TRANSCONA TUXEDO WEST KILDONAN WINNIPEG  
**MANITOBA CANADA**  
 METROPOLITAN PLANNING COMMITTEE  
 AND  
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 ERIC W. THRIFT DIRECTOR EARL O. MILLS CONSULTANT  
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PLATE 11

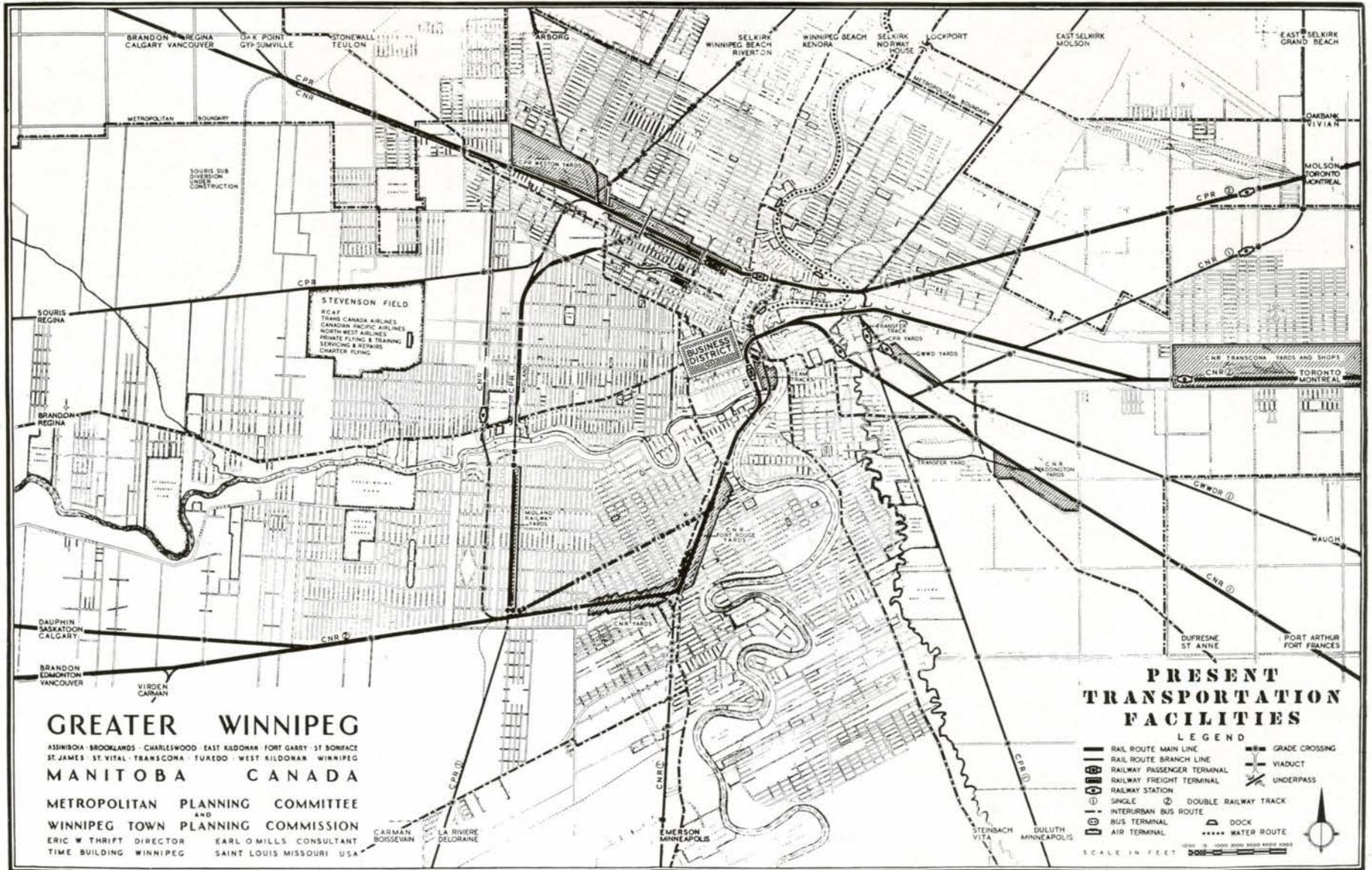


PLATE 12

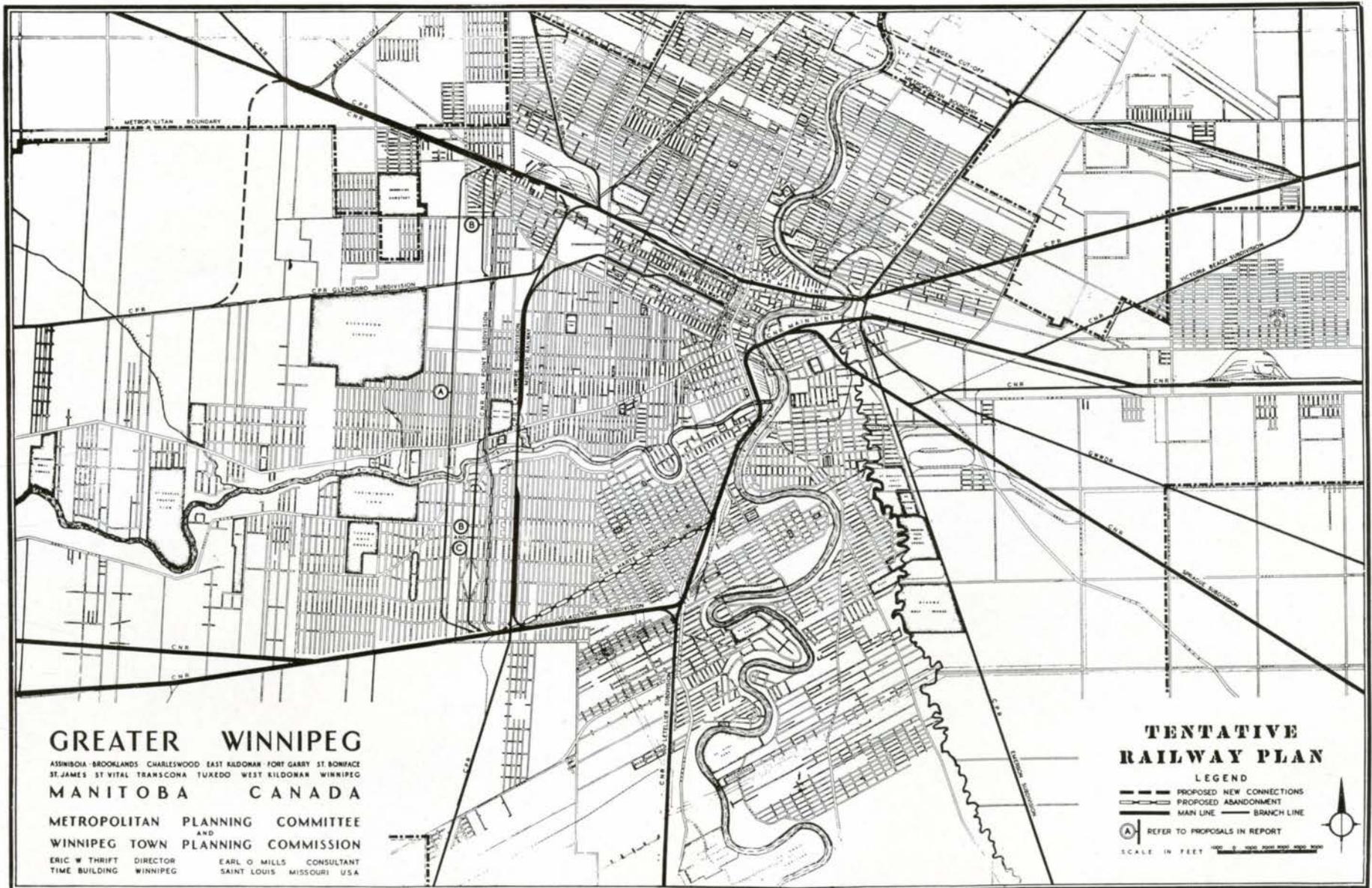


PLATE 13

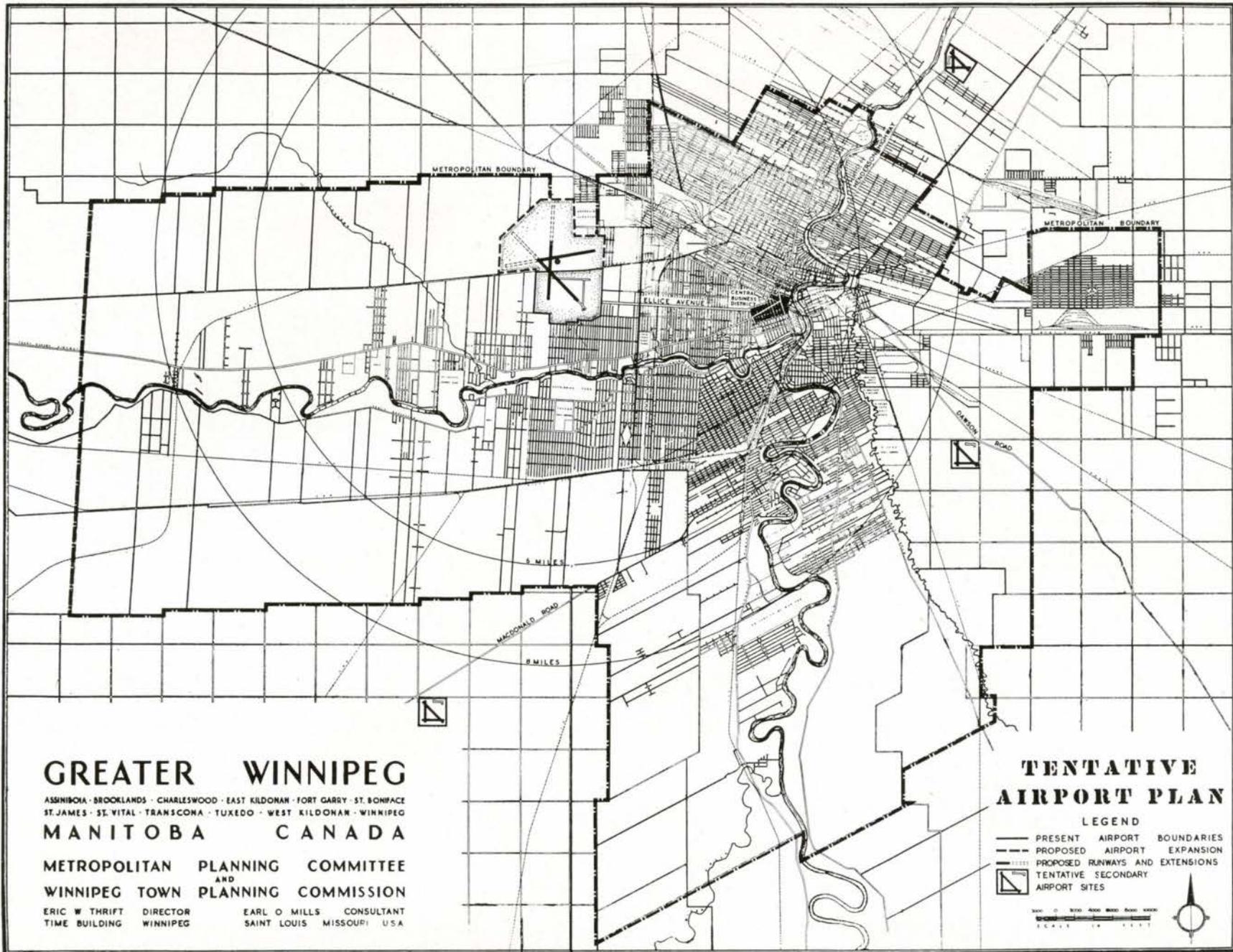


PLATE 14

the varied flying types of flying, such as flying instruction, private flying, sight-seeing, air taxi service and charter service, in order to eliminate congestion and unsafe operating conditions. This would undoubtedly mean that the small light type of aircraft will be forced to find other accommodation. It is impossible to state if or when congestion will be sufficient to make separation of flying services necessary, but it is a very definite possibility for the future, especially if Winnipeg's commercial plane movements continue to increase.

Actual aircraft density in the post-war years has been estimated by many persons, with estimates varying from one plane per hundred persons to one per thousand persons. No accurate prediction can be made at the present time, due to the many and varied factors influencing development, but it is fairly certain that there will be a notable increase. This increase will greatly influence congestion at existing airports, will necessitate the separation of flying services at some fields, and will require the construction of additional airports. Eventually, an integrated system of airports may be developed in a locality, with each field serving a specific need or service in the community.

Recommendations have therefore been made that sites be studied and selected for the establishment of secondary landing fields for much of the light plane flying. Some suggested locations are shown on Plate 14.

It has also been suggested that serious consideration be given to the provision of a water base in the area. The site formerly used at Brandon Avenue on the Red River has been restricted because of its location and other uses of the river. A good water base in the Greater Winnipeg area would provide direct air connection to the north during the summer months by pontoon equipped aircraft and would also make many lake resort and fishing and hunting areas accessible in a short time.

#### Water Transport

No protracted study was given the matter of water transport in the area, for the reason that it is at present quite limited and prospects of its increasing greatly are rather remote because of the short season during which the rivers and lakes are open for navigation.

The main water movements are those to and from Lake Winnipeg, carrying fish, lumber and miscellaneous freight. One boat operates a weekly passenger excursion to the northern end of Lake Winnipeg.

#### Motor Transport

Interurban bus travel in the region around Winnipeg is centred at the Union Bus Depot at Graham Avenue and Hargrave Street in the Central Business District. There are some twelve or more bus companies which operate over twenty-five different routes in all directions. The street adjacent to the site are already rather congested and future increase of traffic and bus movement will not improve the situation.

It was recommended that consideration be given to providing a more suitable site for the future replacement of the bus depot, so that congestion both on and around the terminal could be avoided.

It was also recommended that the routes used by these bus lines within the metropolitan area should follow major thoroughfares and refrain as much as possible from using minor streets.

#### Zoning

Zoning has been given serious and detailed study in the preparation of the comprehensive metropolitan plan. The studies have extended over a continuous period of three years.

Prior to the preparation of any zoning proposals the existing conditions generally controlled by zoning were recorded and mapped. This produced maps which showed the existing land uses, the lot area or ground space per family, the width of lots, the height of buildings and the set back of buildings from the street. Maps were also prepared which showed the extent and type of the existing zoning throughout the area and the existing building alignment regulations. Meteorological information covering more than three decades was obtained, and wind roses were prepared showing the average amount of time which the wind came from each direction, as a basis for the location of heavy industrial areas and their relationship to other uses. These are shown in Plate 15.

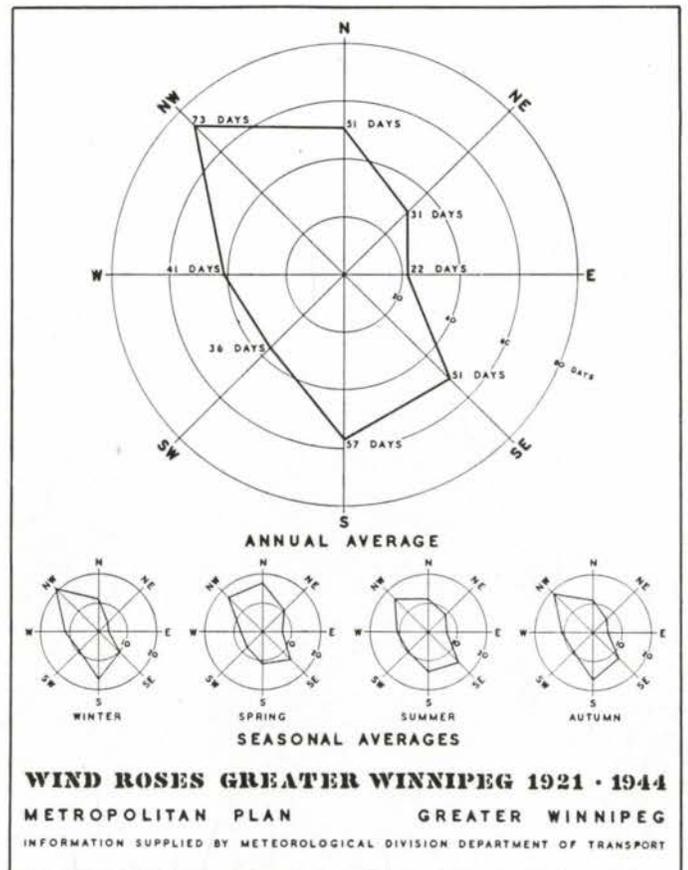


PLATE 15

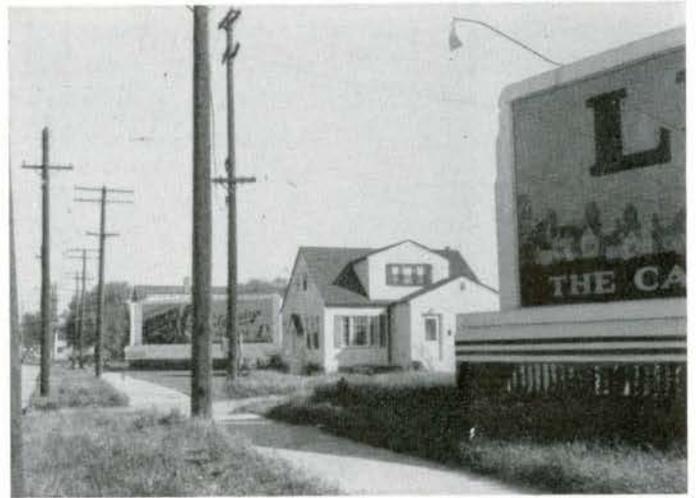
Data was assembled and collated on a large chart which indicates the relative amounts of land used for various purposes in the area, both public and private, and in the commercial classification studies were made of several areas to determine the foot frontage of commerce as it related to population. All of this was done in order to have as complete a picture as possible of the present conditions and present standards in the area.

Before specific zones or districts were applied, some consideration was given to the area which might be reasonably expected to develop for urban use as the population grows. This was based upon desirable population density with due consideration of present densities and finally fixed in consultation with the municipalities.

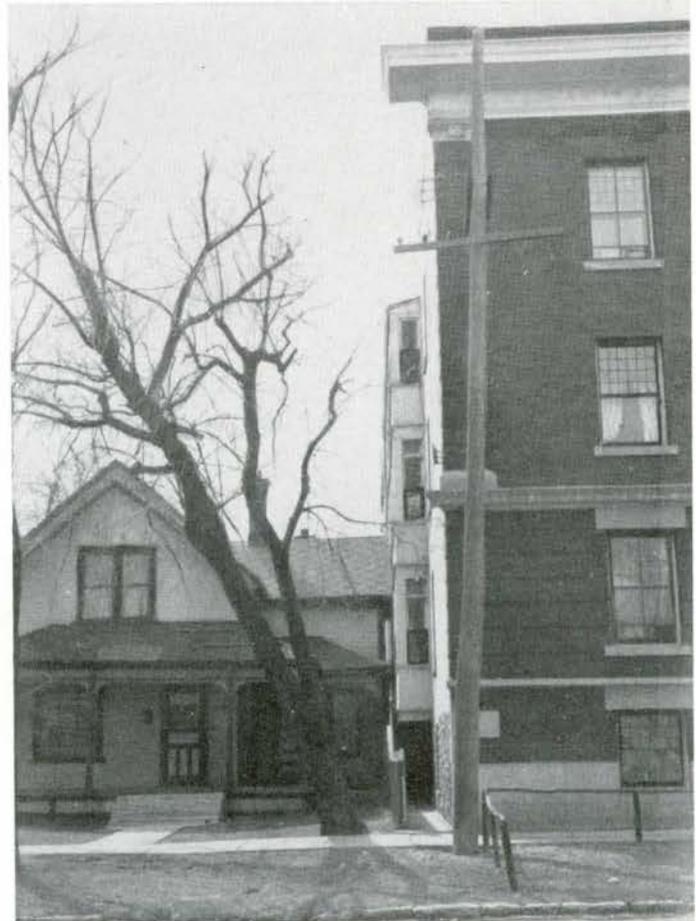
By fixing a limit to the area which may be urbanized it is possible to prevent too large and uneconomical an area being used for scattered subdivisions which add unnecessarily to the burden of the cost of municipal operation.

A sound scheme of zoning regulations and districts is based upon the proper provision of adequate space for living in pleasant, undisturbed residential neighborhoods, with adequate commercial service and provision for employment opportunities in business and industrial areas. It must, of course, be related to the other phases of comprehensive development as for example in the need for transport facilities for industrial areas, the effect of major thoroughfare location on neighborhood and school service areas, and the influence of the varying densities under zoning upon the sizes of proposed neighborhoods.

To be really adequate a thorough zoning system provides, in addition to use regulations, minimum requirements for spaces around buildings, control over excessive building heights and minimum requirements for the establishment of reasonable population densities. The draft zoning regulations proposed for Greater Winnipeg contain complete provisions of this nature.



Under the category of use regulations they provide for an agricultural district in the outlying rural areas, with a minimum holding of 5 acres, a suburban district with a minimum lot area of  $\frac{1}{2}$  acre, four residential districts which permit respectively one-family, two-family, three storey multiple and six-storey multiple dwellings, together with appurtenant uses; three commercial districts, a limited commercial for small islands in residential areas, a three-storey general commercial, and a six-storey general commercial; a central business



district permitting commercial on the ground floor and light industry above with a building bulk regulation; and three industrial districts, a three-storey light industrial, an eight-storey light industrial and a heavy industrial district. The location of the various types of districts and a summary of the regulations proposed for each are shown on the Proposed District Map.

In applying the zoning regulations to the various districts, the aim was to establish a coordinated and balanced system throughout the whole area, regardless of political boundaries.

One or two special regulations proposed in the by-law should be mentioned. One of the most discussed of these is the requirement of adequate off-street parking space in all districts, notably for buildings and uses which attract large numbers of people.

Originally a clause was included which required the removal of non-conforming commercial or industrial uses in residential areas within stated periods of time, based upon the type of construction. This was later replaced by a clause permitting these to be removed upon petition and charged as a public improvement in the area benefitted.

Since the zoning proposals were originally formulated, they have been subjected to almost continuous scrutiny for over two years. At first they were submitted to a Citizen Advisory Committee. This committee devoted seventeen meetings over a period of five months to the study. Following this, the proposals were reviewed by municipal councils and copies with some suggested revisions were printed for public consideration. Public meetings were held in several areas and later on a public hearing was held by the Winnipeg Town Planning Commission for the City of Winnipeg. Out of the discussion and the hearing came many suggestions, and the Commission spent some twenty meetings in reviewing them. Copies of both by-law and map were then produced, incorporating all changes resulting from this discussion which were approved by the Commission. At the same time other meetings and discussions were carried on in other municipalities.

After the Winnipeg Town Planning Commission presented its recommended regulations to the City Council it was referred to a committee of heads of departments who have been meeting as often as four times a week for seven months. They are still deliberating at this writing. Other municipalities are loath to put their proposals into law until the central city has done so.

It is unfortunate that the discussions on the zoning proposals have occupied such a protracted period, because zoning is one of the most useful instruments in the planning field for controlling undesirable development, and unlike public or private work projects, does not involve the expenditure of large sums of money. It can become effective immediately it is passed in bringing about gradual improvement in community development. Within the almost unprecedented amount

of building since the end of the war there has been some which has not been to the general advantage of the community.

## NEIGHBORHOODS —

### Schools, Parks, Recreation

The location of schools, children's playgrounds and local park areas are so thoroughly interwoven with the concept of neighborhood unity and development that all of these subjects have been brought together in one study of neighborhoods.

The standards for public schools, playgrounds, parks and recreation are based upon the principle that the elementary public school and its playground together with a quiet park, should be the centre of neighborhood affairs. This is the neighborhood concept which is accepted today by planners in Europe and America as the best foundation for urban residential development.

The neighborhood itself is conceived to be a unit of such size that one public school, located near the centre of the area, can serve adequately the scholastic needs of the elementary school population. Major and secondary thoroughfares, rivers and other natural barriers should skirt these neighborhood areas rather than bisect them, so that there may be free pedestrian movement to and from the neighborhood centre, without detour and without the hazard involved in crossing main streets.

It is also desirable that the public school and surrounding grounds, as well as being the centre of learning for children, should be developed as the social centre, with the school gymnasium and auditorium open after school hours for cultural, vocational and recreational activities of adults as well as of youth and children. The enormous investment already made in schools, playgrounds and parks will undoubtedly increase with greater use, but too much has already been expended to permit the limitation of activities to the hours of school sessions.

Development along the lines of this concept is essential to a re-awakened interest and increased participation in neighborhood activities. The development of neighborhood consciousness and pride is fundamental to achieving sound urban social relationships, and to halting the decay and decentralization process so evident in our cities today.

In the field of the development of the community and neighborhood pattern, a comprehensive study and recommendations have been prepared. These have been integrated with the studies on other phases of the proposed development of the area.

The obvious first step was to review the present facilities and existing natural community areas and record by map and otherwise the facts as they existed. All manner of data was recorded in tables and charts to produce as clear a picture as possible.

In the case of the existing parks it was pointed out that because of the foresight of those who influenced the development of parks in the early days of the com-

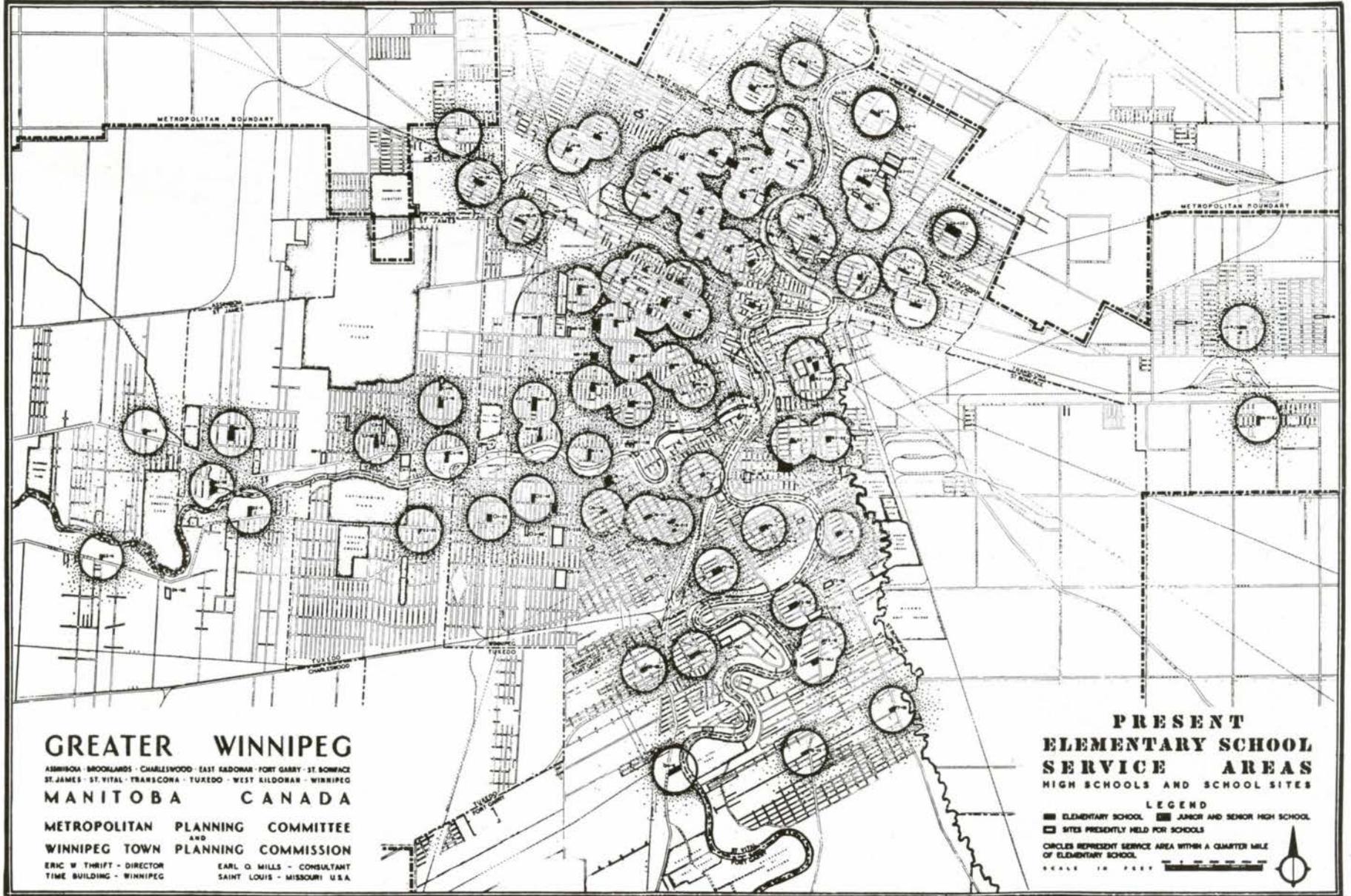


PLATE 16



ASSINIBOINE RIVER

munity and of the public who readily supported the cost, many small and some of the larger parks exist today, which were at that time in entirely undeveloped areas.

Both schools and parks are operated by separate boards in Winnipeg, although this is not the case with the parks in some of the other municipalities. The school boards are autonomous elected bodies while the parks boards are appointed by the councils to act in behalf of the council and to advise on policy.

The mapping of existing facilities and conditions revealed many of the problems in greater clarity. Such problems as the uneven distribution of schools and playgrounds, of overlapping of school service areas, of poorly served areas and the like, were emphasized sharply as shown in Plate 16.

The next phase of the study involved the establishment of standards which could be used in working out a system of neighborhoods and communities, served by adequate facilities.

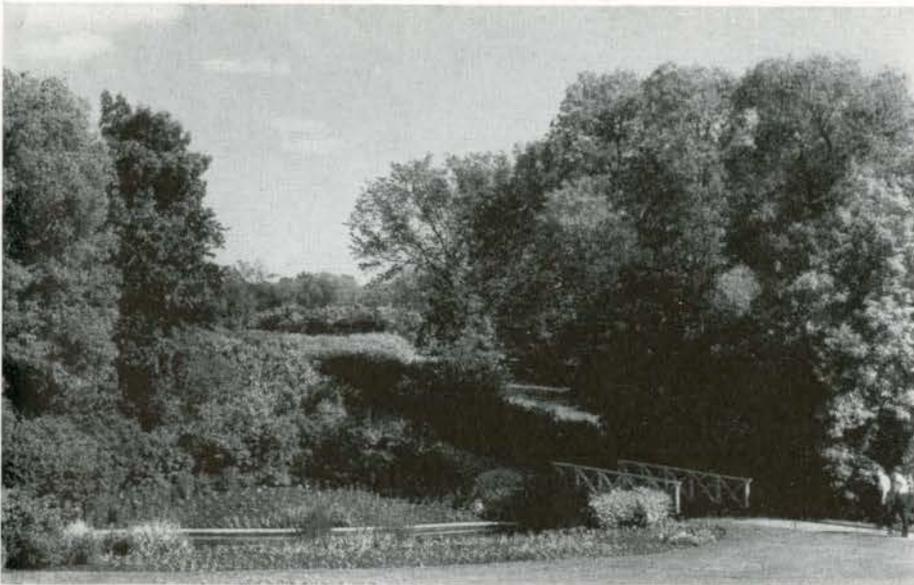
The first standard to be established was the size of neighborhood in terms of total population, school population, and area. The process of study used was rather more involved than space here will allow for detailed description. It was based upon study of existing population, probable future population to be expected under the densities permitted in the zoning proposed for the area, and upon elementary, junior and senior high school populations and their proportion of

the total population. The resultant standard or yardstick is shown in Plate 17. The goal thereafter was to attempt to establish community and neighborhood boundaries throughout the area which came as close as possible to meeting the standard of eight neighborhoods per community with the future population reasonably within range of the standard and arranged in such a way as to fit into the thoroughfare, railway and river system.

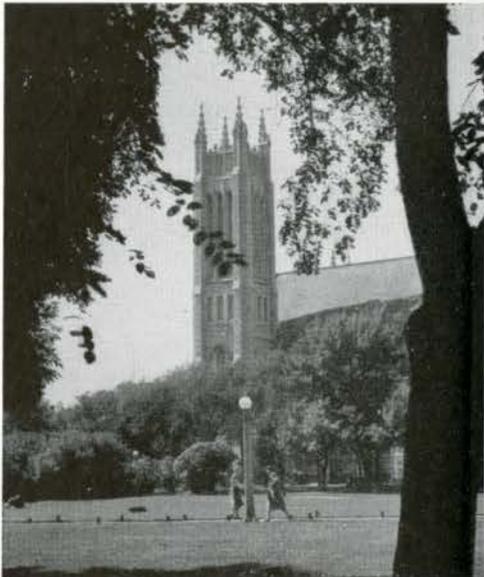
After the neighborhood standards were established, standards for the space needs for the school, playground and parks in each area had to be worked out. This applied to all age levels from the pre-schooler to the adult. There was much consultation of standards established by other authorities and from these and the standards already established for the neighborhoods a set of proposed yardsticks were evolved. These yardsticks are shown in Table 1. Within the neighborhood this provides playlots wherever possible for the pre-schoolers, an elementary school site  $1\frac{1}{2}$  acres, and playground 3 acres, and a neighborhood park 2 acres — a total of  $6\frac{1}{2}$  acres. Added to this in each community of approximately eight neighborhoods, it provides two junior high school sites and playfields, 12 acres each, and a senior high school and playfield site of 24 acres. This, as shown in the table, results in a standard or goal of a total 100 acres in a two square mile community area.

In order to illustrate some of the principles and standards that were evolved for the elementary school

KILDONAN PARK



CENTRAL PARK



CHILDREN'S PLAYGROUND



TABLE 1. STANDARDS FOR PUBLIC RECREATION AREAS, GREATER WINNIPEG, 1947

RECREATION AREA	STANDARDS
<p><b>WITHIN WALKING DISTANCE</b></p> <p><b>PLAYLOT</b> Active recreation for pre-school children (under five years)</p>	<p>2,500 to 5,000 square feet recommended. One per city block. Particularly for high density areas. To be provided by municipal bodies only as parts of larger recreation areas—otherwise by neighborhood groups or by private housing developments.</p>
<p><b>PLAYGROUND</b> Active recreation for elementary school children (ages five to eleven years)</p>	<p>3 acres minimum. 200 square feet per child. One per neighborhood of 4,000 to 6,000 population. Located at elementary school site. ¼ mile service radius.</p>
<p><b>PLAYFIELD</b> Active recreation for junior and senior high school children and adults (ages twelve and over)</p>	<p><i>Junior High</i> (ages 12-14) 12 acres for junior high school and playfield. ½ mile service radius. One for every four neighborhoods. <i>Senior High</i> (ages 15-17 and adults) 24 acres for senior high school, playfield and community centre. One mile service radius. One for every eight neighborhoods.</p>
<p><b>NEIGHBORHOOD PARK</b> Passive recreation for all ages</p>	<p>Two acre minimum. ¼ mile service radius. One per neighborhood, preferably in combination with elementary school and playground.</p>
<p><b>TOTAL AREA WITHIN WALKING DISTANCE</b></p>	<p>8 elementary school sites and playgrounds 4½ acres each, 36 acres; 8 neighborhood quiet parks, 2 acres each, 16 acres; 2 junior high playfields, 12 acres each, 24 acres; 1 senior high playfield, 24 acres each, 24 acres. Total—100 acres.</p>
<p><b>WITHIN METROPOLITAN AREA</b></p> <p><b>LARGE PARK</b></p>	<p>100 acres or more. One per 40,000 population. Located near outskirts of area to suit natural features.</p>
<p><b>GENERAL OR MISCELLANEOUS STANDARDS</b></p>	<p>40 to 50% of total recreation area to be devoted to active use.</p>
<p><b>TOTAL WITHIN METROPOLITAN AREA</b></p>	<p>In general, 10% of urban area.</p>

as one which can be used as a guide in building up such a system when portions of it can be developed and to help in doing this in an orderly fashion so that new additions will contribute readily to the total result.

**Central Business District**

The area which was originally settled by the first white pioneers in establishing the Red River colony has become the main business centre of the metropolitan area of Greater Winnipeg—a condition which is, of course, common among many of the cities of the continent. This area is now of the utmost importance to the region, because of the concentration of business buildings, stores, banks, theatres, hotels, and therefore of urban property values and constitutes the main centre of business activity for the metropolitan and for that matter for much of the west. Many of the services and functions which are found in such an area could not flourish if they were placed in areas where related business and services were not available. Even on the cultural side, it seems only possible to develop in a broad way where there is a concentration of urban population and physical wealth.

This central area is therefore studied particularly to seek some of the means that may be used to insure that

it is and remains physically sound, economically stable and to free it from the congestion, drabness and unsightliness that characterize the central areas of so many cities today.

The development of the area began with the early days of the fur trading posts of the Hudson's Bay Company and the North-west Company, taking on a more definite location with the coming of the Selkirk settlers and the slow establishment of small individual enterprises. It saw the passing of the creaking Red River carts and the coming of the railways which brought rapid expansion of trade and commerce and developed the great land boom in days after the turn of the century. The subsidence of inflated land values during World War I in turn had economic effects which were not even wiped out by the upsurge of the twenties. By this time, having felt the stress and strain of world economic conditions for a protracted period, this influence was carried through the depression ridden thirties to the war-torn forties.

One of the most significant enterprises was the establishment of the Winnipeg Grain Exchange, the influence of which was felt through many other forms of business. This had been made possible, however, by



Considered by many to be typical of the city is the width of the two main arteries, Portage Avenue and Main Street, which are 132 feet from property line to property line. Generally speaking, throughout the remainder of the central area the streets are 66 feet wide. While the problem of congestion on the downtown streets has not become as acute as in many other cities, it is still a problem that must be reckoned with if the city is to avoid many of the obviously growing difficulties which have done such harm in many other places.

In order to consider this problem competently, detailed information was recorded in report and map form which provided such material as pavement and sidewalk widths and capacities, curb openings, land development, traffic controls, pedestrian movement, truck movements and loading, parking, transit routes, and other transportation. Such facts as these revealed where some of the problems lay, particularly from the standpoint of circulation within and into and out of the area. The parking of automobiles is, of course, one of the foremost of problems with the off-street areas presently provided shrinking by the month as new building proceeds on vacant property that has been providing parking space heretofore. Increased volumes of traffic have forced further restriction of street parking and the result is a rapidly worsening condition for the person who wants to do business in the central area.

### Proposals

Out of the studies mentioned above and from studies made under other phases of the planning work, certain recommendations were formulated for further study and discussion. These proposals are at the time of writing being considered by a Citizen Advisory Committee at weekly meetings. The members come from many fields, all concerned with the fortunes of the Central Business District.

In the proposals for the future of the central area no suggestions for decentralization have been put forward for the reason that Winnipeg's metropolitan area has not reached that condition of overcrowding at the centre which makes decentralization of certain functions a desirable aim as it is in such large cities as London, New York and other large metropolitan concentrations. The proposals for this area are made rather with the hope of guiding development in such a way as to make such drastic action unnecessary at any future time and at the same time to preserve and develop the advantages that have already been established.

### Zoning

Up to the present time the central business area has remained outside the control of any provisions of the existing zoning by-law. The proposed zoning by-law and district map mentioned previously recommend specific zoning regulations for this area to provide a better coordinated and planned business centre and to attempt to remove undesirable uses in the long run.

The grouping of common types of use which has been developing slowly in some sections is encouraged although there is no specific regulation recommended which would force such a movement, because it is felt that such a regulation would do more harm than good.

### Open Space

It has been suggested that wherever possible, small open spaces should be provided, particularly where public facilities are to be removed and replaced in more advantageous locations. Such spots are all too few and far between in most cities and Winnipeg is no different in this respect. A few of these reliefs to the solid mass of brick, stone, mortar and glass would bring a welcome note into otherwise concentrated areas.

### Land Value

The problem of the value of land and its relative use in the central area is of major significance due to the dependence of the city upon its large revenue producing capacity.

The Central Business District, through various forms of taxes and licenses, provides a large portion of the funds required to operate the city. Certain other areas, notably those immediately surrounding the central core, do not produce sufficient taxes to pay for municipal services received and must therefore be subsidized at the expense of more solvent areas. If present services are to be maintained, it is essential that areas with high values be maintained, and that those with low values be restored. The alternative, and there seems to be only one, is to raise the mill rate and consequently the taxes of all land owners throughout the city.

Some suggestions were made to help to maintain the sound position of the core area, which included:

- (a) A program for improving ingress and egress for the central area, largely based upon thorough recommendations.
- (b) Standards for off-street parking space.
- (c) Proper location of parking facilities.
- (d) Use of one-way streets where feasible.
- (e) Improvement in traffic movement.
- (f) Adequate control of sporadic commercial development in outlying areas.
- (g) Discouragement of further ribbon development and encouragement of expansion which will widen the area.
- (h) Improvement in adjacent substandard areas to relieve some of the unnecessary tax burdens created by these areas.
- (i) Adoption and enforcement of the proposed zoning.

Dealing with problems of movement in the area separately, the emphasis has been laid upon the traffic engineering aspects. Mention however is made of the need for adequate enforcement in conjunction with public education.

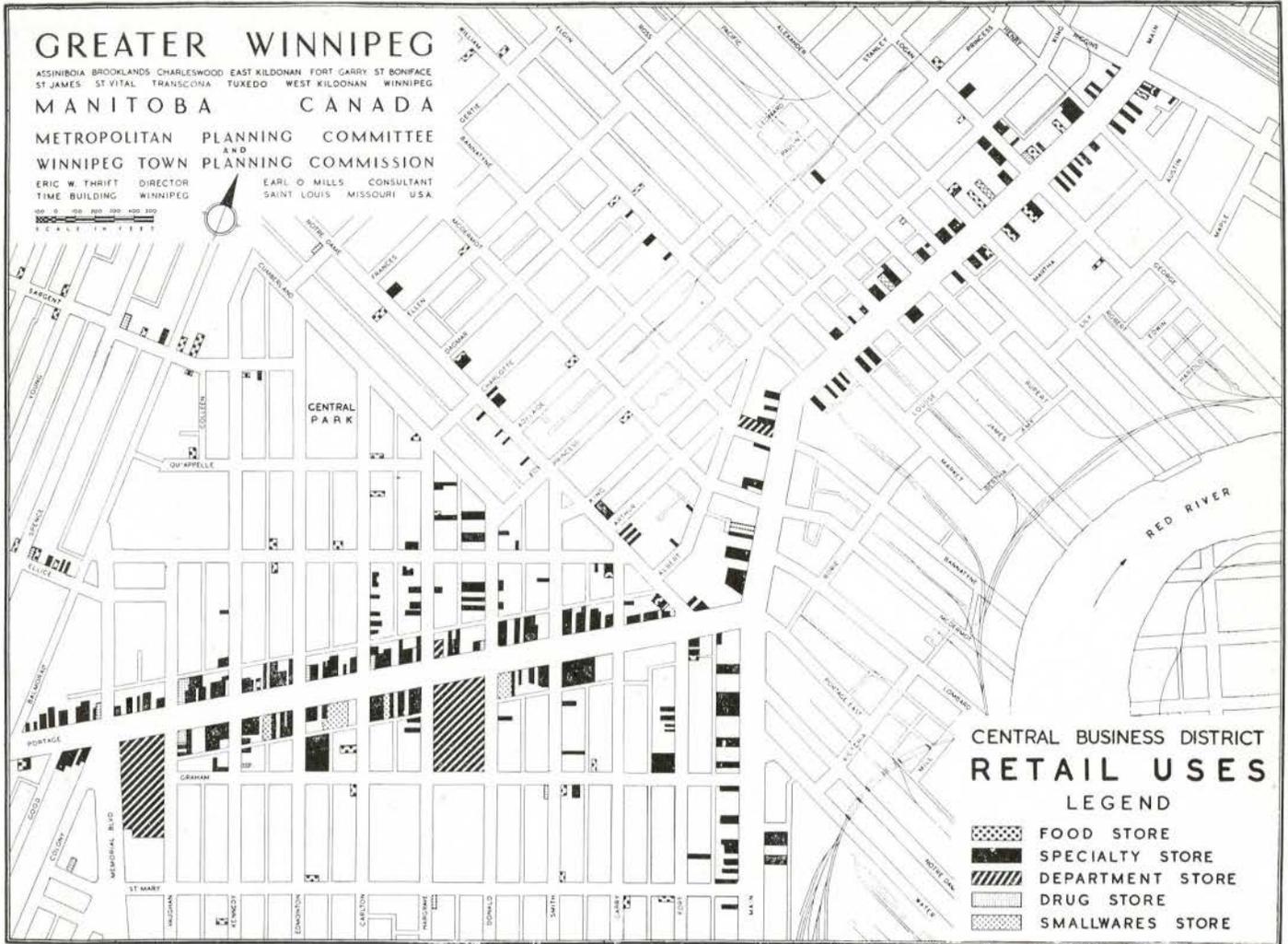


PLATE 19

Traffic surveys have also been recommended. These are deemed to be necessary to provide adequate basic data for complete and detailed traffic engineering studies.

Such basic recommendations as the use of standards for moving and parking lanes for traffic and the provision of an even number of traffic lanes on each street have been put forward. Also suggested has been consideration of the provision of adequate sidewalk widths to prevent excessive crowding in peak hours, the provision of adequate radii for curbs and corners, proper curb heights, reduction of unnecessary traffic openings on thoroughfares, adequate provision of service lanes, improvements to difficult corners, awkward street junctions, and narrow traffic bottlenecks, and thorough study of the traffic control system, both lights and signs, based upon recognized standards. To accomplish some of these goals it has been recommended that the building alignments (homologations) required on some streets be established immediately. Plate 20 indicates in a general way the location of the suggested improvements to the major street system in the downtown area. This was not intended as a map to indicate final alignments.

Consideration should also be given to the proper use of one-way streets where warranted, based upon sound traffic data and engineering practice, to the provision of pedestrian protection and traffic channelizing islands where protection and control are necessary, to the control of turning movements particularly to the left and proper use of control lights in this respect, to the provision of adequate pedestrian control through controlled traffic turns and walk lights and to the use and loading of excessively large trucks in the downtown area.

As in all cities of account on this continent, the parking problem downtown becomes increasingly acute daily because of the necessity for reducing street parking to permit more traffic movement and because many formerly vacant properties used for parking are being built upon. The question was considered in the light of the two basic types of parking, on-street and off-street. For off-street parking the obvious need is the maximum turnover per space available in the interests of the short-term parker. It is suggested that parking meters can be used effectively to serve this purpose and that excess revenue from them can be used to help to provide off-



- (a) in preserving the areas that are satisfactory to ensure that they remain so,
- (b) in restoring those areas that have slipped a little to a satisfactory level of residential use, and
- (c) in treating those areas that apparently are quite worn out and should soon be replaced.

The study therefore moved away from a determination of what houses lacked themselves, as adequate dwellings, toward a determination of what the neighborhood lacked that permitted whole areas to slip down. In the study of neighborhood structure it was evident that standards of community services and development have been rising over the years. It indicated too that many areas are deficient according to the standards that we consider adequate and necessary today and for the future. Schools, parks, playgrounds and shopping places are necessary and perform an essential service in meeting the educational, recreational and local social and commercial needs of the people in any area. Beyond the shortcomings of this nature which we see in many neighborhoods, there are outside influences which affect residential sections. The danger of excessive through traffic, including transit lines, the proximity of railway lines or yards with attendant noise and smoke, heavy industrial development which often creates unpleasant conditions and attracts larger amounts of traffic, are typical of such conditions.

#### Review of Existing Situation

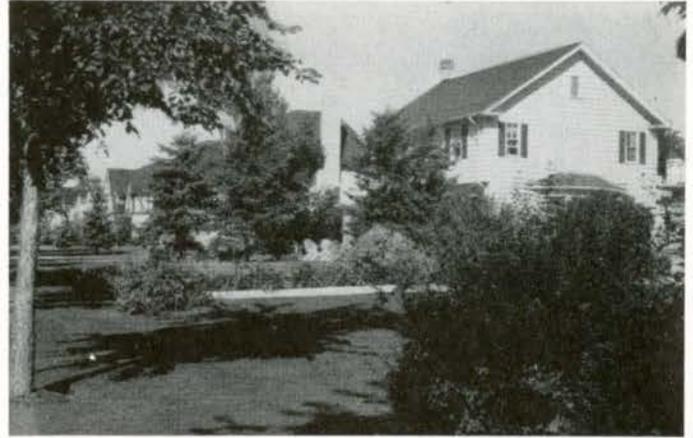
In order to provide a comprehensive background, a review was made of all action which has been taken by government at all levels to improve the quality of housing, to increase the quantity, to make more available to those with lesser incomes, and to provide veterans with housing.

A further review was made of general facts regarding housing conditions and their relationship one to the other, as revealed by statistics and information already available. This information supported what is already generally known, that many of the conditions of poor housing and undesirable residential areas are coincident with social and economic conditions which we consider undesirable.

A general assessment was made of the residential areas of Greater Winnipeg, to sort them into three broad classes —

- (a) those areas that are considered satisfactory at present
- (b) those areas that are considered to be blighted in one way or another
- (c) those areas that are considered to be substandard.

In this analysis, the term slum is not used for the reason that Greater Winnipeg does not have extensive areas which can properly be classed as slums. Dwellings which are bad enough for this classification are not grouped together all in one place, but are scattered in small groups and on occasion occur in single buildings.



Therefore the designation of definite slum areas is not entirely feasible.

#### Satisfactory Dwelling Areas

The areas classified as generally satisfactory were those in which dwellings were in good condition. The major problem in such areas is the prevention of the first seeds of blight, which may result from the deteriorating influence of older dwellings or from lack of adequate municipal or community facilities. In these areas vacant land can be a hazard unless adequate zoning exists to ensure desirable development in the future. It becomes, therefore, a job of providing adequate protection, planning for the necessary community facilities if there are any shortcomings, and encouraging new growth in an orderly manner on well designed subdivisions.

#### Conservation Dwelling Areas

Areas which have suffered some blighting influence or contain deterioration of one sort or another are classed as conservation areas. Here are seen scattered buildings needing repair, ill-placed and often isolated commercial uses, vacant areas zoned but unused for commerce, occasional rooming houses, crowded dwellings, houses with too little space about them, and streets crowded with parked cars and traffic because of lack of off-street parking for apartments and an excess of through traffic. Some or all of these may occur together,



but many of them are not conditions which are peculiar to the buildings but are part of the community environment within which any house, good or poor, must exist.

Such residential sections as this generally have, however, many sound features including good location and adequate transit service, a predominance of some structures suitable for average families, existing utilities and streets in good condition, adequate school and community facilities and often good parks.

In order to resuscitate some of these areas, a little work will be necessary. Obsolete buildings should be demolished and the land used if necessary for park or other open space or for new development. Traffic control may assist greatly in reducing undesirable and dangerous traffic. Some replanning may be possible in limited parts of such areas to provide a more desirable neighborhood pattern and sometimes to overcome noticeable physical drawbacks. All of these improvements can only be brought about through the cooperation of the residents and it is at this level, the strong community organization can be most effective.

### Substandard Dwelling Areas

The areas classed as substandard are indicated as those which require more drastic treatment to bring about desirable condition. They are characterized by physically deteriorated buildings, congested population and land use, traffic hazards, inadequate school, park and playground areas, and very often an ill assorted mixture of uses. Generally speaking, they impose a heavy burden of cost for services on municipal funds and contribute little in financial support of the municipal structure.



In some of these areas it is more desirable to devote them to industrial or similar uses rather than to redevelop them for housing. In such cases, residential use should be discouraged. In other places there are assets such as central location, existing utilities and sometimes community facilities and by replanning and rebuilding they can be brought to a quite satisfactory level of housing accommodation.

### Vacant Land

There are some vacant lands about Greater Winnipeg which are potential residential areas. It has been recommended that these lands be studied and that existing subdivision, if unsatisfactory, be revised to provide a more useful and economical type of neighborhood development.

### Survey of Needs

To determine the community's needs in terms of residential space and the facilities to serve it adequately, it has been proposed that the use of the 'Appraisal Method for Measuring the Quality of Housing' of the American Public Health Association should be seriously considered. By this method a balanced evaluation of the quality of housing can be obtained based upon all of the factors which affect housing as a place to live, including its environment and the services provided by the community.

### Legislation

Proposals are made that when the areas ripe for redevelopment have been determined by competent survey method, an administrative agency should be established to handle these areas. It would take the general form of a redevelopment body and it is suggested that where land becomes available it should be treated so as to conform to the comprehensive plan.

A Metropolitan Housing Authority is also proposed. This is entirely separate from the redevelopment agency mentioned above, in that its responsibilities would be confined to the provision of housing, particularly of the low-rent type. The advantage of a metropolitan authority for housing is that often families must be rehoused in outlying districts when removed from central substandard districts, and it becomes almost impossible unless some metropolitan body is established to handle it on a metropolitan basis. Moreover, it would avoid duplication of effort and service where Housing Authorities were required in more than one city or municipality and people in all sections would be treated equitably.

### Housing Projects—Residential Development

A number of standards are recommended at the conclusion of the discussion of Residential Areas for use in the planning and construction of future projects. These include site selection, site planning, including the arrangement of buildings, utilities, services, streets, walks, and the like, dwelling types, densities, recreational areas, landscaping. Here, as in other phases of the planning work, these standards are suggested as useful guides in carrying out some of the broad recommendations formulated by the planning organization.

In general terms this phase has attempted to provide some sound suggestions whereby everybody's home may really be just that within the full meaning of the word, in our modern urban society.

## Public Development and Civic Appearance

One other aspect of the urban area has been studied in an effort to provide a foundation for general improvement. This deals with the appearance of the area generally and the conditions that add or detract from its appearance value, as well as with public buildings and their contribution to the urban scene.

### General Appearance

Broad recommendations are set out dealing with a number of aspects of the question in the urban area. These include the following:

Conserving natural beauty by making the maximum use of rather limited resources in this regard. Improving the rivers and river banks and developing river drives keynote this work.

Good designs for bridges and underpasses and improvement in the appearance of those that exist, such that they will add rather than detract from the general scene.

Improved treatment is proposed for railway approaches which in most cities are none too sightly. In particular, the parallel approach of rail and main highway from the U.S.A. is cited as an example requiring improvement.

Good design and treatment of commercial and industrial buildings and sites which have all too generally disregarded this important question, is urged as of real business value. Planting around large industrial plants and around commercial buildings in outlying areas are suggested as examples.

Street design and planting is discussed and standards for such work are suggested so that any street can be developed with a pleasing appearance.



### Signs, Street Lighting and Utility Lines

Some suggestions are made of techniques that may be used effectively in improving the appearance of the community through the better handling and location of utility wires and poles, street lighting, street name signs, projecting signs and billboards.

## Public Buildings

Winnipeg, containing the legislative buildings of the Province of Manitoba, together with several other provincial government buildings, already possesses a grouping of public buildings. The setting of the legislature is particularly fine, surrounded by wide lawns and well treated with shrubbery, trees and flower gardens.

One of the current problems in the City of Winnipeg is the proposal to build a new city hall. The Winnipeg Town Planning Commission, on request of the special committee of City Council, studied a variety of possible sites on the basis of recommending a site that might in future be developed as a civic centre. Some six sites were considered and a decision reached after the various factors affecting the location of a civic centre had been evaluated and each site scored on the basis of these factors. The result was the recommendation of a site immediately north of the Provincial Legislature, upon which the old buildings of the Junior Division of the University are located. Since the University is to be unified on one site at Fort Garry, it was felt that this site might be made available. Later the Commission was informed that the site would not be available and therefore an alternate should be selected. Restudying the sites and the scores, the Commission recommended the present city hall site at William and Main, expanded into an adequate civic centre area. Recently the City Engineer's Department released a proposed design for the city hall which would be located on the present confined site and extend upward 27 storeys.

Too often in the past, the aesthetic appearance of the community has had primary consideration and many of its basic requirements have been lightly considered. The Metropolitan Plan-Greater Winnipeg has attempted to bring a proper balance between these two relationships. In studying the problems of any phase of the urban physical plant, one of the factors in mind was that of its appearance value and its contribution to the community as a better looking place to live. This is a factor which we can ill afford to overlook, for in the daily life of the people of any community the value of their surroundings to stimulate or to depress them cannot be underestimated. We are evolving gradually, we hope, a better and better place for people to live and work and we shall do so in some measure at the rate at which we make it acceptable to their senses as well as their physical needs.

### Public Works Programming

In order that many of the proposals of the planning organization may be integrated, with the regular works programme a technique for the long-range programming of public works was proposed. The primary purpose of this is to establish machinery whereby the probable requirements of the community in capital works can be sorted out and organized tentatively over a period of years, based upon the need for given works and the manner in which they can reasonably be fitted into

the municipal capital financing. This provides a means for analyzing relative need well ahead of time affording a defense against over enthusiastic lobbies and aids the financial officers by providing a tool whereby they can exercise better control and give sounder advice in the establishment of capital financing for given projects.

It is hoped that such a technique will afford councils, civic officials and the public with a means whereby each will be assisted in carrying out his responsibilities with greater facility and better mutual understanding. Confidence and understanding are one of the necessary foundations of sound government. If they can be fostered by such means, then that end in itself will have been worth while.

#### CONTRIBUTOR TO THIS ISSUE

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Born in Winnipeg in 1912, and educated in Winnipeg schools and at the University of Manitoba. B.Arch. obtained from the University of Manitoba with the R.A.I.C. and U. of M. medals. M.Arch. obtained from Massachusetts Institute of Technology.

Worked for various architects in Winnipeg and for the Hudson's Bay Company in buildings office until 1942.

Lectured at University of Manitoba in Architecture and Planning from 1942 to date spending the first year as full time staff member.

Carried out planning studies of four typical small towns for the Post-War Reconstruction Committee, Province of Manitoba during 1943 and 1944.

Acted as Industrial Design Consultant for a period during the war.

Director of Metropolitan Plan-Greater Winnipeg from 1945 to date.

Member: R.A.I.C., American Institute of Planners, Institute of Professional Town Planners, Council—Manitoba Association of Architects, Executive—Manitoba Division, Community Planning Association of Canada, Executive—Winnipeg Junior Chamber of Commerce 1942—1944.



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# NEWS FROM THE INSTITUTE

## GOVERNMENT REGULATIONS AND IMPORT RESTRICTIONS

The Institute has endeavoured to keep the members informed as to changing regulations with regard to import restrictions. However, it has now been found that the time element makes it impracticable to keep the members informed of all changes and amendments as they come into effect. It is, therefore, suggested that architects keep in touch with the situation through the daily press, and the Institute office will be glad to give any assistance possible as to specific items, should members wish to address inquiries to the attention of the Institute.

In this connection, it should be noted that Order-in-Council P.C. 2285, dated May 20th, 1948, suspends the operation of P.C. 1669 in certain respects. Copies of P.C. 1669 were forwarded to all members with the Institute's circular letter of May 22nd, 1948.

## INTERNATIONAL CONGRESS OF ARCHITECTS

The Congress of L'Union Internationale des Architectes is being held in Lausanne, in July, and Mr. Edouard Fiset, who is attending the Congress, is acting as the representative of the Institute. An International Congress on Town Planning is also being held at Zurich during this same period, and Mr. Fiset will also represent the Institute on this occasion. It is hoped to have an interesting account of these two important events prepared by Mr. Fiset on his return for publication in a future issue of the *Journal*.

## EMPLOYMENT OF GRADUATES

Coincident with preliminary discussions by the Institute Executive on the same subject, a request has been received from the Ontario Association of Architects suggesting Institute study of the vital matter of employment for the large number of graduates who study and it is hoped will leave the schools in 1950, 1951 and 1952. Action will result from a special committee of the Institute, consisting of the President, Mr. Charles David, and Mr. Harland Steele. The Committee invites the members at large to submit information and suggestions which will help in a solution of this problem.

## REGISTRATION FEES AND INCOME TAX

Representations have been made to the authorities with regard to allowing professional registration fees of salaried employees to be deducted for income tax purposes. It is regrettable that an adverse decision has been communicated to the President by the Minister of Finance under date of June 25th, 1948, as follows: "When Bill 338, which is the income tax revision, was

being considered, very careful consideration was given to recommendations which had been made by interested groups on this problem. It was decided that such a deduction should not be allowed. This decision was in accordance with the long accepted taxation principle which states that salaries and wages shall be considered to be net income and shall not be reduced by the allowance of any expenses.

"In computing income no deduction shall be made in respect of (a) an outlay or expense except to the extent that it was made or incurred by the taxpayer for the purpose of gaining or producing income from property or business of the taxpayer."

## ALBERTA

Recent examinations of candidates for admission to junior and senior status of the "Architectural Draftsmen of Alberta" raise some questions regarding architectural education generally. The particular examinations referred to were concerned with draftsmen working in offices and having no university training. In spite of the fact that the profession becomes more and more recruited from schools of architecture there will probably always be quite a considerable number of men and women who, from force of circumstances or even by preference, come into the profession through the original method of office training. The association referred to consists of persons in this class. That they should, on their own initiative, unite in an association with the purpose of improving their training and knowledge does them great credit. It is unfortunate that the passing of these examinations gives these students no official standing in the profession. They are only looked on as trial runs and possible preparation for ultimately sitting for the examination for registration as practising architects.

Regulations now produced by the Manitoba Association suggest what may prove a more satisfactory arrangement. These regulations provide for a series of examinations through a ten-year period, generally in two subjects at a time each two years. History of Architecture is an exception being taken alone as the first examination of the series. This system has what seems to me a great advantage in that subjects taken thus separately at wide intervals can be more competently studied. A single series of examinations in all subjects answered in about half a dozen consecutive days is a very unsatisfactory test.

The method so far followed by the Architectural Draftsmen of Alberta is frankly intended to be educative. For this reason much stress is laid on preliminary requirements in the form of testimonies of study sub-

mitted before admission to sit the examinations and a point is made of returning to candidates their answer papers annotated by the examiners. With the same object a general oral examination is held in which all examiners and all candidates meet together, discuss all the subjects and have a general interchange of ideas. This last might not be so effective if there were a large number of candidates. I think it would be well if some such regulations as those of Manitoba were adopted throughout Canada.

I have frequently been assigned the part of examination in Historical Architecture and Ornament. I find some inclination to look on this subject cavalierly as being one a little on the side. It is, however, the fountain-head of all we can think or do about architecture. Why, of all artists, should architects imagine that they are competent to do without intimate acquaintance with their glorious heritage from the storied past? Milton, Browning, Shelley, Keats amongst poets drew deep inspiration from ancient Greece and Rome. The drama of Sophocles, Moliere and Shakespeare is not discarded and neglected by dramatists, nor the paintings of Leonardo and Titian by painters, except at their peril. But amongst architects and even in works on architecture there is a strange tendency to neglect and even to decry the works of the past. Surely these should be studied with a view to appreciating and absorbing some of the splendid qualities that they display. To do this is one of the highest of pleasures and furnishes the mind with standards to emulate in a manner suited to our day and circumstances. It is, in fact, of itself a liberal education.

*Cecil S. Burgess*

## QUEBEC

It is often good for one's morale to have a brief look at what is going on in other cities, at first hand, as well as through the pages of the *Journal*. Always, distant pastures look greener, and it is easy to get the impression that one's colleagues elsewhere are more fortunate in their clients, whose purse strings seem looser and whose architectural tastes appear better developed than those of one's own clientele. It may well be that one's colleagues are more assiduous in gently steering their clients out of the safe old ruts; though there is generally little time, in today's busy offices, for the basic training of laymen in advanced or even contemporary architectural thought. Progress in our art, the occasional building which steps out ahead, comes as often as not from the smaller offices or in slacker times.

Looking over the current activities of any importance, in Montreal, one finds little with any claim to distinction. The several new offices, hotel and commercial structures, under way or recently completed, are changing

the face of the central city, but, with the exception of the I.C.A.O. building, whose clean uncomplicated framing gives promise of a pleasantly simple mass to come, each of them is well within the tight traditional formulae of the last twenty years. The new industrial buildings in the neighbourhood, with one or two exceptions such as the spacious and airy Turner-Newall factory, again follow a fairly rigid pattern with one of the already trite idioms of contemporary design tried out around the entrances and office bays.

A quick look at Toronto's central area reveals a similar situation, although the indication there is that the clients (or the architects) have adopted a more recent pattern. It would be interesting to know how much salesmanship was required to persuade the University of Toronto's building committee to accept the massive but "modern" lines of the new Mechanics building, tucked in amongst its Victorian neighbours; or the refreshing little bookshop nearing completion under the trees by Hart House. This latter, especially, gives evidence of openminded clients and of architects anxious for the chance, and must encourage our colleagues in the Queen City to hope that someday some of the fun enjoyed in the schools may find its way into office practice.

It is apparent that today the most progressive architectural thought takes place in the schools. This was not always so, and is not entirely due to the uninhibited conditions of the school draughting rooms. If the students today are using the ideas and formulae of the great international masters, they are at least doing so with a free and adventurous approach which was not always evident in the student days of most of our contemporary practitioners. It is true that most of the students, even after graduation, will always be required to modify a little the more shattering ideas which call for nothing less than a revolution of the building industry as we know it, but it will be a pity indeed if the logic and aesthetic freshness which appears to be the broader basis of the best school work has not come to be accepted by the building public by the time even a few of the coming years' graduates have joined professional ranks.

If we who practise today have a duty to the profession and the conscience, (and time), to carry it out, it is to encourage, with every commission, a wider public appreciation of the best of contemporary architecture, and not to buckle under too easily to the reactionary tastes of so many of our Canadian clients. Building codes and techniques are being revised, and public preferences must be also. It is the old story of the merchandiser assuming too readily that the public knows what it wants and thinking it will buy nothing else.

*Campbell Merrett*

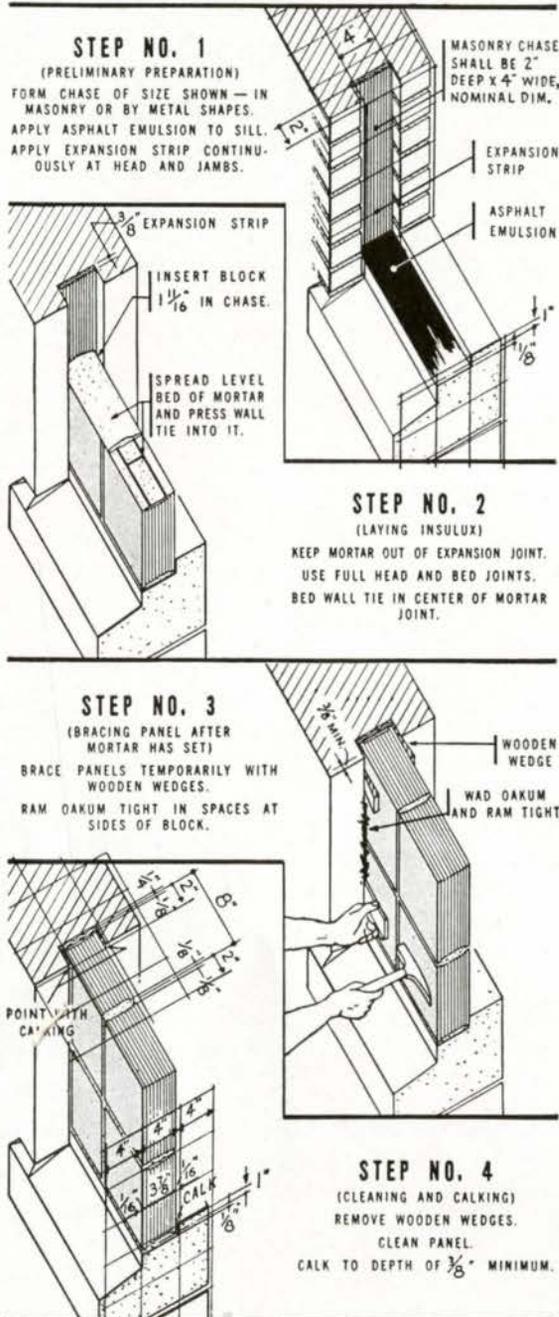
# Facts by Pilkington about Glass

## FOR ARCHITECTURAL STUDENTS

NO. 21 INSULUX HOLLOW GLASS BLOCKS  
(CONTINUED)

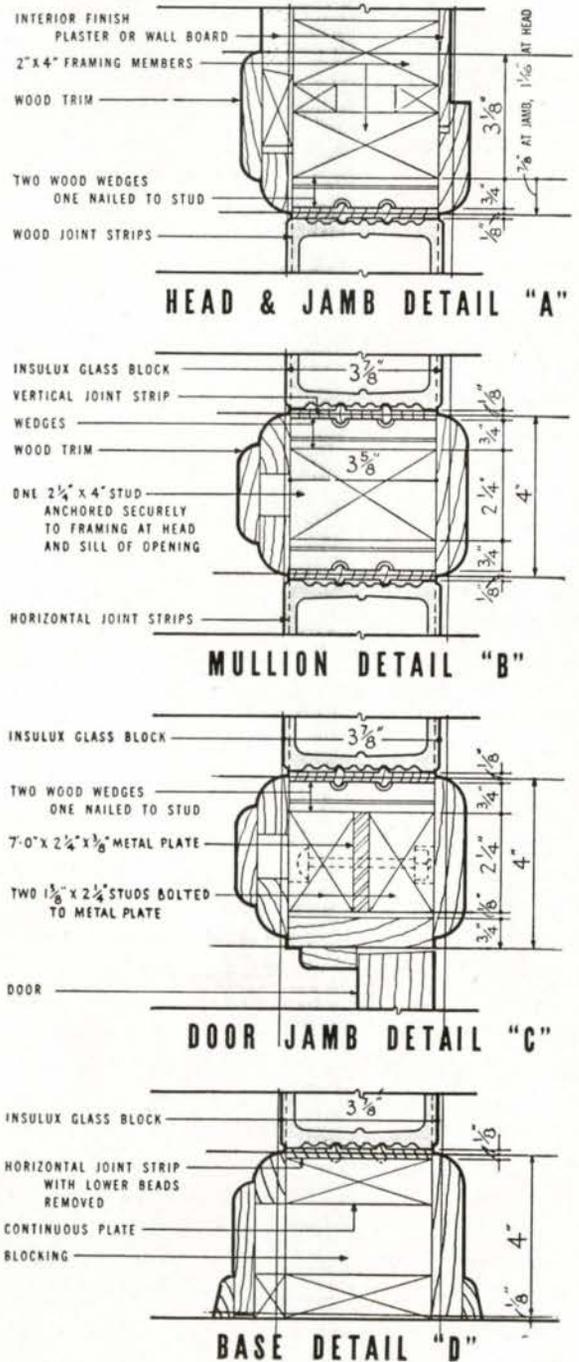
Illustrated on this page are two typical methods of installing Insulux Glass Blocks. There are many others and we are always glad to supply a folder giving complete information on Insulux Glass Blocks on request to any of our branches.

### ERECTION PROCEDURE



USE ABOVE IN CONJUNCTION WITH TYPICAL DETAILS AND SPECIFICATIONS

### SET-IN-WOOD CONSTRUCTION FOR INTERIOR PARTITIONS

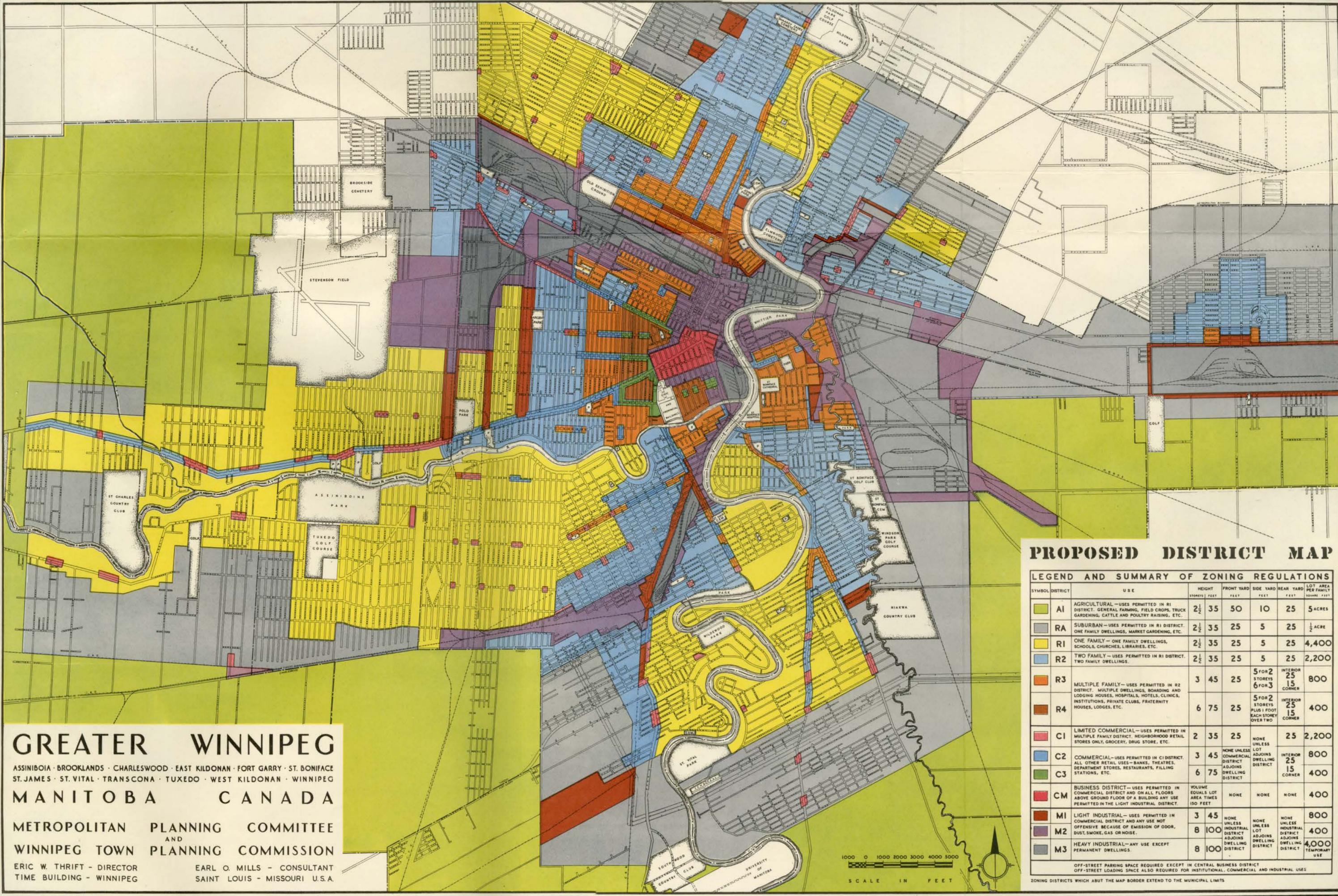


This information sheet is one of the series appearing monthly in the Journal. Copies of sheets published previously are available for collecting in book form on request to our Head Office, 27 Mercer Street, Toronto, Ontario.

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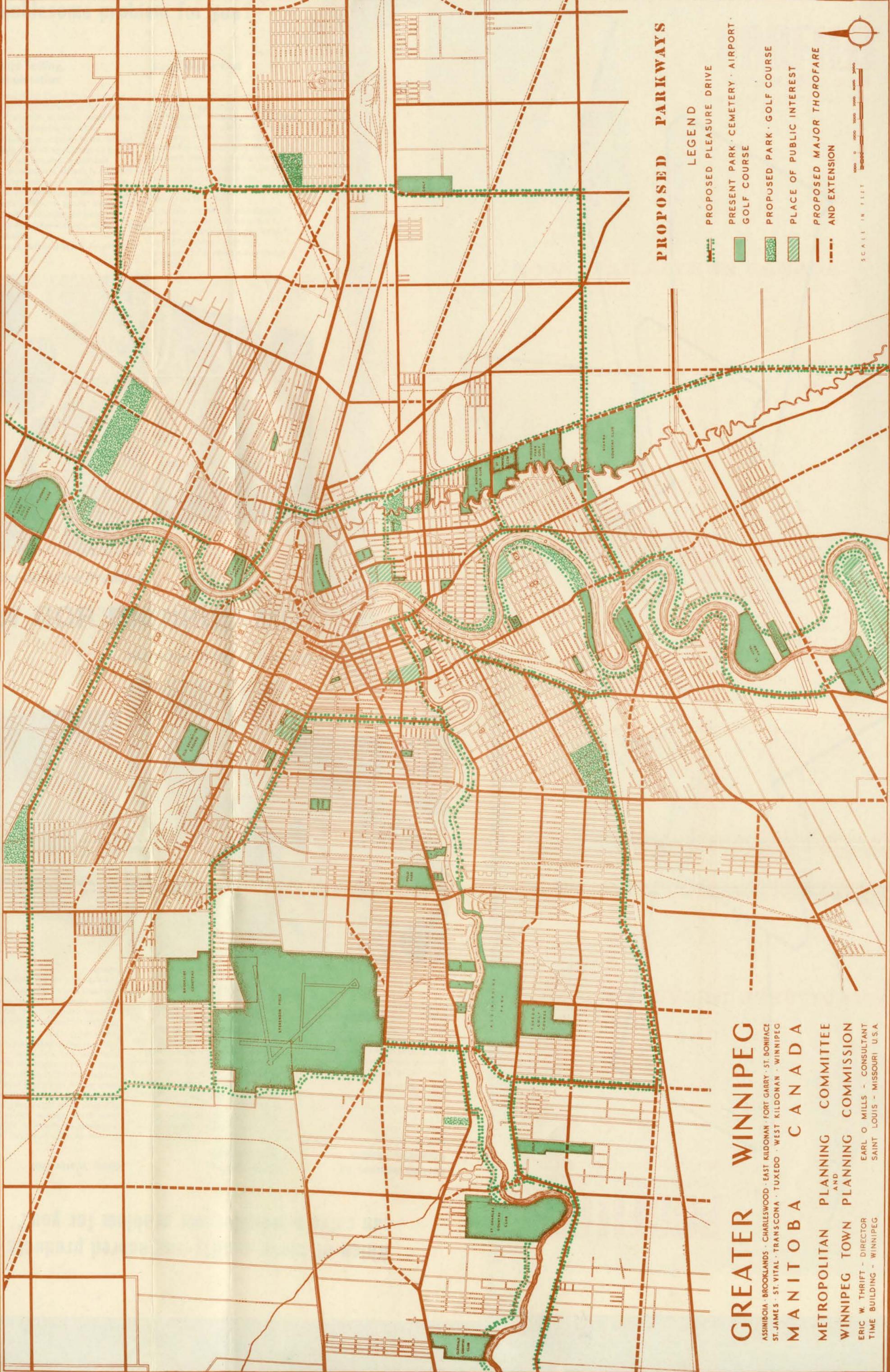
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**PROPOSED DISTRICT MAP**

**LEGEND AND SUMMARY OF ZONING REGULATIONS**

SYMBOL	DISTRICT	USE	HEIGHT STOREYS	FRONT YARD FEET	SIDE YARD FEET	REAR YARD FEET	LOT AREA PER FAMILY SQUARE FEET
Green	A1	AGRICULTURAL—USES PERMITTED IN R1 DISTRICT. GENERAL FARMING, FIELD CROPS, TRUCK GARDENING, CATTLE AND POULTRY RAISING, ETC.	2½	35	50	25	5 ACRES
Grey	RA	SUBURBAN—USES PERMITTED IN R1 DISTRICT. ONE FAMILY DWELLINGS, MARKET GARDENING, ETC.	2½	35	25	5	25 ½ ACRE
Yellow	R1	ONE FAMILY—ONE FAMILY DWELLINGS, SCHOOLS, CHURCHES, LIBRARIES, ETC.	2½	35	25	5	25 4,400
Light Blue	R2	TWO FAMILY—USES PERMITTED IN R1 DISTRICT. TWO FAMILY DWELLINGS.	2½	35	25	5	25 2,200
Orange	R3	MULTIPLE FAMILY—USES PERMITTED IN R2 DISTRICT. MULTIPLE DWELLINGS, BOARDING AND LODGING HOUSES, HOSPITALS, HOTELS, CLINICS, INSTITUTIONS, PRIVATE CLUBS, FRATERNITY HOUSES, LODGES, ETC.	3	45	25	5 FOR 2 STOREYS 6 FOR 3	INTERIOR 25 15 CORNER 800
Brown	R4	MULTIPLE FAMILY—USES PERMITTED IN R2 DISTRICT. MULTIPLE DWELLINGS, BOARDING AND LODGING HOUSES, HOSPITALS, HOTELS, CLINICS, INSTITUTIONS, PRIVATE CLUBS, FRATERNITY HOUSES, LODGES, ETC.	6	75	25	5 FOR 2 STOREYS PLUS 1 FOOT EACH STOREY OVER TWO	INTERIOR 25 15 CORNER 400
Pink	C1	LIMITED COMMERCIAL—USES PERMITTED IN MULTIPLE FAMILY DISTRICT. NEIGHBORHOOD RETAIL STORES ONLY, GROCERY, DRUG STORE, ETC.	2	35	25	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	25 2,200
Blue	C2	COMMERCIAL—USES PERMITTED IN C1 DISTRICT. ALL OTHER RETAIL USES—BANKS, THEATRES, DEPARTMENT STORES, RESTAURANTS, FILLING STATIONS, ETC.	3	45	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	25 800
Green	C3	COMMERCIAL—USES PERMITTED IN C1 DISTRICT. ALL OTHER RETAIL USES—BANKS, THEATRES, DEPARTMENT STORES, RESTAURANTS, FILLING STATIONS, ETC.	6	75	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	25 400
Red	CM	BUSINESS DISTRICT—USES PERMITTED IN COMMERCIAL DISTRICT AND ON ALL FLOORS ABOVE GROUND FLOOR OF A BUILDING ANY USE PERMITTED IN THE LIGHT INDUSTRIAL DISTRICT.	VOLUME EQUALS LOT AREA TIMES 150 FEET	NONE	NONE	NONE	400
Dark Red	M1	LIGHT INDUSTRIAL—USES PERMITTED IN COMMERCIAL DISTRICT AND ANY USE NOT OFFENSIVE BECAUSE OF EMISSION OF ODOUR, DUST, SMOKE, GAS OR NOISE.	3	45	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	800
Purple	M2	MEDIUM INDUSTRIAL—USES PERMITTED IN COMMERCIAL DISTRICT AND ANY USE NOT OFFENSIVE BECAUSE OF EMISSION OF ODOUR, DUST, SMOKE, GAS OR NOISE.	8	100	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	400
Dark Blue	M3	HEAVY INDUSTRIAL—ANY USE EXCEPT PERMANENT DWELLINGS.	8	100	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	NONE UNLESS LOT ADJOINS DWELLING DISTRICT	4,000 TEMPORARY USE

OFF-STREET PARKING SPACE REQUIRED EXCEPT IN CENTRAL BUSINESS DISTRICT  
 OFF-STREET LOADING SPACE ALSO REQUIRED FOR INSTITUTIONAL, COMMERCIAL AND INDUSTRIAL USES  
 ZONING DISTRICTS WHICH ABUT THE MAP BORDER EXTEND TO THE MUNICIPAL LIMITS



**PROPOSED PARKWAYS**

- LEGEND**
-  PROPOSED PLEASURE DRIVE
  -  PRESENT PARK · CEMETERY · AIRPORT · GOLF COURSE
  -  PROPOSED PARK · GOLF COURSE
  -  PLACE OF PUBLIC INTEREST
  -  PROPOSED MAJOR THOROFARE AND EXTENSION

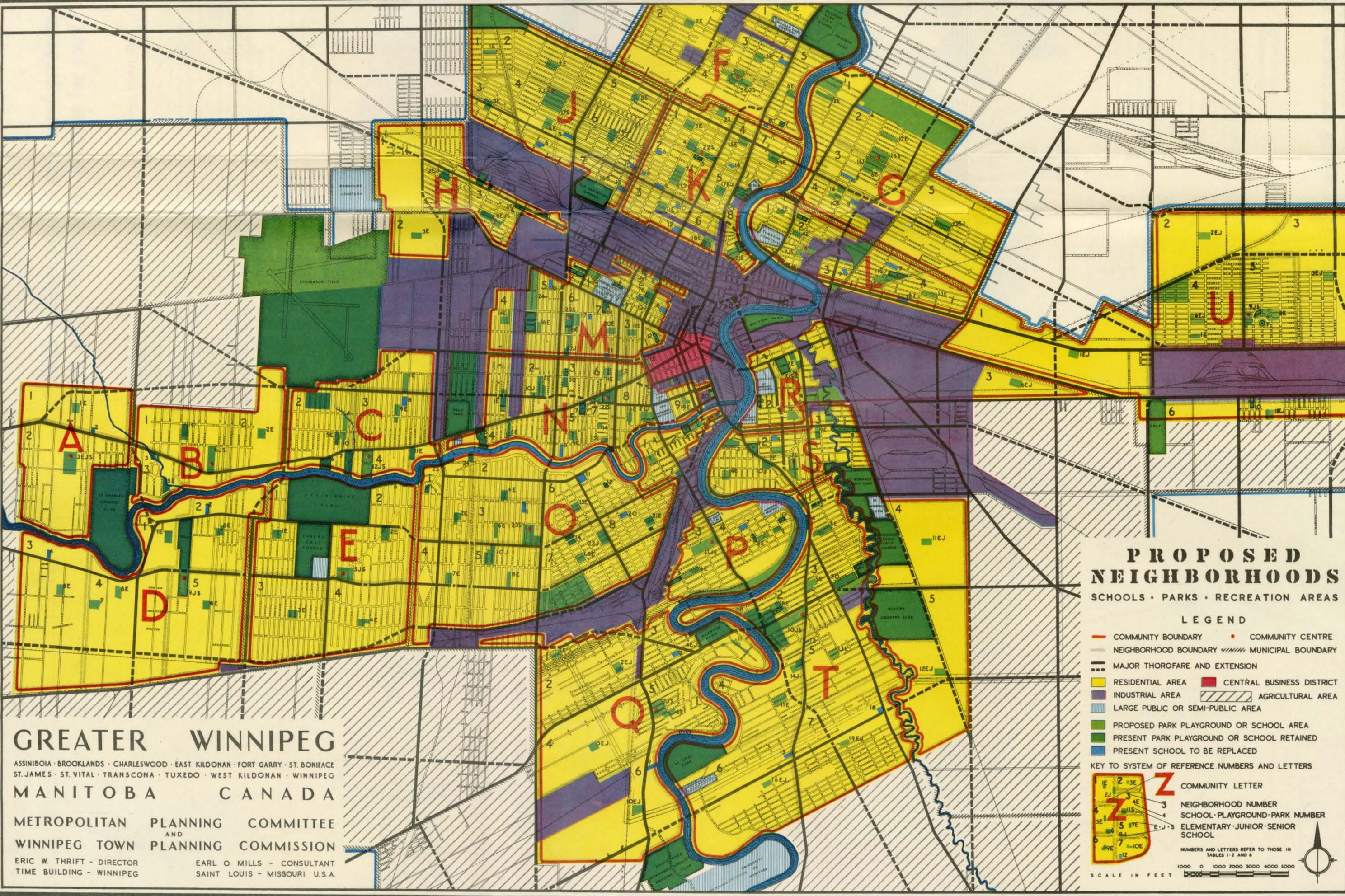
SCALE IN FEET  
 0 1000 2000 3000 4000

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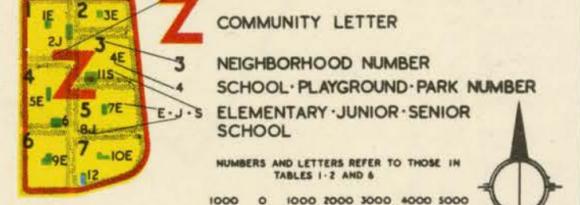
# PROPOSED NEIGHBORHOODS

SCHOOLS · PARKS · RECREATION AREAS

## LEGEND

- COMMUNITY BOUNDARY
- NEIGHBORHOOD BOUNDARY
- MAJOR THOROFARE AND EXTENSION
- RESIDENTIAL AREA
- INDUSTRIAL AREA
- LARGE PUBLIC OR SEMI-PUBLIC AREA
- PROPOSED PARK PLAYGROUND OR SCHOOL AREA
- PRESENT PARK PLAYGROUND OR SCHOOL RETAINED
- PRESENT SCHOOL TO BE REPLACED
- COMMUNITY CENTRE
- MUNICIPAL BOUNDARY
- CENTRAL BUSINESS DISTRICT
- AGRICULTURAL AREA

### KEY TO SYSTEM OF REFERENCE NUMBERS AND LETTERS



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ASSINIBOIA · BROOKLANDS · CHARLESWOOD · EAST KILDONAN · FORT GARRY · ST. BONIFACE  
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SCALE IN FEET  
1000 0 1000 2000 3000 4000 5000