REPORT ON THE CITY OF ST. JOHN'S NEWFOUNDLAND

MADE FOR

THE COMMISSION ON TOWN PLANING

APPOINTED UNDER SECTION 92 OF THE ST. JOHN'S MUNICIPAL ACT, 1921

BY

JOHN BLAND A.R.I.B.A., A.M.T.P.I.

DIRECTOR OF THE SCHOOL OF ARCHITECTURE McGILL UNIVERSITY MONTREAL

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Foreword by Hon. Mr. Justice Dunfield, Chairman of the Commission on Town Planning.

FOREWORD

The life of a man is but a brief thing compared to the life of a city; but human nature is such that the attention of a man is directed almost wholly to the affairs of his own day; and the attention of a Municipal Council is ordinarily engrossed by problems which daily arise in the City's administration. Yet what we do to-day, and, still more, what we leave undone, may make great difficulties or forfeit great advantages for those who are to come after us. Thus it is essential that upon someone should be laid the specific duty of looking ahead and of providing, so far as humanity can, for that future which advances upon us imperceptibly but surely. An organ of the City must be created to exercise the function of collective foresight on behalf of the community.

Various means have been adopted for this purpose. In some cities, for example Montreal, a Department of Planning has been set up, coordinate with other Departments of the City's Government. The commoner method, however, is to create a Town Planning Commission, separate from the City government and so not absorbed in daily problems of management.

The St. John's Municipal Act of 1921, a comprehensive statute drafted under the auspices of the late Mayor W. G. Gosling, provides in Section 92 for the appointment of a Commission on Town Planning. It is to consist of six persons appointed by the Governor in Council. It is to study the City and the area extending one mile outside it, and is to make recommendations for the improvement and extension of existing streets, the opening of new streets, the reservation of parks and playgrounds, the laying out of building lands, the planting of trees, and generally for beautifying the City and developing it with a view to its future expansion. An amendment in 1931 adds the duty of preparing an official plan of the City and the one-mile external area, which when adopted by the Municipal Council, as a whole or by sections, is to be observed as if it were a part of the Act, and not to be amended without formality.

In 1926 a committee comprised of representatives of various social service organizations operating in St. John's, under the Chairmanship of Col. L. C. Outerbridge, secured the services of Mr. A. G. Dalzell, M.E.I.C., of Toronto, a Consulting Engineer and Town Planning expert, who came to St. John's for some weeks, and submitted a comprehensive report on the City, which included a strong recommendation that a Commission on Town Planning be set up, as provided by the St. John's Municipal Act and for the purposes mentioned therein.

As a result, a Commission under the Chairmanship of the late Hon. Mr. Justice Kent was created in 1927 and worked intermittently for some years. It came to an end, and there was an interregnum until November, 1944, when on the recommendation of a Commission of Enquiry on Housing and Town Planning, a new Town Planning Commission was appointed, consisting of Hon. Mr. Justice Brian Dunfield, Chairman; Col. L. C. Outerbridge, C.B.E., D.S.O.; Gerald S. Doyle, Esq., O.B.E.; H. L. Pottle, Esq., M.A., Ph.D.; Grant R. Jack, Esq., M.E.I.C., P. Eng., City Engineer; and John J. Mahoney, Esq., J.P., City Clerk. This Commission is now working.

It was felt by the Commission that at the commencement of their work they would do well to obtain an outside opinion. City planning has been the subject of much study in recent years, and experts therein are acquainted with the results of trial and error in many cities throughout the world, more advanced than our own. While there is nothing in city planning which the average man cannot understand, the local planner may attempt in all good faith some method which, if he had only known it, has been tried and discarded elsewhere for good reasons. And again it is said that lookers-on see most of the game. Therefore the Commission felt that as an insurance against initial mistakes they should obtain the views of some expert as a foundation for local thinking.

Enquiries were made and there was recommended to us Professor John Bland, Director of Architecture at McGill University in Montreal. The School of Architecture at McGill includes as one of its subjects Town Planning, and Mr. Bland himself has had substantial experience in that direction to add to the studies of the University. We were fortunate in obtaining his services, and, after a flying visit in 1944, he spent two months with us in the summer of 1945, and produced the present comprehensive Report.

The Commission, having perused the Report with care, and having had the opportunity of discussing it with Mr. Bland on various occasions, agree with the Report and adopt it as their own, not necessarily in every minor detail, but in all its broad aspects; and they now present it to the Municipal Council and to the citizens of St. John's as one of the most important contributions yet made towards our future civic welfare. The Commission hope that it may be widely read and studied, and that the Municipal Council may find it a valuable guide.

A word of caution may be added, with Mr. Bland's concurrence. Such a report in its very nature tends to draw attention to those things which need amending, and to pass by the things which are already satisfactory If therefore the better aspects of our City are not emphasized, let no one arise in wounded civic pride. This Report is a guide to things we ought to do, not a record of things we have done

On behalf of the Commission on Town Planning,

BRIAN DUNFIELD,
Chairman.

R J. ORGAN,
Secretary.

February, 1946.

REPORT ON THE CITY OF ST. JOHN'S

INTRODUCTION

The following proposals for the City of St. John's were prepared at the request of the Town Planning Commission, and are based upon studies made during the summer of 1945. Their purpose is to provide a plan for the development of St. John's based upon the existing pattern of the City and the apparent trends. Such a plan is not intended to be a rigid blueprint for the indefinite future, but rather a guide against which changing conditions and needs can be measured.

I feel I have been able to record some of the habits of the City in regard to the use of buildings, land, and traffic movement. If my proposals provoke discussion perhaps a plan that suits the majority may arise and in that way they will have served their purpose.

In the preparation of this report I had the co-operation of Mr. Grant Jack, the City Engineer, and his assistants and Mr. R. J. Organ, Secretary of the Housing Corporation. My thanks are due to the Newfoundland Police for help in studying traffic accidents, to Mr. E. B. Foran, the City Appraiser, for many patient explanations of the system of land tenure, and to Messrs. Anthony Dunfield, Walter Payne, John Connors and John Mahoney for their assistance in counting traffic.

The adoption of a town plan does not automatically change building habits or street layouts. Economic factors, the contours of the land, or plain habit may hold these firm. The planner may allow for economic and natural conditions but the solution to the third problem lies in the popular understanding and acceptance of the plan. Citizens must be given an opportunity to examine the proposals and consider the advantages they offer in terms of maintenance of property values, safety of children on the streets, convenience and ease in transportation, and pleasant living environments. I believe this is essential to the success of the plan.

I have tried to take a whole view of the City and the details of my study are sketchy. I believe it would be wise to carry this investigation further into some specific matters. Of these I feel a thorough investigation into the use and condition of the harbour would be wise. Is there any danger of silting? Would a development of the Southside Rd. at wharf level serve to open up more harbour frontage and speed the process of handling goods? I think an inquiry into the conditions of land tenure in St. John's would be valuable, as many signs seem to point to this as a reason for poor development, and I believe also that an investigation into the 'shack towns' on the fringes of the City would contribute to the solution of their problems. Who live in these places? Where do they come from? What do they need? Can they be drawn into the City? or What services could be extended to them? Then there is the problem of sewers. What is the plan of development here? In what areas should building be prohibited because of the difficulties of providing services? It may seem a long program but it is in the nature of town planning to be such a process.

THE PATTERN OF THE CITY

The harbour is the focus of the city. The citizens' daily movements are to and from the harbour area. The lines of the streets formed years ago show this concentration.

As the harbour, with the importing and exporting business, is still the primary resource of the city, the plan should primarily protect the harbour interests and secure advantages for them.

Restricted Site.

The development of the city has been restricted to the north bank of the harbour. The other banks are too steep for convenient building. Even on the north bank the grades are difficult. This has cramped the city from the beginning. Building land has been scarce, resulting in high land values and the custom of placing buildings as compactly as possible on the land. This practice was also encouraged in the old days by the difficulties in obtaining title to land as a result of the policy of the controllers of the fisheries to prevent permanent settlement in Newfoundland.*

Skeleton of Roads.

Cart roads up the hillside and out to the settlements along the coast have provided some diagonal streets with fair grades concentrating upon the heart area, the flat land at the head of the harbour.

* The British Fishery at Newfoundland, Lounsbury, Yale University Press; Ch. IV.
The History of Newfoundland Prowse 2nd Ed., Eyre & Spottiswoode, page 395.

Many streets have developed from pedestrian paths made directly up the bank from the water front without regard to grade. These are awkward and sometimes impossible for motor cars and have little use now. In addition to these two types of streets, there are three horizontal thoroughfares through St. John's, which are now the favorites for motor traffic. They are:— (1) Waterford Bridge Road and Water Street, (2) New Gower and Duckworth Streets, and (3) Cornwall Avenue, Hamilton Avenue, LeMarchant, Harvey and Military Roads all combined. These three horizontal streets with the radiating streets from the heart to the outports form the skeleton upon which the city is spread. These are the arteries in which the business of the city takes place and off which the functional areas of the city have grown.

FUNCTIONAL AREAS OF ST. JOHN'S.

The Harbour.

The Harbour is the whole area within the Narrows.* At one time it was surrounded with narrow wharves stretching out like fingers from the shore; now only the part from Steers' Cove to Job's Cove shows this form. The tendency seems to be toward the broadside wharf, as the R.C.N. establishment on the Southside, or Harvey's, Furness Withy or the U.S. Government wharf at the Battery. This change has been accelerated by wartime developments; nevertheless it seems to indicate a trend away from the narrow harbour frontage to the broad front, which may eventually affect the retail stores on Water Street. Some of these no longer make any direct use of their harbour frontage, as their products come to the big steamer docks or to the railway sheds and their fish handling business is not as great as formerly. However, the harbour area, in my view, consists of everything south of Water Street, including the Southside, the railway, yards drydock and basin.

A chart of harbour depths shows the old style central part to be the shallowest, possibly as a result of silt from the hillside upon which the city is built and which appears to be greatly eroded. There is erosion on the Southside as a result of development there‡. Perhaps this is a point that needs some further investigating.

Commercial Areas.

The retail commercial area extends along Water Street from Waldegrave to Prescott Streets The biggest shops are on the south side. The most intense development is about Clift's Cove in nearly the centre of the city. These shops sell imported goods. New Gower Street from Theatre Hill to Springdale Street is a western extension of the commercial area, where there are butchers' and provision stores, probably selling local products. Here the shops are mostly on the north side and not so metropolitan in character. They appear to belong more to the residential areas immediately behind them and to the out of town trade, than to the city at large. Duckworth Street from Prescott to Cochrane is a similar eastern extension of the retail area. This also serves out of town people who come to sell their produce and who tend to congregate about the war memorial, which is on the site of a former haymarket. There are small restaurants in these two extensions of the central area.

The area of warehouses and cold storage plants extends also along Water Street. They are behind the retail shops in the central area and occupy street frontage at both eastern and western ends of the street. There are two concentrations, one at the Riverhead railway yards and Southside, and the other at Water Street East where the wharves for the largest steamers are. The lumber yards and coal yards are storage places and are found in this group. The oil and gasolene storage tanks are on the Southside.

Industrial Area.

The industrial area is in the west end. Probably the greatest number of industrial workers are employed at the dockyard and railway engineering works and at the Naval establishments. Nearby there are boot factories, a furniture factory, a nail factory, a foundry and a can factory. There are lumber yards and wood mills. There is a gas works, a dye works, two breweries and a large bakery in this area. There are repair garages and many small work shops in the wood and iron trades. Some distance out, but also in the west end, there is the big Colonial Cordage Works known as the Rope Walk. In this area there is a new Oxygen plant.

In the east end* there are also factories. There is a bakery, a wood mill making furniture and boxes** and a factory which makes waterproof cloth and paints on Water Street East. There are repair garages, carriage works, blacksmiths and tinsmiths dispersed over the area. The large Imperial Tobacco factory and Harvey's Butterine factory are also

*The harbour mouth is called the Narrows.

‡I have been told that a scraper was kept on the R.C.N. roads on the Southside to keep them clear after rain storms.

*Area east of the Anglican Cathedral and south of Military Road.

**Boxes used for shipping frozen fish.

here, but the area is not as industrialized as the west end.

Printers, mattress makers and upholsterers and clothing manufacturers are in the central area. The dairy factories, soft drink manufacturers and small repair garages are not confined to any area. Boot and clothing repair shops and laundries are also distributed, but tend to be in the centres of residential neighbourhoods, Similarly, plumbers and painters have shops behind their dwellings in the residential neighbourhoods.

Civic Centre.

In the centre of the city from the northern limits to the water front there is an area of metropolitan institutions. First, there is the Court House Building which includes, besides the Supreme Court and Registry Office, the Central Police Station, and on the lower and upper floors the Department of Public Works. Next to it is the Justice Building. There is also the Museum and Public Library and opposite to them is the Anglican Cathedral. In this area there is the Masonic Temple and Victoria Hall, and close to it the City Hall. Star Hall, Total Abstinence Hall, the Hebrew Synagogue and the Longshoremen's Protective Union Hall. The Gower Street United Church and Hall, the Synod Hall, the Kirk, St. Patrick's Hall and the Pitts Memorial Hall are also in this central area. Then there are the Roman Catholic Cathedral with convent and college grouped around it, Fort Townshend, the headquarters of the Newfoundland Police, Memorial University College, the C.L.B. and C.C.C. Armouries, the U.S.O. and the new Government Office Building in this area. Most of the movie theatres are here as well. Together they form part of a swath cut through the centre of the city where all the main civic buildings are found.

This district deserves to be protected from the encroachment of buildings of no civic importance, and, in my opinion, the area immediately surrounding Memorial College should be saved for the extension of the college, which is bound to grow.

Professional Area.

Below the Civic Centre area along Duckworth Street there is a marked professional district, where there are law offices, medical offices, as well as real estate agents, insurance agents, architects and photographers.

Neighbourhood Centres.

As well as the sharply defined metropolitan commercial district, there are sub-centres which may be the nuclei of new commercial areas. There are neighbourhood shopping centres at the Bus Terminus, LeMarchant Road and Harvey Road; at Rawlins Cross; and just commencing at Grace Hospital, Pleasant Street and LeMarchant Road. They include grocers, butchers, general clothing stores, hair-dressers, ice cream and soft drink stores and medical offices. These centres are at the crossings of traffic arteries and are points of convenience. They are busy places in the evenings as they are on the main promenade street, LeMarchant, Harvey and Military Roads. It is said that the promenade used to be New Gower Street; perhaps the army and navy camps in the Higher Levels* have induced this change.

TABLE OF STORES AND OTHER SERVICES AT NEIGHBOURHOOD CENTRES.

(about 200 yard radius)

Type of Shop	Bus Terminus LeMarchant Rd.	Rawlins Cross	Grace Hospital
Amusements	..	..	..
Barber	..	..	..
Beauty Parlour	2	1	..
Bus or Tram Lines	4	4	2
Butcher	1	3	..
Cafe	2	1	..
Camera	1	1	..
Cobbler	1	..	..
Confectionerys	8	4	3
Dentist	..	1	..
Doctor	2	3	..
Druggist	2	1	1
Dry Cleaner	1	..	..
Electrical	..	1	..
Fish (fresh)	..	1	..
Garage Service Station	2	2	1
Gen'l Clothing Store	4	2	..
Grocery	6	3	3
Laundry	1	1	..
Movie	1	1	..
Tavern	1	..	..
Tailor	1	..	..
Taxi	2	1	1

*Name given to the area above LeMarchant Road.

Corner Shops.

There are three categories of stores, two of which have been mentioned, namely, the metropolitan store serving the city at large, and the neighbourhood store serving a specific area. The third category is the corner store. These are mostly front parlour shops which sell odd groceries, sewing equipment, tableware, cakes, tobacco, magazines and soft drinks. They are operated on small capital and have no reputation for permanence. They are said to give long credit and are popular among people in the lower income brackets, who, either for lack of clothing, or money, or time, do not go downtown or even to the neighbourhood centre for daily purchases. A good many of the purchases are made by children, and it seems that the wide distribution of these corner stores is their main convenience. Grouping them together would serve no purpose. It is said that the distance to the store varies directly with the income of the purchaser. This seems to be so here. The front parlour store has the lowest overhead and, being in the midst of its clients, the best chance of collecting its credits. This store is not evident in the well-to-do areas.

Residential Areas.

In a map of St. John's of 1805, the buildings seem to be quite evenly distributed along Water Street and New Gower — Duckworth Street, with some concentration about Williams Lane and Scanlan Lane. There do not appear to be any marked differences in the layout or use of land or the size of buildings from one end of the city to the other. However, the low land at the riverhead in the west end* may have been the best suited for shipyards and other industries supplying the fisheries may have grouped in this area, thereby setting the character which it has today. The industries now tend to be in the west end, where they are surrounded by working men's dwellings.

The middle class dwellings are east of the centre of town, where the streets are wider and where there are fewer factories. This differentiation between east and west may have been magnified by the fires and periodic rebuilding which have occurred mainly in the east end. A map of 1852 shows a congested street called Meeting House Lane in places only eleven feet wide, which reappears after the fire of 1854 as Victoria Street, sixty feet wide. Later, the fire of 1892 destroyed most of the east end and gave another opportunity for street improvements.

*Leslie Street on the west to Springdale on the east.

Central Area.

The old central area*, which escaped the damages and the subsequent advantages of recurrent fires, was each time made more congested by hastily built, cheap accommodation for low income families who had lost their houses. Many of these were built on the steep hillside that had not been used in times of less pressure. These are now the shabbiest buildings in the city, obtaining the lowest rents and returning the least in taxes. This is mostly an unsewered‡ area and health conditions are not good. As a result of the congestion of buildings and the high density of population, this is also the area where the greatest number of street accidents occur, most of which involve children who have no other place to play but the streets. This is the area of juvenile delinquency, crime and sickness. It is called the slum.

This central area needs to be rebuilt, following a re-subdivision of the land to increase the size of the blocks. This would make it more attractive for commercial purposes and line up the streets for convenient traffic circulation. If new buildings are allowed in places in this area, it will increase the difficulty of the eventual solution. If it is not possible to clear the central area now, it should be scheduled for ultimate clearance and new development avoided in the meantime.

The occupants of the central area are mostly street labourers and longshoremen. Their employment is not regular either in time or place. The central area is the most convenient place for these men to live. They walk to their work.

Gross congestion here is resulting in developments on Signal Hill, Blackhead Road, the Sand Pits and Higgins Line, where large sections are springing up without any order or urban services, their only advantage being accommodation better than what is available in the city at the price that can be offered.

West End.

West of the central area is the main working class district, where houses and workshops adjoin. This area is growing west up the hill. Transition appears to be slow throughout the area. Single family houses are being converted into flats, resulting in some change in population density but not in other respects.

*Springdale on the west to Church Hill on the east, and below Cabot Street.

‡Sewers exist in some streets, but the houses are generally not connected to them.

Waterford Bridge Road.

Waterford Bridge Road and Topsail Road at the extreme west of the city pass through an area of large houses and gardens, extending from the Cross Roads to Bowring Park. There seems to be some transition near the Cross Roads, where smaller houses have been built and large ones converted to multiple dwellings, but there are new houses of the expensive type throughout, which indicates that it is still considered a desirable residential area.

East End.

East of the central area transition is marked. Streets and houses that were fashionable fifty years ago are swiftly going out of date. The type of house found here is no longer considered fashionable or convenient. Basement kitchens are not easy to operate with the present scarcity of labour, and row houses are no longer the style. This whole area was built after the fire of 1892, and at present is in the process of becoming a blighted district. The new suburbs with more modern houses will undoubtedly attract families from this area and hasten its decline. The advertisements of houses for sale here suggest that they are suitable for rooming houses or conversion into flats. The tax revenue from this area will shrink if it becomes blighted. Perhaps there is an opportunity at this time of change to secure some features that might extend the life of the existing buildings and provide pleasant dwellings for lower income families near the centre of town and places of employment.

Bannerman Park Area.

North of the east end area there is Bannerman Park, Government House and the houses of the well-to-do. This is a large area without any shops at all. Change is apparent here as well. Some of the big houses have been converted into flats. Further north again, there is the new district of smaller but expensive houses. And to the east lies Fort Pepperrell, which is so marked an area that it is scarcely worth pointing out, but it is a new functional area of St. John's.

West of the Bannerman Park area and next to the central swath lies a small area of working class houses, at one time called Georgetown.* Here there does not appear to be much transition, although the the buildings are as old as those in the East End. The houses were probably built for low income families, generally operated without servants and hence still fairly convenient.

*Barnes Rd. on the west, Monkstown Rd. on the east, south of Circular Rd.

Higher Levels.

West of the central swath, above and including LeMarchant Road, is the main residential suburb built since 1900. Here a great many of the outport people who have come to St. John's have settled. Some of the houses are built in rows, as was the old custom in the town, and most of the old ones are of the same type as the houses in the area called Georgetown. More recently erected buildings have been separate two-storey houses having a front room, a back room, kitchen and entrance hall on ground floor, and upstairs two bedrooms, bathroom and small extra room corresponding exactly to the floor below. This is the type which is called 'a dwelling' in the advertisements of houses for sale. On the fringes of this area, to the north, the buildings are scattered and of a poor type, mostly without basements and many without plumbing. This area is nicknamed Rabbit Town' and reflects the economic conditions of the last twenty-five years. Many of the buildings are bungalows, some are still unfinished although occupied for years. All of them are separate structures and most of them display some effort at individuality in colour or in shape.

Northern Suburb.

The northern suburb extends from Empire Avenue to Elizabeth Street and from the Torbay Road to the Freshwater Road. Houses and gardens stretch along the roads through this area but the mass of the land is open pasture. This is the area that has been acquired by the Housing Corporation and is now being developed as a new residential area on a very large scale. The proposals are outlined in the Fifth Interim Report of the Commission of Enquiry on Housing and Town Planning, January, 1944. Briefly three villages of single family houses and flats are planned around neat shopping centres. Besides a central village green, parks and open spaces are proposed to separate the villages and to form a "green-belt" between them and the existing city. A public transportation system has been arranged which will bring the area into direct communication with the center of the city. About 100 houses and 92 flats are being constructed now. A group near Pine Bud Avenue has been completed. These indicate what the proposals are regarding the layout of the streets, the space about the buildings and also the appearance of the buildings which are adaptations of the traditional Atlantic seaboard house. It is probable that this area will become the popular middle income residential section of the city, following the tendency of development of most American cities in this manner.

Fringe Developments.

Fringe developments occur on the Quidi Vidi Road, and at the foot of Signal Hill there is an old fringe area called Hoylestown, which is not large, but quite congested because of the steepness of the hill.

The Battery (Signal Hill) and the Southside have been mentioned as too steep for good building development. Nevertheless in recent times people have built houses there. Those engaged in fishing near the harbour mouth are conveniently placed, as they need to live above their boats. Others, however, have probably built there because of the scarcity of land in the city. When this scarcity is overcome, further development in these awkward places, where it is nearly impossible to provide city services, may cease. Blackhead Road, Sand Pits and Higgins Line are in the same category.

Open Spaces Around City.

From Signal Hill and Quidi Vidi Lake there is an open area up the Freshwater Valley, reaching almost to Mundy's Pond. The low land in the valley has been unsuitable for building development and has been left as an open space, almost as a green belt round the city.

Signal Hill, in my opinion, is a spectacular natural park and the roads there will always make popular drives for visitors. Perhaps this is not understood by St. John's people, but there is something about the turbulent landscape of Signal Hill, the strong wind that blows there, and the view of the sea that is attractive, at least to visitors from the flat inland areas of Canada.

TRENDS

Applications for building permits for the years 1942, 1943 and 1944 have been analysed in order to clarify tendencies in development. The following tables show the results for characteristic streets in various areas of the city. These figures exclude all defence works.

	ALTERATIONS							NEW CONSTRUCTION								
	Business Premises	Dwelling	Garage	Hennery	Shed	Warehouse	Workshop	Bungalow	Dwelling	Dwelling & Store	Garage	Hennery	Shed	Store	Warehouse	Workshop
HARBOUR AREA																
Water St.....	21	13	..	..	..	..	..	..	..	..	3	..	5	1	..	..
Southside Rd...	2	5	..	..	..	1	..	15	13	..	3	..	3	3	2	2
Riverhead.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CENTRAL AREA																
New Gower St..	4	12	1	..	..	..	..	1	1	..	1	..	1	2	..	..
Allan Sq.....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brazil Sq.....	..	1	..	..	..	..	..	..	..	..	2	..	1	..	..	..

OTHERS

Water St.....
Taxi Stands (3)
Restaurants (4)
Office Bldg.
Cold Storage Plant
Machine Shop

Southside Rd...
Stables (2)
Wharf repairs
Brass Foundry
Cold Storage Plant

Riverhead.....
Training School
Forge
Round House
Time Office
New platform

New Gower St..
Restaurants (3)

	ALTERATIONS							NEW CONSTRUCTIONS								
	Business Premises	Dwelling	Garage	Hennery	Shed	Warehouse	Workshop	Bungalow	Dwelling	Dwelling & Store	Garage	Hennery	Shed	Store	Warehouse	Workshop
WEST END AREA																
Patrick St.....	1	2	..	..	..	..	..	..	1	..	1	..	1	..	..	..
Leslie St.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shaw's Lane ...	1	..	..	..	..	..	..	7	5	..	1	..	..	..	..	..
EAST END AREA																
Duckworth St...	10	6	1	..	..	..	..	..	1	..	2	..	2	..	..	..
Gower St.....	1	7	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Military Rd.....	1	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..
BANNERMAN PK. AREA																
Rennie's Mill Rd.....	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Circular Rd....	1	3	2	..	..	1	..	..	1	..	..	1	..	..	..	..
King's Bridge Road.....	..	2	..	..	..	..	..	1	1	..	2	..	1	..	..	..
GEORGE TOWN AREA																
Hayward Ave...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maxse St.....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
William St.....	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
HIGHER LEVELS AREA																
LeMarchant Rd.	3	10	3	..	..	..	..	..	7	..	9	1	2	..	..	..
Pennywell Rd..	2	8	1	..	..	..	..	22	17	1	11	1	..	5	..	2
Merrymeeting Road.....	1	7	1	..	..	..	..	3	8	..	2	..	1	3	..	..

OTHERS
Elevator shaft
Saw Mill
Cold Storage Plant
Restaurant Retaining wall Greenhouse
OTHERS
Fire Station Hospital Extensions (4) Mixing Plant
Greenhouse

	ALTERATIONS							NEW CONSTRUCTIONS								
	Business Premises	Dwelling	Garage	Hennery	Shed	Warehouse	Workshop	Bungalow	Dwelling	Dwelling & Store	Garage	Hennery	Shed	Store	Warehouse	Workshop
"RABBIT TOWN" AREA																
Liverpool Ave..	..	..	..	..	..	..	..	2	3	1	..	..	..	..	..	..
Goodridge St...	1	5	..	..	..	..	..	1	1	..	1	..	..	..	..	..
Empire Ave....	1	2	..	..	..	..	..	12	8	..	3	..	1	1	..	..
HOYLES-TOWN AREA																
Signal Hill Rd..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Battery Rd.....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Cavell St.....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
NORTHERN SUBURBS																
Pine Bud Ave...	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
Glenridge Cres.	..	1	..	..	..	..	..	2	8	..	3	..	..	..	..	..
New Cove Rd..	..	..	..	..	..	..	..	1	6	..	1	..	..	..	..	..
MUNDY'S POND AREA																
Blackmarsh Rd.	2	5	2	..	..	..	..	19	16	..	10	1	1	3	..	..
Pierce Ave.....	..	..	..	..	..	..	..	3	..	..	..	..	2	2	..	..
Cashin Ave.....	..	..	..	..	..	..	..	5	13	1	6	..	1	..	..	..
WATERFORD VALLEY																
Waterford Bridge Rd....	..	..	1	..	..	..	..	1	10	..	7	..	..	1	..	..
Topsail Rd.....	..	3	..	..	..	..	..	2	15	..	1	1	..	..	..	..
Road de Luxe*.	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..

OTHERS

Stable

Cold Storage Plt.
Mattress factory
Oxygen plant
Church ext.

Saw Mill

*So nicknamed because of its construction cost.

In the harbour area the applications for new buildings outnumber those for alterations, but half of those for new buildings are residential and belong to the fringe of the area along Southside Road West. The remainder do not indicate anything unexpected. There are applications for cold storage facilities, machine shops, brass foundry and railway service buildings.

In the central area, on the other hand, applications for alterations outnumber those for new buildings decisively. The majority of the alterations are residential, but the new buildings are almost all commercial.

In the west end, applications for new constructions outnumber the alterations. Most of the new constructions are in the extreme western part of the area and these comprise residential and industrial buildings. It seems that the central part of the west end is not changing, but its fringes are being built up with houses and a few industries in the same mixed way as the central part developed.

In the east end, applications for alterations decisively outnumber those for new constructions. The figures support the impression that this district is changing from an area of single family houses to one of rooming houses, or multiple family houses.

In the Bannerman Park area, the reverse is the case. More applications are for new constructions than for alterations. With few exceptions, the new constructions are residential.

In the Georgetown area, development appears to have nearly ceased. However, the alterations do outnumber the new buildings and conditions seem similar to those in the east end. Changes in this area ought to be slower, as it is less desirable for commercial or industrial uses.

In the higher levels and "Rabbit Town" areas, applications for new constructions well outnumber those for alterations. The new buildings are nearly all residential.

In Hoylestown there is relatively little development; what there is shows that this area remains residential.

In the northern suburbs the tendency to new development is most evident, and here the new development is exclusively residential.

In the Mundy's Pond area the new development is also mostly residential, but there is evidence that this area is attracting industry. The figures show applications for a cold storage plant, a mattress factory and an oxygen plant, which indicate a development of dwellings and industry combined in the west end manner.

In the Waterford Valley area, applications are mostly for new residential buildings. Land in this area is attractive for industries too, as indicated by applications for a warehouse and a saw mill.*

It appears from this brief investigation of trends:

(1) that the northern suburbs, Higher Levels and the Waterford Valley are decisively residential and developing rapidly and, if amenities in these areas are to be preserved, park spaces and street plans should be determined now, together with any regulations concerning use of buildings or space about buildings,

(2) that the western limit of the west end (Shaw's Lane, Leslie Street) and parts of Mundy's Pond area, (Campbell Avenue, Cashin Avenue), are developing as mixed residential and industrial districts and if any separation of these two functions is desired, an area or areas for industry should be set aside on good roads with easy access to Water Street.

The northern suburbs are being planned by the Housing Corporation, but a plan with open space reservations is needed for the Higher Levels. It seems to me that, when the Naval establishment at Buckmaster's Field is removed, this space ought to be acquired for a central park and perhaps a few of the Naval buildings, particularly the gymnasium retained for public use.

Perhaps parts of Cashin Avenue and Shaw's Lane, together with an area in the East End about Factory Lane, could be set aside for industry.

If the river at Riverhead were confined to a canal, possibly 20 acres could be made available for harbour area industries in an excellent position convenient to both sides of the harbour and the railway.

ZONING.

My proposals for zoning are based upon observations of the present pattern of the city and trends in development. I suggest three types of Residential Areas. Two might be sufficient for the existing city, but I suspect three would be useful in the new suburbs, as residential class 3 might define a suburban business area. The business area of the existing city I have called Commercial. It includes a great many more uses than would be desirable in a suburban commercial area, but the business of the city cannot be separated from some of its industry, as both are dependent upon the harbour and are very much crowded together. The areas in which

*Both refused.

industrial uses predominate I have called Industrial.

The Crown land or private land surrounding the city that is unsuited for development by being too steep or too rocky to provide with services I have called Open Space.

SCHEDULE

PROPOSED PERMISSIBLE USES	PRESENT USES OBSERVED	DISTRICTS
RESIDENTIAL 1. Parks, Playgrounds, Private dwellings and dependent buildings.	Dwellings, Playing fields, Swimming pool.	Carpasian Rd. Winter Pl. Winter Ave. Glenridge Cres.
RESIDENTIAL 2. The above and Apartment houses, Clubs, Hotels, Medical and dental offices, Public buildings, Religious institutions, Theatres.	Apartments, Armouries, Asylums, *Cemeteries, Churches, Church halls, Clubs, Dentists Doctors Dwellings, Fire halls, Govt. offices, Hospitals, Hotels, Libraries, Museums, Orphanages, Parks, Police bldgs., Schools, Theatres.	Forest Rd. Circular Rd. Rennie's Mill Rd. Military Rd. Bannerman Park Fort Townshend Anglican Cath. Cornwall Ave. Bowring Park Waterford Bdge. Rd. and others in the northern suburbs
RESIDENTIAL 3. The above and garages for public transport vehicles or street maintenance equipment. Service stations, (gas, oil, grease, car wash, tire repairs only), Stores attached to dwellings, Workshops attached to dwellings, (cobblers, laundries, painters, plumbers, tailors, etc.)	*Breweries, Butchers, *Cemeteries, Churches, Cobblers, Colleges, Confectionery stores, Convents, *Dairy factory, Dwellings, Flats, Grocery stores, Hairdressers, Hospitals, Laundries, Municipal garage Penitentiary, Public transport garage, Schools.	Craigmillar Ave. Leslie St. Campbell Ave. Pennywell Rd. Merrymeeting Rd. Goodridge St. Hayward Ave. Signal Hill Rd. Quidi Vidi Rd.

*Non conforming uses

PROPOSED PERMISSIBLE USES	PRESENT USES OBSERVED	DISTRICTS
COMMERCIAL: The above and factories supplying: foods, cigarettes, clothing, drinks, household furniture; Offices; Repair shops servicing: automobiles, wagons; Restaurants, Retail Stores, Taverns; Undertakers; Warehouses.	Bakeries, Banks, Bedding factories, Blacksmiths, Cafés, Carriage factories, Churches, Cigarette factory, Clothing factories Dwellings, Funeral directors, Furniture factories, Harness factory, Hotels, Monument makers, Printing presses, Professional and business offices Repair garages, Restaurants, Rooming houses, Soft drink factories, Stores of all kinds, Tailors, Taverns, Telephone exchange, Theatres, Tinsmiths, Warehouses.	Water St. Cent. Duckworth St. Prescott St. Rawlins Cross Queen's Rd. Long's Hill, LeMarchant Bus Terminus, New Gower St. Pleasant St. Grace Hosp.
INDUSTRIAL: The above and any workshop normally permitted in a built up area.	Bakeries, Boot factories, Butterine factories Can factory, Churches, Coal yards, Dockyard, Dwellings, Dye works, Engineering wks. Fish freezing wks. Foundry, Garages, Gas works, Lumber yards, Machine shops, Nail factory, Oil & gasoline storage plants, Oxygen works, Paint factory, Rwy. engineering wks., Railway yards, Rope factory, Schools, Stores, Warehouses, Wood mills.	Southside, Riverhead, Southwest End Shaw's Lane, Cashin Ave., Empire Ave., Water St. East, Factory Lane,
OPEN SPACE: No building intended for habitation.		Signal Hill, Southside Hills.

I would like to make two further specific suggestions that deal with the use of land but cannot be considered 'zoning'.

(1) That an area be set aside for Government buildings and a program outlined for the gradual development of a group of buildings that would be suitable for the departments of Government.
(2) That the Fort Townshend area be reserved for the gradual expansion of Memorial University College.

With regard to the first, I believe Military Road opposite the Assembly Building would be a suitable place for Government offices. The buildings fronting on Military Road are in good condition, but immediately behind them there is a congested area of very old houses, some of which should be condemned.

A group of buildings might be arranged about Colonial Street, which could be widened and centred on the portico of the Assembly Building. If such a group were modestly designed in the style of Government House, it would be convenient and it would produce an area of considerable dignity.

DENSITY

A rough approximation of the number of houses per acre and proportion of sites covered in the old areas of the city are as follows:—

District	Approx. No. of Houses per Acre	Proportion of Site covered
Central	19	50%
East End	14	40%
West End	14	30%
LeMarchant Rd.	8	20%
Bannerman Park	6	15%
Winter Ave.	5	15%

I suggest that in the various zones the maximum number of houses per acre and the maximum proportion of site cover allowable should be as follows:—

Zone	Dwellings per Acre*	Proportion of site covered‡
Residential 1.	5	15%
" 2.	7	20%
" 3.	9	25%
Commercial	12	30%
Industrial	12	30%

*Dwellings means self contained apartments, bungalows, or houses of any type.

‡Residential Buildings only.

To figure the allowable number of houses per acre, the site should be measured to the centre or centres of adjacent roads or lanes; but to figure the allowable site coverage, the area of the site alone should be considered. For example, the minimum site in a Residential 1 zone on a 50' road would be 58' x 100', and the maximum area of such site which could be built upon would be 870 sq. ft.

Other factors regulating density are covered by the building code, such as space at rear and sides of dwellings.

RECREATIONS

Parks.

The Municipal Council maintains three public parks:—

1. Bowring Park has an area of 50 acres in the Waterford River Valley, about two miles outside the city. It is romantic or natural in design, and very much admired by visitors and city people. It is well used by both children and adults. There are paths and driveways and a small lake with rowboats. There is a playground, a swimming pool and tennis courts.

2. Victoria Park has an area of 6½ acres in the west end of the city. It is an old-fashioned public garden and playground with a bandstand. It, also, is very well used and the worn down grass indicates that it is small for its purpose. The playground has the usual swings and slides for children, as well as a small basketball space and a wading pool.

3. Bannerman Park has an area of 12½ acres in the east end. It was once a Botanical Garden. It has a bandstand, lawn, shady trees and flowering shrubs. It, also, is well used by both children and adults. There is a large children's playground which is well equipped with swings, climbing bars, a small basket-ball space, and room for several soft-ball diamonds.

The Municipal Council has acquired about 15 acres of land at the head of Quidi Vidi Lake for an additional Park in the east end.

There is crown land near the city on all sides, where there are any number of small ponds used for fishing and swimming. Some of this land close to the city could advantageously be made permanent public open space for the amenity of the city in the days to come.

Playgrounds.

The Playground and Recreation Association of St. John's, an organization supported by voluntary

subscribers, operates the playgrounds in both the city parks and the natural swimming pool in Rennie's River. The Association employs senior supervisors at each of these, as well as 17 instructors and 2 night watchmen. The Association maintains the playground equipment, sets it up at the beginning of the season and stores it during the winter. Besides receiving funds from annual subscribers, including the Municipal Council and the Department of Public Health & Welfare of the Commission of Government, there is a special "twenty cent drive" and a "tag day" for additional funds.

There has never been a survey of where the children who use the playgrounds come from, but it is believed that they come from the immediate neighbourhood. Pictures of children on the Bannerman Park playground published in the Daily News, August 9th, 1945, gave their names and addresses. The latter included one from Allan Sq., three from Queen's Rd., three from King's Rd. and one from Gower St., all within half a mile.

The Playground Association operated the children's hours at the Arena Skating Rink before it was burnt down in 1941. At present, there are no organized play facilities for children in the winter.

The street accidents in St. John's involving children indicate the need for more playgrounds in the areas of dense population. Each year about 40 small boys and 30 small girls are knocked down in the streets. The central area, particularly, needs a play space. Perhaps an objective of having a public playground within half a mile of dwellings would be worth adopting.

Recreation Association

The colleges in the city have sport associations which are alumnae groups (seniors) and present students (juniors)*. The Feildian Club maintains the Feildian Grounds and its members are old boys of Bishop Feild College. The grounds are also used by the present students, who are Junior Feildians. Similarly, the old boys of St. Bonaventure's College have an athletic club. Their grounds are called the Shamrock Grounds. They have been taken over by the Newfoundland Regiment for barracks, possibly temporarily. St. Bonaventure's College also has a campus and track, but it is rarely used as it is the lawn of the college. The Ayre Athletic Association is the sports club for the Prince of Wales College, the members of which are called the Guards. Their grounds are the largest in the city. The Patrician Association is the sports club of St. Patrick's Hall School. Its grounds on Carpasian Road are called Dwyers Fields. Holy Cross School has also an athletic club, but it has no grounds. Memorial is a senior college and has a senior sports club only, but the students at Memorial College tend to join the senior athletic clubs of the colleges at which they were formerly students. Memorial College grounds, like St. Bonaventure's, is the lawn of the college. There is an effort to keep the grass green. Mt. Cashel Orphanage has an active sports club and an old boys' association, with grounds at Mt. Cashel. They have a traditionally good football team.

With some exceptions, all clubs have football, basketball, hockey and track teams, both junior and senior. There is a great interest in inter-collegiate and senior sports, and there appears to be a need for more grounds, as one has gone out of use because of building developments, another to make room for barracks, and two to save the grass.

There is a Tennis Club with three courts behind the Newfoundland Hotel, which is hardly ever idle in fine weather.

There is a boat house on Quidi Vidi Lake, where six and eight oared sculls are kept. There are several rowing clubs and each year the Regatta on the lake is an important public holiday.

Bally Haly is a private golf club north of the city on the Logy Bay Road, adjoining Fort Pepperrell.

In addition to these, there is a private fishing club and syndicates control certain ponds and streams.

Indoor Sports.

Most of the colleges have gymnasiums and there is an inter-collegiate basket-ball league. The C.L.B. and the C.C.C. Armouries have large drill halls that are also used as gymnasiums. The R.C.N. establishment at Buckmaster's Field has a particularly well equipped gymnasium.

There is a private Curling Club with a new rink behind the Newfoundland Hotel. The old rink burnt down with the Arena in 1941. The new curling rink has been built on the site of the old Arena.

St. Bonaventure's College has an enclosed Hockey Rink which is the only one in the city now. The old building known as Butler's Rink on Rankin Street is only equipped for roller skating and is not used.

*There is also the St. John's Amateur Athletic Association, which is a non-collegiate senior sports club. It formerly played upon St. George's Fields which has been spoiled by building development and is no longer in use.

There is said to be a real need for a good covered rink for hockey and skating, preferably one with artificial ice. Athletic activities in St. John's deserve assistance. People of different allegiances come together to play and to see games. If an arena were built, it could serve as a concert hall as well as a place for hockey and skating. A central site is necessary for such a building; possibly the Shamrock Grounds would be a suitable place. A good big playing field is needed, where there might be three or more football fields and a little club house that could be used by the city leagues. This might be in the green belt north of Empire Ave., near Freshwater Road or Mayor Ave.

Perhaps the Planning Commission could undertake an enquiry into recreation facilities in the city by a questionnaire, e.g.

Name.....

Address.....

Occupation.....

Age.....

Check these if you participate:—football, softball, rowing, etc.

State where you play.....

Is there any sport you would like to do if you had an opportunity?

1.....2.....3.....

What do you do in your free time?

How much free time do you have?

Possibly a committee of the recreation associations could make some joint proposals to get a program for the development of recreation under way.

TRAFFIC FLOW.

In order to estimate the traffic flow in the city, 48 intersections were selected for analysis. At these intersections 30-minute counts were made of all vehicles in each of the converging streets, that is, where two streets crossed at the intersection, there were four simultaneous counts. All counts were made between 9 a.m. and 6 p.m. No counts were made if the traffic seemed eccentric because of closed streets, traffic blocks or other temporary conditions affecting the flow that could be observed. The counts were made only on normal weekdays and in fine dry weather.

Two sample 12 hour counts were made on Monday, July 9th, from 8 a.m. to 8 p.m. One was a sample of the lower level traffic taken at the corner of New Gower and Adelaide Streets; the other was a sample of the higher level traffic taken at LeMarchant Rd. just east of Cookstown Rd., at the place called the Bus Terminus. The vehicles passing in each five-minute period during the 12 hours were recorded and later expressed in terms of a percentage of the total, so that any half hour could be made up out of six such periods. With such a scale, the half hour counts at the 48 intersections which were made at various times during the day could be expressed in terms of 12 hours, so that counts at all intersections could be put on a common basis. Such an estimate does not pretend to any exactness, but it gives a fair indication of how the streets are used. From this information a traffic flow diagram has been composed, which is fairly complete for the centre and east end of the city. Unfortunately, Hamilton Avenue and Patrick Street in the west end were closed for repairs at the time the count was taken and the traffic in the west end seemed eccentric and not recorded.*

The flow diagram shows that LeMarchant — Harvey — Military Roads, Job — New Gower — Duckworth Streets and Water Street are the favourites. Waterford Bridge Road, Topsail Road, Campbell Avenue — Pleasant Street, St. Clare Avenue — Casey Street, Freshwater Road — Long's Hill — Church Hill, Portugal Cove Road, Rennie's Mill Road — Prescott Street, King's Bridge Road — Ordnance Street, Queen's Road, and the Long Bridge appear to be tributaries. To these, Cornwall Avenue — Hamilton Avenue should be added.

The three favourite thoroughfares are relatively level and cut through the whole city. They are the main arteries. The tributaries are the sub-arteries; some of these are more important than others by virtue of the areas they serve. The remaining streets serve houses and have very little traffic significance, exceptions being Patrick, Hutchings, Springdale, Waldegrave, Queen, Adelaide, McBride's Hill, St. John's Lane and Cochrane, which are short links and perhaps in the class of the tributaries.

This suggests three classifications, namely:—

CLASS I.

1. LeMarchant—Harvey—Military Roads.
2. Job—New Gower—Duckworth Streets.
3. Water Street.
4. Waterford Bridge Road.
5. Topsail Road.
6. Cornwall—Hamilton Avenues.
7. Campbell Avenue—Pleasant Street.

*Check counts were made at the junction of Hamilton Street and New Gower Street Feb. 20-21-23 1946 and a value for Hamilton Street has been added to the traffic flow diagram.

8. Freshwater Road—Long's Hill—Church Hill.
9. Portugal Cove—Rennie's Mill Roads—Prescott Street.
10. Queen's Road.
11. Torbay—King's Bridge Roads—Ordnance Street.

CLASS II ROADS.

1. Southside Road and Long Bridge.
2. Patrick Street.
3. St. Clare Avenue—Casey Street.
4. Pennywell Road.
5. Merrymeeting Road.
6. Newtown Road.
7. Allandale Road—Bonaventure Avenue or Barnes Road.
8. Carpasian—Monkstown—King's Road.
9. Rennie's Mill Road to Rennie's Bridge.
10. New Cove Road—Boulevard.
11. Forest Road.
12. Quidi Vidi Road.
13. Empire Avenue. This road has very little traffic now, but it is a horizontal road and may increase in popularity as the city grows into the Housing Corporation's area.
14. Hutchings Street.
15. Springdale Street.
16. Waldegrave Street.
17. Queen Street.
18. Adelaide Street.
19. McBride's Hill.
20. St. John's Lane.
21. Cochrane Street.
22. Pleasant Street to Water Street.
23. PROPOSED. Shaw's Lane—Pierce Avenue—Rope Walk.
24. " Morris Avenue Extensions.
25. " Patrick Street—O'Dea's Lane—Suvla Street.
26. " Cashin Avenue.

The remainder of the streets are Class III roads from the point of view of traffic flow.

SUGGESTED SPECIFICATIONS FOR ROAD WIDTHS

CLASS I.

34' 6" to 52' 0" between curbs.

These roads should have four clear lanes for movement. If parking or stopping is likely on both sides, such a road should have six lanes or be 52', between curbs. Water Street has four lanes, one of which is used for intensive parking, leaving three for movement which seems inadequate. New Gower Street has four lanes, but two are used for occasional parking, resulting in an extremely dangerous street. LeMarchant Road has four lanes, which are usually free; this street is excellent from the point of view of traffic flow and accident rate.

Development on a Class I road likely to induce parking, such as a theatre, block of stores or flats, or a hospital, should be permitted only on the condition that parking facilities are provided off the road, or the road widened at that point.

Driveways entering a Class I road should be arranged so that vehicles, before crossing the sidewalk, could be fully exposed to an oncoming car 50 yards away.

The traffic flow in a Class I road should be maintained.

CLASS II.

34' 6" between curbs

These roads should have four lanes, one of which might be used for occasional parking, provided there would be no parking within 40 feet of an intersection. In order to insure visibility, any intensive parking should have a lane set aside for it.

CLASS III.

26' 0" between curbs.

Three lanes of traffic should be sufficient in these roads.

All roads should be provided with separate sidewalks. This is particularly important on the Class I radiating roads, which are no longer country roads as soon as they enter the built up area. These roads are greatly used by pedestrians.

The intersections of Class I roads are as follows—

1. Waterford Bridge Road — Water Street and Topsail Road. (The Cross Roads).
2. Job and Water Streets. (The Railway Station).
3. Queen's Road and Duckworth Street. (Theatre Hill).
4. Church Hill and Duckworth Street.
5. Prescott and Duckworth Streets.
6. Prescott and Water Streets.
7. Ordnance and Duckworth Streets.
8. King's Bridge Road and Ordnance Street. (Cavendish Place).
9. Rennie's Mill Road — Prescott Street and Military Road. (Rawlins Cross).
10. Long's Hill — Church Hill and Queen's Road
11. LeMarchant Road and Freshwater Road. (Bus Terminus).
12. Campbell Avenue — Pleasant Street and LeMarchant Road. (Grace Hospital).
13. Cornwall Avenue — Hamilton Avenue and LeMarchant Road.

These intersections are places where the traffic is obviously heavy, as each road is a Class I road. At a few, police are on point duty and at one a traffic light is used. In most cases the traffic finds its way by itself. Where there is clear visibility and a level intersection there is little trouble; but if the traffic increases in the city, difficulties may be expected at these points.

The intersections of Class I and Class II roads are marked with small stop signs. The regulation is not strictly enforced. These intersections can be more dangerous than the Class I intersections, where trouble is expected and drivers are cautious. In all cases where secondary roads cross primary roads, the secondary road should be a stop street. In places where this would be difficult to enforce because of a hillside crossing that must be negotiated without slowing down in slippery weather, a policeman should be on point duty for safety at such times.

There is an indication that the principal intersections will increase in importance as shopping centres. Such places are convenient to many people and businesses tend to collect at them. LeMarchant Road, Freshwater Road (Bus Terminus) and Rawlins Cross are examples. If these places are active, new stores will be built around them, and there may be opportunities from time to time to increase the road width, to extend visibility, to accommodate cars that stop at the shops and to preserve or improve the flow of traffic at the intersection. At some intersections, where the flow is large and complicated, a traffic circle might be planned for the future, and, when possible, land and buildings could be acquired for its construction. Such circles might provide excellent shopping places as well as space for parking around the centre. I suggest that the Bus Terminal and Rawlins Cross should be treated this way.*

Traffic lights may be used at more intersections, particularly those where there is a direct cross rather than a fork and where the intersection is level.

The principle of continuous flow with a minimum of interruption seems best for the conditions in this city. Important pedestrian crossings at times may require police assistance. Park gates, school gates and other places where people tend to throng out should be provided with barriers at the curb, as at Victoria and Bannerman Parks.

Proposed West End to Northern Suburbs Road.

There are no adequate roads from the West End to the Northern suburbs. In the past there was no need for such roads, but now there is a need which will increase as the city grows, particularly if working men's houses are built in the west end of the northern suburbs. Consequently, I recommend the following:—

(1) Continuing Patrick Street across Buckmaster's Field to O'Dea's Lane, to Suvla Street, to Newtown Road.

(2) Extending Morris Avenue to Empire Avenue in the north and LeMarchant Road at Duff's Garage in the south, and possibly past the new West End Fire Hall across the yard of the Dept. of Public Works to Hamilton Avenue.

(3) Opening the proposed Cashin Avenue, from the head of Hamilton Avenue to the west end of Elizabeth Street,

(4) Continuing Shaw's Lane to Pierce Avenue, to Ropewalk, to Stamp's Lane.

Public Transportation.

Street cars, autobuses and taxis are used for general public transport. In the summer evenings and holidays stake-body trucks equipped with wooden benches to carry possibly 30 passengers are used for trips to Bowring Park and the country (Topsail, Manuels, etc.)

Street Cars. The street cars shuttle to and from the foot of Adelaide Street and the Cross Roads by the route Adelaide — New Gower — Queen's road — Military Road — Ordnance St. — Duckworth Street — Holloway Street and Water Street. It is a single line. There are five equidistant passing places where the street cars meet. The system does not operate more than eight vehicles at any time. The street cars operate on a 10 minute headway.

Autobuses. The autobuses follow four routes:

(1) The hospital route, from the General Hospital along Quidi Vidi Road, Duckworth Street, Prescott Street, Water Street, Springdale Street, New Gower Street, Hamilton Avenue, LeMarchant, Harvey and Military Roads, and Forest Road to the General Hospital. The buses operate in both directions, with a 12 minute headway.

(2) The West Loop from LeMarchant Road and Freshwater Road, following Long's Hill, Church Hill, Duckworth Street, Prescott Street, Campbell Avenue, St. Clare Avenue, Morris Avenue, Pennywell Road, Cookstown Road, to the Bus Terminus. The buses operate in one direction around the loop, with a 10 minute headway.

*Two diagrams are attached, indicating my proposals for these points.

(3) Fort Pepperell route shuttles along The Boulevard, King's Bridge Road, Military Road, Harvey Road, to Freshwater Road and LeMarchant Road Bus Treminus. The headway is 20 minutes.

(4) The East Loop from LeMarchant Road and Freshwater Road Bus Terminus follows Freshwater Road, Merrymeeting Road, Mullock Street, Barnes Road, Belvedere Street, Circular Road, Monkstown Road, King's Road, Gower Street, Cochrane Street, Duckworth Street, Prescott Street, Water Street, Adelaide Street, Queen's Road, Long's Hill to the Bus Terminus. The buses operate in one direction, with a 30 minute headway.

In the evenings the autobus services by-pass Water Street, using Duckworth and New Gower Streets.

The cash fare on the street cars is 5 cents, with 6 tickets for 25c, children 10 for 25c, and on the autobuses 10 cents, with 14 tickets for $1.00 and 6 for 50c, and children's fare 5c or 7 for 20c. There is no transferring from one system to the other without payment of an additional fare.

The autobuses provide services to and from the central district for the west end, higher levels, Hayward Avenue area and the Quidi Vidi area, which are not served by the street cars. The service extends to within 600 yards of most of the built up area, with the exception of the extreme west end, Waterford Bridge Road, Topsail Road, Craigmillar Avenue and Cornwall Avenue outside the city limits.

The street cars provide an internal service only. At the time the line was designed, it was no doubt a good one, but the city has outgrown it. Now the two transport services are not coordinated, and in order to give an adequate public service to the whole city, they should be.

Proposed New System.

There is a proposal to coordinate the public transport services into one system, using motor buses and trolley buses, replacing the trams altogether. The routes are nearly the same as those presently followed, with the exception of

(1) a new loop into the Northern suburbs out King's Bridge Road along New Cove Road to Elizabeth Street, west to Freshwater Road and into town, and

(2) a shuttle line out Allandale Road, Mayor Avenue to Elizabeth Street and back to town.

It might be worth while to extend the West Loop a little further west, to serve the built up area in the extreme west end.

The cash fare would be 10 cents, and 7 for 50c.

Taxis.

There are 43 taxi companies listed in the telephone directory. There appear to be anywhere from two to nine drivers each, as their names are listed also. The stands are distributed through the city, with some concentration near the ends of the public transport lines and in the central area. It seems that part of the function of the taxi is to extend the public transport lines.

Country Buses.

The Avalon Bus Company and others operating outport services use George Street, near Adelaide, as their terminus.

Passenger Trucks.

Trucks equipped with benches in their load spaces to carry passengers operate from the LeMarchant Bus Terminus, George Street-Adelaide Street Bus Terminus, and from the Cross Roads in the evenings and on holidays. They serve Bowring Park and other popular recreation places out of town. Some have loose benches and open backs and the passengers tend to be noisy and excitable. Children often reach over the sides to trail things in the wind or to see ahead, which appears very dangerous, but the records show that they have been safe or lucky.

Car Parking.

On Friday and Saturday, July 13th and 14th, counts were made of parked cars in the central area, and a composite diagram has been prepared showing the places where people tend to park. Busy times were selected for this count and the numbers of vehicles parked appeared to be near the parking capacity of the roads.

Duckworth Street from Cochrane Street to Queen's Road, both sides, accommodates 157 cars, and Water Street from St. John's Lane to Job Street, south side only with adjacent cross streets and coves, accommodated 243 cars. George Street from Beck's Cove to Springdale Street appears to be intensively used by country folk and accommodates 177 cars or carts. This area is said to be the west end centre for the outport people who come to town to buy or sell. Country carts are also evident about King's Road and Duckworth Street, which seems to be a corresponding east end centre for country folk.

Any car parking reduces the freeway of the streets, restricts visibility, increases the likelihood of collisions particularly with the left hand drive cars on the left side of the road, but it is an unquestioned convenience for business people. None of the favourite streets are sufficiently wide to allow parking with a safe traffic flow. The coves are congested by parked vehicles and they are needed for the circulation of commercial vehicles. The side streets are in many cases too steep to be suitable for parking when there is snow and ice.

I would like to propose the following: Gower Street, which is about 100 yards above Duckworth Street and within 200 yards of Water Street, could be used intensively for parking, herring-bone fashion. Gower Street is wide and unpopular for through traffic. There is room for 240 cars on the south side of this street. In the central area a large parking square for about 250 or 300 cars could be provided either below or above New Gower Street by eliminating some of the buildings at present condemned for habitation. Such a parking space might give new life to this area and it would be within 600 yards of the centre of the city and the Court House.

ROAD ACCIDENTS.

The Newfoundland Constabulary have kept separate records of the road accidents in the area of St. John's for the years 1935, '37, '39, '40, '41. After 1941 the road accidents were only recorded in the police journals and are not easily accessible. In any case, after 1941 the accidents could not be considered typical, because of the 'blackout'*. The records are either the accounts of a policeman who had been at hand at the time of an accident, or reports given to the police by witnesses. In most cases these reports state the date, time, and some description of a vehicle ** proceeding north, east, south or west on a specified road and that such vehicle struck and knocked down*** a person, or collided with another vehicle or object‡, or scraped another vehicle, or had slipped out of brake, resulting in injury‡‡ or damages. All of these are identified and frequently there is some description of the condition of the road or the weather, or the soberness or otherwise of the persons involved. These reports do not always follow the same form, but it has been possible to abstract the following information from them:—

* Blackout was adopted on April 6th, 1942.
** The vehicle primarily involved.
*** What vehicles are reported to have done.
‡ Involving other vehicles or objects.
‡‡ Personal injury, including occupants of vehicles, or pedestrians.

(1) The vehicles primarily involved in street accidents were:

Type	Number	%
Motor cars	1,150	70.3
Motor trucks	313	19.1
Defence vehicles	46	2.8
Motor cycles	36	2.2
Autobuses	28	1.7
Carts	26	1.6
Bicycles	21	1.3
Tramcars	13	.8
Children's sleds	3	.2
Total	1,636	

(2) What vehicles are reported to have done:

	Number	%
Collided	1,244	71.0
Knocked down	456	26.0
Slipped out of brake	40	2.0
*'Scraped'	19	1.0
‡Total	1,759	

* perhaps a common accident seldom reported.
‡ 103 vehicles did two or more of the above.

(3) The collisions involved other vehicles or objects:

	Number	%
Motor cars	598	47.1
Objects (poles, buildings)	262	20.6
Motor trucks	178	14.0
Carts	61	4.8
Bicycles	59	4.7
Trams	38	3.0
Defence vehicles	24	1.9
Children's sleds	21	1.7
Motor cycles	17	1.3
Autobuses	12	.9
‡‡Total	1,270	

‡‡ This total does not necessarily agree with the number of vehicles that collided, as some vehicles collided with two other vehicles or a vehicle and an object, etc.

(4) Those injured, both occupants of vehicles and pedestrians:

	Number	%
Men	247	34.6
Boys	205	28.7
Girls	149	20.9
Women	113	15.8
Total	714	

(5) Their injuries were:

	Number	%
Nothing apparent	161	22.6
Scratches or bruises	407	57.0
Fractures or deep cuts	115	16.1
Fatalities	31	4.3
Total	714	

(6) The time of day when accidents occur, with comparison of street traffic flow based upon a 12 hour count July 9, 1945.

Hour	Collisions	Knock-downs	% of accidents per hour		% of traffic flow per hr. for 12 hrs.
			collisions	knock-downs	
Midnight-1	46	17			
1 - 2	29	8			
2 - 3	16	2			
3 - 4	7	1			
4 - 5	2	..			
5 - 6	4	..			
6 - 7	4	..			
7 - 8	10	1			
8 - 9	16	1	1.8	.3	5.11
9 - 10	29	4	3.2	1.2	8.6
10 - 11	54	9	6.0	2.8	8.34
11 - 12	78	32	8.7	10.0	10.34
12 - 1	79	28	8.8	8.8	8.16
1 - 2	79	28	8.8	8.8	8.24
2 - 3	78	29	8.7	9.1	9.31
3 - 4	122	33	13.6	10.3	11.10
4 - 5	67	25	7.5	7.8	8.79
5 - 6	105	50	11.6	15.7	10.69
6 - 7	112	43	12.5	13.5	5.56
7 - 8	75	36	8.4	11.3	5.46
8 - 9	69	37			
9 - 10	62	25			
10 - 11	45	24			
11-midnight	55	23			

The collisions vary directly with the traffic flow. They also seem to increase in intensity towards the end of the day, due probably to fatigue and darkness. The knockdowns, similarly, show people to be more alert in the mornings. They reach their peak at 5 to 6 p.m., when probably the most people are on the streets, as well as a large traffic flow. However, the traffic flow diminishes at a swifter rate than the incidence of knockdowns, which indicates either more pedestrians after 6 p.m., or darkness, or both, as the reason. Vehicles may also travel faster when there are fewer of them on the roads, thereby increasing the possibility of knockdowns.

The factor of street lighting is one which can be controlled. It is now being improved and there can be little doubt that this will increase road safety.

(7) It is not possible to chart the locations of accidents, as the records frequently describe them as occurring in a street only. But assuming that the number of accidents in a street bears some relation to the length of the street, an accident rating has been determined for each street, which is a ratio of length to number of accidents in the five year period. This rating is quite regular for the whole city, with the lower level or older streets tending to be higher than the newer ones. The radiating roads and the horizontal roads are noticeably higher and eight are so much higher that attention is drawn to them (underlined).

Adelaide+	.06
Alexander+	.006
Bambrick+	.008
Bannerman	.002
Barnes	.002
Belvedere	.004
Bell+	.012
Bonaventure	.002
Bond+	.005
Brazil-Buchanan+	.01
Bulley+	.012
Cabot	.002
Campbell-Pleasant+*	.005
Carter's Hill+	.007
Cathedral+	.014
Church Hill	.06
Circular	.002
Cochrane+	.018
Cookstown	.009
Cornwall	.003
Craigmillar	.001
Deanery+	.007
Flavin+	.005
Forest+	.005
Freshwater*	.003
Garrison+	.023
George+	.004
Gilbert	.004
Gower+	.006
Haggerty+	.013
Hamilton	.008
Hayward	.0015
Henry+	.014
Holdsworth+	.015
Holloway+	.015
Hutchings Lane+	.011
Hutchings+	.018
Job-New Gower & Duckworth+*	.06
John-Central	.001
King's Bridge*	.004
King's+	.019
LeMarchant-Harvey & Military*	.017
Leslie	.007
Lime	.002
Livingstone-Wickford	.003
Long Bridge+	.006
Long's Hill+*	.03
McBride's Cove Hill+	.056
Parade	.006
Patrick+	.013
Pennywell*	.004
Plymouth	.007
Power+	.014
Prescott+*	.033
Prince of Wales-Queen St.*	.009
Prospect	.003
Queens Rd.+*	.016
Quidi Vidi	.005
Raleigh	.001
Rennie's Mill*	.005
Signal Hill Rd.	.001
Southside Rd.	.001
Spencer	.001
Springdale+	.007
St. Clare-Casey*	.003
St. John's+	.058
Victoria+	.001
Waldegrave+	.04
Water+*	.018
Waterford Bdge+*	.004
Williams+	.01
Young	.003
York	.002

+Old streets in the lower level.
*Radiating roads and the horizontal roads.

The streets where the rating is higher are:— (1) in areas of greater population density, e.g. old streets in lower levels, New Gower Street; (2) where the freeway of the street is restricted by parked cars, e.g. Water Street, New Gower—Duckworth Streets; (3) where there is a narrower space between curbs, a bottleneck, Job—New Gower Streets; (4) where the street gradient requires mounting vehicles to speed across intersections, Long's Hill, McBride's Hill, Prescott Street, St. John's Lane; (5) or where the distances between intersections is very small, Adelaide, Waldegrave, New Gower.

The accident rate does not depend only upon the traffic flow; in fact, LeMarchant-Harvey-Military Road, which has a flow of 4000 vehicles in 12 hours at the Bus Terminus, has a low rate, .017, compared with Job-New Gower-Duckworth having a 50% greater traffic flow and an accident rate of .06,

which is three times the other.* This shows LeMarchant Road is a safer street. I propose that particular note should be taken of the New Gower Street accidents in order to determine a remedy for its condition. If the area to the north is cleared as a slum clearance measure, then I think the shops and buildings on the north side of New Gower should be removed as well and the street widened to at least 52' between curbs.

The hillside roads — St. John's Lane, Church Hill, Long's Hill, McBride's Hill, Prescott Street — need police point duty in slippery weather.

As the police do make records of accidents and constant observations on the streets, perhaps they could cooperate with the Planning Commission by making suggestions regarding street widening, or the removal of obstructions to vision at intersections, and like matters which may appear to them.

My suggestions for improved circulation and reduction of street accidents are:—

(1) Playgrounds to serve areas where children play in the streets,
(2) Parking places, so that 'no parking' regulations could be enforced,
(3) point duty police on hillside intersections,
(4) sidewalks on all roads used by pedestrians,
(5) improved street lighting.

SCHOOLS.

The schools in St. John's are denominational — Adventists, Anglican, Catholic, Presbyterian, Salvation Army and United Church. The largest groups in the city are Catholic, United Church and Anglican in order, and they have the greatest number of schools. Usually, the Catholics have separate schools for boys and girls.

With the exception of Memorial College,* which is inter-denominational for boys and girls, the colleges‡ are:

(1) Anglican — Bishop Feild for boys and Spencer for girls,
(2) Catholic — St. Bonaventure's for boys and Mercy Convent for girls.
(3) United Church — Prince of Wales College for boys and girls.

The custom is for students to go to the nearest school of their denomination, or to one of the colleges which have junior grades and are more fashionable. The sites chosen for schools appear to have been those available roughly within the area intended to be served. Central sites have been selected for the colleges.

There seems to be no tendency for people of one denomination to live in one area. The school is not a neighbourhood centre in the sense that it is in Canada and in the United States.

Four new schools have been built in the last few years under a Government program of assistance for education. Two are Catholic, one Anglican and one United Church. One of the Catholic schools, St. Patrick's Hall, was built in the north central area. It replaced an old school further south in the central area. The other Catholic school, Holy Cross, is built in the yard of the old school on Patrick Street in the west end. The other two new schools, the United Church and Anglican, are also in the west end. The development of houses in the west exceeded the school development. The overall pattern of school districts now seems to be as convenient as is possible with the overlapping of denominations. I would suggest that in the future district schools should be grouped together around a big playground, so that the school group could act as a community centre. Perhaps it might be possible for schools to combine on Science Rooms or Gymnasiums, which are expensive items to duplicate. In the northern suburbs a joint school site might be worth reserving as an experiment.

SEWERS.

There are approximately 900 unsewered houses in the city, not including an additional number near the outskirts.*

Night soil is collected from the unsewered houses between 11 and 12 p.m. In the outskirts, soil is tipped in the drains or in the nearby bushes‡ During the day the pails of soil are kept in the houses, often uncovered, and in the same room where there are toddlers — which is dangerous from the standpoint of health. Although there is a

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* The actual figures for these two streets.

Street	No. of Accidents	Traffic Flow 12 hrs. 8 am–8 pm	Length	Accident Rating
LeMarchant-Harvey‡ Military	189	4,014–	10,750,	.017
Job-New Gower-Duckworth‡	492	6,315–	8,000,	.06
Water Street‡‡	188	5,000—	10,500,	.018

‡ counted July 9th, 1945.
‡‡ an estimate.

*Junior University grade
‡High School grade

* Third Interim Report, Commission of Enquiry on Housing & Town Planning in St. John's. Ch. III.

‡ The following description of a house on the Blackhead Road is taken from a report of an officer of the Dept. of P.H. & W.:—"This shack like many others in this locality, is of the crudest construction, boarded up on the outside of the studding and sheathed with felt (lathed on). It is off the road some ways and is built on a piece of land of indefinite size, but not much larger than is absolutely necessary to take the house There is no room for, or possibility of having a well or toilet on this piece of land, with the result that water has to be obtained from neighbours and the sewage is being dumped in the drain or in the nearby bushes. The same condition of affairs exists in nearly all the houses in this locality."

regulation against tipping soil in the gullies in the streets, it has to be done where houses are overcrowded. Children play near the gullies and infection is hard to avoid. Numerous flies are attracted to the gullies, which spread contamination. The infantile mortality rate goes up in warm weather, when flies are active. Perhaps these gullies could be improved temporarily by surrounding them with a cement paving dished into the openings and having water running over them to keep them clean. The ultimate solution is, of course, the removal of the unsewered houses.

In the Mundy's Pond area, the northern suburbs, the north side of Empire Avenue, and along the Boulevard, septic tanks are used where there are no sewers. These are seldom constructed in the approved manner. Sometimes they are made with two chambers in concrete, but oil drums and rum puncheons are also used. Where houses are close together (30' lots) there is insufficient space for the distribution of the effluent, which comes to the surface and drains into brooks. Kelly's Brook is said to be polluted this way and it is probable that Mundy's Pond is being polluted also. At the Boulevard the overflow pipes from the septic tanks directly enter an open stream about 20' behind the houses. This stream has been a nuisance this summer and there was some mention of having it covered in. It flows into Quidi Vidi Lake.

The Housing Corporation's northern interceptor sewer is now being built and there is an opportunity to overcome all the pollution of the streams in the Freshwater Valley by linking up the houses now using inadequate septic tanks.

Sewer extensions are needed in the Mundy's Pond area and Southside. I suggest that the Planning Commission and the City Engineer determine a program of sewer extensions, so that land with services could be made available for building from time to time, and development prohibited in areas that are impractical to sewer. Where development has already occurred in 'impractical areas', sewers should be provided, or the dwellings moved, whichever is the cheaper.

LAND TENURE.

Land in the city may be bought outright, in which case the buyer is said to have a freehold. If land is purchased for a period, usually not less than 99 years, it is called a leasehold. It is customary for land to be leased with the condition that the lessee improves it, normally meaning to erect a building on it; a specified value for, or the type of building to be erected, may be outlined in the building lease. Generally, the lessee agrees to maintain the improvements in good condition during the period of the lease. At the expiry of the lease, the land and improvements may revert to the freeholder, or a renewal of the lease may be secured. There is usually an annual rent. This is an old way of holding land. It seems to work best when the lessee's income from the leasehold is directly related to the condition of the improvements, as agricultural land or commercial premises. In the case of dwellings, there is no income incentive to maintenance. Towards the end of a building lease, when the improvement, if a dwelling, is old, the lessee tends to shirk the responsibility of maintenance. In most cases dwellings are exhausted at the expiry of the building lease.

In order to overcome this situation, in 1921* leaseholders were given the right to purchase the freehold at any time during the currency of their building lease for an amount equal to twenty times the annual rent, or, at the expiry of the lease, the right to renew their building lease. The amount of ground rent was left open, to be decided at the time of renewal. However, ground landlords may demand such an increase in their ground rents that renewals cannot be assured.

Leaseholders may sub-lease parts of their land for any period less than the period of their own leases and otherwise on the same conditions with regard to improvements. Sub-lessees, apparently, have no rights of renewal or purchase. The original lessee may renew his lease by law and if he chooses he may dispossess those sub-leasing from him at the expiry of their sub-leases. Sub-lessees have very little incentive to maintain their improvements, which are not secured.

When dilapidated buildings are repossessed by ground-landlords, they are frequently rented on short terms, with the condition that tenants make their own repairs. There appear to be a good many buildings in this category in the central area and their condition is very poor.

The system of leasehold tenure of dwellings, notwithstanding the safeguards of the law of 1921, may result in owners of building leases having a diminishing equity in their property and a disinterest in its maintenance. This may have a harmful effect upon the neighbourhood. However, it seems

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* Sections 94, 95, 96 of The St John's Municipal Act, 1921

contrary to the principle of increasing equity by hire-purchase, which is an important part of the home ownership schemes of Canada and the United States, and it might be worth investigating whether leasehold properties are as carefully maintained as freeholds. It is important from a town planning point of view to prepare for what may happen in 99 years or less, when leases expire in different parts of the city.

HOUSING.

A survey of housing conditions in the city was made in 1942-43 by the Commission of Enquiry on Housing and Town Planning. Chapters II and III of the Third Interim Report of the Commission set out the extent and nature of the problem in the built up areas of the city. In my view the shack developments in the neighbourhood of the city are part of the substandard housing in the area and should be considered with the housing problem of the central district.

The Fifth Interim Report of the Commission outlined a program of development in the northern suburbs which is now being carried out by the Housing Corporation. This will undoubtedly relieve pressure on accommodation in the city by making available an ample supply of building land with services. However, the slum houses in the central area and the shack developments around the city require direct attention, in the interest of public health.

The Fifth Interim Report suggests that flats might be built in the central area as a direct re-housing measure.* In my opinion, this is necessary now. I suggest that the Housing Corporation be asked to investigate the present possibilities of building flats in the central area, to be amortized over 60 years, and to be rented at sub-economic rents, with the annual deficit carried by a special rate or some such procedure commonly used for housing of this type.

The Third Interim Report refers to the Swedish "Magic House", which is a house of the utmost simplicity, having only the most essential equipment built jointly by the public authority and the occupants, and suggests that such a technique might be useful here, having regard to the handiness of the local people.‡ I believe that the Town Planning Commission should support this suggestion and that lots on roads with services should be prepared for development of this type. I feel that such a proposal would greatly contribute to the solution of the Blackhead Road, Sand Pits, Higgins Line problem.

* Ch. IV, Section 20 Fifth Interim Report.
‡ Ch. VI, Section 13, Third Interim Report

ARCHITECTURE.

The danger of fire is always present in the city as so many of the buildings are non-fire-resisting in construction. New fire fighting equipment and an extremely efficient alarm system have eliminated the probability of fires spreading over large areas but wood buildings once alight are difficult to save. Consequently strict attention should be paid to fire escape facilities particularly in theatres or other places of public assembly, and in office buildings and hotels where large numbers of people might be trapped. Experience in the past amply proves the need for such safety regulations.

All the common building materials are used in St. John's. There is brick, terracotta, stone, slate, concrete in various forms, wood, most of the metals, asphalt saturated felts, gypsum, asbestos products and so on. There is an old belief that local materials prove the most satisfactory in resisting the weather and that seems true here. The imported soft bricks, terracotta and some stones have not been successful.

The climate in St. John's requires buildings to be very simple in outline. In my opinion "the square box" may be blamed more upon the climate than lack of "taste". Parapets, cornices, buttresses or free standing ornamental elements are at the mercy of the weather. As a result, simple roofs and smooth walls have been found the most practical. Materials nearly impervious to moisture penetration, as asphalt and tar saturated felts, hard burnt bricks, hard stone, non-corrosive sheet metal, or well painted wood are the favourites.

Masonry.

At one time there was an active stone masonry trade in the city. One can still see several fine retaining walls and stout warehouses built of stone. It seems that a few stone buildings poorly designed for the climate have made this material unpopular, and the stone mason is now practically extinct. It is a pity, when stone is so plentiful here and all other materials so scarce. In my opinion, two types of failure have been experienced with masonry, both of which may be overcome:—

(1) Exterior spawling and cracking due to penetration of moisture in a driving rain, either into a soft, porous brick or stone, or into the mortar joints, which later freezes if the tem-

perature drops. The moisture expands, enlarges a crack or pore, and in the next similar storm the moisture penetrates further. Thus the decay becomes cumulative. Projecting parts like buttresses are exposed on three sides to the rain and equally exposed to the cold wind, which causes a rapid evaporation and heat loss. They have a greater possibility of moisture freezing in the joints, and hence of decay. This means that smooth masonry walls, in which the penetration of moisture and temperature change are least, are the best form for this climate. Parapets, tall chimneys, buttresses and so on require constant repointing.

(2) The interior dampness problem in solid masonry buildings results when warm wet air condenses on a masonry wall at a lower temperature than the air. The wall appears to sweat both outside and inside. Porous stones absorb this moisture and remain wet unless dried by strong air currents or heat from the sun. In time the exterior walls dry out but the interior ones, which are shaded and where the air is still, remain damp. Masonry walls in this country should have an interior lining with a still air space between protected by a vapour barrier on the interior, so that moisture laden air cannot get through to the cold inside surface of the structural wall.

Concrete.

There is a growing facility with concrete construction which brings local stone in a different form back into use again as a building material. Concrete is universally used for foundations and footings, but there are several new buildings that have concrete superstructures as well. By most accounts, the concrete wall here is weather resisting if it is made of dense, well vibrated concrete just wet enough to handle when placed in the forms. Wet concrete is easy to use, but it has a very great shrinkage as the water dries out of it, leaving the surface a mass of tiny cracks which will tend to crumble or admit moisture and decay. Drier concrete needs vibrating to get it spread into its forms, but its shrinkage is less and its surface is more intact. All concrete shrinks. Big walls require particularly careful placing in sections and sometimes expansion joints are necessary to relieve tension as the material shrinks.

In my opinion, it is best to leave the concrete as it is when the forms are removed, rather than to plaster it with smooth cement. The smooth cement skin may not adhere everywhere. It may flake off. Cracks in it will admit moisture and become discoloured. If the new concrete is rubbed down with carborundum or, in special cases, bush hammered as though it were limestone, the appearance will be more permanent.

Here a good many of the concrete buildings appear to be of a composite construction, having concrete walls but floors on wood joists. Perhaps this is a transitional type. So far, the concrete is only replacing the brick walls, but shortly it may be found useful for floor construction as well, which will result in first class fire-resisting buildings.

Concrete brick and concrete block are also being used in St John's. The block is being made here and it promises to be a good building material. There are a number of quite old houses in concrete block that appear in good condition.

Building Forms.

The appearance of buildings is sometimes expected to be controlled by the town planning scheme. This is often a thorny question, which is ultimately a matter of individual taste. In my opinion it is better to keep the control of buildings in terms of sound practice in construction about which there can be little dispute.

The unsightliness of many buildings in St. John's results from their congestion, their almost despondent colour, and from the soot deposits on them. Many fine houses look mean because they are on such narrow lots. This is the result of the land scarcity that is being overcome by the northern extension of the city.

There is now a marked tendency towards separate dwellings. So far, only a few feet separate most houses, but as people get a taste for a little garden and privacy, the development will spread out. As a result, the city will be cleaner, the smoke more diffused, and the ground will be able to absorb the soot which now blows freely on the hard roads and roofs.

Through continual improvement in building techniques and insistence upon good practices in construction, a building culture suitable for the climate and the needs of the people will develop. In this respect a building code has been prepared and awaits adoption. This code, together with examples of well-constructed buildings openly spaced, will enrich the building practice. In these factors lies the basis of a distinctive architecture

growing out of the materials, skills, and the requirements of the country.

SUMMARY.

The proposals included in this report are as follows:—

1. *Traffic.*

Classification of roads, with minimum specification regarding widths.

Provision of sidewalks for pedestrians on all roads, particularly the radial roads.

Provision of parking spaces in the central area.

Provision of more adequate street lighting.

Cooperation with the police to eliminate traffic hazards, such as poles, signs or buildings interfering with visibility at intersections.

Enforcement of the "Stop Street System".

Widening of Military Road west of Rawlin's Cross and adoption of a traffic circle at Rawlin's Cross.

Widening of New Gower Street as part of a slum clearance program.

Adoption of a traffic circle at LeMarchant Road Bus Terminus.

2. *Zoning.*

Establishment of five zones according to the present predominating use of buildings and land, to regulate further development.

Establishment of new areas for industry with good roads and other services, possibly one near Mundy's Pond, and another at Riverhead by restricting the river to a narrow canal.

Establishment of an area for Government Buildings.

Reservation of Fort Townshend area for the expansion of Memorial College.

Reservation of sites for schools, so that cooperation in the use of equipment might be possible, if thought desirable in the future.

Reservation for open space of Signal Hill and other Crown lands surrounding the city, now being spoiled by the encroachment of squatters.

3. *Parks and Playgrounds.*

An investigation of the demands and provisions for recreation and a program for adequate playing fields and possibly an enclosed "arena" for skating.

A program for playgrounds throughout the city, with the ideal of no dwelling further than a half mile from a playground. A central park in the Higher Levels, possibly Buckmaster's Field.

4. *Housing and Slum Clearance.*

A program of extending sewers into all areas of the city and within one mile of the city limits.

Slum Clearance and Rehousing in the central area from Carter's Hill to Springdale Street and from New Gower Street to John Street, Central Street and Livingstone Street.

A Scheme for publicly assisted building of the smallest type of house.

A program to meet the transition in the east end perhaps public assistance for converting single dwellings into multiple dwellings and providing play spaces by closing short streets and acquiring the sites of condemned houses.

Provision of fire escapes in all places of public assembly.

5. *Further Research.*

An investigation into the use and condition of the harbour.

An investigation into the condition of leasehold residential property in comparison with dwellings occupied by the free-holder, and into the condition of property owned by absentee landlords.

An investigation into the "shack towns" on the fringes of the city.

JOHN BLAND
CONSULTANT

THE HARBOUR

R.C.N.

The harbour seen from the Queen's Battery, Signal Hill. The photograph shows on the left the steep South Side Hills, the narrow Harbour front at their feet which stretches out about a mile from Riverhead, and centre, the main harbour front on the north side where the bank is less steep. On the right is the high land in the east end of the city.

Robert McMichael

The harbour seen from Cabot Street and Barter's Hill in the central area. On the right are the South Side Hills. In the centre background is Signal Hill above the 'Narrows'.

BANNERMAN PARK AREA

J. B.

Old houses on Monkstown Road. These are examples of the substantial and well maintained houses in the Bannerman Park Area.

Holloway

Government House. This building stands at the head of Cochrane Street in a large park. Its presence coupled with Bannerman Park has contributed to the stability of the area around it.

Maunder

The Parliament Buildings seen through a corner of Bannerman Park. This is a handsome early 19th century building which could be related to a new group of government buildings facing it on Military Road.

J. B.

A new house on Monkstown Road. This is a separate house with a garden. It follows the trend of the well to do away from the row house.

EAST END

Holloway

The Central Methodist Church and Hall. These buildings with the Anglican Cathedral beyond and Victoria Hall and the Court House on the right, lie in an area of public buildings stretching from Fort Townshend to Clifts Cove.

Holloway

The Anglican Cathedral designed by Gilbert Scott destroyed in the fire of 1892 and rebuilt. It is possibly the finest example of the Gothic Revival in America.

The Roman Catholic Cathedral stands on the most prominent site in the city. St. Bonaventure's College, the Archbishop's Palace and two convents surround it.

The Great War Memorial, Water Street East. This was the site of an old hay market; formerly diagonal streets cut down from Duckworth Street to Water Street here, forming easier grades than at Cochrane and Prescott. Perhaps some day a better site for this memorial may be found permitting the rebuilding of one of the diagonal streets.

J. B.

A derelict house on an otherwise well maintained street in the East End. This form of blight in the city needs investigation.

Tigerstedt

Roof tops in the East End. This photograph shows the type of buildings built after the fire of 1892. Some show a bit of roof with dormers in the old manner, but most have flat roofs.

CENTRAL AREA

J. B.

Duggan Street. A typical Central Area street showing an old fashioned two story double dwelling as well as three story flats. A hopper in the gutter near the hydrant is indicated by the soil on the ground around it. This is the area proposed for slum clearance.

J. B.

Old houses in the Central Area. Probably examples of the hasty construction after the fire of 1892. These houses seldom have any sanitary conveniences.

WEST END

The Newfoundland Railway Station on Water Street West. The railway buildings dominate the West End Many of the citizens in this area are employed by the railway.

J. B.

Railway Houses. Craig Millar Avenue. Blocks of 2, 5, and 10 houses. Each has a back garden. They are said to be noisy as the walls between houses are plaster on wood studs. A further development of this inexpensive type of house would contribute to the low income housing problem.

FRINGE AREA

Tigerstedt

Middle Battery Signal Hill. This is an example of a fringe area. Some of the houses have street frontages but many are accessible by paths over the rocks. Normal services are difficult to provide.

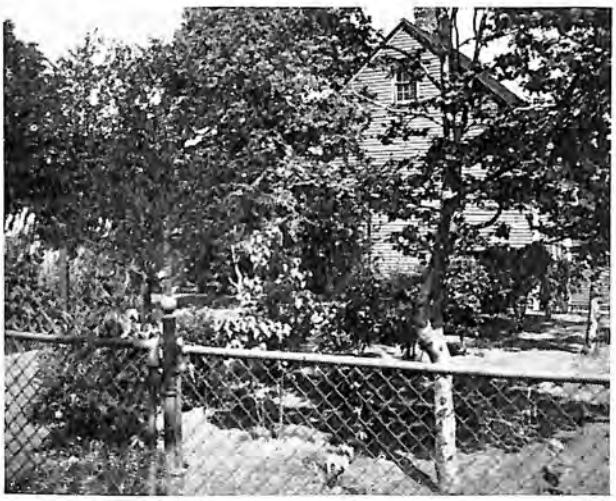
Tigerstedt

Fishing stages and houses near the Narrows. The fisherman's house and gear are customarily closely associated.

ARCHITECTURE

J. B.

The Rectory of St. Thomas' Church. This is an 18th century building in excellent repair. It shows the high roof and dormer windows of the older buildings in the city.



J. B.

Part of a garden on King's Bridge Road showing the gable of an old house. The narrow clap boards are reminiscent of the houses of Salem, Mass.

J. B.

Old house and shop, Monkstown Road. This shows a typical corner shop.

J. B.

Old houses, James Street. These houses show the form of 1840. They have high roofs originally covered with wood shingles, and stone chimneys and fireplaces.

ARCHITECTURE

J. B.

Old farm house at Cornwall Avenue and Craig Millar Road. This is a typical large country house.

J. B.

House on LeMarchant Road near Lime Street. This is a town house more elaborate but essentially similar in construction to the country house ytpe.

J. B.

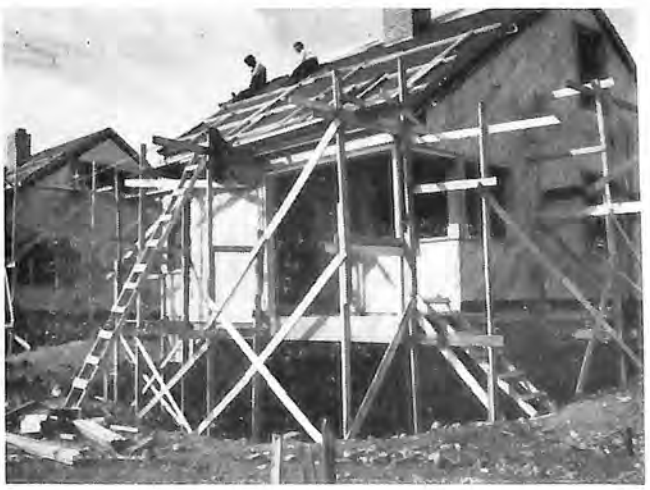
House on the Newton Road. This is typical of a good outport house.

J. B.

Houses on Cornwall Avenue. These newly built houses show the present popular form.

J. B.

New houses on the Topsail Road. These houses show some of the old forms combined with the new trend toward the detached house. They are however still close together and very close to the street.



J. B.

New houses in the Housing Corporation Area. This shows the good quality of the construction of these houses. They have fully excavated basements with concrete walls. The superstructure is baloon frame diagonally sheathed.

OPEN SPACES

J. B.

Square at Queen's Road and Gower Street. This shows a pleasant small open space with trees in the built up area.

Maunder

A road in Bowring Park. This park is 1½ miles west of the city limit. It is sheltered and contains many species of trees and shrubs. Its scenery differs remarkably from the windswept surrounding country.

J. B.

Rennies River Waterfalls. The river valley is a proposed park strip extending from the greenbelt to Long Pond.

J. B.

Natural Swimming Pool, Rennies River. The pool is operated by the Playground Association.

J. B.

Track Meet, July 1945, Feildian Athletic Grounds, Portugal Cove Road. This area is a part of the proposed greenbelt separating the northern suburbs from the existing city.

J. B.

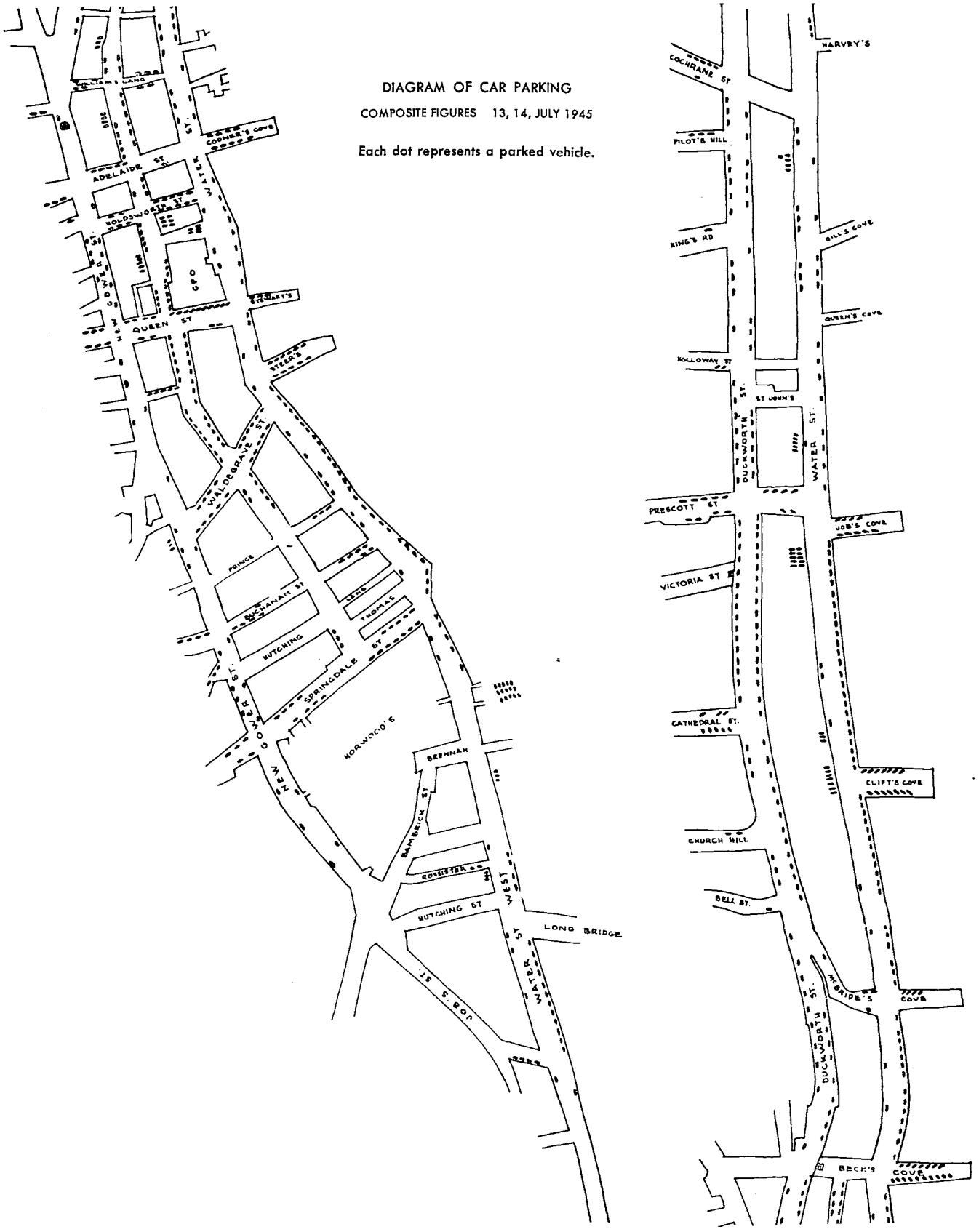
Rennies River. This is a popular playground which is in the proposed park strip.

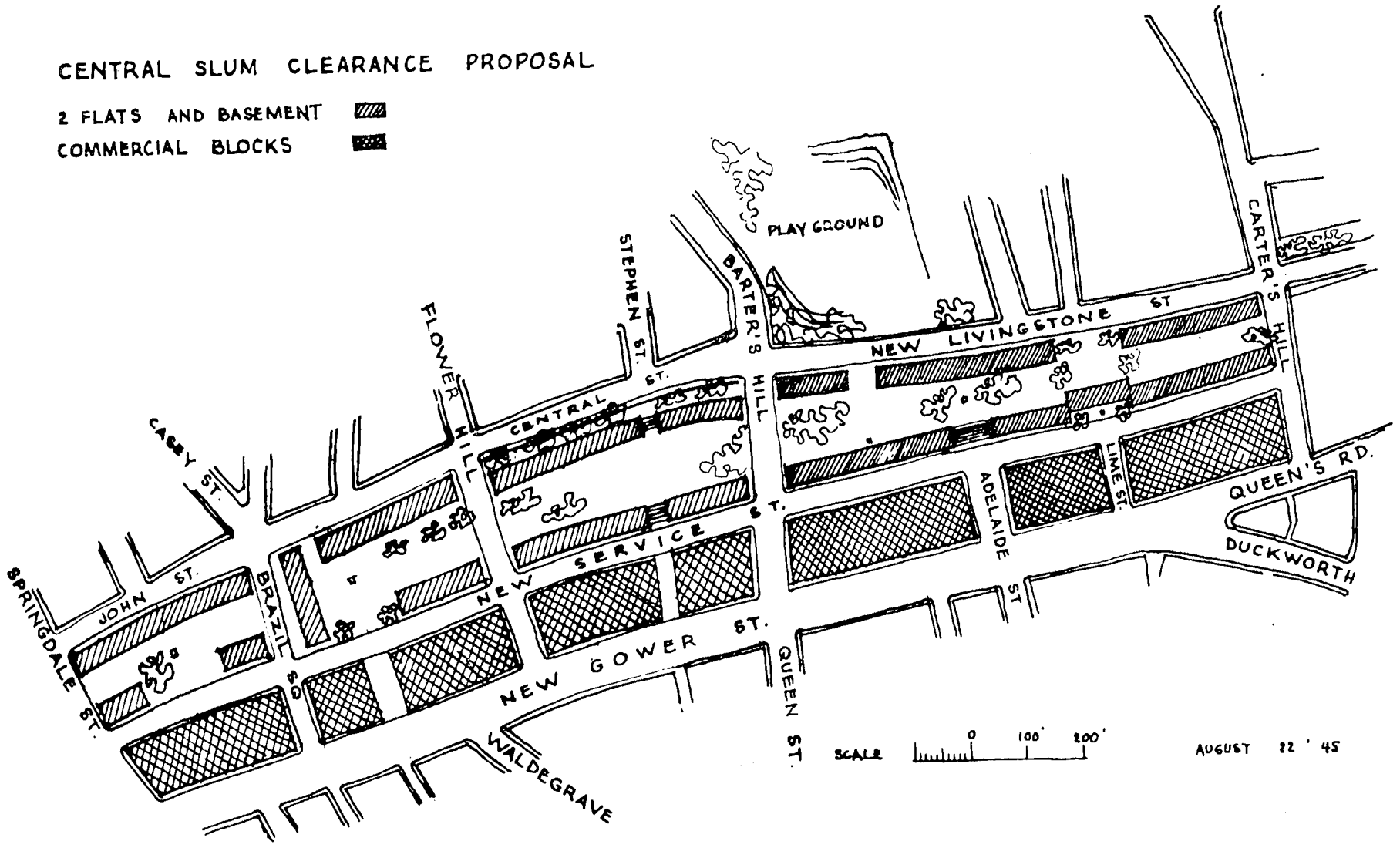
Traffic Flow Diagram July 1945

DIAGRAM OF CAR PARKING

COMPOSITE FIGURES 13, 14, JULY 1945

Each dot represents a parked vehicle.



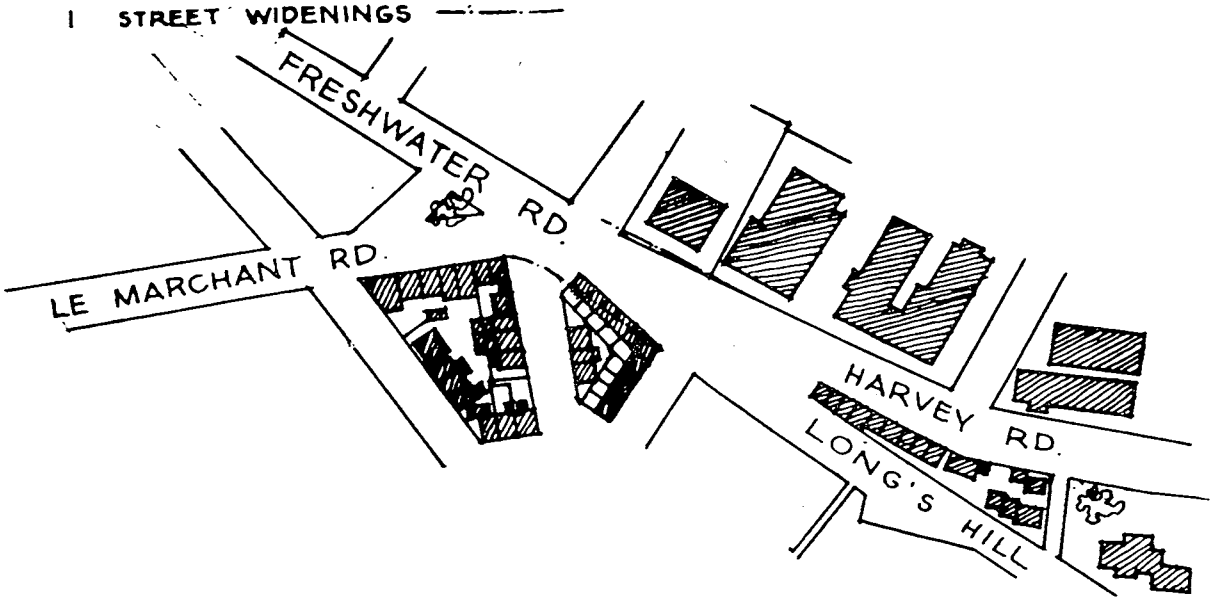


Slum Clearance Proposal:

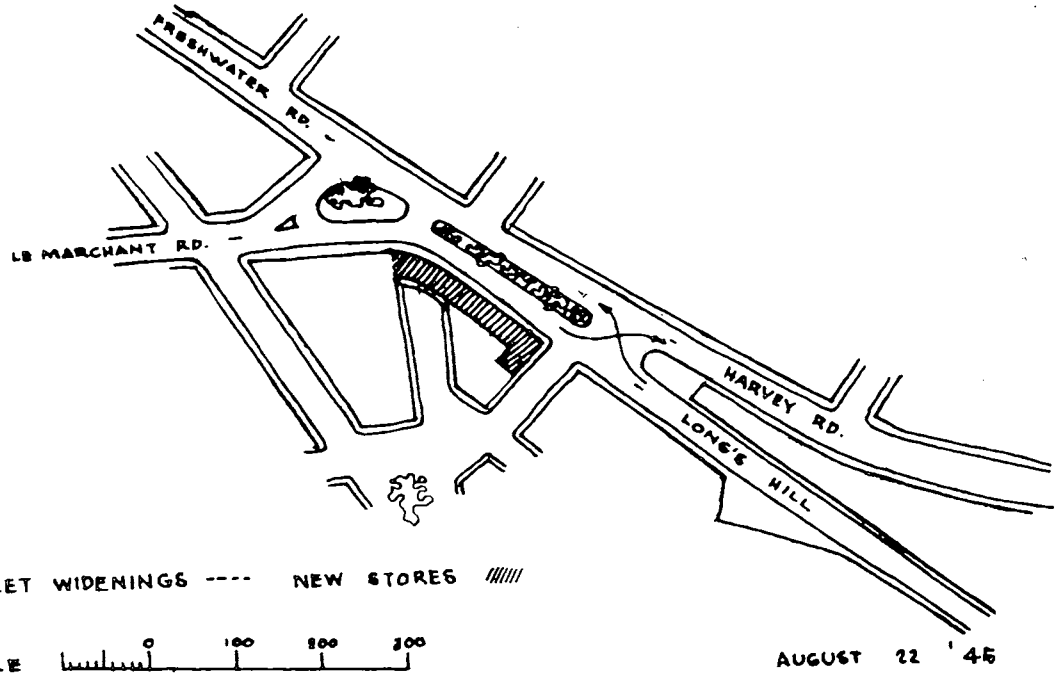
This proposal involves the removal of buildings north of New Gower Street from Carter's Hill to Springdale Street. This makes possible the widening of New Gower Street to 90 feet between buildings and the provision of commercial building sites on the north side 100 feet deep. Beyond these is a service street and a low rental housing scheme of possibly two or three storey four room flats extending up to John Street continued through to Livingstone Street. The open space east of Barter's Hill is to be cut and fill levelled as a central area playground.

PROPOSALS FOR 'BUS TERMINUS'

1 STREET WIDENINGS —·——



2 TRAFFIC CIRCLE

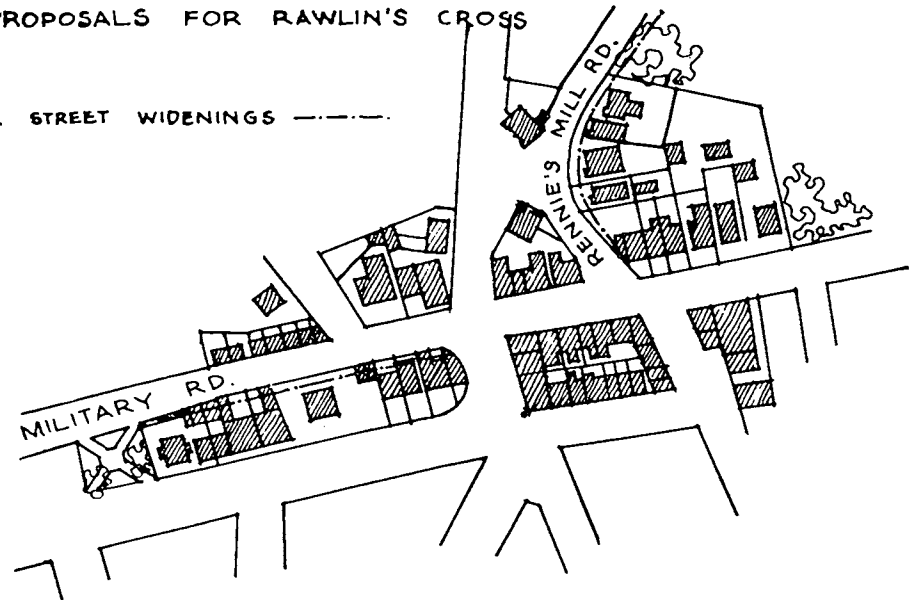


Bus Terminus Proposal:

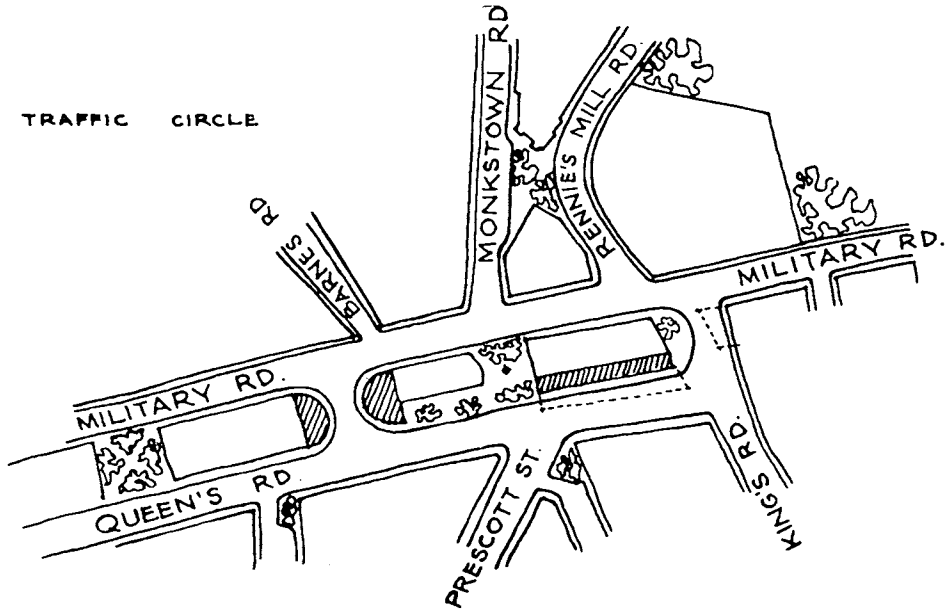
This proposal involves the widening of Harvey Road at Parade Street, the closing of the intersection at the top of Carter's Hill and the introduction of an island for traffic circulation. The conflict of traffic proceeding up Long's Hill and that proceeding east on Harvey Road would be controlled by an intermittent light. The traffic down Long's Hill and west on Harvey would circulate freely.

PROPOSALS FOR RAWLIN'S CROSS

1. STREET WIDENINGS —·—·—



2. TRAFFIC CIRCLE



STREET WIDENINGS ----- NEW STORES

SCALE 0 100 200 300

AUGUST 22 '45

Rawlins Cross Proposal:

This proposal involves the closing of the direct crossing at Monkstown Road and the introduction of a short street from Military Road to Queen's Road in order to produce a gyration of traffic around a long island between Military Road and Queen's Road. This system might appear to require an inconvenient deflection of traffic proceeding east on Military Road but it allows the traffic to move continuously without direct intersection. It is proposed to separate Monkstown Road from Rennies Mill Road to avoid a dangerous intersection. This improvement would be introduced with very little alteration to commercial property. The part of the street closed off might be used for car parking or as a pedestrian plaza. The proposal also involves the widening of Military Road west of Barnes Road.

ZONES

RESIDENTIAL 1

2

3

COMMERCIAL

INDUSTRIAL

OPEN SPACE

P PLAYING FIELDS
PLAYGROUNDS
PRIVATE
CEMETERY

ROADS CLASS 1

2

TOWN PLANNING PROPOSALS FOR

ST JOHN'S

PREPARED BY JOHN BLAND TOWN PLANNING CONSULTANT 4.XI.45

APPROXIMATE SCALE 1/12000