

a concept for
integrated rapid
transit and
commuter rail
systems in
metropolitan
toronto . . .



february 1969



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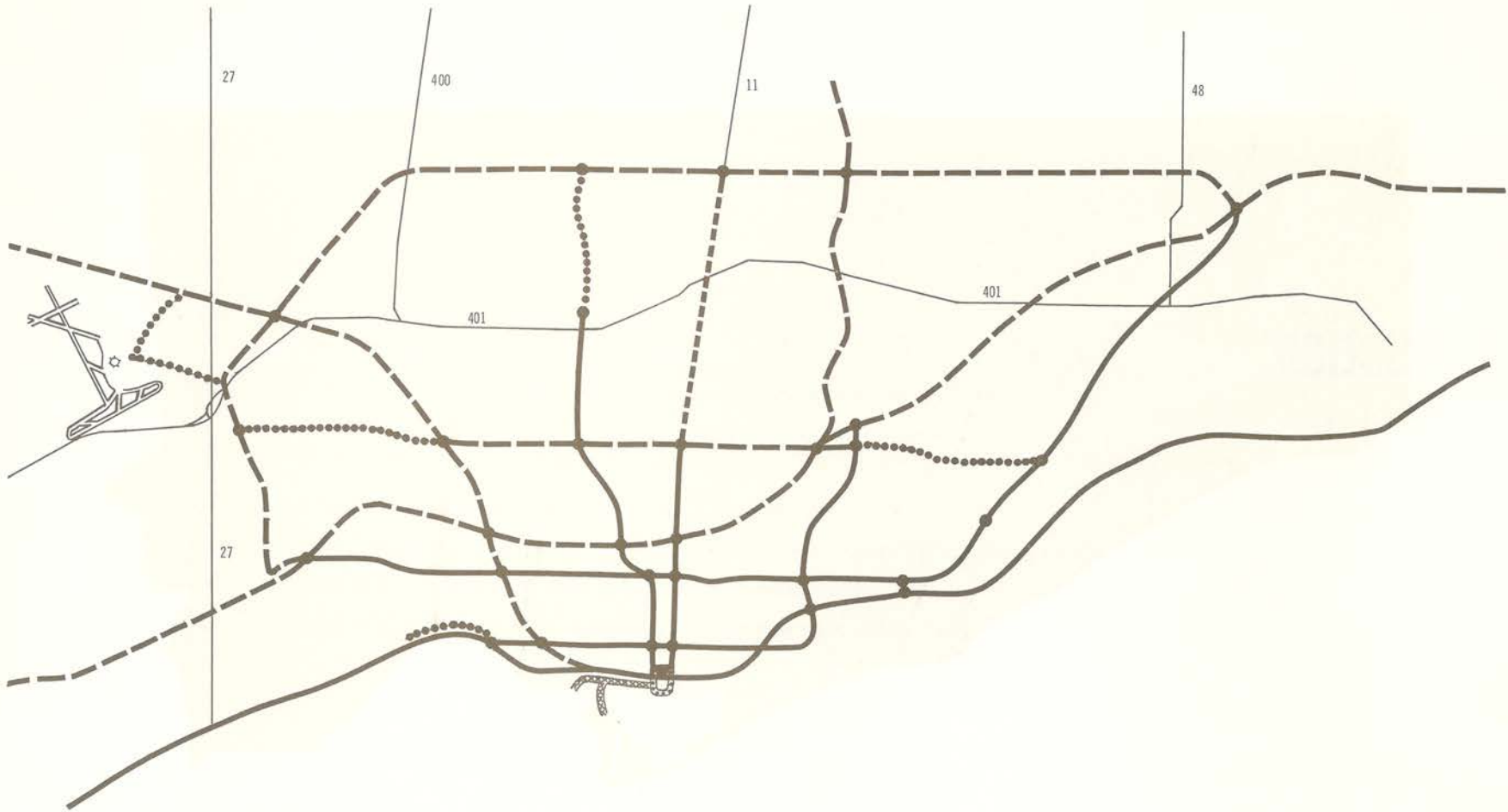
toronto transit commission

▪ Ralph C. Day, Chairman, Ford G. Brand, Vice-Chairman
J.T. Fisher, D.F. Hamilton, D.C. Smyth

introduction

As the agency responsible for providing public transportation in Metropolitan Toronto, the Toronto Transit Commission has prepared this report in the belief that it may be of assistance to the Metropolitan Corporation and other agencies responsible for planning in this Region.

It provides a conceptual plan for the development of an integrated Subway-Rapid Transit-Commuter Rail System in the Metropolitan Toronto Area. A circumferential rail line, using public right-of-way (rail and hydro) wherever possible, and an expanded GO-Transit type system are included.



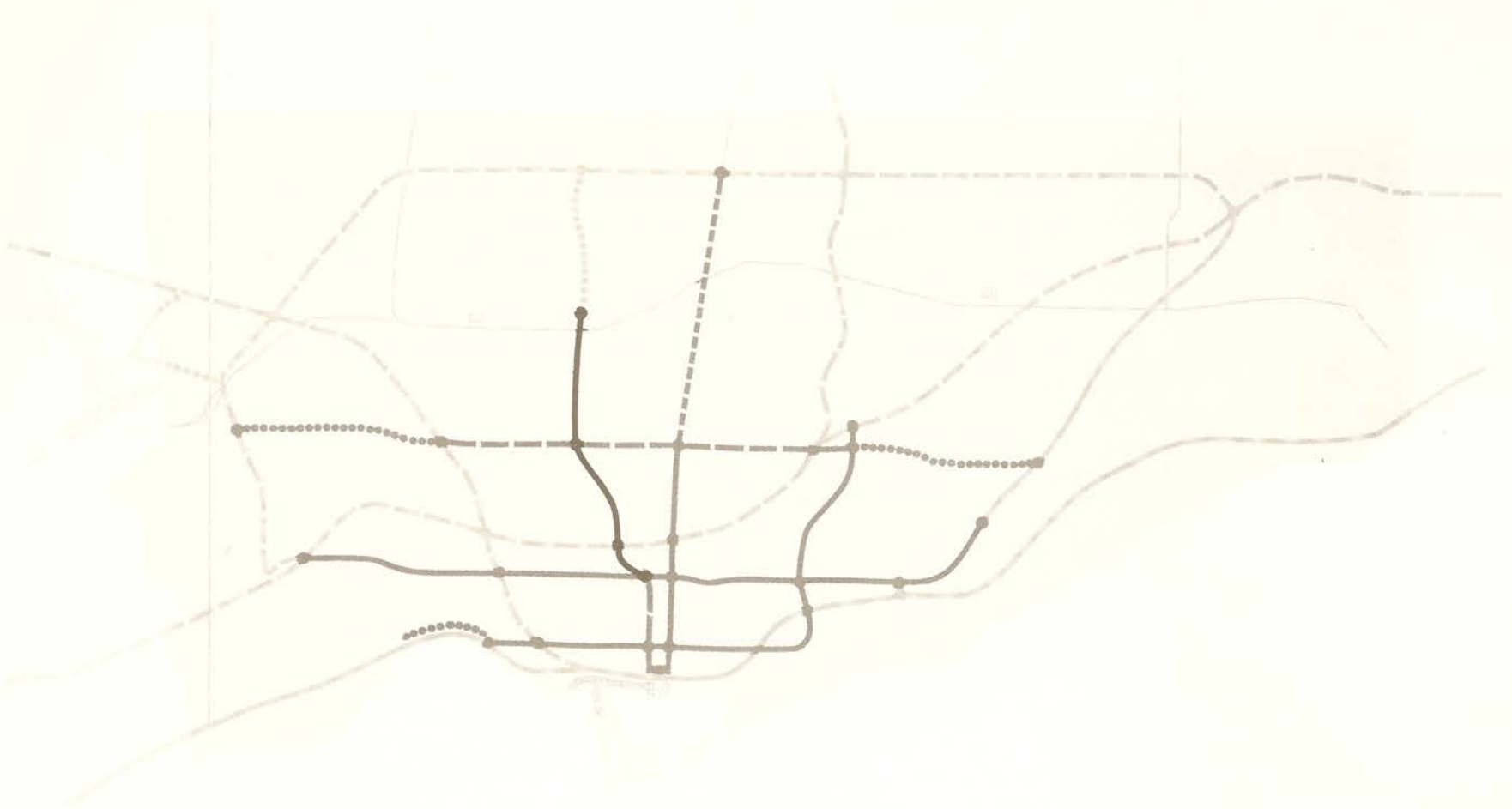
conceptual plan

conceptual plan

The plan proposed in this report and shown in detail on pages 10 and 11 is to be considered strictly conceptual. It is intended to provide an indication of how a fully integrated commuter rail-rapid transit system may be developed in Metropolitan Toronto and surrounding areas in the future. It is stressed that the various alignments shown are schematic only. They are not intended to be specific and no detailed study has been made at this time to determine geographic suitability.

This conceptual plan deals with the present and future rail-rapid transit needs of the community under the following headings:

- Major Subway System
- Intermediate Capacity Rapid Transit Lines
- Commuter Rail Lines (GO Transit type service)
- Additional Services (Waterfront and Toronto Island development, Canadian National Exhibition and Toronto International Airport.)



spadina

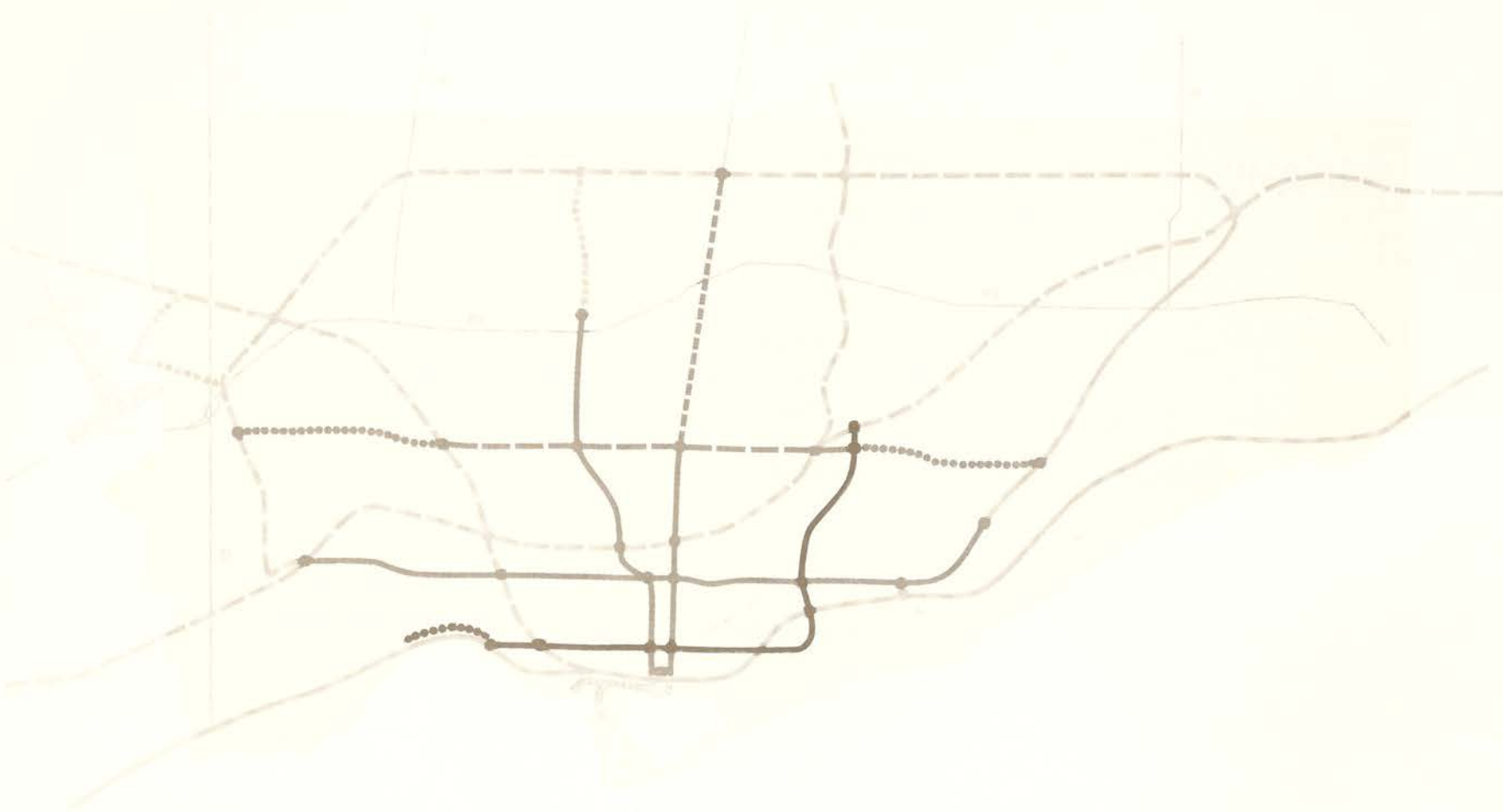
major subway system

Major subway lines in the Metropolitan Toronto area having a maximum rated capacity of 40,000 passengers per hour in one direction should be limited essentially to the high-density central core areas with radials reaching out to what might be described as inner perimeter suburban areas.

The existing Bloor-Danforth and Yonge-University lines are shown on the plan together with the Yonge Street extension to Sheppard Avenue (or Finch Ave.), currently under construction.

In order to provide early relief to the Yonge subway line both north and south of Bloor Street the Commission believes that the Spadina line should have next priority after the Yonge extension and should run between Wilson Avenue and St. George station to join with the University line.

spadina rapid
transit · first
priority



queen

queen subway- second priority

The Queen subway line is considered vital through the downtown area to provide east-west access to the redeveloping core area. It will also permit the elimination of street cars on both King and Queen Streets and the eventual replacement of the entire surface street car system.

In the past it was considered that the eastern terminus of the Queen line should be at Donlands station on the Bloor-Danforth line. However, increasing high-density development in the Thorncliffe, Flemingdon Park and Don Mills-Eglinton areas already indicates that this line should be extended northerly to terminate north of Eglinton Avenue where a connection to a future commuter rail line could be afforded as indicated on the plan.

Such a line would provide a third north-south link in the downtown area. It would also provide relief to the Bloor-Danforth line and would thus further relieve the Yonge line north and south of Bloor to and from the east. It would also provide capacity for a future Scarborough line to Malvern to be fed into Warden terminal, as mentioned later in this report.

In the west end, the Queen subway is indicated to terminate in the vicinity of Roncesvalles Avenue. However, depending on future development this line might be extended westerly, possibly to the Humber Loop or even farther. Also, the GO Transit line might be considered a useful feeder to the Queen subway at Roncesvalles Avenue, assuming the reintroduction of the old Sunnyside Station on the rail line at this point.

The influence of the proposed Canadian National-Canadian Pacific redevelopment in the Union Station area could have a significant effect on the alignment of a Queen subway. However, the future of this project is too indefinite to be considered in detail at this time. In any event, as already stated, alignments are not intended to be specific in this conceptual plan.



eglinton

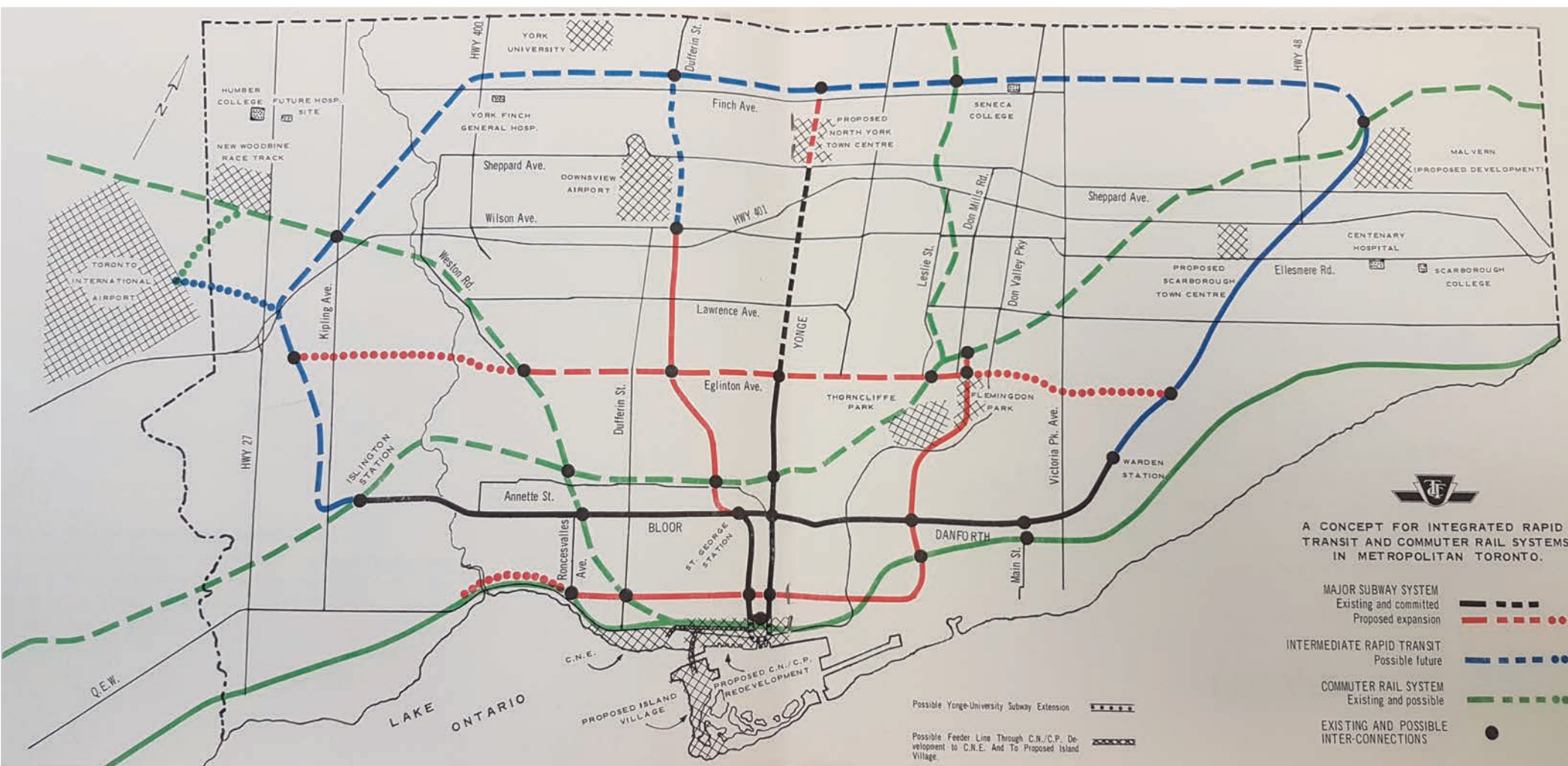
Also shown on the plan is a future rapid transit or subway line on Eglinton Avenue. It is felt present and future development in areas contiguous to Eglinton Avenue will create a future need for rapid transit service on this alignment.

The line on Eglinton would connect with the proposed northerly extension of the Queen line in the east and with a possible future commuter rail operation in the Weston Road area. Connection with the Yonge and Spadina Rapid Transit lines would also be provided.

Extensions to the Eglinton line would provide connections to the circumferential rapid transit loop and the Scarborough rapid transit line which are referred to later in this report.

It should be mentioned that consideration was given to an alignment following Lawrence Avenue for this crosstown line but at this time the proposed Eglinton alignment would appear to be the more desirable and necessary.

The Spadina and Queen lines are believed essential for the development of the expanded area of dense population and should be given top priority. The priority of the Eglinton line relative to the intermediate feeder or circumferential rail lines detailed on following pages is considered dependent on the sequence, location, timing and size of future developments in the Metro area, and accordingly cannot be determined at this time.

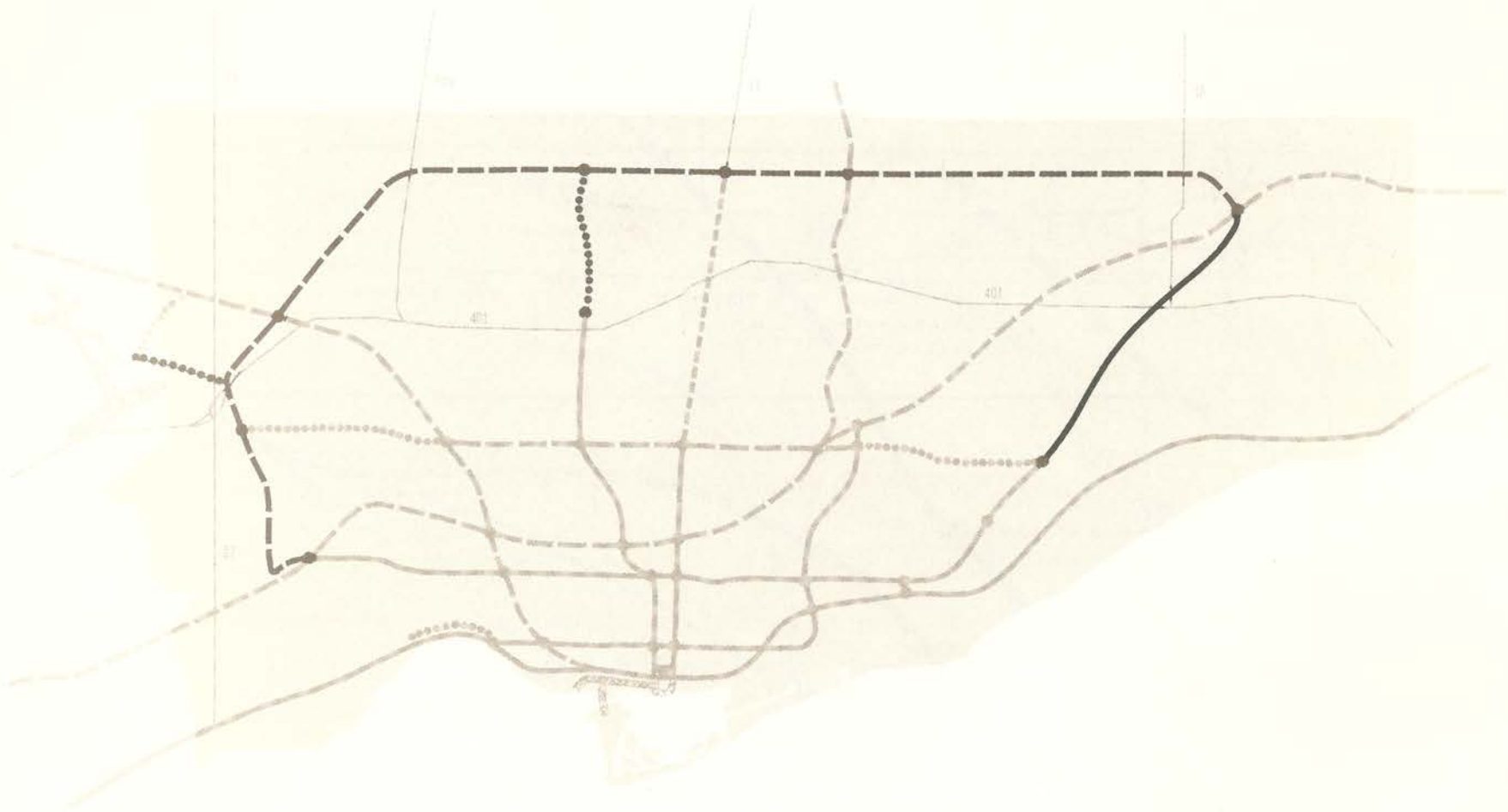


A CONCEPT FOR INTEGRATED RAPID TRANSIT AND COMMUTER RAIL SYSTEMS IN METROPOLITAN TORONTO.

- MAJOR SUBWAY SYSTEM**
Existing and committed
Proposed expansion
- INTERMEDIATE RAPID TRANSIT**
Possible future
- COMMUTER RAIL SYSTEM**
Existing and possible
- EXISTING AND POSSIBLE INTER-CONNECTIONS**

Possible Yonge-University Subway Extension

Possible Feeder Line Through C.N./C.P. Development to C.N.E. And To Proposed Island Village



scarborough

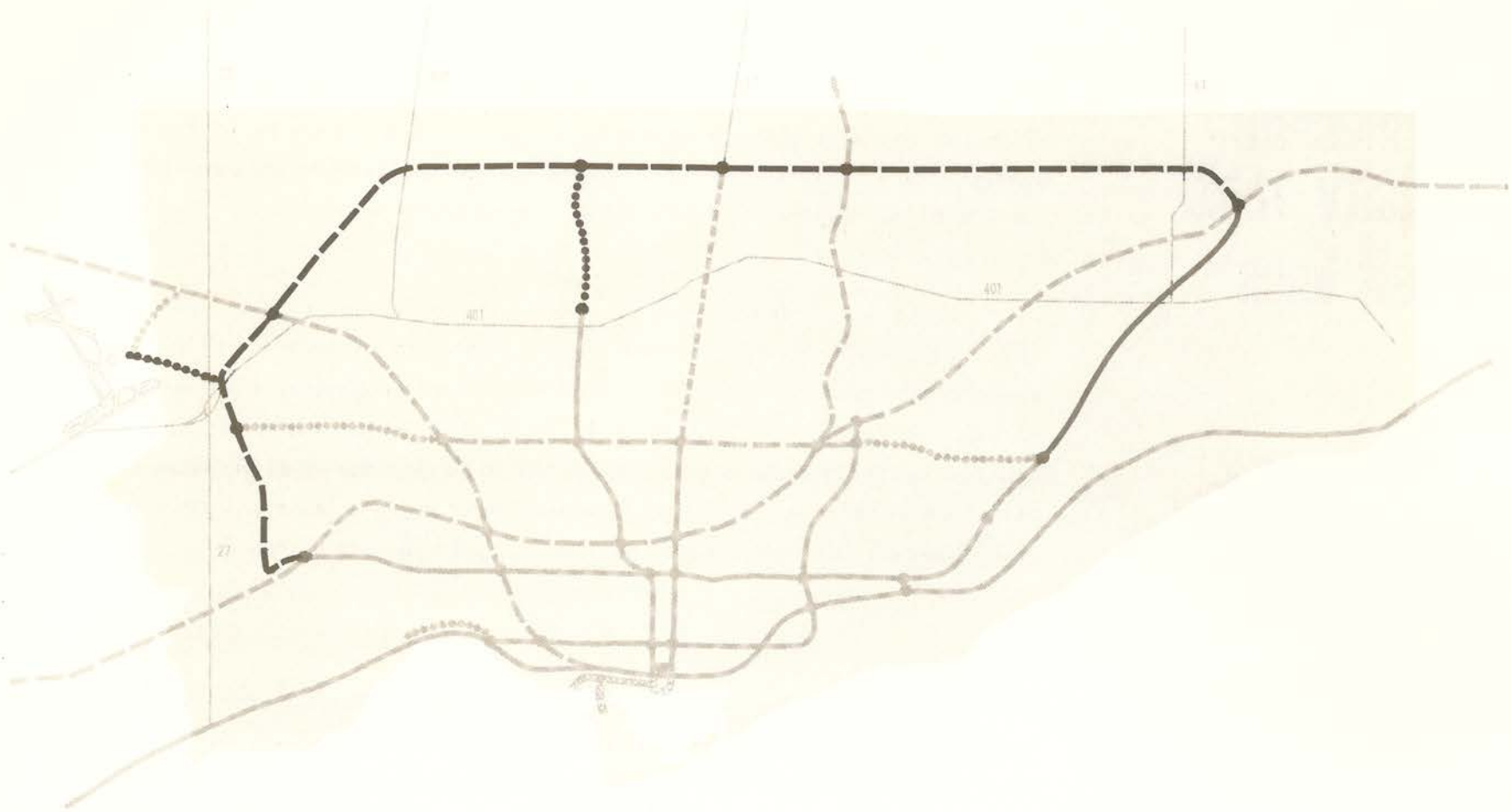
intermediate capacity rapid transit lines

scarborough

Following completion of the Spadina and Queen subway lines, consideration should be given to rapid transit lines which would act as feeders to major subway radials or circumferential lines operating through lower density areas which cannot justify the expense of a full subway operation.

Intermediate capacity rapid transit lines are conceived as operating on private or exclusive grade-separated surface rights-of-way but with lighter equipment, minimal station facilities, and on-board ticket collection wherever possible. Initially, service on such lines might be provided by P.C.C. car type vehicles. It is believed that the capacity of such lines should be in the order of ten to twenty thousand passengers per hour and the T.T.C. is undertaking a study to arrive at a possible design of a suitable lightweight vehicle for this type of high speed service.

The intermediate line extending from Warden subway terminal north-easterly along Hydro or abandoned rail right-of-way would pass very close to the proposed future Scarborough Town Centre north of Ellesmere Road and could be extended to serve the proposed Malvern development north of Highway 401. A connection at this point could also be made to a possible commuter rail line.



circumferential loop - spadina extension

circumferential loop line

This line could operate as an extension of the Scarborough line to Malvern, running westerly near Metro's northerly boundary along the existing Hydro right-of-way and then south to connect with the Islington terminal of the Bloor line. Connections to commuter type GO trains are indicated near Leslie Street in the north end and Kipling Avenue in the west end, in addition to the previously mentioned Malvern connection. Connections would also be made to the Yonge Subway at Yonge Street and to the future Spadina extension at Dufferin Street.

The following north end suburban developments which are shown on the plan should be considered in relation to this line: - Humber College, Future Hospital Sites, York University, North York Town Centre, Seneca College, Malvern, Scarborough Town Centre, etc.

It is certain that additions to this list will develop in the future.

spadina extension

In conjunction with the above-mentioned circumferential loop line, a line connecting with the Spadina rapid transit terminal at Wilson Avenue will be required. The long term future of Downsview Airport would obviously be a factor in this regard.

summary. intermediate rapid transit lines

Intermediate rapid transit lines would be provided in locations where the high cost of building major subway facilities could not be justified. These intermediate lines would fill the need for high speed service on private rights-of-way for suburban districts where passenger loads might be anticipated up to 20,000 passengers an hour. Wherever possible, existing rights-of-way would be used.



commuter rail lines

commuter rail lines

Because of the importance of commuter lines for the expanding area it is felt essential to integrate major T.T.C. services with commuter rail lines at an appropriate time.

The existing GO Transit line along the Lakeshore is shown with existing or future possible connections to the subway system at Roncesvalles Avenue, at Union Station (existing), on the Greenwood alignment of the Queen line and at Main Street.

Long term future extensions of the commuter rail system are also shown as operating north-westerly on the Weston alignment and then westerly past the airport towards Brampton. A branch service from this line might be operated to the airport, but alternatively the airport could be served by a branch of the circumferential intermediate rapid transit line. This matter is discussed later under the heading Additional Services - Toronto International Airport.

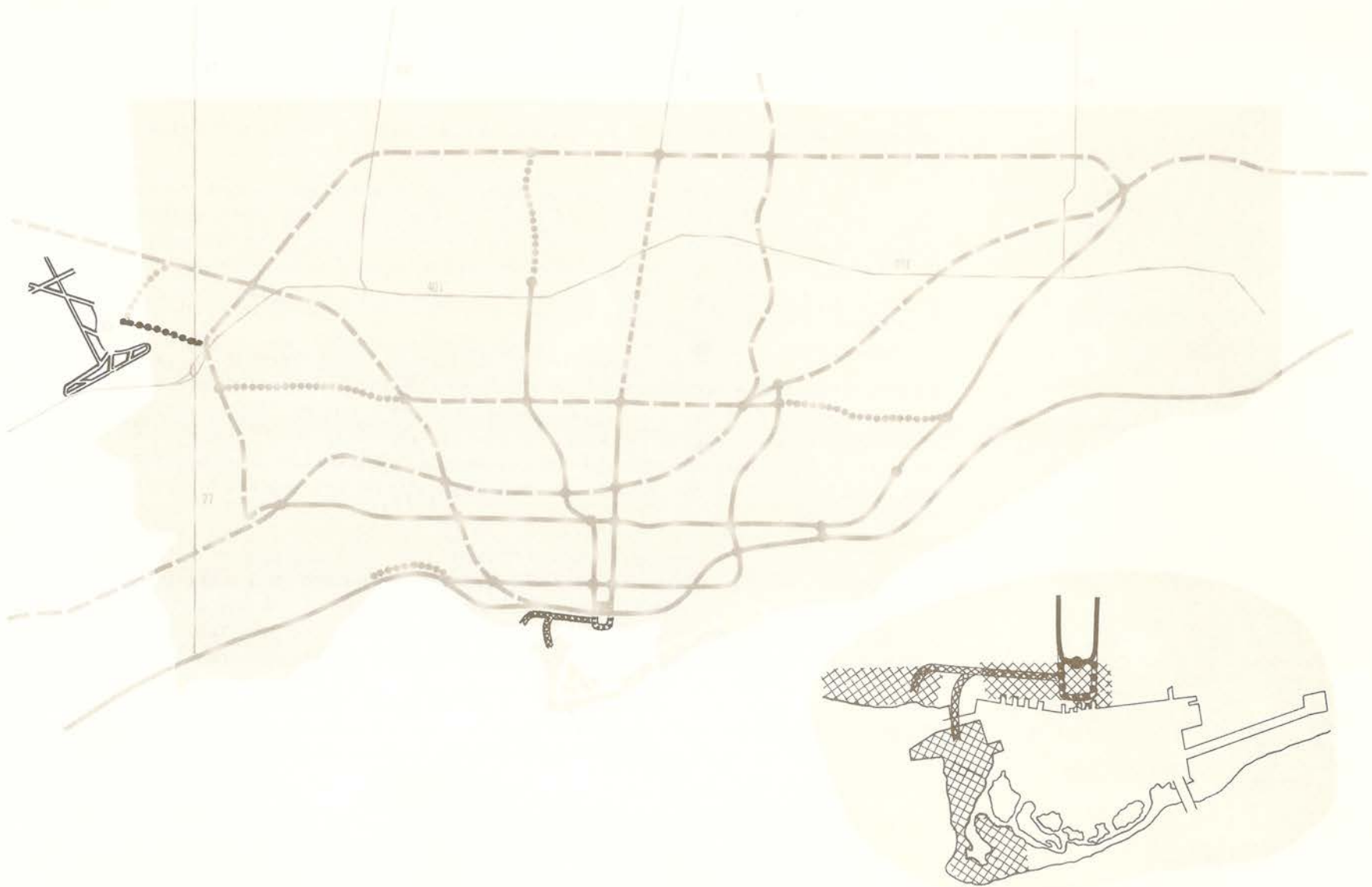
Such a commuter rail line would connect with the Bloor Subway at Dundas West station and with the Queen subway at Dufferin Street. A further line could operate from the west over the C.P.R. tracks connecting with the Bloor subway at Islington terminal where a connection would also be provided to the circumferential rapid transit line. It would also connect with the commuter rail Weston line north of Annette Street and could connect with the Spadina line at Dupont station and with the Yonge line at Summerhill Station.

Similarly, commuter lines from the east and north as mentioned below could connect with the Yonge and Spadina subway lines thus providing integrated services to the whole downtown area. Such an easterly line would connect with the east leg of the Queen line north of Eglinton Avenue and would tap the Malvern area where connections would be made with the Scarborough-Circumferential rapid transit line.

A commuter line from the north (Richmond Hill, etc.), is also shown. This service could connect with the crosstown circumferential rapid transit line north of Finch Avenue just west of Leslie Street and run to Summerhill subway station.

Detailed study of the possible commuter rail lines shown has not been made at this time and it is known that certain of the rail alignments are currently heavily used. Thus the addition of commuter trains might involve doubling the tracks or, as has been suggested, erecting a double-deck type facility.

summary -
commuter rail lines



**waterfront · canadian national exhibition · toronto island
toronto international airport**

additional services

waterfront

Proposed re-development schemes for this area will warrant some form of branch or separate rapid transit systems. These requirements will be very important in the future and the re-development of the entire waterfront area will no doubt necessitate some changes to the subway system.

One method of serving the waterfront area and C.N.E. has been indicated on the plan. It provides for an extension of the Yonge-University line looping in the area of Queen's Quay, with an intermediate capacity shuttle line running from the proposed new commuter terminal in the C.N. - C.P. development to the C.N.E. and to the proposed residential development on the site of the Island Airport.

This is only one possible approach to the problem of providing transit service to the areas in question and much more study and investigation of the proposed re-development schemes for these areas will be required before a final plan is developed.

toronto
international airport

While the existing Airport Express bus service to Islington terminal is considered to be all that can be justified at the present time, consideration should be given in the future to extending a branch rail line into the airport off either the commuter rail Brampton-Weston line or the circumferential intermediate rapid transit line. Both of these alternatives are shown schematically on the plan.

summary

Essentially, as far as rapid transit is concerned, the basic main subway lines must be given first priority, namely, Spadina and then Queen. Such lines, together with the existing system, would then permit the extension of radials to feed the top end of the Spadina and Yonge lines and the Scarborough line to feed into Warden terminal to form a balanced system. Following this, the construction of the circumferential line would likely be justified. However, it must be stressed that if the basic subway system is not expanded first, the circumferential line would either grossly overload the existing rapid transit system or, alternatively, would itself be minimally used.

No specific priority has been assigned to the needs for additional service associated with the various waterfront re-development proposals. This can only be determined when additional information becomes available regarding the details of the development schemes and the timing for construction.

Similarly, no priority has been assigned to any of the suggested extensions to the commuter rail system, this being outside the jurisdiction of the Commission.

