

TORONTO

TTC

SUBWAY

DEVELOPMENT.

1951-1954

Toronto Rapid Transit Progress

The work of constructing a rapid transit line in Toronto, along the line of Yonge Street, the city's chief north-south thoroughfare to Eglinton Avenue in north Toronto, northerly from Front Street, with a short westerly extension on Front Street to the Union Station, continues to proceed without delay, and work on the various contracts is going ahead in satisfactory manner. The contracts, in chronological order, cover sections of work beginning at the south and extending north. As explained in preceding issues, while most of this rapid transit line will be in subway, much of it will be in open cut.

About a year ago (in our issue of November, 1950) we published a plan and profile of the north-south rapid transit route, and to refresh the memories of readers, we present this again herewith. It will be seen that there are no open cut sections on the line at its south end, but that there are several at the north end; in fact there will be more open cut than subway between Bloor Street and Eglinton Avenue. As seen by the profile, grade is ascending to the north throughout.

Contracts SC1 and SC2.—The awarding of these contracts to Foundation Co. of Canada, Ltd., with approximately \$4 million involved, was recorded in our November issue, pg. 626, where some description of the work involved was given, and where it was explained that the contracts cover the finishing of 11 of the 12 stations on the rapid transit line. The completion of all except the most northerly station, at Eglinton Avenue, the northern termin-

the subway structure at the curve at Front and Yonge streets was under way.

Contract S2.—Concrete placement was under way at the Queen station, Dundas station and College station. Invert slab work was completed on this contract.

Contract S3.—Concrete placement continued at the Bloor and Wellesley stations and grading of the Wellesley Station bus loop was proceeding.

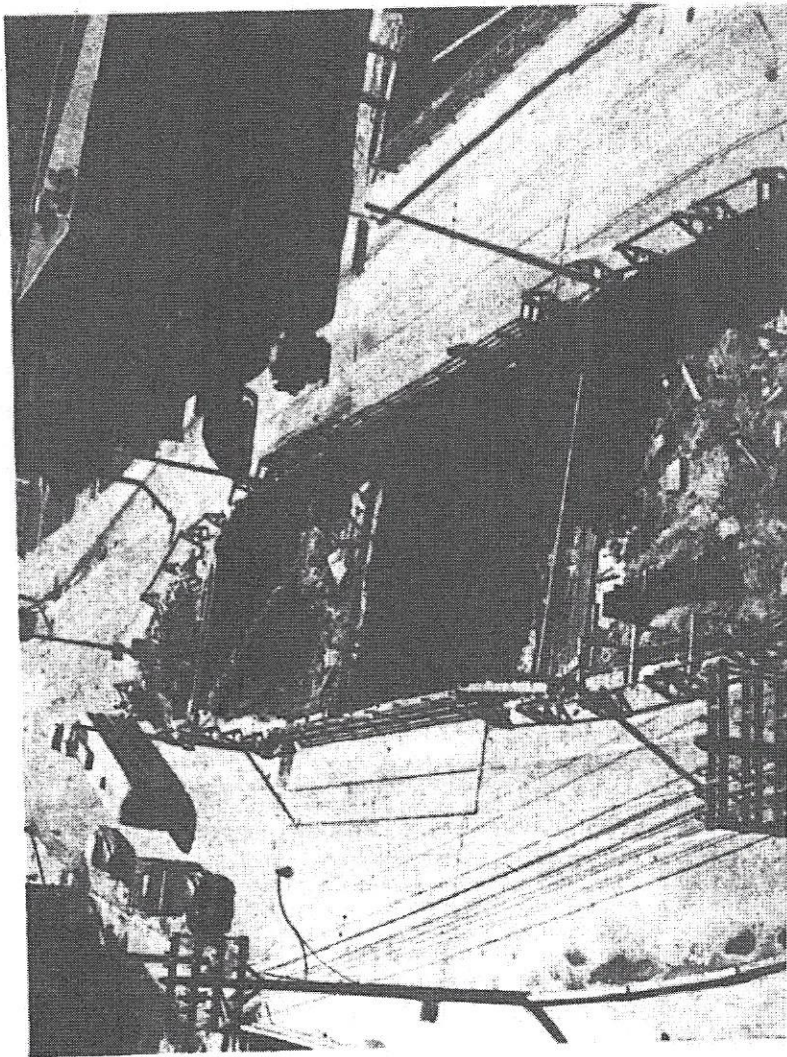
Contract S4.—Excavation was completed from the Summerhill portal to the north embankment of the C.P.R.

Bridge and in the Davisville Station area was continuing.

Contract S6.—Work on this new contract began December 17, south of Eglinton Avenue, on construction of fire protection lines and sewers.

Station Contracts SC1 and SC2.—Work on these contracts began Dec. 10. **Contract for Final Section (S6)**

It was noted briefly in our December issue, pg. 684, that a contract for the final or most northerly section of the rapid transit work had been awarded Pitts, Johnson, Drake and Perini, at a price of approximately

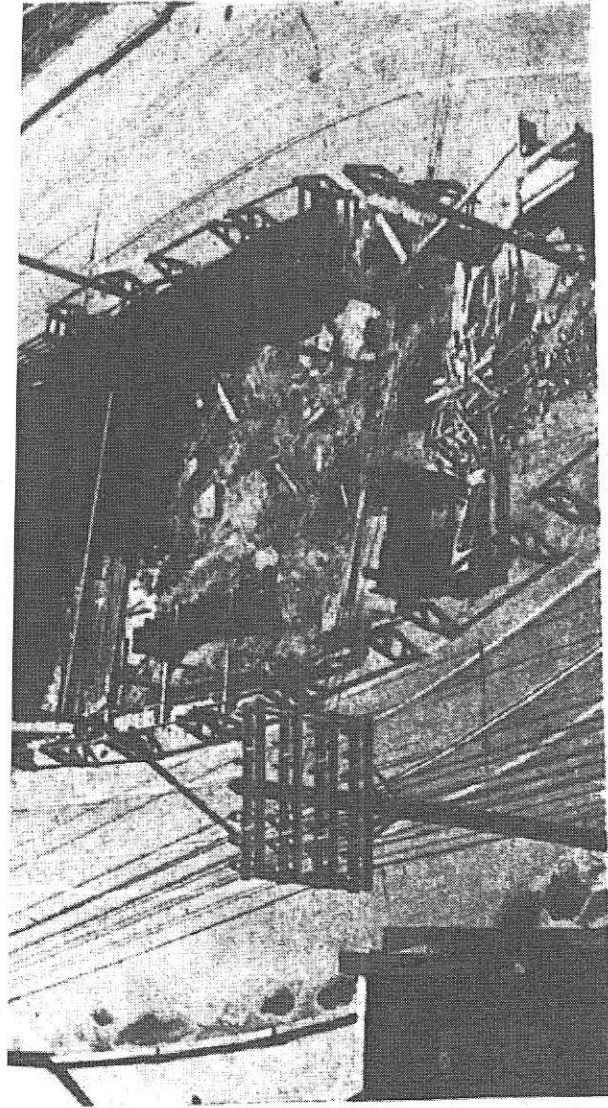


Co. of Canada, Ltd., with approximately \$4 million involved, was recorded in our November issue, pg. 626, where some description of the work involved was given, and where it was explained that the contracts cover the finishing of 11 of the 12 stations on the rapid transit line. The completion of all except the most northerly station, at Eglinton Avenue, the northern terminus, is involved; this station will be built as a part of contract S6, to cover the work from Imperial Street to the northern limits at Eglinton Avenue. Contract SC1 covers five stations in the section south of Alexander Street, while contract SC2 covers six in the section from Alexander Street to Imperial Street.

As noted hereinafter, a start has already been made on the station work involved in both of these Foundation Co. of Canada, Ltd., contracts. Also, the contract (S6) involving the construction of the Eglinton (northern terminus) station has been awarded, and station construction will begin in due course.

In the subway construction work, progress to December 19 was as described in the following, with the contracts numbered from south to north:—

Contract S1.—Placing of sand backfill, gravel and paving was in progress westerly on Front Street from the Bay-Front intersection. Excavation of the King Station tunnel was nearly completed. Excavation of a pedestrian tunnel connecting the Union Station with the Royal York Hotel was about one-quarter completed. Placing of sand backfill over



Subway Work in the Bloor Station Area

This view showing work on contract S3, was prepared from a photograph taken looking east along Bloor Street, and shows the decking on the north and south sides of the street itself, with excavation proceeding for the transfer platform.

tracks. Of the eight bridges between Bloor Street and St. Clair Avenue on this open cut section, five had been completed, viz., at Aylmer, Roxborough, Woodlawn, Jakes and Rosehill avenues.

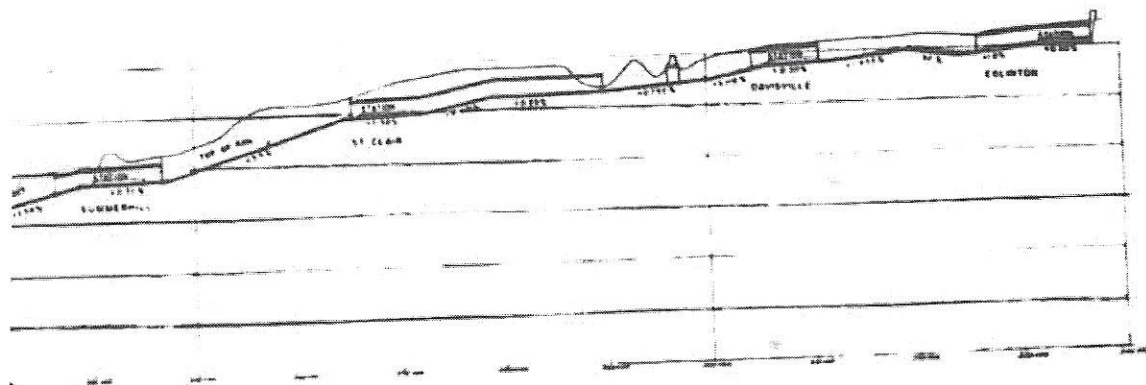
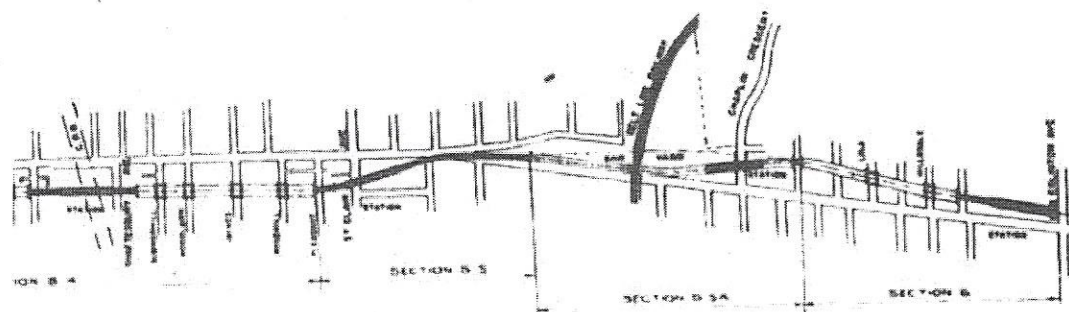
Contract S5. — Underpinning of buildings, north of St. Clair Avenue, was continuing, as was laying of the substructure drain from Heath Street to the Muir Portal, and work was continuing on the St. Clair Avenue street car and bus station.

Contract S5A.—Work was continuing on the open cut excavation north of Chaplin Crescent Bridge. Construction of retaining walls north of the Muir Portal, south of the Belt Line

\$3,200,000. Official advice in regard to this contract was furnished by the Commission immediately following its award. The advice stated:—"The Toronto Transportation Commission has awarded a contract for the last section of the Yonge Street Subway to Pitts, Johnson, Drake & Perini, at a price of approximately \$3,200,000.00 — the lowest tender submitted.

"The successful contractor is the same syndicate of Canadian and American contractors who are now constructing the first two sections of the subway between the Union Station and College Street, which is nearly completed.

"The syndicate is headed by a To-

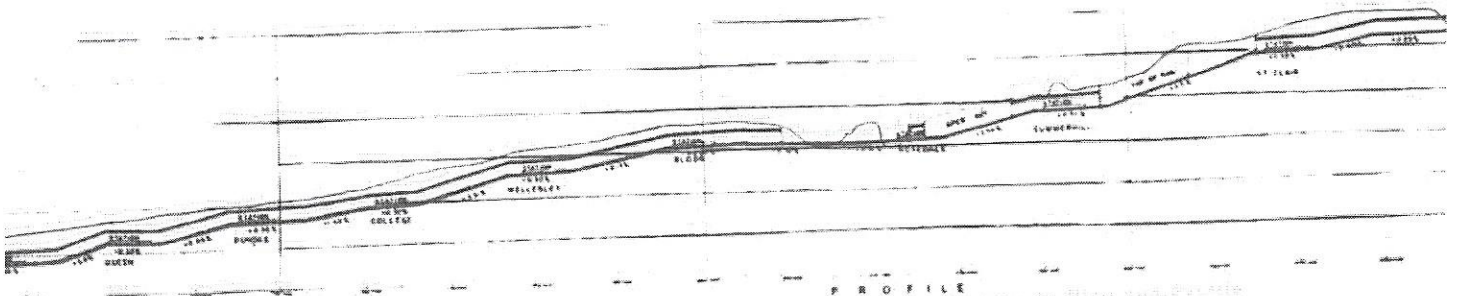
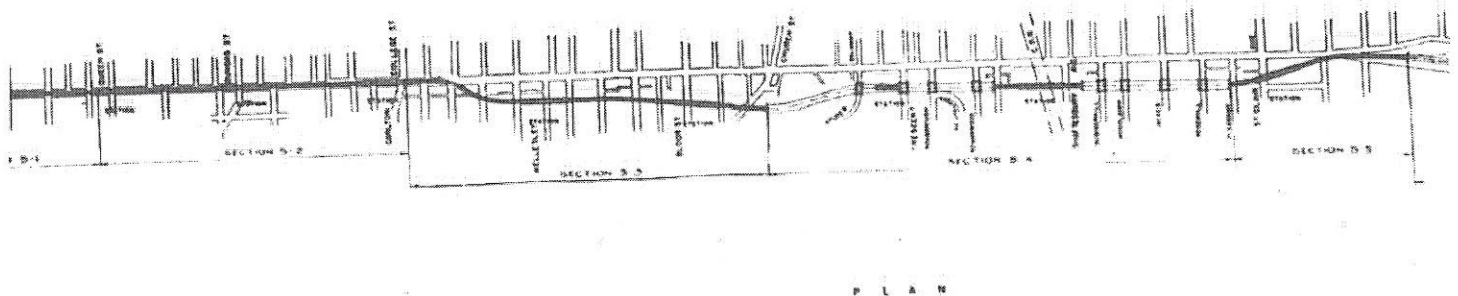


Toronto, in Plan and Profile.

of Yonge Street over the remainder of the distance, is not all subway, as there shown by heavy black line, and the open cut sections by light lines.

cess of the work to January 18. contract S1, at that date, concrete ment was continuing at King on, and backfilling and removal iling at the Yonge-Front curve has i carried out. On contract S2, con- e placement of roof sections at ter Street and College Station e under way. On contract S2A, om lift excavation had reached College Street area and invert s e being placed near Alexander et. On contract S3, concrete place- it of roof sections at Bloor Station s under way, and finish work at lesley Station was progressing. On tract S4, excavation was continued Rowanwood Avenue and under the P.R. tracks, and work had begun the temporary pedestrian bridge er the open cut at Rowanwood enue. On contract S5, excavation

was continuing in the St. Clair Station area, and invert s were being placed south of Muir Memorial portal. Under- pinning work on this contract was 94% complete. On contract S5A, open cut excavation was progressing north of Chaplin Crescent Bridge and work was continuing on the retaining wall north of Muir portal, south of the Bel Line Bridge and at Davisville Station. On the recently-awarded contract S6 clearing of the right-of-way at th south end of Eglinton Station ha commenced, and sewers and water mains were being laid. On statio contract SC1, the field office at Kin Mezzanine was nearly complete, an concrete stair tread was placed at th southwest entrance stairs at Quee Station. On contract SC2, preparato work was under way at Wellesle Station.



The North-South Rapid Transit Route in Toronto, in Plan and Profile.

which follows the line of Yonge Street at its south end, and is quite close to the line of Yonge Street over the remainder of the route. In the plan drawing, the subway portions are shown by heavy black line, and the open cut portions by dashed lines.

Engineering firm C. A. Pitts, Peckham & Co., Inc., of New York, are the Arthur A. Peckham & Co., Inc., of New York, and B. Perini & Sons, Framingham, Mass.

Covered by this contract is the construction of the open cut from Imperial Street to the north, and the concrete structure from Berwick Avenue to the south. It includes an terminal station at Eggleston with passenger facilities for bus and trolley coach will radiate from this

work, the disturbance to the streets and business will be

minimized by reason of the fact that it will be carried out on a private off-street right-of-way. There will, however, be a number of diversions and closure of streets where the subway crosses public thoroughfares. Every effort will be made by the Commission and the contractor to reduce such inconvenience to a minimum.

"While the progress of the subway work has been delayed to some extent by shortage of steel and other critical materials, the Commission is confident that, providing such materials can be obtained, the subway will be completed according to schedule."

Progress to January 18

Since the foregoing was prepared, we have received official advice on

progress of the work to January 18. On contract S1, at that date, concrete placement was continuing at King station, and backfilling and removal of piling at the Yonge-Front curve has been carried out. On contract S2, concrete placement of roof sections at Hayter Street and College Station were under way. On contract S2A, bottom lift excavation had reached the College Street area and inverts were being placed near Alexander Street. On contract S3, concrete placement of roof sections at Bloor Station was under way, and finish work at Wellesley Station was progressing. On contract S4, excavation was continued at Rowanwood Avenue and under the C.P.R. tracks, and work had begun on the temporary pedestrian bridge over the open cut at Rowanwood Avenue. On contract S5, excavation

Training Toronto Rapid Transit Crews

At time of writing, in the latter part of February, the Toronto Transit Commission's bright new rapid transit cars are operating north and south over Toronto's new rapid transit route, partly in subway and partly in open cut, extending from the south terminal at the Union Station to the north terminal at Eglinton Ave., in the north part of the city, 4½ miles. However, the cars are carrying no revenue passengers as yet, and will not be until the new service is formally opened on March 30. The object of the present operation is to get the crew members trained and to get the whole rapid transit system functioning smoothly. To January 21, the Commission had received 76 of the new cars from England and an additional six were in transit; cars have been arriving steadily since. The cars are being built by Gloucester Railway Carriage and Wagon Co., represented

in Canada by Bepco Canada, Ltd. All told, the Commission ordered 104 of them; the final four will feature much use of aluminum. They will be operated in 4-car and 6-car trains, depending on traffic density.

The last of the 100 steel cars were turned out by Gloucester Railway Carriage and Wagon Co. by the agreed date, viz., January 31. It was reported from Saint John, N.B., February 26, that the last ones of the 100 steel cars had arrived there aboard the Canadian Pacific Steamships, Ltd., ss. Beaverburn.

In addition to the Union Station terminal at the south end of the route and the Eglinton Ave. terminal at the north end, there are ten intermediate stations, these being, from south to north, King, Queen, Dundas, College, Wellesley, Bloor, Crescent, Summerhill, St. Clair and Davisville. Each station has its own color combination

four corners of the King-Yonge section. At the College station, the lead down from both the north and south sides of Carlton St., Yonge St., while on the west side of Yonge St. there is a subway in the T. Eaton Co. store.

At the Queen station, there are two entrances in the sidewalk on the north and south sides of Queen St. east of Yonge St., while on the east side of Yonge St. there are entrances to the subway from both the north and south sides. The entrances and Simpson department store entrances are connected by a passageway under Queen St.

The Wellesley, Bloor, Summerhill, St. Clair and Davisville stations are of the "above ground" type, with all designed to direct and convenient transit between the subway and surface lines.

The Eglinton station, at the end of the route, presented a difficult problem in functional design. Here, passengers will transfer from many surface lines, and from many subway lines, and from many platforms (between the tracks, as at Union station),

for walls and trim, each thus presenting a different and easily recognized appearance. At the station loading platforms, the car exteriors come very close to the platform edge.

At the Union Station, located under Front St. between Bay St. and the Royal York Hotel, there is a centre platform 23 ft. 8 in. wide, connected by escalator and two stairways with the mezzanine floor, while from the latter stairways lead directly to the north and south sidewalks on Front St., with direct connection to the Toronto Terminals Ry. Union Station, where an escalator carries passengers up from the connecting passageway to the train concourse.

At the King and College stations, which are quite identical in design except for the entrance facilities, there are side platforms connected with a mezzanine floor by escalator and stairways, the escalator being on the southbound platform. At the King station, stairways lead down from all four corners of the King-Yonge intersection. At the College station, stairs lead down from both the north and south sides of Carlton St., east of Yonge St., while on the west side of Yonge St. there is a subway entrance in the T. Eaton Co. store.

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The Eglinton station, at the north end of the route, presented the most difficult problem in functional design. Here, passengers will transfer to and from many surface lines, and the subway platform (between the two tracks, as at Union station), has ac-





Imagery from the Bay Point to Open City Center. Photographed from the
City Center, an historic high-rise building.

ADAM TRANSPORTATION, March 1984

car tracks on Selkirk Avenue possibly on Donald Street. The above illustrates the Commission's determination to provide the means of Greater Winnipeg with a more efficient transportation system worthy of this growing community. The public can assist the Commission's task and ensure its success only by patronizing their own Transit System.

Toronto Subway Draws Good Traffic

The pattern of traffic on the Toronto rapid transit system is now developing normal shape, and patronage is running above the Toronto Transit Commission management's estimate. To May 25, the rapid transit route, extending from the Union Station in downtown Toronto and following the line of Yonge Street, Toronto's main north-south thoroughfare, to a terminal at Eglinton Avenue, has been carrying about two hundred thousand passengers a day, with movement of some twenty-four thousand passengers an hour in rush hours. The rapid transit trains are made up of four and six cars, with headway of two and one-half minutes in rush hours and three

minutes in normal hours. Less mechanical trouble than expected has been experienced. Messrs. De Leuw, Cather & Co., consulting engineers concerned with the planning and construction of the rapid transit system, are surveying the system with a view to suggesting possible improvements. One improvement very likely to be recommended, and one which the T.T.C. management itself sees necessity for, is provision of further exit facilities from the underground platforms at King Station, in downtown Toronto. When the facilities were laid out, it was estimated that more passengers would use the Union Station terminal than are actually using it,

Toronto Subway in Operation

The ceremony to mark the inauguration of service on the Toronto rapid transit system was an impressive one, with the details not likely to be quickly forgotten by those fortunate enough to witness it. The proceedings, on March 30, were initiated near the Davisville Station (the first one south of the northern terminus at Eglinton Avenue), when, at 9.55 a.m., a guard of honor made up of Toronto Transit Commission uniformed guides and operators paraded up the west sidewalk of Yonge Street and took up position on the south sidewalk on Chaplin Crescent, extending from Yonge Street to the subway entrance. At 10 a.m., a band of the Royal Regiment of Canada took up position on the band platform, and it was announced that the band was performing by the kind permission of Lt.-Col. H. W. Caldwell, C.D., with Captain Walter Murdoch, E.D., conducting. The band then furnished music until 10.45 a.m., and between selections the official announcer filled in with informative announcements in regard to the rapid transit system, and with details of the ceremony and the personages participating. He also mentioned that the rapid transit system would be open for service to the public at 1.30 p.m.

While the band was playing, the special guests of the commission, viz., local, provincial, national and international representatives of industry, government, etc., were arriving, and these persons passed through the guard of honor and through the subway station, out to a reserved area south of the ceremonial platform. At the same time, the general public was assembling in the station bus driveway, and also on Chaplin Bridge, west of the ceremonial and band platforms, and on Chaplin Crescent and Yonge Street, east of the ceremonial and band platforms. At 10.45 a.m., a bus carrying notable personages, scheduled to participate in the ceremonies, arrived with an escort of motorcycle police. They left the bus and made their way through the guard of honor and into the subway station building. Following the Toronto Transit Commission General Manager, W. E. P. Duncan, and Mrs. Duncan, were Sir Leslie Boyce, Managing Director, Gloucester Railway, Carriage and Wagon Co. Ltd., and Mrs. Boyce; T.T.C. Commissioner Clive M. Sinclair, Q.C., and Mrs. Sinclair; T.T.C. Commissioner Charles A. Walton and Mrs. Walton; T.T.C. Commissioner W. G. Russell and Mrs. Russell; T.T.C. Vice Chairman J. A. Scythies and Mrs. Scythies; Mayor

T.T.C. Secretary H. E. Pettett and Mrs. Pettett; Rev. C. H. Bentall and Mrs. Bentall; T.T.C. Chairman William C. McBrien and Mrs. McBrien, and Ontario Prime Minister Leslie M. Frost and Mrs. Frost.

A few moments later, the foregoing participants in the ceremonies walked from the subway station building to the ceremonial platform, with Sir Leslie Boyce to the right of Mr. Duncan, Commissioner Walton to the right of Commissioner Sinclair, Commissioner Russell to the right of Commissioner Vice Chairman Scythies, and Mayor Lamport to the right of Metropolitan Chairman Gardiner, followed by Prime Minister Frost, Commission Chairman McBrien, and Chaplain Rev. C. H. Bentall.

At 11 a.m., a symbolic subway signal on the ceremonial platform, which had been showing red, turned to amber. The band then played "God Save the Queen", following which the announcer introduced Commission Chairman McBrien, who, at the conclusion of a brief address, introduced Mayor Lamport. The mayor gave a short address and extended greetings, following which Mr. McBrien introduced Metropolitan Chairman Gardiner, who also presented a brief address. Then, on the invitation of Chairman McBrien, Rev. C. H. Bentall invoked the blessing of Almighty God on the rapid transit system and its operation. The Chairman then introduced Prime Minister Frost, who concluded a short address by saying—"Mr. Chairman, ladies and gentlemen, it is now my great honor and pleasure to give Canada's first subway the green light"; as he spoke, he moved the control handle of the ceremonial signal, which turned to green. The band then provided a fanfare, and the air whistles of all subway trains in the Davisville yard saluted the official train as it moved up to the loading platform. The ceremony participants proceeded from the ceremonial platform to the train platform below, followed by the special guests who had been occupying the reserved area. Following slight delay for the taking of photographs, etc., the official train moved north to the Eglinton terminal, where it crossed over to the southbound track and began its run to the Union Station terminal at the south end of the rapid transit system.

The train arrived at Union Station about 12.10, where those participating in the ceremonies were piped to the station mezzanine floor, the north wall of which bears a plaque commemorating the subway opening. Two

few words and invited Prime Minister Frost to unveil the plaque, which he did, without comment. Following conclusion of this ceremony, all proceeded up the stairs to the street, led by the pipers, and to the Royal York Hotel for luncheon.

Mr. McBrien was chairman at the luncheon, and first introduced Mayor Lamport of Toronto, who made a presentation to Prime Minister Frost. The latter, in turn, made presentations to Mr. Lamport and to Metropolitan Chairman Gardiner. Mr. McBrien then introduced the T.T.C. General Manager, Mr. Duncan, who, in a short address, made plain that the construction of the Toronto rapid transit system was made possible only by international teamwork. He noted that the cars were built in England, the rails in Canada and the United States, the system signal in England and the steel in Canada, the United States, Great Britain, Belgium, Germany and Luxembourg. The system, he said, furnishes a splendid example of what may be effected by the people of many countries working in harmony. He extended thanks to government authorities in Canada and the United States, the Ontario Agent-General, London, to Toronto civic authorities and public utilities, and finally to the citizens of Toronto, who had shown much forbearance during construction, for their close co-operation during the construction period. He also expressed his thanks to the workmen who built the system, a project completed without a single fatality.

Mr. McBrien then introduced Sir Leslie Boyce, noting that, as an Australian, Sir Leslie had been the first man born out of Britain to become Lord Mayor of London. Educated at Oxford and called to the Bar in 1932, Sir Leslie was long a member of the Commons in Britain, and served as an alderman of London before becoming Lord Mayor. He was awarded the K.B.E. in 1944. In a brief address, Sir Leslie congratulated all in the T.T.C. organization upon the successful completion of the rapid transit work, and presented Mr. McBrien with handsome scale models of two of the new rapid transit cars.

The rapid transit system went into operation early in the afternoon of March 30, and was at once heavily patronized, and surface car operation on the Yonge route ceased without delay.

Address by Mr. McBrien

In speaking at the Davisville station ceremony, Mr. McBrien said:—

"Honourable Sirs and Distinguished Guests, on behalf of the Toronto Transit Commission I welcome you here today and wish to thank each of you for coming and helping us make this, the official opening of Canada's First Subway, a success."