Upper Canada RailwaySociety

# Newsletter JULY - AUGUST 1975 

PROPOSED NAME CHANGE RAIL AND TRANSIT




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## POLICY

Any railway or transit events (such as excursions or fantrips) will be glady covered by the U.C.R.S. Newsletter staff. Two free press passes should be isseed, one for a photographer and one for a reporter to work as a team. All events commencing from outside a 100 -mile radius from Toronto, are subject to charges for transportation and accommodation as well.

Upper Canada Railway Society Newsletter P. O. Box 93

Islington, Ontario. M9A 4X1
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## FRONT COVER:

Canadian National Railway locomotive No. 2338 (MLW M636) at Bayview, Ontario. August 15th, 1971.
(D. W. Smith)

## BACK COVER:

There is lots of snow on the ground as O.E.R.H.A. Sweeper S -37 operates on February 4 th, 1974 .
(T. Wickson)

## CONTRI BUTIONS

Contributions to the U.C.R.S. Newsletter are solicited. No responsibility can be assumed for loss or non-return of material, although every care will be exercised if return is requested. Please address all contributions to the Editor, U.C.R.S. Newsletter, P. 0. Box 93, Islington, Ontario, M9A 4X1. Written contributions (articles and news items) should be in the form of black and white glossy prints of $8^{\prime \prime} \times 10^{\prime \prime}$ or $5^{\prime \prime} \times 7^{\prime \prime}$ size or larger. Each photograph should be captioned on the back (or a label attached to the back) stating subject, location, date and any other available information.

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The proposed name change to Rail and Transit as originated by J. T. Robbie is being registered. <br> \section*{1976 UCRS <br> \section*{1976 UCRS Railway Calendar} Railway Calendar}

The calendar takes the
form of the Upper Canada Railway Society's past issues with stitch binding along one side (in the middle when open) and as always on glossy heavy stock paper. Get yours now for holiday gifts.

## Swiss

Left
SWITZERLAND - A PARADISE FOR STEAM LOCOMOTIVE FANS The Blonay-Chamby museum train cross ing a high viaduct on a picturesque part of the way.



Below
SWITZERLAND - A PARADISE FOR STEAM LOCOMOTIVE FANS The Rhaetian Railway runs on steam on certain days Here taken just below Klosters.


# SWITZERIAND 

SWISS FEDERAL RAILWAYS

SWISS NATIONAL TOURIST OFFICE P. O. BOX 215

COMMERCE COURT POSTAL STATION
TORONTO, ONTARIO, CANADA M5L 1E 8

## SWITZERLAND - A PARADISE FOR STEAM LOCOMOTIVE FANS

There are less steam locomotives than ever before whereas steam locomotive fans are growing in numbers. These go alone or with other members of a train club on the hunt for a puffing locomotive in the most secluded of places. Just like people on a photo safari, they set off with cameras and photographic equipment so as to immortalize each puff and whistle of some huge old steam monster.

For steam engine lovers, Switzerland is a paradise. However, there is only one railway running on steam in the entire country: the Brienzer Rothorn railway which keeps to a strict timetable during the summer months. There are still over a dozen of these venerable steam trains running as a tourist attraction from the Lake of Geneva to the Lake of Constance and from the Alps to the Bernese Middle Land. Some run on certain days for the public, others are reserved for group travel. There's a trip with the museum train from Blonay to Chamby along the "Swiss French Riviera". The steam locomotive depot museum has just recentiy been opened to the public at Chamby. The "Schnaaggi-Schaaggi" train which runs from Zurich Selnau to Sihlwald every Wednesday and Sundas afternoon in summer is popular both with the young and the old. Even the small red train of the Vitznau-Rigi railway, Europe's first rack railway, still puffs along on certain summer days. The "Amor-Express" of the Bodensee-Toggenburg railway, which runs between Herisau und Nesslau, is used for weddings and also for special group travel. One old railway carriage has been transformed into a mountain hut on wheels, the only one of its kind in Switzerland. At request, an extra historical luggage van with bar and water service can be attached to the Sensetal train going from Flamatt to Gümmenen in canton Berne. The train going from St. Niklausen to Zermatt as well as the train going up to the Schynige Platte both run on steam.

Try sitting in the front carriage and admiring the Swiss landscape through thick clouds of smoke! It's such fun ...

STEAM TRAINS IN SWITZERLAND

## Blonay-Chamby Museum Train

Runs on Saturdays and Sundays from mid May till end October. Price: Fr. 3.- Locomotive depot museum also open to the public now. Special trips: Palézieux-GruyèresPaléxieux on June 3 and Sept. 2. Group travel on both stretches. Bookings at Chemin de Fer Touristique, Blonay-Chamby, case postale 187,1001 Lausanne.

Brienzer-Rothorn Railway
The only steam railway in Switzerland running daily to timetable during the summer months. Return ticket: Fr. 20.-

Bodensee-Toggenburg Railway
Herisau-Nesslau-Herisau
Special group travel on working days with the "Amor Express". Price of trip for up to 30 participants: Fr. 1,150.

Brig-Visp-Zermatt Railway
St. Niklausen-Zermatt
Group trips from May to mid June and from mid September to end October on working days. Price for at least 30 participants: Fr. 1,000.- (additional steam charge) plus Fr. 9.80.- per person.

Bernese-Oberland Railway
Wilderswil-Schynige Platte-Wilderswil
Group excursions in June, September and October (July and August except for busy periods) Group tariff: Fr. 200.- (additional steam charge) plus Fr. 11.40 per person

SWITZERLAND - A PARADISE FOR STEAM LOCOMOTIVE FANS The only rack railway still running on steam has taken people from Briens up to the Brienzer Rothorn (7,047 feet a.s.l.) since 1892.

U.C.R.S.

Rhaetian Kailway
Landquart-Davos; Landquart-Chur-Thusis and Landquart-Chur-Disentis
Group travel with a minimum of 80 participants. Group tariff: Fr. 1,200.- (additional steam charge) plus return ticket for each passenger.

Sih1tal Railway
Zurich Selnau-Sih1wald-Zurich Selnau
Mid July till mid August, each Wednesday and Sunday afternoon with "Schnaaggi-Schaaggi" steam train. One hour stopover at Sihlwald to visit the SFR 4/7, 241-A65 "Le Boeuf" model. Departure from Zurich-Seinau at 2.05 p.m. Group trave1 (up to 150 persons) at Fr. 790 plus Fr. 2.60 per person

Sensetal Railway
Flamatt-Gummenen-Flamatt
In good weather conditions on Sundays from May to October. Price: Fr. 7.80. Group tariff: Fr. 400. upward. Special steam train rides from Worblaufen-Worb village with a one hour stop in Solothurn to take photos. Group tariff: Fr. 400.-

## Vitznau-Rigi Railway

Vitznau-Rigi Kulm
On May 13 , June 11, July $3 / 19$, August $7 / 25$ and September 22, steam train from Vitznau at 01,46 p.m. All kinds of tickets are valid. Additional steam charge: Fr. 3.- Special trips with a minimum of 60 participants obtainable from the stationmaster of the Vitznau-Rigi Railway. Price: Fr. 230.- upward.

Waldenburger Railway
Liestal-Waldenburg
Every third Sunday from May to October. Price: Fr. 7.Group trave1: Fr. 500.-.

Mittel-Thurgau Railway Company
Wi1-Constance-Wi1
Bookings taken for group travel. Group tariff: Fr. 1,200 (additional steam charge) plus Fr. 9.40 per person.

## BLONAY - CHAMBY

Switzerland's First Tourist Railway
At the end of May 1966 the Vevey Electric Railway (Chemins de fer électriques veveysans) suspended service on the Blonay-Chamby run due to low profitability. At that time it never occurred to anyone that this stretch would one day become the route of Switzerland's first "tourist railway".

A few railroad enthusiasts found themselves unable to accept the loss of service and decided, in December 1966, to found a Society for the Creation of the Blonay -Chamby Tourist Railway. The idea caught fire and in February 1968 the Cooperative Society for the Blonay -Chamby Tourist Railway was formed. At the same time a supporting organization was created.

As to the railway itself, it can be said without exaggeration that its route lies through one of the most beautiful regions in Switzerland, high above Lake Geneva. It begins at Blonay, a station on the Vevey Electric Railway, and ends at Chamby, on the Montreux - Les Avants stretch of the Montreux-Oberland Railway thus there are ample connections available. The 1.7 miles of its route contains virtually everything to make a railroad fascinating. There is a 208 -foot stone bridge, a 148-foot tunnel, and some highly interesting rolling stock. One of the tourist railway's steam locomotives (Type C $3 / 3$ ) has a long and colorful history behind it. It first saw service on the Brünig Pass run and was then taken over by the Biere-Apples-Morges line. When the latter was electrified, the old "iron horse" became a plant locomotive at an industrial enterprise in Bienne.

BLONAY-CHAMBY, Switzerland's First Tourist Railway The Museum Railway crosses the only viaduct on this scenic route.



## LOVE ON WHEELS

Touristically speaking, the North-Eastern region of Switaerland is not quite as "in" as other Swiss holiday resort areas. Its peacefulness is its major attraction. However, since about two years ago, the landscape has occasionally resounded with the rattling noises of a quaint old steam locomotive pulling two equally out-dated wagons. This little train, which is nick-named "Amor-Express", has meanwhile become a land-mark-like institution in the lovely valley of Toggenburg, terminal point of North-Eastern Switzerland's Lake Constance-Toggenburg Railway. The somewhat strange combination of speed and love in "Amor-Express" may sound corny but actually means "Good speed to All Newly Weds". The steam-powered engine, the last relic of a once respectable fleet of steam-locomotives of the local railway, was completely overhauled and put back into service together with two likewise shinily refurbished carriages dubbed the "Wedding Wagon" and the "Carozza Romantica". This old-fashioned little train is now serving as a very popular means of transportation for wedding parties, honeymooners and plain people afflicted with romantic nostalgia. And, believe me or not, actual and potential passengers are more numerous than you think!

AMOR-EXPRESS OF THE BODENSEE-TOGGGENBURG RAILWAY
(Above) The wedding train going through the hilly landscape of the Toggenburg.
(Below) The engaged couple thank the locomotive drivers for a good ride and take leave of the old Maffei-locomotive.


## SPECIAL SERVICES OF THE SWISS FEDERAL RAILWAYS

Everyone knows that the Swiss Federal Railways (SFR) transport people, animals and goods of all kinds But not many people are aware that the $S F R$ also sell umbrellas and rent bicycles. Or that, at the larger railway stations you can rent three different classes of automobile.

No question about it, the Swiss railways not only offer transportation but cater to the welfare of its Passengers in every respect. By law, every station must have drinking water, waiting rooms and toilet facilities; beyond this, every medium-size station houses a good restaurant, newstands and refreshment stands, and toilet facilities; beyond this, every med ium-size station houses a good restaurant, newstands and refreshment stands, and a wide variety of vending machines. There is increasing automation, too. Tickets

Special Services of the Swiss Federal Railways Or, if the weather's turned bad, take refuge under a Swiss Railways umbrella (price: just 2 francs).

U.C.R.S.
and timetables are available in vending machines and there are handy self-service storage lockers -- all designed to save the traveller time and trouble. If you're burdened with heavy luggage there are always porters to help you, and in some stations there are do-it-yourself baggage carts at your disposal

Inside the trains there is also a wide range of special services. Snacks and full meals in the dining cars; food and refreshment served at your seat from a roving cart; Pullman seats; complete hotel rooms in the sleeping cars; baggage transport (including your family auto!) in the freight cars, even mail boxes in the mail cars. As to telephones, movies and traveling secretaries, such as are available in some other countries -- sorry, but Swiss distances and travel times are just too short!

## 1975 - THE ARTH-RIGI RAILWAY: a youthful centenarian

The Rigi, in the heart of Europe and of Switzerland, seems to be a mountain that draws people to it like a powerful magnet. First they travelled to the healing waters of Rigi-Kaltbad. Then devout pilgrims flocked to the "Maria zum Schnee" on Rigi-K1österli. Later, the "the Regina Montium", the Queen of Mountains, captivated such celebrated tourists as Goethe, Carl Maria von Weber, Mark Twain and the Tsar of Russia. Ladies wearing crinolines and hats gay with multicoloured ribbons were carried up to the Kulm from Weggis in sedan chairs for eight and a half francs while their gentlemen escorts paid 16 francs to go up on horseback. The next morning they would be awakened by the strains of the alphorn to see the sunrise, a magnificient natural spectacle put on for them by Nature. Soon the trip up the Rigi became easier and more comfortable: in 1871 Europe's first rack-railway train puffed its way up to the summit from Vitznau. But its inventor, Niklaus Riggenbach, had another aim in mind. He wanted to build a railway up the north side of the mountain as well.
 1975 - THE ARTH RIGI RAILWAY IS A YOUTHFUL CENTENARIAN (Right) A hundred years ago the steam-powered rack-railway train puffed way up to Rigi-Kulm from Oberarth on its maiden trip. (Below) In 1907 the steam locomotive gave way to electric traction.

Swiss National Tourist Office, Zurich


BY GLACIER EXPRESS FROM ST. MORITZ TO ZERMATT
(Opposite Middle) The Glacier Express passing through Realp in the Urseren valley/ Central Switzerland. (Opposite Above) From the Glacier express travellers see the typical wooden houses of the Goms villages, Blitzingen/Valais. (Opposite Bottom) The Glacier Express uses the metals of the Rheatian Railway through the Albula valley. Near Bergün in the Grisons.

Swiss National
Tourist Office, Zurich.


On 4 June 1875 he achieved his ambition: the ArthRigi train made its maiden trip up to the Kulm. In those days the steam locomotives could develop between 170 and 200 horsepower and took an hour and a half to overcome a difference of 1234 metres ( $4050 \mathrm{ft}$. ) in a1titude. In 1907 came the changeover to electricity, making Arth-Rigi one of the first mountain railways in Europe to have electric traction as opposed to steam. A unique aspect of the present-day railway is certainly the fact that a large number of the rack rails on the line date from the time of its construction a century ago.

Nowadays, when the "Rigi hell" ("Rigi clear") sign is hung up at Arth-Goldau railway station (on the Zurich-Lugano line), tourists can escape from the thickest fog up into the brighest sunshine in only 35 minutes. It's hardly surprising, then, that the Rigi has more visitors than any other mountain in the world about one million a year

The traffic-free Rigi is in vogue all the year round, offering visitors 14 hotels, an indoor swimming pool and in water ice and curling rink, skilifts and crosscountry ski trails. But Lucerne's "own" mountain is known above all as a classic walking region at a climatically favoured altitude. A network of marked paths for walkers interlaces its slopes. One of the most beautiful favours that the Rigi has to bestow is the panoramic view over the blue lakes and snow-covered alps. It is a view that is different from every point, but one that never fails to give fresh delight.

## THE GLACIER EXPRESS

The Glacier Express - one of Europe's glamour trains - was first introduced in 1928 as a tourist attraction. Since then many travellers have used this rail link across the high Alps during the summer season, to connect the Swiss tourist areas in the Grisons and the Valais via Andermatt in Central Switzerland.

This comfortable train, put together by the collaboration of the Rhaetian Railway, the Furka-Oberalp and the Brig-Visp-Zermatt railways, sets out from St. Moritz at an altitude of 6000 ft . and soon disappears into the Albula tunnel - nearly 4 miles long - to emerge in the Albula valley, where it gradually des cends to Bergün and Filisur; here passengers are taken on from Davos. After crossing the spectacular Landwasser viaduct - 213 ft . high, 426 ft . 10 ng and 328 ft. curve radius - the journey continues through the wild Schyn gorge and the fertile Domleschg to ReichenauTamins (altitude 1995 ft ), at the confluence of the two main arms of the Rhine. Here the carriages from the Engadine are coupled on to the express from Chur, and now the train starts climbing again along the valley of the Anterior Rhine towards the Grisons Ober land. Passing through Ilanz (the first city on the Rhine - going downstream from the source that is), Disentis and Sedrun, the Glacier Express has to resort to rack and pinion to climb the Oberalp Pass ( 6572 ft .) Descending down the other side the traveller can see far into the Urseren valley with the villages of Andermatt, Hospental and Realp; a little later he sees these again close up. After Realp comes the climb to the Furka Pass ( 7087 ft .) - the watershed between Rhine and Rhóne. As he crosses the Steffenbach bridge he may recall that this is dismantled every autumn, when the Furka section of the line is closed for the winter; the standards carrying the overhead power lines are taken down and the tunnel entrances closed with doors. The train now descends the upper Rhône valley, past the Rhône glacier from which the river springs. Then comes a long succession of wooden villages of the Goms area with their characteristic aspect, and soon the eye-catching towers of the Stockalper Palace at Brig ( 2231 ft .) appear in the distance. After a short, steep climb up the Nikolai valley to Zermatt, this enjoyable trip across the Swiss Alps comes to an end at the foot of the Matterhorn. This well-known resort at an altitude of 5315 ft . is the terminus of the Glacier Express, or its point of departure back to St. Moritz. The Glacier route can be made to fit into a circular tour, for it has very good connections with the trains from and to the Swiss lowland cities. Without the invention of the rack railway it would never have been possible to negotiate these formidable climbs and drops.

# 1854 Centenary 1954 Buffililo, Brantiforid \& Gooderich Railway by Dr. Frank N. Walker 



BUFFALO \& LAKE HURON ENGINE MMILWAUKEE"
Public Archives of Canada

The Buffalo, Brantford \& Goderich Railway, later known as the Buffalo \& Lake Huron Railway, owes its beginning to a group of Brantford merchants, who had become convinced that the Great Western was going to by-pass their town by several miles and that they were still going to be dependent upon the boats of the Grand River by summer and long hauls by sleigh in the winter for their supplies of merchandise.

The murmuring that the Charter for the future Northern Railway had cost a very large sum, before it had been passed upon by the Legislature in 1849, was not very encouraging to those who wished to help themselves. But at that same session of Parliament, much other epoch making legislation was passed. Among this was the Plank Road.Act whereby a group of citizens could form a company for constructing such roads without recourse to Parliament. That Act gave birth to a bright idea and at the next session, it was amended so that its privileges were extended to include Railways and Tramways.

The Brantford people "hove-to" and before the end of the year, led by Phillip VanBocklin, had subscribed for $\$ 34,000$ worth of stock in what they called the Brantford and Buffalo Joint Stock Railroad Company. In looking for advice, someone recalled that an engineer, William Wallace, had surveyed the route of a railway from Fort Erie to Sandwich on the Detroit River, and he was of sufficient stature in his profession to be called
to give evidence before the 'railway committee' of Parliament at Nontreal, in 1849. Wallace was chief engineer for the New York City Railroad. This was a road 80 miles in length running from Buffalo to Hornell, at which point it met the Erie whose last 12 miles to Dunkirk, on Lake Erie, were then being rushed to completion by M.C. Story \& Co., who a year later were to become the contractors for the Northern Railway of Canada.

Wallace agreed to survey the Brantford and Buffalo route and in doing so was on familiar ground until he reached the Grand River at Dunnville. From there he turned northwest as far as Caledonia, then more or less paralleled the Indian Trail to Brantford, where the people filled him with such enthusiasm for the scheme that he subscribed for $\$ 200,000$ worth of its stock, paying $\$ 12,000$ in cash. When he returned to Buffalo, where his reputation was already favoured in high places, his venture was received with acclaim in political and newspaper circles.

The 'Commercial Advertiser' came out on January 8,1851 with,
"It is about time Buffalo began to wake up..
Let us break the 'halo of glory',.... termination of the Erie Canal, ....foot of inland navigation and all the magniloquent phrases.... Two railway companies were chartered through Upper Canada. One was to connect Buffalo and Sandwich, opposite Detroit, only 220 miles between the two places....

# łailway Society 

Mr. Wallace, the capable engineer...did go forward and make a re-survey of the Niagara and Detroit Rivers road (the route later followed by the Canada Southern)... But no interest being taken in it by Buffalo, it was traded off to Sir Allan McNab \& Co., for the benefit of the Great Western in consideration that they should pay the survey bill and other expenses....
"Buffalo may ask, how is she to help the matter?.... Run a road from Fort Erie... so as to bring the trade and passage from the Erie road via the Hornellsville and Buffalo into line with the Canada road.... The little steamboat 'Union', a ferry at Black Rock, has not seen more than three days in a whole winter since it was built, eight or nine years ago, that she could not cross, and a boat of sufficient size for railroad purposes may cross three hundred and sixtyfour days in the year...."

On February 12, of that year, 1851, the Toronto Globe, under a caption which may have given a name to a new railway, reported a meeting of Brantford citizens who formed 'The Brantford and Buffalo' joint stock railroad company. The town was pledged to take $\$ 100,000$ of stock. A delegation was appointed to go to Buffalo to engage engineers to run a trial line. From the discussion it could be seen that the route north and west of Brantford had not received any unanimous opinion. The Buffalo Commercial Advertiser heartily approved and hoped that the visitors would be well received. That paper, speaking of the Great Western, six days later, said,
"It is equally legitimate for the citizens of Buffalo to attempt to secure the termination at a point opposite this city or at least to aid in the construction of the Buffalo and Brantford branch. The route is one over which much of the western passenger business will be done".

A large meeting held at Lewis' Inn, Fort Erie, on February 24, put a committee to work on the feasibility of connecting that town with the Great iestern, at or near Paris. On March 8, the Buffalo paper came out with a real pep talk to its citizens. It mentioned that during the preceding year, $15,000,000$ feet of lumber had been exported by the Grand River saw mills and that Brantford alone had exported 400,000 bushels of wheat, besides large quantities of flour "the greater portion going to Oswego by Welland Canal". A couple of days later the Commercial Advertiser published the report of Engineer Vallace's answers to the Railroad Committee of the Canadian Parliament for 1849 showing the route from Detroit to New York to be 85 miles shorter through Buffale than by way of Niagara Falls and Rochester.

By this time the venture had attracted the interest of a Buffalo alderman, Myron P. Bush, and its dynamic and capable mayor, James Wadsworth. The city purchased $\$ 70,000$ in stock and was given the right to be represented on the board of direc-

## The oover picture

When the landing of Fenians on Canadian soil was reported to Ottawa, Colonel Fred Cumberland, manager of the Northern Railway, was sent a telegram to supply troops from the Toronto and Hamilton area to the Niagara Peninsula.

In 24 hours he had over the Great Western,

1240 troops transported borne, and finally the Buffalo and Lake Huron to the Welland and Port ColRidgeway. Cumberland is seen in the picture with his hand on the grab iron at the front of the tender of "Milwaukee" - engine number 19 of the Buffalo and Lake Huron, which had been brought up to Welland from Port Colborne to pick up the troops from St. Catharines. The Welland Railway staff was highly pleased to get in the picture with the visiting locomotive.
tors by two members.
Being one of these, James Wadsworth soon became president of the Company. In the aristocracy of Canadian railway interests, the Brantford road could no longer be ignored and Parliament that year appealed the railway privilege of the 'Plank Road Act'. Such obscure birth has, however, blurred its early history and left a vacancy in the works of writers who apparently have depended on the Provincial Statutes as a basis of their endeavours.

The various townships along the line lent their assistance to the road by the purchase of stock and smoothing the way for agreeable purchase of the right of way. No railway built in Ontario had so many friends along its route. It had the usual calls to entend itself to areas of poor transportation. Early in l852, surveys had been completed to Goderich. The Huron loyalist said on Nay 28 that a meeting had been held a couple of nights before when the citizens of the Goderich district endorsed the project and delegated one of their number, George Brown, to go to Brantford and Buffalo. On June 24 , a Buffalo meeting delegated four representatives, including James Wadsworth and Myron Bush, to attend a meeting in Goderich on the 29th of that month. A letter was read from David Christie, M.P. of Brantford, inviting the people of Buffalo to get behind the railway. Mr. George Brown of Goderich said that opposition was anticipated from the Great Western.

News travelled rather quickly even in those days, for, three days before the Buffalo meeting, John Gwynne, secretary of the embryo Toronto and Guelph Railway, wrote to John Galt, son of the promoter of the Canada Land Company,
"I have been...surprised to hear that parties interested in...the Buffalo and Brantford Railroad Company should be able to gain even a temporary support of Goderich to a proposed extension from Brantford in preference to an extension from Guelph.... I know that an opinion prevails with some of your counties that the Canada Company ought long since to have procured the necessary funds to build a railroad from Toronto to Goderich.... A Company was started in London for that purpose... It was the people of Toronto who prevented that project going into operation. It is not necessary now to enumerate the faults, the follies and the jealousies of the old Toronto and Lake Huron Railroad.... There is no prospect of the Legislature sanctioning such an extension... The Buffalo and Brantford Railway Company have no power to make one foot of railway beyond Brantford":

This opinion coming gratis from one of the ablest lawyers in the Province may have set that other capable barrister, James ivadsworth, examining the state of the Brantford and Buffalo's meagre charter. He went to England where he borrowed $\$ 500,000$ and likely was obligated by that cautious banking firm, Baring Brothers, to write a copy of the road's mortgage to them into the Act of Parliament which he anticipated applying for at


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the next session. How much of the borrowed money had to go toward thet legislation does not seem to have been recorded, but Mir . Gwynne was wrong. An Act was passed on November 10, 1852, granting permission to extend the road to Goderich. While it was before the Legislature, Mr. Wallace, the railway's Chief Engineer, was beset with letters from the Government Board of Railway Commissioners threatening to hold up the road's crossing of the Felland Canal at Fort Colborne.

It is possible that, with fair treatment, the road could legally have proceeded to Goderich without further legislation. The Act shackled the Company in many ways, such as clause IX which said, "Be it enacted that the gauge of the said Railway shall be 5 feet 6 inches and neither more or less". Clause XII wrote into the Act a mortgage of over $\$ 3,000,000$ worth of the company's essets in favor of $\$ 500,000$ in English bonds. Clause XV stipulated that the section from Stratford to Goderich be completed by Nay, 1856, under penalty of forfeit. No mention was made of any obligation to complete the other parts of the road to which municipalities had contributed. That clause appears to have been dictated by the promoters of the Grand Trunk, which was planned to reach Stratford in that year 1856 , and whose charter had been passed upon by the same Parliament six days previously.

By the Act, the name of the railway became the Buffalo, Brantford and Goderich. Its president was still James Wadsworth and the secretary was Archibald Gilkinson, who had bought one hundred pounds of the original company's stook. David Christie, M.P., purchased just half that amount, but his public position was used to forward the welfare of the project. Members of Parliament have certain privileges, and on May 23 , 1853, the secretary of the railway board sent Mr. Christie on request seven books and two plans of the Buffalo, Brantford and Goderich Railway. When these were returned is uncertain, but it is clear they were not used by Mr. Keefer, engineer and most informed officer of the Board, when he made his printed report on Canadian Railways, from which historians have gleaned freely. This defect has left one of the most romantic Ontario railways an unclaimed and forgotten child.

The newspapers then printed in the small towns along the line come to our rescue and provide progress reports. On June 10, 1852, the Dunnville Independent said,
"Through the kindness of Mr. Cook, we were lately shown along a good portion of the line in Humberstone. In many places it was graded and ditched, and everything was in readiness for the rails to be laid down. The works have been interrupted in some places owing to the proprietors of the land, through which the line had to pass, refusing the price that had been offered them by the company. These cases will have to be submitted to the decision of the arbitrators, and until that is done, operations cannot be proceeded with...."
The editor gave his opinion of people who were so simple as to oppose so great a benefit and advantage both to themselves and the public". The Cayuga Post, a week later, in a philosophical editorial concerned with the country's oultural advancement, said,
"Steady advancement and prosperity...require speedy intercourse with every portion of its inhabitants.... Canals and railroads are the cheapest and most remunerative means that can be put into operation".

In May, 1853, the St. Catharines Journal reported that,
"the contract for grading, bridging, etc. of the Goderich and Buffalo Railway from Paris to Goderich was let to Messrs. Morrell, Mellish, Whitehead \& Co. for five hundred and fifty thousand dollars and the road is
to be ready for laying rails by September, 1854. The line from Black Rock to Buffalo had been purchased (for $\$ 8,000$ ). The line below Brantford is in a forward state and will be opened to Fort Erie in September next, and the line completed to Goderich in a little more than a couple of years".
That estimate would have been lived up to if the money had lasted. The Buffalo and Goderich was the only railway in Canada being over 50 miles in length to be built without the aid of Government funds at that time. The same paper said on July 21 of that year regarding the purchase, by the mayor of Brantford, of some 200 acres of adjoining lands for 210,000 , that,
"The high price of real estate there is attributed to the presence of the Buffalo \& Brantford railway.... Operations have been commenced at several points between Stratford and Goderich. At the Bridgewater cutting, $2 \cup U$ men are at work....the service of labourers obtain a dollar a day".

The popularity of the road increased during 1852 and 1853 due to free rides upon its gravel cars, but as time for opening arrived, we read in the Journal, reporting an instance of December 3, "The parties in question got on at Fort Erie and rode to Port Colborne, a distance of 19 miles and were charged, some 50 cents, some 75 and others a dollar. The Superintendent, Mr. Wallace, was on the road the first few miles, and no charge was expected, but after he left the conductor, Mr. Aikens, is said to have collected as above".

The first engine was likely purchased by the Brantford and Buffalo road in the fall of 1852 and was named the Goderich. She had 66 inch drivers and was built by Schenectady. Numbers 3 and 4, the Caledonia and Cayuga, were from the same foundry as was number 2 , the waterloo, but the latter differed in having 72 inch drivers. About a jear later, the company bought two engines from James Good of Toronto, the Buffalo and the Huron, each with 66 inch drivers. They were probably numbered 5 and 6 , but a re-classification in 1855 blurs the early picture. The 'Good Engines' were badly damaged in a fire at Brantford in May, 1854.

On August 11, 1853, under the railway's name, the Brantford Herald commented,
"On the invitation of a number of the Directors of this important undertaking, we yesterday did ourselves the pleasure of accompanying them along the road lying between this place and Paris.... We may safely congratulate all interested... Men are employed at every point where labour can be made available, 200 are engaged near the farm of Allan Good, Esq., where an extensive embankment is being constructed... Across the valley of the Grand River a yet more notable embankment is being made, at a point where the bridge spans the river. The bridge... will be a magnificent structure supported by six stone piers containing about 5,000 yards of solid masonry. These piers, 60 feet in height, will be surmounted with timber work... 80 feet above the river will be laid the track".

An eariier note in the Brantford Courier had said that Nessrs. Mellish and Russell had contracted to build the station and machine shops for the railway in that town at a cost of $\mathfrak{£ 6 , 0 0 0}$ adding,
"We are also pleased to see that our enterprising town men, Messrs. VanBocklin, Winters \& Co. have obtained the contract for making the cars, etc. for the road at 250,000. Everything is in its favor, easy grade, no deep cuts, no 'bottomless pits' to traverse or overcome, and withal, good and economical management on the part of the directors".
The mention of the 'bottomless pit' was a veiled

reference to the trouble then being experienced by the Great Western at the Desjardins Canal. The money received by VanBocklin appears to have been really stock in the company, since, after taking $\$ 1,000$ worth when the company was formed, he later took $£ 29,000$, or something more than one half the contract price. The car factory, as established, gathered together the finest workmen and designers at that time on the North American Continent.

The Perth County News reported a 'steam excavator' being sent to Goderich to work on the railway's entrance since that part was the heaviest portion of the work'. The Paris Star, commenting on the completion of the Grand River railway bridge, said,
"We are sorry to state that...last Friday (November 25) Mr. W.P. Farrel, the foreman, fell 62 feet off one of the piers. Happily there is strong hopes for his recovery, though bruised and badly shaken".

On December 20, 1853, the Brantford Expositor, under the heading, "Buffalo and Brantford R.R." said,
"It will be seen from an advertisement in another column that this road is now open for transport of goods and passengers between Buffalo and Caledonia. If weather continues favourable, we confidently expect that the line will be open to Brantford about the 5 th or $6 t h$ of January. On that occasion there will be a grand display in town, a great dinner in the Town Hall, and a magnificent Ball in the immense room over the machine shops at the Depot. It will be a proud day for Brantford, and we have no doubt that the first arrival of the iron horse' will be honoured...as no other previous event has been... The Corporation... have voted $£ 100$ as a portion of the expense of the demonstration and we have no doubt that a large amount wil be added by private subscription".

The advertisement mentioned simply said that the B.B.\& G. Rwy, would be open 60 miles from Caledonia on and after Tuesday 20th December, "One train will run daily, Sundays excepted, leaving Buffalo at $90^{\prime}$ clock A.M.... Tickets at office, 12 Exchange Street, opposite the Nansion House, Buffalo", signed William Wallace, Supt., December 12, 1853. There were other new notices in that edition, as follows, 'Railway Reading Room open 10 January, Thos Evans'. "Railroad Stove Store, B.G. Tilsdale". "Railroad Boot \& Shoe Store, Thos Roantree".

As the year ended, Brantford was full of anticipation. On January 13, 1854, the Expositor wrote,
"Friday last was the day appointed for the opening of the central section of the Brantford and Buffalo road, and a grand gala day it was to the inhabitants of this town and the surrounding country.... Shortly after noon, a procession headed by the Fhilharmonic Band marched to the Depot marshalled by George Babcock (the stagecoach owner). Shortly after 2 P.M., the trains arrived and were received with loud cheers, firing of cannon and every demonstration of joy.... There were three locomotives, the first one with a passenger car, the second with five and the third with one, all well filled. About 500 , we understand, came over from Buffalo, including a large number of Buffalo firemen who made a very good appearance in their splendid uniforms.... The mayor of Brantford announced...that if they would go into the round house they might probably hear something.... The building, large and capacious as it is, was immediately thronged to excess, all parties as a matter of course standing up... Mr. Wadsworth and the mayor of Buffalo severally replied.... Both are evidently talented men, the former especially
is an exceedingly eloquent forcible speaker and his address... was entirely devoid of that fulsome twaddle which is so often inflicted upor people on such occasions...."

Two dinners were given to the visitors: the one by the Oddfellows to the Buffalo firemen had 200 guests, and that given by the council was Crowded with invited guests...Only three inhabitants of Brantford'. The Expositor concludes, "At 8 o'clock there was a general display of fireworks in front of the court house. The Grand Railway Ball took place in the second story of the Depot machine shops, which were very tastefully decorated. Not less than 1,500 persons were present, most of whom tripped it on the light fantastic toe until broad daylight. There were two bands of musicians present, one a Cotillian band from Buffalo... and the other the Brantford Philharmonic.... About $100^{\prime} c l o c k ~ n e x t ~ m o r n i n g, ~$ the Buffalonians took their departure... a number of our townspeople accompanied them to the cars and gave three hearty British cheers, as the iron horse snorted off with each train.... Everything connected with the celebration passed off without the slightest accident".

On February l, Wallace ran an advertisement stating that trains left Buffalo and Brantford simultaneously at $8.30 \mathrm{~A} . \mathrm{M}$., going in opposite directions although their meeting place was not mentioned. He added, "A connection will be made at Caledonia for Hamilton, Simcoe and Port Dover. Cars connect at Brantford with stages for Paris". On February 9, the Hamilton Gazette said,
"I wonder if the Great Western folks are aware of the Buffalo, Brantford and Goderich road.... If the G.W. has done so much, the B.B.\& G. has done more, for as the punctuality of starting and reaching their respective destinations in due time, the G.W. cannot compete with it".

On March 28, the road asked the town of Brantford for a loan of $\$ 150,000$, an amount $\$ 500$ less than the company had paid in Parliamentary expenses, brokerage and discount on bonds, etc. The only accounts of so early a date that we have found are given. Masonry was the largest item. The ferry boat at Fort Erie cost $\$ 35,000$. The locomotives and cars to that date had cost about $\$ 170,000$. The greatest bargain was a defunct railway which ran from Black Rock to Exchange Street in Buffalo, purchased for $\$ 8,177.84$. Wallace, in his appended report, remarks that he would sooner have deferred the Brantford opening "until connection was made with the Great Western at Paris, as in that case the whole of our motive power would have been employed in ballasting and completing the line.... As, however, the local traffic far surpasses my expectation, and as that has been done in subserviency to the running of construction trains, I am frank to acknowledge that it is, upon the whole, better that the opening was not deferred. The receipts since the opening have been sufficient to pay the ordinary current expenses, for running the road and keeping it in repair, and two and one half per cent on the capital.... No accident whatever had yet occurred.... Arrangements have been made with the American Express Company to carry their express merchandise and also with the Post office Department in Toronto to carry the mails.... The steamer International gives great satisfaction. She crosses the river in four minutes, and the time occupied in conveying passengers from the Canadian shore to the new depot of the Albany, Boston and New York lines (in Buffalo) does not exceed twenty minutes".
On March 6, 1854, the Buffalo and Goderich reached Paris to connect with the Great Western. An eastbound connecting train left this point at 10.30 A.M. to arrive at Buffalo at 3.00 P.M. Going west
the train left Buffalo at $9.20 \mathrm{~A} . \mathrm{M}$. and reached Paris at 1.50 P.N. Three hundred men and 70 horses, working night and day, were employed during the last month throwing up 2,500 cubic yards of earth each 24 hours to make the connection with the Great Western.

The newspaper reports on the operation of this railway during its first year of life were most glowing and appreciative. In May, 1854, however, all its fine buildings in Brantford were destroyed by what was believed to have been an incendiary fire. Among the rolling stock destroyed were seven passenger cars and two heavy engines, the Buffalo and the Huron, purchased from Good's foundry to take trains up the grades extending from Brantford in both directions.

The road was almost completed in that year to Stratford, in fact some rails were laid down in the latter town; but at the end of the season the Company owed the contractors some $\$ 58,000$ who in turn owed their laborers half of the latter amount which was paid to the men. The railway was making $\$ 1,500$ per day and it was expected that they would be patient until the balance could be paid from earnings. However, with Christmas over the agitation for back pay was general but localized itself at Ridgeway, where in the middle of January, 30 or more men began to tear up the track. An engine sued to rort sirie where 25 men were assembled and returned to protect the men relaying the track after having been sworn in as special constables. A fight ensued in which one man was killed. This was THE FIRST BATTLE OF RIDGEWAY.

The press reports of the service on the road continued to be most praising in character, but it was plain that more money had to be found to get the road finished to Goderich. An agent was sent to England, but money for railway purposes was not to be had; however, Messrs. Hezeltine \& Powell offered to lease the road for what was said to have been three per cent of the capital expended. This was accepted and the Company was renamed in 1856 the Buffalo and Lake Huron with Captain Barlow as manager. Peculiarly, all previous history of the railway seems to have at that time disappeared and even the reports made to the Railway Commission under legislation passed in 1857
indicate that the railway had its birth in 1856.
When the Grand Trunk reached Stratford in September of that year it found the rails of the Brantford railway in its path, which the contractor removed. Barlow wired back to his man on the job, "Tear up the Grand Trunk and relay the Buffalo road and set men to watch it. But before this was done, a Grand Trunk engine came along with a couple of cars filled with navvies, drunk and armed to the teeth. Since neither road was going past Stratford that year, they raally did not have to cross one another and before spring wiser heads appear to have ironed out the difficulties.

The railway was delayed in reaching Goderich, in part due to procrastination by Government inspectors. However, on June 28, 1858, the spectacular ceremony was held. After that was a long series of negotiations trying to get a government loan to fit the harbour for lake trade. The Prince of Wales was taken over the road from Paris to Fort Erie in 1860; but for two years before that date, the International Bridge had been on the drawing board of engineer Smith, the Buffalo partner of William Wallace. The Prince did cross the river on the Company's Ferry, International. The car they built for his entertainment was undoubtedly the most creative of any railway car constructed. Pieces of it are still preserved in the museum at Brantford.

During the winter of 1861, the Railway had contracted to carry many cargoes from Lake Michigan, but the Goderich harbour was not ready in time so they had to send their freight cars to Sarnia by the Grand Trunk and have the first ships unload at that place. The traffic was immense, and although it only lasted for a month until Goderich harbour was ready, the appetite of the Grand Trunk was so whetted that it began to buy Buffalo and Lake Huron stock.

The Goderich freight traffic in summer was heavy. Iake freighters could discharge their cargoes more quickly there and so made an extra trip during the season. Passenger excursions were spectacular and numerous in association with the Great ivestern and the Grand Trunk. The latter finally took over the road in 1869.


# UCRS 

BUDDS BARRIE BOUND AS REPORTED BY AND PHOTOGRAPHED BY

The morning of 8 February saw approximately 400 people board four Canadian National Rail Diesel Cars(2 RDC-1's and 2 RDC-9's 6114-6003-6004-6117) for a trip to the Barrie Winter Carnival. The train emerged from under the train shed of Union Station into bright clear sunshine and headed east a few city blocks along the CN Oshawa Subdivision. At Cherry Street, the train veered north along the Don River, running up the CN Bala Subdivision, originally opened in 1906 by Canadian Northern interests as the James Bay Railway.

Passing under the Prince Edward Viaduct, connecting Bloor St. and Danforth Ave., it was in this area that the Grand Trunk Belt Line veered off to the northwest and around the city. It was also in this area the Canadian Northern's Todnorden Yard, now occupied by the Don Valley Brick Works was located. Going under the East York-Leaside viaduct, the Canadian Northern line to Ottawa diverged to the east. All traces of the line in this area have been obliterated by the Don Valley Parkway. Going further north, the train passed Oriole Station where the spur to a CP connection at Leaside joins the line. This was used at one time by Canadian Northern trains in and out of North Toronto Union Station.

The first runpast of the day was held at milage 22.5, 1.3 miles north of Richmond Hill, terminal point of the new Government of Ontario Transit service due to start in mid 1975.

Runpast number two was at the site of Mount Albert station. Here the abandoned Lake simcoe Junction Railway crossed the line. This was a narrow gauge line built to connect Uxbridge and Sutton. At Zephyr, the train passed the junction with the Sutton Subdivision, built by the CN as a replacement for the LSJR.

Third runpast of the day occurred at Beaverton Station, site of a good number of runpasts and photo stops on many excursions over the years. North of Beaverton the Bala Sub is crossed by the now unused CNR branch from Lindsay to Orillia. This line had for many years, service provided by gas electric railcars on a daily basis. Swinging away from Lake Simcoe, the tracks cross the Trent Canal and just prior to crossing Highway 12, intersect

D. W. SMITH, STAFF REPORTER ..,

the abandoned CPR Lindsay-Orillia line at Brechin. A short stop here allowed a view of the old CP Brechin Station, now in use as a private dwelling. At Rathburn, the Special passed another abandoned junction, this time the Canadian Northern access line to Orillia.

At Washago, the train went into the hole to allow train 673 to North Bay pass. Normally run with Budd cars, 673 was being run with GP9 4105, steam generator car and 3 coaches. This was because the equipment usually on 673 was being used on our special lso in the hole at Washago was a southbound freight with GP 40-2W on the point. Washago is the junction of the former Northern Railway of Canada's line from Toronto.

South of Washago, the train travelled through the Rama Indian Reservation. At Atherly, the tracks join the only part of the Lindsay-Orillia line still in service across the Atherly Narrows between Lakes Simcoe and Couchiching. At Orillia the train was held for a grain drag going up to Midland. A stop was also made to inspect what was billed in the fan trip handout as a suprise. That turned out to be the Ossiwippi Express Dining Cars, a restaurant utilising four old pieces of rolling stock. This also provided the site of runpast four.

Runpast number five was held at the now cleared site of Hawkestone Station in a beautifully clear winter day.

Barrie was reached in early Afternoon and the train headed, after some involved switching to the Meaford and then the Beeton Subdivisions to the site of the Winter Carnival at the Molson (Formosa Springs) Brewery Plant.

Those patrons who wished to get off and visit the Winter Carnival, left the train and would be taken by bus back to the bus terminal where they would have only a short walk back to where the train was laying over.


GP38-2W \#5587 on southbound freight. GP9 \#4105 on train \#673 to North Bay. The U.C.R.S. Special is barely visible in the background. Washago is the former function of the Canadian Northern and Northern Railway of Canada (later Grand Trunk Railway) Feb. 8th, 1975

The trip back to Barrie(Allandale) encompassed runpast number six on the Beeton Subdivision. The Beeton Sub. was at one time the mainline of the Hamilton and Northwestern from Hamilton, and Georgetown to Barrie. Later the Northern and Northwestern, the line was absorbed by the Grand Trunk and even later Canadian National. Seven miles of line north of Georgetown has been abandoned by $C N$ and will be operated by Ontario Rail Association as the Credit Valley Railway.

Departure from Barrie was delayed due to difficulties encountered by the buses running from the Carnival site to downtown Barrie, but in due course everybody managed to make it back to the train.

The line south of Barrie was originally opened as the Ontario, Simeoe and Huron Union Railway, later INorthern Railway of Canada and enentually became part of the Grand Trunk Railway and as such came into the fold of the Canadian National, where it is the Newmarket Subdivision.

Passing Lefroy, there was a spur that at one time saw considerable traffic to and from a Lake Simcoe steamer Connection at Belle Ewart in the 1880's. South of Aurora was the former crossing of the Schomberg and Aurora Railway. This was a steam road that was later electrified and became the S\&A Division of the Metropolitan Division of the Toronto and York Radial Railways. At Concord, the Budds clattered across the CN York Subdivision, the access line to and from Toronto Yard.

Just north of Eglinton Ave., the special crossed what was the Grand Trunk Belt Line. As Rogers Road was crossed, many traction fans shed a tear for the Rogers Road streetcar that had been recently replaced by trolleybuses. Passing over St. Clair Ave. Davenport Road, the level crossing of the Canadian Pacific North Toronto Subdivision, came the realization that we were all too soon back at Toronto Union Station.

Mentioned just as "Suprise" in the fan trip handout, the "Ossiwippi Express Dining Cars" came to many people on the Barrie Winter Carnival Excursion as just that- a suprise. It was a suprise in that such a fine job had been done on the cars especially since they were in service as a restaurant.

The restaurant consists of four cars, two pair side by side. The cars are ex Canadian National Baggage-Mail car used as kitchen and storage area, Canadian Pacific heavyweight, London and Port Stanley Railway interurban and ex CPR and later Ex U.C.R.S. car "INova Scotia" used as dining area.


Opposite
Former London \& Port Stanley No.4. Ossiwippi Express Dining Cars, Orillia, Ontario. Feb. 8th, 1975.

Opposite Lower
Former U.C.R.S. Private Car, Nova Scotia. Still in blue and yellow livery. Ossiwippi Express Dining Cars, Orillia, Ontario. Feb. 8th, 1975.

Lower
Runpast on Beeton Sub - Feb. 8th, 1975 - Barrie, Ont.


Of particular interest was "Nova Scotia" in that it was the first private car used and owned by the Upper Canada Railway Society. Built for approx. 12,000 dollars by the Pullman Car Company, for the Dominion Atlantic Railway, it was later transferred to the parent Canadian Pacific where it became Business Car $\# 7$ on the Farnham Division. Retired in 1963, it was acquired by the U.C.R.S. and used until the present car "Cape Race" was obtained. It went into storage while plans were being made for a railroad museum in London Ont. Unfortunatley plans for the museum did not receive the neccessary civic backing and the car along with L\&PS 4 were later bought for use in the restaurant.

London \& Port Stanley Railway interurban 4 was built by the Jewett Car Company in 1915 for the electrification of the line under the direction of the Ontario Hydro-Electric Power Commission After sale of the line to Canadian National, the car went into storage for the abortive museum project in London.

The exterior of the four cars are in excellent shape and the beautiful job of restoring the appearance of number 4 is self evident. Nova Scotia retains the blue and yellow scheme she carried as U.C.R.S. "Nova Scotia" but has been relettered for Canadian Pacific. The heavyweight car has been repainted to approximate the scheme of the Canadian Pacific first class coach of the 1880's and is if nothing else, different. The Baggage carries a new coat of paint in CII green and gold.

Located beside the tracks in Orillia, the cars are collectively called the "Ossiwippi Express Dining Cars" appropriately after the train in Stephen Leacock's stories of Mariposa that connected Mariposa and the Big City, the "Ossiwipi Express"


# TRACTION TOPICS 

EDITED BY MIKE ROSCHLAU

TTC TO STAY WITH STREETCARS
At its meeting of 10 June 1975, the TTC decided to purchase 200 new light rail vehicles from the Urban Transportation Development Corporation (UTDC). When the decision was made, the commissioners commented "I hope that you realize this is setting the pattern for transit in Toronto for the next fifty years", "The decision confirms that Toronto is a streetcar city". Metro Chairman Paul Godfrey said his only objection would be to Metro paying more than the $\$ 15.75-\mathrm{milli}$ ion it had originally budgeted as its $25 \%$ share of the earlier total price of $\$ 63$-million. The cost of the 200 cars has since risen to $\$ 98$-million, $\$ 490,000$ each. Ottawa has agreed to finance $25 \%$ of this cost, but neither Metro nor the TTC knows how this will fit in with the provincial subsidy of $75 \%$. The motion that was finally passed made the purchase "subject to financing being made available" and called for discussions of the cost with the province.

Now that the UTDC has a definite order for 200 cars, various other cities are becoming increasingly interested. Edmonton wants 15 cars, Dayton Ohio 25, Rochester N.Y. 40, Austin Texas 75 and Portland Oregon 160. Portland and Vancouver are planning regional systems, and Calgary and Winnipeg are considering a move to streetcars.

Following are the exact specifications for which the TTC has opted and are required to be included in the 200 light rail vehicles to be delivered from 1977 to 1979:

## Car Design Considerations:

The LRV offered by the UTDC is 51 feet long and eight feet four inches wide. Based on earlier experience in the operation of the large Witt cars, it was assumed that this was the largest vehicle size which could be operated on the existing surface track network. Physical tests of the critical curves on the system were made and it was found that there was a remote chance of car contact in several locations. Subsequent study of the proposed shape of the car front and rear ends has shown that minor alterations to both will provide adequate clearance under specified track conditions. Initial discussions with the Corporation staff indicate that these minor modifications can be made without major changes to the structure of the car body.

## Propulsion Systems:

The UTDC's basic proposal included a switched resistor series-parallel control system with rheostatic braking as being the lowest cost apparatus meeting the specification. As an extra cost alternative, UTDC offered modern solid state regenerative chopper equipment. These proposals have been carefully evaluated by UTDC and the evaluations have been technically reviewed by TTC staff. The evaluation by UTDC of the results of the two systems deals with energy consumption, maintenance costs, weight, operational features, performance capacity and technical obsolescence. The energy savings provided by the regenerative chopper equipment when compared to a switched resistor system result largely from reduced losses in initial acceleration and from return of car kinetic energy to the trolley wire during braking. Other energy savings are provided by basic motor design and reduced quantities of electric cables and devices. The energy consumption study included a detailed investigation of the Commission's electrical distribution network and a computer assisted computation to determine receptivity to regeneration. Early indications from this study show that a conservative estimate is that $80 \%$ of available braking energy could be returned to the network. Based on all of this examination it is estimated that the chopper system will permit a power saving of $30 \%$ as compared to the switch resistor system and $40 \%$ as compared to existing PCC streetcars.

Data on maintenance costs of switched resistor apparatus has been obtained by the Corporation from operators in North America, including the TTC, and has been compared
with the prediction of the corresponding costs of chopper operation. This comparison indicates that when compared with switched resistor apparatus the the reduced number of mechanical parts and electrical devices of regenerative chopper equipment contributes to greater reliability and reduced maintenance costs.

The two systems will both provide acceptable smoothness with jerk values within the maxima specified; however, the chopper control would allow full control and choice by the vehicle operator of acceleration and braking rates between minimum and maximum available at all car speeds. The high performance offered by UTDC to meet TTC requirements that the car be adaptable for use on private right-of-way operation can be attained in each case, although a $30 \%$ higher current demand is required by the switched resistor equipment as compared with the chopper equipment. Nevertheless, constraints of city speed limits and of maximum electric currents that can be handled by the Commission's existing distribution system require reduced performance for street operation. Since future private right-of-way lines will provide higher current capacity, propulsion equipment to meet the specified 'high" performance should be retained but with controls selected to provide a "street" performance. A simple control logic card change would "retune" the inherent capacity of the car to high performance and could be made as required.

The matter of electro-magnetic interference was carefully considered by UTDC. Chopper equipment may cause rainterference if proper system design, shielding and filtering is not provided. Experience with the offered chopper, when used on trolley-wire systems, has shown no radiated interference. The Corporation has given assurance that applicable standards of the Federal Ministry of Transport and other similar requirements will be met.

In consideration of all of the foregoing, the regenerative chopper control proposal was accepted. The Corporation has estimated that the additional capital cost involved will be recovered from energy and maintenance savings in a period of ten years.

## Heating and Ventilation:

The heating and ventilation system offered by UTDC includes a ceiling-mounted ventilation system, a floor level forced warm air heating system, and a driver-heating and defrosting system. The ceiling-mounted system provides both fresh and recirculated air in quantities appropriate to the temperature, heated as required. The floor level heating system will consist of a heater-blower unit at the rear of the car with distribution ducts along each side of the car. Heated air will be admitted to the entrance and exit step-wells for melting of snow and ice. Heat controls will include standby heating to maintain interior temperatures well above ambient while the car is out of service. During the review of the proposal with the UTDC it was agreed that the body heating requirements of the specification, drawn to meet much colder climates than that of Toronto, resulted in capacities and therefore electric currents, that were too high. It was further felt that the drivers' heaters were too low in capacity. Improvements in the heating controls to provide greater reliability were also suggested.

## Seats:

The UTDC offers two basic seating layouts: angled perimeter seats and transverse seats as in PCC cars. The transverse seats are available in floor supported (pedestal) and in side supported (cantilever) styles. The UTDC and TTC co-operated in a trial installation of angled perimeter seating in the forward section of a PCC streetcar (\#4504) with standard transverse seats in the rear and the reaction of the public was obtained during revenue service. The public survey showed that a small majority favoured
the angled seats. The survey also provided evidence that many of the travelling public preferred to have a choice of seat style. It was therefore concluded that an arrangement of seats the same as in the demonstration PCC car should be adopted but that cantilever transverse seats be provided in the rear section to facilitate easier car cleaning. The provision of transverse seats will allow passengers with parcels or small children to select these seats for convenience. Adequate stanchions and hand holds will be provided for standing passengers. The combination of angled perimeter and transverse cantilever seats as described above can be obtained at an estimated cost increase of approximately $\$ 750$ per car.

## Doors and Door Control:

The UTDC proposal for doors was separated into two sections - the door panels and the door controls with operators. Door panels offered were of several types of construction; that favoured by the TTC was light, strong and thermally insulating, having a "honeycomb" pattern fibrous filler. At the technical review, the arrangement of the exit doors was altered from the specification and from previous PCC car practice, to that used with great success on city buses. Considerations primarily of safety, but including maintenance, led to this change. Where the buses use a spring for door closing, this function as well as opening may be handled by a pneumatic engine. One pneumatic engine for opening the two entrance doors was offered but TTC experience with crowded conditions led to the conclusion that it would be inadequate. Two engines, sized as for the exit doors, were therefore requested. Door control and safety interlocking would be virtually the same as is used on PCC cars, including the use of treadles for exit door control. Further discussion will be required on details of the door panels and on the final arrangement of the door engines and control. However, discussions with UTDC staff have confirmed that the doors and controls outlined above can be provided at an additional cost of approximately $\$ 600$ per car.

## Trucks:

The trucks offered in the UTDC proposal are the result of continuous development by a company which has been in the business of supplying trucks for light rail cars for about a century. The design incorporates a mono-motor drive, and is of the type with the frame outside the wheels. Primary and pneumatic secondary spring characteristics will be calculated when car weights and body resiliencies are known. Springs and shock absorbers selected accordingly will provide ride quality improved over that of the PCC car. Prediction of ride quality is tied in with track quality. The latter can not be measured by the Commission, but UTDC expects to obtain suitable instruments for this purpose by mid-summer 1975. During the technical review, it was pointed out that the truck design must include design of detachable brackets to be used with the Commission's emergency equipment for recovery of cars having drive-line problems. It was noted that with a mono-motor design, both axles of a truck would need to be raised for recovery. The trucks offered in the basic proposal are acceptable but with accomodation for the recovery apparatus included. UTDC advises that this can be achieved at no extra cost.

## Brake System:

The UTDC offers a pneumatic friction brake system using one brake disc per axle. Wheel tread brakes were ruled out because of thermal limitations of the resilient wheels to be supplied. The equipment meets UTDC requirements and would be supplied by a vendor well experienced in braking systems for all forms of rail vehicles. With minor modifications, inclusing simplification of track brake suspension, the equipment will meet TTC requirements as well.

## Automatic Car Coupler:

Automatic couplers are required on the LRV to allow multiple-unit operation, as specified. The couplers of fered in the base bid are technically satisfactory and completely proven in service but need two additional features to meet UTDC and TTC requirements, both related to storage of the coupler when not in use. One of these is to have the coupler head hinged so that it can be moved inside the car outline, the other is a latch to prevent coupler swing.

## Storage Battery:

The UTDC offers a lead-acid storage battery in the base bid but with a nickel-cadmium battery as an alternative. The Commission has standardized for many years on nickel-cadmium batteries for use in its subway cars because of long life (no replacement necessary in the life of the vehicle) and reduced maintenance (inspection intervals of one year). Because of rapidly escalating labour and material costs, the nickel-cadmium battery was selected.
Spare Units:
From a list of suggested spare units provided in the UTDC proposal, which has since been reviewed by TTC staff, it is estimated that an amount of $\$ 3$-million should be included in the project cost for the purchase of spare components and assemblies.


Above
T.T.C. crane car \#C-2 being lifted from it's trucks at Hillcrest shops on the rainy, sleety, cold afternoon of Monday 24 March 1975. The moving float is parked in rear. T.T.C.'s front end loader is ready at left to push trucks out from under $\mathrm{C}-2$ 's body. C-2 arrived at the Ohio Railway Museum two days later, being lowered onto a set of freight car trucks there. ORM has operated the crane boom successfully; and will subsequently rebuild the entire bed and decking.
(Photo by R. F. Glaze)

## REINTRODUCTION OF SPADINA STREETCARS

Six possible schemes have been proposed for the south end looping of the new Spadina streetcar line as follows (see map):

The first alternative, Scheme $A$, involves the acquisition of certain lands on the southwest corner of Clarence Square Park, to instal a combined streetcar-bus loop arrangement at an off-street location. This would reduce the amount of trackwork and overhead required for the loop while providing a convenient transfer between bus services from the south and streetcar service from the north. It is recognized that there have been objections to such a looping facility by local residents in the area, however, it would seem that careful design and landscaping through the use of shrubbery screen and other types of green coverage, might relieve or eliminate these objections. The estimated cost of such a proposal is $\$ 2.5-\mathrm{million}$.

The second alternative, Scheme B, estimated to cost the same as Scheme A involves the use of certain lands on the southwest corner of Clarence Square Park to instal a streetcar loop arrangement at an off-street location. Where this scheme differs from the first one is that it would be necessary for buses to operate completely around Clarence Square, which would undoubtedly raise objections from residents located directly north of the park and at the same time provide poor connections between the bus and streetcar services.

Scheme $C$, estimated to cost $\$ 2.2$-million, provides an on-street bus and streetcar loop around Clarence Square, which is the routing currently employed by a portion of the Spadina bus service. The disadvantages of this scheme are that both bus and streetcar service travel the same loop routing, creating a difficult condition as well as a potentially serious interface with traffic movements in the area. The need to instal and maintain an increased length of track is necessitated under this scheme.

Under Scheme D, estimated at $\$ 2.5-\mathrm{milli}$, , an offstreet loop would be provided south of King Street, assuming the expropriation of a parcel of privat ly owned land located on the east side of Spadina Avenue at Wellington Street. Minimum track installation and a reasonably good connection with buses to and from the south is provided. The major disadvantage associated with this scheme is that both buses and streetcars will loop adjacent to the townhouses on the north side of Clarence Square.


Scheme E, estimated at $\$ 2$-million, involves an onstreet loop immediately north of King Street via east on Adelaide, south on Charlotte Street and west on King St. to Spadina Avenue. No trackage currently exists on Charlotte Street and consequently, it would be necessary to instal a single track southbound on this street, with an east to south curve at the north end and a south to west curve at the south end. This is the looping arrangement suggested by Streetcars for Toronto Committee, and while it may theoretically be possible, concern must be expressed regarding the conflict which could occur between Spadina streetcars and delivery vehicles wishing to gain access to the commercial establishments adjacent to Charlotte Street. There is a possibility of widening Charlotte Street, although this would involve a substantial cost and would not solve the problems of automobiles interacting with streetcars. In addition, the turning movements onto King Street conflict with the King service and other traffic movements would undoubtedly be difficult, particularly under rush
hour conditions. Another serious drawback to this looping arrangement would be the necessity of operating any bus service to and from the south through the King-Spadina intersection to provide a convenient transfer facility to the north. Scheme E was therefore considered impractical. Under Scheme F, estimated at $\$ 2.5-$ million, a combined off-street streetcar and bus loop would be provided as in Scheme D. The only difference is that it involves southbound streetcars in a right turn movement to enter the loop, crossing other southbound traffic lanes creating a potential safety hazard; the loop being on the west side of Spadina Avenue. From an operating point of view, this scheme is not considered appropriate.

In evaluating the above proposed schemes, the offstreet loop in Clarence Square (Scheme A), was considered the best with minimum impact on traffic in the area and the best transfer arrangement. It is therefore the most likely to be adopted.

## StartingSeptember 15

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## Adults: 1 ticket or token, 3 for $\$ 1.00$,

 cash 40cSenior Citizens: (with Metro ID card)
1 ticket, 8 for $\$ 1.00$

## Children: (12 yrs and under)

1 ticket, 6 for 50 c , cash 10 c
Students: (with ID card)
(with ID card)
1 ticket, 7 for $\$ 1.00$, cash $15 c$
Sunday or holiday pass - $\$ 1.00^{\prime \prime}$

## TTC WILL GO EXACT FARE

Metro Toronto transit riders will require exact fares (tokens, tickets or exact cash) to ride their system on and after 15 September 1975. The decision to delay the startup of the exact fare system was made because it will take that long to establish an acceptable ticket sales system and get new token vending and change-making machines delivered, and where necessary, modified. The settlement reached last January between the TTC and Division 113 of the Amalgamated Transit Union required that the operators receive a $32 \%$ wage increase and that an exact fare system be implemented by 1 October of this year. By opting for 15 September instead of sometime in the summer, TTC officials hope to "avoid the confusion that would be faced by the many strangers to the city during the Shriners' Convention, the summer vacation period and the Canadian National Exhibition". Private organisations such as banks and chain grocery stores, drug stores and trust companies are being approached to act as TTC ticket and token agents, receiving about $1 \%$ in commission on sales. In addition, the TTC has already placed an order for six million new tokens.

Kennedy Station, at the east end of the new easterly extension of the Bloor-Danforth subway line will be located south of Eglinton Avenue and east of Kennedy Road. It will be a terminal station, incorporating a centre platform below grade with a fare control area located at the east end of the platform. A secondary entrance will also be provided at this end. Eight pedestrian entrances will be included. Three entrances lead from parking lots to an underground passageway, this also connecting to entrance facilities at the kiss-and-ride platform and the auxiliary bus platforms, for a total of five entrances leading to this passageway. The passageway leads to the below-grade fare control area. A pedestrian connection to serve the Mid-Scarborough Complex east of the CNR rail line, is provided, also servicing possible future GO Transit facilities. An on-grade entrance to the control area at bus platform level is included as well.

Ten bus bays are provided for TTC buses at grade level, and six bus locations are provided at the auxiliary bus loop. Directly above the TTC bus loop, two 300 -foot long light rail transit platforms will be constructed for the future line to Scarborough Town Centre. A total of eight escalators will be built, three from platform level to mezzanine level; one from the platform to the bus level; two from the mezzanine to the bus level; and two from the bus area to the LRT level.

## ALTERATIONS TO SUBWAY STATIONS

Three prominent subway stations on the Bloor-Danforth line, namely Royal York, Main and Victoria Park, require passengers changing between subway and surface vehicles to use transfers. It has therefore been approved to convert these three stations to a closed transfer operation, eliminating the need for transfers. At Royal York Station, the existing collector's booth will be relocated from mezzanine to street level at a cost of $\$ 18,000$. At Main Stn., a new west wall, roof extension and canopy will be constructed in addition to the same changes undertaken for Royal York Station. The cost will be $\$ 65,000$. At Victoria Park Station, the existing collector's booth will be relocated in the north-west corner; one high (floor to ceiling) entrance and two high exits will be installed; and the location of high glass barriers will be revised at a cost of $\$ 150,000$.

Ex - Toronto Transit Commission 2778 - now property of Northern Ohio Railway Museum. Shown at station on west end loop of Columbia Park \& South Western Ry, Olmsted Falls, Ohio. Station is former Baltimore \& Ohio Railroad depot moved from Berea, Ohio.
(Photo by R. F. Glaze)

## SHORT TURN

The TTC has won the American Transit Association's safety award for the eighth year in a row. The TTC's accident rate fell by $6 \%$ to 4.5 per 100,000 surface operating miles, far the best of any transit system in the TTC's category.....Eighty new coaches ordered for London England's Underground system have been constructed too large to pass through the tunnels. To solve this problem, the tracks on the line for which the coaches were built will be lowered in order to make them fit.....An experimental alarm system that will flash the lights and sound the horn of transit vehicles will be tested on six TTC city. buses for a six-month trial at a cost of $\$ 60$ each. If it is successful, it will become standard equipment in all of the TTC's buses, streetcars and trolley coaches. .....Siemens Canada Ltd. of Point Claire Quebec, and the West German firm of Duwag have been awarded a $\$ 7.715$ million joint contract for 14 light rapid transit cars by Edmonton City Commissioners. A minimum of $25 \%$ of the work will be Canadian.....The Montreal Urban Community has awarded a contract valued at more than $\$ 28$ million to Atlas Construction Limited of Montreal for the construction of three sections of the Montreal Métro (subway): Snowdon, Cote Ste. Catherine and Côte des Neiges. Work is expected to be completed by October 1977.


## Above

Ex - Toronto Transit Commission 2778 - now property of Northern Ohio Railway Museum. Shown on east loop of Columbia Park \& South Western Ry, Olmsted Falls, Ohio, behind shopping center at 7100 Columbia Road.
(Photo by R. F. Glaze)


## Below

Ex - Toronto Transit Commission 2778 - now property of Northern Ohio Railway Museum. Shown on spur next to shopping center at 7100 Columbia Road; the easternmost part of the Columbia Park $\&$ South Western Railway in Olmsted Falls, Ohio. Car 19 behind 2778 is an exVeracruz car from Mexico. Following behind it is an ex-Pittsburgh Railways 4100 type, and an ex-Aurora, Elgin $\&$ Fox River Electric Railway 300 type lightweight Interurban (with pole up).
(Photo by R. F. Glaze)


## SPADINA SUBWAY STATIONS

A detailed description of the architectural design of four of the stations on the Spadina subway line follow:

## Eglinton West Station

This station is primarily a transfer point between buses and subway trains. Buses enter off Eglinton Ave. into a loop which surrounds the main ticketing and concourse area. Underneath, the train platform is situated half below grade (below the concourse superstructure) and half out into the open.

The bus and concourse level is covered by a continuous diagonal grid of exposed concrete coffers supported on eight circular, lightly bush-hammered concrete columns. The entire perimeter of the enclosed space is glazed from floor to ceiling. A portion of the coffered ceiling is skylit.

The transformer yard at a lower (or mid) level is glazed at the sides, and open to the sky above. The control room (also at mid level) has a glazed roof within the concourse. The electrical equipment in both these areas is therefore exposed to view. These devices were used to achieve a sense of openness, transparency and interest. Orientation for the passenger with a clear view of the peripheral bus platform was an important design objective here.

The vent shaft (which dissipates air pressure of incoming trains at platform level) is the one major vertical element in the concourse space. Steps and escalators lead down to the platform area in a sort of staggered arrangement to ease passenger flow. Consideration is being given to bronze handrails with tempered glass balustrades. Floors and vertical surfaces are generally to be finished in warm coloured brick.

The platform area (trains) is really divided into three areas. These are characterized by a low coffered concrete ceiling at the south end, a high ceiling of similar design in the mid section, and a low concrete frame structure with side glazing for the remainder, where the station extends out of doors into the open All concrete ceiling structures will be exposed, with walls and floors finished in warm coloured brick. In this area, a type of plug-in seating arrangement is envisaged along the platform with an illuminated advertising strip above.

All publicly accessible areas have the same basic combination of primary materials and finishes. Throughout the Street Level Bus Transfer and Loading Areas, Concourse Level, Mid-Level and the Subway Platform Level, the floor and walls are finished with a slightly textured reddishbrown tile laid in units of approximately $2^{\prime \prime} \times 8^{\prime \prime}$. The wall tile is glazed for maintenance purposes but is otherwise identical in appearance to the paver tile on the floors. On the treads of all public stairs and along the edge of the platforms themselves a totally non-slip paver tile will be used. The platform edging strips will also be of a lighter colour value to contrast visually with the main
floor colour, as a safety feature.
The main coffered roof at street level, and all other ceilings and columns in public areas will be poured concrete with either a sandblasted or bush-hammered finish which brings out slightly the natural colour and texture of the aggregate.

Freestanding balustrades and parapets will be clear, tempered structural glass with stainless steel handrails. Service areas in general will be painted concrete or concrete block walls with concrete or cement topping as the floor finish. Vinyl tile flooring and quarry tile bases are being used in certain rooms as required.

## Glencairn Station

The Glencairn Station is an above-ground enclosed structure running between the existing Glencairn and Viewmount bridges. The entrances are located adjacent to and are supported by the existing bridge structures.

The design envisages a glazed transparent vaulted roof structure that will allow daylight into all areas of the station. The site restrictions dictated a linear plan and the exterior, with its curved roof form, when viewed from above, will be far more interesting to look upon than a traditional flat roof deck. The vaults, when the stations are illuminated at night, will identify the stations as a soft glowing strip of light.

Interior spaces have been designed to provide visual openness from one level of the station to the other, which will enable the public to orient themselves, providing views to the train platform and mezzanine areas, which will assist in alleviating problems of security.

The floor and walls will be tile, $4^{\prime \prime} \times 8$ ", red brown, with natural grey cement joints. The platform edge and stair nosings will be non-slip transit nosing tile, $6 " x$ $6^{\prime \prime}$ white granite. The nosings at the platform edges will form a rectangular pattern by crossing at the column locations. The outside walls and ceiling will be luxalon linear metal in a colour running the length of the station. Linear metal also occurs in the north and south mezzanines and entrances.

Over the platform and for the full length of the station will be a vaulted skylight. The glass used in the skylight will be tinted safety glass. The columns on the platform will be finished in a rough precast concrete with exposed concrete ceiling beams, sandblasted. The entrances will be aluminum.

## Lawrence West Station

This station has been conceived as a functional composition of three parts (entrance and transfer area, bus loop and waiting, train enclosure and platform), linked by circulation spaces. Spacial openness assists user orientation and also removes any unpleasantness associated with enclosure.

The station is given a character of openness and clarity through appropriate combination of structure, space

and glazing. To minimize maintenance problems, the design employs a minimum range of durable and easily cleaned materials.

The various parts of the station are thought of as enclosed platforms of space. The simple non-specific design of these areas and the inclusion of the specific elements as flexible "infill" allows the station operation to be developed over time to suit changing needs.

The station entrance and transfer area is designed as a pavilion consisting of two parts - an enclosed, lowceiling, heavily structured component containing service rooms, ticketing and concession, and an open area which accommodates stairs and escalators and acts as transfer space. Once inside the entrance space, a rider is immediately aware of the transfer space, the bus waiting areas beyond and the train platform below. Openness is achieved through glazed walls and an open well leading to the spaces below.

The full width of the right-of-way is clear-spanned to provide a maximum space and visibility on the platform. Access is at the north end of the platform with provision for a future entrance at the south end. Natural light is introduced into this space at the wall-roof interface giving waiting passengers a view to the top of the cut, shielding the platform from the direct sun and maintaining vertical wall space for advertising. The transition space at the escalators is identified by the high ceiling of the bus loop above and by a changed character of light.

All floors in public areas, entrances, control areas, bus platform and train platform are a $4^{\prime \prime} \times 8^{\prime \prime}$ approximate ceramic tile. The floor pattern is generally a herringbone pattern with linear accents at the base of walls, and a circular accent pattern at the train platform.

Wall finishes consist of precast wall panels at the train platform, sandblasted concrete at columns and accent walls of $2^{\prime \prime} x 8^{\prime \prime}$ ceramic tile at the main stair and escalator well. The ticket booth and entrance area will be accented by porcelain enamel panels on the walls and ceilings.

Ceiling finishes reflect the structural elements being the exposed precast tees and beams. An area at the mezzanine control area and the passage from the south entrance of Lawrence Avenue will have a linear ceiling.

## Yorkdale Station

The train platform is located between the north and southbound lanes of the William Allen Expressway (at approximately the same level as the roadway). The station extends from the Ranee Avenue underpass to the Yorkdale Road underpass. The control and ticket areas are situated below the road (and track) level at each end. Provision will be made for future subway entrances in the design of both existing underpasses. Ranee Avenue also has provision for a bus lane on each side of the road.

Stairs lead up to the control (ticket) areas from street level on both sides of Ranee Avenue. There is an enclosed pedestrian bridge over Ranee Avenue incorporated in the existing box girder (which also supports the train


Opposite Page
During March and April, the T.T.C. decided to use work car $W-3$ and several different colours of paint to test clearances for the UTDC's new LRV's. Several intersections were tested using every possible curve to see whether any lines of paint which were applied to the pavement would overlap. W-3 was chosen because it has the same truck centres as the new LRV's. The spray paint nozzles were located at the critical clearance points and the compressed air tanks on $W-3$ operated the spray guns.

These two views were taken at 2:30 a.m. on 27 March 1975 at the intersection of Victoria and Queen.

- turning south to east
- turning east to south
(Photos by M. Roschlau)
tracks). The walls of the entrances, stairwells and footbridge will be finished in a warm coloured brick. Continuous stainless steel handrails will contain concealed lights to illuminate the steps.

The exposed coffered concrete ceiling structures of the Ranee and Yorkdale control areas will be indirectly lit. These walls will also be finished in warm coloured brick.

The platform area has been designed as three "sheds". A continuous skylight covers the central platform, terminating at each end in a glazed "apse" above the escalators. The latter device permits a generous amount of daylight to enter the control areas below. The central structural supports are of steel. The structure over the train "sheds" is precast concrete clad on the exterior with stainless stee 1 (to combat salts, etc. from the immediately adjacent highway lanes). The precast concrete is punctured aircraftstyle with small windows (which coincide with the height of those on the traincars).

There will be a covered walkway and footbridge connecting the Yorkdale ticket area entrance with the southwest corner of Yorkdale Shopping Centre. This will have a semi-circular glazed roof reflecting the detailing of the platform skylight. The aim here above-grade was to achieve a transportation aesthetic which responded to the adjacent maze of highway interchanges.

The main platform surface has a light, warm grey circular tile, while the safety edges have rectangular nonslip brown tile. The platform wind shelters have a stainless steel finish with tempered glass panels. Service modules and signage are integrated with their design.

The control areas below track level will have a coffered ceiling of sandblasted concrete (the structure itself) with white painted soffits. The floors and walls are faced with the same circular tile as the platform. The Ranee Avenue entrances and crosswalk have the light coloured circular tile on floors and walls. The ceilings have suspended precast concrete slats.

The covered walkway and bridge at Yorkdale Road has a continuous wired glass skylight with anodized aluminum glazing members. The floor and walls up to handrail height have the light coloured circular tile. The exterior below the skylight is clad with Imperial finish stainless steel attached to the concrete structure.

Below
This aerial view taken from the roof of a nearby apartment building clearly shows the "private right-of-way" created by yellow lines on St. Clair Avenue.. The view is looking west from Yonge Street in July 1974.
(Photo by J. D. Thompson)


# Upper Canada RailwaySociety <br> Newsletter 

PROPOSED
NAME CHANGE
RAIL AND TRANSIT


