

Upper Canada Railway Society

\$1.75

Newsletter

MAY-JUNE 1975

PROPOSED NAME CHANGE RAIL AND TRANSIT





The Upper Canada Railway Society is a pioneer in Canadian railway publications, having originated in 1935 as the Toronto International Engine Picture Club. In 1941, the present name was adopted and in 1952 the U.C.R.S. was incorporated in the province of Ontario, Canada.

The Upper Canada Railway Society meets on the third Friday of each month. July and August meetings are informal movie nights. The meetings are held at 589 Mount Pleasant Road, Toronto, Ontario and start at 8:00 p.m.

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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. O. Box 122, Postal Station "A", Toronto, Ontario, M5W 1A2. Written contributions (articles and news items) should be in the form of black and white glossy prints of 8"x10" or 5"x7" 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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POLICY

Any railway or transit events (such as excursions or fantrips) will be gladly covered by the U.C.R.S. Newsletter staff. Two free press passes should be issued, 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.

The Upper Canada Railway Society's Newsletter is published six times a year by the Upper Canada Railway Society, P. O. Box 122, Postal Station "A", Toronto, Ontario, M5W 1A2.

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MAINLINE ELECTRIFICATION DEPT, RETURNS

TOWNSHIP OF YORK RAILWAYS - A HISTORY

RECENT U.C.R.S. EXCURSIONS

FRONT COVER:

Deutsche Bundesbahn 2-10-0 number 051-131-0 hauls goods up a grade between Hartmannshof and Etzelwang in Northern West Germany. At the rear of the train is a banker (pusher) to help lift this heavy load on its way to the Bavarian Forest Region near Nurnberg. The date is 23 August 1974. (Randy Scholl)

BACK COVER:

It may seem shocking to you, but this is more or less what Toronto's new streetcars (or light rail vehicles, if you prefer) will look like. This mock-up was constructed in haste to show the new Urban Transportation Development Corporation's design to the press and others concerned. It was unveiled on 4 February 1975. (Urban Transportation Development Corporation)

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The proposed name change to Rail and Transit as originated by J. T. Robbie is being registered.

EUROPEAN STEAM...

first hand



EUROPEAN STEAM ** FIRST HAND

by Randy Scholl

Photographs by the Author

ABOVE:

Freight traffic isn't too heavy on some branch lines as evidenced by Deutsche Bundesbahn 2-10-0s #052-801-8 and 052-098-3 near Moos, West Germany on 12 August 1974. The train is coming from Würzburg and the one-car train is certainly an unusual consist as it is framed by haystacks on its way to Lauda.

Only hours after arrival in Luxembourg it was on to Germany and a look at the Ehrang-Apach line, due very, very shortly for electrification. All was poled and the sole power were 2-10-0 050's. However scenery is a continuation of the famous Moselle line so a couple of days were spent shooting the 050's. Don't let anyone kid you, although the 050 is ubiquitous in Germany, when necessary they can really put on a fantastic show as they roar by. Ehrang roundhouse is a mere shadow of what it used to be, since 044's no longer storm up the valley to Koblenz with long trains and mid-day can be ghost quiet at times. Electricians are too much in evidence, but we felt an obligation to spend some time here since the 050's working to Apach provide enough activity.

Sarrequemines in France was next on the itinerary and unfortunately it proved fruitless. The SNCF's last steam hope was no longer steaming locomotives, not even for standby. All was quiet the day we visited the shop, and the men said that no steam had run since March of 1974. Therefore no 141R's were to be seen operating even though scads of them were lying in the yards, rusting away.

The fourth of August 1974, and another marvellous steam venture was underway. My brother Greg and I had long decided that another trip in search of steam in Europe was necessary, what with declining steam operation and climbing air fares. So very early this Sunday morning we headed up to Toronto to catch our KLM flight to Amsterdam and then Luxembourg. After only a 9-1/2 hour drive, we were in Toronto and talking with Mike, our Canadian friend, who would be keeping our car for us while we searched for steam. After a short visit with him, it was on to the airport and on the DC-10. In the best tradition of airlines, our departure was over an hour late ... so what else is new. Well, as usual, the trans-atlantic flight was a real drag but here we applied our oft-used phrase "all is for steam". So with that in mind, I endured the flight knowing what lay ahead would make it all worthwhile.

Getting in to Amsterdam and through to Luxembourg was no problem, although the way our Luxair pilot handled his Fokker Friendship at times made me wonder if he had a pilot's license. In Luxembourg, we picked up a six week unlimited mileage Simca 1000 which was to become a home on wheels.



Back to the Deutsche Bundesbahn, across the border in Saarbrücken a few days were well spent chasing 023 2-6-2's on suburban trains. A cab ride was obtained on an 023 here (that reminds me I owe those DB crewmen some pictures that I promised). The Saarbrücken service is the last steam suburban operation in western Europe and I don't think it will be around much longer; like the rest of DB steam, it is going. Saarbrücken shed was visited but this visit was cut short when the DB crew escorted us outside to a steam engine and gave us a cab ride around the yard when discovering that we were Americans. This was quite a surprise since when the DB men approached us I pictured us being thrown out of the year. About 20 engines were on shed but about 40 are allocated here.

After leaving Saarbrücken, it was due east to the Kaiserslautern-Bingerbrück line. Steam traffic is somewhat sparse but this is quite a scenic line at sections. With our trusty Simca and luck with auto traffic, we chased and got some nice photos. Freights are powered by 050's with 023's on the occasional passenger train, the bulk of the traffic being diesel hauled. An afternoon was spent here and more time would have been taken but the next day was a Saturday and little freight runs here, this being a Monday-Friday line.

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ABOVE: Over 3000 of these 2-10-0 workhorses were built for the DB, number 052-607-9 sitting outside the shed at Ehrang. Ehrang is ghostly in respect to the activity that it used to play host to several years ago.





DB oil burner of the 043 class powers a southbound freight over the Kustentkanal (coast canal) at Dorpen, on the line between Rheine and Emden. The date is 19 August 1974.

OPPOSITE BOTTOM
and RIGHT:

This sequence of three shots depicts a marvellous sight of the now famous racers at Lauda on 14 August 1974. Coming at you is 2-6-2 #023-021-9 bound for Wertheim on the right and no. 023-005-2 bound for Würzburg on the left.



That night it was an autobahn drive to probably the best remaining steam centre in West Germany: Lauda! Lauda is a junction of four lines, going north, south, east and west. At present, there is lots of steam, 023's powering secondary passenger trains and 050's on freights. The end is in sight, however, because the heaviest line, Würzburg-Osterburken, is nearing electrified completion. However there were only diesels on some trains and gaps still existed in the electrification so unspoiled pictures could still be obtained. One frustrating event was at a set-up for a freight from Lauda to Würzburg when a pole was erected just seconds prior to the 050 passing the spot! Lauda also offers some banking on the stiff grade to Osterburken and doubleheading is quite common. In fact, we got one train in Osterburken which etched in my memory something I will never forget. We chased an 050 out of Lauda on a heavily loaded freight which was a sight to behold; smoke towering to the sky and what an exhaust. The afternoon sun was shining brilliantly off the 050 and boy what a visual experience that was! This was only done once during the entire Lauda visits and we could never repeat it, although we really tried. No train ever ran at this time or the weather didn't cooperate. On this same gradient to Osterburken, there were also bankers; usually in the early morning so photography was rough, but again a wonderful sight. Mixed in with all the action were 023's on passenger trains. Actually, freight is the least common commodity at Lauda. With our car, we saw about 30 different steam trains in and about Lauda on every day.

However, the highlight of Lauda was the self-dubbed "racers". This is the simultaneous departure of two 2-6-2 023's that proceed to race each other for about 1/2 mile. One is a 7:00 a.m. departure to Würzburg and the other a 7:00 a.m. departure to Wertheim. Usually there were one or two railfans here, but basically this event has not been too well known because this is only a recent occurrence. Never very common in railroading, these racers are something to see. We made it a point to see the racers five mornings of the trip and only once did they not run, due to heavy fog. What happens is one moves trackside well in advance at 6:30 a.m. and chooses

ABOVE LEFT: What a sight!! It's early morning and foggy, with one of the last Pacifics in Western Europe in roaring north from Rheine gathering speed. She's on a tight schedule and will hit speeds of 80 m.p.h. on her run to the North Sea.



a photo position. One eye is cocked to the sky waiting for the morning sun to pop out as the other watches the tracks. Usually about ten or fifteen minutes ahead of 7:00 a.m. the sun makes its appearance. What a sigh of relief when one sees it. Seven o'clock a.m. appears on one's watch and one quiets down. One looks toward the station and just around the curve on the long straight piece of track an exhaust is heard. Is it one or two? At first there is always the fear that today for some reason the 023's won't run, but then one hears two exhausts. Then one sees two plumes of smoke and maybe one driver is slipping his 023 trying to get ahead of his opponent. So here they come ... two DB 2-6-2's almost neck and neck roaring down on you with two passenger trains. White plumes of smoke are pouring out of the stacks and the jackhammer beat of these engines being thrashed is utterly fantastic! The engines blast by, drivers smiling and a thumbs-up is given by yours truly to them. One turns around and watches the continuation of this scene as one train goes straight and the other bears right to Würzburg, the railfan left stunned by such a brilliant performance. To quote one Englishman who was there, "This is what cine was made for". How long the "racers" will last is hard to tell of course, but there may be some truth to the rumour that the DB is concerned about such an event. Too many photographers are coming to see it and somebody might get hurt. The DB has recently had two railfans killed while photographing elsewhere on the system so there is justified concern. Times would only have to be switched by a few minutes or a diesel could replace the power on one of the trains. With winter and shorter days, photography is also harder since it may be too dark at 7:00 a.m. Anyway, it would really be ironic if the greatness of such an event would become the undoing of it.



RIGHT: Southbound out of Nordeich Mole, a 4-6-2 steams a passenger train towards Rheine at 60-70 m.p.h. on 19 August 1974.

BELOW: Dusk is arriving at Rheine shed and this 042 has just had her fires dropped on a Saturday in anticipation of the Sunday drop in traffic which is customary on the DB. These locomotives often sub in for 012s on passenger runs and are worked to keep the schedules!!

OPPOSITE PAGE BOTTOM: The evening setting sun glistens off this 2-8-2, pulling a southbound goods train toward Rheine at Aschendorf on 20 August 1974.

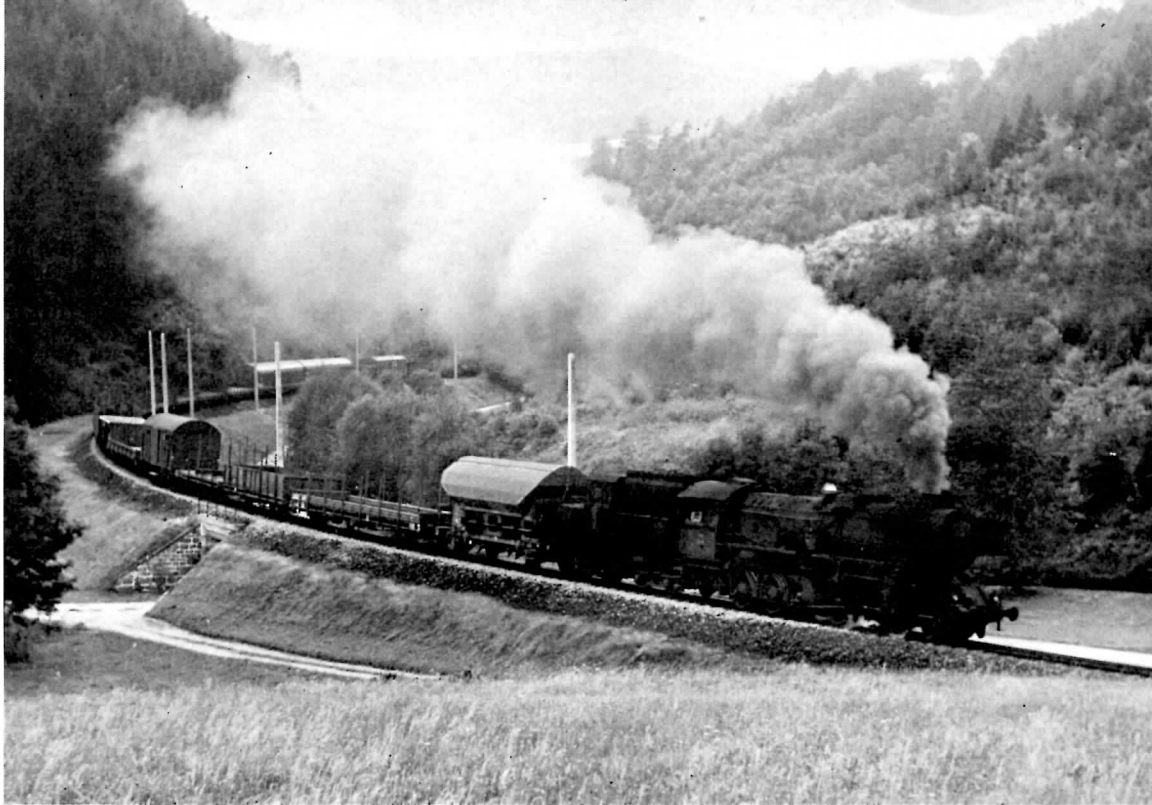


LEFT: One of two Czechoslovakian trains that enter Austria at Summerau every day provides a glimpse of a totally beautiful engine, red star and all on 26 August 1974.

BELOW: Austrian Federal Railways 0-8-0+4T #399.06 proceeds southbound out of Gmünd on this 760mm gauge line on 27 August 1974.

BOTTOM LEFT: Czechoslovakian State Railways 4-8-2 number 475.1113 is seen on the ÖBB at Summerau on 25 August 1974.





Even without the racers, Lauda is good. The Crailsheim line handles the bulk of freight in and out of Lauda and encounters some really nice scenery. We chased an unscheduled 050-050 doubleheaded gravel train and what slog, literally inching along at sections. It was one of the easiest trains I have ever chased. Also north of Lauda there is a line which runs through tunnels. Not much time was spent here because traffic was light and times never coincided with the better events at Lauda.

At this point it might be worth mentioning that much of the trip was possible by "Dampfgeführte Reisezüge" which lists every steam powered passenger train running on the DB and in Austria. Many freights are listed as well, and with the help of this booklet, literally every moment was best used either chasing or relaxing knowing that nothing is being missed. Since a full four out of six weeks were spent in Germany, we used it a lot. My opinion is that it is accurate about 90% of the time.

From Lauda it was north to the Rheine-Emden line, the best line in Germany but not the best centre. There is a little difference, but first a short stop at Mayen near Koblenz was in order. One quick morning was spent here watching morning suburban trains head to Koblenz but all trains run tender first so I was a little disappointed. A freight that departs at 8:00 is quite spectacular, Mayen being in a valley this 050 could be heard for 20 minutes working its way up to the top. So it was on to Rheine for my second time and admittedly the line isn't the most scenic, but it is the heaviest worked mainline in Western Europe. On a long day at least 30 trains (steam-hauled) could be seen on the northern end while further south where steam trains from the Dutch border enter the line, many more are seen. We saw Rheine-Emden twice on the six-week trip and what a surprise it was to find poles up on the Dutch line during the second visit. Although only to Holland, this still ruins the southern section; and not a trace of the impending electrification was evident on the first visit. Also, the 012 4-6-2 pacifics are on this line, only ten being left but what a show these babies make. Catching them on a D-train we saw nothing but a blur of drivers as they zipped past. Our very last day of chasing steam in Europe this trip was topped off by an 012 ride, and what a ride. We were easily doing 65-70 m.p.h. and at times I think even more. The sore throat and headache that ensued wasn't too pleasant though, but "all is for steam"! There isn't that much more to say about the Rheine-Emden line, basically a constant parade of 2-8-2 042's, 2-10-0 043's and 044's. The weather was fantastic the first time around with crystal blue skies which are hard to get on this line. The last visit was rather poor

ABOVE: Another fantastic photo spot is lost to "progress" as the electric poles go up on this line of the Austrian Federal (ÖBB). This stretch is between Selker and Kefermarkt and the train is en route from Linz to Summerau.

BELOW: Not too far from the above spot, poles had not yet been erected on 26 August of last year. ÖBB 2-10-0 #052-1098 pulls a goods train between Freistadt and Summerau.





but there is consolation with the quantity of traffic. One memory is that of an 042 dubbing in for an 012 on passenger storming away from Lathen towards Rheine. It was a terrific show. She came storming out of Lathen hell bent on making some time. I just stood there and soaked up the magnificent scene with early dusk setting in, the oil smoke getting thicker and the beat of steam in its natural habitat diminishing.

While on the Rheine line, we met a railfan from London, England who was also over in Germany chasing steam. Well, quite an acquaintance was struck up with him and he spent four days with us spread out over the rest of the trip. Pete had his own car like us, so we both left Rheine and headed east to the Lehrte area. Quite frankly, this area was a disappointment. The weather was very poor and steam traffic wasn't too heavy. Also, the line is pretty flat so all things considered, we packed up on the autobahn and buzzed south to Hartmannshof, near Nürnberg. Pete meanwhile had bid us what we thought to be farewell as he was going to Lauda after we talked so enthusiastically about it.

The attraction of Hartmannshof is that it is the start of a banking section of about five miles to Neukirchen. Although it is short, we got some fantastic movements up the grade. Because it is short and easily accessible, the chase can yield from four to eight shots of one train. We spent two days here finding this sufficient to cover the line. The best action was provided by German and American military trains that were banked up the hill. An 044 in front and an 050 banking with constant slog and crawl and a complete train of tanks is some sight. Also observed, were whole trains of coal being moved up the stiff gradient, another fine sight with 044's on the head end and 050's banking.

Czechoslovakia was our intended goal after Hartmannshof. In anticipation of the Czechoslovakian visit, all of our film was deposited in a German bank so that there would be no danger of confiscation which I viewed as a real possibility going behind the Iron Curtain. I was ready to try the East for I knew that some marvelous steam existed there and plans were set for a quick five

OPPOSITE PAGE -

TOP:
Austrian Federal Railways
0-6-2T with a banker (pusher)
on the rear blasts upgrade
with empties for a nearby
mine at the station in Vor-
dernberg Markt Austria on 30
August 1974. Note the rail-
bus at the station. These
versatile vehicles are ubi-
quitous on European branch
lines.

BOTTOM LEFT:
ÖBB class 97 rack locomotives
put on a fine show upgrade in
the early morning of 1 Sep-
tember as they leave the yard
at Vordernberg. Ahead are
fantastic gradients on the
climb up to Prabichl.

BOTTOM RIGHT: Yugoslavian
State Railways 2-8-2 number
06-002 heads towards Maribor
two miles west of Ptuj in
Slovenija on passenger. The
date is 4 September 1974.

The map on the right shows
the Scholls' travels through
Europe.

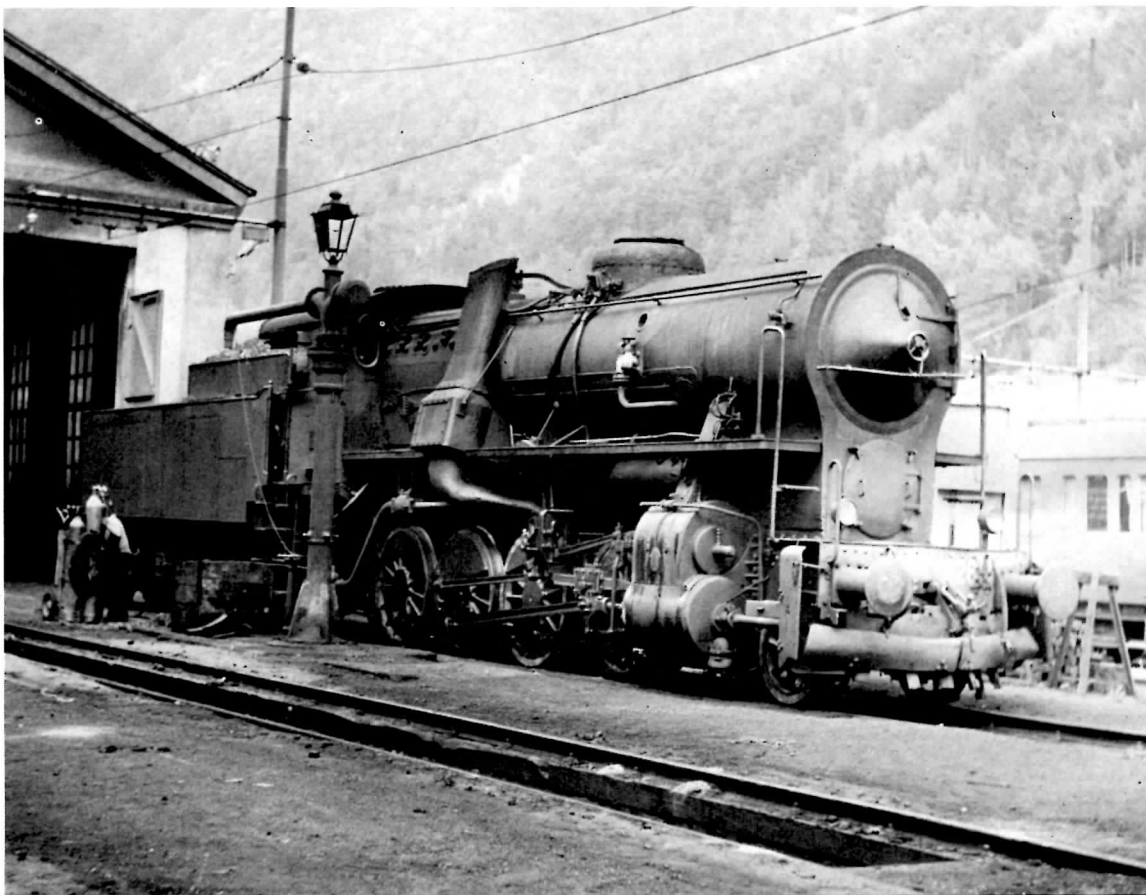




-day visit to Czechoslovakia. We were ready to go in at the border but problems started right away. First, a long line of autos accumulated at the crossing. This isn't boring, however, since Russian soldiers with machine guns are on the prowl and the border towers with watchmen are on the alert. Some muscular soldier in a green uniform was ready to use his force should any trouble develop.

So our turn came and first they complained (not in English) that our car had no international identification sticker on it. We got an "L" and put it on; then the clincher. My Czechoslovakian visa photo was not the same as my passport picture. Through a very kind and sympathetic German girl we explained that my U.S. passport was almost five years old and that it was impossible to have the same picture. Both of the pictures show me without a beard which doesn't match my present appearance. They were obstinate and just wouldn't let me in. They said I would have to get a new passport. I said that I couldn't in one hour so they said tough luck! I said to hell with you, I don't want to visit a country that is so tough and we left. The silly part is that the Czechoslovakian Embassy issued the visa with the old picture. I guess the Embassy will take your money any time. Later, after a very enlightening talk with the U.S. Consul in Vienna, I discovered that the Czechs are very rigid and in fact you must look like the visa and passport, and my plight has happened to many; so much for Czechoslovakia. I'd still like to see more of their 4-8-2's and blue-liveried 4-8-4T's however.

Now with one half day wasted and five extra days on our hands, it was south to Regensburg and east into Austria to the Linz-Summa line. This is a really beautiful line, about 90% of which has been poled and this was quite heart-sickening to see. Such scenery all mucked up, steam certain to be running for another year or so though. War type 052's work this line and we concentrated on the northern part where no poles had yet been erected. The funniest thing happened here. During an interval of 052 chasing, we were parked next to both the tracks and the highway; I was catnapping and heard a car pull up. I opened one eye and who did I see stopped on the road grinning at us, none other than Pete, the Englishman whom we had met earlier. He had just done Vorderberg and was wrapping up his trip here. So the next couple of days were again spent with Pete chasing 052's road rally style on mountainous Austrian roads wide enough for only one car.



OPPOSITE PAGE -

TOP:
This class of 4-6-2T operated on the Yugoslavian State Railways has been imported from Austria (class 77) and is called class 018 in Yugoslavia.

BOTTOM:
Italian State Railways 2-8-0 number 741-028 shows itself outside the shed at Fortezza Italy on 6 September 1974. Note the unique side stack.

RIGHT:
FS 2-8-0 #741-262 powers a passenger train toward San Candido at San Lorenzo Italy on 7 September. This line has fabulous scenery and the side-stacked locos are an added attraction.

BOTTOM:
Austrian Federal Railways class 97 loco pulls an ore train on an S-curve above Vordernberg Markt with a banker (pusher) on the rear.





ABOVE LEFT:
ÖBB rack engines fight against the
"Iron Mountain" to reach Prabichl
Austria from Vordernberg on 31 August
1974.

ABOVE:
An oil burner and a coal burner work
together hauling empty ore cars north-
bound between Haren and Lathen on 13
September 1974.

LEFT:
Yugoslavian 2-8-2 number 06-013 takes
an afternoon passenger train out of
Maribor to Cakoupc at Rače, Slovenija.
Photographing near stations like this
is what gets one detained police - as
was the case with us.

OPPOSITE PAGE -

TOP:
Italian State Railways (FS) #741.107
leads a passenger train just east of
Brunico Italy on the Fortezza-San
Candido line on 6 September 1974.

BOTTOM LEFT:
One of the thousands of "Kriegloks"
or war engines built for all purpose
use during World War II poses at
Vienna East Shed out of service.

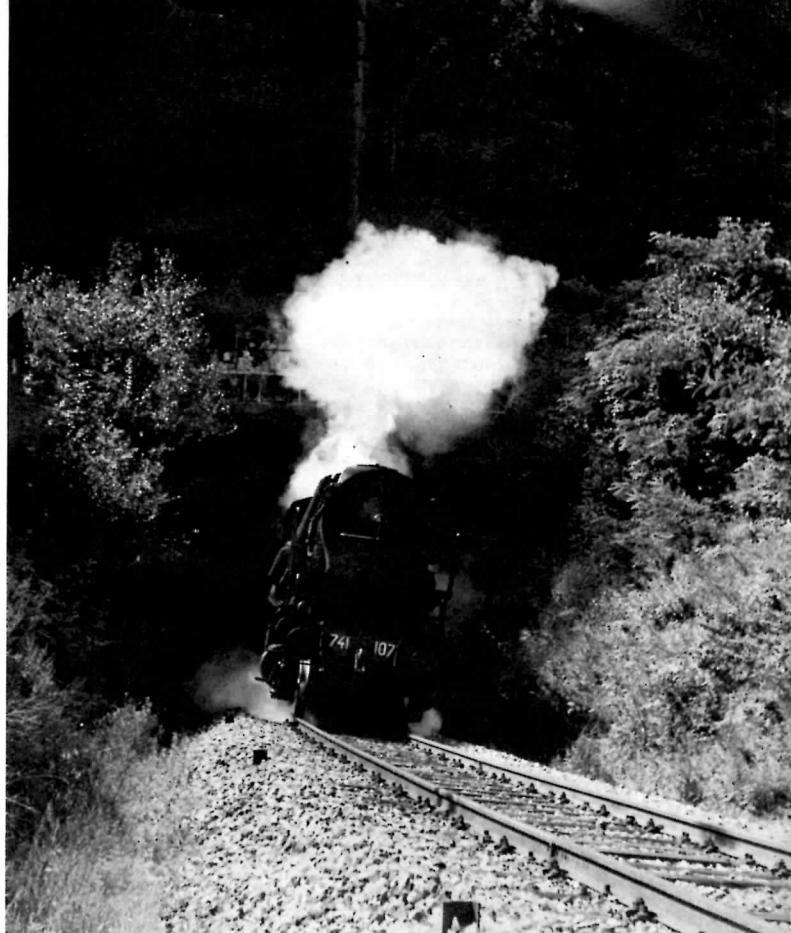
BOTTOM RIGHT:
Austrian Federal Railways 0-6-2Ts
#97.205 and 97.209 smoke their way
to Thesky on the Vordernberg-Prabichl
line on 31 August 1974.

The nice feature of Summerau is the fact that twice a day a beautiful Czechoslovakian 4-8-2 class 475.1 ambles over the border with a train. Needless to say, we arranged our schedule to catch this movement every time. These are really nice engines and very well proportioned. I wish that I could have seen more of them, but we just couldn't get into the country.

On to the Austrian narrow gauge in Gmünd. Not much time was spent here because the engines were very small and I didn't get too excited about them. While in the Gmünd area, a little effort was made to see the Österreichische Bundesbahn's 2-8-2T class 93's. Horrendous weather thwarted attempts to successfully photograph them, they are quite ugly anyhow.

Vienna was next because some business had to be taken care of there. Visits were made to the Vienna North and East sheds, people not being too friendly explaining (in English no less) that we needed permission etc., etc., to visit the sheds. However, we managed to get what we wanted without going through these time consuming chores. It was goodbye to Vienna and about a three-hour drive to one of Europe's best steam lines: the Vordernberg rack line. Although only a few miles long it is rack operated and climbs straight up a mountain. Operated for ore, the line is excellent with marvellous scenery and thrashed locomotives. The 0-6-2T's and 0-12-0T's that operate the line are of 19th century vintage and are worked to the limit on every train up the mountain. Chasing is very good, with enough roads running to the tracks and across the valley allowing photography of the trains as they crawl up the hill. Each train has two locomotives, one fore and one aft so two plumes of smoke climbing the mountain can be seen. Two and one-half days were spent at Vordernberg which was ample to let us taste one of the few operating steam rack railways in the world.

Well, it has been decided that since we couldn't get into Czechoslovakia, nothing would be lost trying to go to Yugoslavia. Although communist, it is a third world country, neither Warsaw Pact or NATO, so Yugoslavia is a little unwanted. This time there were no fences or machine guns and we got right in, even the visa was free. However, photography is still not openly embraced and we were going to take care. First, a quick look at Maribor produced a nice 2-8-2 06 and we headed south chasing these on a passenger train. After a bit of chasing, we decided to take a place for the night at a little guesthouse in Ptuj, as good a centre as any to locate a base at. Well, we hadn't been in the country for three hours when we were detained by police. A drive to the local railroad station produced nothing but a police car with flashing lights to our chagrin. I acted dumb when questioned but knew what was wrong. To our good fortune, an English speaking teacher was found to interpret for us when we were questioned about our activities.



They told us that it was forbidden to photograph railway stations and I replied that we were only shooting the trains themselves and it was our hobby; we couldn't care about the stations. The police told us we had been reported to them as "strangers" in the region and that pictures of stations and bridges were not allowed. They asked me if I had ever been in the army, if the trains were moving, how many pictures had been taken and what our professions were. When our names and passports had been checked and we had explained that our interest was only in steam engines, the two policemen broke into wide grins, shook our hands and said we would have no trouble taking pictures in the future. They apologized for any delay to us but said it was their duty to check out "strangers". They even said they got a good impression of us (boy, we sure fooled them!!). We are not the clean cut steam fans one would normally think of. Conversely, we sport a hippie-like appearance with long hair, beards and ponytails.

So we spent three days working out of Ptuj and never experienced any further trouble, though stations were like the plague. Steam is getting thin in Yugoslavia although it is great if you know where to go and have the time. Unfortunately, thanks to North America, 125 new diesels are on their way which will really hurt. It is an interesting experience and well ... all is for steam.

Northern Italy got our attention next, especially the Fortezza-San Candido line. This is a really beautiful line since it runs through Alpine scenery. Traffic is light, and therefore all trains were chased, but it's worthwhile. Power is comprised of 2-8-0 741's but they aren't too attractive, however the scenery certainly makes up for it. Great weather was in store for us here with some of the bluest skies I have ever seen. Northern Italy (at least this part) is not the typical dirty Italy one imagines. This section belonged to Austria until World War I and everyone is bilingual. Hillsides are wonderfully kept and towns are clean in the best Prussian tradition. Three days on the Fortezza-San Candido were enough to satisfy us, a dirt cheap place at Valdaora tempting us to stay longer though. The events this line is famous for are winter skiing specials from Germany when three locomotives propel one train.

This is supposed to be one of the most stirring sights of steam today as two locos and fifteen cars with a banker crawl up the mountain in mid-winter with snow around and the sun shining.

From Fortezza, one more week was spent back in Germany wrapping up some loose ends and repeating what had previously been seen. It made sense, since Germany has most of Western Europe's steam. So Lauda, Rheine and Hartmannshof were visited again.

It was over much too quickly; 6000 miles had been put on the car, not a problem in six weeks. I was more than pleased with the 35 miles per gallon and good performance of the Simca. Many, many wonderful people were met and so much hospitality shown towards us that I have a lot of wonderful memories and am indebted to all those who helped. Mike, who kept our car for the six weeks in Toronto, Wilfred, who held our precious film for us in Germany while we went to Yugoslavia, the Italians at Fortezza who bent over backwards to help us at the shed and, well, I could go on and on. I took about 1000 still photographs, approximately half black and white and half colour. Along with this go over 1000 feet of movies. Cameras were another thing I had a hell of a time with. On the first day out, boom, I busted a tripod. My movie camera shipped to me in Germany failed to operate correctly, bugs getting into viewfinders were enough to drive us nuts too. Greg's 35 mm shutter jammed up at Rheine and only luck saved us from driving to Hamburg to get it fixed. Cable releases were lost, flash units questionable and cameras tumbled from open car doors in the middle of a chase. Of course, no trip is complete if at some time a good hard fall isn't taken and every effort is made to protect the equipment. I don't think I've ever met anyone who has never bitten the dust while in a hurry.

Anyway, it's all for steam and the above troubles aren't as bad as they sound, since results are excellent photographically.

Steam was seen on every day of the trip. Steam in Austria should be gone in 1975, regardless of the problems encountered and the wonderful human and steam memories from the journey can't be taken away even if European steam is.

STAND BACK! as this doubleheader comes roaring through Lauda West Germany. On board are fish from the North Sea and therefore the train is called the "Fischzug". The date is 10 September 1974.



TRACTION TOPICS

EDITED BY MIKE ROSCHLAU

UTDC INTRODUCES CANADIAN LIGHT RAIL VEHICLE

The Urban Transportation Development Corporation (UTDC) submitted its proposed design for a Canadian Light Rail Vehicle to the Toronto Transit Commission (TTC).

This vehicle concept and its design specifications were developed in response to TTC requirements for a more modern vehicle to replace part of its streetcar fleet.

UTDC staff produced the design proposal after detailed consultation with TTC officials and a world-wide evaluation of available light rail technology. A mock-up of the proposed vehicle unveiled today, was constructed to test interior designs and to assist those involved in the program and the public to visualize the new vehicle.

In addition to many above-the-floor innovations such as perimeter seating, fluorescent lighting and large picture windows, the new design incorporates advancements in propulsion and suspension technology to give passengers a smoother, quieter ride.

Energy requirements for the proposed vehicle will be about 33 per cent less than for the current TTC streetcar due to a new motor control device called a 'chopper'.

Choppers, so-called because they chop high-voltage DC electrical supply into smaller pieces, feed only the required amount of energy needed at a given time into the motors.

Former streetcar systems were unable to regulate the intake of electrical current. Energy not required by the motors at slow speeds was converted into waste heat.

The new design incorporates major improvements for safety of operation including low interior reflection windshield, double headlighting system, low-level step height, four-way flashers, turn signals, sensitive-edged doors and a 3-level brake system which interlocks with the door-opening mechanism.

Because no off-shore light rail vehicle is entirely suitable for Canadian use, UTDC proposed the development of a vehicle based on Canadian requirements, from basic design to final production.

In 1974, the TTC accepted a procurement proposal from UTDC for 200 Canadian-developed and built vehicles to replace part of its current fleet of streetcars.

Mr. Kirk Foley, President of the Corporation said today that this early achievement confirmed his confidence in the ability of Canadian talent and resources to respond to the pressing requirement for innovation in transportation equipment.

"Our qualification studies of Canadian industry indicate that Canadian car-builders and component suppliers will be capable of providing 80-85% of the content of these new vehicles in production," Mr. Foley said.

TTC officials have received a comprehensive 400-page book of specifications developed by the UTDC engineers.

Upon TTC approval of these final specifications and the preliminary vehicle design, the Corporation will procure technical engineering assistance from qualified systems designers.

Negotiations for such assistance have been conducted with both Boeing Vertol in the U.S. and the Swiss Industrial Company (SIG) in Europe.

"By developing and building the vehicles in Canada, rather than by importing off-the-shelf models from abroad, the Corporation will attain a 20% saving per vehicle," Mr. Foley said.

"And we fully expect to stay within our price proposals to the TTC of a vehicle costing within \$250,000 at 1973 prices. Final price will escalate to 1975 dollars and will include certain options".



BELOW:

Here's an artist's conception of what the Urban Transportation Development Corporation's Light Rail Vehicle will look like when in service in a Canadian city.
(Toronto Transit Commission)





BELOW:

This is a view of the driver's elevated area from which the car will be operated. The farebox is to be mounted in the lower right corner on the floor and a two-way radio will also be available. (UTDC)

ABOVE:

The mock-up of the UTDC's Canadian Light Rail Vehicle was unveiled to the press on 4 February 1975 and put on display in northwest Toronto. Only $\frac{1}{4}$ of the car is represented, while this will be extended to $\frac{1}{2}$ of the car for display at the 1975 Canadian National Exhibition this coming August. (Mike Roschlau)



CANADIAN LIGHT RAIL VEHICLE

Milestone dates in the Canadian Light Rail Vehicle (CLRV) program include:

- July, 1974 -- TTC accepts proposal by UTDC to develop and procure 200 vehicles for replacement of part of TTC streetcar fleet;
- February 4, 1975 -- presentation of final Toronto design specifications and quarter-section mock-up to TTC;
- February, 1975 -- selection of engineering design source;
- Spring, 1975 -- production contract awards to Canadian industry;
- Mid 1977 -- testing of first vehicle in Toronto and delivery of first of 200 production vehicles;
- May/June, 1979 -- delivery of 200th production vehicle.

DESIGN OBJECTIVES

The new Canadian Light Rail Vehicle incorporates major design features providing a more efficient and longer-life vehicle, improvements in passenger comfort and convenience, significant reduction in environmental noise, and adaptability for light rapid transit operations.

These design objectives are based on 30 years of operating experience with streetcars in Toronto, consultations with other experienced operators, and on the accumulated advice of passengers and the community.

While the primary application of this new vehicle is for streetcar service in Toronto, the vehicle has been designed with flexibility so it may be used for light rapid transit operations on reserved rights-of-way.

Improved propulsion control has been a major objective for ride quality and energy consumption reasons. The new vehicle will require 33% less electrical energy for propulsion the use of solid state motore control technology. This "chopper control" technology will also enable electrical energy to be returned (regenerated) to a receptive power distribution system during vehicle braking. This capability to regenerate electrical power would reduce energy consumption by a further 20%.

A major environmental objective is noise reduction. Improvements, including the use of a new resilient wheel design and a new suspension system, will reduce noise from the vehicle, by 10 dBA compared with current streetcar noise levels. The exterior noise specification for the CLRV is 75 dBA measured at 15 feet at 40 miles per hour. Interior noise is similarly reduced by accoustical treatment of the car structure.

Improved passenger comfort and convenience has been achieved by features such as newly-designed entrance stairway with a lower step, and a forced ventilation air comfort system which provides three levels of air circulation. Provision has been made for air conditioning equipment installation.

Large picture windows improve the visibility for both seated and standing passengers. Perimeter seating similar to that used in dial-a-bus vehicles will be tested as an alternative to conventional fore-aft seating arrangements; this is in response to a known preference by passengers for single seating.

Improved ride comfort within the vehicle has been achieved by the specification of the new suspension system and the jerk-free characteristics of the propulsion and braking controls, which provide smooth ride at even the highest speeds.

A device similar to a light beam switch will also replace the treadle mechanism for opening rear exit doors. Tests are underway to have this device, when located in both doorways, count the number of passengers boarding the vehicle so that the service frequency and the number of vehicles can be adjusted to passenger load requirements.

Safety requirements of the vehicle, to both passenger and to the public, have received major attention. Interior and exterior design has been subjected to intensive analysis and experimentation. Features such as sensitive door edges, turn signals and four-way flashers, and improved interlocking of door operation with power and brake controls are incorporated.

A three-level brake system is provided -- electro-dynamic (using the motor energy to slow down the vehicle), fail-safe quiet disc brakes (to complete the stop, and for parking) and supplemental battery powered magnetic track brakes.

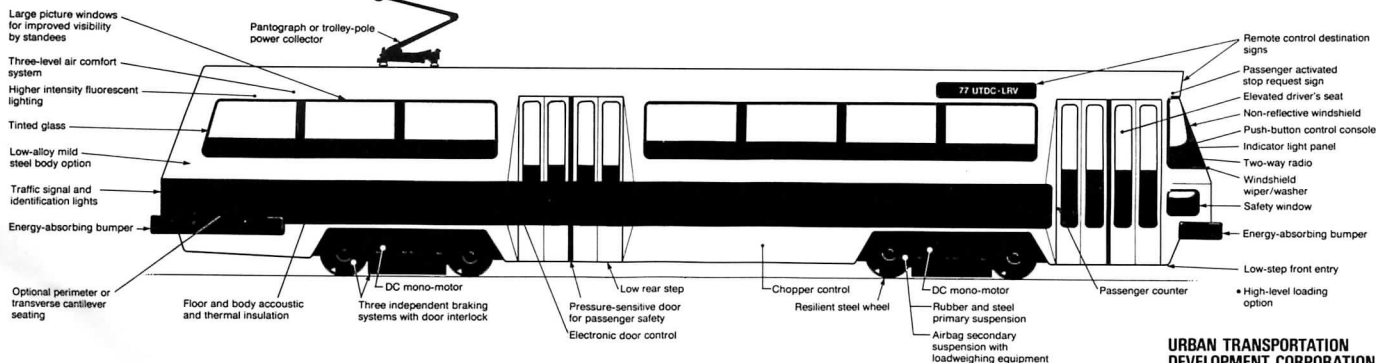
Special emphasis has been given to the specification of component reliability and quality assurance standards to provide a vehicle design life of 25 years with dependable, low cost operation. New materials and fabrication processes have been incorporated for improved body corrosion resistance.

Economy and standardization of production for small -lot orders has been stressed in material selection, modular design, and manufacturing technique. This will ensure a high adaptability of production to specialized user requirements.

Following is a poem about the new "Light Rail Vehicle" by Mr. Michael Lee of Toronto:

I can see a vision of a better day,
For the men and women of Bloor and Bay,
For all in the city, for the TTC,
For the man in the street, for you and
for me.
A day when the true light of reason
prevails,
And people all travel on trams run on rails.
Begone ghastly plans for a mono-rail train,
Expressway or hovercraft, never again!
But arise thing of beauty, ye king of the
street,
With doors that respond to our bodily heat.

Canadian Light Rail Vehicle*



URBAN TRANSPORTATION
DEVELOPMENT CORPORATION

CANADIAN LIGHT RAIL VEHICLE (CLRV)

TECHNICAL FEATURES

PROPULSION AND BRAKING

- . Direct current 600v mono-motor (2 motors per car, each driving 2 axles),
- . DC "chopper" control (reducing energy requirement by 33% for acceleration mode, with capability for regeneration in braking mode, and adaptable for use of mechanical energy storage flywheel),
- . Improved acceleration performance to the limit of passenger comfort or rail adhesion,
- . Acceleration capability:
 - Maximum rate, 3.0 MPHPS (with load weighing control)
 - From 0 to 30 miles per hour in 12 seconds
 - From 0 to 50 miles per hour in 30 seconds
- . Top speeds:
 - streetcar version, 50 MPH
 - light rapid transit, 70 MPH
- . Three independent braking systems:
 - Electro-dynamic (using stored energy of traction motors) in both rheostatic and regenerative modes
 - Friction disc brake (on axles) to effect final stop, take-over from electro-dynamic brake if required and for parking
 - Supplemental magnetic track brake (battery powered) for additional braking and emergency stops.
- . Braking rates:
 - Maximum service - 3.5 MPHPS
 - Emergency (all systems) - 6 to 7 MPHPS.

SUSPENSION

- . Fabricated truck
- . Fully resilient steelwheel
- . Rubber and steel primary suspension
- . Airbag secondary suspension with load weighing equipment.

OPERATOR CONTROL

- . Elevated driver's position improving forward field of view and interaction with passengers
- . Non-reflective design of windshield to improve safety in night operations
- . New operating console with vehicle control pushbuttons at driver's fingertip, and systems condition indicator lights on forward panel.

PASSENGER CONVENIENCE FEATURES

- . Low-step front entry and rear exit doorways
- . "Light beam" actuated exit door control
- . "Stop request" display sign to acknowledge passenger signal
- . Higher intensity lighting fluorescent
- . Forced ventilation air comfort system
- . Option of single and double (transverse) or angled (personal) seating configurations.

SAFETY FEATURES

- . Four-way flashers actuated automatically whenever doors opened
- . Improved headlight system
- . Brake interlock with door opening mechanism
- . Higher-than-industry standards for fire retardant requirements of all materials
- . Low-level door step height
- . Sensitive-edged doors

VEHICLE MAINTAINABILITY

- . Vehicle design life: 25 years
- . Low-alloy high-tensile steel for reduced corrosion used throughout car body and chassis
- . Major electrical and communications systems to be in module or removable console form for reduced maintenance down-time and for easy periodic check-out

Four of the TTC commissioners pose for their picture in front of the CLRV mock-up. From left to right they are: E.H. Farrow, G. Gordon Hurlburt (chairman), David Rotenberg and Karl Mallette. Note the farebox inside the car (above Mr. Rotenberg). (Mike Roschlau)



- . Mono-motor fabricated truck design
- . Reliability, maintainability and quality assurance standards for all components.

ENVIRONMENTAL NOISE

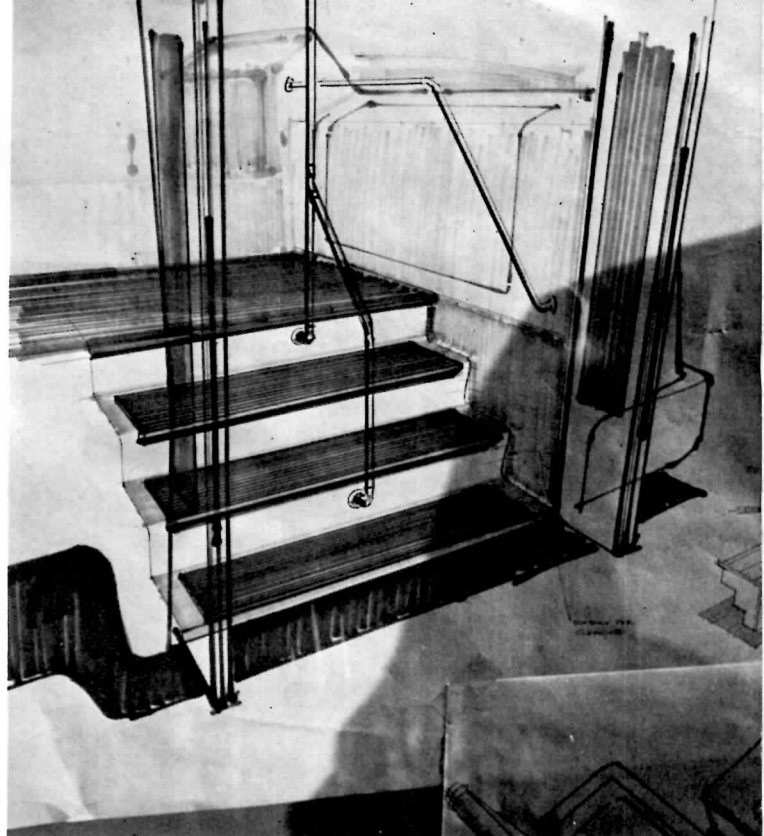
- . 75 dBA maximum exterior noise specification measured at 15 feet at 40 mph
- . 65 dBA maximum interior noise level
- . Fully resilient rubber/steel wheel
- . Loadweighing air suspension
- . Interior and underfloor insulation
- . Air-electric friction disc braking.

VEHICLE CONFIGURATION FLEXIBILITY

- . TTC streetcar version: 4-axle single unit 51 foot vehicle, seating 45 or 51 passengers, and 60 to 90 standees
- . Multiple unit operation in trains of up to 6 cars (under control of a single operator)
- . Can be produced in a three-door version, or for double-ended operation
- . Adaptable to automatic fare collection
- . Adaptable to honour fare system with passengers operated doors
- . Suspension can provide good ride quality up to highest speed
- . Adaptable to high level (rapid transit) platform loading.

PRODUCTION ECONOMICS

- . Engineering design features economy of manufacture in small-lot orders
- . High adaptability for customer variations in equipment, performance and configuration.



ABOVE:

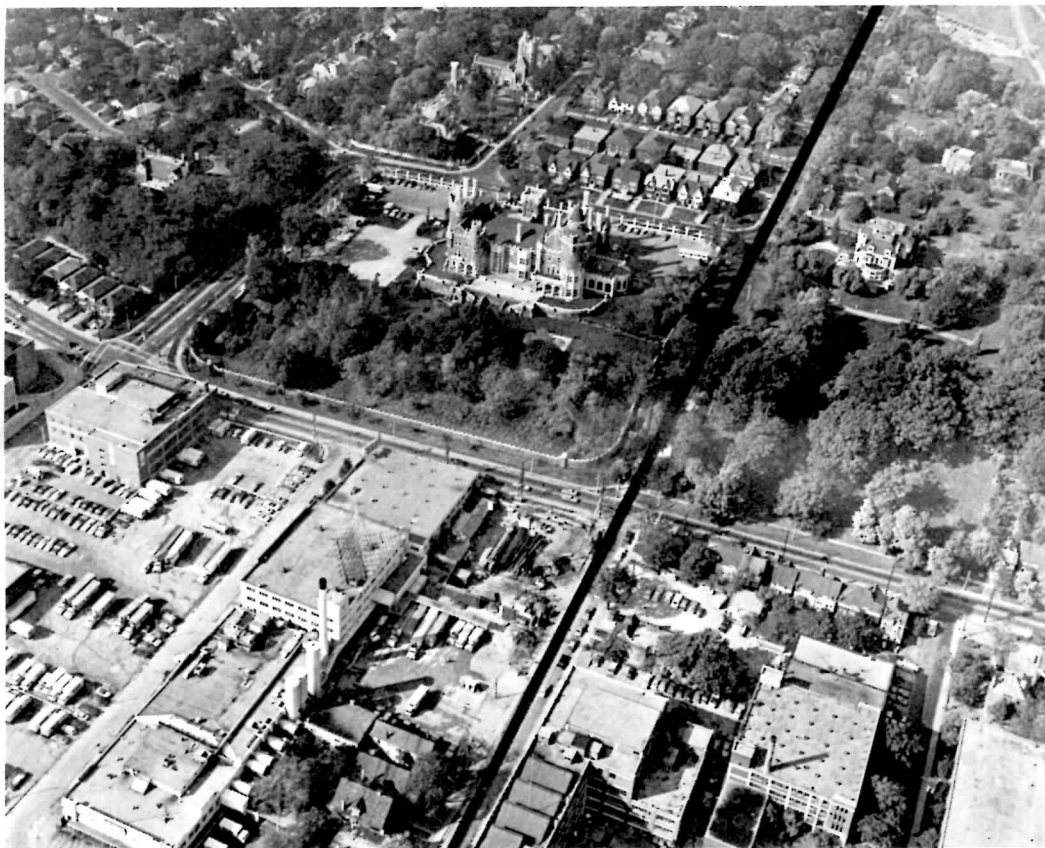
This drawing shows the four low steps used to enter the car. PCC cars have three higher steps and they don't come as close to street level as the new LRV.

(Mike Roschlau)

BELOW: Here's a side view of the mock-up with commissioners and reporters inspecting the vehicle. The stripe along the side of the vehicle was painted orange.

(Mike Roschlau)





LEFT: This aerial view shows the Spadina Subway site area between Davenport Road and Russell Hill Dr. The black line shows the route of the subway. Note Casa Loma. (TTC)

BOTTOM LEFT: A 300 ton crane lowers one of the 100 ton tunnel shields "down the hole" on 30 January 1975 to commence tunnel work. (T.T.C.)

BELOW: The other tunnel shield is lowered on 15 January, on contract A6-1. (Toronto Transit Comm.)

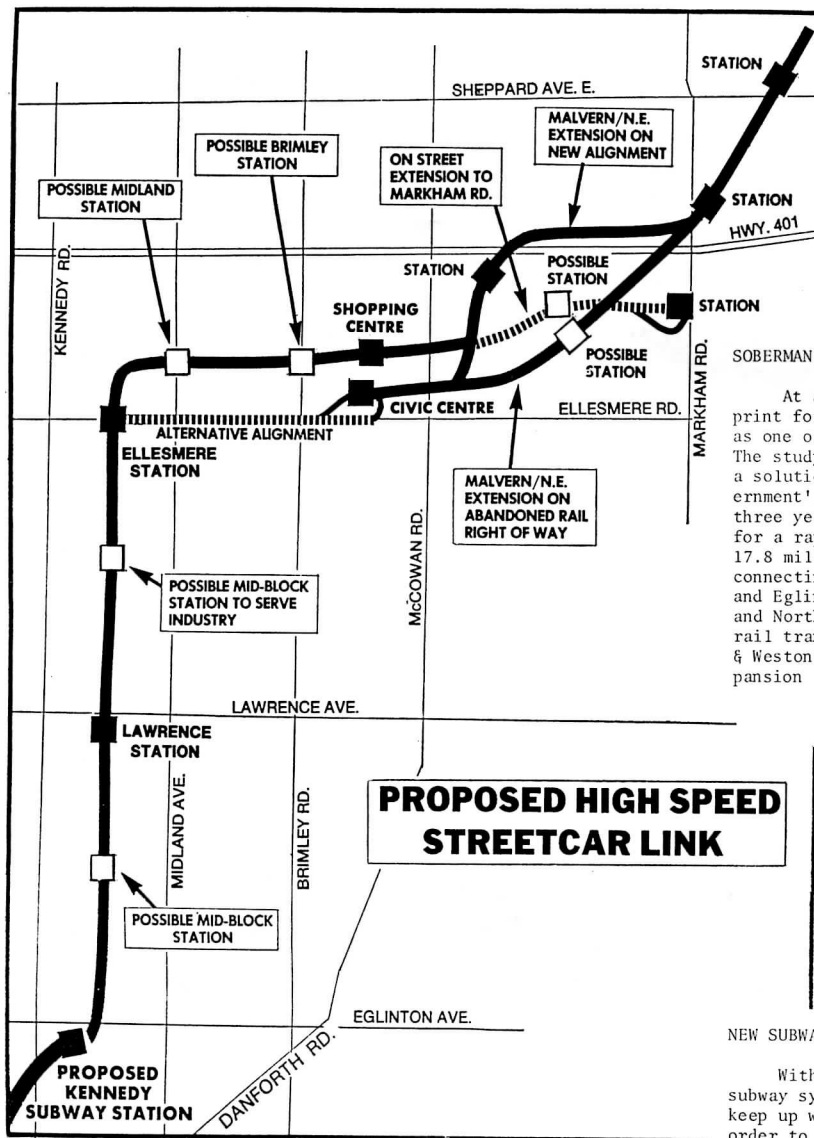


The TTC's equipment department is presently attempting to evaluate the many proposals put forward by manufacturers of car components for the 134 new cars. The cars will be similar in appearance to the present fleet of aluminum-bodied vehicles, but the front end may be simplified -- i.e. it may look more like a shoe box. A change suggested by Hawker Siddeley is to make the end doors swing as on the Gloucester cars, rather than slide as on previous 'H' cars. Those two-passenger cross seats presently placed back-to-back on the H-4s were to be reversed and made to face each other. However, it was felt that, while structurally sound, the travelling public in Toronto was just not ready to play kneesies at seven o'clock in the morning and so the idea was scrubbed. The cab wall behind the driver will be made thicker to accommodate the consolidation of a number of components presently scattered about the vehicle. This will result in the small seat directly behind the driver being reduced in length.

A tentative list of eight additional escalators which would be included in stage two of the programme for installation in 1977 is as follows: King Station: mezzanine to west side of Yonge Street, and west side of Yonge Street. Pape Station: mezzanine to bus bay. College Station: northbound platform to mezzanine. Greenwood Station: eastbound platform to mezzanine. Coxwell Station: westbound platform to mezzanine. Christie Station: mezzanine to street. Castle Frank Station: mezzanine to street.

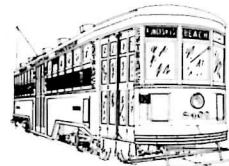
These are two comparison shots of contract A6-3, cut-and-cover construction between St. Clair Ave. and Bathurst Street. The shot on the left was taken on 16 Oct. 1974, and the one on the right on 4 December. This contract has now been completed. (both photos T.T.C.)





SOBERMAN REVIEW COMPLETED

At \$1.2 million, Richard Soberman's 165-page master blueprint for the solution of Metro's transportation problems ranks as one of the most expensive documents in Toronto's history. The study was commissioned by Metro Council in an attempt to find a solution to transportation problems caused by the Ontario Government's cancellation of the Spadina Expressway in 1971. Almost three years in preparation, the report recommends priority studies for a rapid transit line along Eglinton Avenue stretching for 17.8 miles and costing \$400 million; a high speed streetcar link connecting the planned eastern subway terminal at Kennedy Road and Eglinton to the Scarborough Town Centre, the Malvern community and North Pickering. a U-shaped \$120 million, 14.8 mile surface rail transit system linking Don Mills, Union Station and Eglinton & Weston Road along existing rail rights-of-way; and a major expansion of GO Transit capacity along the lakeshore line.



NEW SUBWAY WORK CARS

With the addition of the North Yonge Subway Extension to the subway system, the TTC's fleet of work cars is hard pressed to keep up with the necessary maintenance and construction work. In order to alleviate this situation and be prepared for both the construction and maintenance of the Spadina Subway and the east and west extensions, it is necessary to add two more vehicles to the fleet of subway work cars. A new locomotive is proposed, to be capable of operating independently of the 600 volt third rail power system, avoiding the use of batteries. A diesel-electric or diesel-hydraulic concept is therefore proposed, with a complete exhaust gas treatment included. A second flat car (not powered) is also planned for special work such as cable laying and the new unit will be similar to the present car. Current budgetary estimates of the costs are \$250,000 for the locomotive and \$100,000 for the flat car.

GLASGOW UNDERGROUND MODERNIZATION

The Glasgow Underground will get its first taste of modernization since it was electrified in 1935. Many of the original two-car train sets producing a three-minute headway are still in service. Now a multi million dollar scheme for modernizing the system is underway. New cars are being designed and escalators and new tickets are being introduced. Altogether the system is beginning to resemble more and more the modern city under which it lies. Built in 1896 to a four foot gauge, the cars were cable hauled around the 6.5 mile oval belt track until 1935, when it was electrified. Since all the stations were on the same side, and trains always operated in one direction, only one side of the cars was painted. For those who like working out statistics, the train interval time has been three minutes, time for a complete circle 28 minutes (to be reduced to 22 minutes with the new cars) and the service runs from 6:30 a.m. until 11:00 p.m. each day. So, over 78 years some of those cars must have run quite a few miles (even more kilometres). Will their successors last as long? It's very doubtful with planned obsolescence at its present stage. The project is aimed at completion by 1977-78.

RIGHT:

These are the TTC's two most important subway work cars, locomotive RT12 and flat car RT11, pictured at Davisville Yard on 17 November 1970. RT12 was built by Nippon Sharyo of Japan in 1968, and could originally operate by 300 volt d.c. battery power (lead acid) as well as on third rail power. Its maximum speed on third rail power (600 volts) is 45 m.p.h. and tractive effort is 11,500 pounds. The flat car's body was built by Nippon Sharyo in 1967 and has Gloucester trucks. (T.T.C.)





MT. PLEASANT TRACK JOB DELAYED

Due to difficulties in obtaining new rail, the TTC has postponed the major rebuilding of the track allowance and replacement of rails on Mount Pleasant Road between St. Clair Ave. and Eglinton Ave. until 1976. Only minor "stop-gap" work will be undertaken this year -- carstop rail replacement where necessary, welding broken joints, grinding and the replacement of the special work in the St. Clair-Mount Pleasant intersection. Bethlehem Steel of Pittsburgh Pa., the only North American supplier of girder rail, was apparently too busy with their regular work to consider accepting this relatively small order from the TTC, when tenders were invited last year for the supply of streetcar girder rail. The TTC is considering the installation of 100# T-rail instead of the usual 105# girder rail for this track job. Such T-rail can be obtained in Canada in time for the 1976 project. The tangent rail presently in place on Mt. Pleasant (except for car stops) dates back to 1924-1925 and groove-running is the rule rather than the exception over this stretch.

In the meantime, Metro Roads Department will continue to rebuild the roadway adjacent to the track allowance this year from the south side of the Belt Line bridge to St. Clair Avenue.

During the 1976 track rehabilitation, the Belt Line bridge will be removed and replaced by a low-profile, smaller pedestrian underpass in connection with the city's linear park that will replace part of the right-of-way of the abandoned Belt Line Railway (CNR). The underpass will also be used by vehicles in the Mount Pleasant Cemetery. During this bridge work, streetcar service will be discontinued for about three months. The other trackwork should also be completed within this period.

Major track rebuilding on Mount Pleasant Rd. has been put off for the last eight years, following the 1966 TTC plan to gradually abandon all streetcar lines by 1980. This called for the St. Clair cars to be replaced by trolley coaches in the mid 1970s. However, the Commission decision in November 1971 to retain streetcars gave the St. Clair line a reprieve but the east end of the route was still in doubt. During 1973 and 1974 there were plans to replace the cars with a trolley coach service (between St. Clair Station and Eglinton Ave.) but the matter was finally settled on 4 December 1974 when the Commission voted in favour of streetcars over trolley coaches.

ST. CLAIR ROUTE SPLIT

At its meeting on 3 December 1974, the TTC approved retaining streetcar service on St. Clair Avenue East and on Mount Pleasant Road, and authorized splitting the existing through service at the subway (Yonge St.). The two routes resulting from this service split are as follows: ST. CLAIR - extending from St. Clair Stn. to Keele St.; MOUNT PLEASANT - extending from St. Clair Station to Eglinton Ave. In addition, the existing EARLSCOURT rush hour short turn service will remain unchanged. The changes went into effect on Sunday 30 March. Studies of the matter indicated that passenger volumes east of the subway are less than half of those west of the subway. Therefore, while the level of the service to the west has been maintained, basic service to the east is now handled with a 6-minute headway rather than the previous 4-minute headway. This arrangement resulted in a reduction of two streetcars east of Yonge during rush hours and at mid-day times. At other hours, savings vary from zero to two vehicles. It has, however, proved necessary to increase the a.m. rush running time on the service west of the subway, and these two cars will be used in order to maintain the current 2-minute peak headway to the west. The surface transfer procedure at St. Clair Station has been modified in order to make the operation as convenient as possible for through passengers. During the late night hours and early Sunday mornings, when the subway is closed, a through streetcar service is still operated, bypassing the subway station.



TOP LEFT: TTC A-8 class PCC car number 4526 passes the Mount Pleasant Cemetery southbound on Mount Pleasant Road on 20 August 1972. (Ted Wickson)

ABOVE: Ex-Kansas City car number 4765 proceeds northbound south of Merton Street in June of 1963. (Ted Wickson)

BELOW: With high-rises and a church looming in the background, car 4519 turns north on Mt. Pleasant Road from St. Clair Ave. on 9 September 1972. (Ted Wickson)





ABOVE AND BELOW:
The TTC's newly constructed surface rail grinding train numbers W-30 and W-31 (formerly nos. 4631 and 4668) sit inside Hillcrest Shops. In the interior, all seats have been removed and rail grinding equipment has been installed underneath. The cars are expected to begin operation in late May. (Both photos - Ted Wickson)



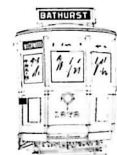
TTC 1974 OPERATING STATISTICS

The TTC's 1974 operating statistics for the entire metropolitan system are as follows:

	1974	1973	Increase or (Decrease)
Passengers Carried	329,796,000	329,027,000	769,000
Miles Operated:			
Bus.....	39,530,641	38,246,014	1,284,627
Streetcar.....	9,943,186	10,865,231	(922,045)
Trolley Bus....	3,375,091	3,642,766	(267,675)
Subway.....	29,698,262	26,185,136	3,513,126
Total.....	82,547,180	78,939,147	3,608,033
Number of Routes:			
Bus.....	95	87	8
Streetcar.....	10	11	(1)
Trolley Bus....	6	6	-
Subway.....	2	2	-
Total.....	113	106	7
Passenger Vehicles Owned:			
Buses.....	1,166	1,097	69
Streetcars.....	389	397	(8)
Trolley Buses..	151	152	(1)
Subway Cars....	416	410	6
Total.....	2,122	2,056	66
Miles of Route:			
Bus.....	595.74	562.31	33.43
Streetcar.....	46.32	48.30	(1.98)
Trolley Bus....	28.26	26.74	1.52
Subway.....	25.70	23.05	2.75
Total.....	696.02	660.40	35.62

SYSTEM QUICK FACTS:

	Revenue (Fares Collected)	Revenue and Transfer Passengers
Daily Passengers	1,168,000	1,986,000
Typical business day	1,168,000	1,986,000



95 of 111 surface routes make 131 connections with the subway-
Total number of TTC and Gray Coach Lines employees - 7,518

SUBWAY QUICK FACTS:

Number of Stations - 49 Number of Escalators - 149

Opening Dates - Yonge - 30 March 1954
University - 28 February 1963
Bloor-Danforth - 26 February 1966
Bloor-Danforth Extensions - 11 May 1968
Yonge Extension to York Mills - 30 March 1973
Yonge Extension to Finch - 30 March 1974

Daily Passengers	Revenue (Fares Collected)	Revenue and Transfer Passengers
Typical Business Day	401,000	682,000

Busiest subway stations - Passengers per day (estimated)

Queen - 80,000	Islington - 55,000
Eglinton - 75,000	King - 55,000



ABOVE:
One of Australia's new trams is seen in Melbourne. These cars are built in Australia under license from the A.S.E.A. of Sweden.

RIGHT:
The interior of TTC subway car 5578 is noticeably different from its predecessor H-3 class cars. Note that the crosswise seats hold only two people. The date is 6 March 1975.

(Ted Wickson)



1975 TOURTRAM OPERATION

With a substantial decrease in ridership in the 1974 operation over the previous year, the TTC has decided to seriously curtail operation this summer. In 1973 the TourTram operated for 72 days and carried 20,451 passengers, while in 1974, operation continued for 99 days and 84 fewer total passengers were carried.

The 1975 operation will commence on Saturday 17 May, operating Saturdays, Sundays and Holidays only until Sunday 10 August. (Will operate on Friday 30 June instead of Wednesday 1 July). From Thursday 14 August until Monday 1 September, the service will operate every day. The routing will be as follows: from McCaul Loop south on McCaul to Queen, east on Queen to Church, south on Church to Wellington, west on Wellington to York, north on York to Queen, west on Queen to McCaul, north on McCaul to Dundas, east on Dundas to Church, south on Church to Queen, west on Queen to McCaul and north on McCaul to McCaul Loop.

TTC ADULT FARES UP

TTC adult fares were increased to 40¢ cash or three tickets or tokens for one dollar on Saturday 29 March. Riders were given until Sunday 6 April to use up old tickets. Students', Senior Citizens', Childrens' fares and the Sunday-Holiday Family Pass did not go up. The reason for the hike is to alleviate the commission's estimated \$58 million operating deficit this year. Even with the fare increase, an operating deficit of \$41 million is predicted. The TTC decided that if they were to pinch pennies and hold back service improvements, a saving could be created to reduce the deficit to \$40 million.

TTC CRIME RATE RELEASED

Statistics on crime, disorderly conduct and vandalism on the TTC were released for the first time on 4 February 1975 and show that 96 passengers and 76 TTC employees were assaulted in 1974. In addition, ten drivers and collectors were robbed with 137 reported thefts from the 329,796,000 passengers carried during the twelve-month period. There were 265 cases of disorderly conduct including rowdiness, interference with equipment and "obstructing passenger flow", and 2075 acts of vandalism. Metro Chairman Paul Godfrey was assured that the statistics prove conclusively the TTC is as safe as or safer than any system in the world.

SHORT TURN

.....Tenders were advertised in Europe for the construction of 40 articulated trolleybuses for the Greater Vancouver Transit System. No replies were received.....The Midwestern Bicentennial Commission in Chicago is planning to operate a streetcar service with six PCC cars connecting Grant Park in downtown Chicago to the outer end of the Navy Pier in 1976. A future extension west along Grand Ave. to Michigan Ave. is planned, and the TTC has been approached for the six cars. It was suggested that San Francisco sell six of their ex-Toronto cars to Chicago when they are no longer required there.....The federal Ministry of Transport has awarded a \$1.5 million prototype contract to Bombardier Ltd. of Valcourt Que. for an intermediate urban rapid transit system. The first phase of the system involves planning development. Future phases would involve the construction of a prototype, followed by actual construction of the hardware. The first phase should be completed within 18 months. The system involves steel-wheeled vehicles capable of operating on surface or underground with cars smaller than regular subway cars. According to Bombardier, there are about 13 cities in Canada that could use the mini-subway system.....Negotiators for the Southeastern Pennsylvania Transportation Authority (SEPTA) can not afford to give their employees a wage increase in a new contract that was to take effect last 15 March. As a result, SEPTA employees went on strike on 16 March, paralyzing the entire Philadelphia system.....Tenders have been called for the reconstruction of TTC Dundas Subway Station comprised of demolition and underpinning, and the construction of new entrances, passageways and mezzanine areas.....Due to the late arrival of the H-4 class subway cars, the proposed extension of all afternoon rush hour trains on the Yonge-University line to Finch has been postponed until 12 May 1975.....The TTC's McCaul Loop will be permanently closed on Tuesday 2 September to make room for new high-rise developments. The DOWNTOWNER streetcars will use Wolseley loop at Queen & Bathurst after this change.



PCC CAR REBUILDING PROGRAMME

Following is a list of the 173 cars that have been rebuilt since 1971, including the 22 scheduled for completion by December 1975:

Class A-6: (79 cars rebuilt) 4300-02, 4305-06, 4308, 4310-13, 4315-20, 4322-24, 4326-32, 4334-36, 4339-41, 4343-45, 4347-48, 4350-52, 4354-56, 4359-62, 4364-72, 4374-81, 4383-88, 4390-95, 4397-99.

Class A-7 (45 cars rebuilt) 4400, 4404, 4406-07, 4411, 4417, 4420-21, 4424, 4428-29, 4432, 4437-38, 4440, 4442, 4448-49, 4451, 4455-56, 4458-60, 4463, 4465-66, 4468-69, 4472-74, 4477-78, 4481-82, 4484-85, 4487, 4491-92, 4494-97.

Class A-8 (49 cars rebuilt) 4500-12, 4514-49.

Following is a chronological list of the date each car was moved to Hillcrest Shops and the date outshopped up to the end of 1974.

Car	Date In	Date Out	Car	Date In	Date Out
4362	2-9-71	6-1-72	4388	28-2-73	24-5-73
4369	9-12-71	10-3-72	4400	2-3-73	13-7-73
4399	31-12-71	18-4-72	4356	16-3-73	6-6-73
4378	11-1-72	19-4-72	4391	22-3-73	14-6-73
4317	18-1-72	25-4-72	4420	28-3-73	24-7-73
4318	28-1-72	27-4-72	4395	29-3-73	5-6-73
4380	7-2-72	2-5-72	4390	2-4-73	8-6-73
4372	16-2-72	5-5-72	4407	5-4-73	31-7-73
4394	16-2-72	12-5-72	4355	6-4-73	21-6-73
4371	3-3-72	19-5-72	4345	17-4-73	25-6-73
4377	6-3-72	26-5-72	4421	19-4-73	6-8-73
4364	8-3-72	5-6-72	4330	26-4-73	4-7-73
4319	14-3-72	9-6-72	4328	1-5-73	10-7-73
4326	17-3-72	19-6-72	4449	3-5-73	23-8-73
4386	22-3-72	28-6-72	4354	7-5-73	13-7-73
4350	27-3-72	5-7-72	4316	11-5-73	19-7-73
4370	29-3-72	11-7-72	4334	17-5-73	26-7-73
4352	6-4-72	20-7-72	4404	17-5-73	29-8-73
4379	7-4-72	28-7-72	4313	24-5-73	10-8-73
4327	14-4-72	4-8-72	4308	28-5-73	17-8-73
4366	18-4-72	11-8-72	4428	29-5-73	18-9-73
4485	21-4-72	28-8-72	4320	1-6-73	24-8-73
4458	26-4-72	6-9-72	4478	1-6-73	21-9-73
4481	27-4-72	12-9-72	4393	7-6-73	6-9-73
4456	4-5-72	22-9-72	4368	8-6-73	13-9-73
4438	10-5-72	28-9-72	4484	19-6-73	27-9-73
4473	12-5-72	3-10-72	4463	22-6-73	3-10-73
4469	18-5-72	10-10-72	4466	25-6-73	10-10-73
4487	24-5-72	13-10-72	4496	26-7-73	8-11-73
4442	26-5-72	19-10-72	4429	7-8-73	23-11-73
4460	30-5-72	1-11-72	4301	9-8-73	16-10-73
4451	5-6-72	26-10-72	4406	13-8-73	30-10-73
4474	12-6-72	9-11-72	4340	15-8-73	22-10-73
4482	13-6-72	13-11-72	4376	20-8-73	14-11-73
4495	10-8-72	17-11-72	4375	21-8-73	31-10-73
4455	21-8-72	22-11-72	4398	21-8-73	8-11-73
4477	24-8-72	27-11-72	4440	22-8-73	4-12-73
4448	1-9-72	6-12-72	4459	4-9-73	11-12-73
4465	5-9-72	8-12-72	4339	5-9-73	16-11-73
4472	15-9-72	14-12-72	4329	12-9-73	21-11-73
4491	28-9-72	18-12-72	4348	14-9-73	27-11-73
4538	3-10-72	20-12-72	4351	18-9-73	29-11-73
4528	16-10-72	28-12-72	4344	27-9-73	5-12-73
4502	23-10-72	29-12-72	4392	1-10-73	13-12-73
4530	27-10-72	2-1-73	4323	1-10-73	4-1-74
4519	2-11-72	5-1-73	4305	5-10-73	20-12-73
4549	7-11-72	10-1-73	4359	12-10-73	14-1-74
4536	14-11-72	16-1-73	4365	12-10-73	29-1-74
4520	17-11-72	23-1-73	4397	16-10-73	21-1-74
4525	28-11-72	26-1-73	4336	6-11-73	19-2-74
4514	30-11-72	1-2-73	4331	16-11-73	27-2-74
4497	30-11-72	16-3-73	4306	23-11-73	6-3-74
4548	1-12-72	6-2-73	4310	4-12-73	14-3-74
4521	6-12-72	13-2-73	4312	17-12-73	26-3-74
4506	8-12-72	16-2-73	4332	7-1-74	3-4-74
4494	8-12-72	23-3-73	4361	11-1-74	11-4-74
4411	19-12-72	5-4-73	4343	24-1-74	23-4-74
4432	20-12-72	17-4-73	4367	13-2-74	3-5-74
4540	21-12-72	22-2-73	4374	15-2-74	15-5-74
4417	27-12-72	1-5-73	4302	27-2-74	30-5-74
4511	29-12-72	27-2-73	4347	8-3-74	10-6-74
4543	5-1-73	6-3-73	4311	14-3-74	20-6-74
4463	10-1-73	17-5-73	4384	22-3-74	27-6-74
4437	12-1-73	1-6-73	4360	3-4-74	9-7-74
4527	16-1-73	13-3-73	4535	9-4-74	2-8-74
4501	17-1-73	20-3-73	4335	16-4-74	17-7-74
4492	22-1-73	20-6-73	4531	2-5-74	20-9-74
4545	24-1-73	27-3-73	4515	24-5-74	4-10-74
4539	26-1-73	3-4-73	4500	3-6-74	23-10-74
4509	29-1-73	9-4-73	4544	6-8-74	5-12-74
4315	29-1-73	12-4-73	4541	4-9-74	12-12-74
4385	29-1-73	7-5-73			
4387	5-2-73	27-4-73			
4383	8-2-73	30-4-73			
4424	16-2-73	6-7-73			
4381	21-2-73	15-5-73			
4324	26-2-73	22-5-73			

All cars entering the shop and being outshopped in 1975 will be summarized in the above manner at the end of the entire programme.

OPPOSITE PAGE:

TTC A-14 class PCC number 4771 is seen southbound on Mount Pleasant Rd. near Merton St. on 14 April 1962. (Ted Wickson)

LEFT: These are the new angle moulded seats experimentally installed in PCC number 4504 to test the public's reaction. If it is favourable, it is likely that this arrangement will become more common. (Toronto Transit Commission)

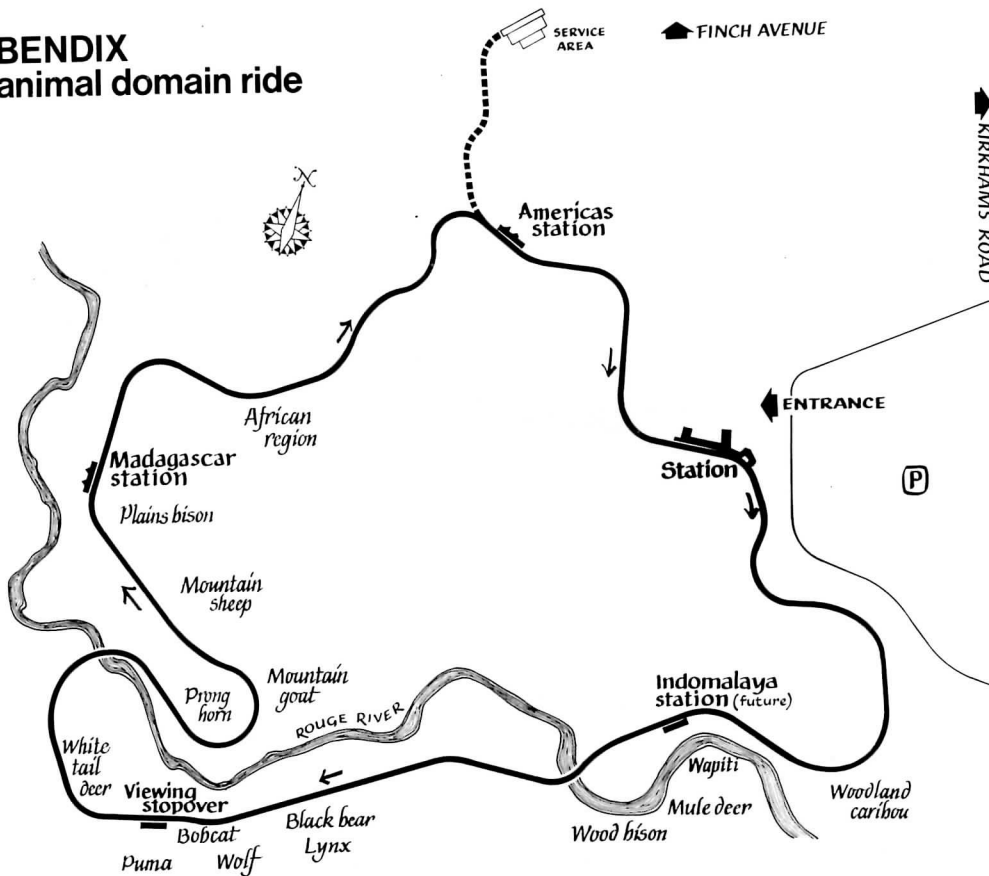


ABOVE: Here's the exterior of 4504 at Hillcrest Shops on 3 March 1975 reflecting its rebuilt splendour.

LEFT: Looking towards the front, the fibreglass moulding is more evident. The car seats two less passengers than the conventional seating arrangement. (Both photos -- T.T.C.)



BENDIX animal domain ride

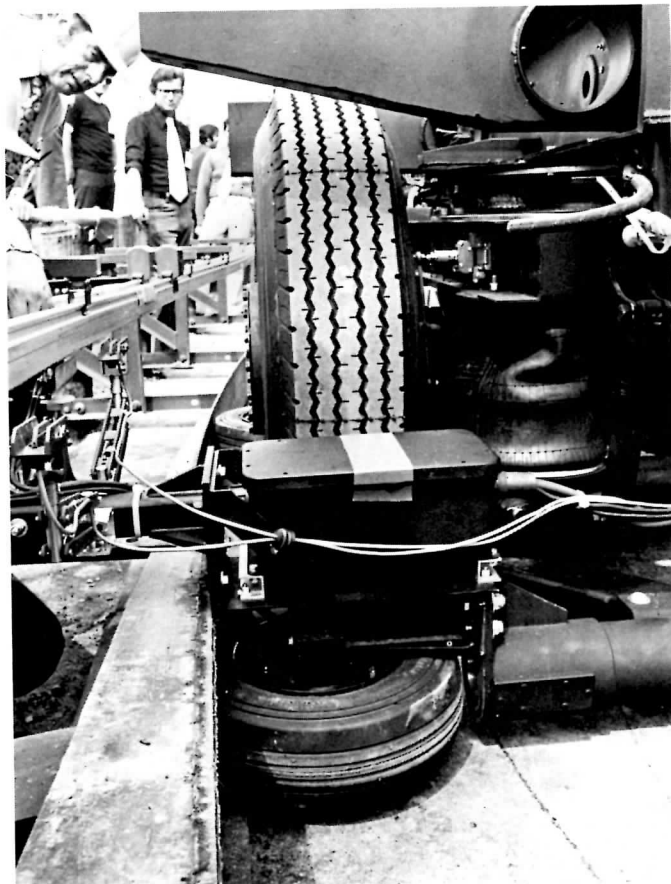


A DETAILED LOOK AT TORONTO'S ZOO RIDE

The construction of the animal domain ride for the Metro Toronto Zoo is on schedule and is about 75% complete. The Canadian subsidiary of The Bendix Corporation is responsible for the design and construction of the \$12 million ride. The transit system will be operated year-round on an exclusive guideway to enable visitors to tour the zoo and view the animals in natural outdoor settings. The route has been cleared and graded and all of the 17,000 feet of concrete guideway and electric power rail has been completed. Construction and manufacturing are proceeding at a rate which assures that the ride will be operating by June of this year. The line is routed through 400 acres of wooded area in the Rouge River Valley where Canadian animals may be seen. Stops are provided at the zoo entrance, at a viewing platform in the domain area, and near the Madagascar and North American exhibits.

Every effort was made to save as many trees as possible and the system is being constructed to blend into the environment. Roughly 40% of the three-mile route is elevated to minimize permanent hillside cuts, damage to vegetation and interference with natural site drainage.

The prototype of the 24 vehicles to be used on the ride has arrived on the zoo property and is undergoing preliminary tests. The vehicles are designed to run on electric power and ride on rubber-tired wheels. The system will accommodate up to 3000 visitors per hour and over 1.5 million persons are expected to use the ride every year. The 24 vehicles will be operated in trains of two or four cars, each car being 30 feet long and seven feet wide, seating 40 passengers in five, eight-passenger compartments so families can sit together. The compartments have forward and backward facing seats, except the front compartment of the lead vehicle which will seat one operator-guide and seven passengers. The rear compartment in each vehicle will accommodate four adults and one person in a wheelchair. Each passenger compartment contains two bench-type seats, separated by a 22-inch aisle, the seat rows accommodating four passengers each. The seats are made of vandal-resistant, moulded fibreglass in alternating colours of red and off-white. All doors are on the left side of the vehicles and are designed for manual operation, one for each compartment. The vehicle interiors are heated, air-conditioned and carpeted. Lighting is provided in each compartment to illuminate the floor at a level compatible with safe entry and exit. The large, neutral gray tinted, double-glazed, safety glass windows will provide passengers with glare-free vision and accurate colour photographs may be taken through the glass. Public address speakers in each compartment allow the operator-guide to provide commentary.



OPPOSITE PAGE: The vehicles will be equipped with a unique lateral suspension system that minimizes swaying motion. It is shown here on a simulated guideway at the Bendix plant in Ann Arbor Michigan.
(Ontario Editorial Bureau)

RIGHT: The prototype of the zoo vehicles is being assembled at Bendix's facilities in Ann Arbor Mich.
(Ontario Editorial Bureau)

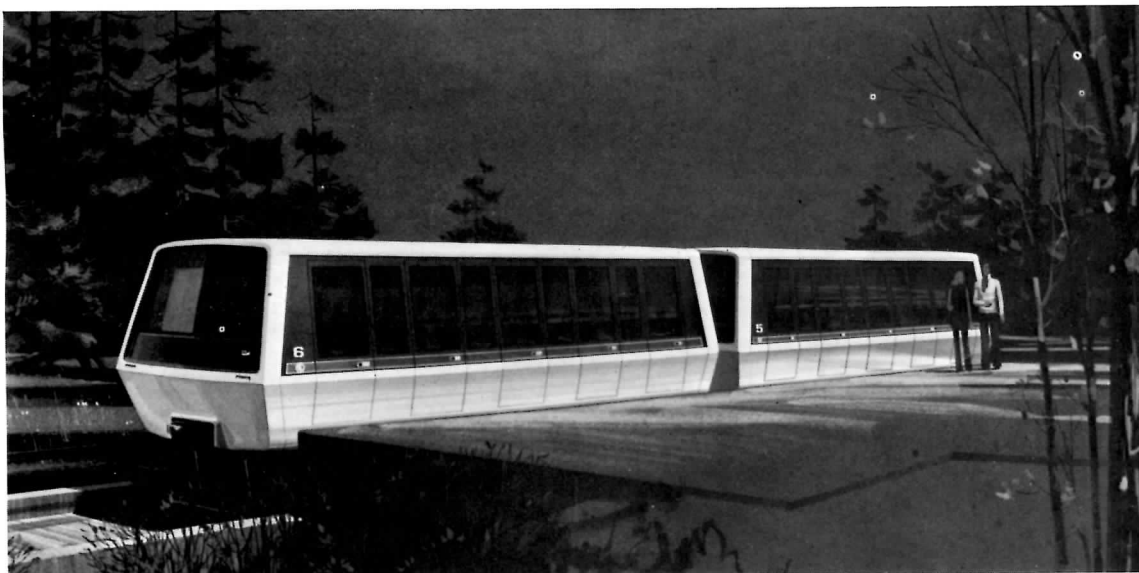
BOTTOM: An artist's rendering shows two of the vehicles that will make up animal domain ride at the new Metro Toronto Zoo.
(Ontario Editorial Bureau)



The exterior sides of the vehicle bodies will be made of aluminum, painted off-white with bronze inserts around the window areas. The front and rear ends of the body are fibreglass with a green accent stripe running the entire length of the vehicle.

Each vehicle is of modular construction so that servicing and maintenance can be easily and rapidly performed. A major feature of the chassis is a lateral suspension system which minimizes swaying motion. A controlled acceleration system limits the jerking action sometimes associated with other vehicles. The ride will have three automatic speed settings-- 5, 8 and 20 miles per hour -- which are actuated and controlled by buttons on the operator's control console. Any other speed up to 20 m.p.h. may be attained manually by a throttle lever on the controls. The vehicles are equipped with air-operated brakes and each car has independent emergency brakes on all wheels. The operator-guide can communicate with personnel in the service area through a mobile radio system and signals are located along the route for traffic control, including the spacing of trains. Power for each vehicle is provided by 60 h.p. electric motors that pick up d.c. electrical current from the power rail, mounted on the concrete guideway.

Approximately 65% of the work on the Bendix ride is being performed by Toronto and other Canadian companies. Bendix Systems of Canada Ltd., a subsidiary of the American Bendix Corp., in West Hill Ontario, is responsible for the overall design and construction of the system under a \$12 million contract awarded by the Municipality of Metropolitan Toronto. Major subcontractors include the following: The Dashaveyor Company of Ann Arbor Michigan, a Bendix subsidiary, has designed the vehicle chassis and signal system; The Bendix Aerospace Systems Division, also of Ann Arbor Mich. is manufacturing the chassis and wayside signal boxes; Kilmer Van Nostrand Company (KVN) of Toronto is building the guideway; Stacey Electric Co. Ltd. of Toronto is installing the electrical distribution systems; Brown Boveri (Canada) Ltd. of Pointe Claire Que. is building the substations; Insul-8 Corp. (Canada) Ltd. of Rexdale Ont. is providing the rails; Sundberg-Ferar of Southfield Michigan styled the vehicle; Autodynamics Corporation of America in Madison Heights Mich. converted the styling into detailed engineering and built the first vehicle body; and Prevost Car and Bus Inc. of Ste. Claire Quebec is building the remaining 23 bodies using the tools and procedures developed by Autodynamics.



Upper Canada Railway Society

\$1.75

Newsletter

MAY-JUNE 1975

PROPOSED NAME CHANGE RAIL AND TRANSIT

