

Canadian Rail



No.384
JANUARY-
FEBRUARY 1985



1885 - 1985

This year marks the centennial of a year which was most important in the history of our country as well as in the history of the world. While we, as railway enthusiasts tend to think of 1885 in terms of the "Last Spike" and the completion of the Canadian Pacific Railway, other events, some unrelated to Canada were taking place and would, sooner or later, affect us all.

By 1885 the Canadian confederation was eighteen years old and had extended "from sea to sea" since British Columbia had joined Canada in 1871. Now the physical reality of a railway was almost finished and, later that year, an iron spike driven in a remote mountain pass would symbolize the completion of the link. As Pierre Berton has so aptly put it: "After that year nothing could ever be the same again". In fifty years the railroads of Canada had grown from a fourteen-mile portage line to a trans-continental system.

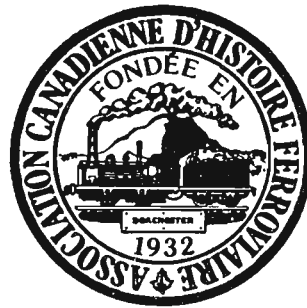
1885 also saw the end of the confusion that had existed due to difference in time between most stations. Standard time had been introduced in 1883, but on January 1 1885 it was adopted generally across North America. Now the life of the traveller would be made simpler by the division of the continent into one-hour time zones as they exist today.

Late in March of that fateful year rebellion broke out in the West. It is not for us to debate the pros and cons of the issues which led to the North-West rebellion, but to consider that the railway transported the troops there in record time and ended, for all time we sincerely hope, battles on Canadian soil. Coincidentally 1885 also saw Canadian troops in action overseas for the first time as Canadian boatmen greeted the new year while advancing up the river Nile to relieve General Gordon in Khartoum. Unfortunately they arrived too late, but the expedition was a foretaste of what was to come: South Africa (1899), World War I (1914), World War II (1939), Korea (1950). Anyone who remembers the war years can recall the long troop trains, the huge crowds of departing soldiers at the various railway stations, not to mention the seemingly-endless

freight trains carrying the materials of war to seaports for shipment overseas. Well, it all started in March 1885 when the first troop trains left for the North-West.

But the whole world was changing that year. The electric light and telephone were already in use, but three inventions which appeared in 1885 were to have profound effect on railways and, indeed, on the world. Van Depole's overhead trolley, exhibited at the Toronto Exhibition of 1885, would soon bring practical mechanical transportation to the world's cities. By strange chance the first successful internal-combustion automobile was developed that year in Germany. This would, years later, almost drive the trolley from the streets, not to mention changing the lifestyle of the world, but would, combined with electric traction, produce the diesel-electric locomotive which would change the face of the railways. The third major discovery of 1885 was that messages could be transmitted by radio waves. This would revolutionize communication as much as the railway itself and would in time lead to the radio and television of today. Truly 1885 was a notable year of great beginnings.

To commemorate this centennial we propose to print, in each issue of Canadian Rail in 1985, an article concerning some aspect of 1885 as applied to Canadian railways. We will start with the story of the saving of an original C.P.R. coach which was actually on the scene carrying passengers in those eventful days and was likely on the earliest transcontinental trains. What could be a better way to celebrate their centennial than to ensure the restoration and preservation of this car? If we allow it to be lost it would be a national disgrace. In later issues the great cantilever bridges in British Columbia and New Brunswick; then we will examine the details of a train register kept at a small station near end-of-track in the remote wilderness of the Canadian shield in 1885; and, of course, we will conclude with the Last Spike. One hundred years ago much history was being made; let us observe these significant anniversaries.



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FRONT COVER:

BACK IN 1929, brand-new one-man car No. 1985 of the Montreal Tramways Co. posed for an official photo outside Youville Shops. On August 30 1959 car No. 1985 made history when it became the last street car to operate in regular passenger service in Montreal. Now we have a new year 1985 and so it is fitting to show this earlier "1985" that was once so familiar to Montreal.

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"A POULTRY MATTER"

By Mike South

In 'Canadian Rail' for January-February 1984, Pat Webb wrote eloquently of "The Rescue Of Car 54". The only snag with his whole article is that the "pile of artistic firewood" that was saved from the bulldozer's path subsequently turned out to be Car 52!

To recap briefly, then, Car 52 is the oldest known existing passenger car built for the Canadian Pacific Railway. Note the very precise use of technology; one always has to be most careful when describing any historical first or superlative.

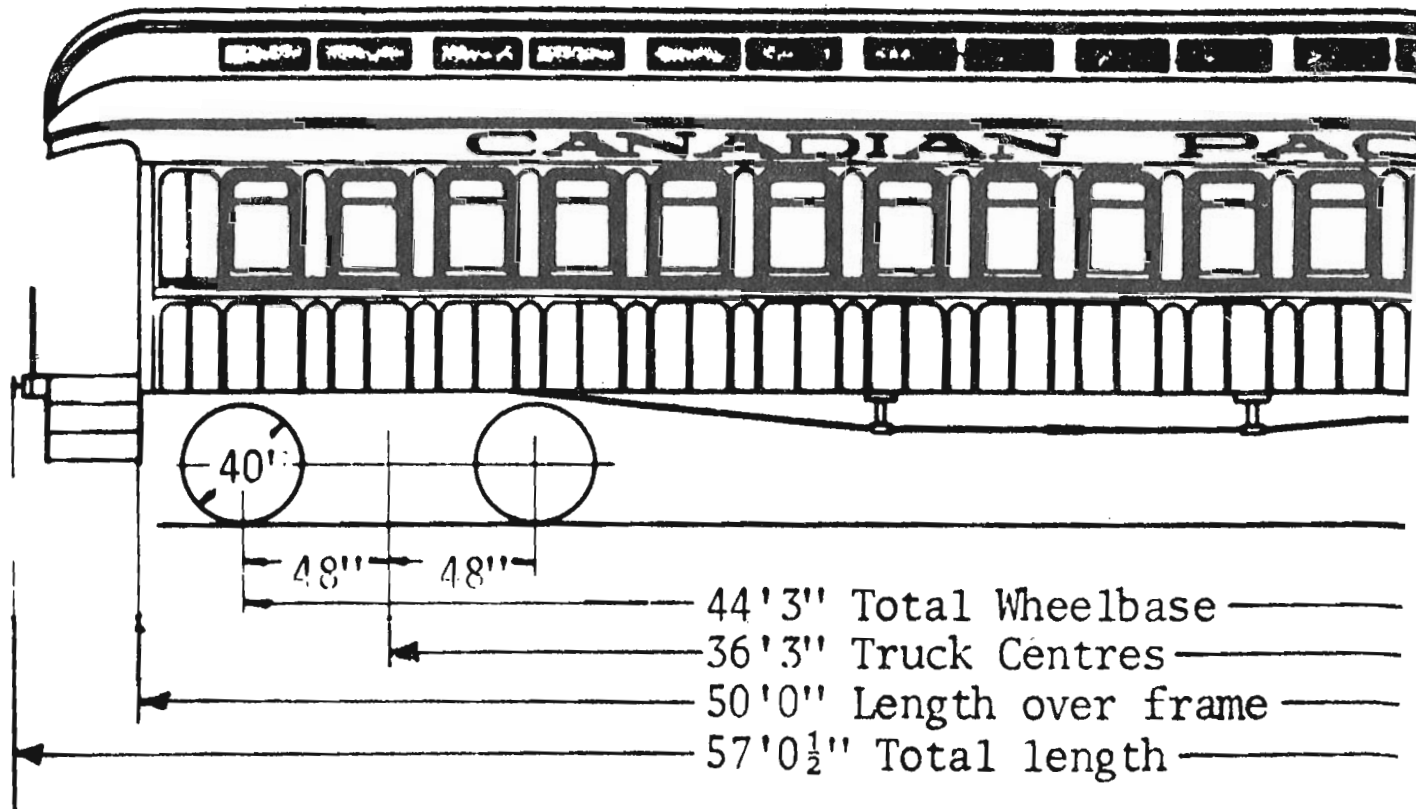
Built in 1882 by Harlan & Hollingsworth of Wilmington, Delaware, U.S.A. for the Canadian Pacific Railway, Car 52 was probably one of the maker's 'stock' designs. From her and sister Car 54 built at the same time, C.P. developed the standard material and construction specifications that were used for nearly all their subsequent wooden coaches. Truly, Car 52 is the great-grandmother to hundreds of subsequent

C.P. coaches.

Jim Shields, Canadian Pacific's Assistant Corporate Archivist and probably THE authority on Canadian passenger cars, has kindly sent the restoration team a copy of this exhaustive 32 page document, which covers everything from the types of wood, joints and fasteners to be used down to the lining of the men's washroom walls with zinc sheeting up to height!

Built as a First Class coach, Car 52 was re-numbered to 1816 in about 1912 and downgraded to Second Class. Finally, she was donated free to the Province of Alberta Mines Branch in April 1913, for use as a mine rescue and safety training car. At the end of 1938, the coach's deteriorating condition and improved roads in southern Alberta's Crowsnest Pass coal country saw her sold as a grounded mine assay office. At this point, so as not to detract from Car 52's plebeian historical appeal, it would

A SIDE-ELEVATION AND END VIEW of an 1882 C.P.R. coach showing general appearance and basic dimensions.



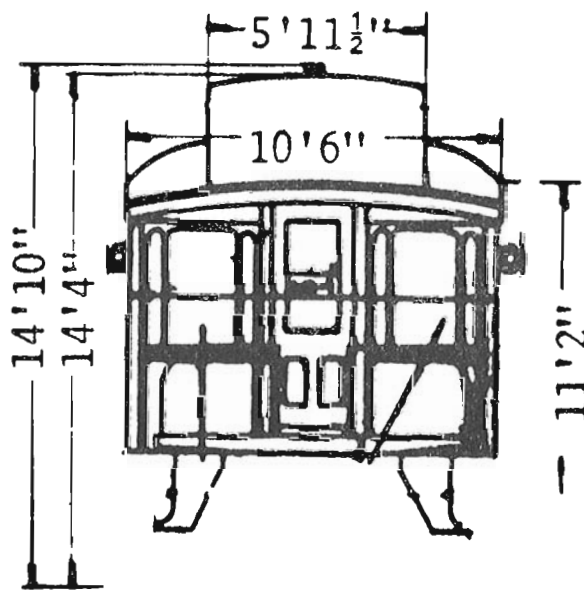
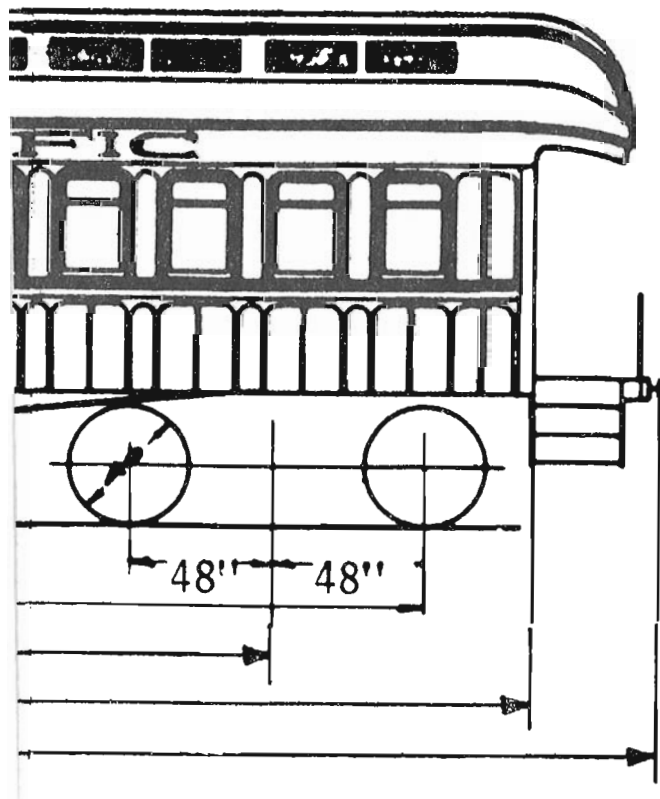
be as well to clarify the meanings at that time of First and Second Classes. First Class was used to describe coaches assigned to long distance service, not the quality of their fitting. When new, Car 52 was spartan indeed with rattan covered flop over seats and plain mill-work internal finish. Second Class merely described similar or identical cars to those labelled First Class, except that they were allocated to local service use. Hence, and here is the kernel of Car 52's historical appeal, she is the only remaining coach which carried ordinary first generation settlers to western Canada.

With a pedigree like that, how could efforts to fund the restoration of Car 52 fail? The answer is ... very easily. Once the hype of her 'media event' arrival at Calgary's famous Heritage Park had died down and the spotlights been turned off, the number of active participants in the project dwindled perilously close to unity. In National Energy Plan-ravaged Calgary people were too busy fighting for bread to put on the table to worry about the old girl dumped in the long grass by the Hudson Bay fort. Apart from finding some utility as a trysting loft for amorous pigeons and a dumping ground for empty paper cups by the Great Canadian Public, remarkably little happened.

True, the assay office interior of the coach were ripped out and a temporary plastic sheeting roof was applied for her first winter (before the spring storms blew it away). At the 'human interest' level, whilst the car was being cleaned out at the Park, a box of original hand cut nails was discovered sealed up behind one of the internal panels. Their rattling must have driven many of Car 52's passengers to distraction over the years! Also entombed was some poor workman's long fossilized brown bag lunch, and an alarmingly spelled note from H&H's shop foreman to one of his carpenters advising him to shape up or ship out.

But moving men's minds proved to be a far more intractable problem than moving 55 feet of "artistic firewood". That phrase again, coined by Heritage Park's Assistant General Manager, Steve Gundry, who whilst ever sympathetic to our plight - watched in a shared dismay as "one month's temporary storage before the Park's season begins" stretched to 19 frustrating months. I'm sure I saw the gleam of a budding arsonist in his eye more than once!

In the event, the Committee of the Heritage Park Society, the staff and particularly their General Manager, Rick Smith, couldn't have been more sympathetic and helpful. And most important



FIRST CLASS COACH

of all, their site was secure, no problems from vandalism there.

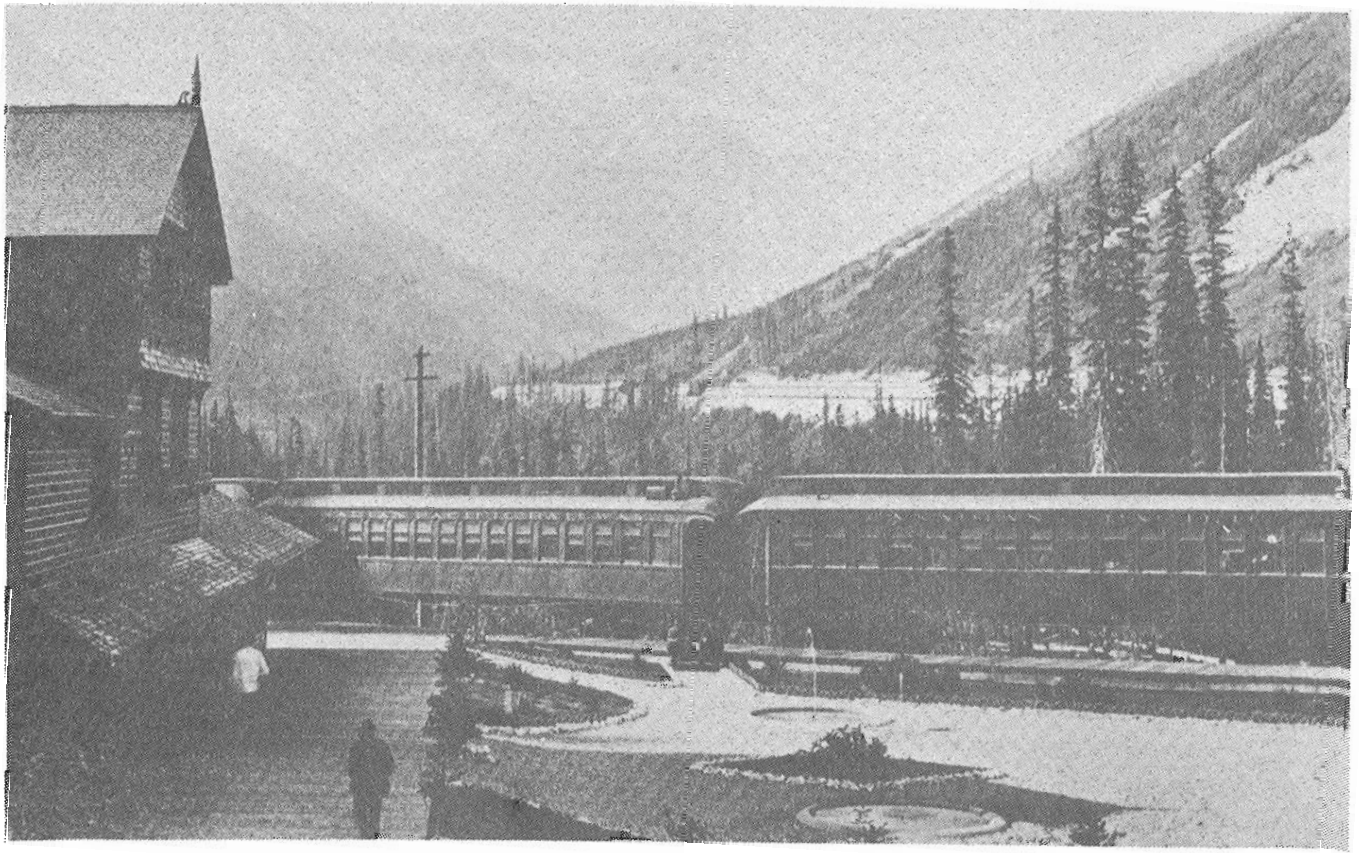
Offers of covered storage were solicited and granted on several occasions, only to flounder on points of detail. When one company discovered that it wasn't operating at a profit, it could no longer see the point of a Federal Tax Receipt to the value of the space occupied! Another company said "yes", only for their insurers to say "no" because Car 52 represented a fire risk. A few months later the same building was being proposed as an emergency Farmers' Market, the previous one having just spectacularly burnt down! One particularly appropriate site had to be withdrawn from offer when it was needed to house surplus L.R.T. cars prior to the opening of Calgary's North-East LRT leg. And so it went on. Even a very serious proposal to demolish the car, published in the Alberta Pioneer Railway Association's monthly journal "The Marker" met with a resounding sil-

ence, both from within the Society and from without (shades of Nova Scotia!).

And so, several thousand dollars worth of phone calls, lobbying, travel, proposals, wining-and-dining later (Note to Editor: that's wine, not whine!) we come to October 1984.

Out of the blue one day your author was contracted by a former very senior government energy official, something of a closet railway enthusiast himself, who for various reasons must remain anonymous. Summoned to his office, on the way out afterwards and quite by chance (?), I am introduced to one of Calgary's most successful but least known entrepreneurial millionaires. Several days later, I am phoned by a third party giving me the name and telephone number of a fourth party. James Bond never had such fun.

This fourth party turns out to be the Property Manager for Great West Life Assurance Company, and yes, he has a suitable 9,000 square foot ware-



A VIEW OF THE STATION AT GLACIER B.C. about 1886 with the C.P.R. transcontinental train waiting. The car on the left is a first class board-and-batten coach of the same type as car 52. It is hoped to restore the car to this appearance.

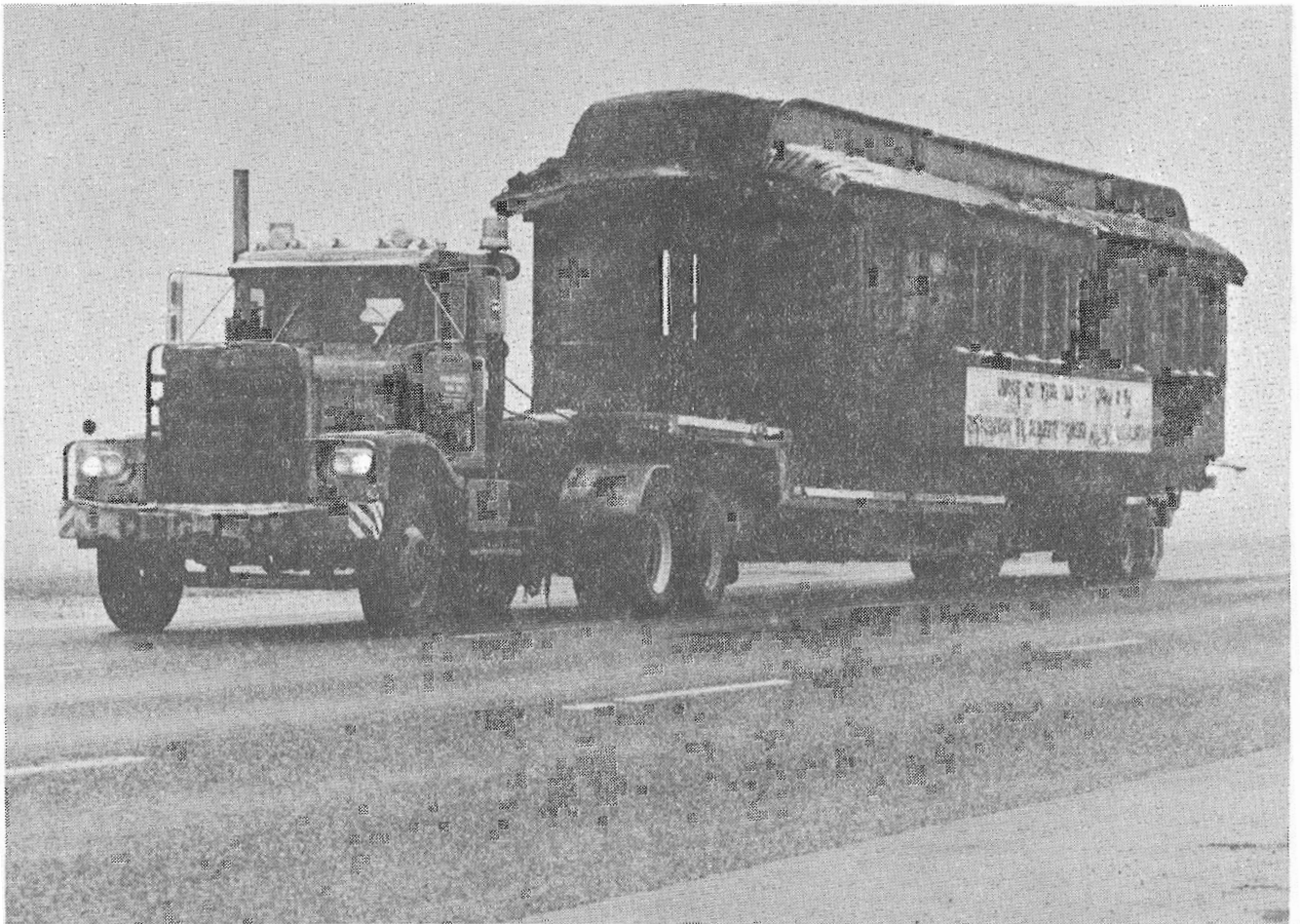
Photo: Canadian Pacific.

house available in S.E. Calgary. By one of life's true coincidences, Great West is a subsidiary of Power Corporation, who just happen to be the single largest institutional holders of Canadian Pacific stock.

Now the scrounge is on for a means of transportation. In the end, it is the casual mention of our plight by a CP Rail official to Drain Bros. Construction Ltd. of Blairmore - the same good people who built the moving skid and first transported Car 52 north - that produces results. Once again, contracts and small town generosity beats out big city indifference.

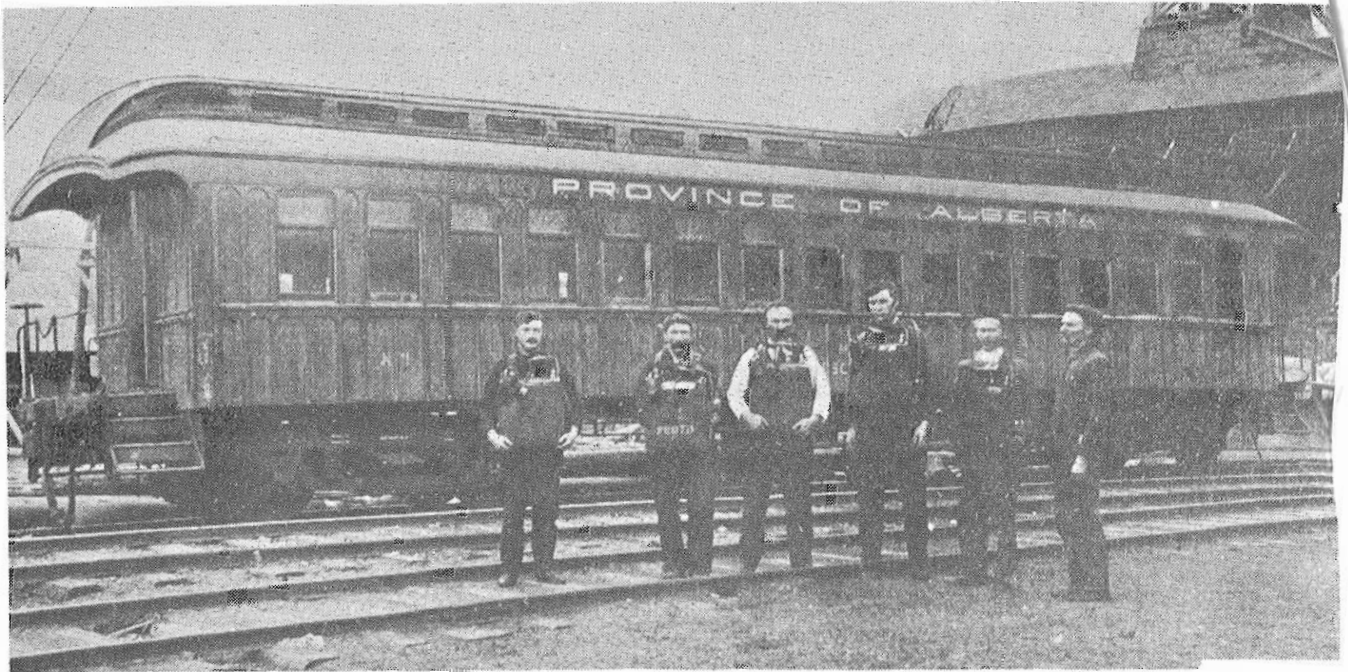
So at high noon on Wednesday, 5 December 1984, Car 52 headed out of Heritage Park for her

new covered home, no media, no coverage, a quiet understated affair. The two drivers of the tractor and 'trombone' trailer rig, Hank Riviere and Stan Walkaluk, are veterans of many oilfield equipment moves, artists with the wheel and winch. If our story has any heroes, it is these two men. Every scrap of their combined 80 years of hauling experience is called upon to shoehorn the coach into the warehouse from a cramped yard outside. At one point, vital assistance is provided by a bemused neighbour, who finds his heavy forklift truck and shop foreman commandeered at a critical moment. Thank you, Waterrous Power Products, sorry about the broken windscreen (caused by a loose fence panel, not a flying coach!)



CAR 52 ENTERING THE SOUTHERN CITY LIMITS of Calgary during a blizzard on Saturday February 26 1983. She is mounted on a custom-fabricated but standard design oilfield equipment skid. All transportation and skid fabrication costs were most generously donated by Drain Bros. Construction Ltd. of Blairmore, Southern Alberta.

Photo by Rick Eglinton, "Calgary Herald".



EX-CANADIAN PACIFIC RAILWAY CAR 52 (later 1816) of 1882 in the third of her guises, as "Province of Alberta Mine Rescue Car No. 1". This is the only known full-length photograph of the coach with the original lower board-and-batten siding. Sometime between 1916 (when this photo was taken for the "Annual Report - Coal Mines Branch, Province of Alberta 1916") and 1919 the car was re-sided with vertical matchboarding. The letters "Province Of Alberta" are still clearly distinguishable on the coach's letterboard today.

Government of Alberta, via Glenbow-Alberta Institute.

In order to give this project its own unique identity and distinguish it from other A.P.R.A. projects for fund-raising and promotional purposes, a small group of "Car 52 fanciers" has formed under the working title of 'The Vintage Group'.

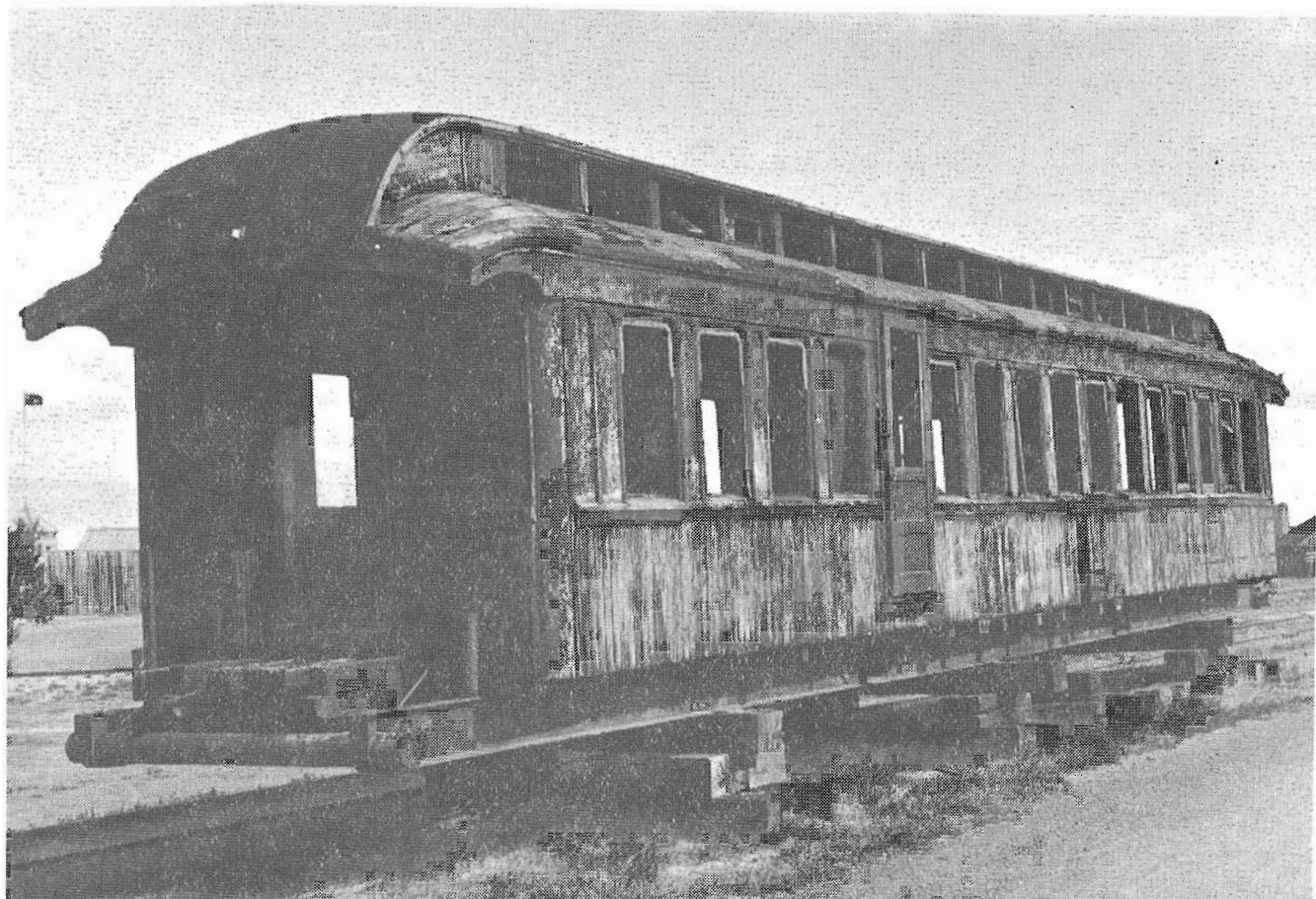
Frankly, you have to be an optimist to visualise Car 52 as a guest of honour at Vancouver's "Expo '86", but that is where she is going. What a wonderful sight she would/will make behind restored C.P.R. 4-4-0 No. 374 and tailed by Heritage Park's "Last Spike" Langdon & Shepard Business Car. They should all be at Craigellachie in November 1985, but that would be pushing things somewhat.

Realistically, probably only 30 percent of the original car will end up in the final restoration, the rest of the original serving merely as patterns before they finally succumb to rot and old age. Similar ambitious projects have been attempted and been successful before, but not in North America. Now that housing has been secured, what the project still desperately needs is financing for materials, probably some \$50,000 worth. If you are a company chairman or president, have we got plans for you. By a complicated, but perfectly legal

and above-board process, we can provide you with a tax writeoff in exchange for \$50,000 worth of cash and/or materials. Individual donations, however small, are also solicited in exchange for a Tax Receipt which you can use with your personal tax return as part of your charitable donations allowance. Roll up, roll up! After all "whats (fifty) thousand dollars? Mere chicken feed. A poultry matter". (Groucho Marx from the film 'Cocoa Nuts').

Help with correspondence, project control and estimating, drafting (no scale plans exist yet), but above all CONTACTS are also needed. It is unlikely that the chance to restore such an historic coach, such a good representative of the once commonplace, will ever occur again. Time (and "Expo '86") presses. To paraphrase a well-known advertisement, "Come on Canada, meet you at the (warehouse) bay".

Oh yes, that Car 52/Car 54 dichotomy. On detailed examination of the car, the vast majority of parts were found to be stamped 52 and/or 1816. Further research by Mine Rescue Car specialist Greg Hampton of Edmonton also con-



CAR 52 RESTING ON THE BACKLOT AT CALGARY'S HERITAGE PARK near the replica Hudson's Bay Company fort in the summer of 1984. The side door is not original but was put in when the car was a grounded mine assay office at Blairmore. Note the pigeon roosting in the third-from-left clerestory window!

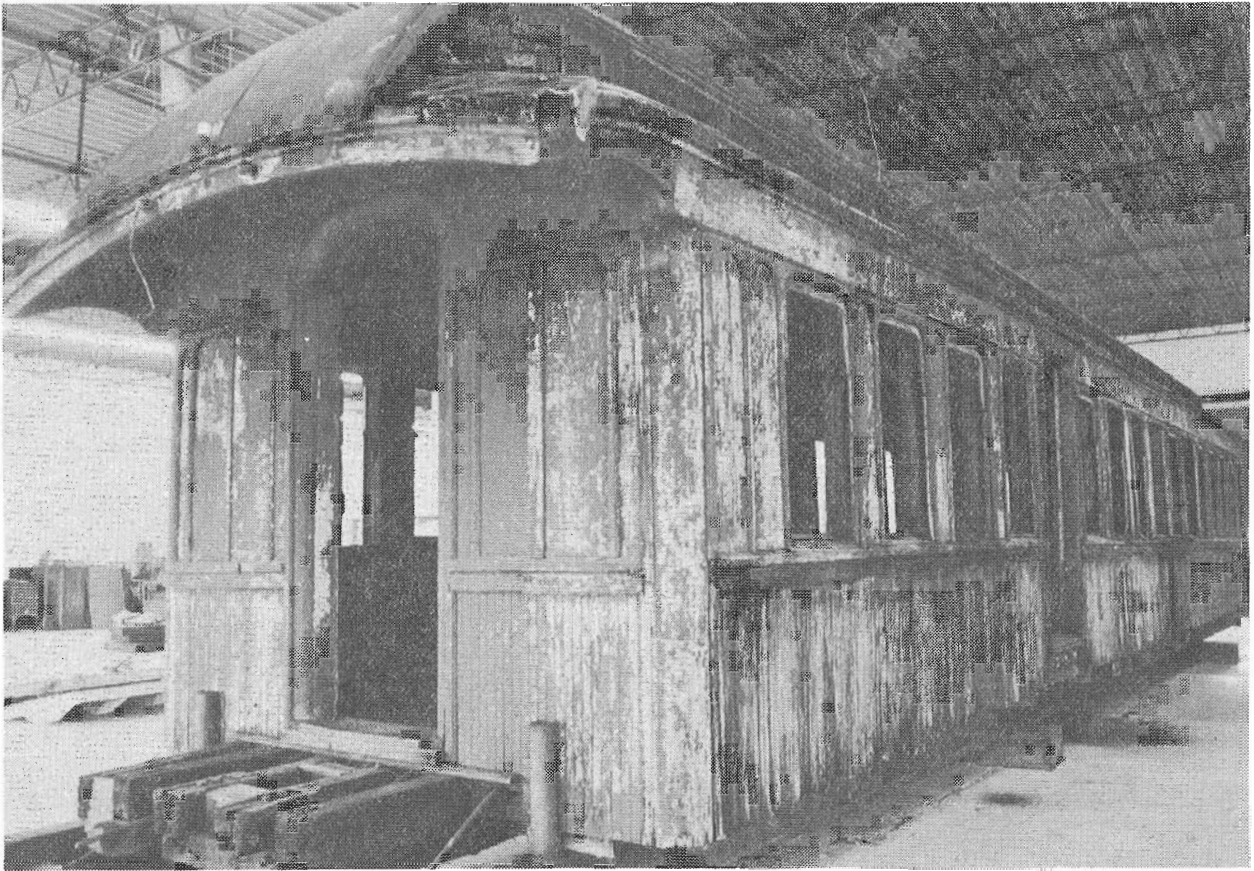
Photo by Mike Westren.

firmed that our car was in fact No. 52. Perhaps the Editor will one day persuade him to write an article on the fascinating history of Alberta's Mine Rescue Cars. Also, Home Oil Company of Calgary is the majority owner of Scurry Rainbow Oil, not the other way about. Sorry about that, Hiram Walker.

For further details of the complex history of Car 52 and sponsorship opportunities (personal and corporate) write to:

The Vintage Carriage Group,
c/o 131 Parkview Green S.E.,
Calgary, Alberta,
Canada T2J 4N4





*CAR 52 UNDER COVER AT LAST! Within 48 hours of her arrival at the Ridley Hill Car Shops in S.E. Calgary the car had already started to dry out from her two winters of outdoor exposure. Now the real work begins.
Photo by Warren Williams.*



THE BARE INTERIOR of car 52 after some of the clerestory roof panels had been removed. Underneath layers of paint and coal dust, the original gold leaf patterning was still clearly discernable on these panels. The interior side sheathing was and is just plain millworked mahogany; the floor plain white pine. Note the lack of sag in the car body despite its age of almost 103 years.

Photo by Warren Williams.

EDITOR'S NOTE: It was intended to include additional illustrative material on car 52, but the material in question had not arrived from Calgary by press time, having been delayed in the mail en route. If it does arrive, it will be published in the next issue.

THE BIG BOYS LITTLE HELPER IN THE BRITISH COLUMBIA LOWER MAINLAND****

*** She makes rail ends meet--
makes projects-- and a host
of friends through efficient service ***

By Norris Adams

Hydro's map of railway freight lines -- "The Service Route" of industrial southwestern British Columbia" identifies itself as "The B.C.E. Route". British Columbia Electric Railway began in 1897 as an electrified operation connecting Vancouver and New Westminster. To-day it is a modern diesel-powered railway serving the Lower Mainland of British Columbia. It provides connections with port facilities and Canadian and U.S. railways serving this important industrial area." It is more than a terminal railway, for it operates main and branch lines in Greater Vancouver and the Fraser Valley totalling 103 miles of mainline and approximately 90 miles of spurs, sidings and yard tracks from False Creek in Vancouver south to Steveston

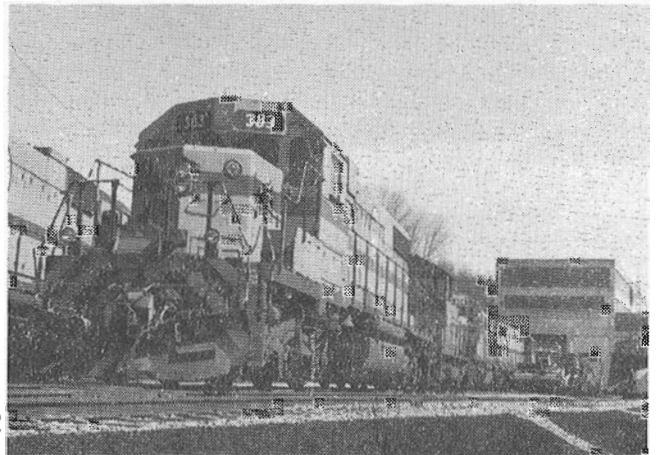
and east to New Westminster. These operate over tracks leased from C.P. Rail and these branch lines are corporately known as the V&L.I. (Vancouver & Lulu Island Railway). C.P.R. ran a small steam passenger train from downtown Vancouver to Steveston from 1902 to 1905 just prior to the lease with the B.C.E.R. who strung overhead electric wires for powering passenger interurbans and freight locomotives. Steveston remains to this day, a small town oriented to fishing, processing, packing and distributing. It is at the mouth of the South Arm of the Fraser River on the far side of Lulu Island.

Hydro has its major assembly yard, maintenance, repair facilities and general offices in New West-



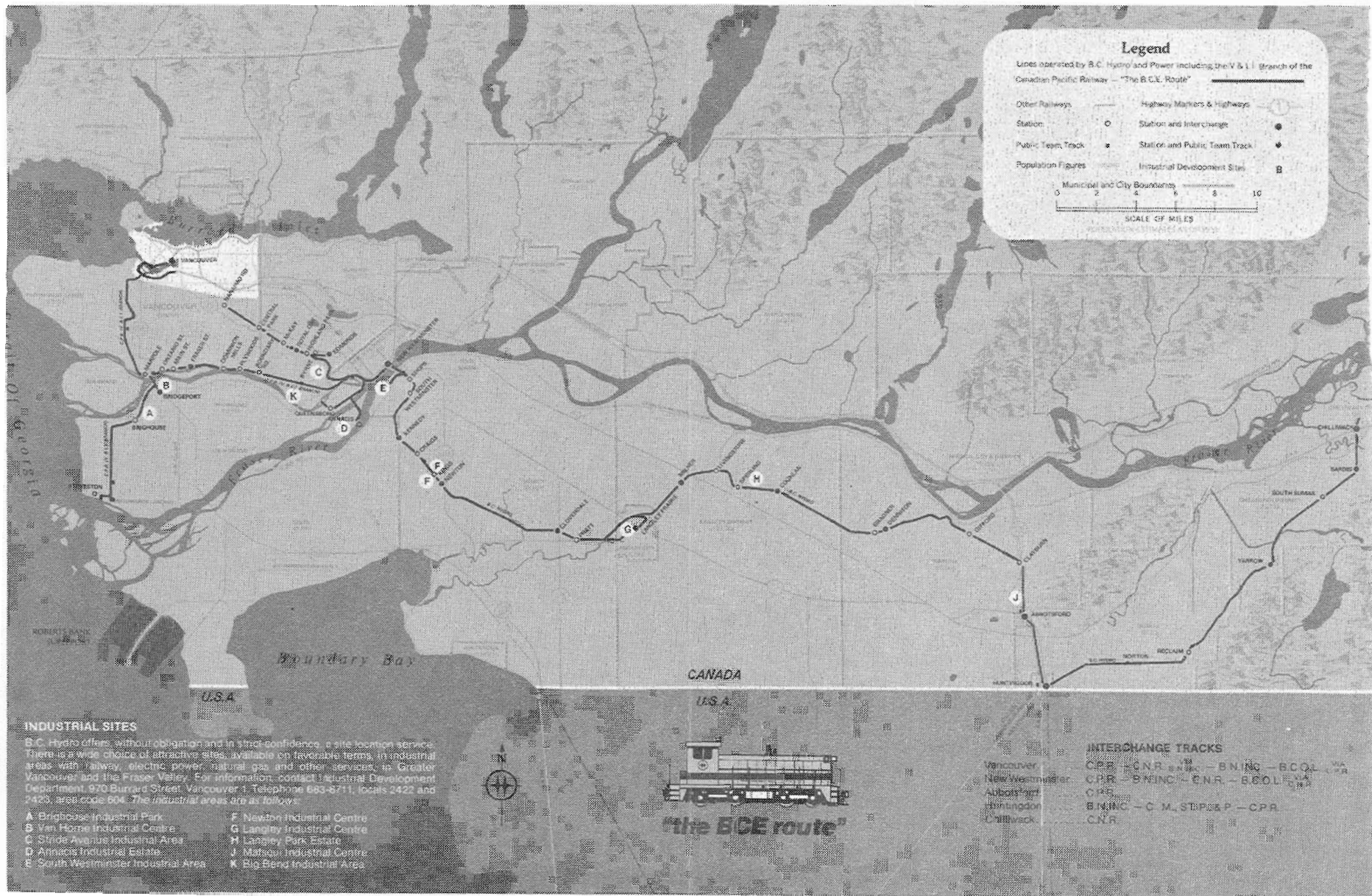
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From Queensboro Road Bridge, looking west at Hydro's marshalling tracks at Trapp Yard. Also shown are repair and maintenance shops. "West Turn" no. 1 is accumulating cars on the far left, crescent-shaped storage track.



2

Hydro's strongest and ablest work horses, ballasted S.D. 38's stand outside the maintenance shops. All engines are groomed herefor the "West Turn" run to Huntingdon, B.C.



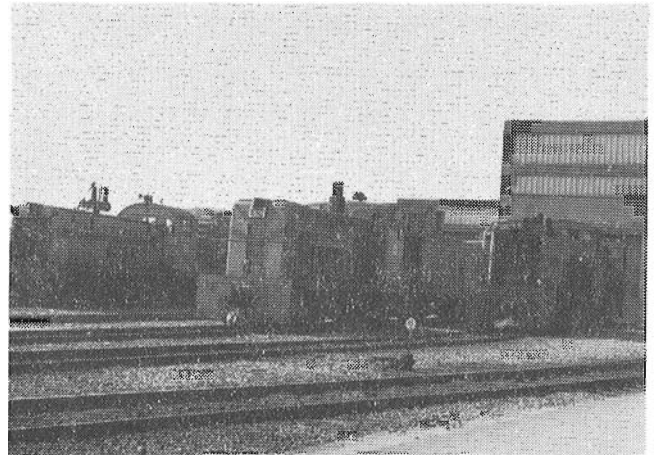
minster. On the New Westminster-Burnaby boundary, the railroad has a 21 acre marshalling yard, where 7 1/2 miles of multiple tracks is sufficient to store 650 cars, and more capacity is planned. The yard is a triumph of engineering and planning as it was built on an original soft peat base, which has been filled and compacted. There are no major road crossings. By law, such crossings must not be obstructed for more than five minutes. Just try to find a spot in a large urban area where space exists unimpeded to spot a 100 car train, power units and caboose, whose length will not have to be broken up on account of motor traffic crossing its tracks. It is from this (Trapp) yard that two "West Turn" trains are assembled and depart daily.

On April 23, '82 West Turn no. 1 received clearance at New Westminster at 13.31 hours with S.D. 38-- 2000 H.P. engine no. 382 running Extra East. Form 19 Y informed all eastward and westward Extra trains in the Fraser Valley Sub: "Do not exceed (8) kilometers per hour over the Fraser River Railway Bridge. Mileage: nought point eight to mileage one point six eight until entire train is clear. 0.80 - 1.68. Another caution was a wait at Livingstone involving Extra 381 East.

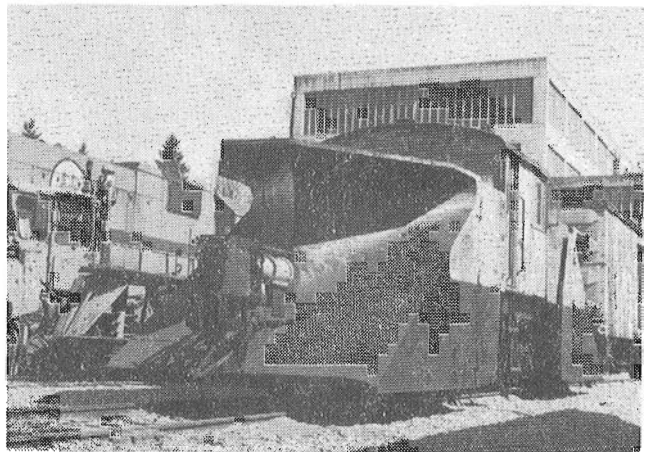
The consist was 44 cars - mostly U.S. roads, B.C. Rail and C.P. and C.N. Some would be transferred to C.P. at Abbotsford, some to Burlington Northern at the Huntingdon Sumas interchange yard and some would go on B.C. Hydro's ongoing Chilliwack connection from Huntingdon. This run is known as the "East Turn" - a further 20 miles to connect with C.N.'s transcontinental mainline. Normally, Hydro would assign two of their S.W. 900 R.S.'s as the power team. It is significant to note that, while the mileage is shorter by C.N. between their Port Mann yard- (across the Fraser River from New Westminster) and Chilliwack-- the immense size and density of this yard tends to foster delays, thus favouring Hydro routing. West Turn no. 1 was carrying this day interesting carload lots-- such as plywood, corn, lumber, steel sheets, potash, scrap, pulp-- to name just a few commodities. It is 43 miles for the West Turn's no. 1 run--that is between Trapp Yard, New Westminster and the yard at the U.S. - Canada border at Sumas, Washington, Huntingdon B.C. Hydro uses 115 pound rail and often 2 or 3 ballasted S.D.

38's; The extra tractive effort is required for the 2 percent grade, curves, and heavy tonnage, but the scenery can be appreciated with no extra effort.

This is usually a "silk train" run with no set offs or pick ups and speed rarely ever exceeds 34 m.p.h. This part of the line has a few constraints. The Federal Government Department of Public Works rail bridge at New Westminster, is one mile in length and single tracked, built in 1904 and is exceedingly busy with unit and merchandise trains of 4 major railways. This bridge has taken a beating over the years. It has been put out of service by hit-and-run barges, fire, a bridge tenders strike, and, of course, repairs. Long detours have been necessary for Hydro via C.P. through Mission and



3



4

3

Some of the old originals -- the 900 H.P. G.M.'s and no. 942 a 70 ton G.E. no. 153 a 1500 H.P. G.M. also no. 900, and an old wooden caboose A-2 rest outside the East End of the Trapp Yard maintenance shop.

4

Double end S 102 Snow plough -- an ex-B.C.E.R. electric freight locomotive converted to a new purpose. An old wooden box car behind is used to store equipment at Trapp Yard.

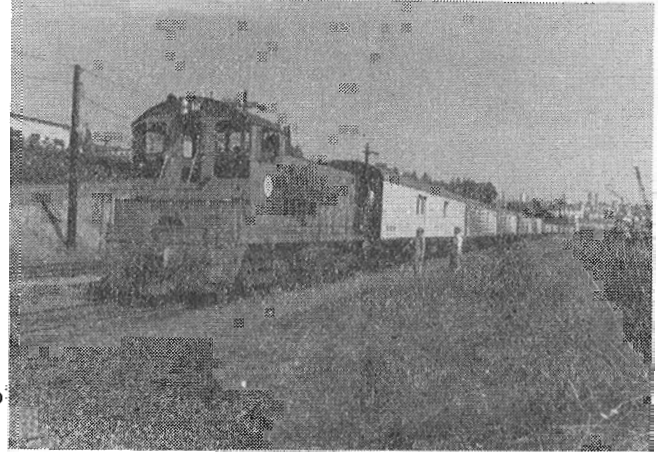
Coquitlam—certainly a more favourable grade of 1 percent and more continuous straight track.

At Pratt, mile 14.35 Hydro has a junction with B.C. Harbours Board Railways for coal trains that run through to Roberts Bank Superport. Joint C.T.C. track is shared by Hydro with C.P. & C.N. a distance of 7 1/2 miles to Livingstone. Here is the junction with the Rawlision Subdivision which is

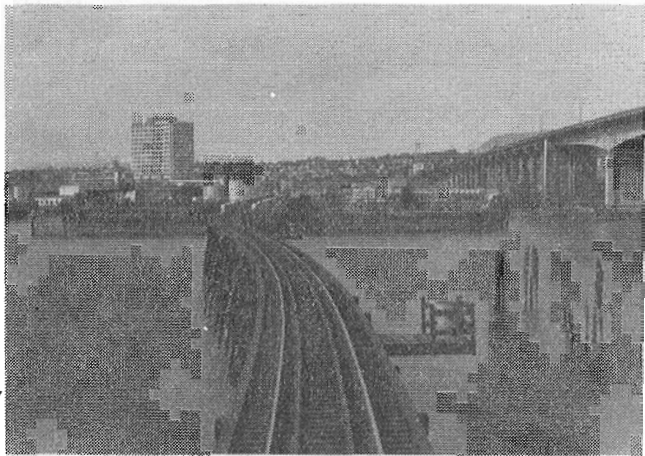
a branch line to the C.N. mainline. A rather archaic constraint exists at mile 37, Clayburn—where Hydro tracks cross C.P. Mission subdivision tracks and parallel each other through Abbotsford to the border at Huntingdon, B.C. Sumas, Washington where Burlington Northern delivers and receives carloads to and from Seattle. The crossover of C.P. tracks at Clayburn goes something like this.



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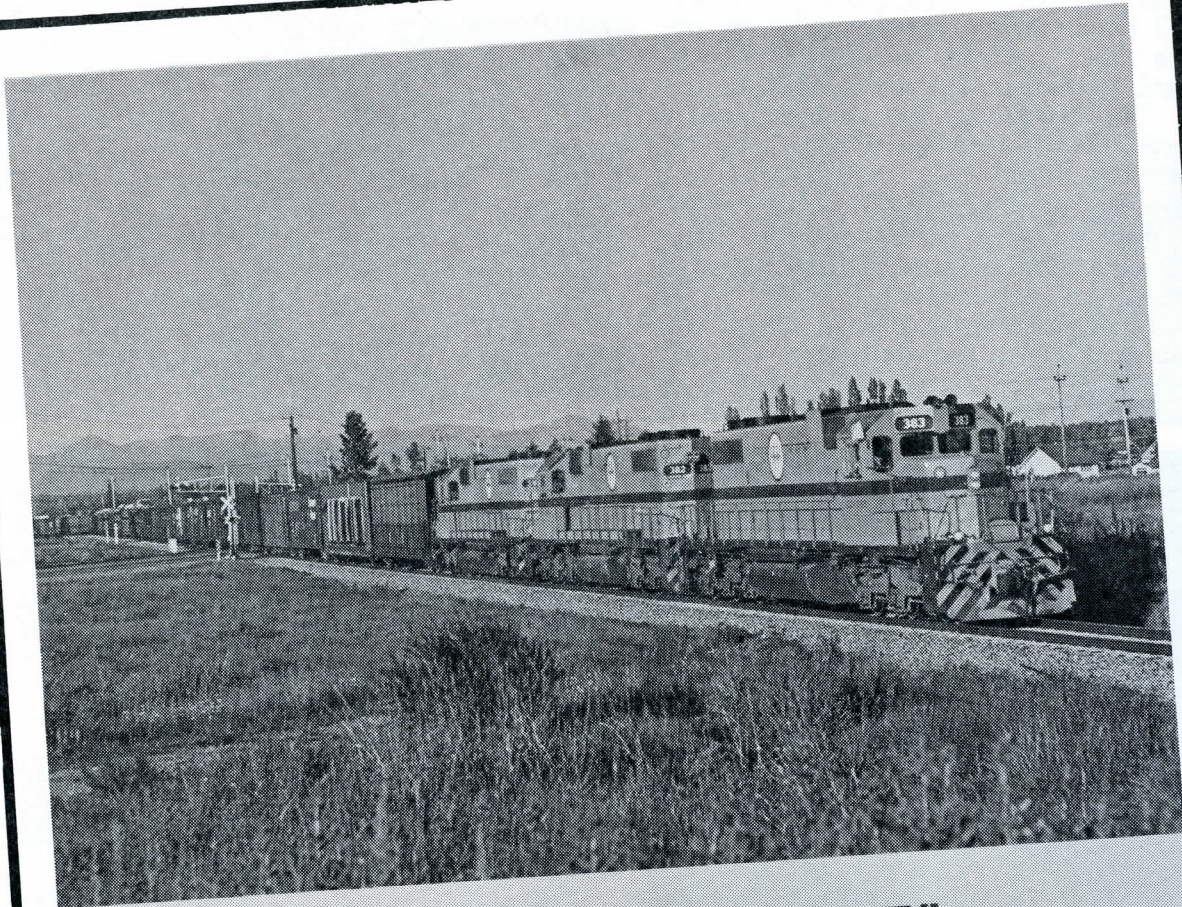
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5 A big move— Monday, Sep't 8/80 the Discovery train moves from Coquitlam by C.P. Rail and is accepted by Hydro at 13.40 hours. Hydro no 904 latches on to proceed to the "S" yard. C.P. engines retire on the right hand side at New Westminster.

6 Hydro with the heavy Discovery train leaves Trapp Yard at 13:05 and faces a 1 percent uphill grade. The stop is for a brake test at 90 lbs. pressure. The train stops when the overspeed relay kicks out.

7 Forward door allows a view as engine no 931 crosses the North Arm of the Fraser River heading for Marpole (shown in the foreground). The Discovery Train has just been delivered to a site designated by Hydro near Steveston.

8 Hydro engine no 153 and caboose A 2 return to crew quarters on the V.L.I. Westminster track. Engine 931 leaves Steveston at 14:40, running light.



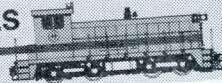
"THE SERVICE ROUTE" INDUSTRIAL SOUTHWESTERN BRITISH COLUMBIA

The "BCE Route" began in 1897 as an electrified operation connecting Vancouver and New Westminster. Today it is a modern diesel-powered railway serving the Lower Mainland of British Columbia. It provides connections with port facilities and Canadian and U.S. railways serving this important industrial area.

Comprehensive information on rates, routing, tracing and diversion will be supplied promptly. Telephone: 521-1966 (area code 604). Telex: 043-51150. Or write to: B.C. Hydro, Freight Traffic Department, 260-12th Street, New Westminster, B.C. Postal Code V3M 4H3.

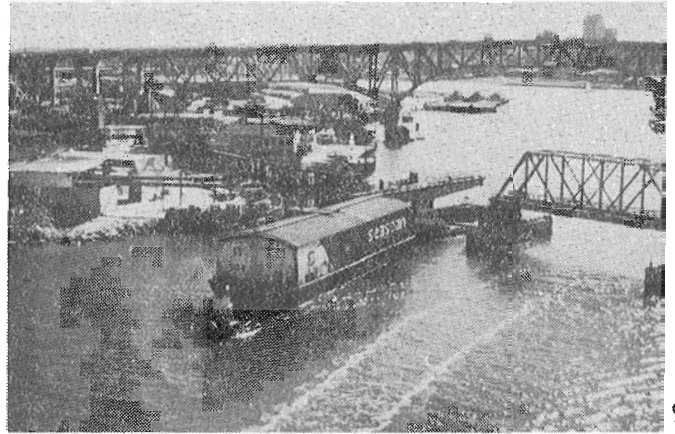
MAP OF RAILWAY FREIGHT LINES

OPERATED BY BRITISH COLUMBIA HYDRO & POWER AUTHORITY

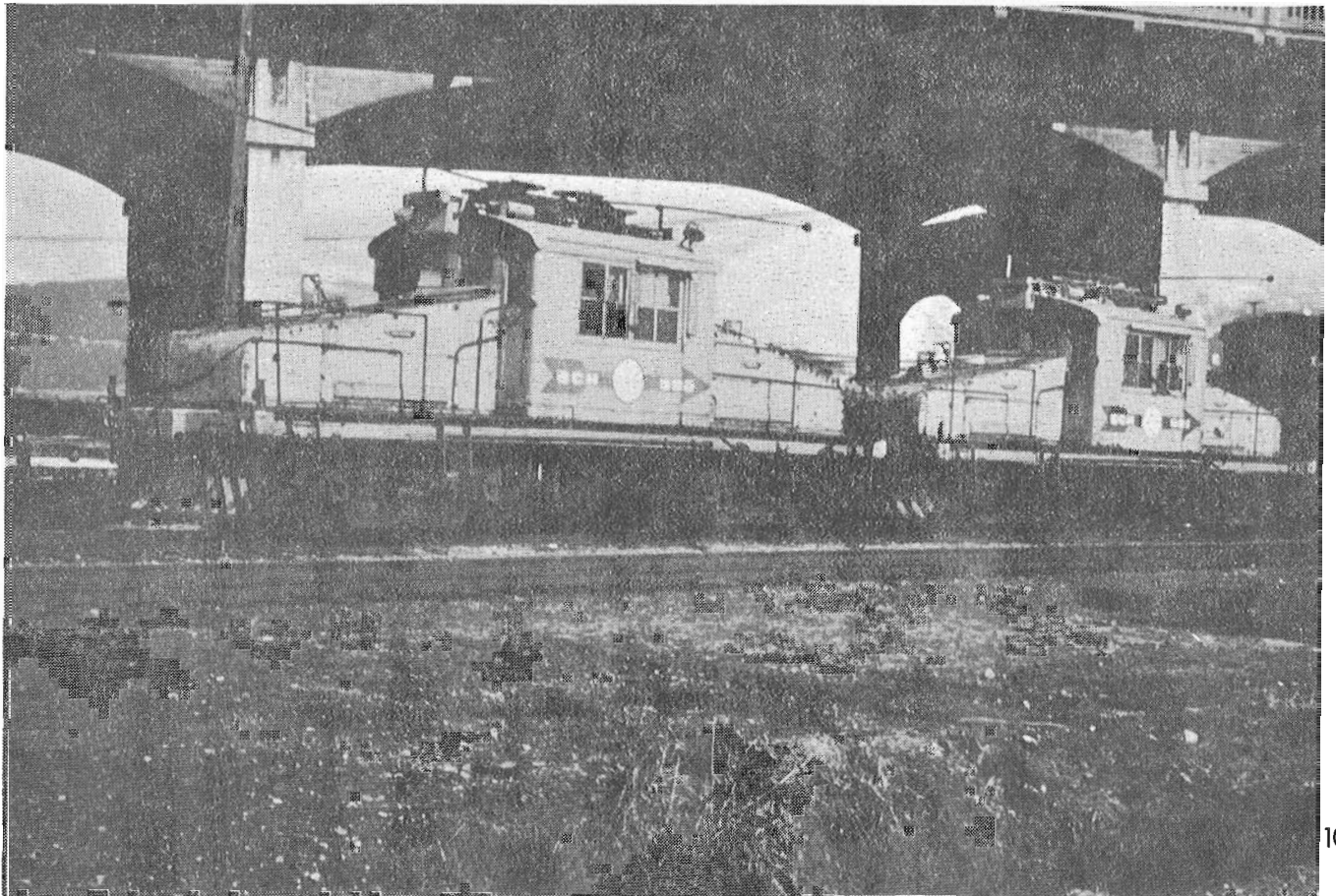


Hydro stops just prior to crossing the C.P. diamond. The head-end flagman detrains and locks himself in the small signal shanty, setting C.P. approach signals to the "stop" position. The rear-end flagman walks forward from the caboose and mounts the engine cab. The flagman in the shanty protects his train across the diamond and when it is in the "clear", boards the caboose.

At Huntingdon, fresh action begins. Here there are 4 tracks for storage cars., interchange and train assembly. Some will be picked up by B.N. for U.S. points, others will be incorporated with a train for Chilliwack and furtherance by C.N. Still others will be built into the return West Turn train for Trapp yard, New Westminster, where arrival is often around 19.30 hours.



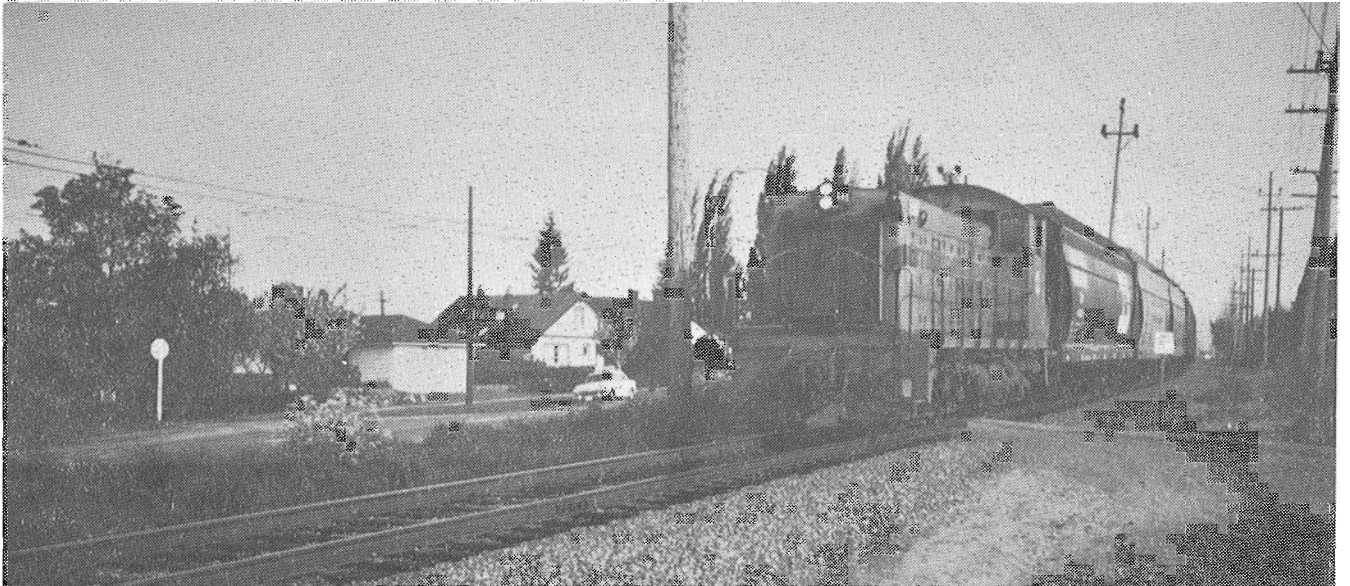
9



10

9 Marine traffic has the right-of-way. The False Creek trestle and swing span is open. After October 21, there will be no rail service this way. Hydro will use its south shore tracks, some B.N. tracks and newly-laid tracks of its own on the east end of False Creek. The end of the line will be at the team tracks in the Carrall yards in the downtown commercial industrial core.

10 Former B.C.E.R. steeple jack electric freight motors 960 & 961, in Hydro logo and colour, stand in static storage in the Kitsilano yards.



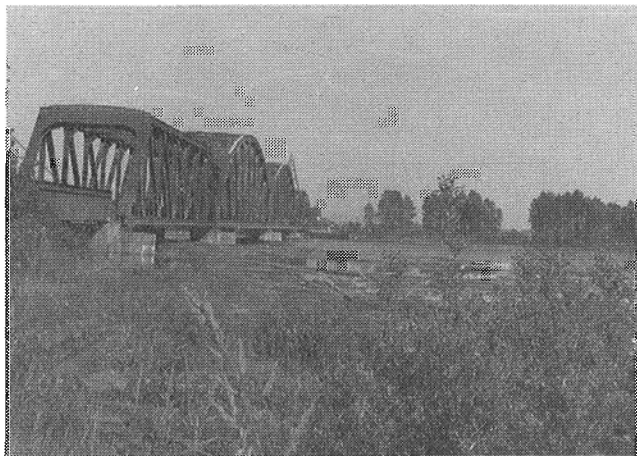
Engine 905 leads its train to Marpole. The old tram tracks have been removed as shown by the vacant right-of-way on the right. Passenger service has been supplanted by a trolley bus service, whose overhead wires can be seen on the left. Current rumours indicate that the A.L.R.T. service to Richmond may use this track space.



It is an era of change. Planned redevelopments intercept several of Hydro's (ex B.C.E.R) rights-of-way. The A.L.R.T. system now being built will use part of the former Central Park Line, also the Marpole line See no. 11.



13



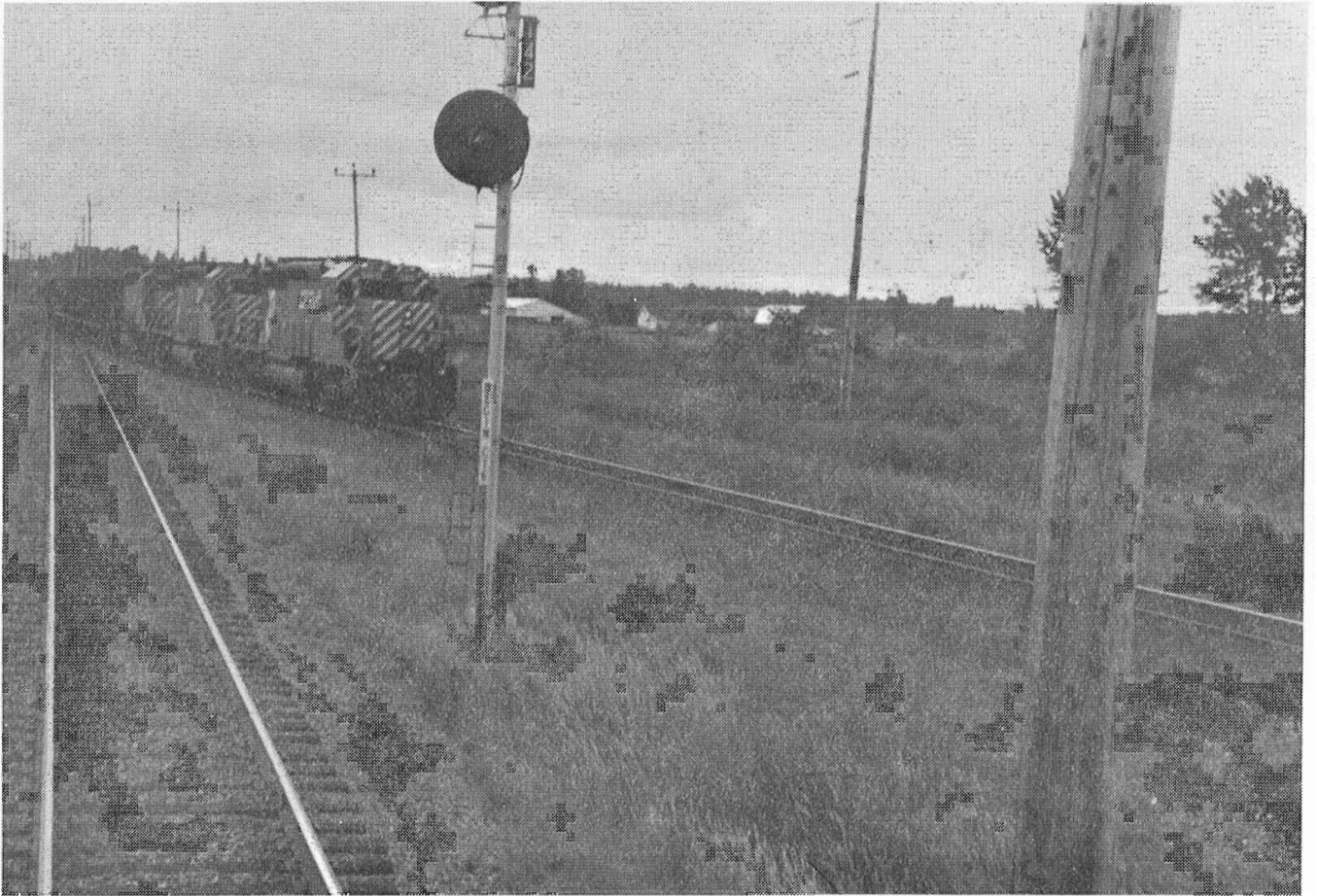
14

The large marshalling yard at Trapp provides assembly tracks for cars destined for almost immediate dispatch to four other divisions and 3 tributaries. The Central Park sub is 7.3 miles long and usually its work is done at nights. The Annacis Auto Unloading Facility on Annacis Island receives many Japanese auto vehicles for cross country forwarding. This branch of about 2 miles is known as the Annacis/Queensboro line, and is shared in part with C.N. Once again, a major swing span is involved; and bridge tenders monitor, ships, barges and trains.

side of the Kitsilano Trestle and Swing Span at False Creek, Vancouver to Marpole Junction at mile 6.27. Here is a junction with the Steveston

13 *The D.P.W. single tracked New Westminster Railroad swing span is a classic of the year 1904. Its capacity both for rail and marine traffic is taxed to the limit. Waiting its turn to cross is a frequent occurrence for Hydro trains, who must share with C.N. and B.N. It has been out of service because of fire, bridge tender's strike, runaway barges and of course the time needed to make repairs.*

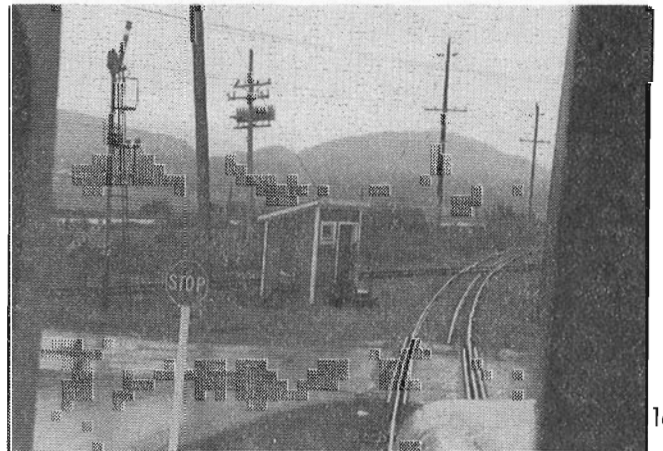
14 *Sometimes, detours using C.P.'s Mission subdivision are necessary. This means using their rail bridge at Mission to cross the Fraser River and also the Pitt River Bridge on their mainline near Coquitlam on their Cascades Sub. Hydro is shown on C.P. tracks approaching the far side of the Pitt River bridge.*



15

Subdivision. Once again, Hydro is confronted with a long bridge and swing span in order to cross the North Arm of the Fraser River. It is 5 miles across level Lulu Island to Steveston. At Marpole Jct., the line runs alternatively east following the North Arm of the Fraser, 10 miles east through the Trapp Yard to 13th Street New Westminster. Hydro's Railway progress is often challenged and sometimes impeded by runaway marine traffic. Hydro crosses 8 bridges which are not immune to delays and detours, and volumes created by other railroads and water-borne carriers..

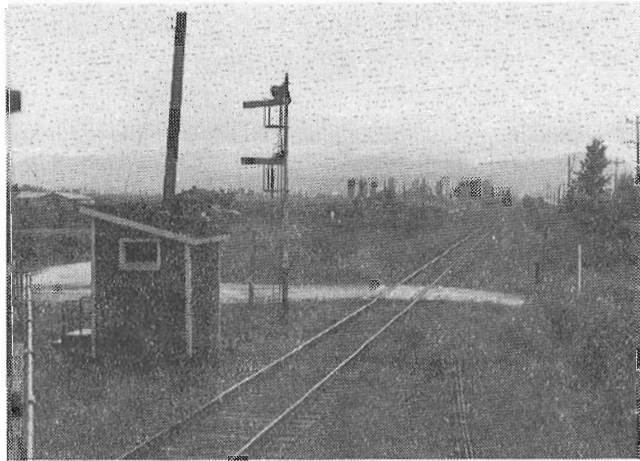
Recently, a major detour was occasioned by a fire and the resulting damage and repairs necessary--on the Fraser River Rail Bridge at New West-



16

15 *This scene is at Pratt, where a C.P. unit coal train leaves Hydro's 7 miles of C.T.C. track, having entered at Livingstone. C.N. also shares these tracks. From the point shown, the coal train uses Harbour Board tracks to Robert's Bank train-to-ship transfer. Hydro's "West Turn no. 1" waits for the signal to indicate "Clear Track".*

16 *Hydro crosses C.P. tracks at Clayburn. Head end brakeman enters signal control shanty and locks himself in, until his train clears the crossing diamond. Note the signal indication.*



17

17 Approach signals indicate "stop" to C.P. traffic.



18

18 Train clear of crossover, conductor boards his caboose. Two trainmen are used in this somewhat archaic manoeuvre. Some of the iron control levers are marked Patented 1898.

minster. Hydro trains were enabled to use C.P. tracks and their Fraser River Bridge crossing between Abbotsford and Mission City to the C.P. Cascade mainline subdivision, which follows the Fraser River at a 1 percent grade to Coquitlam; thence over the Westminster sub 8.4 miles to New Westminster and the final short connection into Hydro's Trapp yards. The railways in the lower mainland literally, "pull together" to help one another normally, but even more so, when adversity strikes. B.C. Hydro Rail has a diversified roster of diesel locomotives. 22 units bring the range from 660 h.p. to 2000 h.p., While it moves literally hundreds of foreign road cars, it does own or lease:

3	depressed-centre flat cars
3	gondolas for scrap
10	50 foot Thrall door box cars
162	52'6" wide-door box cars
50	52' Evans Box cars which are leased to specific customers.

Hydro Rail has procured and set aside large tracts of land adjacent to its rights-of-way; and in an efficient, well-planned concept, has set up industrial parks which are fully serviced, including team and customer's spur tracks. Hydro's customers appear to like the convenient, reliable and quick service offered them.

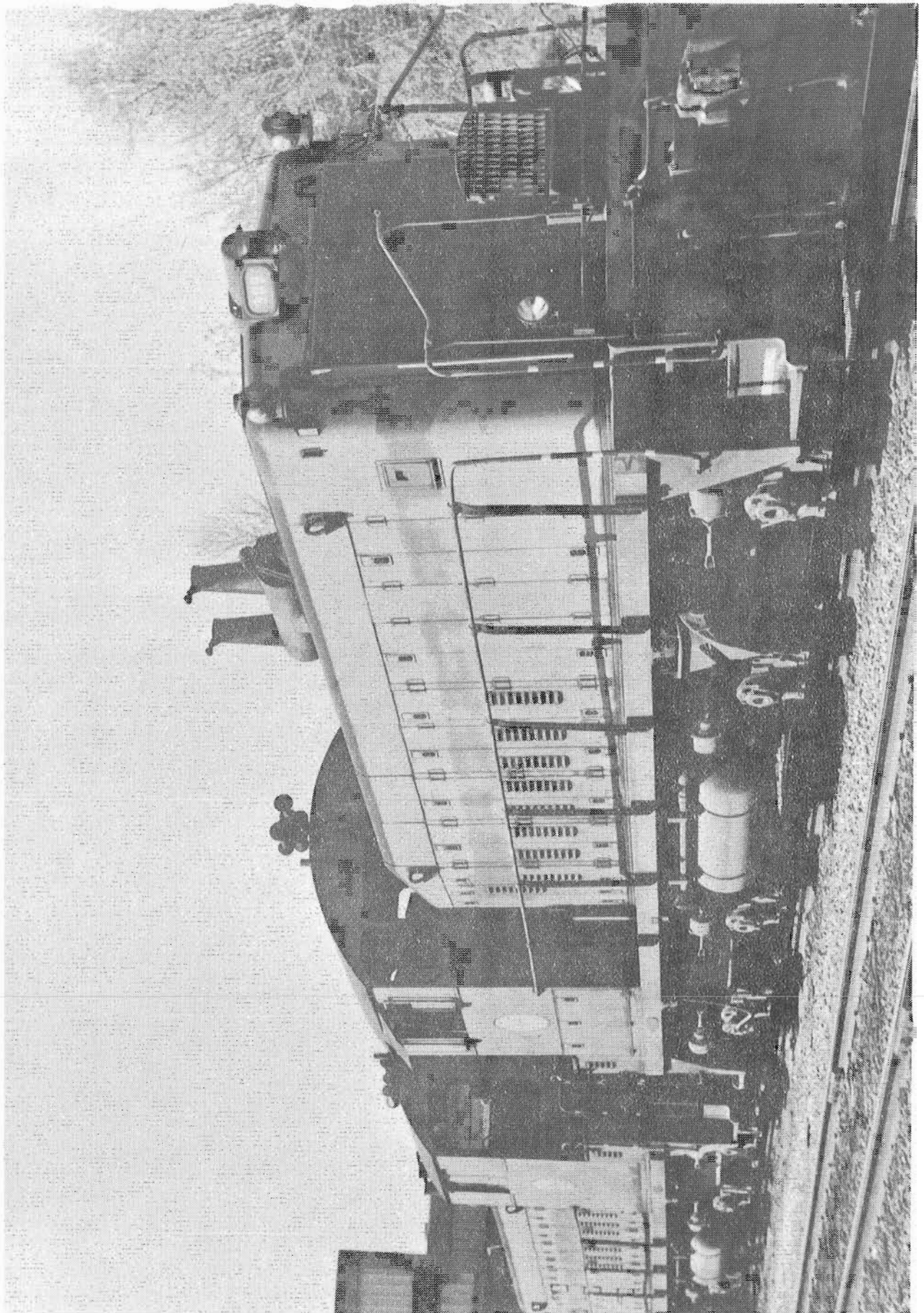
Hydro Rail is caught in the throes of several major right-of-way relocations, brought about by the proposed A.L.R.T. plans and an architectural update of some of the old downtown property adjacent to the Fraser River in New Westminster.

B.C. Hydro Rail's pamphlet, "a brief history" is thoughtfully distributed to-day to interested per-

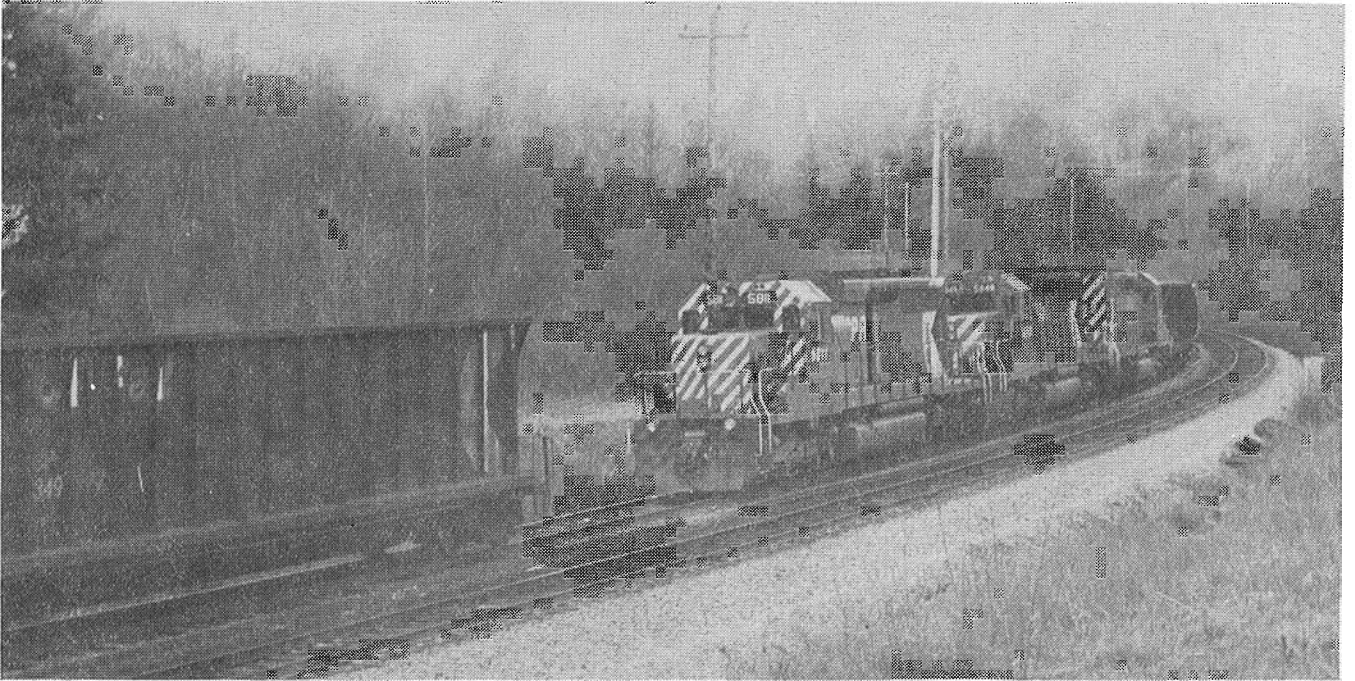
sons. Retired employees, historians, rail enthusiasts, who were invited to ride the two-car "special" on two return trips across the 96 year old trestle and swing span at False Creek, declared that "a chapter in B.C. railroading had closed".

For this "finale", Hydro Rail supplied Diesel no. 910-1000 h.p., freshly painted and overhauled. The Provincial Ministry of Tourism provided a power car, "Cheakamus Canyon" and an open-ended platform lounge-observation car. Your author knew this span well. It was his pleasure to ride the old no. 12 one man operator-- Kitsilano cars from downtown to the Yew Street loop. Now, B.C. Place may claim the north section of the trestle and all the track that led up to the 4 retaining tracks--the interchange spot formerly used with C.P. rail at the western limits of the old Drake St. Yards. Hydro had served some 30 industries on both sides of the Creek from this point. Current thinking is that a part of the southern end of the trestle will serve as a wye on which to turn Hydro cars or trains.

But "the show goes on" for Hydro in a new rerouting that has many of its old touches. They will pick up and spot cars along their South Shore line, which includes a stretch of B.W. track and then run over their newly laid track at the East end of False Creek and terminate at team tracks in the Carrall Yard. There is much more that could be said in favour of B.C. Hydro Railway. B.C. Electric Railway laid routes that, even 60 years later, remain sound, favourable, progressive and patron pleasing. She may be small, but she's a working wonder: British Columbia Hydro Railway.



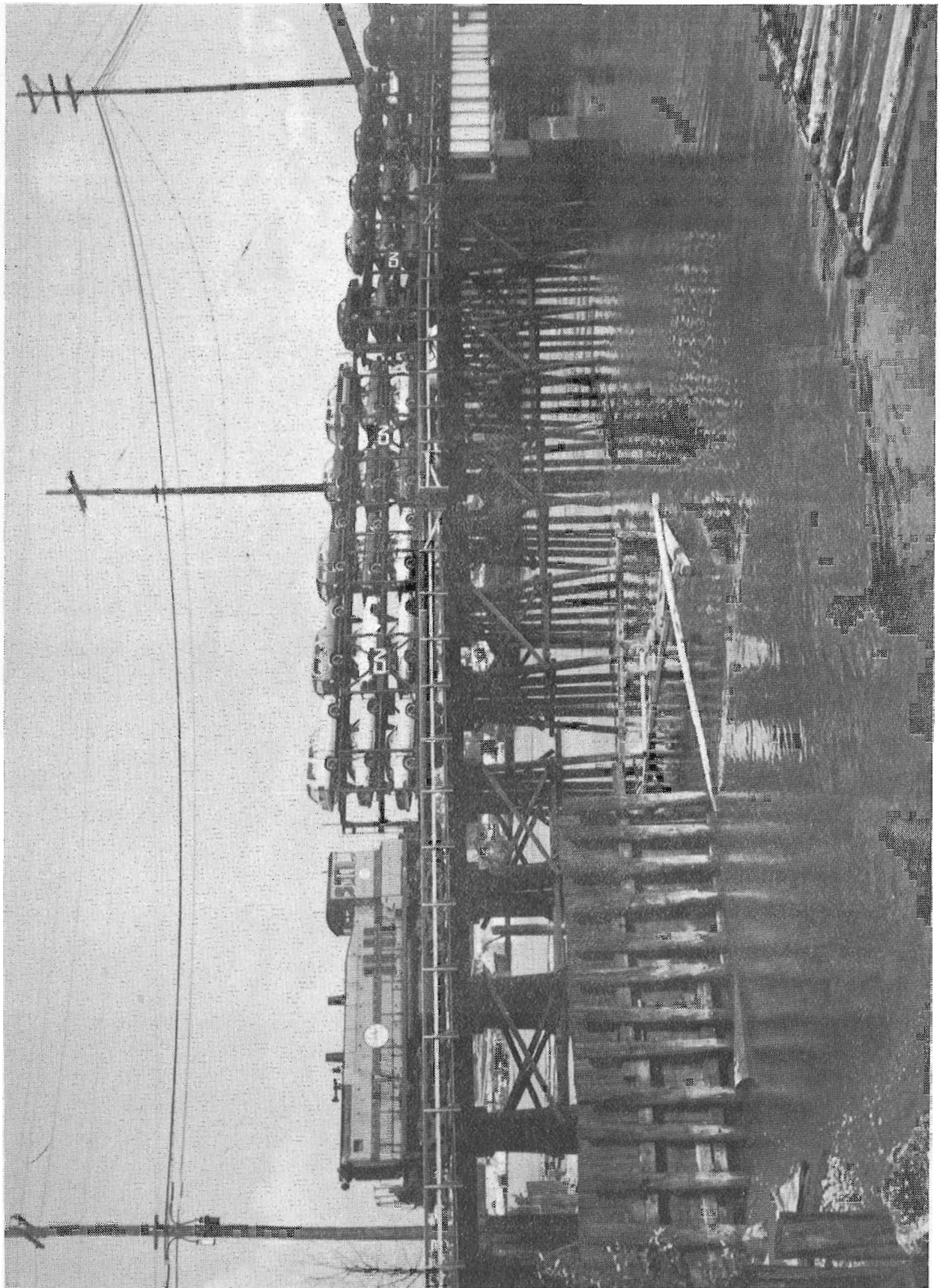
2 G.M.D. 900 H.P. units pose outside the maintenance shops at Trapp Yards, New Westminster.



3 C.P. Units no's 5811, 5849 & 5752 with a unit coal train are on C.N. transfer tracks that connect with C.N. mainline. They wait to enter Hydro's C.T.C tracks at Livingstone. Ahead, we face 2 red lights. It looks as if C.P. coal car 349677 has pulled a drawbar and that a repair crew is approaching.



Trains crossing the Fraser River Bridge at New Westminster are sometimes a mile long. Hydro uses the approach tracks in the near foreground. Till 1936, there was an upper deck highway bridge, when the Pattullo Bridge (in the foreground) was built.



Picture courtesy of B.C. Hydro Railway - shows a cut of tri-level cars on the Annacis Island - Queensboro Bridge. More vehicles are unloaded from a shipside facility on Annacis Island.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

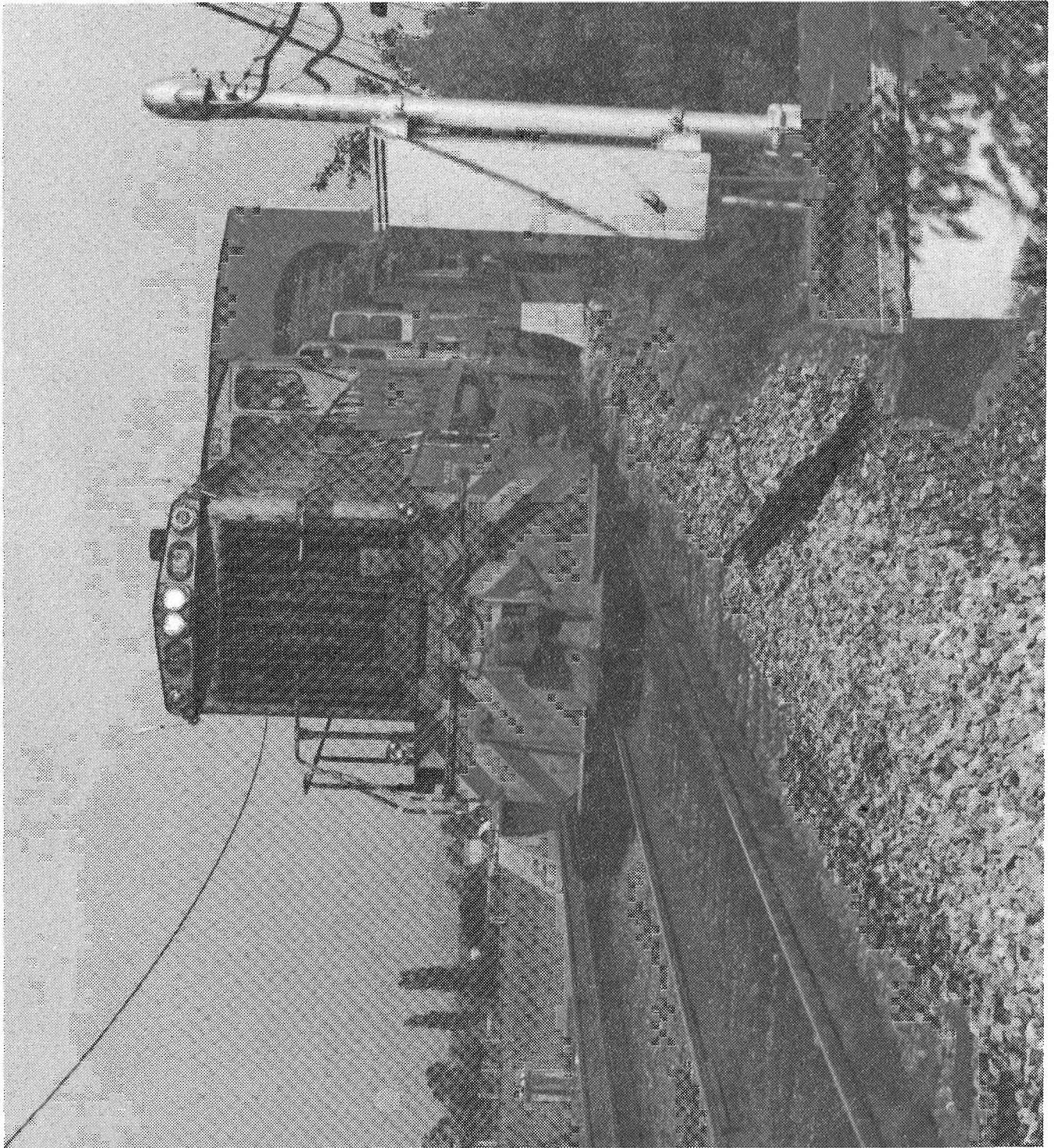
DIESEL ROSTER

NUMBER	MODEL	BUILDER	DATE	HORSEPOWER
151	MP 1500	G.M.	Dec 1975	1500
152	1500	G.M.	Dec 1975	1500
153	MP 1500	G.M.	Dec 1975	1500
384	SD 38-2	G.M.	Aug 1974	2000
383	SD 38-2	G.M.	Dec 1972	2000
382	SD 38-2	G.M.	Dec 1972	2000
381	SD 38	G.M.	Oct 1971	2000
911	SW 900	G.M.	Mar 1969	1000
910	SW 900	G.M.	July 1967	1000
909	SW 900	G.M.	June 1964	900
908	SW 900	G.M.	April 1958	900
907	SW 900	G.M.	April 1958	900
906	SW 900	G.M.	Mar 1958	900
905	SW 900	G.M.	Mar 1958	900
904	SW 900	G.M.	Aug 1957	900
903	SW 900	G.M.	Aug 1957	900
902	SW 900	G.M.	June 1956	900
901	SW 900	G.M.	June 1956	900
* 931	SW 900	G.M.	May 1956	900
900	SW 900	G.M.	June 1955	900
942	70 Ton	G.E.	Sept 1949	660
940	70 Ton	G.E.	Sept 1949	660

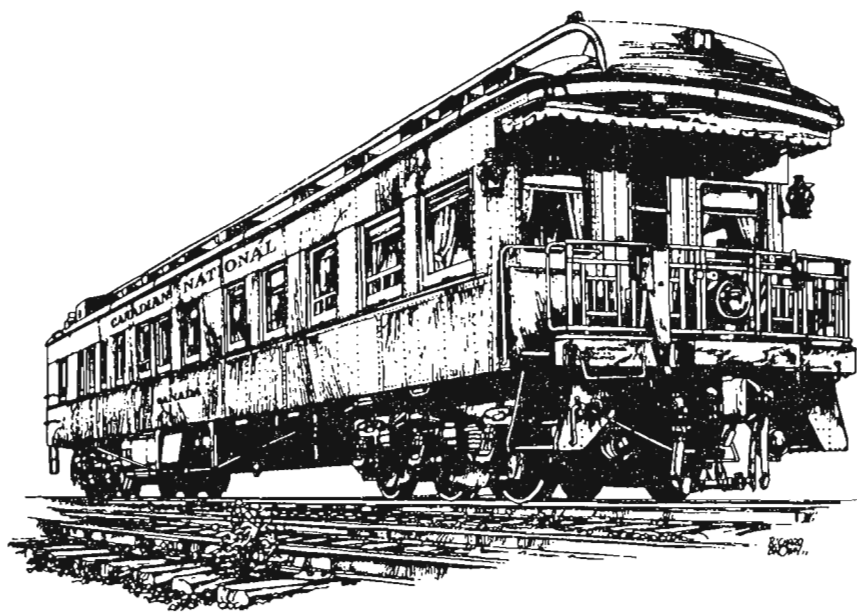
* Ex Midland Railway of Manitoba



Hydro Rail gives serious consideration to employee safety measures. The crew, before taking West Turn no. 1 out, have been invited to view a safety film in the yard office. Their assigned power, 3 S.D. 38's. no.'s. 382, 382 & 384 rests at the idle before coupling on for train departure to Huntingdon.



Fire has dealt a blow to the Westminster Rail bridge. It is necessary to reroute Hydro trains to and from Huntingdon. Picture shows Hydro engines 153, 911 & 151 and caboose A-2 June 17 82 crossing the Pitt River Bridge on C.P.'s main-line-- the Cascade sub.



The business car

THE HONOURABLE CLAUDE RICHMOND, Minister of Tourism/EXPO 86 for the Province of British Columbia announced today that EXPO 86 has awarded a \$10,580,000 contract to Von Roll-Habegger Ltd. for the construction of a 5.6 kilometre monorail system on the False Creek site.

The sleek trains will traverse the Expo site at an elevation of 5 metres, giving passengers a panoramic view of the more than 80 international and corporate pavilions, shops, theatres, and on-site festivities. At an average speed of 20 kilometres per hour, one complete circuit of the site will take twenty minutes. With six stations en route, Expo visitors will have easy access to the system itself and to the variety of attractions on the site.

The monorail has a capacity of 3,000 passengers per hour round trip. It is a quiet, completely automated, well proven system driven by electric motor. Each of the 10 trains carries a maximum of 100 passengers. In addition to the six stations on site, the monorail will connect with the ALRT system at the Stadium station, allowing guests to travel to the Canadian Pavilion on Burrard Inlet.

The trains, developed for EXPO 86, are a prototype with the coach design being exclusive to Expo. The aerodynamic design will make the monorail itself an exciting symbol of the transportation theme of the 1986 World Exposition.

In making the announcement, Richmond pointed out that the manufacture, assembly and erection

of the steel rail and supports will create some 40 new jobs in the Lower Mainland. Work begins within the next few weeks and is scheduled for completion in October 1985.

CLOSURE OF THE CHESSIE SYSTEM St.

Thomas backshops, and the subsequent transfer of locomotive maintenance to Cumberland Maryland on June 8th, 1984, has not only caused the lay-off of 12 Canadians but also the 'retirement' of the entire "Canadian motive power fleet. Presently stored servicable on the east lead to Southwold Yard (in St. Thomas, Ont.) are 2 SW9 (5240 & 5242); 1 SW1 (8401); 9 GP7 (5730, 5731, 5732, 5733, 5734, 5735, 5736, 5737, and partially cannibalized 5738); 3 EMD GP7 (5744, 5773, and 5781 - all long term 'naturalized Canadian' Geeps) -- 15 units in total. All are painted in Chessie System blue, yellow and vermilion. Replacing these units are Western Maryland (what else?) GP9 units 6400-6419 series. Not all of the complete group has yet been reported by railfans, but early summer sightings include 6400, 6402, 6404, 6408, 6410, 6413, 6417 and 6419. All are chopped-nosed, with a single-piece window, and all except 6404 and 6410 are in Chessie colours, sublettered WM. 6404 & 10 are still in red and white with the black speed lettering.
S. DON McQUEEN, LONDON

SOME OF THE MOST NOTABLE OLD MASONRY in western Canada supports 14,000-tonne trains and is not underpinned by preservation orders denoting historic interest.

But CP Rail is confident that its stone-arch bridges and culverts, stone bridge abutments and stone bridge piers in B.C., Alberta and Saskatchewan are robust enough to survive well into the next century.

Nicholas Chizik, assistant regional engineer of CP Rail's Pacific region, said there are about 100 masonry arches on the mainline between Swift Current, Sask., and Vancouver. There are hundreds of other masonry culverts and abutments to steel bridges.

The railway, which opened its mainline to Vancouver in 1886, ceased building in stone in 1910, switching to concrete and steel for all construction.

Initial bridge building was in wood, with the exception of a noted cast iron crossing of the Fraser River at Cisco, downstream of Lytton.

Chizik said that masonry replacements to original wooden structures have stood up remarkably well to the years of increasing traffic volumes.

The stone bridges, built chiefly of granite by European masons, show no sign of distress and the mortar appears in sound condition.

Mortar problems have been encountered on masonry abutments subject to water pressure, but the railway has developed a technique for injecting epoxy resin into unsound joints.

Masonry culverts present more of a problem because the height of the trackbed above the crown of the masonry arches has gone up with time as successive layers of fresh ballast have been applied.

Chizik said that this heightening of the track bed has spread the load over the full span of culverts, diminishing the technical efficiency of the supporting arches. There have been problems.

Near Yale, in the Fraser Canyon, CP Rail is completing a 25.9-metre steel bridge to replace a 3.6-metre masonry culvert over Gordon Creek. The cost of renewal is put at \$500,000.

Chizik said problems of water pressure and leaching of Mortar bonding shows up in masonry retaining walls, but inspection shows the problem is not serious.

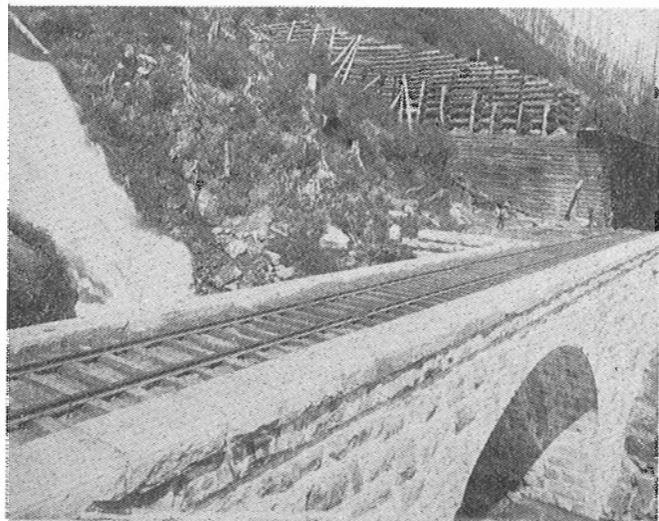
There is no adequate way of testing the strength of masonry arches apart from a destructive application of loads, which would be senseless. Computer modelling of load limits is not possible, Chizik said.

Railway bridges are usually awarded a Cooper's rating, after a set of standards developed by U.S. bridge engineer Theodore Cooper. Over time CP Rail has raised the Cooper's rating for its mainline

spans from E50 to E72.

No rating is awarded the masonry spans, though it is accepted that the real figure is in excess of E72.

Cooper was the consultant engineer for the first cantilever rail bridge over the St. Lawrence. Started in 1902 to a design by P.C. Szlapka, the south arm of the main span collapsed during construction in 1907, killing 80 men.



The cause of the disaster was a failed compression member which had visibly deflected well before the disaster. Inexplicably, Cooper did not answer initial warning messages; and when he did become alerted to the true situation, the signal for a stopwork order was fumbled. A subsequent Royal Commission found the bridge was inadequately engineered. Cooper, already an old man, died soon afterwards.

The most honored masonry span in North America is the eight-arch curving span of the Thomas Viaduct over Pappo Creek, at Relay, Md. Built in 1835 it is still in use.

The next ranking major viaduct is the 17-arch crossing of Starruco Creek, Penn., completed in 1843.

Said Chizik: "We don't know what the true rating of our stone bridges would be, but we are confident that they will last indefinitely, given adequate inspection and care".

The most viewed masonry arch on CP Rail's mainline through B.C. is not in use. It is a span near the eastern end of Rogers Pass in the Selkirk Mountains. Abandoned in 1910, when the railway opened its Connaught Tunnel below the pass, the bridge is viewable from the Trans-Canada Highway. Sitting high above the eastern portal to the tunnel, it used to carry the railway line over Cascade Creek.

Un peu d'histoire...

LE CHEMIN DE FER

Vers la fin des années 1870, Saint-Eustache connaît un essor économique grandissant dû, tant au dynamisme des marchands et des hommes d'affaires du village, qu'aux récoltes sans cesse croissantes des cultivateurs de la région. Cette situation fort appréciable de tous subissait une entrave bien difficile à surmonter à l'époque: les communications avec Montréal sont très pénibles. Il en résulte donc une difficulté d'approvisionnement pour les commerces locaux et des délais considérables dans l'acheminement des produits agricoles vers la métropole. De plus, toute personne désirant travailler à Montréal devait y séjourner la semaine durant. Suite à de nombreuses discussions sur le sujet, une compagnie se forme ayant comme objectif de relier Saint-Eustache à Sainte-Thérèse-de-Blainville par chemin de fer: «la Saint-Eustache Railway Company». Un dernier problème à régler pour relier Saint-Eustache à la ligne de chemin de fer Québec, Montréal, Ottawa et occidental: l'argent. Le conseil municipal du village de Saint-Eustache et la Corporation de la Paroisse de Saint-Eustache votent chacun un montant de 1 500 \$ pour l'achat du terrain nécessaire à l'installation du chemin de fer.

Ayant complété son mandat de construction d'une ligne de chemin de fer entre Saint-Eustache et Sainte-Thérèse, la Saint-Eustache Railway Company vend le tout en 1882 à la Compagnie de chemin de fer Canadien

Pacifique. Le service ferroviaire est inauguré le 26 juin 1882 et demeure en opération jusqu'au 27 avril 1940 soit, 58 ans.

En 1882, il fallait 45 minutes pour relier Saint-Eustache à Sainte-Thérèse alors qu'en 1940, 12 minutes suffisaient pour accomplir le même trajet. En passant, le train arrêta à la Montée du Chicot pour le besoin des passagers sur signal de ceux-ci seulement...

Durant ces nombreuses années, tous les citoyens de Saint-Eustache et des environs y trouvent leur compte. Les marchands généraux Paquin et Lahaie construisent de grands entrepôts à proximité de la gare. La circulation des biens nécessaires à la communauté en expansion s'effectue dans des délais raisonnables. Les cultivateurs acheminent leurs produits agricoles vers les grands marchés de Montréal. De nombreuses personnes se trouvent un emploi à Montréal et peuvent effectuer le trajet

matin et soir. Lors du terrible incendie de 1910 qui ravage une partie du village, cette situation est contrôlée surtout grâce aux sapeurs et à l'équipement du service des incendies de Montréal acheminés d'urgence à Saint-Eustache par train.

Le progrès aura toutefois raison de cette institution qui a si bien servi Saint-Eustache durant de nombreuses années. En effet, divers éléments se conjuguent pour mettre un terme à cette exploitation ferroviaire. Les routes donnant accès à Montréal se développent rapidement permettant le transport des marchandises et des denrées par camion. Les passagers pour la métropole découvrent l'autobus tandis que les irréductibles du train adoptent graduellement le chemin de fer du Canadien National à Deux-Montagnes. Faute de clients et d'usagers, le Canadien Pacifique met fin à son exploitation à Saint-Eustache en 1940.



THERE APPEARS TO BE SOME LIGHT AT THE end of the tunnel for commuters who use the rapidly deteriorating Montreal-Two-Mountains train line.

Although the oldest commuter line in North America urgently needs a facelift, Montreal Island politicians have done the next best thing. They've set up a committee to study how the work should be done.

The committee will include representatives from nine affected municipalities, including St. Laurent, Pierrefonds, Roxboro and Dollard des Ormeaux, and officials from the Montreal Urban Community (MUC), the Quebec Transport Department, Canadian National Railways and Bombardier Inc.

It will report to the MUC executive committee some time in 1986.

The West Island Mayors hope the MUC and the provincial and federal governments will finally be able to agree on a cost-sharing scheme for upgrading the line used daily by more than 12,000 commuters -- most of them from the West Island's north shore area.

Interviewers with mayors and transit officials indicate that Bombardier, the giant Quebec railway car manufacturer, is far ahead in the running for the lucrative contract.

"I think there's no question that Quebec wants the contract for Bombardier," said Roxboro Mayor William Boll.

"They have the expertise and the line would be used to showcase Quebec technology."

Quebec Transport Department officials would not comment. But Quebec has, in the past, favored the concept of an above-ground transit network for the island's north shore and east end.

The CNR Montreal-Two Mountains line, Quebec hopes, would link up with a new steel-wheeled Metro train line serving the east end.

Although Quebec and Ottawa signed an agreement in 1981 putting money aside for improvements, only parking lots at a few stations have been spruced up.

S. The Gazette.-Montreal

VIA RAIL CANADA INC. HAS EMBARKED on a program to acquire and operate most of the railway stations on main passenger lines across Canada, starting with a long-overdue \$3.5-million renovation of Toronto's historic Union Station.

The year-long renovation in Toronto will see the 57-year-old station get a facelift as water jets blast off years' of accumulated grime from its exterior facade. The great hall of the station is to be refurbished and repainted, and escalators are to be installed to aid the handicapped in reaching or leaving trains.

Eventually, Via wants to take control of all the Via Rail passenger-related operations at the station, as it pursues a program of acquiring other major stations across the country.

These stations will be purchased outright from, or operated under lease arrangements with, their current owners, Canadian National Railways and CP Rail of Montreal.

Via has already acquired historic Gare du Palais in Quebec City from CP Rail and is renovating it in a \$28-million program that will retain the station's architectural heritage features.

"This will put us right in Lower Town in Quebec City," said Alain Nantel, director of facilities acquisition. Via trains now stop at suburban Ste. Foy, Que. The program also calls for the laying of eight miles of new track to the station. In addition, bus operators will be invited to use the station as part of an intermodal service.

Via has completed the restoration of the Levis, Que., station as an intermodal transportation centre after acquiring it under lease from CN. The station serves as a terminal for local bus services and the ferries that cross the St. Lawrence River to Quebec City.

"We hope that other communities across the country will take note of these intermodal operations centred on downtown rail stations, which can also serve as local and long-distance bus terminals."

The rail passenger agency is building a new station in Sudbury, located 2,000 feet from the old CP station. It will also acquire stations in Winnipeg, Regina, Calgary, Vancouver, and Halifax in a step-by-step program.

The acquisition of the rail passenger-related operations at Union Station in Toronto and Central Station in Montreal will come later. Union Station is jointly owned by two railways. Central Station is owned by CN. But the railways still have offices and lucrative concessions in these structures.

Nor are there immediate plans to acquire Union Station in Ottawa, also jointly owned by the railways. It is comparatively new by the historical standards of the other stations to be acquired and it fits Via's present requirements.

It was the desire to improve the appearance of the stations, to make them more attractive to passengers and help lure more traffic to passenger trains, that provided the impulse behind Via's program.

The stations are still owned by the railways, but because the railways are no longer in the passenger business, it has not been in their interest to upgrade them. As a result, many have gone to seed and are downright shabby.

Mr. Nantel said the stations are part of some unresolved business that goes back to 1977, when Via Rail received its Government mandate to operate rail passenger services in Canada.

Via Rail got the rolling stock but the matter of the stations was left up in the air. Via has been making a lump sum rental payment for their use.

In its arguments for obtaining control of the stations, Via has noted that they are the first and last contact a passenger has with its services. It contends that the more attractive and comfortable these points of contact can be made, the more the passenger will be satisfied with those services.

Therefore, Via wants "full and complete control. We want to improve our station services by making them more attractive and efficient in areas of ticketing, baggage handling and in providing additional services, such as tourist information. And we also want local community participation in these programs.

"We have found that communities have a strong attachment to their local station and we hope to be able to persuade communities to take part and share in their operation through the provision of some community services.

"As for the future, we are in the process of completing negotiations with CP to acquire their station in Trois Rivieres, Que. We hope to begin discussions soon on acquiring the station in Halifax, and we are nearing completion of negotiations for sale of its station to us at Winnipeg."

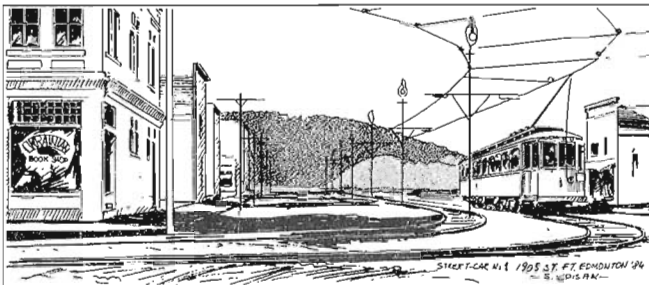
Agreement will soon be concluded on obtaining the station in Regina from CP, while Via is also negotiating to relocate the CP station in Calgary

to a nearby federally owned building that will better suit its purpose. It is also negotiating a lease with CN to operate its station in Vancouver.

The Vancouver station is expected to become part of a transportation complex centred on the station area. It is adjacent to the planned terminal of the Advanced Light Rapid Transit line being built for Vancouver's Expo 86.

S. GLOBE & MAIL -Toronto

75 YEARS, 7 MONTHS AND 9 DAYS AFTER it first ran in the City, Car No. 1 restored regular streetcar service to Edmonton. A sister to Car No. 2, which made the inaugural run, Car No. 1 was built by the Ottawa Car Co. in 1908 and ran until the system closed in 1951 with its final run over the High Level Bridge in September, a of more than 1 1/2 million miles.



Languishing behind Cromdale barn for more than a decade, No. 1 was ravished by vandals until efforts of the Rocky Mountain division of the Canadian Railroad Historical Association resulted in partial restoration and a moment of glory (or ignominy!) as she was towed on rubber wheels behind a tractor in the Confederation Parade in July, 1964. The City of Edmonton's 75th Anniversary saw No. 1 restored to operating condition and run across the High Level Bridge from October 4-6, 1979 on C.P.R. tracks by a small group of enthusiasts, mainly from Edmonton Transit, who later formed the Edmonton Radial Railway Society.

After being moved to Fort Edmonton Park in 1981, No. 1 was operated over the steam railway, towing a mobile generator until her mechanical condition made further operation impossible.

S. EDMONTON TRANSIT

THE BRE-LEYLAND RAILBUS, AN INNOVATIVE passenger rail vehicle, designed to improve city and suburban transportation made its North American debut in Newport, Rhode Island, USA, on 18 July 1984.

British built, the new vehicle is a bus body mounted on a railway vehicle undercarriage and



runs on railway tracks. It has already proven to be a highly cost-effective form of passenger transportation in demonstrations; and is in full operational service in England, Ireland, Denmark and Thailand.

The Railbus is a joint project of two British companies - British Rail Engineering Limited (BREL), of Derby, in the heart of England, and Leyland Bus of Workington.

"We are convinced that this new and exciting concept in rail travel has an important place in suburban railroads in the United States and throughout the world," said James Urquhart, Chairman of British Rail Engineering, in announcing plans for the US demonstrations of Railbus. "Rugged test programmes have proved that the Railbus has outstanding reliability, durability, operational efficiency and passenger acceptability."

On 18 July 1984, Government and public officials, transportation experts, and business leaders were on hand for special ceremonies in Newport for three months, carrying commuter and holiday passengers between Newport and nearby points along the track of the Old Colony and Newport Railway. In October, it will be moved to Washington for its US exhibition debut at the American Public Transit Association Conference at the Washington Convention Center.

The Railbus taken to the USA was a single-car "premium series" version powered by a single diesel engine. It can be supplied, however, as a single, double or multiple-unit vehicle depending on customer requirements. A wide range of customer options includes air conditioning, high-impact glass, and toilet facilities. The Railbus is a bi-directional vehicle, with a driving cab at each end. Its maximum speed is 75 miles per hour and excellent fuel economy allows it to travel over 7 miles on one gallon of fuel.

Mr. Urquhart points out that BRE-Leyland is pursuing a "try and buy" marketing policy that allows rail operators the opportunity to put the Railbus into fare-paying passenger service on a trial basis so that they can evaluate its full potential before making a commitment to buy.

Designed to the highest standards of British Rail specifications, the Railbus combines the latest in British Rail Engineering suspension technology with quality Leyland bus body construction. The pioneering vehicle is the product of four years of research and development.

According to Mr Urquhart, more than 20 countries are currently showing keen interest in the cost-cutting commuter Railbus. British Rail is currently operating 40 Railbuses in fare-paying passenger services and has ordered 150 additional Railbuses.

In order to assist sales of Railbus in America, BREL and Leyland have formed a new company called BRE-Leyland Inc. Additionally for sales of other BREL products a new company called BRE Inc has been formed.

THE OLD CANADIAN PACIFIC (CP) TRAIN station at Dorval is open no more — operator Jean-Pierre Chartrand closed the building's doors for the last time Friday, ending 98 years of history for commuters and railway buffs.

The station, built in 1887, will eventually be torn down. To replace it, an integrated bus-train station and parking area is expected to be constructed west of Dorval Circle.

Chartrand, the station operator since 1978, said Dorval commuters will now have to brave the elements while waiting for the trains to rumble in.

"I would open up at 6:15 in the morning," he said. "On very cold mornings I would sometimes have many people in here. They'll have to wait outside now.

"I guess they won't be very happy."

Dorval Mayor Peter Yeomans said it is "unfortunate" the building is being closed in the "dead of winter" and added it had to be done at the beginning of the year for CP's 1985 budget.

The mayor said commuters will still be able to use shelters at the station.

Chartrand, 42, said the station has built a reputation among railway buffs as being one of the best locations for taking photographs of locomotives.

He said he has had train enthusiasts from as far away as Germany, Ireland and England stop at the station to view passing trains.

And he said the station has become popular with "rail fans" from the United States, particularly those from New York, New Jersey and Pennsylvania who frequently come to Montreal for long weekends to watch trains.

Chartrand said the Dorval location is one of the best for train buffs because two railways — CP and Via Rail — travel past the station.

"Dorval has two different railways and the people get a chance to see a lot of different equipment," he observed. "For example, the engines Via uses are no longer used in the States."

Chartrand said the foreign enthusiasts will have to make-do without his company in the future.

"I would make them feel welcome whenever they came here," he said. "I got to meet a lot of people. Someone last year sent me back some pictures and slides I'm sure will be collectors' items.

"People in the States were passing the word that this was the place to come," he said. "It was getting a good reputation — it's really too bad it has to close."

As operator at Dorval, it was Chartrand's job to examine passing trains for problems which mechanical checking devices might miss, such as overheating, shifting loads and dragging parts.

That job now will be done by the switcher at Beaconsfield Station. Another operator is stationed along the CP line in Vaudreuil.

"I was the first checkpoint for trains as they came out of the yards," he said. "Now they'll be checked about five miles farther down the track."



If something should happen at Dorval, someone will have to be sent out to fix the problem, he said.

Chartrand stated the operator's job will probably not resurface at Dorval when the new integrated station is built because a fence would divide the

two tracks and the operator often has to give orders on both sides of the line.

Chartrand has been assigned to another station in Montreal.

S. NEWS AND CHRONICLE -Montreal
(Ed J.P. Chartrand is a member and former Director of the CRHA.)

**VIA RAIL:
EQUIPMENT COMPARISON, JANUARY 1981 versus JUNE 1984.**

Series	Classification	Inventory		
		1981	1984	Difference
1400-1432	Locomotives	17	0	-17
1898-1899	Locomotives	2	0	-2
1961-1965	Locomotives	5	0	-5
6300-6306	Locomotives (remanufactured)	0	7	+7
6501-6871	Locomotives	123	109	-14
6900-6920	LRC Locomotives (Note 1)	0	21	+21
8558	Locomotive	1	0	-1
TOTAL		148	137	-11
15205	Battery Charger	1	1	0
15300-15302	Electric Generator	3	3	0
15400-15495	Steam Generator	87	67	-20
TOTAL		108	64	-44
600-617	Baggage	16	15	-1
2416-2449	Baggage Express	4	0	-4
7169-7360	Baggage/Coach	7	4	-3
9300's	Baggage/Coach (remanufactured)	0	4	+4
9475-9488	Baggage/Dormitory	14	10	-4
9600-9674	Baggage	67	31	-36
TOTAL		108	64	-44
100-129	Coach	29	28	-1
321-376	Turbo Equipment	27	0	-27
300	Cafe/Bar/Lounge	27	0	-27
301-304	Coach-Champlain	4	0	-4
321-376	Tempo Equipment	25	25	0
425-435	Dinette	11	0	-11
500-517	Sky-Dome/Coach	18	17	-1
573-578	Buffet/Club/Lounge	6	0	-6
650-663	Club Galley	14	12	-2
750-765	Cafe Lounge	16	16	0
898-899	Diner/Bar/Lounge	2	0	-2
1082-1089	2 DBR2Cpmt. Buffet/Lounge	2	0	-2
1090-1099	7Cpt/Bufet/Lounge	2	3	+1
1100-1105	5-3 Sleeper (Mount)	6	0	-6
1110-1161	4-8-4 Sleeper (E)	52	51	-1
1162-1195	6-6-4 Sleeper (Green)	25	18	-7
1337-1378	Diner	33	22	-11
1700-1701	4-4-5-1 Sleeper	2	0	-2
2000-2019	24 Roomettes (I)	13	0	-13
2022-2027	10-5 Roomettes (Bay)	6	6	0
2075-2094	10-6 Sleeper (River)	15	0	-15
2095-2106	14-4 Roomette (Falls)	8	0	-8
2125-2149	10-6 Roomettes (River)	15	6	-9
2239-2293	First Class Coach	15	0	-15
2300-2325	Club Lounge	19	2	-17
2500-2514	Cafe Bar Lounge	15	7	-8
2700-2705	Sceneramic	6	0	-6
3024-3039	Cafe/Coach/Lounge	9	8	-1
3200-3253	Cafe Coach	8	54	+46
3300-3349	LRC Coaches (Note 2)	0	50	+50
4486-4888	Coach EM	3	9	+6
5180-5436	Coach (Ice AC)	111	2	-109
5437-5654	Coach EM	141	96	-45
14201-14229	4-8-3-1 Sleeper (Chat)	29	29	0
14301-14342	4-4-5-1 Sleeper (Manor)	42	42	0
15501-15518	Sleeper (Dome) Park obs.	17	17	0
16501-16518	Diner	18	15	-3
TOTAL		818	577	-241

6000-6006	Railiners-trailing	7	+7
6100-6147	Railiners-coach	47	+47
6200-6351	Railiners-coach/baggage	24	+24
9250-9251	Railiners (stored)	2	+2
6000-6475	Railiner equipment	69	-69
9020-9309	Railiner equipment	17	-17
TOTAL		86	-8

NOTE 1: LRC locomotives will be increased during 1984 by 10.
NOTE 2: LRC coaches will be increased during 1984 by 50.

Data analysis and tabulation performed by Transport 2000 Canada (Alberta).

—THE FIRST OF A NEW CLASS OF SUPER-POWER locomotives is putting in 11-hour days slogging back and forth over a 3.2 kilometre section of mountain railway in northeastern B.C.

The locomotive hauls a computer-packed test car and three diesel-electric locomotives with their traction motors turning.

It's just the same as hauling 30 railway cars as BCR's new 6,000-horsepower electric locomotive proves its power capabilities on the new \$500 million crossing of the Rocky Mountains.

BCR's Tumber Ridge branchline, built to serve two new coal mines, has been operating with diesel-electric locomotives since completion of the line last November.

But seven of the super-power electric units, each costing \$2.5 million, take over the run in April.

The first - locomotive 6001 for train buffs - has been under test almost continuously since November to ensure optimum setting of its electronic controls.

Behind it is North America's most sophisticated railway test car with onboard computers monitoring what's going on, including such erudite bits of information as the elasticity in the solid-forged steel axles of the locomotive.

Testing of 6001 will continue until March 25. The locomotive makes two runs an hour up a test section of line in the Wolverine River Valley, to the east of tunnels piercing the continental divide.

Modifications made to the circuit boards of the unit are incorporated into the other electrics.

No. 6001 and its sisters are claimed by General Motors to be the first of a world-class of heavyweight electrics designed for slow-speed service.

BCR's locomotives will have to haul 98 car trains at 56 km/h up a 1.2 per cent grade to summit at 359 metres and then roll gently downhill to a junction point with BCR's existing line between Prince George and Chetwynd.

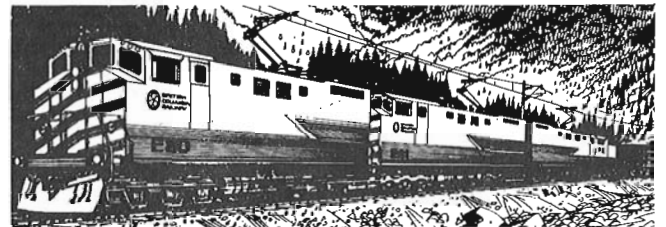
The traction motors are so heavily geared down that towing the locomotives faster than 104 km/h could cause machinery to fly apart.

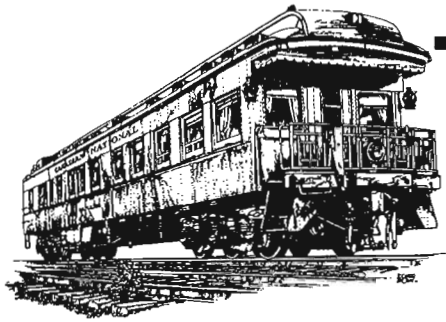
GM Canada is using a new \$1 million test car owned by its U.S. parent to monitor the performance of 6001.

GM staff project engineer Charles Logston said in an interview that there is nothing magical about electric power.

"Typically, A North American diesel can apply only 18 per cent of its weight as drawbar pull without the wheels slipping. We have matched 6,000 horsepower with a sophisticated system of wheel slip control which gives us better utilization of available power. Four electrics can do the work of six diesels."

S. THE PROVINCE



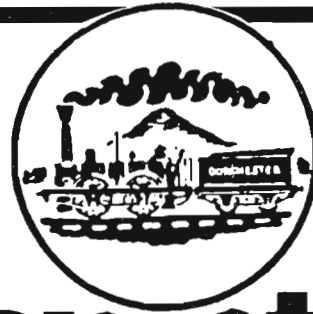


The business car

Special thanks to our contributors this month:

- Norris Adams
- Mervyn Green
- Fred Angus
Lon Marsh
CP Rail News
- Keeping Track
- CN Movin
- Expo 86
- Various other sources as credited

C.R.H.A. communications



NEWS FROM THE DIVISIONS

Pacific Coast Division

Restoration work on steam locomotive 473 was slow during the summer of 1984 but picked up during the fall. Some members have also been working on the restoration of Fraser Mills Station at Blue Mountain Park in Coquitlam. Roof repairs are completed and some painting has been done. Work has progressed sufficiently on the station to permit the Division to move its archival material into the building.

Calgary & Southwestern Division

The third annual "Great Cranbrook Caper" was held during the 1984 Labour Day weekend. The '84 Caper included a Saturday dinner in the solarium car "River Rouge". Some members then slept in the business car no. 19. The following morning the group visited the CP Rail facilities which included a tour of the roundhouse, the rip track, the auxiliary train and a view of SD40-2 no. 5648 being turned for them.

At Fort Steele, the park personnel opened up their stored equipment which included the four-

wheel parlour car which formerly was the private property of the Duke of Sutherland. Their little 0-4-4 tank engine was steamed up and it hauled a single ex-British Railways Mark 1 Coach.

The usual meals and socializing followed back on board the 1929 Trans Canada Limited. Everyone enjoyed the Caper and plans call for another in 1985!

Grand River Division

The Grand River Division was formed from a nucleus of Cambridge and area rail enthusiasts some four years ago as an organization dedicated to establishing a rail museum in this area. In our first years, we were content to remain as a social group holding monthly meetings, but late in 1982, a commitment was made to move the former CPR Guelph station to the south end of Galt-Cambridge and we were suddenly thrust into the museum business! Said station is indeed on our new site, albeit in a few thousand pieces, but action resumed last Spring to complete the reconstruction.

We have an ex Department of Transport business car on site, car D-100 which once graced the 1939 Royal Train and have also, a varied collection of rail artifacts which should create a most adequate display in the newly opened museum. Moves are also afoot to acquire other rolling stock, in-

cluding locomotives about which more can be said at a later date. In addition, we are hoping to gain use of a small portion of a disused CNR branchline on our site with hopes for a wider expansion in the future.

The area surrounding Cambridge has always been rich in rail interest and tradition. We have been developing a Division newsletter we call the "Drawbar" (presently issued quarterly) over the past year; and it is hoped that in the future this can convey some of this history and also, present rail happenings. Our membership is obviously strongest in local representation, but we have members from much farther afield, indeed, across North America. Our annual dues are ten dollars for an individual and fifteen for family.

We invite rail enthusiasts from any area to participate and contribute to our projects. We can be reached at PO Box 603, Cambridge, Ontario, N1R 5W1.

Thanks to Rick Mannen, G. R. Division Editor, For This Info.

ROYAL HUDSON 1985 VANVOUVER B.C.

Beginning Saturday, May 18th, the Royal Hudson will operate five days per week - Wednesday through Sunday - to the final excursion on Sunday, September 15th. The Royal Hudson will also operate on the following holiday Mondays:

May 20; July 1; August 5; September 2

Royal Hudson/Return excursion fares for 1985 are as follows:

Adults:	\$14.00
Seniors (65 plus)	\$10.00
Youths (12-18)	\$10.00
Children (2-11)	\$8.00

Bonus: In the months of May and June we're offering special Royal Hudson/return group rates (minimum 25 people per group) of:

Adults:	\$12.00	Seniors/ Youths:
Children:	\$7.00	\$8.00

The spectacular Royal Hudson/MV Britannia Combination trips (Train-Boat and Boat-Train) will operate as follows:

Royal Hudson/MV Britannia fares for 1985 are:

Adults:	\$34.00
Seniors (65 plus)	\$26.00
Youths (12-18)	\$26.00
Children (5-11)	\$17.00

Departure times are as follows:

Royal Hudson departs B.C. Railway (1311 West 1st Street, North Vancouver) at 10:30 a.m.

The MV Britannia departs Harbour Ferries North (foot of Denman Street, Vancouver) at 9:30 a.m.

The Royal Hudson returns to the station at 3:55 p.m.; the MV Britannia returns to Harbour Ferries at 4:30 p.m.

Toronto & York Division

Restoration work on ex-CP business car no. 23 progressed well during the summer of 1984. The Division obtained the assistance of 3 students hired under the "Career Orientated Student Employment Program". Some of the work performed included removal of damaged wood interior; removal of paint from the rear railing; and the removal of brass car strips for refinishing. The roof was repaired and the car's exterior repainted.

Anyone interested in visiting the Division's museum during 1985 should contact either Joel Rice. (252-8570) or Gord Billingham (776-0696).

Thanks to H. Lowry, T&Y Division for this info.

Bytown Railway Society:

The 1985 Trackside Guide will be available in mid-February 1985 and is expanded again. Now included with updated listings of 84 edition will be Sperry Rail Detection Equipment and Preserved Canadian Locomotives and Transit Equipment (referred to as "stuffed and mounted" by the Guide's editorial staff.) At the time this is being written, efforts are being made to get a complete listing of Speno Rail Grinding Equipment as well. This may or may not appear in the 1985 Guide.

Copies will be available at \$9.75 postage paid by writing the Society at Dept C, P.O. Box 141, Station A, Ottawa, Ont. K1N 8V1. Copies of "1201 - 40 Years Old and Still Going Strong" are still available at \$6.00 postage paid. Both books may be ordered together at \$14.50 postage paid.

LETTERS

K.D. Moir, Secretary, Transport 2000 - British Columbia writes to advise that the B.C. group has been registered under the Society Act in the province and they are looking for new members. Anyone interested should write to him at 4063 St. Georges Ave., North Vancouver B.C. V7N 1W7 or call him at 604 - 987-5336.

Alice Macredie of Moose Jaw Sask. writes: Ever since I became a member of the Canadian Railroad Historical Association; 1975-76. I have been looking forward to visiting the railway museum (Delson). I was anxious to see the Hays Building, the reception area and archival storage area. I was duly impressed to see the huge Van Horne desk along with many photos, when we first entered this fine old station building.

The Model Railway setup there was about the biggest one I have ever seen; and I was most taken with the efficiency of its multiple operation and the work that goes into creating such a display. The summer students on duty showed great enthusiasm in taking us by the tramway to the large building containing the locomotive and passenger car display. The size of this display is impressive and I'd forgotten how enormous some of the steam locomotives were. I was most conscious of the grandeur and magnificence of the Royal Hudson as we walked alongside it and similar giants on the other side of us. Jim Patterson is a good guide and his wife Marion also knows quite a lot about railway equipment. I felt privileged to have this Magazine & Membership Services man for CRHA taking time to see that a member from Saskatchewan would be able to see the Museum properly.* I was also impressed with the large quantity and the quality of other equipment, passenger cars, business cars, cabooses, freight cars, a rotary snowplow, early diesel equipment, etc. as well as the area of streetcar and equipment interurban cars.

* * NOTE: The writer had corresponded with Jim Patterson, our "Membership Services Man". Jim with his wife Marion took time to provide transportation to and from the museum and to guide her through the museum.

BACK COVER:

Engines 381, 151 and 152 of the B.C. Hydro Railway pulling West Turn No. 1, the "Valley Freight" up the long incline of Scott Hill after leaving South Westminster. Note all the safety measures - whistle indication sign, flashing lights and locomotive ditch lights. This is the old B.C. Electric interurban right-of-way where, in days gone by, one could see trains of fast, heavy interurban cars bound for Chilliwack.

SWITCH LIST

- 84- Daniel Marnell, 6256 Camino Largo, San Diego Ca 92120 U.S.A. would like to purchase out-of-print or little known texts relating to Canadian Railway History. All letters will be answered. Please state the title, condition and price of the material.
- 84- Juan Silva, S. del Carril, 1880, 3000, Santa Fé Argentina is looking for information concerning thrasher equipment manufactured by the Waterloo Manufacturing Company in Waterloo Ont. He is interested in copies of catalogues or publications concerning this equipment. Mr. Silva at one time operated one of these thrashers on a farm. He also has worked as a locomotive engineer on the Argentine Santa Fé Railway.

CANADIAN RAILWAY MUSEUM

June 15, 1985 will be members day at the Canadian Railway Museum. The museum will feature special train operation, special equipment displays not normally available for photography and other surprises too. Keep this date in mind and plan to join us for members day 1985 at St. Constant P.Q.

GORDON SMALL

Just before this issue went to press we learned of the death of Gordon Small at the Glasgow Western Infirmary in Scotland on December 18 1984. C.R.H.A. members will remember Mr. Small as the designer of the locomotive "JOHN MOLSON" now at the Canadian Railway Museum. Mr. Small's work in drawing the plans for this locomotive of the 1840 period will always be greatly appreciated. Our sympathies go to his wife Lena and to his many friends.

Canadian Rail

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