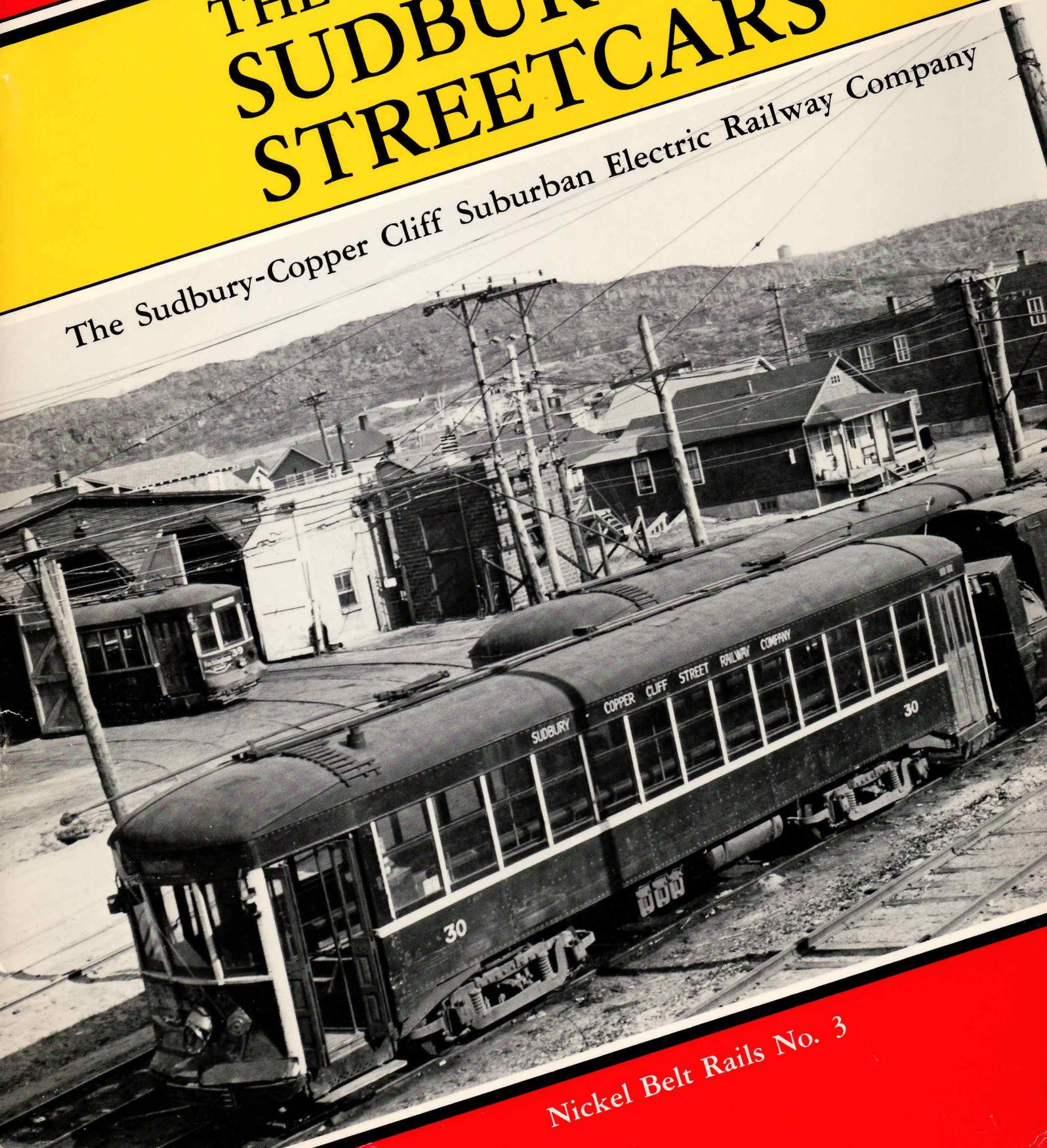


John D. Knowles
and Nickel Belt Rails

THE SUDBURY STREETCARS

The Sudbury-Copper Cliff Suburban Electric Railway Company



Nickel Belt Rails No. 3

THE SUDBURY STREETCARS

The Sudbury-Copper Cliff
Suburban Electric Railway Company



John D. Knowles
and Nickel Belt Rails

Nickel Belt Rails

Publishers
Sudbury, Fredericton

Introduction and Acknowledgements

First Edition

©Published in Canada by
Nickel Belt Rails
Publishers
Sudbury, Fredericton

First Printing, July 1983

ISBN 0-920356-03-6

Mailing address for all correspondence and business:

Nickel Belt Rails
P.O. Box 483, Station "B"
Sudbury Ontario Canada
P3E 4P6

Nickel Belt Rails is a registered partnership under the laws of the Province of Ontario, Canada.

This book is copyrighted. No portion of it may be reproduced by any process without written permission. All inquiries should be addressed to the publishers.

Typesetting, printing and binding by Unipress Ltd., Fredericton, New Brunswick, Canada.

To help Sudbury mark its Centennial in 1983, Nickel Belt Rails Publishing is proud to present this look at the Sudbury-Copper Cliff Suburban Electric Railway.

Almost all of the text that follows was written by John D. Knowles and published by the Upper Canada Railway Society of Toronto in 1952. Some of the photos found here were included in the original publication while others have been located quite recently. Special thanks are due to W. C. Bailey, Robert S. Brown and Frank E. Butts for sharing their photo collections.

The brief comment on extensions proposed for the SCCSER has been provided by Nickel Belt Rails.

Mr. Knowles and Nickel Belt Rails would like to acknowledge the contributions made by the following:

People

William C. Bailey (UCRS); Bob Boudignon; Bob Brown (UCRS); Frank Butts; W. H. Coe; Charles Dixon (former Superintendent of the SCCSER); Joe Henri (formerly with the SCCSER); Ed Massie (former General Superintendent of the SCCSER); Gary Peck; C. P. Randall (UCRS); Stuart Westland (UCRS); Helen Wigham; Donald E. Wood.

Publications

Canadian Railway & Marine World

Newman, Peter C. *The Canadian Establishment, Volume 1*. Toronto:

Seal Books, McClelland & Stewart-Bantam Limited, 1979.

The Sudbury Star

UCRS Bulletin 34

Jack Knowles should be complimented on his courage in putting this text in the hands of relative strangers. Nickel Belt Rails takes full responsibility for any errors or omissions.

For those interested in further rail information, these two addresses may be of interest:

Upper Canada Railway Society
P.O. Box 122, Station "A"
Toronto Ontario Canada
M5W 1A2

Nickel Belt Rails
P.O. Box 483, Station "B"
Sudbury Ontario Canada
P3E 4P6

Gordon D. Jomini
Dale Wilson
Nickel Belt Rails
April, 1983

(Facing:) It's the summer of 1948 and two streetcars are westbound on Elm. The lead car is approaching the Elgin Street intersection. Many aspects of downtown Sudbury have changed over the years since this photograph was exposed, and a newcomer will have trouble recognizing the scene, quite apart from the street railway. The photograph was likely taken from the top of the Nickel Range Hotel, which, like the railway and the old post office (with clock tower), is now gone.

(Title page:) Numbers 30 and 31 transferring passengers at the junction of the smelter and refinery lines. No. 30 is running as a shuttle between the refinery and this junction; No. 31 is headed towards Sudbury.



Balmoral
HOTEL

HOTEL
FRONTENAC

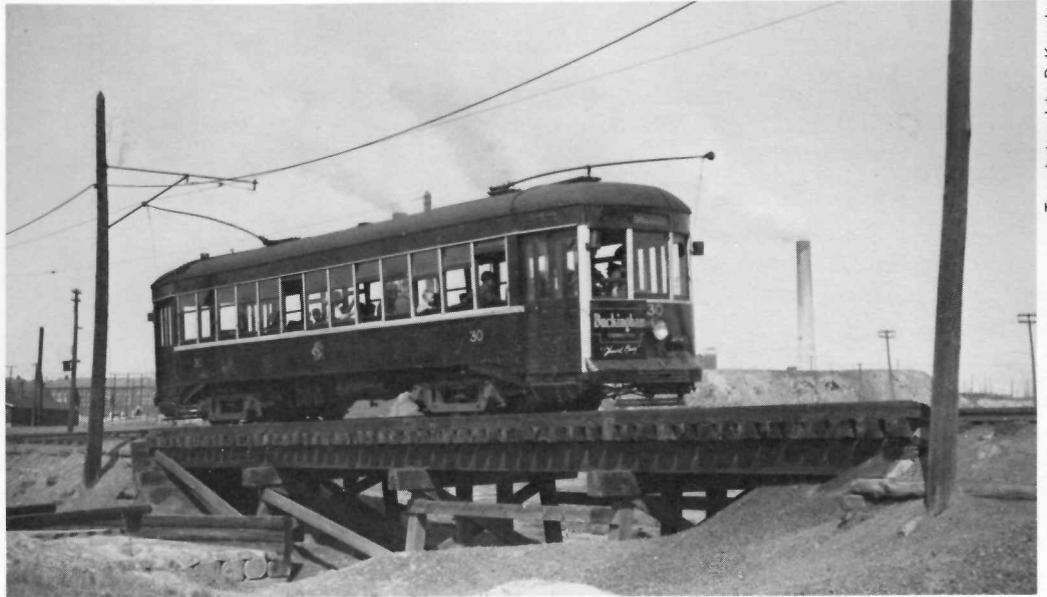
BALMORAL
CAFE

Balmoral
HOTEL

SCHWARTZ

A. FOURNIER
LIMITED
REAL ESTATE
BUILDING LOANS

THE SUDBURY STREETCARS



Two photos: John D. Knowles

No. 30 departing Copper Cliff terminal for Sudbury, 17 August 1947.

Nos. 30 and 39 eastbound at Elm and Durham Streets.



Courtesy: Frank Davis

Contents

| | | | |
|--|-------|-----------------------------|-----------------|
| The Sudbury - Copper Cliff Suburban Electric Railway Company | 7 | Car 10 | 16 |
| Extensions | 15 | Car 29 | 18 |
| Roster | 16 | Car 30 | 18 & 19 |
| | | Car 31 | 20 & 21 |
| | | Car 32 | 20 |
| | | Car 33 | 22 |
| | | Car 34 | 24 |
| | | Car 36 | 26 |
| | | Car 37 | 27 |
| | | Car 38 | 28 & 29 |
| | | Car 39 | 28 |
| | | Plow/Sweeper/Line car | 30 & 31 |
| | | Rotary | 30 & 31 |
| Original Schedule | 8 | | |
| Transfer | 10 | | |
| Maps | 6 & 9 | Tickets | 10, 12, 14 & 15 |

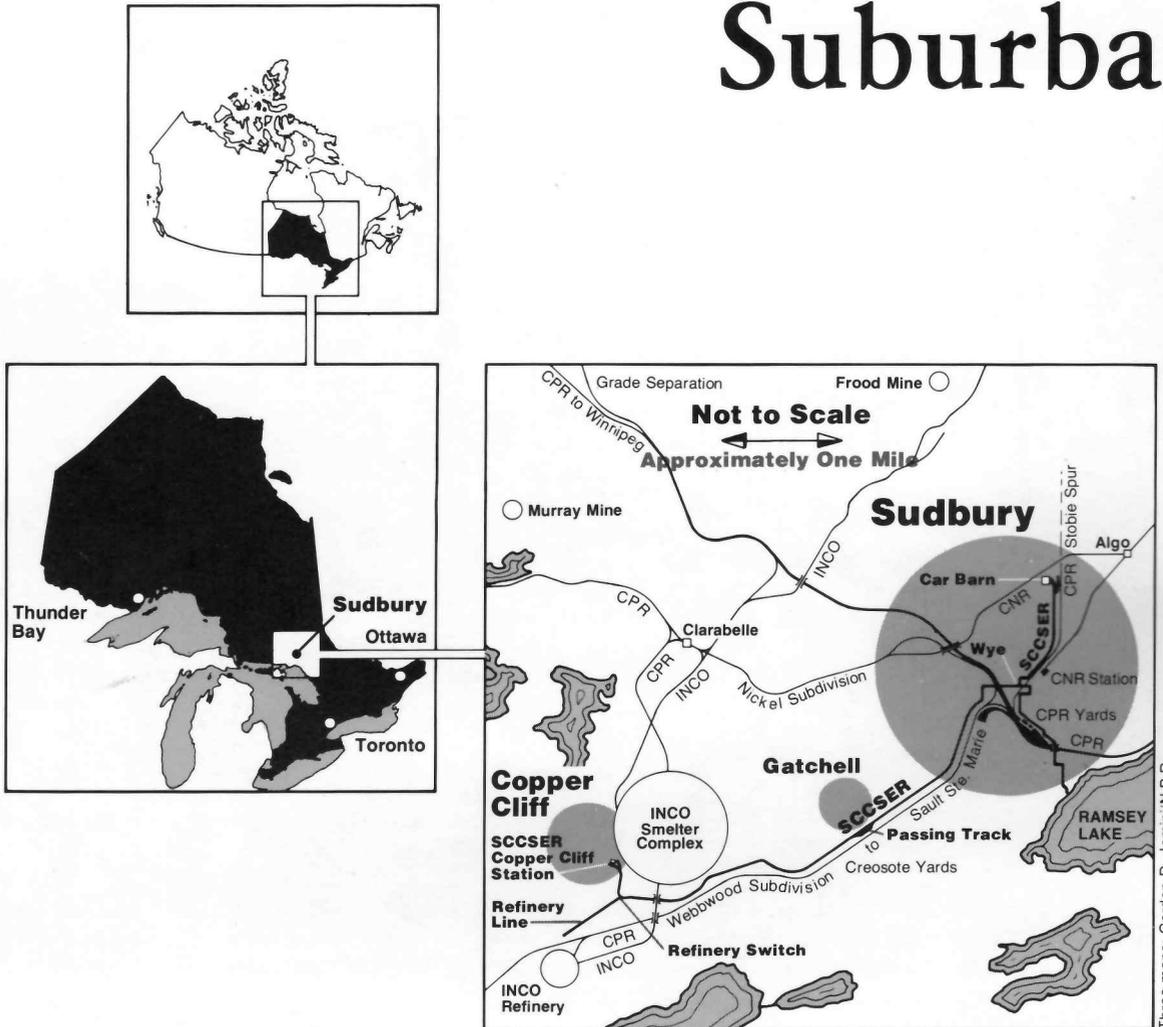


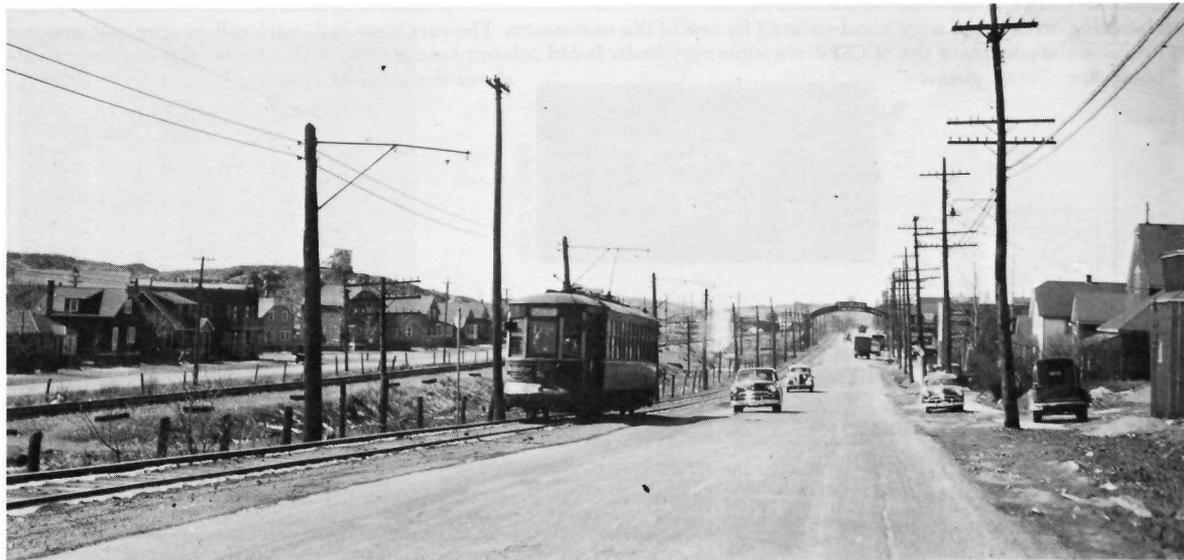
An unidentified car heads along Notre Dame Avenue, across from Sacred Heart College, towards downtown Sudbury. The flour mill silos can be seen in the background. 3 August 1949.

THE SUDBURY STREETCARS

Car 38 is eastbound on Lorne, having just passed under Sudbury's welcoming arch, which, along with the streetcar right of way, has long since fallen victim to road widening. These arches were once fairly common at northern Ontario city limits. 16 April 1949.

Suburban





Courtesy Bob Brown

The Sudbury-Copper Cliff Electric Railway Company

John D. Knowles

THE city of Sudbury is the largest community in the great mining region of northern Ontario [Canada]. It is situated about 250 miles northwest of Toronto and presents the typical mining town anomaly, although on a larger scale — a bustling community sitting in the middle of the wild, rocky and virtually unpopulated expanse of the Canadian Shield. From the immediate region comes a significant portion of the world's production of nickel; considerable copper, some gold and a variety of other minerals are also produced in the area. Sudbury, on the transcontinental line of the CPR, was incorporated in 1893 and grew over the years to a population of almost 90,000.

The Sudbury, Copper Cliff & Creighton Electric Railway was incorporated in 1903 with powers to build several trolley routes in the district. While this company did some preliminary work, it was not until nine years later that a street railway company was organized which was to reach complete fruition.

This was the Sudbury-Copper Cliff Suburban Electric Railway Company, which was incorporated in 1912 with powers to build several lines radiating from Sudbury. A franchise for the proposed line was granted by the Sudbury Town Council on August 25, 1912.

The road was financed by several prominent Sudbury men, but received considerable technical assistance from the Mackenzie and Mann interests, probably because the completed line would provide Mackenzie and Mann's Canadian Northern Railway with a connection to Copper Cliff independent of the Canadian Pacific Railway.

Active planning commenced first on the line from Elizabeth and John Streets, near Ramsey Lake, through Sudbury to Copper Cliff. In downtown Sudbury the proposed route circled three sides of one block via Cedar, Lisgar and Elm Streets, supposedly to pass a liquor store owned by one of the railway promoters, who planned to have the Copper Cliff cars unload their crowds of workmen in front of his place of business. Although that may have been a factor in line location, this around-the-block tactic allowed a way to be built into regular trackage that avoided any more than one diamond crossing of the CPR's Stobie Spur line. The line towards Copper Cliff was to be placed on a roadside right of way between the Canadian Pacific's Sault branch and the Copper Cliff road, following the latter where the two diverge. A circuitous route was adopted approaching Copper Cliff in order to avoid crossing the Canadian Copper Company's land, where slag dumping operations might

The logos, numbers and lettering on the cars were hand-painted by one of the motormen. The cars were red, with yellow trim and maroon doors. All that exists to preserve the colours of the SCCSER are some very badly faded colour photographs. The colours on the covers of this book are "best guesses"



John D. Knowles

eventually have necessitated relocation of the track.

Construction commenced in 1914, the Mayor of Sudbury turning the first sod on May 30th of that year. During the first year nearly half a mile of track was placed in Sudbury in conjunction with the Town's paving program, and grading was completed to Copper Cliff. In 1915 the track was completed, using 80 lb. "T" rail purchased at \$27.50 per ton. The route was single track throughout, as were the other routes built subsequently.

Arrangements were made to purchase power from the Wanipitei Power Company at 2300 volts, three phase, 60 cycle A.C. A permanent substation was not built at the time, as its location and capacity would be governed by the number and layout of the routes eventually built. Instead, space was leased in the municipal pumping station and electric light plant at Ramsey Lake, where a 300 k.w., 550/600 volt compound wound D.C. generator was installed.

The promotor's early plans for rolling stock called for purchase of a package freight car, a snowplow and three passenger cars with smoking compartments; eventual acquisition of electric locomotives for use in carload freight was also contemplated. Thus it would seem that the new road was looked upon as an interurban electric railway.

Second hand double truck cars of city and suburban types were eventually purchased instead of new equipment. The first two cars were ordered from the Transit Equipment Company of New York in 1915, but a long delay in obtaining delivery occurred; indeed the cars had not arrived when the road was ready for operation. Mackenzie and Mann came to the rescue, lending the new line a Toronto & York Radial Railway car, which was later purchased outright.

This was the first trolley car to operate in Sudbury, and the only car on the line for over four months after operations commenced.

The original intention was to send prospective motormen to Toronto for training, but instead a Toronto man was brought to Sudbury to act as instructor. He was W. E. Massie, who acted for a time as one of the conductors while the road had only one car, then became Master Mechanic, and later General Superintendent, before going to the Niagara, St. Catharines & Toronto Railway.

The manganese steel diamonds for the Canadian Pacific crossing on Elm Street had not arrived when the balance of the electric line was ready for service, so initial opera-

tion was confined to the trackage from the crossing westward to Copper Cliff. Before the road was opened for public service, an inspection trip was made on the afternoon of Monday, November 8, 1915, carrying various civic, power company and railway officials. Among those present were Charles Wilson, Superintendent of the Toronto & York Radial Railway, and W. B. Boyd, a Toronto Railway Company engineer who had been actively engaged in the construction of the Sudbury road.

Regular service with the one car commenced on November 11, 1915. The original schedule and fare tariff were worked out by Charles Wilson. Seventeen round trips were operated daily, the schedule being arranged mainly for workmen and school children. The car ran on Sundays from the beginning, although some other street railways in Ontario did not operate on the Lord's Day at this time.

Copper bonds had not been placed on the rail joints when service began, but the Toronto & York Radial Railway's Electric Railway Improvement Company bonding car was borrowed shortly afterwards to do the job. Because of the poor return circuit with no bonds, operation on upgrades was very slow, and stray currents caused interference with the Copper Cliff telephone system.

The arrival of the two cars obtained from the Transit Equipment Company made possible the introduction of half-hourly service on the Copper Cliff line. The first such schedule, which went into effect on April 3, 1916, called for 33 round trips daily.

On the same date an Ontario Railway & Municipal Board engineer inspected two other sections of the line which had been completed: from the CPR Elm Street crossing to the Ramsey Lake terminus at Elizabeth and John Street, and 1/5 mile of the "Frood Mine section",

running to the market. He approved the latter operation, but required that the Nelson Street bridge be strengthened. This caused a lengthy delay in opening the line. The trusses of the bridge dated from about 1885-1890, and had originally been used as a railway bridge on the CPR's Lake Superior division. They had been erected at Nelson Street in 1907.

A jitney line was opened between Copper Cliff and Creighton on May 13, 1916. Two seven passenger automobiles made 14 round trips daily. This service made direct connection with the cars, but was not operated by the railway.

| TIME TABLE | |
|--|--------------------|
| UNTIL FURTHER NOTICE | |
| THE SUDBURY - COPPER CLIFF | |
| SUBURBAN ELECTRIC RAILWAY. | |
| WILL OPERATE ON THE FOLLOWING SCHEDULE | |
| DAILY | |
| Leave SUDBURY | Leave COPPER CLIFF |
| Elm St. Crossing | Power St. Stn. |
| 6.15 A.M. | 7.15 A.M. |
| 7.45 A.M. | 8.15 A.M. |
| 8.45 A.M. | 9.15 A.M. |
| 9.45 A.M. | 10.15 A.M. |
| 10.45 A.M. | 11.15 A.M. |
| 11.45 A.M. | 12.15 P.M. |
| 12.45 P.M. | 1.15 P.M. |
| 1.45 P.M. | 2.10 P.M. |
| 2.30 P.M. | 3.15 P.M. |
| 3.45 P.M. | 4.15 P.M. |
| 4.45 P.M. | 5.15 P.M. |
| 5.45 P.M. | 6.15 P.M. |
| 6.45 P.M. | 7.15 P.M. |
| 7.45 P.M. | 8.15 P.M. |
| 8.45 P.M. | 9.15 P.M. |
| 9.45 P.M. | 10.15 P.M. |
| 10.30 P.M. | 11.15 P.M. |

The Sudbury-Copper Cliff Suburban Electric Railway, Limited.
J. J. MACKEY, President.
Sudbury, November 11, 1915.

Courtesy Upper Canada Railway Society

The first schedule, from a newspaper advertisement. Note the misspelling of "Sudbury".

Copper Cliff

15 July 1950:

One way trip: 30 minutes.

| Lv. Sdy. | Lv. C.C. |
|----------|----------|
| 6h45 | 7h15 |
| 7h15 | 7h45 |
| 7h45 | 8h15 |
| 8h15 | 8h45 |
| 12h45 | 13h15 |
| 14h45 | 15h15 |
| 15h15 | 15h45 |
| 15h45 | 23h15 |
| 16h15 | 23h45 |
| 16h15 | 23h45 |
| 16h40 | 0h15 |

Other regular half-hourly by bus at 15 minutes to and 15 minutes after the hour.

Fares on All Lines

10¢ cash;
3 tickets for 20¢;
Children half-fare.

Data courtesy Ray Corley.

SUDBURY

Ontario, Canada

O'Connor Park

15 July 1950:

One way trip: 10 minutes.

Leave Car Barn: 15 minutes, 35 minutes and 55 minutes after the hour.

Leave Durham St., just south of Beech: 5 minutes, 25 minutes and 45 minutes after the hour.

Leave Sudbury: from Elm St., just west of Durham St.

Leave Copper Cliff: from terminal.

Two CPR main tracks and Nickel Sub. main track at Elm St. crossings protected by derrails on SCCSER track; diamond with CPR wye on Elm St. not protected on SCCSER.

Gatchell Cars

One way trip: 15 minutes.

Leave Sudbury (from Elm St., just west of Durham St.) 15 minutes to and 15 minutes after the hour.

Leave Gatchell (from passing) track on the hour and the half hour.

SCCSER on East Side of Road

Ramsey Lake

15 July 1950: No service.

C. P. R. Lines

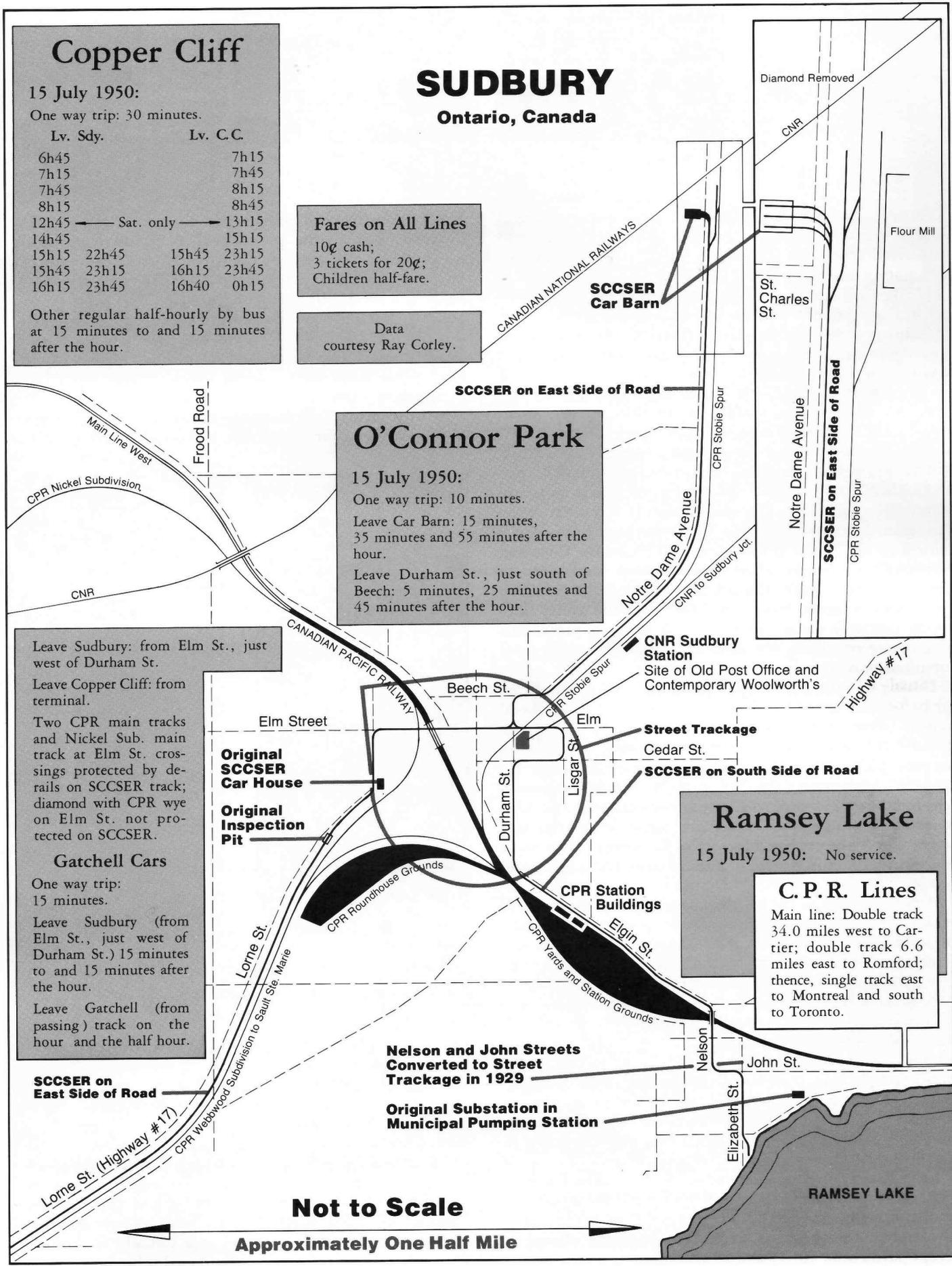
Main line: Double track 34.0 miles west to Cartier; double track 6.6 miles east to Romford; thence, single track east to Montreal and south to Toronto.

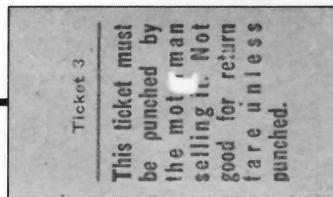
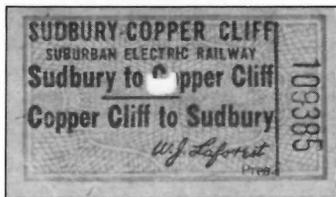
Nelson and John Streets Converted to Street Trackage in 1929

Original Substation in Municipal Pumping Station

Not to Scale

Approximately One Half Mile





Black type
Red background
Buff card stock

Plans for two additional sections of the so-called Frood Mine route were approved by the Ontario Railway and Municipal Board in December, 1916. This trackage, terminating at the Sudbury flour mill, was laid down in 1917. The balance of the route was never constructed.

Although powers were obtained to build several other lines, no more were constructed at this time. An extension of the time in which these projected routes could be built was obtained in 1919, evidently with the intention of laying tracks to Murray Mine, four miles northwest of Sudbury. This line, along with lines to Coniston (nine miles), Frood Mine, and Creighton Mine (five miles beyond Copper Cliff), did not progress beyond the planning stage.

The projected operation of carload freight did not materialize either, probably because of Mackenzie and Mann's financial difficulties and the resultant transfer of the Canadian Northern Railway to Dominion government control in 1917. The government abandoned the Canadian Northern's numerous plans for expansion, and took no interest in the Sudbury-Copper Cliff as a possible Canadian Northern connection to Copper Cliff. Thus the trolley line, which probably came quite close to being a prosperous freight rate equalizer, was destined to remain a struggling suburban passenger line.

During its existence as a rail system the company had two car barns, the first of which was not completed until several months after operations commenced. During those first months the inspections on the one car were made at an outdoor pit located on the main line track opposite the brewery. After service finished at night, the four trainmen who ran the car gathered to do any repair work required. One of their first jobs was to replace some wheel-and-axle assemblies as the car had a bad set of flat wheels. This work was done with only the aid of a set of jacks and a block and tackle.

A two-track frame car barn was soon built on the east side of Lorne Street, south of Elm, on the site now occupied by the Brewers Retail Store. This barn did not last long; it was abandoned and torn down in 1917, the material salvaged being used to build a larger three track building at O'Connor Park which was used by the trolleys as long as they continued to operate. A substation was built in the O'Connor Park barn, and the original machine removed from Lake Ramsey pumping station to O'Connor Park. The new location for the substation was chosen because an extension to Frood was then being planned and O'Connor Park was near the mid-point of the line. This extension was not built, and as it turned out, the substation was in a poor location for supplying power to the existing trolley system.

In 1920 the railway was offered to the Town of Sudbury for \$222,921; this figure consisted of \$208,680, the actual cost of the system, and \$14,241 representing three years' dividend on the preferred stock. The company offered to accept payment in 10, 15 and 20 year municipal debentures.

The Town's financial position did not permit acceptance of the offer. Perhaps the owners saw the handwriting on the wall and felt that without Canadian Northern support and interchange freight traffic the road would be unprofitable; in any event the profit which the property had been earning began to decline soon afterwards. One man operation was instituted in 1921 as an economy move; net income dropped steadily until 1927, when there was a deficit of over \$4,100. Annual car miles were reduced from 154,000 in 1921 to 103,000 in 1928.

A brief period of prosperity occurred during the years 1929-31, brought about by increased activity of the

| JAN. | FEB. | TRANSFER TO | |
|-------|-------|--------------|---------|
| MAR. | APRIL | Copper Cliff | |
| MAY | JUNE | Lorne Street | |
| JULY | AUG. | Notre Dame | |
| SEPT. | OCT. | Ramsay Lake | |
| NOV. | DEC. | Other Lines | |
| 1 | 2 | 127134 | |
| 3 | 4 | | |
| 5 | 6 | | |
| 7 | 8 | | |
| 9 | 10 | A.M. | I P.M. |
| 11 | 12 | 5 | II 5 |
| 13 | 14 | 10 | III 10 |
| 15 | 16 | 15 | IV 15 |
| 17 | 18 | 20 | V 20 |
| 19 | 20 | 25 | VI 25 |
| 21 | 22 | 30 | VII 30 |
| 23 | 24 | 35 | VIII 35 |
| 25 | 26 | 40 | IX 40 |
| 27 | 28 | 45 | X 45 |
| 29 | 30 | 50 | XI 50 |
| 31 | | 55 | XII 55 |

THE
SUDBURY & COPPER CLIFF
SUBURBAN ELECTRIC RY.

CONDITIONS:

This is NOT A STOP-OVER and is NOT TRANSFERABLE. It is good only for one continuous trip on route indicated and on first car leaving transfer point within fifteen minutes after the time punched in the margin hereon. The DATE, TIME and DIRECTION punched must be verified by the passenger. In case of difference between passenger and conductor of transfer car the passenger must if conductor demands it, pay fare and present this ticket with application for redress to the Company's office.

W. J. LAFOREST,
Manager.

Transfer: Courtesy W. C. Bailey

This unpunched transfer is undated. The printing is black, on heavy salmon-coloured newsprint.

International Nickel Company ["INCO"]. During this time two further extensions were made to the system. The first was built in 1929 when the Ramsey Lake line was lengthened two blocks to reach the entrance of Bell Park, and the existing tracks on Nelson and John Streets were moved from the side to the centre of the road. In 1930 a half-mile branch was built from Copper Cliff to INCO's new copper refinery. This brought the system to its greatest length, 9.1 miles.

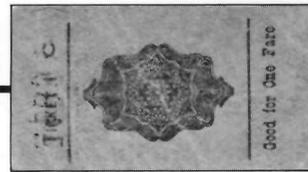
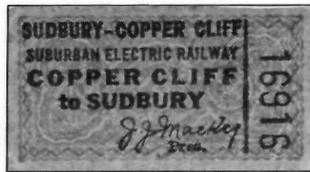
Because of the upswing in traffic and the improved financial condition, some relatively new cars were purchased at this time, the only steel cars ever brought to Sudbury. They were obtained from the abandoned Schuylkill Railway



A view of the Elm-Durham intersection. A streetcar is heading west on Elm Street. Note the yee in the streetcar trackage, lower right. The connecting bus is not an SCCSER vehicle. That's the Canadian Pacific Railway's Stobie Spur in the left foreground.



The line to Lake Ramsey, as it appeared on 16 April 1949, running beside Elgin Street, with the CPR station buildings on the right: they still stand in 1983. On the left stands the Sudbury Hotel, which was burned in 1952 and replaced with the Ledo Hotel. Isolated by a contractor's blunder, the trackage here had not been in use for almost a year, and would not see service again before the streetcar system was abandoned.



Black type
Red-brown background
Buff card stock

of Girardville, Pennsylvania, which had ceased operations during 1927 due to an employees' strike and depressed conditions in the coal fields. The cars saw considerable use on tripper runs even before being repainted in Sudbury colours, but they were not placed in base service until they had been overhauled. Other Schuylkill Railway cars, some of them similar to the Sudbury ones, were sold to the Omaha & Council Bluffs Street Railway in Nebraska.

Half-hourly service was provided on the Copper Cliff line by two or more cars which met at Gatchell, on the only passing track on the whole system. Because the district between Sudbury and Gatchell was well built up, a shuttle car ran out as far as the siding. Beyond Gatchell the territory traversed was desert-like in character, its vegetation destroyed years before by sulphur fumes from early smelting operations. Rush hour traffic on the Copper Cliff line consisted mainly of workmen at INCO's Copper Cliff smelter and refinery who lived in Sudbury. As recently as 1947 it was not uncommon to see as many as six of the eleven cars at the copper Cliff terminal at shift times, waiting for workers. Eight-car meets often took place at Gatchell during rush hours. Events at INCO's Copper Cliff arena, then one of the main recreational centres of the Sudbury area, often required operation of as many as four cars. The red brick structure was located within a few hundred feet of the former Copper Cliff station.

Between Gatchell and Copper Cliff the line passed through a subway under a branch of INCO's electric railway from the smelter to the refinery. Electric locomotives hauling hot metal cars frequently use this line; these trains were given a wide berth by the trolley cars, for fear that hot metal spilled from them could cause much damage or even loss of life.

The Refinery car line existed solely to serve employees of INCO's refinery and carried no local traffic whatsoever, for the area through which it ran was mostly waste and swamp. One car made half-hourly round trips to connect with the Copper Cliff cars, but was usually empty except at shift change. Since the car spent most of its time standing at one end of the line or the other, the daily crew schedules were arranged to give several trainmen one trip each on the Refinery line, by changing over from Copper Cliff cars. Each

man was therefore able to have his lunch while laying over with the Refinery car, instead of eating on the run, as the drivers on many other transit systems must do.

The O'Connor Park and Ramsey Lake lines both had twenty minute headways at most times, provided by one car on each line. During periods of light traffic, such as on Sunday mornings, one car gave a through thirty minute service over the two lines. Latterly, the smallest steel cars, 34 and 35, were most frequently used on these routes. On hot summer evenings traffic to Ramsey Lake and Bell Park became quite heavy. Only two cars were put on to handle crowds, and they were operated together "in convoy", for there were no passing tracks on the route. When crush loads of standees were carried, a trainman with farebox was stationed at each end of each car, so that unloading and loading could be carried out from both ends.

In spite of Sudbury's severe winter weather, the only snow-fighting equipment owned by the railway during its first four years of operation was a small plow made in a local foundry and attached to the ex-Toronto & York Radial Railway car. This car was frequently out long after the usual hours of service to plow the line. A multi-purpose work motor was ordered from Ottawa Car in 1919, being the only piece of rolling stock ever obtained new from a builder. It was car No. 1, which had a plow at one end, a sweeper at the other, and was fitted with a line tower; truly an ideal piece of equipment for a small rail line with little money to spend on service cars. Before the car was purchased, taxi drivers competing with the railway had been in the habit of using their snow plows to bury the tracks alongside the Copper Cliff road with snow. After car No. 1 arrived from the builder the railway superintendent decided to outdo the cabbies at their own game and took the new plow out one night, using the side wing to bury the Copper Cliff road in a deep layer of snow. After one demonstration of what the plow could do, the taxi operators gave no further trouble. One drawback to operating this plow was that there was only one place on the entire system where it could be turned to bring the appropriate end into play; this was on the wye at Elm and Durham Streets in downtown Sudbury.

A more primitive piece of snow-fighting equipment was later added to the roster — a railway flat car fitted with a



Black type
Magenta background
Buff card stock



Copper Cliff bound car 37 meets Sudbury bound car 36 at the Gatchell passing track, opposite Tuddenham Street.



Car 31 on Elm Street, making the ceremonial last run: 1 October 1950.

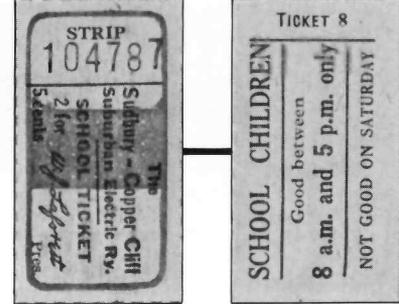
flanger. It was always pushed by one of the passenger motors, and of course, no provision was made for air brakes for the plow. On one occasion this makeshift broke loose from the car which was pushing it and coasted three blocks along Notre Dame, coming to rest only after entering the car barn and crashing out through the rear wall.

As well as making a major task of snow clearance, the severe weather conditions imposed some difficult operating problems. The switch group control of the ex-Wilkes-Barre cars, which had not been intended for use in such extreme climatic conditions, was often put out of commission by moisture freezing in the small air pipes. The use of deadman control had to be abandoned entirely, partly because of this same moisture problem, but also in order that operators could release their brakes and then leave the controls to knock loose brake shoes frozen to the wheels. In order to keep the cars reasonably warm in winter, it was necessary to equip them with both electric heaters and coal stoves, and to seal over permanently all roof ventilators.

The O'Connor Park substation consisted of two General Electric and one Westinghouse synchronous motor-generator sets. As stated previously, power was originally purchased from Wanipitei Power Company (which was later taken over by Ontario Hydro) at 2300 volts, three phase, 60 cycle A.C. Commencing in 1942, power was supplied at 44,000 volts and stepped down to 2300 volts A.C. by transformers located in a new brick building adjacent to the car barn. As well, privately-generated power was purchased from INCO in Copper Cliff at 600 volts D.C.

The heavy traffic of World War II made the purchase of additional rolling stock imperative, the equipment shortage being aggravated by the loss of cars 27 and 28. Six cars were ordered from Wilkes-Barre, Pennsylvania, but the Sudbury-Copper Cliff management reduced the number to four after all six had been loaded onto railway flat cars at Wilkes-Barre. The order had to be changed, so it seems, simply because the Sudbury system's Flour Mill yard lacked the capacity to hold all six cars ordered. When the new cars arrived in Sudbury they were so badly needed that three were placed in service immediately, still carrying their Wilkes-Barre colours. Even after they had been repainted their origin was still quite evident, for most of them continued to carry their Wilkes-Barre destination rolls, and could be seen running out towards Copper Cliff displaying such signs as "Forty Fort", "West Pittson" or any of the other fifty-odd signs on the rolls. This state of affairs continued well towards the end of trolley operations in Sudbury, and the signs did not appear too out of place in a way, for the Sudbury-Copper Cliff was in many respects similar to the Pennsylvania trolley roads, running on roadside trackage through territory laid waste by the mining industry.

Operation as an all-rail system continued until 1947,



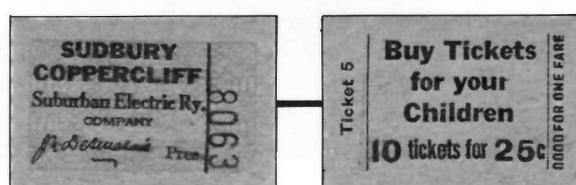
Black type
Red
background
Buff card
stock

using the same old rolling stock, which had deteriorated badly due to intensive wartime use and consequent neglect of maintenance. The overhead structure was also in poor condition, but the track, being mostly unpaved and not on the streets, was in considerably better condition than that of many other small trolley systems. It was not badly corrugated, nor did it have the low joints and other objectionable features which are so difficult to remedy in paved trackage. The rails were kept in excellent alignment right up to the end of operation, and the roadbed was of weed-free slag. The rolling stock was always well painted, but this was mainly for protection from the damaging effects of Sudbury's sulphur-laden atmosphere, which in those pre-Super Stack days would soon ruin anything not well protected. The shiny appearance of the rolling stock was little indication of its mechanical condition.

Because in 1947 all eleven cars were still being used every day, four second hand buses were purchased to ease the equipment shortage. These vehicles saw very little service at first, being used only when insufficient trolleys were available. No feeder bus routes were established at the time; most of the outlying districts were already served by a number of small independent bus operations, one of which also had some routes within the city to areas not reached by the car lines.

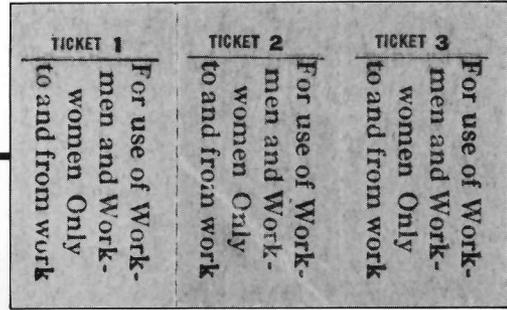
During an electric power shortage which was general throughout Ontario in the fall of 1947, trolley operation to Copper Cliff and the Refinery was reduced to a rush-hours-only basis in order to conserve electricity, the base service being handled by buses. All-day service with streetcars continued to Gatchell, Ramsey Lake and the Flour Mill. Latterly a most peculiar practice was followed on the Flour Mill run — a car was used in normal hours but was replaced during rush hours by a bus in order to clear the tracks for Copper Cliff trippers running into the car barn.

The Ramsey Lake line came to its end in an unusual manner. During the summer of 1948 extensive sewer work was undertaken on Lisgar Street, and a bus was placed on the



Black type
Blue background
Blue card stock

Black type
Sepia
background
Buff card
stock



All tickets: Courtesy W. C. Bailey

route temporarily. The contractor who repaved the street when the sewer work was completed buried the one block of rails on that street under a heavy layer of road surfacing material. The railway protested, but the mistake was never rectified, and buses remained on the run permanently.

Bus operation was increased during 1949 and 1950 by the addition of some new routes and by purchasing the city routes formerly owned by City Bus Lines. By September, 1950, when the management was preparing to cease rail operation, the bus fleet had grown to 33 vehicles, all but six of them second hand.

Trolleys operated for the last time on October 1, 1950. The last scheduled runs were made by cars 38 and 37, leaving Copper Cliff with smelter workers at 4:50 and 4:55 p.m. Thus car 37 for the second time in its history made a last run, the first time being on the Dallas line in Wilkes-Barre, when as W-B Ry. No. 356 it made the final trip on April 30, 1939, finishing off with a spectacular grade crossing accident.

After the two cars arrived at the barn, car 31, pride of the Sudbury-Copper Cliff and the only car still equipped with leatherette upholstered cross seats, left the barn at 5:30 and headed downtown for the ceremonial last run. A group of local dignitaries was transported out to Copper Cliff and back as far as Gatchell, where they boarded a new bus to complete the return trip to Sudbury, while car 31 deadheaded to the barn. Thus ended 35 years of trolley operations in the Sudbury district.

The railway's name outlived the rail operation by only a year, being dropped in favour of "Sudbury Bus Lines Limited" when the company was reorganized during the fall of 1951. Now not even the name remains as a reminder of the small street railway which once served the area.

Extensions

Dale Wilson

EXPANSION of the SCCSER in a number of directions made reasonable economic sense in an era before the automobile became epidemic. Although the streetcar line never produced enough revenue to warrant the large capital expenditures for extra lines, it is interesting to look at what might have been.

Lines west to Creighton and east to Coniston would have served a major mine and a smelter complex, respectively, and the towns that each supported. The only real passenger service into Sudbury from these points in the early days was on the steam railways and this was hardly convenient for shift workers. There were no impossible geographic barriers for these lines and it is likely that passenger and even light freight traffic would have been respectable.

Frood Mine was closer and as easy to get at physically. Indeed, the line along Notre Dame and substation location indicate the firm plans to proceed that way. It seems that uncertainty about nickel production as World War I drew to a close, resulting in the Frood not developing as soon or as fast as expected, stalled the SCCSER's plans.

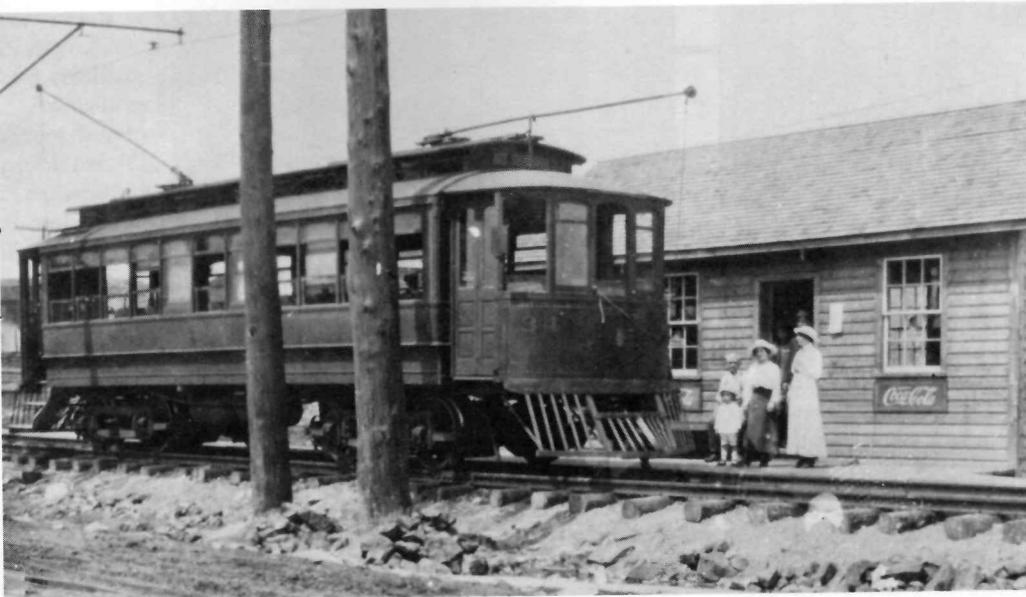
The plan to serve Murray Mine was prompted by the construction there of a large mining and smelting complex by the British-America Nickel Company. Since no "company town" was planned on the site several thousand men would have to commute each day. Unfortunately, the BANC operation folded soon after World War I and another streetcar dream was laid to rest.

Bus number 42: the first busses on the SCCSER were four Ford model 70 transits, numbers 1-4, formerly Capital Transit, Washington, D.C. numbers 2421, 2426, 2424 and 2425 respectively. They were later re-numbered 41-44. The colours are light blue and white. 4 August 1949.

John D. Knowles



THE SUDBURY STREETCARS



(Four photos facing: clockwise from top left:) A car heads towards Sudbury and away from the junction with the refinery line. Houses are under construction to the left. ● East bound from Copper Cliff to Sudbury, No. 32 passes under International Nickel's electric railway, connecting the nickel smelting complex with the copper refinery. The INCO bridge and line are still in service, and this is one of the very few places where the SCCSER right of way can be seen today. ● Looking towards the copper refinery, from the ridge at left. ● Looking towards the ridge on the refinery line at the last trolley feeder. 18 August 1947.

Car 34 (1st), formerly Toronto & York Radial Railway number 34, and later SCCSER car 10, was the first car on the Sudbury line. It is seen here at Copper Cliff sometime before 1926.

Roster

| NO'S | TYPE | LENGTH | WIDTH | TRUCK CENTRES | TRUCKS | TRUCK W.B. | WHEEL DIAMETER |
|--------|--------------|--------|-------|---------------|--------------|------------|----------------|
| 1 | DT, W, Plow | 46' 0" | 9' 8" | 20' 6" | Taylor | 6' 10" | 33" |
| 2, 4 | DT, MR, W | | | | St. Louis | | 33" & 26" |
| 6 | DT, MR, W | | | | | | |
| 2nd 6 | (See Car 27) | | | | | | |
| 8 | DT, MR, W | | | | Brill | | |
| 10 | DT, MR, W | | | | | | |
| 27 | DT, RR, W | | | | | | |
| 28, 29 | DT, RR, W | 48' 0" | 8' 6" | 21' 9" | Brill 27G | 4' 6" | 33" |
| 30, 31 | DT, AR, S | 48' 0" | 8' 4" | 24' 0" | Brill | 6' 0" | 33" |
| 32 | DT, AR, S | 48' 0" | 8' 4" | 24' 0" | Brill | 6' 0" | 33" |
| 33 | DT, AR, S | 48' 0" | 8' 4" | 24' 0" | Brill | 6' 0" | 33" |
| 34, 35 | DT, AR, S | 47' 0" | 8' 2" | 18' 0" | Brill 77E | 6' 0" | 33" |
| 36-39 | DT, AR, W | 47' 6" | 8' 0" | 22' 0" | Brill 27MCB2 | 6' 0" | 33" |
| Rotary | Plow (ST) | 24' 0" | 8' 0" | | Peckham | 7' 0" | |

NOTES:

- 1 Replaced by GE 80A Motors
- 2 Replaced by K - 35 Control
- 3 Replacement for West. HL Control with 189E Master Controller and 264 Switch Group

SYMBOLS:

| | |
|-------|---------------------------|
| ST | Single Truck |
| DT | Double Truck |
| AR | Arch Roof |
| MR | Monitor Roof |
| RR | Railroad Roof |
| W | Wood |
| S | Steel |
| NAT. | National Brake & Electric |
| GE | General Electric |
| WEST. | Westinghouse |

NOTES ON CARS

Cars 2 & 4

Acquired through Transit Equipment Company from Third Avenue Railway System, New York, 1916. Scrapped after Cars 30 to 35 purchased.

Car 6

Acquired from Buffalo, N.Y., about 1917. Scrapped circa 1923 as condition poor.

Car 8

Acquired through Donald M. Campbell from Cleveland Railways, No. 308, single end car, in 1919. Rebuilt for double end operation in Sudbury.

Car 10

First car on line, acquired from Toronto & York Radial Railway, No. 34, in 1915, and operated for several years as SCCSER 34. Was one of ten closed cars which T & YR acquired in 1909 from Fairmount Park Transit Co., in Philadelphia, built by Brill. Burned about 1926 and equipment salvaged for second Car 6.

Car 27

Acquired from Toronto Suburban Railway's Weston-Woodbridge line in 1926 and fitted with equipment from Car 10. Was numbered 6 until Cars 30 to 35 were acquired and Cars 2, 4 and 8 were scrapped. Scrapped after head-on collision with Car 33 on Flour Mill line in 1942, during fog.



| MOTORS | CONTROL | COMPRESSOR | BUILDER | YEAR BUILT | ACQUIRED SCCSER | DISPOSAL & DATE |
|----------------|---------|------------|---------------------|------------|-----------------|------------------|
| 4 G.E. 67 | K-35 | Nat. B2 | Ottawa Car Mfg. Co. | 1919 | 1919 | |
| 4 G.E. 80A | K-6 | | St. Louis Car Co. | 1899 | 1916 | Scrapped c. 1930 |
| 2 G.E. 1000 ① | K-10 | Hand Brake | J. G. Brill Co. | | 1917 | Scrapped c. 1923 |
| 4 WEST. 49 | K-6 | Nat. B2 | J. G. Brill Co. | | 1919 | Scrapped 1930-35 |
| 4 G.E. 67 | K-10 | West. DIEG | J. G. Brill Co. | | 1915 | Burned c. 1926 |
| 4 G.E. 67 | K-10 | West. DIEG | | | 1927 | Wrecked 1942 |
| 4 G.E. 80A | K-28 ② | GE CP27 | Toronto Ry. Co. | 1916 | 1928 | #28 Gutted 1942 |
| 4 WEST. 306CV4 | K-35 | GE CP27 | J. G. Brill Co. | | 1929 | Scrapped |
| 4 WEST. 306CV4 | K-35 | GE CP27 | J. G. Brill Co. | | 1929 | 1948 |
| 4 WEST 532B | K-35 | West. DH16 | J. G. Brill Co. | | 1930 | |
| 4 WEST 532B | K-35 | West. DH16 | J. G. Brill Co. | | 1929 | |
| 4 WEST 532B | K-35 ③ | GE CP 27 | J. G. Brill Co. | 1912 | 1942 | |
| G.E. 1000 ① | K-10 | Hand Brake | Ruggles | | 1943 | |

Cars 28 & 29

Built as Toronto Suburban Railway Nos. 28 and 29, 1500 volt cars for Toronto-Cooksville local service on Guelph interurban line. Sold 1926 to Chatham, Wallaceburg & Lake Erie (Nos. 28 & 29), and equipped with double doors on both sides at one end for handling express. Sold to Sudbury in 1928 when CW & LE passenger service abandoned. Car 28 gutted by fire in 1942 and rebuilding not completed; scrapped 1948. Car 29 equipped with longitudinal wood seats in 1943.

Cars 30 & 31

Acquired 1929 from Schuylkill Railway, Girardsville, PA, Nos. 502 and 501 respectively. Car 30 fitted with wood benches

and battleship linoleum floor in 1943.

Car 32

Acquired as Nos. 30 & 31. When purchased this car had couplers for pulling trailers in interurban service, and blue plush seats. Fitted with longitudinal wood benches and battleship linoleum floor in 1943.

Car 33

Acquired Schuylkill Railway, 1930. Same body design as Cars 30 & 31, but had smoker bulkhead. Fitted with longitudinal wood seats and battleship linoleum floor in 1943, but smoker bulkhead retained.

Cars 34 & 35

Acquired Schuylkill Railway, 1929, their

300 series.

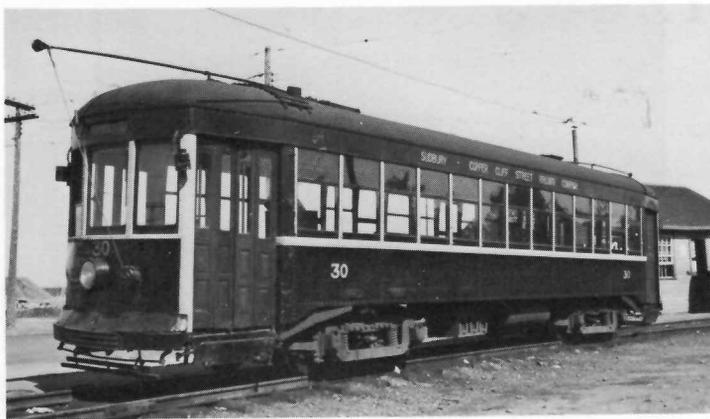
Cars 36 to 39

Acquired 1942 from Wilkes-Barre Railways, their Nos. 360, 356, 354 and 352, respectively. Original sheet side sheathing replaced by wood slats on all four cars.

Rotary Plow

Acquired 1943 from Wilkes-Barre Railways, their No. 030.

Thanks to W. C. Bailey & R. F. Corley for help with roster. Errors and/or omissions are the responsibility of Nickel Belt Rails.

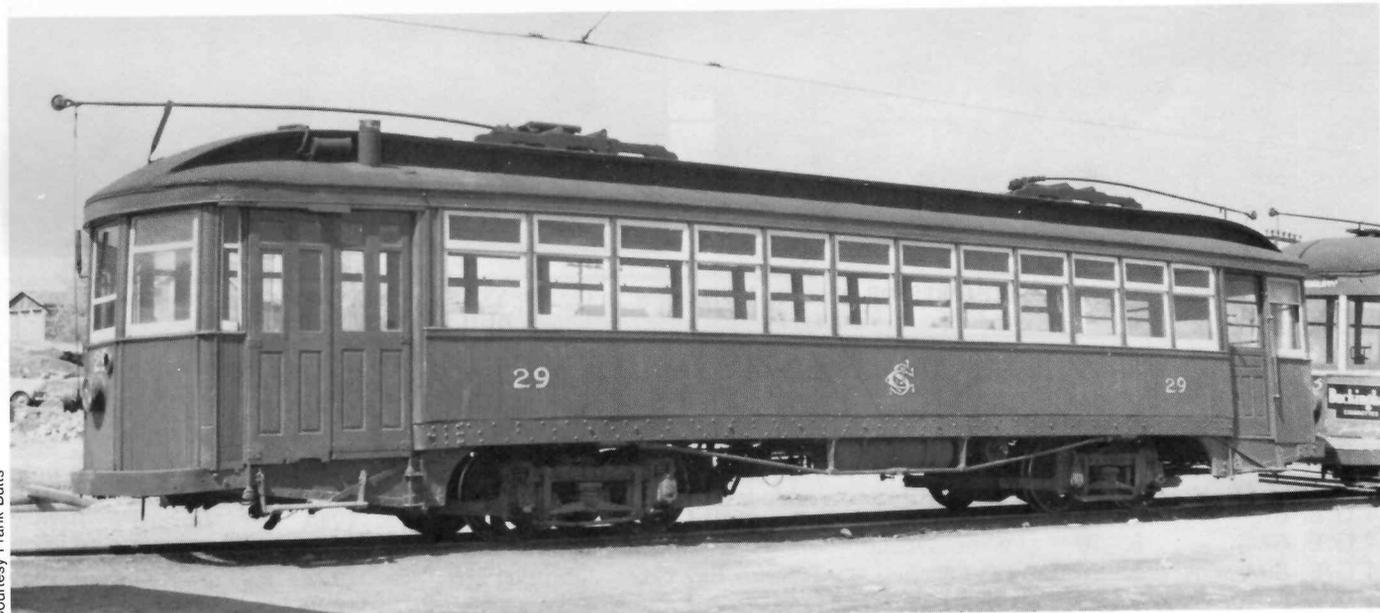


Car 30 at Copper Cliff, 3 August 1949. A few cars had the shortened company name placed on the letterboards for the last repaint, instead of the logo on the side sheathing.

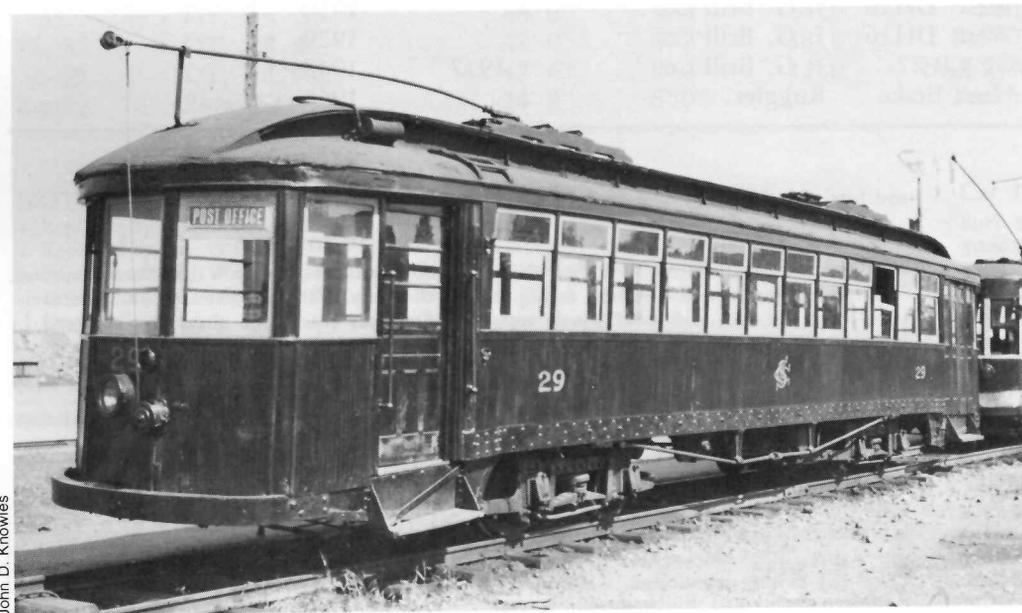


Interior of car 30, after wartime conversion to wooden longitudinal seating. 16 August 1947.

Two photos: John D. Knowles



Courtesy Frank Butts

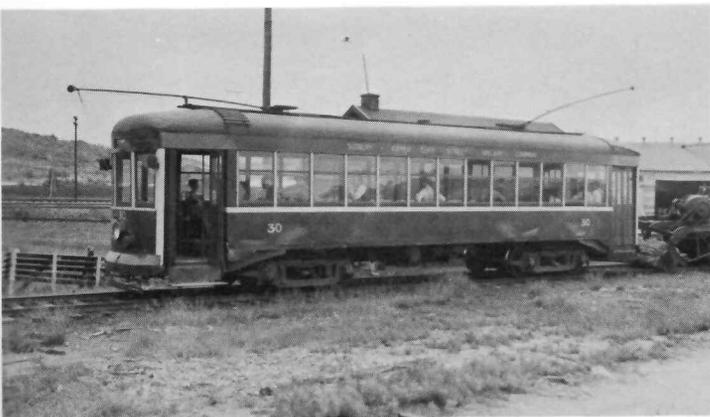


John D. Knowles

Car 29 is shown here, out of service, at the Copper Cliff terminal, no doubt waiting for the shift change rush. This car had been built in 1916 for the Toronto Suburban Railway, then sold in 1926 to the Chatham, Wallaceburg & Lake Erie. It came to Sudbury in 1928.

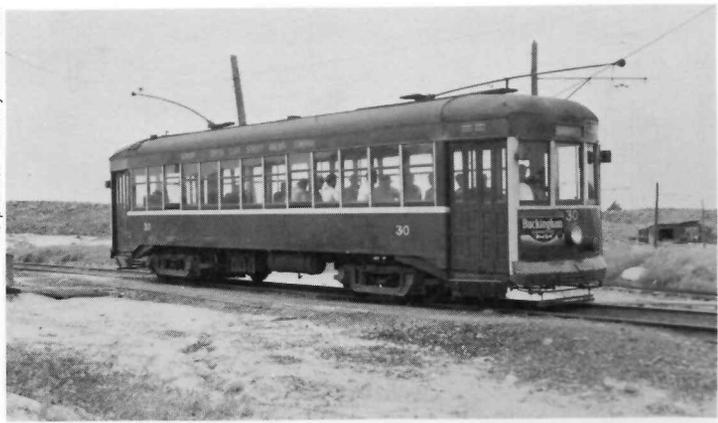
29

Number 29 showing the sliding doors with which the car was originally provided on all four corners when built. Copper Cliff, 16 August 1947.



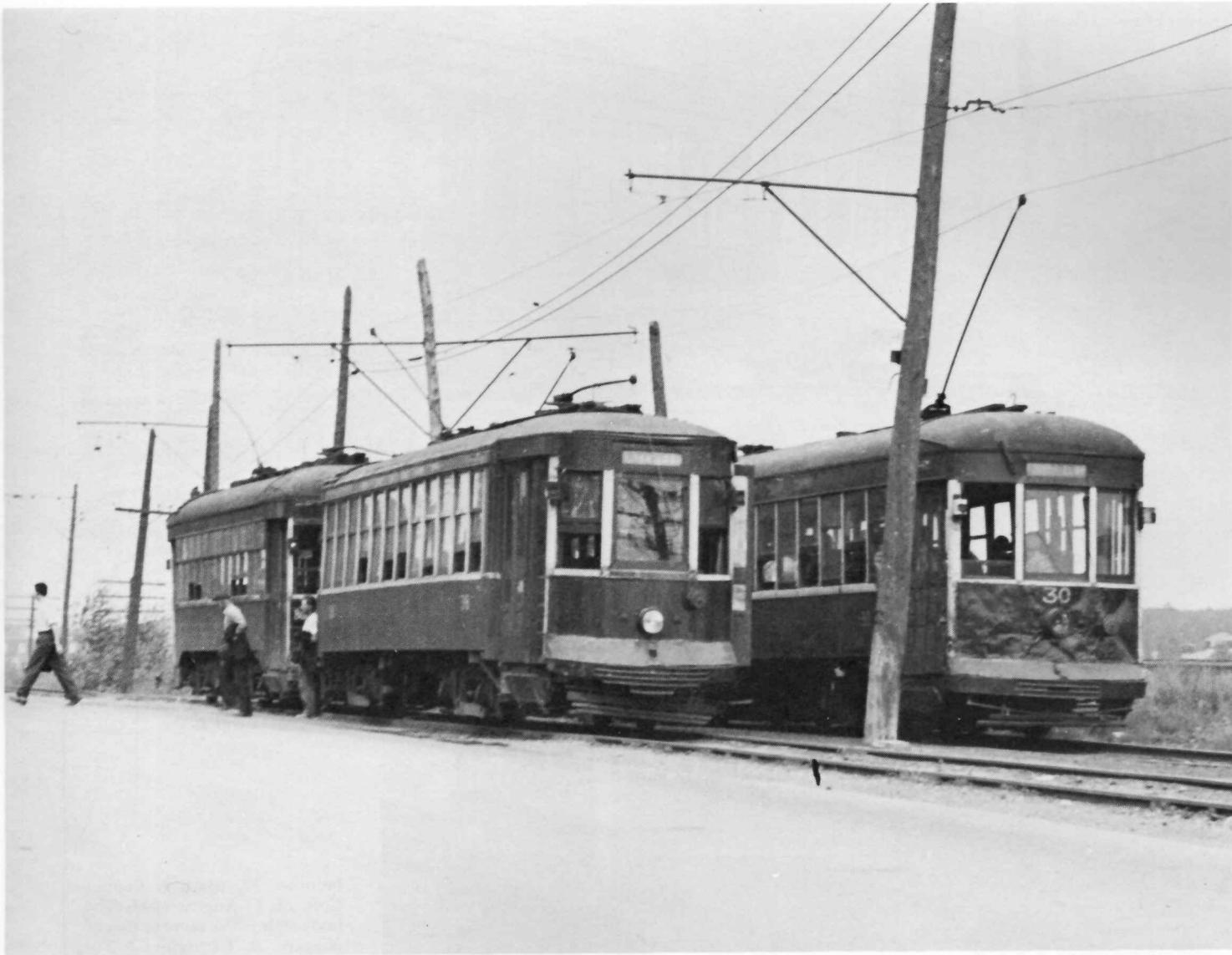
30

Number 30 at Copper Cliff, at the end of the smelter line.



Number 30 at the junction of the smelter and refinery lines.

Two photos: Courtesy Frank Butts



One of the innumerable hourly meets at Gatchell; wooden car number 36 is on the Sudbury-Gatchell shuttle; the steel cars are one each for Sudbury and Copper Cliff.

Courtesy W. H. Coe



Car 31 at the car barn on Notre Dame, 3 August 1949. The track in the lower right foreground is the CPR's Stobie Spur. Note the lighter rail on the trolley trackage. The quonset hut is the SCCSER bus garage.



Three photos: John D. Knowles

Interior of car 31, with transverse upholstered seats, as it was received from the Schuylkill Railway in Pennsylvania. 17 August 1947.

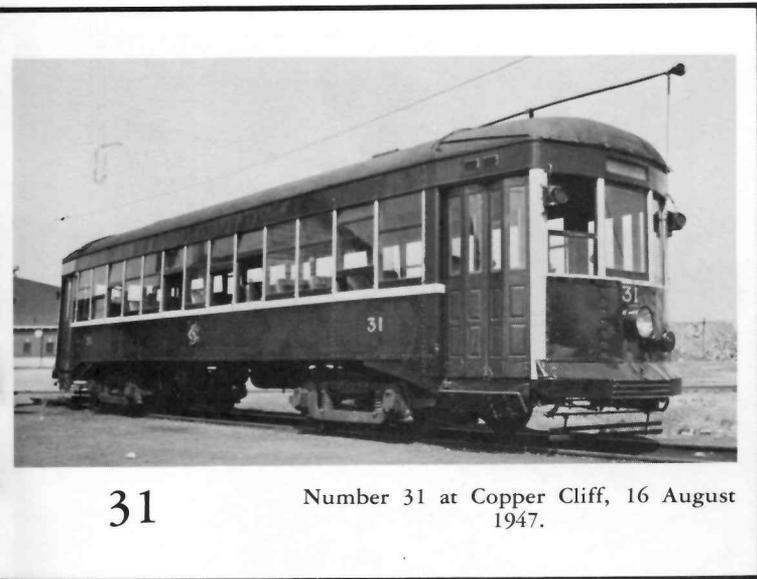


Car 32 waits, out of service, on the spur near the station at Copper Cliff.



32

Number 32, again at Copper Cliff, on 17 August 1947. The body style is the same as that of Niagara, St. Catharines & Toronto numbers 320-326, later used on the Montreal & Southern Counties Railway.



31

Number 31 at Copper Cliff, 16 August 1947.



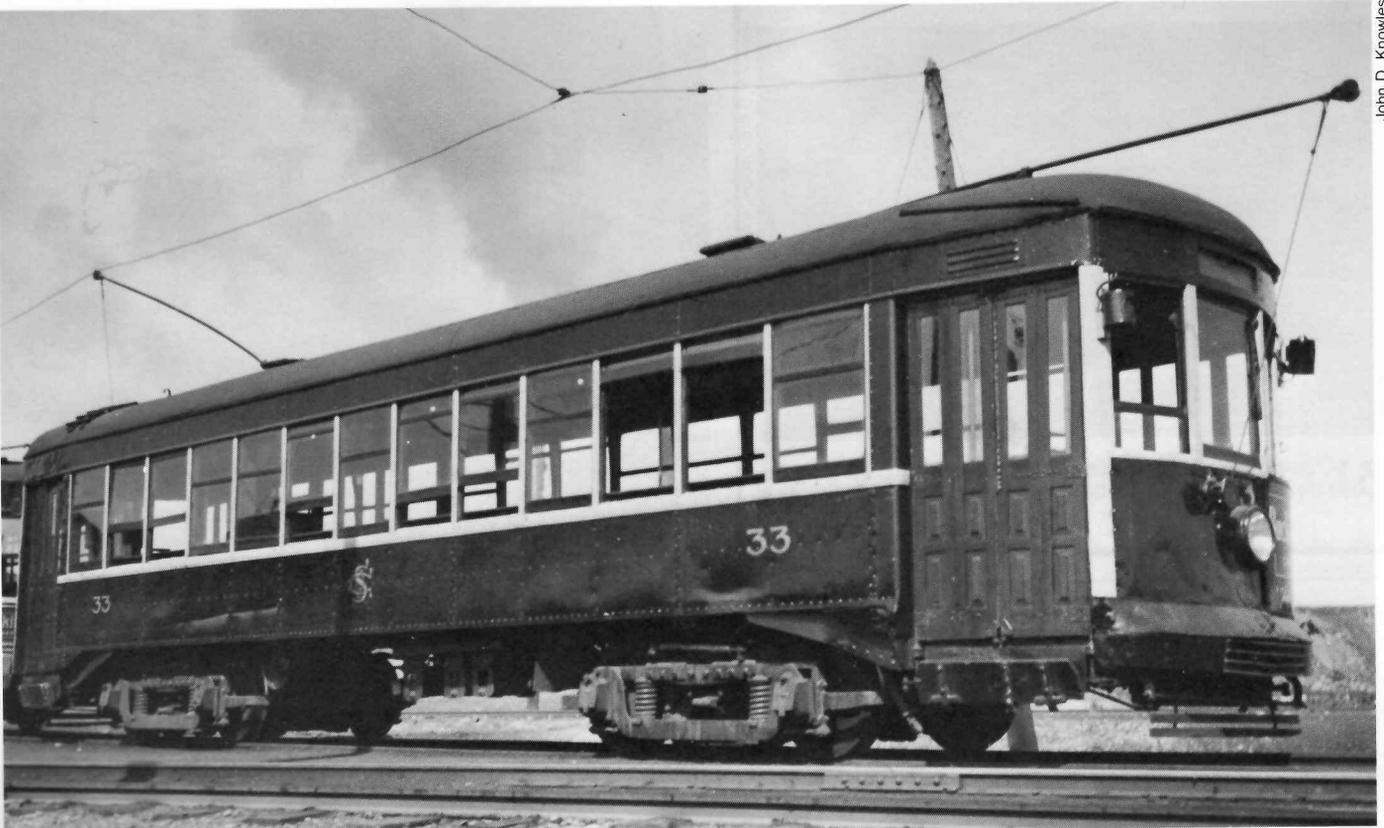
Flood time on the streetcar line: car number 8, acquired in 1919 from the Cleveland Railways, is shown here with others of the SCCSER fleet, apparently out of service. The lad is unidentified.

Courtesy Gary Peck



Car 34 in action along Notre Dame Avenue, near Durham Street.

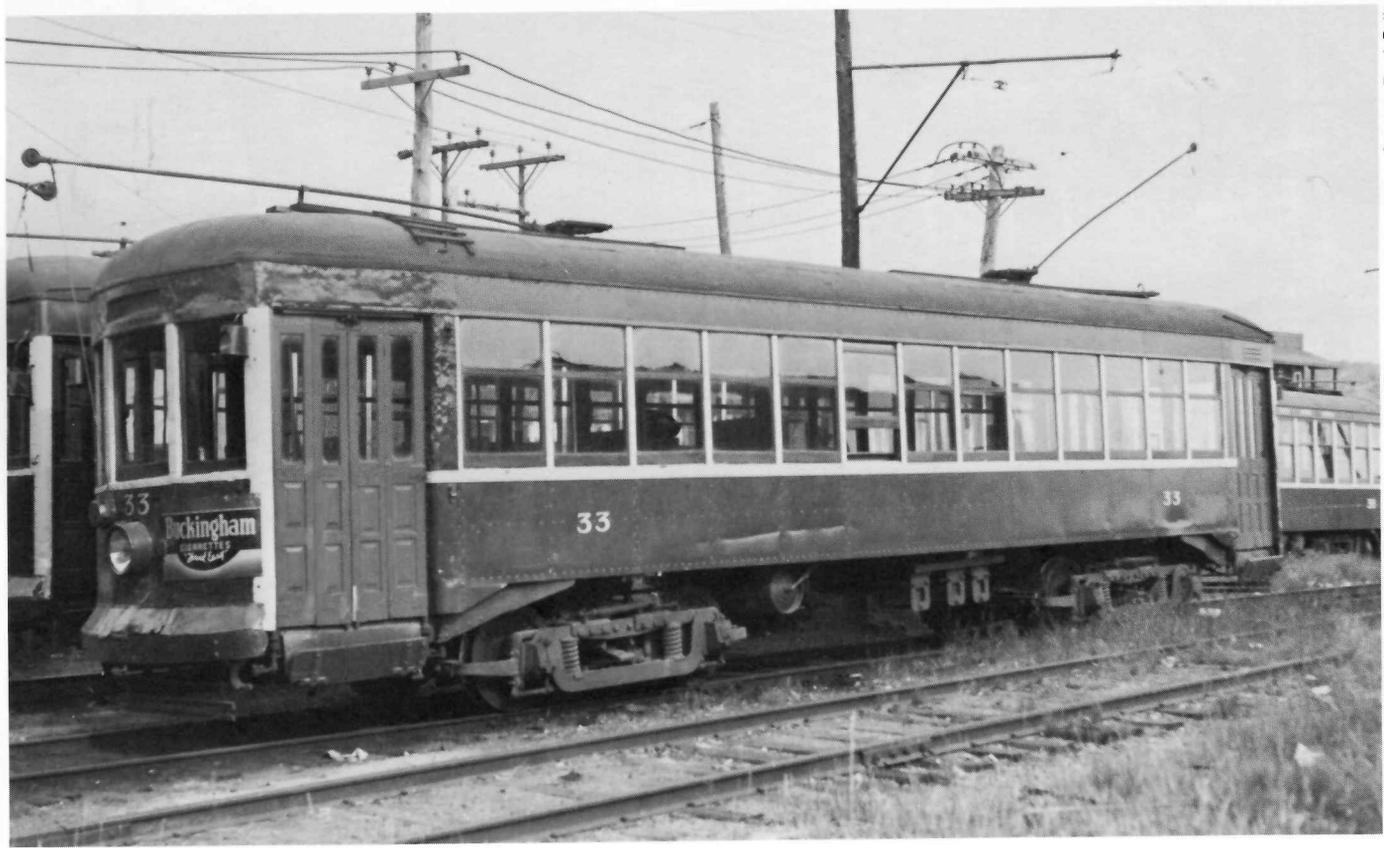
Courtesy W. H. Coe



Car 33 at Copper Cliff, 16 August 1947.

33

Car 33 at the car barn yards.

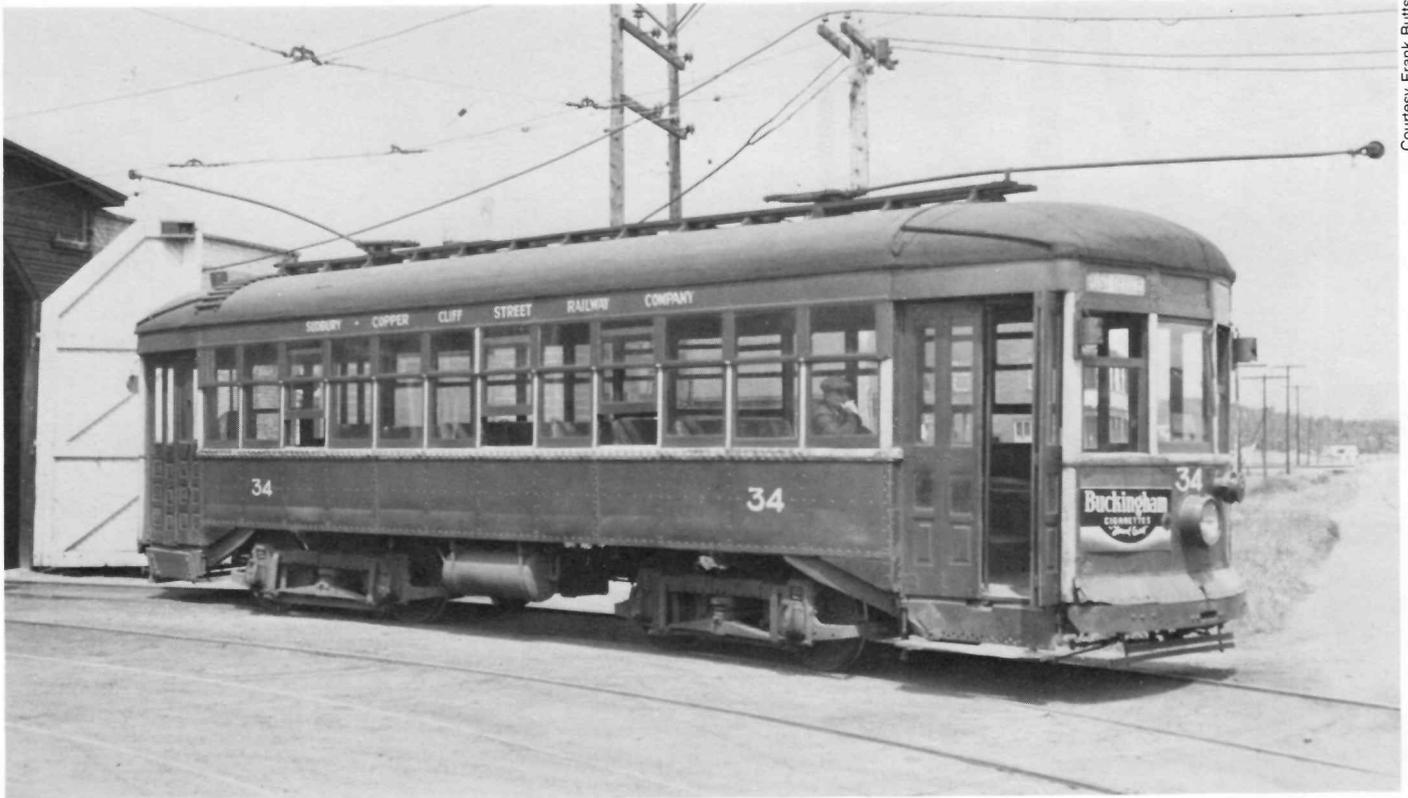




Copper Cliff station.



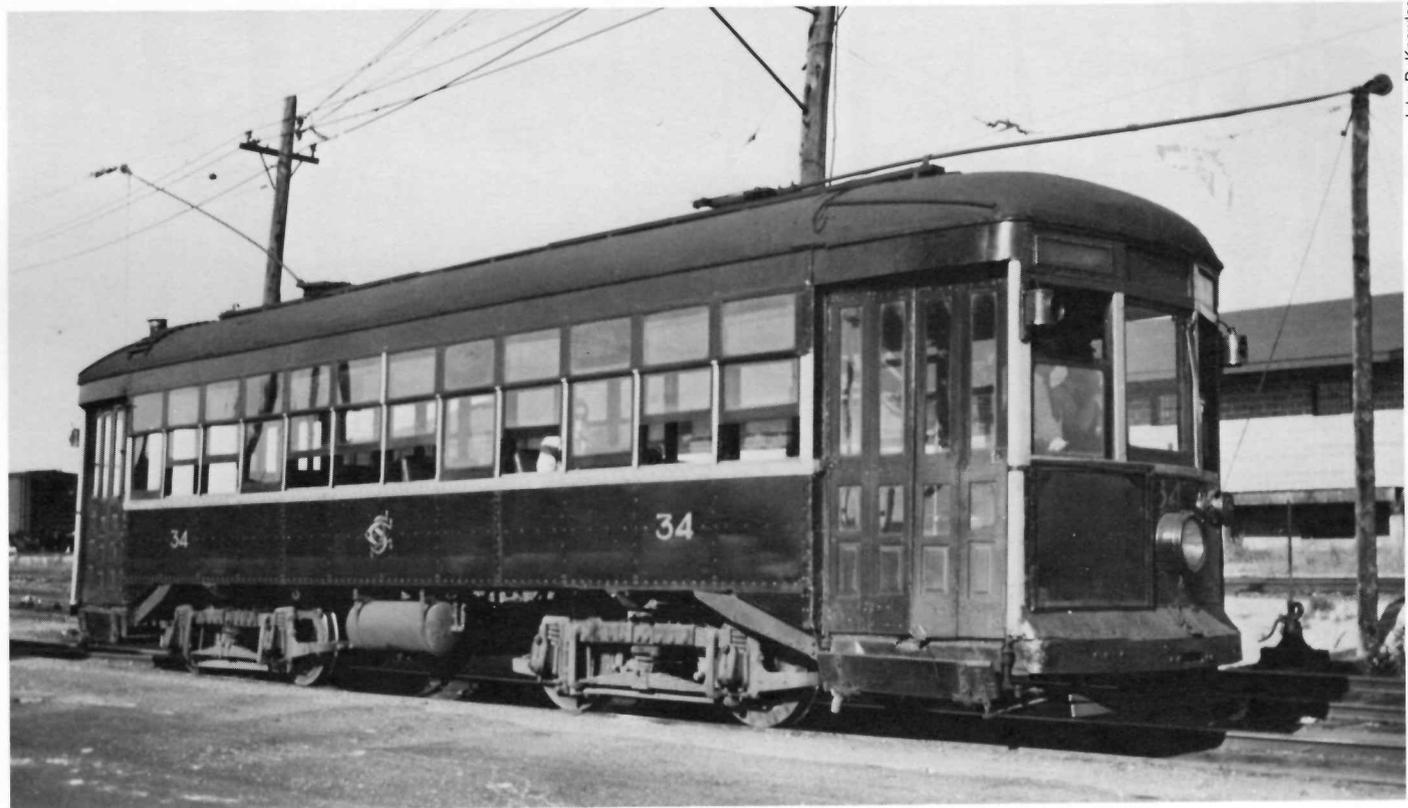
Car 33 in a residential area of Copper Cliff. Note the wooden sidewalks. The INCO smelter stacks are in the background.



One passenger patiently waits for the motorman to take car 34 from the O'Connor Park car barn, across Notre Dame Avenue to the right of way on the other side, and thence along Notre Dame to the downtown.

34

Car 34 is shown here at the flour mill (O'Connor Park) yard, prior to departing for downtown Sudbury. 16 August 1947.

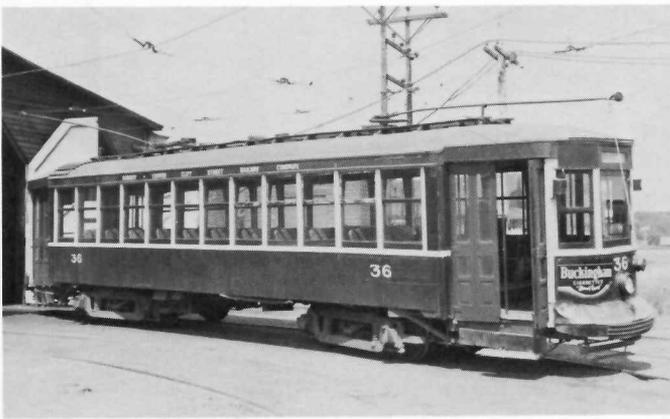




The car barn on Notre Dame Avenue. The electric rotary is also illustrated on pages 30 and 31.



This view looks towards downtown Sudbury, and shows the SCCSER trackage along Notre Dame Avenue. On the left is the CNR-CPR transfer yard and the CNR Borgia Street station. 17 August 1947.



John D. Knowles

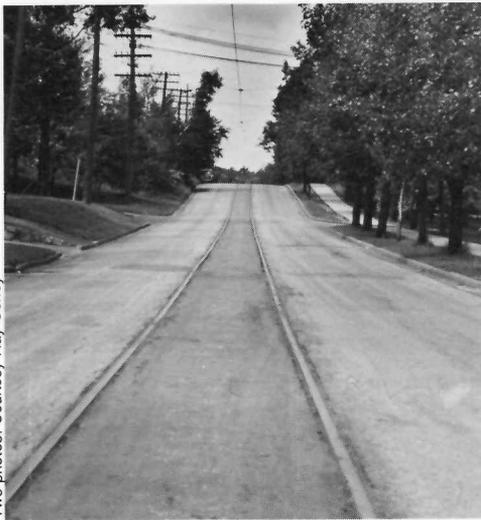
Courtesy Frank Butts



One of the wooden cars, number 36, waits at the car barn.

36

Car 36 eastbound on Elm Street, in front of Kresge's. 17 August 1947.



Two photos: Courtesy Ray Corley



Two photos: Courtesy W. C. Bailey



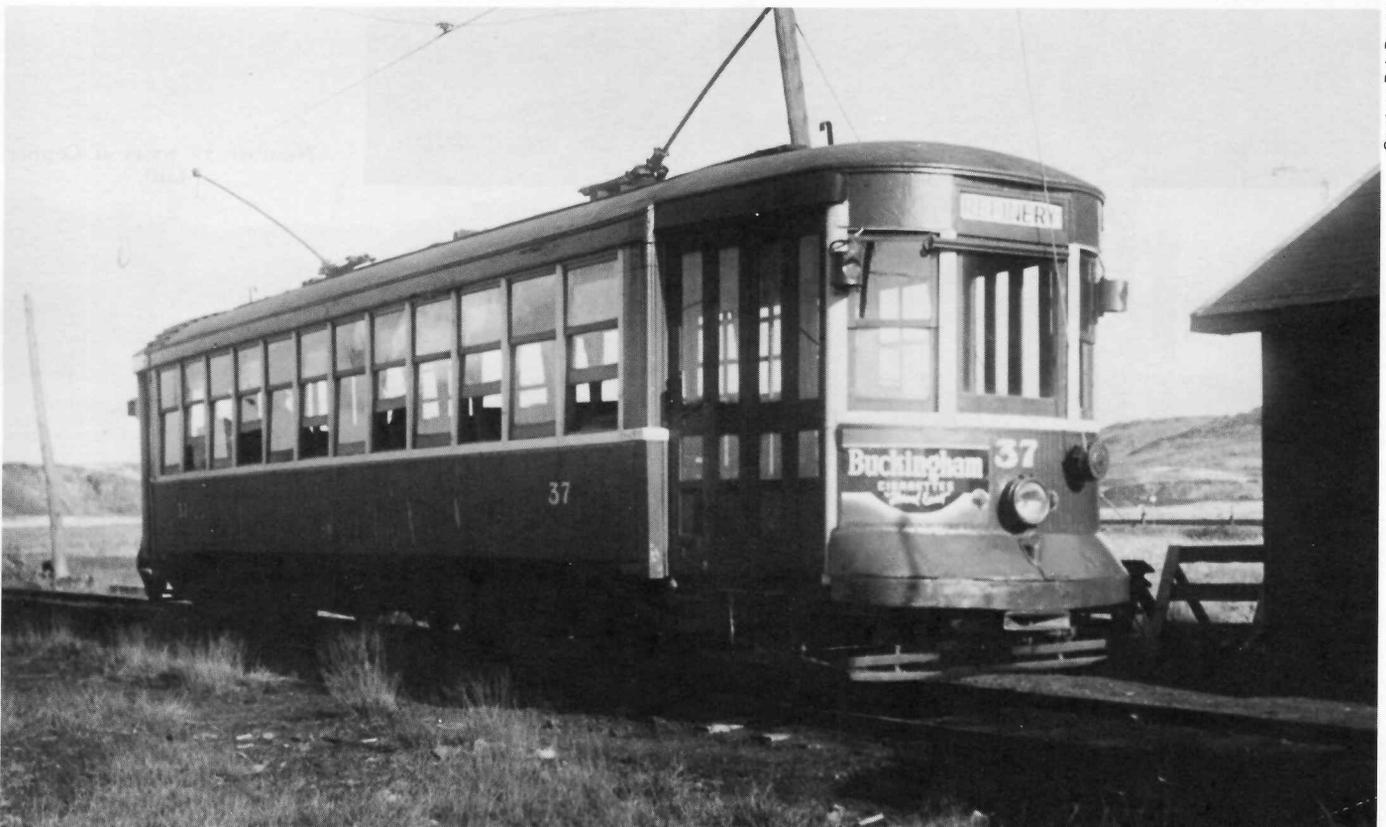
(Clockwise from top left:) A view of the Lake section of the SCCSER. At the time the photograph was taken, the line had been out of service for some time. The character of the lands about the railway here is vastly different from that shown on page 17. ● Another view of the car barn on Notre Dame Avenue. ● SCCSER right of way beside Notre Dame Avenue, just east of Sacred Heart College, looking towards the downtown area. ● The end of the Lake line on the SCCSER, showing Lake Ramsey in the background. The photograph is circa 1949, and the line was out of service. Lake Ramsey is in the background, and the municipal park on the right. This is a truly scenic area of Sudbury.

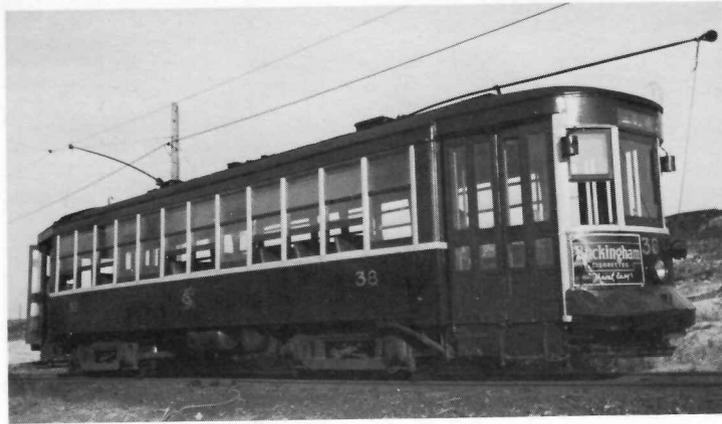


Interior of car 37, after conversion to the K35 platform controllers. 3 August 1949.

37

Car 37 waits at the copper refinery, 8 October 1949.



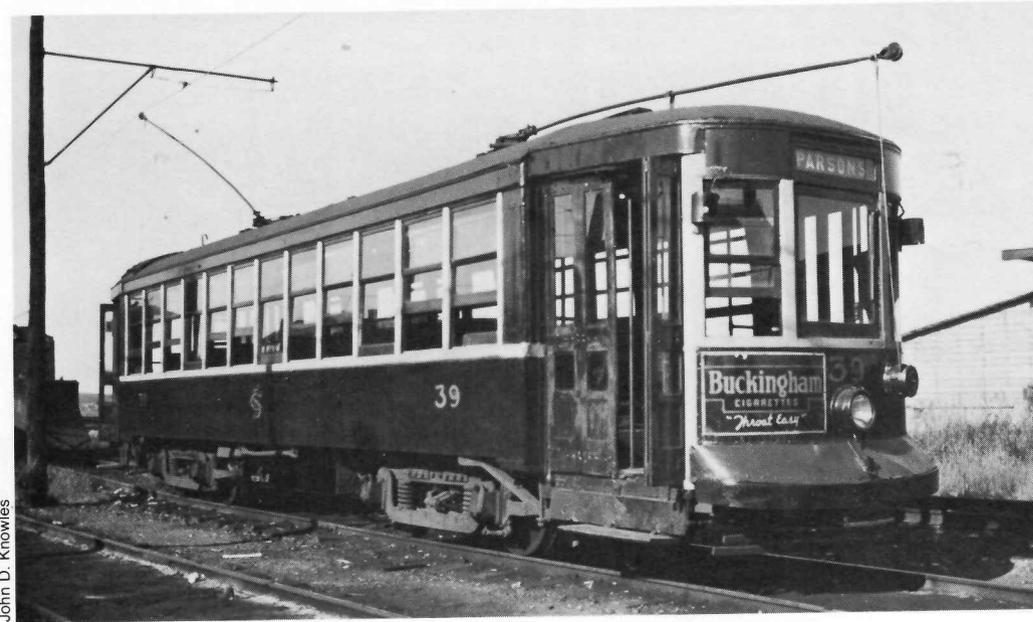


Car 38 on the refinery line, at the junction. 17 August 1947.



Interior of car 38, with master controller for Westinghouse HL electro-pneumatic unit switch control (mounted beneath the car), and rattan covered seats. 17 August 1947.

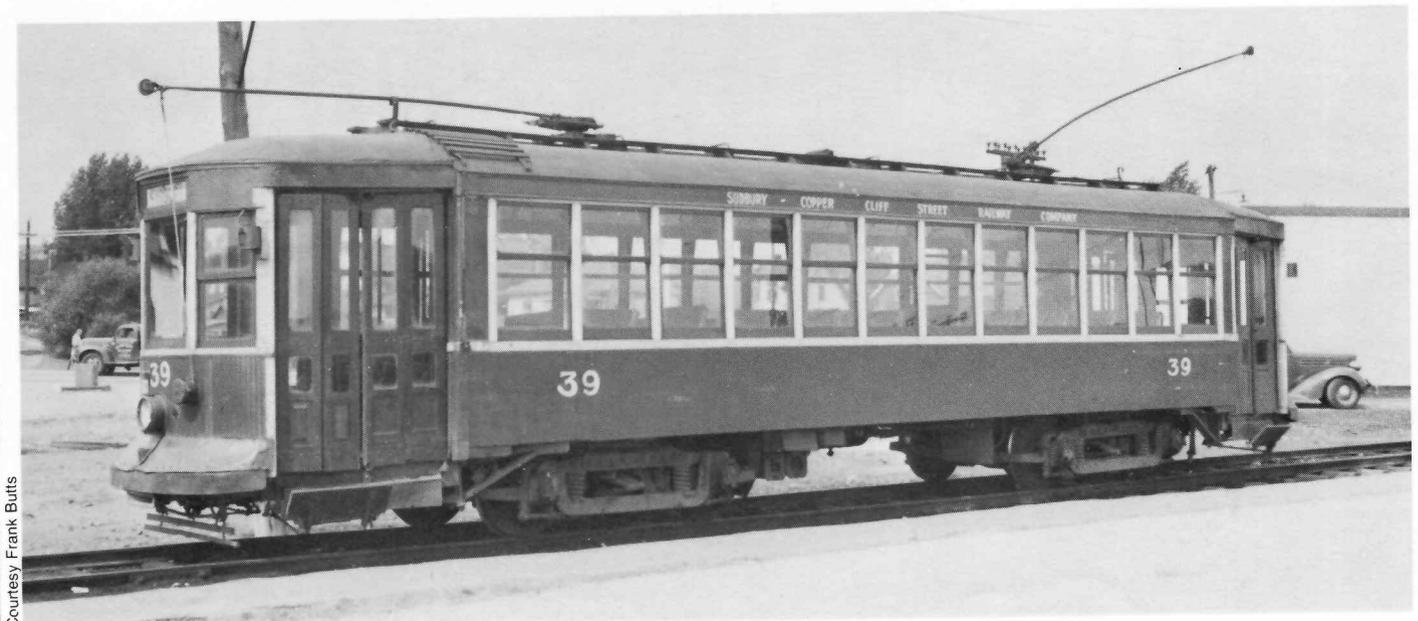
Three photos: John D. Knowlies



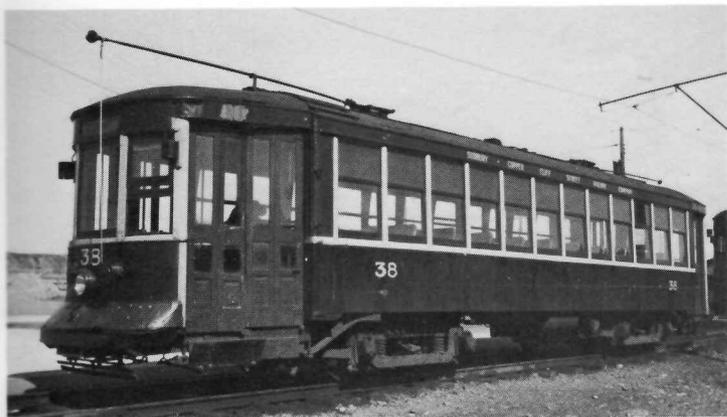
Car 39 opposite the car barn, 16 August 1947. The car still has a Wilkes-Barre, Pennsylvania, sign roll.

39

Number 39 waits at Copper Cliff.



Courtesy: Frank Butts

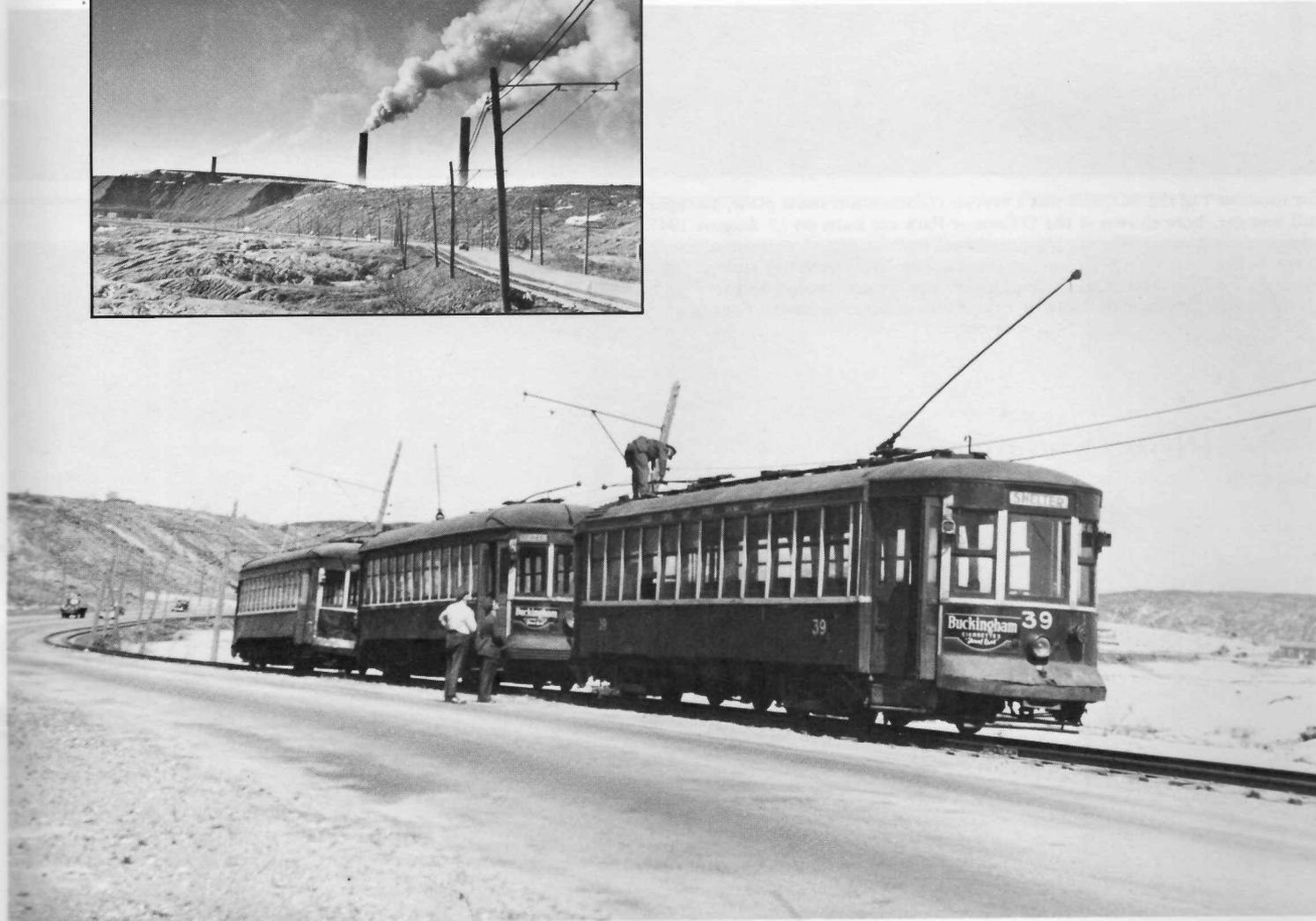


38

Car 38 at Copper Cliff, 3 August 1949.



The date is 3 March 1950, and car 31 has suffered a broken axle, causing it to derail, take out a hydro pole, and almost hit the offices of Empire Coal. The site is just west of the CPR main line crossing Elm Street. The car had been obtained in 1929 from the Schuylkill Railway of Girardville, Pennsylvania.



The motorman of car 39 is having something of a problem with his trolley pole, and two other rush hour cars are backed up behind him. The "Big Nickel" is on the hill behind the last car. The road is Highway #17! • The *inset* photograph shows the wild terrain, including part of the INCO slag dump, in the same area, on 28 March 1948. The barren landscape and belching stacks were almost trademarks for Sudbury in those days. That the land is greener now, and the stack arrangement vastly different, only serves to emphasize the grim aspects of yesterday.

Courtesy Sudbury Star

Inset: Courtesy Bob Brown

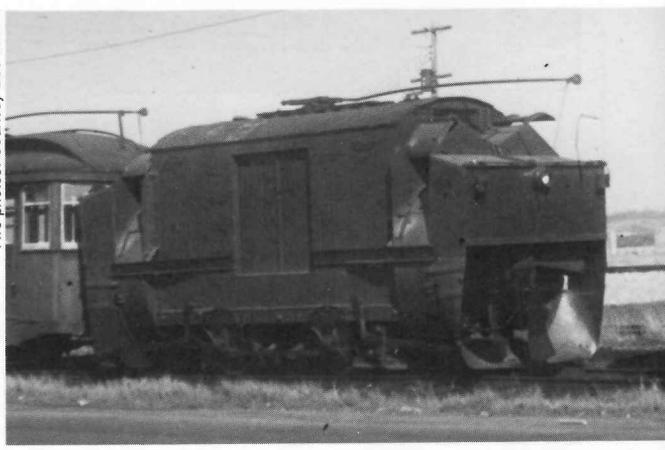
Courtesy W. H. Coe



Car number 1 of the SCCSER was a unique combination snow plow, sweeper and line car, here shown at the O'Connor Park car barn on 17 August 1947 (above and above facing). The car is painted red. ● (Below left:) A motorman's wife poses beside the sweeper/plow at the Copper Cliff terminal siding. This machine could not be turned anyplace on the system except on the wye at Durham and Elm Streets. Note that the cabin appears to have a door on one side only.

Plow/Sweeper/Line car

Two photos: Courtesy Bob Brown



(Above:) The four-wheeled, double-ended, wood-framed electric rotary snow plow (!) is at the flour mill yard, opposite the Notre Dame (O'Connor Park) car barn in October 1949.

Rotary

(Right:) The rotary came to Sudbury in 1943 from Wilkes-Barre, Pennsylvania, along with cars 36-39. When this photograph was taken, the plow only had one more winter's snow to cope with before the system was shut down. The photograph at right shows the same end, but the opposite side, as the photograph above.

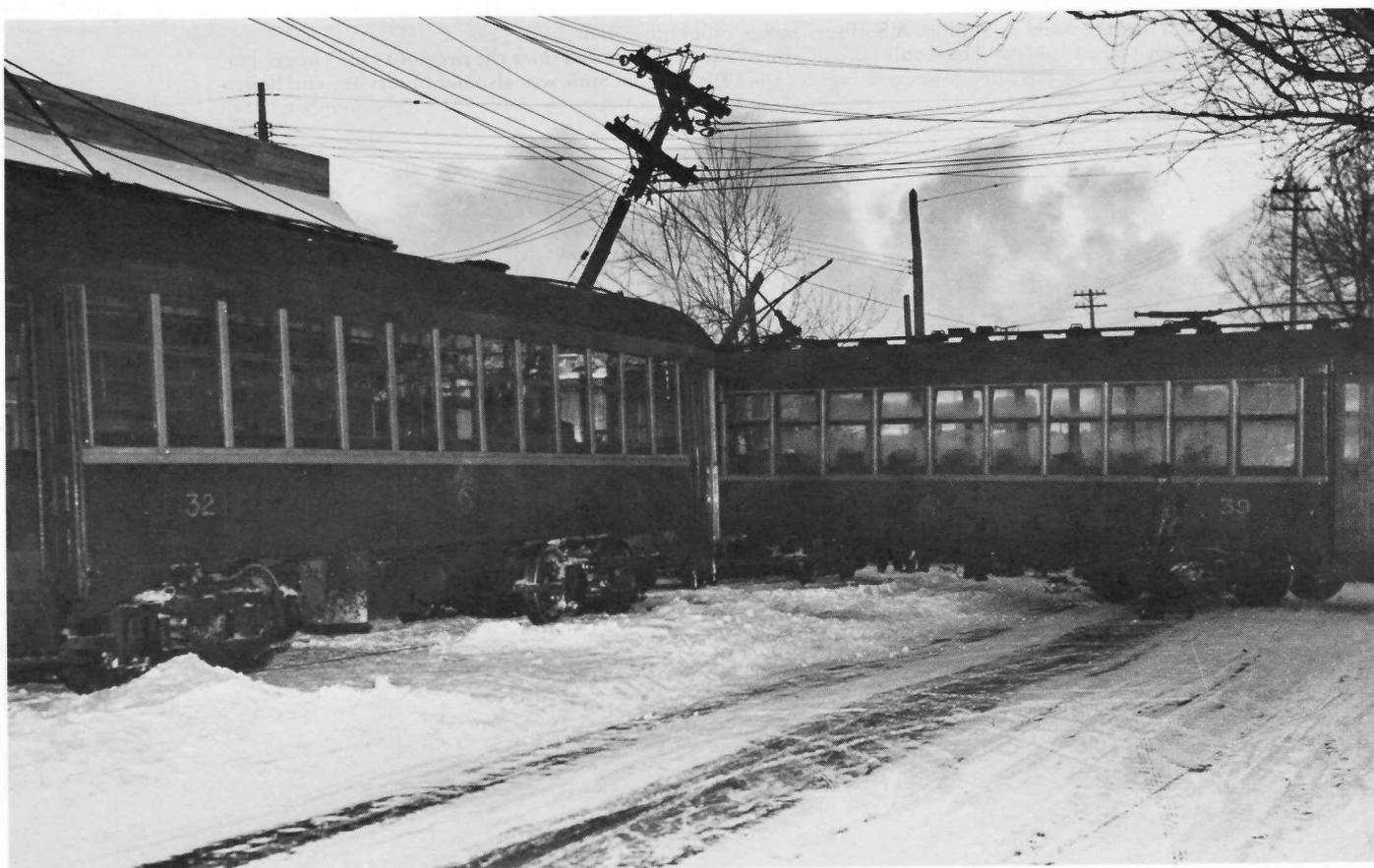
Courtesy Frank Butts







Car 36 has just passed the brewery on its way west to Copper Cliff. The roadside right of way has long since disappeared with the widening of Lorne Street. The smoke stack partly obscured by the right-most telephone pole is part of the CPR's Sudbury roundhouse complex. The water tower is *not* the water tower that shows in the photograph on page 11: the CPR had two water towers in Sudbury. 17 April 1949.



On 19 February 1947, car number 39 derailed on Lorne Street, making it impossible for car 32 to pass. A careful examination will show that the hydro pole was snapped in two places.

(Outside back cover, top:) The last run from Copper Cliff, 1 October 1950; car 38 left at 16h50, car 37 at 16h55. ● (Bottom:) Cast-offs from streetcars litter the ground beside the storage track at O'Connor Park. The road in the background is Notre Dame Avenue, about to become the Capreol Road as it crosses the CNR track to Copper Cliff. The date is 11 October 1949.

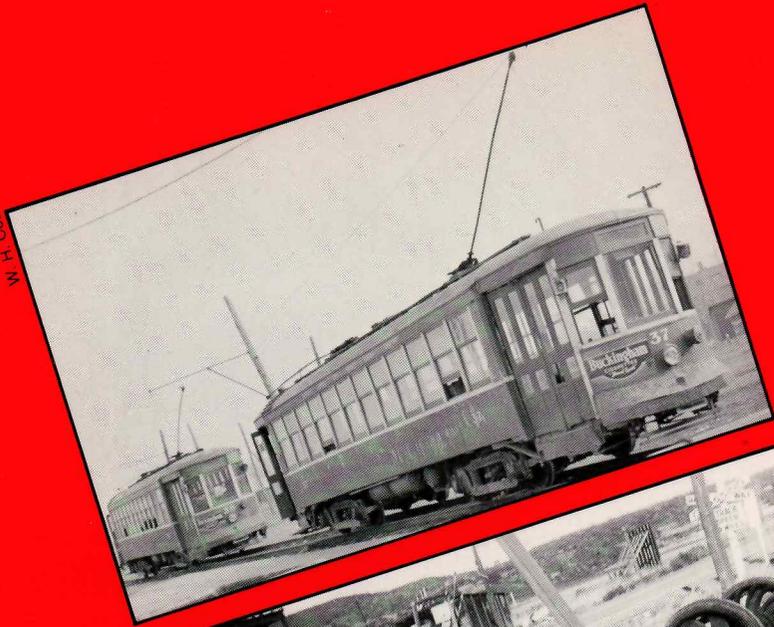
Two photos: Courtesy Sudbury Star



The fleet waits scrapping: A *Sudbury Star* photographer visited the yard across from the car barn on 3 April 1951, and took this photograph of streetcars unused since the previous fall. The copper trolley wire has already been salvaged. The CPR's Stobie Spur was also out of service, and hence the fouling of it by trolley equipment was of no consequence. ● (Below:) On 13 September 1951, almost a year after service ended, a *Sudbury Star* photographer recorded the last indignity done to car 33. Stripped of trucks, interior furnishings and electrical fittings, the car-body waits final cutting up by Greenspoon.

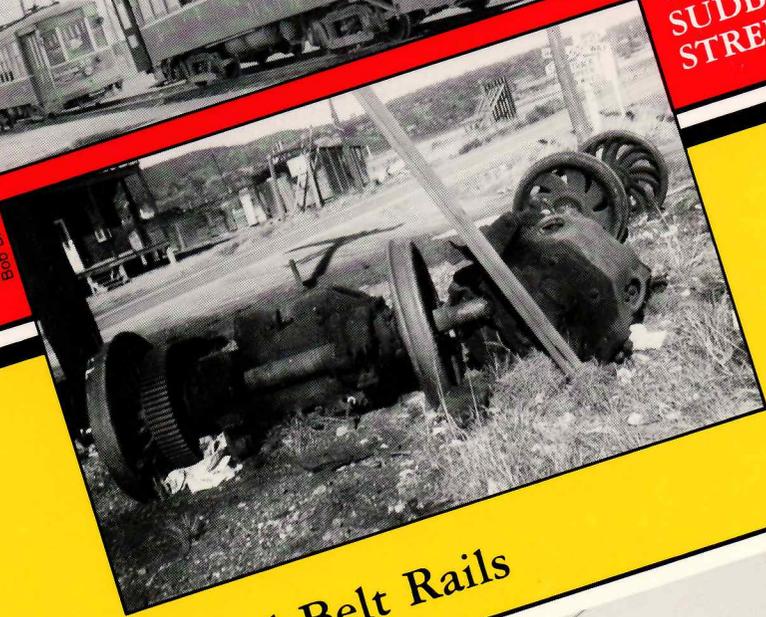


W. H. COO



**THE
SUDBURY
STREETCARS**

BOB BROWN



Nickel Belt Rails

