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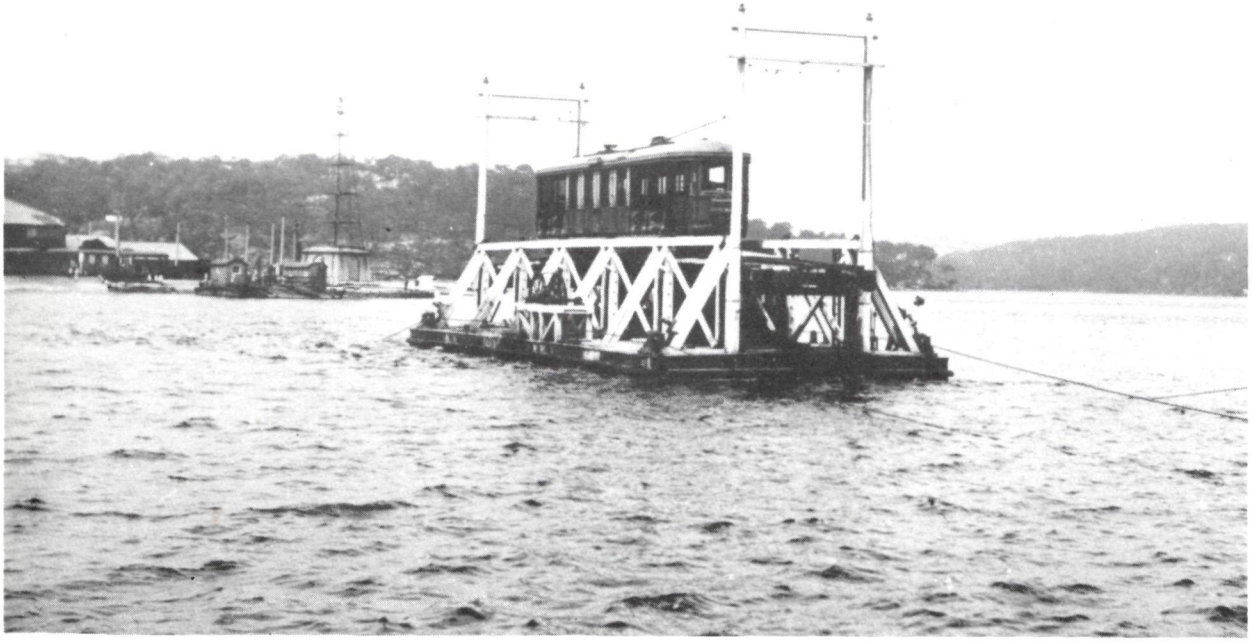

THE MANLY TRAMWAYS — Part 4

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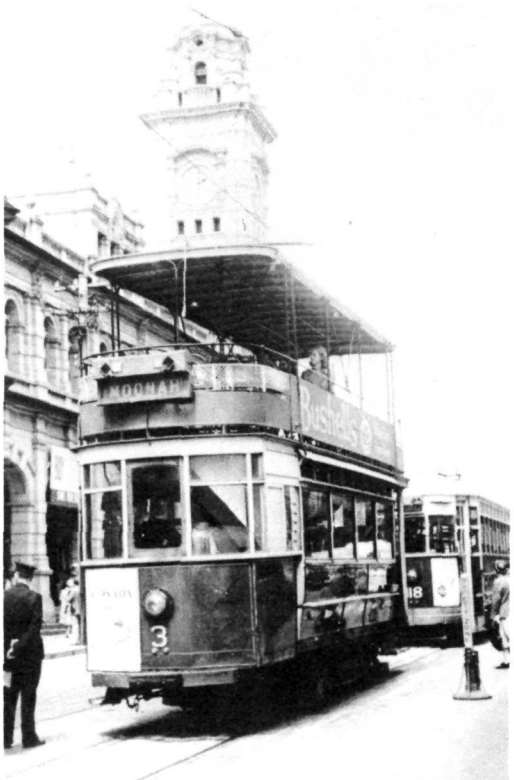


Hobart's second doubledeck car to carry the number 3 was built in 1922. Like other doubledeck cars then operating, No. 3 lost her top deck in 1947 following a series of accidents on the Sandy Bay line. Our photograph shows No. 3 in Elizabeth Street outside the Hobart GPO about 1946.

From an old postcard

FRONT COVER:

O class car 978 being transferred from North Sydney to Manly on the tramcar ferry across The Spit in 1922. Details of the operation of this unique vessel can be found in this issue with the fourth article by Ken McCarthy on the Manly Tramways.

R. Merchant collection

BACK COVER:

A collection of early tramway photographs by contributors to the New South Wales Government Railways and Tramways magazine 'The Staff', dated 23 October, 1929.

SRA Archives

THE MANLY TRAMWAYS — NSW 1903-1939

D. 1911-1912 THE END OF STEAM OPERATION

By K. McCarthy

The previous parts of this series appeared in this journal in October 1979, December 1980 and August 1981. This part deals with the substitution of electric trams on the Manly Pier to Brookvale steam route; the use of steam tram trailers in electric service; the first reorganization of Manly terminal facilities and the introduction of the tramcar ferry at The Spit.

Steam and Electric Services

With the opening of the Manly to The Spit electric tramway service on 9 January, 1911 both steam and electric trams traversed the single track between Steyne Junction (corner of North Steyne and Raglan St.) and Manly Wharf via The Corso. The Brookvale steam tramway between Steyne Junction and North Manly Depot was also electrified but only used by the J type cars taking up operation from and returning to the depot.

Two steam trams operated between Manly and Brookvale to provide a 30 minute frequency while two electric trams worked The Spit tramway crossing at Condamine Loop on a similar headway. This latter electric service, however, was increased to a 15 minute frequiency on Saturday afternoons and throughout Sundays with four trams in traffic.

The Brookvale steam trams crossed at either North Manly Depot or Harbord Loop depending on the Manly ferry connections. The 15 minute electric service to The Spit resulted in trams crossing on the three loops, Parsley, Condamine and Ivanhoe.

On Saturdays, Sundays and holidays a traffic officer known as a "Starter" regulated the departures of the Manly trams from The Spit and supervised the passenger arrivals from the punt linking The Spit terminus of the North Sydney tramway.

With the opening of The Spit to Manly tramway the Brookvale single track Staff sections were altered as follows:—

No. 5 Steyne Junction to Esplanade (Manly Pier)
No. 1 Steyne Junction to North Manly (Depot Loop)
No. 2 North Manly Loop to Harbord Loop
No. 3 Harbord Loop to Brookvale Terminus

The electric trams traversed the Manly business district by a balloon loop or belt loop via Raglan Street, North Steyne, The Corso and Belgrave Street in a clockwise direction. The portion shared with the Brookvale steam service was therefore single direction for the electric trams and bi-directional for the steam cars. The incoming electric trams from The Spit followed the Brookvale tram along this shared section and carried the single track "Staff" token.

From 3 June, 1911 the electric tramway along Belgrave Street between Manly Pier and Belgrave Street Junction was protected by staff section No. 5 to enable this single track section of the belt line to become bi-directional when holiday time congestion or an emergency situation prevented the electric tram traversing The Corso. From that date the staff section between Steyne Junction and The Esplanade became No. 6.

Brookvale Electrification Proposals

On 16 February, 1909 plans for the conversion of the steam tramway between Manly and North Manly to electric operation envisaged one electric tram in service to provide a half hour frequency. Two cars would be required for a 15 minute service and these would pass on the North Manly terminal loop which would be extended 3 chains (60 metres) towards Manly or on a new loop to be constructed 9 chains (180 metres) from the terminal loop.

Maximum holiday traffic was expected to be catered for by two coupled electric tramcar sets of four trams in traffic.

When planning was in hand for The Spit to Manly electric line on 25 May, 1909 the proposed rolling stock strength was amended to seven O type trams to work the entire Brookvale and The Spit timetables.

On 30 August, 1910 Messrs. Brain, Kneeshaw and Cowdery (respectively Electrical Engineer, Traffic Superintendent and Permanent Way Engineer) presented a report to the Railway Commissioner recommending the electrification of the Manly to Brookvale steam tramway.

The estimated cost of £37,408 was made up as follows:—

Substation with battery	£8,250
Transmission line	£7,060
Overhead and feeders	£3,630
Allowance for power station	£5,100
Rolling stock of 7 electric cars	£10,150
Track bonding	£308
Extension to car shed	£2,044
Sprinkler system in shed	£866

The authorised work on The Spit to Manly tramway eventually included electrification of that portion of the Brookvale tramway between Steyne Junction and North Manly car sheds. This reduced the estimated steam tramway conversion to £28,383:—

Substation and battery	£8,300
Transmission line	£1,260
Overhead and feeders	£5,763
Extension to car sheds	£2,044
Sprinkler system in shed	£866
Rolling stock	£10,150

On 31 August, 1910 the Chief Commissioner approved the conversion of the Brookvale tramway beyond North Manly Depot to electric operation and fixed the opening date as 1 May, 1911. The conversion timetable called for the new rotary converter for the new North Manly substation to be delivered during March 1911 while the battery would need to be completed by 1 March, 1911 to allow eight weeks for charging.

Electric Rolling Stock for the Brookvale Tramway

The planned rolling stock strength for the conversion varied from time to time. The following table illustrates the variations:—

Date	*Number of Electric Cars*	*Comments*
8-3-1909	1 car ordinary, 3 cars on holidays	Coupled 50 seat cars.
1-6-1909	2 x 80 seat cars	Coupled O cars.
7-11-1910	9 x 80 seat cars.	
9-1-1911	9 x 80 seat cars.	
10-1-1911	9 x 80 seat cars + 6 steam trailers.	
16-1-1911	7 x 80 seat cars + 6 steam trailers.	
20-1-1911	7 x 80 seat cars + 6 steam trailers + 2 x 50 seat cars	The 50 seat cars were the H type used on The Spit line with the 6 J types.
25-1-1911	7 x 80 seat cars	6 of the 7 x 80 seat cars needed for the maximum Brookvale service.

Revision of Conversion Costs

On 16 January, 1911 Messrs. Brain, Kneeshaw and Cowdery considered the tramway electrification costs in the loan estimates for 30 June, 1911.

The proposals for allocation of the £50,000 vote were:—

Completion of Manly to Brookvale electrification	£24,471
Towards the cost of the Ashfield electrification	£20,000
Towards the cost of the Newcastle electrification	£5,529

The Manly electrification received first priority. Loan funds were first estimated at £18,233 but traffic increase and substation work, as well as the planned car shed expansion were estimated to cost £2,300 and £6,238 respectively. The car shed work aimed at providing a shed to ultimately house a total of 54 O type tramcars. With the omission of the substation unit the work would cost £24,471.

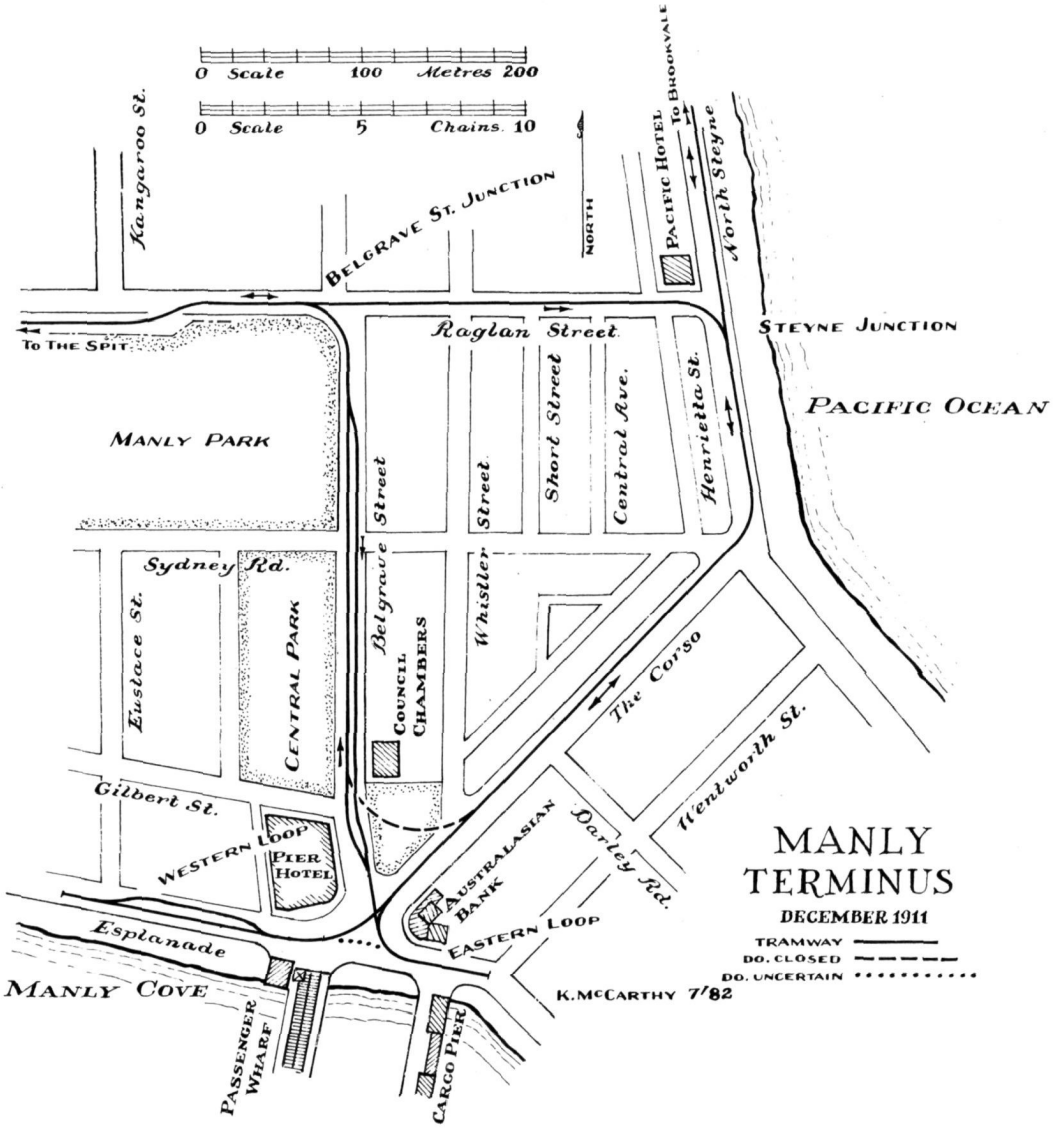
An earlier Ashfield conversion estimate of June 1910 amounted to £50,084. This included £12,000 for rolling stock which was transferred to the general rolling stock fund thus reducing the budget to £38,084. As the Enfield steam tram shed stood on a public road, and a further substation was also required, a further £20,000 was absorbed.

The trio planned to visit Newcastle on 17 January, 1911 to select a powerhouse site and the remaining £5,529 would be used towards that project.

North Manly Substation

On 13 February, 1909 the decision was made concerning the electric power requirements of The Spit to Manly and the Manly to Brookvale tramways. The supply was to be adequate for a maximum of 9 tramcars.

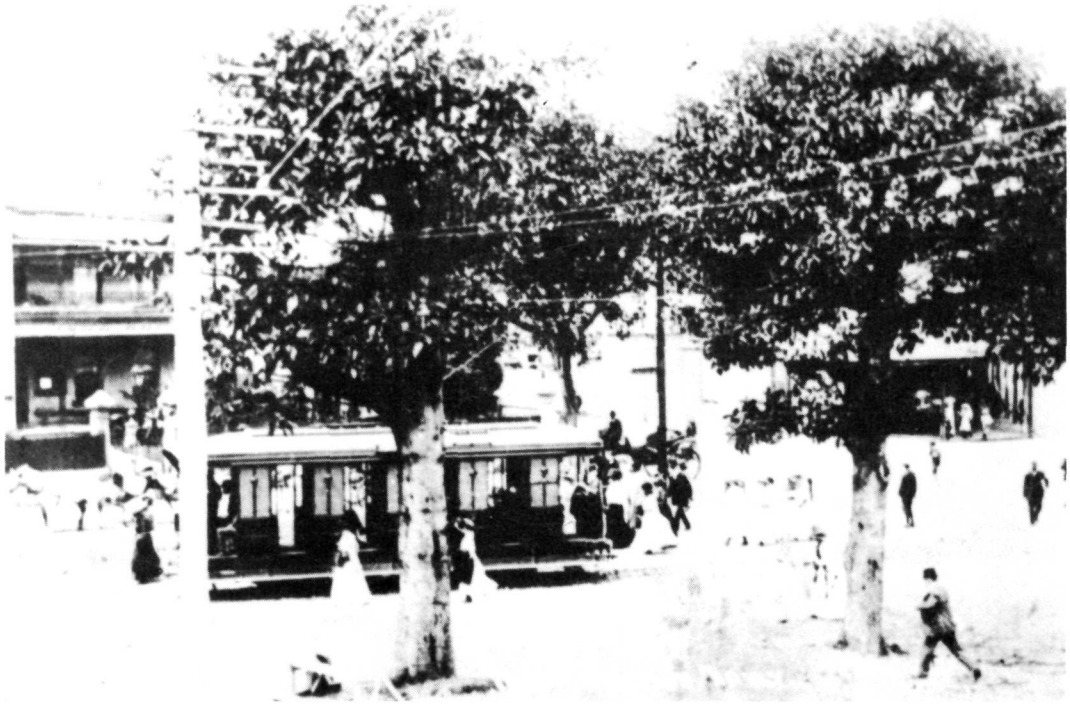
A further report dated 30 August, 1910 stated that the expected power requirements for the Manly tramways had grown since the previous investigation. At that time a substation site had been purchased at what is now the corner of Pittwater Road and Wakefield Street, but, as related in the previous article in this series, a temporary substation was commissioned near the corner of Sydney Road and Condamine Street, Balgowlah, to supply traction current for the opening of the Manly to The Spit tramway in January 1911.



By 7 January, 1911 it was clear that the new Manly substation would be ready by 10 April, in time to allow additional electric rolling stock to operate on The Spit to Manly line for the Easter holiday period. The first stage of the new substation was rated adequate to supply power for 12 four wheel (two motor) tramcars. This would allow six four wheel trams to work The Spit tramway in addition to three 80 seat cars on the Brookvale line with one 80 seat car to spare.

A report dated 25 January, 1911 revealed that Electrical Engineer Brain expected a 450kW rotary converter to be installed in the permanent substation by 10 April while the battery, being delivered on the *SS Afric*, was also to be available at that time. The 1 May, 1911 conversion date for the Brookvale tramway, which had been approved by the Commissioner on 31 August, 1910 was again verified.

The Annual Report of June 1911 reveals that the permanent substation was equipped with one 450kW and one 200kW rotary converter while the battery was of a 500 amp-hour capacity.



J type electric tram No.110 standing in Belgrave Street, outside the Council Chambers at Manly, circa February 1922.

V. Solomons Collection

Rolling Stock

On 8 March, 1911 the Electrical Engineer advised the Traffic Superintendent that four O type 80 seat cars with GE type M controls were at that stage in Randwick Workshops awaiting transfer to Manly for the Brookvale conversion. An additional three cars of the same design were also in city car sheds awaiting transfer. The steam trailer cars at Manly were to be fitted with air brakes for use behind the electrci tramcars when they could be progressively spared from the regular Brookvale steam traffic.

The three O type tramcars in city car sheds at that stage awaiting transfer had only been in service for a short period. This mixture of new and near new rolling stock was intentional as a fleet of identical cars of the same age would have required heavy routine maintenance at the same time.

On 19 April, 1911 the Rozelle Depot Master was instructed to send O cars 807, 808, 809, 991 and 992 to Randwick Workshops on Monday, 24 April without fail for transfer to the Manly tramway.

These five O cars were delivered to Botany Road railway-tramway siding on 30 April and were transferred to the St. Leonards railway-tramway connection on the North Sydney tramway. These five electric trams departed from Botany Road at 2.30 am on that Sunday morning hauled by steam motors 12A and 87A and arrived at St. Leonards (via Hornsby) at 7.10 am. The two steam motors returned light to Botany Road on a journey taking from 7.30 am to 1 pm.

The five O tramcars were then driven to North Sydney Depot where they were stabled until favourable tides permitted the labourious transfer to be made on the temporary tracks positioned on The Spit vehicular ferry. These were the first trams of the O type on the North Sydney system. Although their regular use on some of the North side routes was approved in 1913, trams of this design did not take up regular operation on the North Sydney system until 28 January, 1918. For seven years O cars traversing North Sydney tracks were only on transfer to and from Sydney and Manly.

Brookvale Electrification

Steam passenger operations on the Manly to Brookvale tramway ceased at the close of traffic on Sunday, 30 April, 1911 and electric services commenced on the following day.

Although District Superintendent Edwards reported that the conversion had proceeded smoothly, services on that first as well as the second day were worked by four wheel cars provided earlier that year from The Spit operation. A favourable tide was not available until the evening of Tuesday, 2 May, 1911 so the decision was reached on 19 April that the Brookvale conversion could be accomplished with existing rolling stock as no novelty traffic was expected between Manly and Brookvale.

Exchange of Rolling Stock

On the evening of 2 May four O cars, 808, 809, 991 and 992 were driven from North Sydney sheds to The Spit and transferred to the Manly side around midnight. On the following evening the fifth and final car, number 807, was exchanged. Although from seven to nine tramcars were to be transferred to Brookvale in the initial planning stages, a report dated 4 May, 1911 clearly stated that the "full complement of trams now needed for the Manly to The Spit and Manly to Brookvale services has now arrived".

Although only one electric tram was transferred across The Spit on the night of Wednesday, 3 May, the opportunity was taken to transfer the three steam motors to North Sydney from Manly at the same time. Steam motors 27A, 41A and 78A made the crossing on that evening, with two motors in steam hauling the third. Some fears were held as the wheels on these engines were worn, but a contemporary report states that the transfer and the climb up The Spit hill were accomplished successfully.

The three steam motors remained on the North Sydney tramway, possibly stabled in St. Leonards Yard, until Sunday, 7 May when they were steamed along the North Shore railway to Hornsby and then by way of the Main North Railway to Botany Road sidings; the trip occupied from 7.30 am to 1 pm.

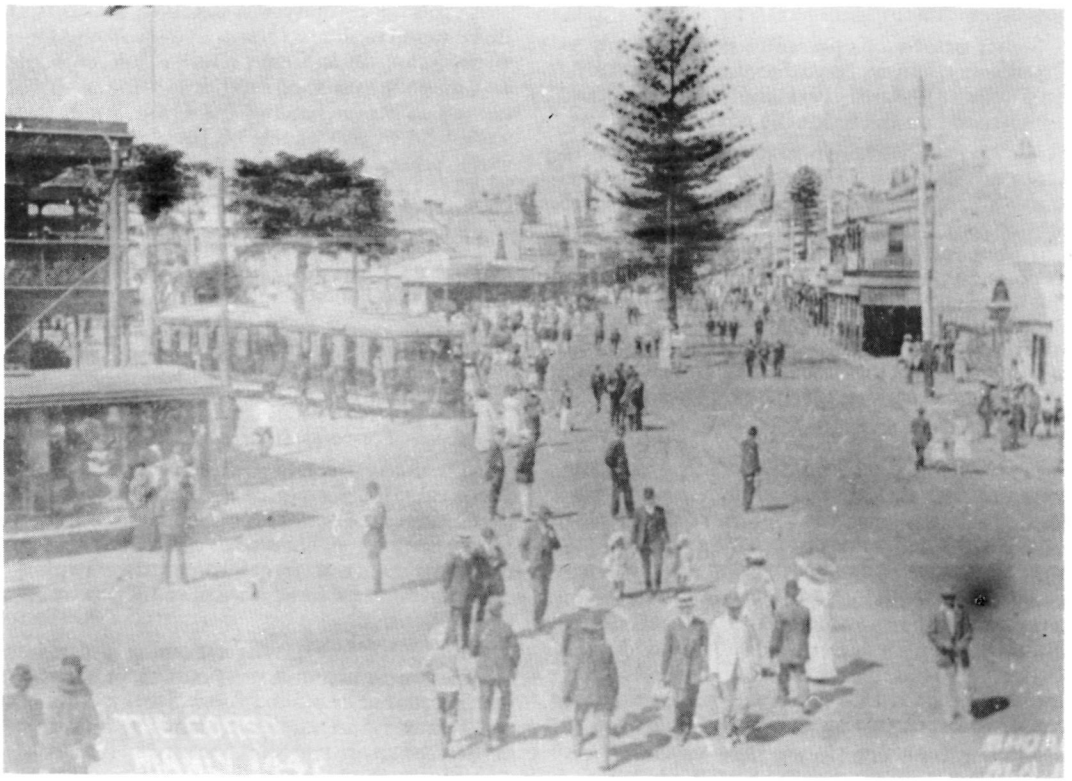
Brookvale Tramway Operation

With the introduction of electric services to Brookvale, three additional electric drivers and four additional conductors were appointed to Manly Depot at an increased cost of £813 pa. At that time a driver transferring from steam to electric trams received a wage reduction of 13/- to 11/- per day.

From 1 May, 1911 the incoming Brookvale electric trams now followed cars from The Spit on the shared route between Steyne Junction and Manly Wharf via The Corso. The Spit trams carried the single line Staff Ticket and the Brookvale cars carried the Staff.

Steam Motor 78A at the stub end track beyond Brookvale terminus run around loop, March-April 1911. The electric tramway span poles and side brackets can just be seen in the original photo.

C.B. Thomas Collection



An O car has just arrived at Manly Pier from Brookvale, is seen outside the Pier Hotel (left), while a coupled set of J type trams stand in Belgrave Street ready to depart for The Spit. The pine tree lined thoroughfare directly in front of the photographer is The Corso. January-February, 1912.

Late M Broadhurst photo,
D. O'Brien Collection.

With the Brookvale electrification the basic 30 minute frequency remained, although running times were 2 minutes faster than the steam service, the through trip taking 22 minutes. Journey times from Manly Wharf were now 8 minutes to North Manly Depot as against 10 minutes for the former steam trams, 13 minutes to Harbord Loop (15 for steam), 22 minutes to Brookvale (24 for steam).

Manly Depot

The depot stood at the original northern terminus which had been renamed "North Manly" from the original "Curl Curl" during October 1908. The original shed accommodation consisted of two timber framed structures clad with corrugated iron sheets. The single track motor shed could house four steam tram motors, while the adjacent trailer shed could accommodate six bogie trailers on two roads.

The report of 30 August, 1910 dealing with the electrification of the Manly tramway and the construction of the new Manly to The Spit line, estimated that £2,910 would be required to make the steam tram sheds suitable for housing electric stock. This amount consisted of £2,044 for shed improvement and expansion and £866 for a fire sprinkler system.

On 10 January, 1911 Electrical Engineer Brain informed Traffic Superintendent Kneeshaw that rolling stock at North Manly car shed would reach a total of 21 cars in the near future, viz:—

6 couplable 4 wheel cars	J type
9 x 80 seat tram cars	O type
6 old steam cars	B type trailers

Ten days later these gentlemen reached the decision that although 7 O type cars as well as the 8 single truck (J and H) trams soon to be in use on The Spit route, and the 6 trailers would

be stabled at North Manly Depot, it was not necessary to have the depot buildings extended by the Brookvale conversion date.

By 25 January, 1911 the planned stock numbers had been amended to:—

8 single truck cars	J and H types
7 x 80 seat cars	O type
6 old steam trailers	B type

This report continued, that the depot extensions would not be ready for the proposed 15 motor cars by 10 April, 1911 as planned. *The Railway and Tramway Budget* reported on the tramway electrification to Brookvale on 1 May but added that the new Manly car shed would not be completed for some time. The Annual Report for 30 June, 1911 however, revealed that additions to the car shed had been completed!

The nature of the 1911 car shed extensions is not too clear. A report of 1 May, 1913 stated that the car shed could accommodate 27 trams at that stage but £23,865 was required to enlarge the building to a 51 car capacity and to provide a fire sprinkler system. This was one of eight schemes proposed at that time to improve the Manly tramways, but approval was only gained for five of these eight projects; the depot was not one approved at that time.

The land on which the North Manly Depot stood measures approximately 200m x 34m and the brick structure still standing covers an area of 94m x 19m. Photos of the 1920's and at the closure period in 1939 reveal that portion of the steam tramway sheds remained until 1939, but prior to the 1920's some trams were also housed in the newer brick structure. To reach the brick saw tooth roofed building trams passed through the timber sheds on three tracks which then branched into five roads in the newer structure. The steam tram sheds resembled a dim tunnel through which electric cars had to pass to reach the brighter brick building accommodation.

The 1911 shed expansion project may have only consisted of the extension of the wooden framed steam sheds westwards. Such a three road structure would need to be 122m in length to house 27 O cars on three roads, and there was room on the allotment for a building of that dimension.

Tramway Department plans dated 23 June, 1928 indicate that only the above timber structure stood at North Manly at that period, yet photos of that time clearly show the timber and iron as well as the brick building combination in place!

Steam Trailers in Electric Service

On 8 March, 1911 Electrical Engineer Brain informed Traffic Superintendent Kneeshaw that the six steam tram trailer cars then braked with the vacuum system would have air brakes fitted for use behind electric cars after the Brookvale conversion.

The cost of making these trams suitable for electric haulage was estimated at £120 or £20 per car. These alterations were approved by the Commissioner on 15 March, 1911.

On 22 December, 1911 the North Sydney Depot Master was instructed to provide a man at Manly Wharf terminus to protect pedestrians from trailer shunting between 8 pm and 11 pm each evening as it was intended to haul former steam tram trailers behind O type electric cars during that Christmas and New Year holiday period.

Record cards reveal that the following Manly steam tram trailers returned to Randwick Workshops on the main Sydney system on the dates shown:—

No.	*Type*	*Returned to Randwick*
10B	C2 70 seat	27-9-1913
15B	C2 70 seat	11-10-1914
73B	C2 70 seat	27-9-1913
98B	C2 70 seat	20-9-1913
149B	A3-6 50 seat	11-10-1914
174B	C2 70 seat	11-10-1914

This list does not agree, however, with a return dated 19 March, 1912 which revealed that only 5 former steam tram trailers were attached to the Manly system at that stage. Perhaps a non-standard 50 seat car was not included in the 1912 total.

Brookvale Timetable

From 1 May, 1911 the timetable for the Brookvale electric working was similar in frequency to that followed by the former steam service.

Monday to Friday: Half hourly service.

From Manly: First car 7.14 am, last 11.14 pm. 11.44 pm and 12.10 am departures to North Manly Depot.

From Brookvale: First car 6.43 am, last car 11.38 pm.

Saturdays: Half hourly service.

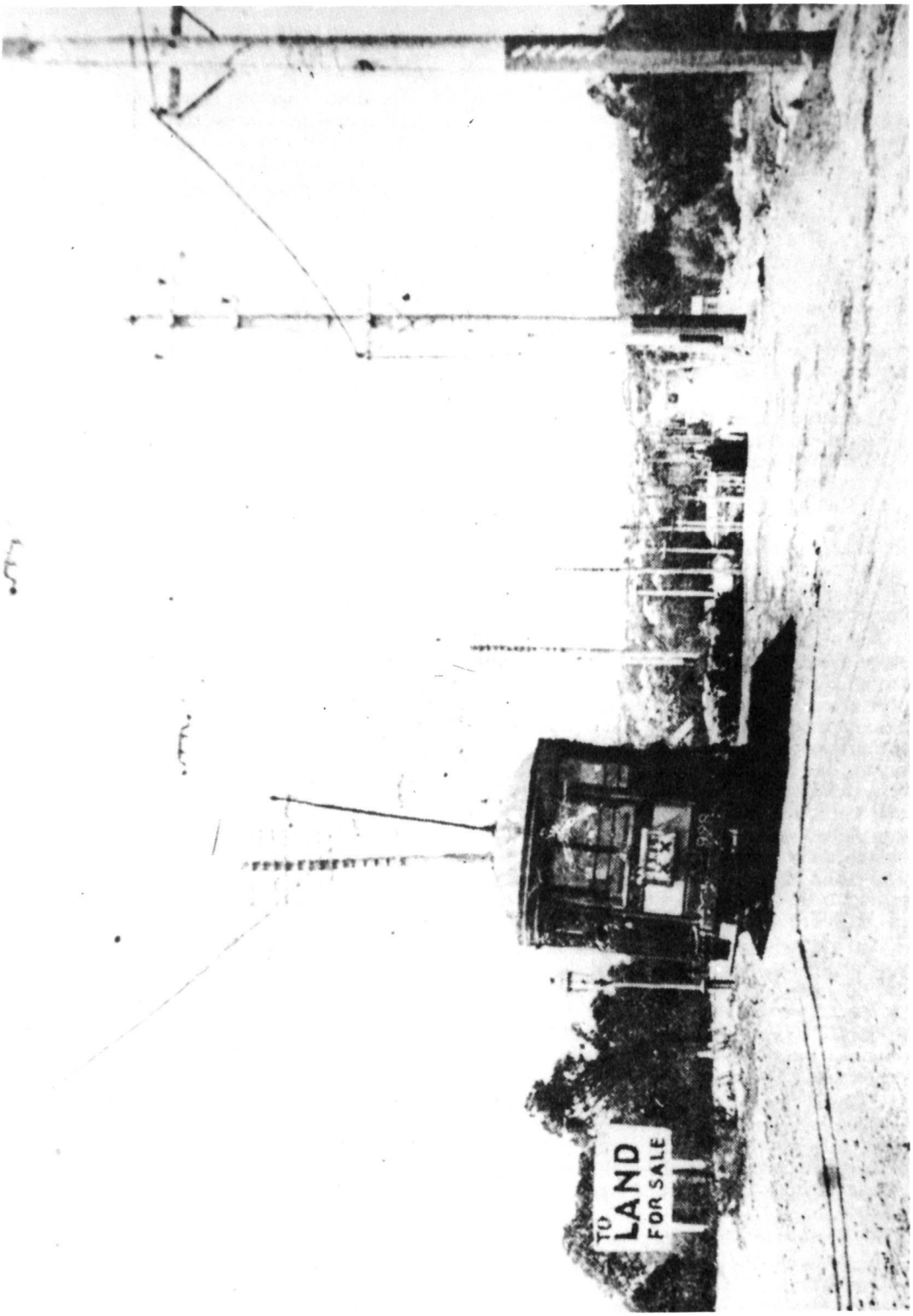
From Manly: Same as Monday to Friday.

From Brookvale: Same as Monday to Friday.

Changes at Manly Terminus

The Manly terminal layout underwent two major changes, one occurred between April and August 1914, while the second was carried out during March and April 1926.

Prior to the major reconstruction of 1914 minor changes were made during the summer of 1911-12. On Monday, 11 December, 1911 the Manly


TO
LAND
FOR SALE

O class electric tramcar 809 hauling a steam trailer along North Steyne during the summer of 1911-12. This photo was taken at Steyne Junction and the overhead wires of the tramway from The Spit can just be seen leading from the right.

D. O'Brien Collection

to The Spit trams were kept out of Belgrave Street; they reached Manly Pier by the usual incoming route along Raglan Street, North Steyne and The Corso but returned by this same path with the Brookvale service. This diversion kept tram traffic out of the area at the Belgrave and Gilbert Streets intersection allowing final construction of junction arrangements to be undertaken.

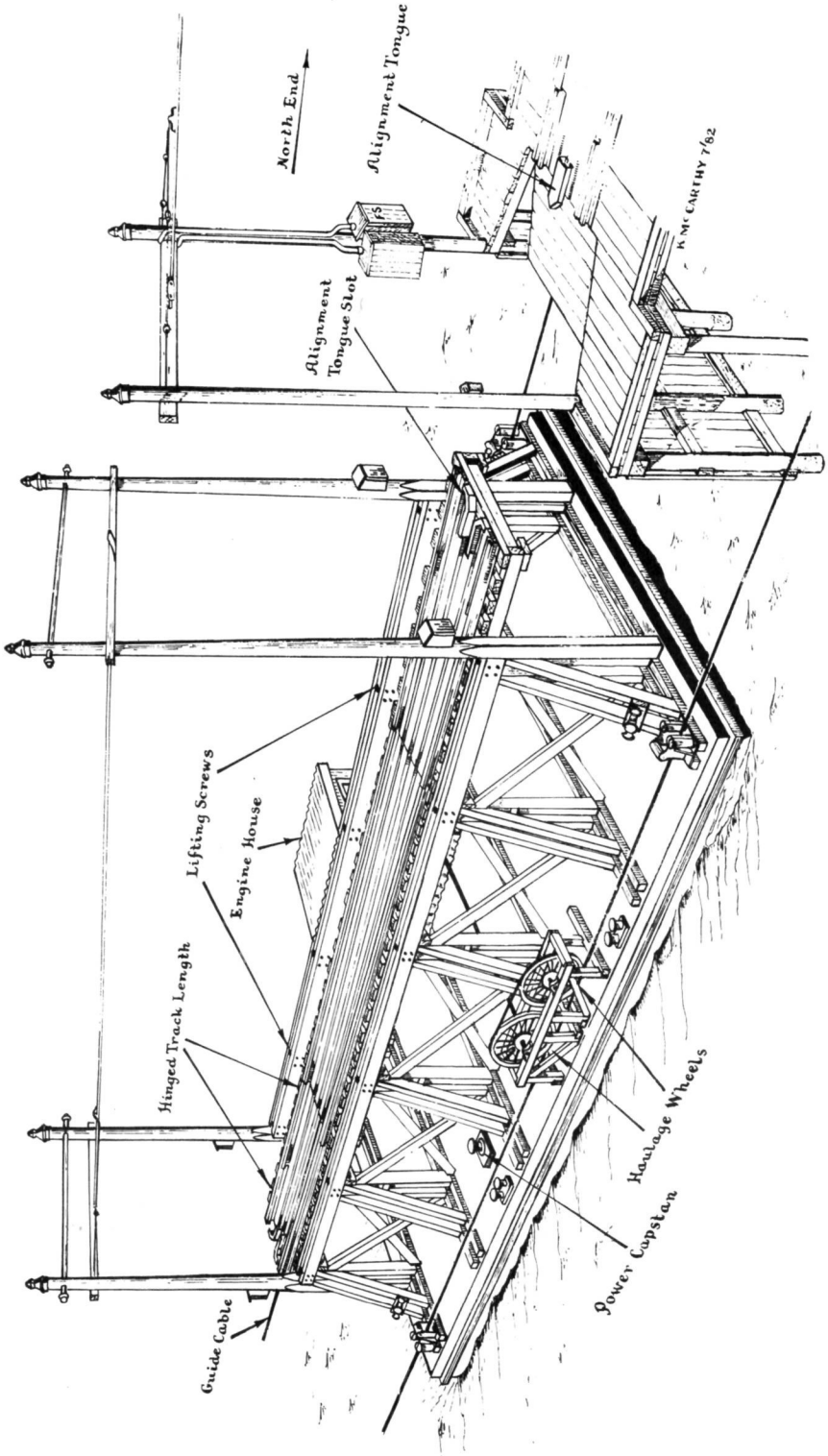
From the next morning, Tuesday, 12 December, The Spit trams departed from the new Eastern Loop in the Esplanade near the Australasian Bank at the cargo pier while the Brookvale service terminated in the usual Western Loop also in the Esplanade at the passenger jetty.

An official track map of this new arrangement has not been located to date but a later map of 5 February, 1913 suggests that the arrangements were those shown on the accompanying map.

When approaching the Manly terminals, The Spit tram had to stop prior to fouling the points of the Up triangle to allow the conductor to

Left: O Car 998 turning into Sydney Road near Dudley Street after gaining the ridge from The Spit. The vehicle ahead of the Manly bound tramcar seems to be a hansom cab while another O car can be seen about a quarter mile ahead, also heading for Manly. Circa 1914.

D. O'Brien Collection


North End
Alignment Tongue
Alignment Tongue Slot
R McCARTHY 7/82
Lifting Screws
Engine House
Hinged Track Length
Guide Cable
Haulage Wheels
Power Capstan

come forward to turn these points. In all probability this refers to the facing points at the south-western end of The Corso.

The Brookvale trams were directed to stand at Belgrave Street outside the entrance to the passenger wharf. When passengers had left the cars they were then to be moved forward into the Western Loop so that the entramnce to the livery stable was not blocked. When passengers emerged from the pier on the arrival of a steamer, the Brookvale tram driver was instructed to move the cars to the Pier Hotel entrance so that the passengers could join the cars.

Although official references have not been located, the late Mr. Gedhill stated that the long loop, which was really a duplication along Belgrave Street between Gilbert and Raglan Streets, was available for traffic on 26 February, 1912. When the balloon loop circuit was in use around the business area of Manly, both these tracks in Belgrave Street could be used in a northerly direction. When The Spit cars used Belgrave Street for both incoming and outward trips the loop tracks were used as Up and Down roads as with a normal duplication.

From 3 August, 1912 trams operating on the Manly to The Spit service used the Belgrave Street tracks for both inwards and outwards trips on Saturdays and Sundays, leaving The Corso free for the northbound Brookvale trips.

The Spit Tramcar Ferry

The *Sydney Morning Herald* for Saturday, 6 January, 1912 reported:—

> "New punt at The Spit: A punt had been built by the Works Department for transporting tramway rolling stock across Middle Harbour at The Spit. The traffic is growing at that place. The Minister for Works (Mr. Griffith) has decided to have it used on holidays and weekends and other occasions when necessary as a passenger punt."

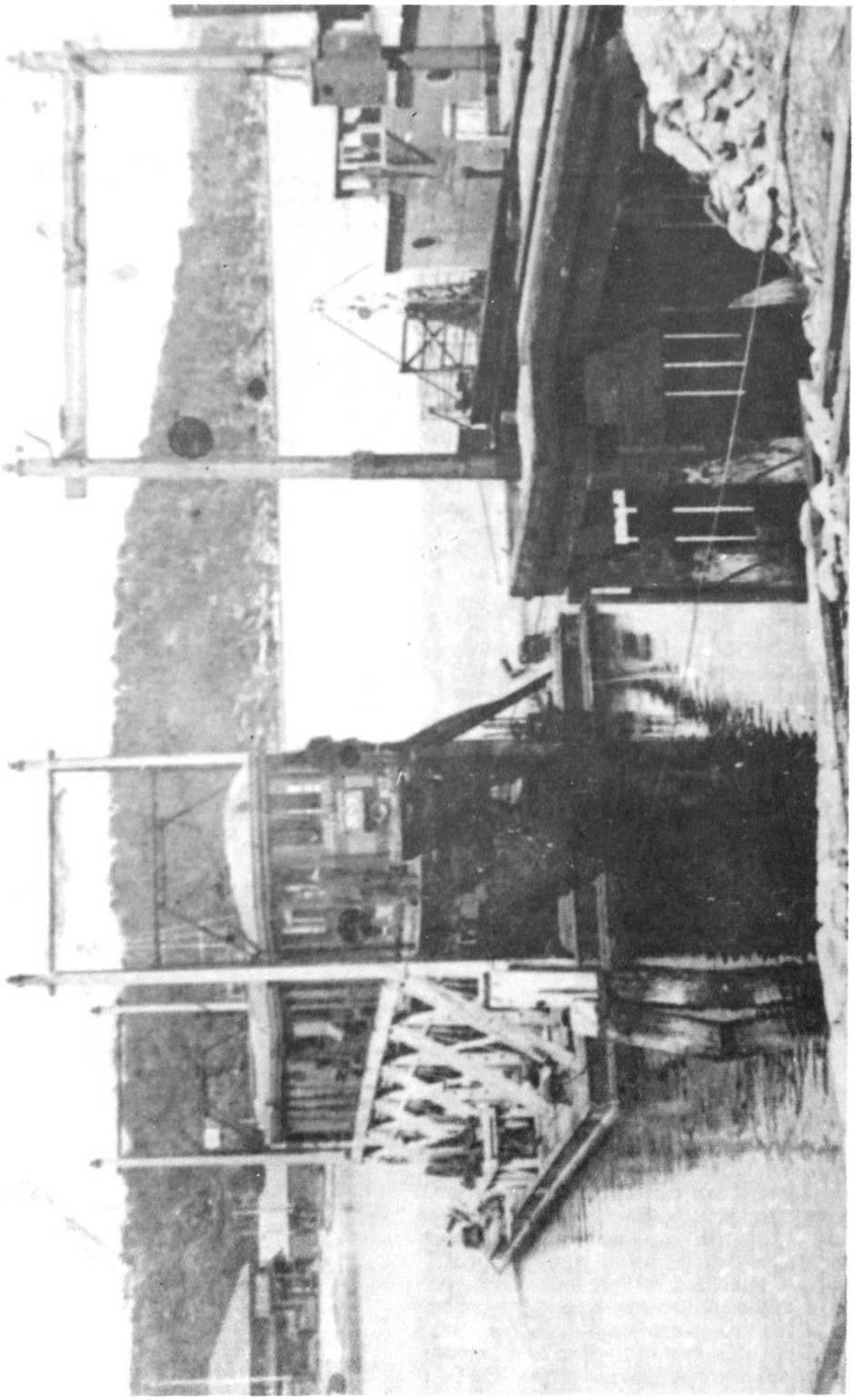
The official date for the commissioning of this tramcar ferry is given as 28 July, 1912 but as major rolling stock transfers took place during March 1912 it is possible that the vessel was available at that time.

The tramcar ferry was constructed on a pontoon hull 75 feet long, 25 feet wide and 4ft 3in in depth. It was capable of carrying two O type bogie tramcars but in later years only one tramcar was carried at a time. A wooden box shaped trestle mounted on the pontoon carried a length of single track 86 feet long. This track could be raised and lowered by power operated screw jacks to compensate for a tidal range of 7 feet 6ins. Some 22 feet of track at each end was hinged to allow for settlement of the punt as a tramcar was driven onto the vessel yet ensuring that the punt track still maintained alignment with the dock rails.

Powered by a 20hp Union oil engine operating at 360rpm, the punt could complete the 800 feet crossing in 3 minutes. Hand operated winding gear was provided in case of engine failure. The punt wound across The Spit guided by two 2½" crucible steel ropes, the upstream cable served as a guide rope while the driving wheels hauled on the downstream cable.

The locating tongue, positioned where the tramcar punt tracks met the shore slips, is shown in this October 1939 photo. O car 1331 has just left the Manly system tracks for the last time, 20 October, 1939.

E. Law photo



The oil engine operated three functions:—

1. Hauling the punt on a cable at 3 miles per hour.
2. Working the 12 elevating jack screws used to adjust the track height for tide variations.
3. Powering two deck capstans to assist in mooring the craft.

The original drawings suggest that the punt did not carry overhead wiring when commissioned, the trams being possibly moved on and off with the aid of wandering power leads. Instructions were issued during March 1913, however, concerning the electrc coupling arrangements provided for the punt from the shore, so perhaps the four corner poles and the overhead wires were fitted by this date.

Overhead connecting frogs to provide contact between the punt and shore trolley wires were not fitted. The tram crew had to swing the trolley pole between the wires as the tramcar moved onto and off the vessel.

To keep the track in alignment a massive steel tongue on each dock mated with a matching slot between the rails on each of the punt. In addition, a 5 feet long wooden ramp, covered with mild steel plates on the edge of the docks, lifted the punt track ends into horizontal alignment as the vessel engaged with the wharf. The track level on the docks at both ends were fixed at 9.686 feet above mean sea level.

When not in use the punt was usually moored about 20 feet out from the south side dock, the crew having to row out in a boat to gain access. The tramway connecting spur on the Manly side faced the Down trams on a steep 1 in 15 grade. There were cases when the junction points were left open in error causing descending passenger trams to be diverted onto the punt wharf. As a safety precaution the permanent way engineer designed an interlaced or gauntlet track arrangement which would have converted the punt junction into a trailing conection for descending tramcars, but this special track work was never constructed.

A crew of two men controlled the punt. One worked the hauling machinery while the other supervised the mooring and controlled the elevating gear. The construction and installation of the punt amounted to £4,000.

The next part of this series dealing with the Manly tramways will relate the story of the major northwards extensions which brought the terminus to Narrabeen. This proved to be the most northerly point reached by the Sydney tramway system, the planned further extension of some 5 miles to reach the ultimate goal of Pittwater was never constructed.

The writer again acknowledges the assistance given by the following people in the preparation of this series dealing with the Manly Tramways. The Late Mr. P. Gledhill, Rev. C. Thomas, Messrs. C. Woodside, R. Willson, D. Keenan, V. Solomons, K. Magor, D. O'Brien.

As the series has progressed Messrs. D. Keenan and R. Willson have made available large volumes of notes which each compiled some time ago. Extracts from this material have been included in this section and will enable future parts to be greatly expanded.

Left: A coupled set of O cars (with 807 closest to the camera) on the tramcar ferry approaching the northern shore at The Spit Circa 1914. The destination shows the Balmoral symbol with the word 'Special', a style used on the North Sydney system prior to the opening of the Balmoral tramway during 1922.

D. O'Brien Collection

A TROLLEY WIRE TRIBUTE

The 1950's saw the end of phasing out of electric tramway services in Tasmania. The Launceston tram system closed in 1954 and many Hobart routes were closed to be replaced by electric trolley or motor buses.

In 1958 with the closing of Hobart's system in sight, the Australian Electric Traction Association made preliminary enquiries about Hobart car disposal — only days after the last Launceston tram (which had been set aside for preservation) was finally sold. In 1960 these enquiries were taken up by four young local members. Their enthusiasm was rewarded when the MTT agreed to donate bogie tram car No. 141 complete and in running order for preservation. Meanwhile the Transport Commission agreed to house the vehicle in the Hobart railway roundhouse.

Following the closure of Hobart tram services on 21 October 1960 the small group were obliged to raise $200 to move the tram. Their efforts were successful and on 15 October 1960 tram 141 was transported and put into storage.

The original intention was to move the tram to either Melbourne or Sydney for preservation but this proposal was rejected due to high transport costs. The AETA suggested that a Transport Museum be established in Hobart and the idea was well received by the local group. The following year thoughts were given to establishing a separate Association.

The Staff of Trolley Wire wish our Tasmanian friends best wishes on their twenty-first anniversary.

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Tram Plans

A Sydney Developer, Mr.Paul Smith, wants to bring trams back to Bondi, one of a number of ideas to make the famous beach a major tourist attraction again. Mr.Smith is involved in an $8 million development on the site of the old King's Theatre and says the trams could run along the beach front and bring back the nostalgia in a sight seeing tour.

Waverley town planner and engineer, Mr.Don Stait, was not quite so enthusiastic about the tram idea because it might interfere with the park area which is already crowded with people in the summer. He realises a tram would also be difficult to maintain with the salt and wind coming from the beach.

Randwick Council is looking into the possibility of a light rail system for the eastern suburbs. The discussion started when it was moved the council should ask the State Government to investigate the possibility of light rail transport between Kingsford and La Perouse. Two aldermen replied they could not see the sense in starting light rail transport at Kingsford with no link up to Bondi Junction. The council decided at a recent meeting to ask an urban transport expert to speak to them on the light rail system.

40 Years Ago

Our item on page 19 of the last issue of 'Trolley Wire' (April '83) has provoked interest from a number of our readers who have requested information about the tram shown in the photograph.

It shows steam motor 103A and two cars standing at the Redbank Wharf terminus of the Parramatta to Redbank steam tramway sometime towards the end of 1937 or later. This motor came to Parramatta after the closure of the Kogarah line in July 1937 and was later repainted when it carried the number 103 without the A suffix. The two trailers are from the 1 to 3 group which were rebuilt to C2 type from earlier cars, but lack the deep facia. The front car has been repainted into green and cream which was being introduced onto electric trams in Sydney at this period but was not applied to the Government steam stock.

New Zealand's No.1 Electric

New Zealand's first electric tram, Dunedin and Roslyn Tramway Co. No.1, is now stored in the open at the showground at Tahuna in Dunedin. Unfortunately it has suffered from vandalism and is now without windows. No.1 was built by the J.G. Brill Co., of Philadelphia in 1900 and shipped to New Zealand on the 'Westralia'. No.1 and two sister cars opened the first electric line in New Zealand, between Roslyn and Maori Hill in Dunedin on 23 October, 1900. Actually only two cars opened the line as, due to a shortage of funds, one car had to be placed in pawn until more solvent days arrived.

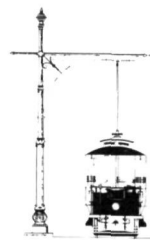
This pioneer electric line was one mile and 35 chains in length with one crossing loop and was laid on secondhand railway rail to 3ft 6in gauge, the same gauge as the old horse car line it replaced. The Dunedin City Corporation Tramway took over the line in 1921, No.1 was renumbered 88 in the City fleet and was withdrawn from service in 1936.

Bendigo No.4 drops passengers outside the Rose of Australia before continuing its journey to Eaglehawk.

B. Tooker

★ Museum Notes and News

LOFTUS . . .



South Pacific Electric Railway

New Site

The recent rain, which has made things rather soggy underfoot, has not dampened the enthusiasm of our regular workforce and steady progress is being made on the installation of our first piece of special work — one of the three way points obtained last year from Rozelle Depot.

Our friendly earth moving contractor, directed by Bob Cowing, recently worked out in the liquid sunshine, excavating in preparation for the laying of the concrete slab on which the three way point is to rest.

On the major works day held on 7 May, further earthworks were carried out, the tie bars and track on Road 3 were concreted and the surplus concrete was utilised for the pathway between Road 1 and the railway side shed wall. The formwork was also set up for the slab for the three way point.

On 14 May, two truckloads of concrete arrived and this was poured into the formwork and the excess was again utilised to continue the path next to Road 1.

Further excavation was carried out on 4 June for the laying of a concrete slab for the next piece of special work, this being one of the ex-Rozelle righthand points. Some of the excavated material was utilised to fill in the area around Road 3, thus bringing the entire floor area of the shed up to rail head level.

All trackwork inside the shed is now complete except for Road 2. This is the track chosen for the future inspection pit and it has been decided not to lay this track until the pit can be installed.

Some further clearing of the scrub covering our future right of way was undertaken towards the end of May and a much wider path now extends from Pitt Street to the Army Depot.

Old Site

The pit on Road 1 resembles a swimming pool with all the recent rain and the pump has been working overtime removing the water.

The rain has also been causing other problems. The track on Road 3 in the depot yard, which is set in Speranian patented mass clay, has been loosened recently and spread sufficiently on 28 May to cause R1 1979 to derail. This effectively isolated all of the cars on Road 3 until the track was regauged and seven tie bars installed on 4 June.

The laying of special work on timber sleepers in the depot yard was considered satisfactory when it was laid 22 years ago but unlike the members who laid it then and who were there again to effect repairs on 4 June, the sleepers have aged and are virtually nonexistent in parts. With work being concentrated on the new site, the old site is begining to show signs of deferred track maintenance. The laying of special work on concrete slabs at the new site, while initially expensive, will eliminate problems of this nature.

Off Site

A special work party was assembled on 16 April to commence work on retrieving the body of R1 2044 from its resting place at Bowral. The work consisted of removing the car from the concrete blocks on which it had been thoughtfully

positioned when it was originally moved to Bowral. Mal McAulay revisited the area during May, accompanied by a tow truck operator, to assess the best way of moving the car from beneath the roof which had been erected around it. Unfortunately the rain over the past few weeks has held up further attempts to move the car but this is expected to be accomplished within the next few weeks and 2044 should soon be at home on the new site.

The builder's plates were still affixed to the car and indicate that it was built by Commonwealth Engineering in August 1952. 2044 operated on the last day of the Sydney tramway system and was in service for 8½ years, only 2½ years longer than our Brisbane "Phoenix" 548.

New Vehicles

The society submitted a tender to the Urban Transit Authority of NSW for the purchase of Leyland ERT 1/1 bus No. 3434, a representative of the later type of Leyland underfloor-engined buses which replaced the trams in Sydney. The bus was on show at the dislay at North Sydney Depot on 8 January and is one of the last two buses still remining in the green and cream ex-DGT colour scheme.

Our tender was successful and we are the proud owners of 3434 which is now stored at the new site.

Restoration of 1257

Our vintage 1937 Leyland Tiger half-cab bus, thanks to the efforts of Geoff Johnson with assistance from Dennis O'Brien, is now residing at the Pressed Metal Corporation's workshops and is receiving a partial restoration job.

Leyland is about to launch a new bus to be known as the Leyland Tiger and our original Tiger is to be loaned to Leyland as part of the publicity campaign. The bus will then return to the new site in a slightly better condition.

D car 134s being prepared for moving off the trailer at the new site on 20 November 1982. A Waterfall-bound double deck suburban electric train can be seen passing in the background.

R. Merchant

WHITEMAN PARK . . .

Perth Electric Tramway Society

Work at the Whiteman Park tram depot is proceeding well. Fifty metres of track have been laid on number 1 road, the through road, and the surface has been prepared for the laying of track on number 2 road.

Chainmesh fencing has been erected around the compound, and it will not be long before some of the equipment from Castledare can be transported to Whiteman Park.

Delivery has been made of some additional rail and sleepers, though there are still more to be transported from Castledare.

ST. KILDA . . .

Australian Electric Transport Museum

Annual General Meeting

The Annual General Meeting of the AETM took place on 29 April 1983, the only change to the Museum Executive being the replacement of Robert Magnussen by Peter Keynes as a Committeeman. The meeting was held for the first time in the former General Manager's Office at Hackney Depot. This office was the domain of Sir William Goodman, father of the Adelaide tramway system, for 43 years until his retirement in November 1950 at the age of 78. An appropriate place for a tramway museum to hold its meeting! The office is now used as a training area; the Administration of the State Transport Authority (which controls Adelaide's trains, trams and buses) having moved to the Adelaide Railway Station building in North Terrace some years ago.

The total number of single passenger trips on the St. Kilda tramway rose by 45% to 50,566 in 1982/83 compared to 27,960 in 1981/82. This dramatic increase is due to publicity from the Silver Jubilee in March 1982, an increase in the number of charters to a total of 47, mild weather throughout most of the year, and the opening of the Adventure Playground. On a number of occasions a third crew was needed to cope with weekend loadings. The average number of passengers per trip for the year was 28.1 compared with 22.9 in 1981/82. Publicity Officer Bev Whetter organised most of the charters as part of her work of publicising the Museum.

Traffic Improvements

On 6 March 1983 the Museum's trams began loading passengers from the left hand side according to the direction of travel. On arriving at St. Kilda terminus conductors raise the northern side barriers, on the cars so fitted, and lower the southern side barriers before departure. This, of course, is standard tramway practice for systems which had trams with off side barriers, but at St. Kilda the cars have until now loaded from the southern side. A result of this is that bell cords on both of the trams are now functional. Steps on both sides of each car are left down.

Spare Parts

On the weekend of 9/10 April 1983 a group of four members travelled to Avenue Range near Kingston in the south-east of the State to salvage parts from D type tram 163 for use in the eventual reconstruction of E type car 118 (The D and E types were similar in many respects). The main item obtained was a complete motorman's bulkhead. Minor components salvaged included handbrakes, clerestory window glass and some brass fittings. On the return journey our members struck up a conversation with a retired service

Recently acquired tram 118 in the original E type layout of half saloon and half open crossbench in the early 1930's.

STA Archives

station proprietor at Salt Creek. He recalled seeing an old tram 'heading past' way back in 1957 and having taken a photo of it. The photo was produced and it was 163. It appears that 163 had been purchased as ready built shearers' quarters for the 1957-58 shearing season. The photograph has been donated to the Museum.

Radio Commercial

In addition to the TV commercial mentioned in the April *TW*, the Museum is fortunate to be receiving advertising from radio station 5AA. The 30 second commercial describes a number of our exhibits complete with background tram noises. This advertisement is part of the deal agreed upon when station 5AA hired our W2294 with the Melbourne Tourist Authority last year.

Other News

An agreement has been signed between the AETM and the STA formalising our use of the two Glenelg trams. It takes the form of a five year lease agreement with various provisions which are acceptable to both parties.

Recently six surplus W2 trucks were received from Melbourne. Four sets were delivered to the STA's Regency Park workshops and the other two sets to St. Kilda. Two of the trucks received by the STA are being altered for use under F1 264. This work involves extending the bolsters to suit the Adelaide dropcentre car. The trucks at St. Kilda will be used as spares for our Melbourne trams.

The table below gives details of the distances travelled by Museum trams since the commencement of operations at St. Kilda. The distances shown are in kilometres.

Car No.	*Passenger Service*	*Non-Passenger Service*
1	2059	613
21	2729	596
34	2318	1261
42	0	34
111	2782	653
118†	0	0
173†	0	0
192	1136	424
264†	0	0
282	3895	905
294	2519	819
303	2149	646
354	0	1231
360*	0	25
362*	46	147
381	4233	753
Totals	23866	8107

† Not in operation.
* On loan from the STA.
Car 34 was used extensively as a works car before the acquisition of W2 354 in 1978.
Works car 354 is not used in passenger service.
Car 42 is under restoration.

Tram 118 passes sister car 111 (also in the AETM fleet) at the Welland Loop on the Findon line on 10 May 1952.

CJM. Steele Collection

BALLARAT . . .

Ballarat Tramway Preservation Society

Tram No.13

The Lake Goldsmith Steam Preservation Society have offered the society use of former Ballarat tram No.13. This tram was built in 1915 for the Prahran & Malvern Tramways Trust, and in 1920 was classed by the MMTB as J class No.68. In 1928 it was transferred to Geelong, and in 1935 was transferred by the SEC to Ballarat, where it received the number 13. It ran in Ballarat until closure of the system in 1971, and was then taken to Lake Goldsmith.

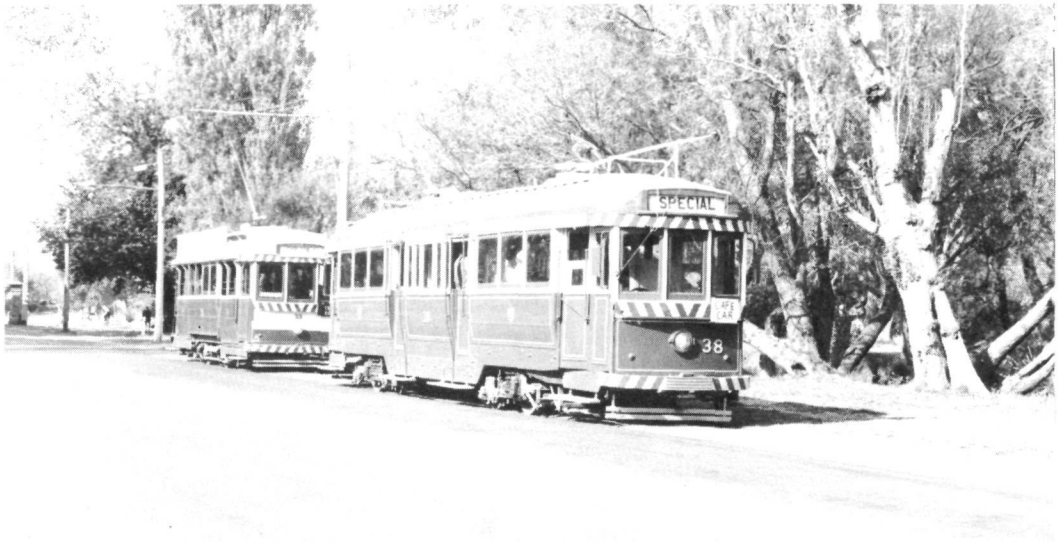
No.13 is in good condition, having been stored under cover during most of its time at Lake Goldsmith. At this stage conditions of use, and possible date of transfer to Ballarat, are still being negotiated.

Begonia Festival

The Begonia Festival was held over ten days in early March, ending on Labor Day. The gardens were crowded and motor traffic heavy, especially on Labor Day weekend. During the Festival the trams ran on weekdays as well as weekends. Labor Day is traditionally the best day for patronage during the year, and three trams ran after the street procession.

Trackwork

On the Anzac weekend, some trackwork took place inside the depot. No.39 had previously been stored on temporary track at the front of what will become No.6 road. Track was laid at the back of the depot, to allow No.39 to be shifted there, and will create room for No.13. Work has also commenced on connecting No.6 road to the rest of the depot fan. This involves the laborious job of bending rails with a "Jim Crow".



On Easter Sunday, 3 April 1983, tram No. 38 was hired by a Theatre Society and run as a "cafe car". Tables were placed in the dropcentre and light refreshments were served. Our photo shows No. 38 being followed by the normal service car, single trucker No. 33.

I. Hanson

Rolling Stock

Work is continuing on the conversion of No.26 to the original California combination form. Most of the woodwork for both motormen's bulkheads has been completed. The bulkheads await installation of glass panels and the narrow stained glass fittings; in addition, suitable cross bench seats have to be obtained. Work on No.26 has been helped by the delivery of spare parts from a former MMTB B class tram that was recently broken up at Mentone.

No.18 has had its brake rigging repaired, and successfully handled a trial run in Wendouree Parade. W3661 has had its chocolate paint applied, and awaits a second chocolate coat. The axle boxes for bogie car No.40 have been completed.

Quotes for eight saloon windows and three cabin windows for No.18 have been obtained from several Ballarat and Melbourne firms. The new windows will replace those damaged by weathering and vandalism during ten years storage at Victory Park.

Passengers partake of light refreshments whilst riding No. 38 (right) while (below) Driver Chris Jacobson and Conductor Stephen Butler pose with their charge on 3 April 1983.

Both photos I. Hanson

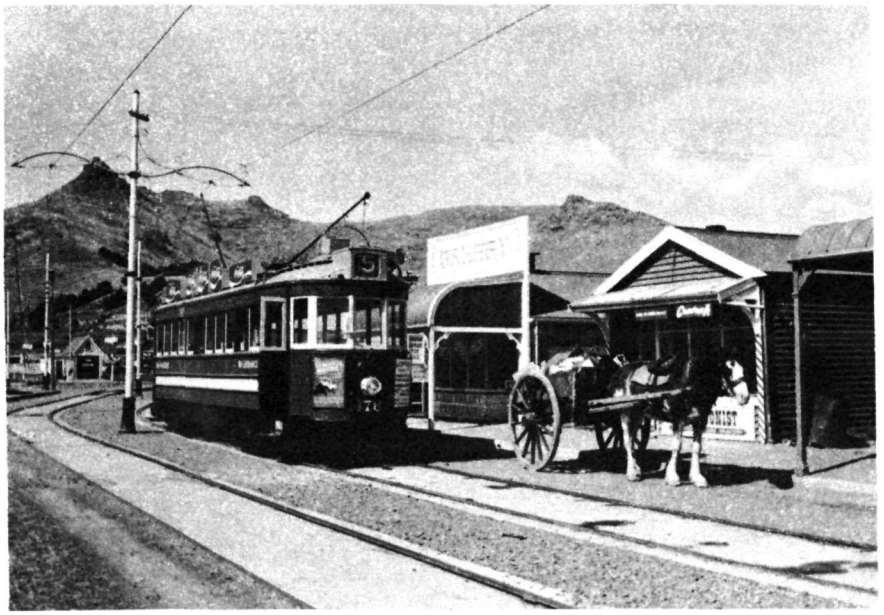
NEW ZEALAND

News from across the Tasman

Christchurch

The Tramway Historical Society at Ferrymead has had the good fortune to successfully tender for an unpowered Peckham 8B truck which was offered for sale by the Steam Tram and Railway Preservation Society at Parramatta. The truck is from under C class trailer No.95 which is now surplus to their requirements. The truck is similar to the one formerly used under Christchurch California combination No.1, built by John Stephenson of New York. It entered service with the opening of the electric tramway in 1905 and was later converted to a saloon type body. No.1 is the only preserved tram in New Zealand which ran on such a truck and the purchase follows an unsuccessful attempt to aquire a truck from a museum line in Amsterdam. The truck arrived by ship on Friday, 19 March and delivery to the Museum was expected in April. The importance of this purchase cannot be over-emphasised. The Society had always imagined either fabricating a truck or using an ex-Brussels truck for No.1. Now the genuine article can be used.

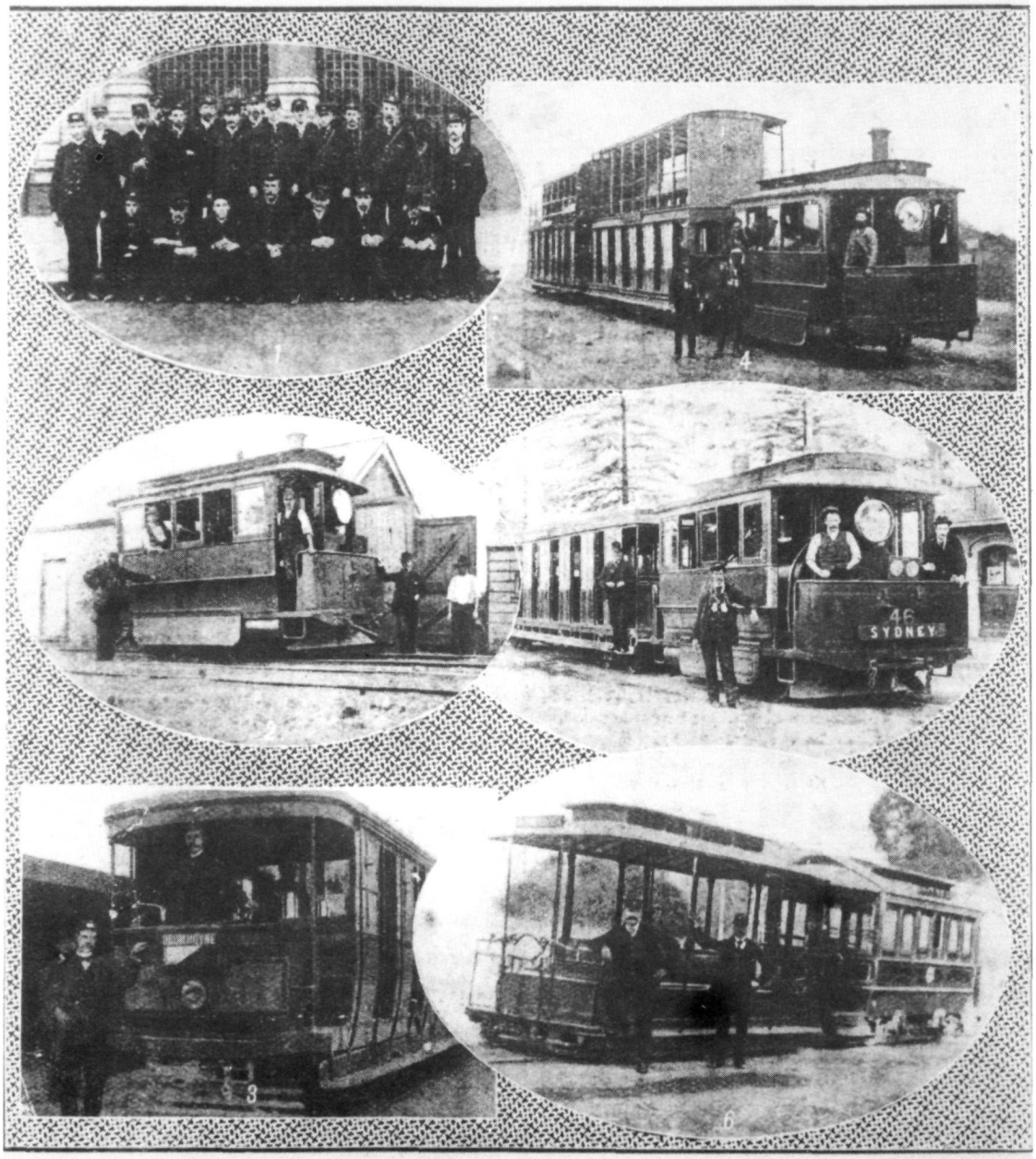
The THS is pleased to report that the Ballarat Tramway Preservation Society has agreed to make available a pair of Westinghouse controllers for use in the restoration of Dunedin No.11, a single truck saloon built by J.G. Brill in 1904. Ballarat is presently rebuilding their car No.26 and intend to re-equip this car with K36 controllers.



Brill 178 pauses outside the Bakery at Ferrymead alongside a horse and dray in Bowman Street. January 1983.

B. Maffey

Historical Tramway Photographs.



(1) Meal-hour relief outside Q.V. Markets in 1901. (*Courtesy* T. Moloney). (2) At Moore Park coke sheds about 1885. Note bell on front of motor. (*Courtesy* H. R. Moodie). (3) Starter Geo. Stokes, Driver L. R. Moore, and Conductor Wm. Gunter (sender of photo). (4) Taken in 1883. (*Courtesy* A. McGregor). (5) Crown-street in 1893. (*Courtesy* Insp. T. Blakeney). (6) At Ocean-street terminus about 1895. (*Courtesy* Sub-Insp. W. Coutts).