

The Bellcord



T class tram 181 at the junction of Wests Rd, Raleigh Rd and Cordite Ave, Maribyrnong (late 1950s). The double track branch line was built parallel to Wests Rd and opened on 6 July 1941. It was connected to Raleigh Rd and Cordite Ave in both directions – the disconnected rails and overhead of the south-to-west connection are visible at the right side of the photo. The driver appears to have reset the destination sign for the photographer as the Pyrotechnic Factory was a distance behind the tram at the Williamson Rd terminus.

Photo: Ron Scholten collection

Melbourne's Emergency Tramways

World War II placed an enormous demand on the manufacturing capability of Australia. Britain and the USA were the source of much of our manufactured goods, but they were flat out manufacturing for their own needs. 'Motor Spirit' (petrol) was also in short supply and in June 1940 rationing was introduced.

Australia had to rapidly increase its own manufacturing capacity, not least for munitions and the explosives that were integral to them.

The obvious place to build this capability was near existing facilities.

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Location and transport

The Maribyrnong Explosives Factory in the aptly named Cordite Avenue, West Maribyrnong was the key installation in a network of defence factories. This made Maribyrnong the 'Arsenal of Australia' from 1910 to the 1980s. Another area of enhanced manufacturing was west of the airport at Essendon.

Neither of these areas had a tram service and the need to provide transport for shift workers running the factories 24 hours a day was not able to be met by available buses, especially with fuel in short supply. The Melbourne and Metropolitan Tramway Board (M&MTB) was called to assist.

West Maribyrnong

The closest tramway to the Explosives Factory stopped at the Maribyrnong River, having been built by the North Melbourne Electric Tramways and Lighting Co (NMETL) in 1906. A simple bridge made of steel girders supported by timber trestles was built to carry the tramway across the river as the existing road bridge was not capable of carrying a tramway.

The single track extension followed Raleigh Rd and Cordite Ave to the Explosives Factory (at the current West Maribyrnong tram terminus) and was opened to traffic on 20 December 1940. This immediately released buses for use elsewhere in Melbourne.

A double track branch line was built parallel to Wests Rd running south to the Ordnance Factory near Williamson Rd, opening on 6 July 1941. It was connected to the Explosives Factory line in both directions – the remnant rails and overhead of the



Map of Melbourne's west indicating in RED the 'emergency tramways' built by the M&MTB during WWII.

Map: M&MTB (1945)

south-to-west connection are visible in the picture of T class tram 181 on page one.

Duplication of the tramway from the river to the Explosives Factory commenced in early 1942 and the final stage of the work was completed in August of that year. This included a double track connection from east to south with the Wests Rd branch line – at which time the south to west curve was disconnected.

The new tramways carried huge loads. In 1942, there were 73,476 timetabled round trips along Raleigh Rd. This equates to a seven minute service 24 hours a day and 365 days a year – two thirds were to the Explosives Factory and the remainder to the Ordnance Factory.

In 1950 the service along Raleigh Rd was down to 26,572 round trips a year.



Maribyrnong River tramway bridge (1963).

Photo: Arthur Stone

Ascot Vale to Moonee Ponds

Many munitions workers came from the north western suburbs of Melbourne, so another new tramway was built from the corner of Maribyrnong Rd and Union Rd (where the old NMETL line turned towards the city) to connect to Moonee Ponds Junction. This also reduced 'dead mileage' for trams entering and leaving service from Essendon Depot. This line opened on 24 May 1942.

Like the others, this line was urgently needed. For the first 13 weeks of the project the M&MTB extended working hours to 116 per fortnight, consisting of 52 hours in six days one week and 64 hours in seven days the following week. It was observed that the level of productivity was well below normal at 3.84 man-hours per foot of track completed.

For the final five weeks of the project, hours were reduced to 44 hours per week, and productivity improved to 3.18 man-hours per foot of track.

In 1942, at the junction of Union Rd and Maribyrnong Rd, about half the trams used the new line to Moonee Ponds Junction and the other half used the old line along Union Rd towards the city.

Footscray extension

An Ammunition Factory had been built in Gordon St, Footscray in 1888 and was the major source of ammunition for Australian troops during World War I. It was close to the Explosives Factory and transport along the Maribyrnong River. During World War II it also went into 24-hour production and a branch line was built from the Ballarat Rd tramway which had been built by the Footscray Tramways Trust and opened by the M&MTB in 1921. The Gordon St branch was opened on 9 November 1941 and was worked solely by single truck cars from Footscray Depot – as there was no connection with the rest of the tram system.

In 1942, the annual service totalled 31,036 round trips. This equates to a 17 minute service 24 hours a day and 365 days a year. In 1950, the service was down to 3,900 round trips a year.

The Gordon St and Wests Rd lines were finally connected in May 1954. They now form part of the Moonee Ponds to Footscray service with traffic driven by residential development in the area and a large shopping centre situated mid-way along the route. After that connection was made, Footscray trams could and did run services to the Explosives Factory at West Maribyrnong.

Aerodrome line

During the war substantial small industry related to aircraft production opened up at Essendon Aerodrome and on the land to the west of Matthews Ave. The original NMETL line had been extended along Keilor Rd as far as Birdwood St by 1937 but was well short of the airfield. The tramway was extended along Keilor Rd and ran in reserved track on the west side of Matthews Ave before turning right into the Aerodrome. Here it ran beside Vaughan St and terminated just to the east of Treadwell Rd. The 2.4km extension was completed in 80 days.

The annual round trip numbers for 1942 are not available, but by 1950 the Aerodrome extension was served by 30,000 round trips a year. The overall



Footscray single truckers 487 and 677 arriving in convoy at the Gordon St terminus for end-of-shift workers at the Ammunition Factory (early 1950s)

Photo: Noel Reed



W5 788 departing Essendon Aerodrome and crossing a cattle grid at Treadwell Rd (1967). These grids were a feature of the various WWII reserved track tramways, indicating the rather rural nature of the localities at the time of construction.

Photo: Mal Rowe

traffic on the Aerodrome line (Route 59, now Airport West) grew fairly continuously as the area saw massive housing development post war.

Funding the construction

The emergency tramways were built at the request of the Commonwealth government which funded their construction. Initially a grant of £50,000 was provided for the West Maribyrnong tramways on the basis that the M&MTB would operate the trams for at least 10 years. Actual payments were based on the completion of each stage of the tramways.

The M&MTB was required to repay half of the amount advanced at the end of the 10 years without any accrued interest, plus any profits on operations in excess of £25,000 over that period. Further advances were made in subsequent years and the total amount advanced is listed at over £150,000 in later documents. This related to the connection from Ascot Vale to Moonee Ponds, the Essendon Aerodrome line and depot extensions at Essendon.

The Commonwealth also built at its own expense the superstructure of the tram-only bridge over the Maribyrnong River and granted tramway right of way on Commonwealth land in Raleigh Rd, Cordite Ave and beside Wests Rd. The whole of the tramways and land were passed to the M&MTB when the interest free loans were repaid in the early 1950s.

Materials

Tramway rails and special work (points and crossings) were all imported at this time. To build these emergency tramways, plain railway rail laid in reserved track was used wherever possible because it avoided the use of scarce grooved rail required on roads.

Another strategy was to recycle rail and special work salvaged from other parts of the system. This included reducing the Holden St tramway to a single track in Brunswick Rd between St Georges Rd and Lygon St in April 1940. Also removed were the points from the unused curve from south to west at the corner of Swanston St and Flinders St and a crossover at St Georges Rd at Woolton Ave in May 1942.

M&MTB war effort

Like all industry, the tramways workshops were stretched to the limit during World War II – being asked to manufacture all sorts of components for buses, trams and the armed forces.

Tram building did slow down, but 52 trams were built between 1940 and 1945 (cars 849 and 851 to 902). At the peak of demand in 1942, tram production ceased as the effort was redirected into components for war and the M&MTB 'Austerity' buses.

My thanks to Ron Scholten for providing the photo on page one and raising the issue of that odd curve.

Mal Rowe, Essendon

This article draws on sources including:

'Description of Sub-Accounts' dated 28/6/1946

provided by Ken Painter, former Civil Engineer of the M&MTB, and

Papers in the Melbourne Tram Museum archives

[htd2092i] detailing the agreements between the M&MTB and the Commonwealth related to the wartime tramways.



One of the M&MTB's Leyland Titan double deck buses takes on passengers in Gertrude St, Fitzroy bound for Spencer St via Bourke St (late 1940s-early 1950s). PHOTO: Melbourne Tram Museum collection

About this photo

The Melbourne & Metropolitan Tramways Board operated buses from the mid 1920s. In 1940 the Bourke St cable tram routes to Northcote and East Brunswick were replaced by a fleet of 45 double deck buses (numbered 201 to 245). This photo shows one of these along with the disused cable engine house and abandoned cable tram tracks. Along Gertrude St can be seen new M&MTB steel poles supporting new sodium vapour street lighting.

The Board's double deck buses were built on the Leyland Titan TD5c 'Gearless' chassis, a new development from the pre-war clash gearboxes. Unfortunately these buses proved unsuccessful. They were slow to load, carried less passengers than a tram, struggled on the Bourke St hills and were expensive to operate. They were not popular with the travelling public and were replaced between 1949 and 1954 by single deck vehicles before electric trams commenced operations on these routes in 1955.

Reference: No stairway to heaven, 2017, Russell Jones

In the Days of Horse Omnibuses

The Melbourne Tramway & Omnibus Company (MTOC, 1877-1916) ran an extensive network of horse omnibuses prior to and concurrent with its cable tram operations.

William Cassidy (1859-1939) joined the newly named MTOC in 1878 as a groom and was promoted to horse omnibus and horse tram driver, then foreman. Upon his retirement from the M&MTB in 1930, his 52 years of continuous tramway service were acknowledged in several newspaper articles. The following is an extract from one such article in The Argus. [William Cassidy was my great grandfather. Editor]

Fifty two years! Yes, a long time. Somehow I never got away from the horses. Only a year after I joined the company, I was driving a one-horse omnibus to Kew. Two years later I was transferred to the Richmond bus route, and at the opening of the cable trams in 1885, I was transferred to the Victoria Street bus line. Then I served on the South Melbourne and East Brunswick lines.

At East Brunswick I was in charge between 1903 and 1916. At the opening of the Coburg electric tramway, I was in charge of the horses at the Nicholson Street depot. After all that I should have a pretty good knowledge of horses, shouldn't I?

Pay and conditions

There was no eight hour day then. Twelve and thirteen hours a day we worked on the buses – right up to 1885. We got down to 10 hours a day then, with one Sunday off in five or six, and one Saturday off in eleven. As for wages: grooms received £1/15/- a week, groom-drivers received £1/17/6, spare drivers received £2 and regular drivers received £2/5/-. But, then, you have to remember that £2/5/- was worth as much as £5 is worth now. [1930 - Ed.]

The life was hard, but it was healthy, and the times were leisurely. The journey from Hawthorn Bridge to the Royal Arcade in the city took one hour and six minutes, including about 40 stops. But the service was good; there was only four minutes between each bus. The average speed of the buses with 14 passengers and the driver was eight miles an hour.

It needed more skill to drive a bus over a city intersection than it takes to drive a motor-car now. From the post office to the corner of Swanston Street and Flinders Street you would walk your horses, and the law compelled you to make them walk over all the intersections. But there was no regulation of the traffic. Everybody went as he pleased, cutting in and out as their skill permitted.

Horse tram robbery

The buses were seldom robbed but there was a sensation around 1900 when a horse tram was 'held up' at the corner of Power Street and Riversdale



MTOC horse omnibus in Clarendon St, South Melbourne (1888) at the time William Cassidy drove the route. This is a magnified section of a photo included in Bellcord, December 2018. Note the motion blur of the reins and horses. (Port Phillip City, sm0430)



William Cassidy at his home on the day of the interview (1930). Photo: The Argus

Road. I was in charge of the Hawthorn Depot [near Auburn Rd] on that night and received the first news of the robbery. It was the last tram at night, and about to climb the hill. Three masked men ran out of the bush, seized the horses' heads and covered the five passengers and driver with revolvers. It was found afterwards that the thieves expected a bookmaker to be on the tram but he went home by train. The men obtained only £2 from the driver's cash-box and an amount from the passengers. (See *Horses and hooves*, 2003, Russell Jones)

Jokes

Looking back I can remember a good deal of fun and jollity. Boys were boys then, just as they are now. I was often the victim of their tricks. In the early days of buses, the driver had a strap round his foot to close the door. A favourite trick was for the boys to run quietly along side, pull the strap, and watch me open the door expecting to find a passenger.

The buses promoted good fellowship; side by side you would find barristers, workers, clerks, merchants and judges. Mr George Coppin, a regular user of the bus, used to give every driver a free pass to the Theatre Royal every year. At Christmas all the regular passengers would contribute to a cash present for the driver and perhaps a large tin of tea.

Yes, all classes were closer together then. But that's all gone now. There's no time to spare nowadays.

The Argus Camera Supplement, 1 November 1930

M&MTB Payroll

Working at the Melbourne & Metropolitan Tramways Board (M&MTB), your occupation determined your payroll number.

During my employment from 1979 the M&MTB had three wages offices.

1. Traffic Wages handled drivers and conductors, and used numbers 1 to 6,999. These were further divided up as follows:

Numbers 3,700 to 4,999 were reserved for and exclusively allocated to women. During the 1980s a tram driver was transitioning from male to female and at the appropriate time, and with her permission, her number was changed to a female number.

Numbers from 6,000 to 6,999 were used to designate male conductors recruited from the UK during the 1960s. The highest number I remember was in the 6,2xx range.

Numbers not set aside as listed above were available for any man who commenced as a conductor and were allocated by the employment section upon acceptance of a job offer. If a person left and later returned they would almost certainly be issued with a new number and the old number was crossed out on their record card and the new one written in red ink. With some people, especially vacation conductors, it was quite common to see four or five different numbers on their cards.

2. Civil Branch handled manual workers, linesmen, mechanics, cleaners, etc. and used numbers 10,000 to 19,999. There was further division within these numbers according to your role, i.e. tradesman, unskilled labourer, etc. but I cannot remember how they were allocated.

3. Salaries handled officers and clerical staff and used numbers 30,000 onwards, although the highest I can remember was in the range of 33,000. Strictly speaking very few people were on a salary but were

instead paid an hourly rate. This applied especially in traffic branch where overtime and weekend work was the norm with associated penalty rates.

Weekly wages

On Monday morning it was very important to get the internal mail to Traffic Wages so they could process the various documents from the depots to ensure timely payment to crews. This was in the days of weekly payroll so speed was of great importance. There were various other important documents depending on the day of the week, but the worst day was when the conductor's weekly records came in.

Each depot had a large roll of conductors' records up to a kilo in weight and these needed to be taken up to Revenue Accounting quick smart for processing. Then a couple of days later they would be sent back to the depot for checking ready for the

following week's reissue of the tickets. However, the return to the depot was even heavier because it was accompanied by a large printout of each ticket outfit's transactions.

Changing occupations

If a person changed occupation their payroll number also changed. The most common reason was promotion from tram or bus driver to Depot Starter, although their formal title was Ticket Examiner Relief Depot Starter with the unfortunate acronym TERDS. And yes, that was printed on their pay envelope.

In the early 1990s, the payroll offices were combined and everybody was issued with a six digit number. Some people had numbers added to the beginning or end of their original number whilst others were issued completely new numbers. It was the end of the M&MTB's approach to payroll numbers. These new numbers were generic with no indication of occupation or gender.

Dean Gilbert
Museum Member

MELBOURNE AND METROPOLITAN TRAMWAYS BOARD					
DATE	LOCATION	PAY CENTER	TOKEN No.	PAYROLL No.	
11/11/72	STH MELBOURNE	R		5237	
OCCUPATION 82 TRAM DRIVER		NAME			
RATE \$69.60	PAID HOURS *05.75	ANNUAL LEAVE/SWILL 5*****	ALLOWANCES V 5*****10	GROSS WAGE \$116.51	
DUCTIONS \$*1.94	SHORTAGES 5*****	TAX \$*22.40	NET WAGES \$*90.17		
<small>NOTE SHIFT ALLOWANCE IS INCLUDED IN PAID HOURS. ALL ALLOWANCES AND ANNUAL LEAVE ARE INCLUDED IN GROSS WAGES.</small>					

Pay packet of South Melbourne tram driver #5237 showing paid hours, allowances and shortages (1972). Photo: Melbourne Tram Museum collection

Museum News



'Wattle Park: picnic by tram' exhibition

Museum refurbishment

Over the past 12 months the museum has undergone a number of refurbishments and works.

- Painting of the walls, ceilings and windows in the shop, the exhibition room, toilets and meal room. The floors in the toilets and foyer to the offices have also been painted. These works were funded by VicTrack.
- The walls and floor in the driver training room have been painted. This work was funded by the museum.
- Safety barriers and floor markings have been added in a number of locations in the shed.
- Cyclic maintenance is undertaken by Fire Equipment Services, electrical, plumbing and emergency services inspectors to ensure our museum complies with essential services.
- New exhibitions have been featured in the display room, namely the history of the Art Trams and most recently an exhibition of 16 posters and decorations entitled 'Wattle Park: picnic by tram'.
- Posters showing the history of closed tramlines have been added to the shed walls.

Also staff have been issued with new jackets and caps in the design of the museum's new corporate identity.

Membership renewal

Membership renewal forms will be mailed in early July. Early payment would be appreciated.

Open House Melbourne: 27-28 July 2019

The museum will again participate in Open House Melbourne on Saturday and Sunday, 27 and 28 July, from 10am until 4pm.

We are seeking volunteers to assist at the museum on one or both days. We don't expect all volunteers to be available on both days, but if you can spare a half day or one whole day, it would be most appreciated.

Volunteers will be providing advice and keeping a watchful eye on our exhibits. Lunch will be provided. This year we hope to add short tours during each day.

If you can help us, please contact Rod Atkins or Carolyn Cleak at the museum, by emailing info@trammuseum.org.au or by responding to an upcoming mailout.

When responding to offer your assistance, you may wish to indicate a location or a role that interests you, eg. display room, driver training room, tram shed, shop assistance, brief tour guide.

The Melbourne Tram Museum is open on the 2nd and 4th Saturdays of each month (except the 4th Saturday of December). Normal opening hours are 11am–5pm. It is also open by appointment.

Upcoming open days are:	22 June	13 July
	27 & 28 July (Open House Melbourne, 10am-4pm)	
10 August	24 August	14 Sept
		28 Sept

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