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TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM
MAGAZINE

NOVEMBER 2017

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*The Perth Electric Tramway Society's Fremantle 29 at
the temporary terminus and tram stop at the Lolly Stop,
at the west end of Whiteman Village, on September 3.
See also page 35.*

David Brown

Front Cover:
*Sydney R1 1808 left Auckland on 2 August and arrived at the Tramway Historical Society, Ferrymead from
Lyttleton on 24 August 2017. Work is being undertaken to prepare the car for service on the Christchurch City
tramway. It is seen here with the Tramway Historical Society's Brisbane Dropcentre car 236 .* Alex Hunter

LIGHT RAIL FOR CANBERRA A PROGRESS REPORT

Randall Wilson and Dale Budd

Although a tram network was envisaged for the national capital over a century ago by Walter Burley Griffin, Canberra is a relative newcomer to the light rail scene in Australia. Reports on Canberra's path towards adoption of light rail were covered in the February 2013, August 2014 and November 2016 issues of Trolley Wire.

In the months leading up to the ACT election held on 15 October 2016 the opposition Liberal Party chose to make its outright rejection of light rail a central issue in the campaign. In the event, its negative attitude to light rail was not shared by the electorate which returned the minority Labor government to office for a record fifth term. As before, the government is relying on the Greens for support

The election outcome was interpreted by Labor and the Greens as an endorsement of their long-held view that light rail should play a central role in meeting Canberra's future transport needs. The Liberals, who remain in opposition, have agreed to support the city's first light rail project, albeit reluctantly. As a result, construction of the national capital's first light rail line is proceeding with a measure of bipartisan support.

Stage 1: City to Gungahlin

The first stage of Light Rail for Canberra will see a 12km line built between Canberra's central business district and Gungahlin in the city's north. Stage 1 is

being constructed under a Public Private Partnership (PPP) between the ACT Government and the Capital Metro Consortium. The PPP will be in place for approximately 23 years, and includes the construction and operation of the City to Gungahlin line for 20 years.

In the past 12 months, substantial progress has been made in the development of the Gungahlin light rail corridor. Relocation of existing services and utilities is almost complete, and the alignment of the track is clearly visible. Almost three kilometres of concrete track slab has now been laid along the route. A test section of rail was laid in August in the suburb of Franklin, in Flemington Road near the intersection of Nullarbor Avenue, three stops from the Gungahlin terminus.

A fleet of 14 CAF Urbos trams, similar to those supplied to Sydney, will operate the City to Gungahlin line. The first of the vehicles is expected to arrive in Canberra late this year or early in 2018, with comprehensive testing taking place before the commencement of normal services on the line. Test operations will start on the northern section of the line between the depot and Gungahlin.

The trams will be housed and maintained at a depot currently under construction at Mitchell near the outer end of the Gungahlin line. Operations on the light rail line will be managed from the depot.

Track laying under way in Flemington Road, Franklin during August 2017.

Randall Wilson





Another view of track laying under way in Flemington Road, Franklin during August 2017.

Randall Wilson



Low-height rail is being used for the Gungahlin line. Dale Budd



There will be 13 stops along the line, and these will comprise both side stops and island stops, depending on the location. Each stop will provide level access to the trams, thereby ensuring accessibility for wheelchair users. Provision will also be made for a limited number of bicycles to be brought onto trams.

Services on the City to Gungahlin line are expected to commence in late 2018. Transport Canberra is planning for an overall journey time of 24 minutes. It envisages a 6-minute service interval during peak hours and 10 to 15 minutes between services at other times.

When complete, the new line will provide a competitive and pleasant alternative to driving. It will help manage congestion as the population along the corridor continues to grow.

Stage 2: City to Woden

The ACT Government has announced that Stage 2 of light rail will connect the City with Woden, a major

Opposite page:
Canberra's first light rail line will be from the City to Gungahlin.

Transport Canberra image

A computer-graphic of the line's terminus.

Transport Canberra image





An Urbos tram at Dulwich Hill on Sydney's Inner West Light Rail line. Fourteen CAF Urbos trams will be required for services on the City to Gungahlin line. Dale Budd

town centre to the south. The line to Woden would be about the same length as the City to Gungahlin line.

Four route options have been identified for the Woden line. These are shown in the second map. Options 1a and 2a would see the line proceeding only to Woden town centre, either by a direct route around Capital Hill or a less direct route through Barton.

Option 1a would be closer to Parliament House, whilst option 2a would provide a better service to national institutions such as Old Parliament House, the National Library and the National Gallery as well as government offices in Barton. Under options 1b and 2b the line would extend beyond Woden to Canberra Hospital in Garran, a suburb to the east of the town centre.

Technical investigations are currently in progress to analyse the various route options. These include examining constraints imposed by gradients, radii of curves, heritage buildings, sensitive landscape and traffic volumes.

Extensive consultation is playing a key part in the choice of route, preferred stop locations and identification of matters of community, cultural and environmental importance. Survey data indicates that 97 per cent of respondents support the adoption of light rail for the City to Woden corridor, with 75 per cent supporting a route through Barton. Just over half those surveyed – 56 per cent – preferred route option 2b that would see the Woden line terminating at Canberra Hospital. The report on the public consultations indicated that further investigation of the possible route to Canberra



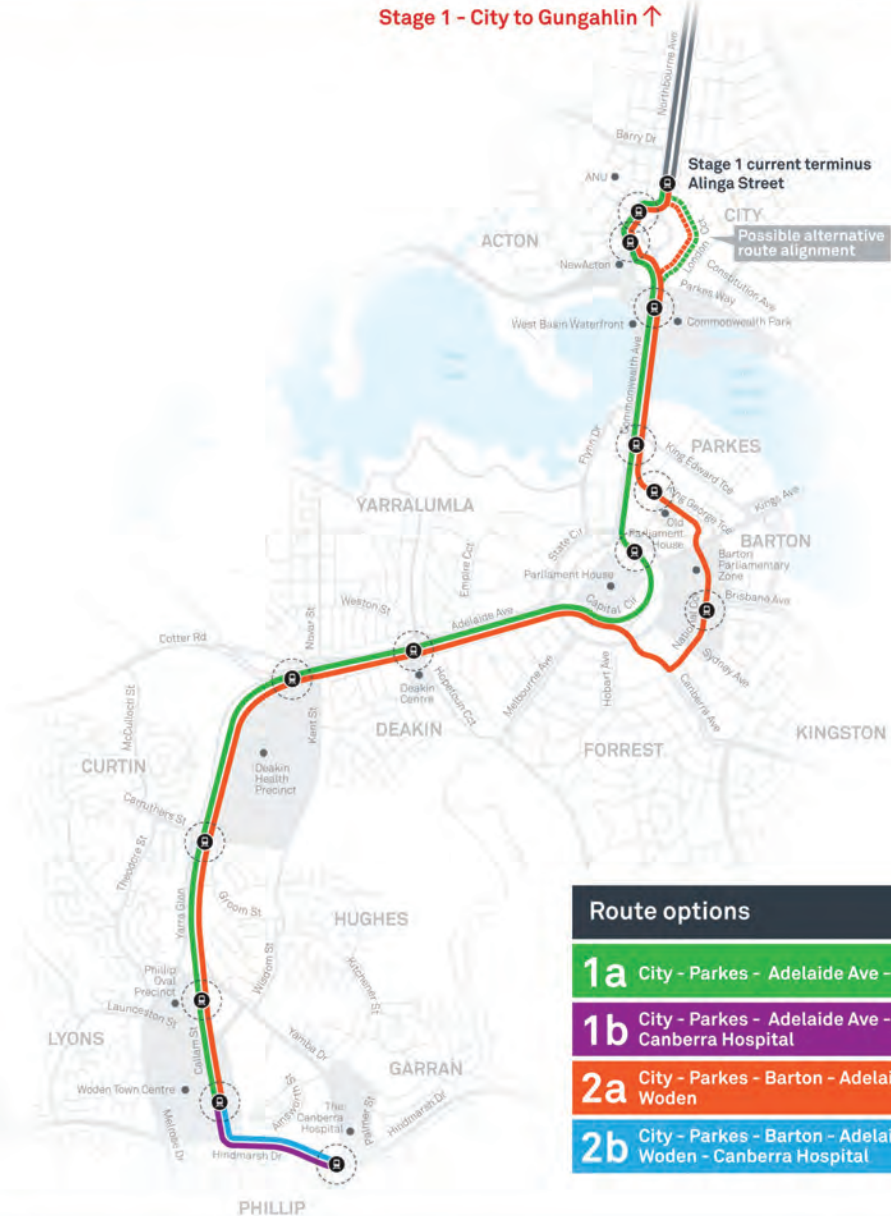
*Opposite page:
Stage 2 of Canberra's light rail network will run between the City and Woden. Four route options have been identified.*
Transport Canberra image

A view of the depot under construction, seen from the rear in late September. Dale Budd

Stage 2 Route Map: City - Woden

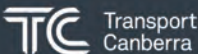


Stage 1 - City to Gungahlin ↑



— Light Rail Line Light Rail Stop (indicative only)

0m 1km
TG17158 Version 3





Passengers will board trams from either the left side, in the case of side stops, or the right side, in the case of island stops. A side stop is planned for Dickson at the northern end of Northbourne Avenue.

Transport Canberra image

Hospital had identified potential technical constraints to the future southern expansion of the network (towards Tuggeranong) and potential operational and hospital access issues.

Feedback from consultation will provide vital input to the business plan to be considered by the ACT Government for Stage 2 of Light Rail for Canberra. The plan will consider the precise route of the line

from the City to Woden including a detailed analysis of its potential benefits and likely cost to the people of Canberra. No dates have been announced for the future development of Stage 2.

Information on Stages 1 and 2 of Canberra light rail, and on possible further expansion of the network, is at <https://www.transport.act.gov.au/light-rail-network>.

Trolley Wire Index 2000 – 2017

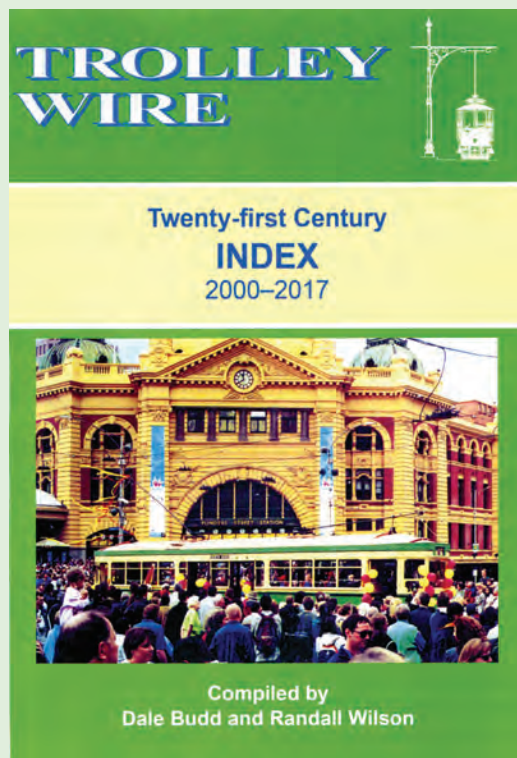
Many readers will be aware that in 2000 an index was prepared for the issues of Trolley Wire published from its inception in February 1952 to the November issue in 1999. This index is on the Sydney Tramway Museum's website at https://www.sydneytramwaymuseum.com.au/members.old/Trolley_Wire/TW%20Index%201952-99.pdf

Now an index has been prepared for the issues of Trolley Wire published between February 2000 and November 2017. Like its predecessor, the Twenty-first Century index covers articles published in the magazine; significant news items and other material including reports of COTMA conferences, book and video reviews, and obituaries. For convenience of use, each entry in the Table of Contents is hot-linked to the appropriate page.

It was not practical for the index for 2000 to 2017 to be integrated with the earlier volume.

However, the intention is that the present index will be updated on an annual basis, extending it to cover later years.

The index will be available from about 15 December and will be posted on the Museum's website shortly



after. To assist those requiring a hard copy, the index is formatted for printing at A4.

ACCIDENTS ON THE SYDNEY TRAMWAY SYSTEM IN 1948

Ian Saxon

In preparing this article about the various tramway accidents on the Sydney system the author obtained a copy of a report prepared by the Commissioner of Road Transport and Tramways. In those days the Tramways Department was responsible for investigating all tramway accidents.

The procedure and investigation of tram accidents was that immediately after a collision between trams in traffic, it was the practice to relieve the driver from duty and arrange for an examination and test of the cars involved. Preliminary investigations were followed by a Departmental inquiry in accordance with the provisions of Section 63 of the Transport Act, 1930. During the examination and test of the rolling stock, and at the inquiry and any subsequent proceedings before the Appeal Board, the employee against whom disciplinary action has been taken, was entitled to Union representation.

There was considerable press coverage regarding the number of tram accidents in late 1948. A report

was prepared on 8 December 1948 by Mr C Neale, Commissioner of Road Transport and Tramways, for the Minister of Transport. It was reported that seven rear collisions occurred in the last week of November and the first week of December 1948 and the report details the reason for the collision and the disciplinary action taken. However it does not report any estimated cost of repairs which might also have been interesting.

The same report notes that in the period 1 July to 31 October 1948, there were 39 collisions between trams in traffic. In 36 of the 39 collisions, the driver was to blame and punishment was imposed. In two of the remaining three accidents, the condition of the track was the cause and in only one instance was it found that the trams concerned, a coupled set of P type tram cars, was defective to due an air leak in the braking system.

Details of the seven accidents which occurred between 25 November and 6 December 1948 are as follows:

<i>Date</i>	<i>Trams</i>	<i>Location</i>	<i>Brief Description</i>
25/11/1948 (Thursday) 09.50am	1798, 1821	Boomerang St., City	1798 collided with 1821 which was stationary at a stop which was not normally in use at that time of day. Driver of 1798 demoted to conductor.
25/11/1948 (Thursday) 10.12am	59s, 1977	William Street, City	59s collided with 1977 which was stationary. 59s was proceeding to the accident above. Driver of 59s was demoted.
27/11/1948 (Saturday) 09.27am	836+1195, 1401+1431	Botany Terminus	Coupled set of "O" cars 836+1195 collided with coupled set of "O" cars 1401+1431 which was standing at the staff stopping place. Wet weather conditions were the primary cause. Driver of 826 was severely reprimanded and lost 2 days pay.
03/12/1948 (Friday) 12.45pm	1592, 1436+1402	Anzac Parade near Abbotsford St., Kensington	During a storm accompanied by lightening and heavy rain, 1592 collided with the stationary set of "O" cars. 1592 was hit by lightening, severely damaging electrical equipment which then damaged the air piping with consequent loss of braking power. No disciplinary action taken.
05/12/1948 (Sunday) 07.22pm	1509, 1905	Young Street, Circular Quay	When travelling down the grade in Young Street, 1509 collided with 1905. No fault was found with the equipment or condition of 1509. Driver was demoted.
06/12/1948 (Monday) 03.06pm	1148, 1114	Elizabeth Street, City	1114 had to brake suddenly to avoid an accident with a motor car and as a result 1148, which was following, collided with 1114. Driver was demoted.
06/12/1948 (Monday) 04.00pm	1954, 1738	Kings Cross	1738 was stationary at the Kings Cross stopping place when 1954 collided with it. Driver was taken to hospital and the Inspector reported "He was not under the influence of intoxicating liquor but there was a smell of alcohol in his breath". Investigation incomplete at time of report.

Originally published in *Electric Railway Journal*, 8 June 1912, page 987

A TRAMWAY STRIKE SIEGE WHICH INVOLVED OTHER TRADES

In the report of the Brisbane (Australia) Electric Tramways Investment Company Ltd., for the year ended 1911, presented at the meeting of the directors of the company in London, England, on May 21, 1912, H.R. Beeton, chairman of the board, referred at length to the recent strike of the employees of the company. This strike involved other trades and resolved itself into a very serious siege, although the company was successful. The following abstract has been made of the very interesting account presented by Mr Beeton of the labour troubles and the legislation which in a measure provoked the employees to become arrogant by holding out a prospect of success to them through the creation of a single-headed labour court against whose award there was no appeal.

"Since the opening of the current year we have suffered from a strike which has seriously affected us, which has vitally concerned the Commonwealth of Australia, and which has interested the world at large. Under the laws of Queensland the wages, hours and conditions of labour are settled by wages boards consisting of an equal representation of masters and men in each trade with an independent chairman. With the operation of this law, known as the wages board act, 1908, the company and its employees were satisfied, and the company had subsequently conceded an advance on the terms which had been settled by this tribunal. In pursuance, however, of the policy of the federal government, a law had been passed entitled 'the Commonwealth conciliation and arbitration act,' which constituted a court for the same purpose as the state wages board, but consisting of one judge, who was bound by no rules of evidence, who was entitled to refuse legal assistance to either party on the objection of the other, who has jurisdiction in all industrial disputes extending beyond the limits of a state, and against whose award there was no appeal. The ground being thus prepared, it was not long before industrial war broke out. Agitators

sent up from Melbourne seduced a certain number of our men into registering themselves in a federal labour union as contemplated by the act, and, in conjunction with similar unions in other states, engineered in the same way, extraordinary demands were embodied in a 'plaint' which was forthwith presented for determination.

"Without waiting for a decision of the court the agitators resolved on January 18 that the members of the federal union in the company's employ should wear union badges in violation of a regulation of the company promulgated to avoid the intimidation and coercion of its employees. The recalcitrant were interviewed by J.S. Badger, general manager of the company, and as they insisted on their right to wear the badge, they were not allowed to board the cars. By availing ourselves of the services of students who were under instructions for drivers, and of absent and retired employees who returned to work, we were able to continue a reduced service. Our depots and offices were picketed, but assisted by the constant presence of the police general quiet was preserved. The courts acted promptly, and £2 costs or a month's imprisonment was the standing penalty for abusive language. The storm, however, gained in intensity, and burst four days later, at 6 p.m. on January 30, when a general strike of all trades was declared by a junta, representing forty-three unions, which met at the Trades Hall.

"The industrial crisis which followed this action was the worst in the history of Brisbane, if not in that of Australia. On the following day, although there was no great disorder, the union pickets were able to shut down practically all business. The shops, hotels and theatres closed; the railways, tramways and shipping were brought to a standstill, and loading and unloading in the depots and on the wharves was stopped. The tramways company was, of course, the storm centre, and was the object of virulent attack. In these circumstances it



A group of 'locked out' tramway employees outside Light Street Depot on 19 January 1912.

John Oxley Library, SLQld,
Neg 22968

Special constables aboard a tram in Queen Street during the General Strike in Brisbane in 1912.

John Oxley Library, SLQld,
10113-0001-0017



redounds greatly to the credit of our general manager that, in spite of three futile attempts to blow up cars, no depredations on the company's property were committed, no injury to workmen ensued, no accidents occurred which were attributable to inexperience in driving, and, what is even more gratifying, there were no deflections on the part of our non-union employees, and we are now entirely free of the federal union. Moreover, the strike has had the effect of routing the Labour party both in South Australia, where a general election occurred during the progress of the strike, and in Queensland, where a general election has occurred since.

"The history of the strike reads like the account of a siege. Our depot at Countess Street was surrounded with barbed wire entanglements; we had a large number of men on guard well armed, the fire hose and the hot-water hose both ready, and all the windows of the power station protected with iron inside. For five days the office staff, except such as could make a show in case of attack, were dismissed, and no attempt was made to do business. Most of the men were quartered at the different depots, and we established a provisioning department, which was conducted under great difficulties. Our steam lorry was fitted up with armour and placed at the disposal of the government,

which used it for carting supplies under police escort to the hospitals and other places. Notwithstanding the fact that all the engineers except the chief left suddenly, we were able to keep the power station running. On January 31 Mr Denham, the prime minister, telegraphed to the federal government for military aid to maintain order under the provisions of the constitution, but Mr Fisher unfortunately replied to the effect that, having heard both sides, he saw no reason to interfere.

"The farmers, however, when they found that the market for their perishable products was being obstructed by well-paid men acting in obedience to the orders of professional agitators, came into the city on horseback to assist the forces of conservatism, and thanks to the energy of the Queensland government on February 2 a sufficient force of special constables was organised to cope with the situation. The police stopped all processions and broke up all gatherings. On February 3 some shops reopened, and on February 5 we started some cars with a posse of police on each and amid popular acclamation. Unfortunately, the action of the federal judge in granting jurisdiction to the strikers and in summoning Mr Badger to a compulsory conference in Melbourne on February 13 protracted the strike. The people of Australia, who

Bushmen guard the Tramways steam lorry in William Street. The lorry was on loan to the Government for moving essential foodstuff during the strike.

John Oxley Library, SLQld,
10113-0001-0011



had watched Mr Badger's conduct from the first, made his journey to Melbourne the occasion of extraordinary demonstrations of public approval. After three days' session the conference came to nothing, and the judge immediately remitted the issue to his court, where he affirmed the right to wear the badge, but was unable to compel the reinstatement of the discharged employees. In the meantime, all the vacancies having been filled, the men who went on strike, while they received permission to wear their badges, found themselves without work, and the company was accordingly placed in a position to plead in the 'plaint' that it had no dispute, for the reason that no members of the claimant association were

in its employment, and that as we had a full staff, from engineers to point boys, it was not necessary to employ any of them. We have since obtained from the High Court a prohibitive injunction against the award pending the hearing of the principal suit, which we hope to defeat on the ground of jurisdiction."

Editor's note:

David Burke's book *One American Too Many – Boss Badger and the Brisbane Trams* (published by Queensland Museum 2012, ISBN 978-0-9872681-0-5) provides in Chapter 6, Black Friday, more information on this interesting period of Brisbane's tramway history.



Trams at the Light Street Depot at Newstead c1912.

John Oxley Library, SLQld,
Neg 137409

HERE AND THERE

AUSTRALIAN AND OVERSEAS NEWS

Sydney's first Alstom Citadis X05 arrives

Alstom has delivered the first of 60 Citadis X05 light rail vehicles to Sydney, for the CBD and South East Light Rail project. Sydney is the first city in the world to receive this model of the Citadis family.

The first six cars are being built at La Rochelle in France; the remaining 54 will be built in Barcelona. The trams, 33 metres in length, will normally be operated as coupled pairs.

The first car arrived on the Høegh Copenhagen and was unloaded on 1 August 2017. Shipped in two parts, it was taken to the new Randwick stabling facility where the two sections were re-united.

Sydney Tramway Museum member John Cowper was one of ten people to win a sneak preview of the new tram, and visited the Randwick facility on 24 August. John took a number of photos which appeared on Facebook. Two of his views are reproduced here.

Passengers have been placed at the heart of the development of the new vehicles. Features include double doors for improved access and passenger

flows, large balcony style windows, LED lighting and the highest levels of customer safety including CCTV monitoring, emergency intercoms and the latest wayfinding aids for real time travel information.

Environmental impacts will be minimised through increased energy efficiency achieved by the use of electrical braking, permanent magnet motors, LED lights and sensor-based air-conditioning. Water based paints and non-hazardous materials are used for construction. Each vehicle is 98% recyclable at the end of its 30 year lifespan.

The power supply equipment includes Alstom's APS technology – a ground based power supply system that will operate along two kilometres of the route through the centre of the city. The network will also benefit from the application of Alstom's HESOP reversible substation technologies which enable the vehicles to recover more than 99% of the energy usually lost during braking. The recovered energy can be re-used to power other cars running on the same line, or can be injected back into the network.

The first Alstom Citadis X05 at the Randwick stabling facility on 24 August. John Cowper



An interior view of the new car.
John Cowper

Sydney's inner west light rail

An extra 95 weekly services commenced running on Sydney's inner west light rail line from 28 August 2017. Patronage has soared since the extension of the line to Dulwich Hill was opened three years ago, resulting in an increase in overcrowding.

The latest increase in services mean that trams will run every eight minutes on weekdays between 7:00am and 8:00am instead of every 10 minutes. They had already been operating every eight minutes at the 'core peak time' of 8:00am to 9:00am.

Inter-peak services are also running more frequently. Between 10:00am and 2:00pm there will be a tram every 13 minutes, instead of every 15 minutes, and between 2:00pm and 3:00pm a service every 12 minutes, also changed from 15 minutes. On Wednesdays trams are now running every 12 minutes between 10:00am and 3:00pm to cater for greater

demand for travel to shows at the Lyric and Capitol theatres.

Almost 10 million trips have been made on the inner west light rail line in the past 12 months. In contrast, the line carried about 4 million passengers a year before it was extended in early 2014.

Transport Minister Andrew Constance said the extra services were in response to crowding during morning and evening peak periods. "We are currently working on how to best cater for current and future demand for light rail in the inner west," he said. "Options being considered to further increase services include buying more trams, upgrading infrastructure, and using the existing fleet to insert extra services on parts of the line where the demand is highest."

An extra 30 services are being run on Saturdays, resulting in trams running every 10 minutes between 11:00am and 5:00pm (previously 15 minutes) and

every 12 minutes between 5:00pm and 7:00pm (up from 15 minutes).

The latest service increases follow additions made early last year, when an extra 90 services were put on to boost frequency during peak periods, and the afternoon peak was extended by an hour to 7:00pm.

The Dulwich Hill line is operated by ALTRAC, the consortium currently building the new line from Circular Quay to Randwick and Kensington.

Adelaide Tram News

Advantage was taken of the school holidays from 1 October 2017 to 15 October 2017 to lay the track along

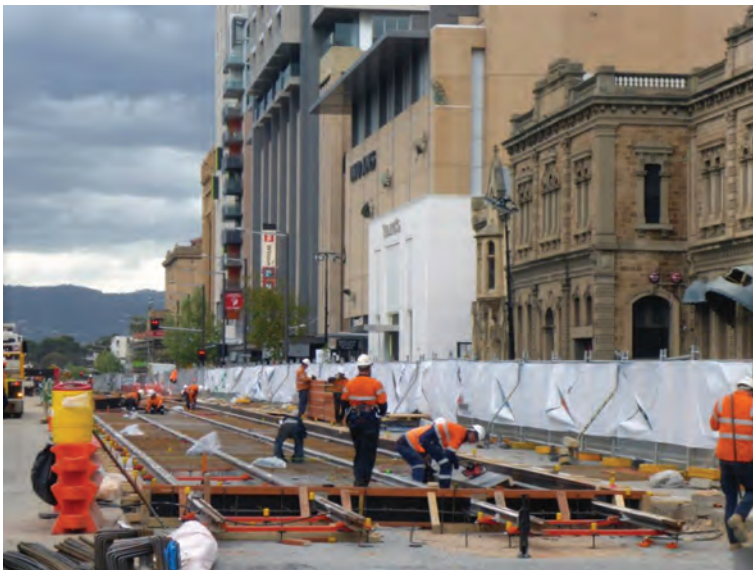
During the track construction traffic along North Terrace was restricted to one lane on either side.
Colin Seymour

North Terrace from King William Street to East Terrace. The King William Street / North Terrace intersection will be tackled during the summer holiday break. It will no longer be a Grand Union.

News from Melbourne

The Victorian Government announced in September that the current operator of Melbourne's trams, Keolis Downer (which trades as Yarra Trams), has had its franchise renewed for seven years from 30 November 2017. (Train operator Metro Trains Melbourne has similarly had its franchise renewed.)

Points of interest from the announcement include the following.



Track being laid in North Terrace at the Gawler Place / Kintore Avenue intersection on 11 October 2017. The view is looking eastward along North Terrace. At this stage the section from King William Street behind the photographer had been laid in concrete.

Colin Seymour

- Yarra Trams will have to run 82 per cent of trams on time, up from 77 per cent. Its target for service delivery is being increased from 98 per cent to 98.5 per cent.
- Short-shunting of trams will be penalised.
- There will be curbs on overbearing advertising such as full wrap-around displays on trams.
- \$4.4 million is to be spent on an upgrade of the former East Preston Depot. It is understood that it will be the site for the life extension program for the B2 class trams (which so far has made a very slow start). This program was reaffirmed in the franchise renewal announcement.
- Six W series trams are to be refurbished, presumably to become W8s.

Related to the announcement, East Preston Depot, recently used for tram storage, has been emptied out. The following W series cars from East Preston were transferred to Newport Workshops in either late August or early September: 870 (missing one drivers cab), 884, 896, 960 and 971. Z2 101 which had also been stored at East Preston was moved to Newport on 25 August.

The status of W series trams in late September was as follows:

W8s: 946, 959, 957, 981, 983, 1010.

City Circle cars in their original colour scheme: 856, 866, 888, 925, 928, 961, 1000, 1020.

Restaurant trams: 935, 938, 964.

In storage at the former North Fitzroy Depot: 892, 929, 954, 977, 1012, 1031.

More double-ended PCCs for San Francisco

From *Inside Track*, journal of the Market Street Railway

To meet a need for more double-ended cars for its E line service, which does not have a loop at its southern terminal at Caltrain station, San Francisco's Municipal Transport Agency (Muni) has bought two double-ended PCCs formerly used by Philadelphia's Red Arrow Lines.

The cars, Nos. 18 and 21, have been acquired from the Shore Line Trolley Museum (Branford Electric Railway) in Connecticut. They are in severely deteriorated condition and the first, No. 21, has already been moved to the Brookville Equipment Company for rebuilding. Branford is receiving a retired San Francisco cable car, and cash, for the two PCCs.

The Red Arrow cars were described in a report in the August 1989 issue of *Trolley Wire*. They were built by the St. Louis Car Company in 1949 and were in service until 1982, with their bodies being almost identical to San Francisco's D class 'torpedoes'. Seven of the Ds are in service in San Francisco, with car 1014 being preserved at the Sydney Tramway Museum.

Unlike other PCCs, the Red Arrow cars were designed for interurban use and were mounted on Commonwealth equalised cast frame bogies with 75hp motors. They were capable of speeds in excess of 115km/h. Muni is supplying B3 bogies to Brookville for installation under the restored cars.

Nine of the 14 Red Arrow cars went to six museums; most are believed to survive.

Red Arrow Lines double-ended PCC car 14 makes a photo run in June 2004 at the Pennsylvania Trolley Museum following its restoration. See <https://pa-trolley.org/roster-of-collection/>
John Polyak



Sutherland's steam tram depot

Recent roadworks and scrub clearing by Sutherland Council along Rawson Avenue (Old Princes Highway) has resulted in the remains of the inspection pit of the former steam tram depot becoming more visible. Steam trams commenced regular operation from Sutherland to Cronulla on 12 June 1911; passenger services ceased on

8 August 1931, with the goods service continuing until 13 February 1932.

The only other intact relic of the steam tramway is the former tramway office / waiting room in Old Princes Highway opposite Boyle Street in the Sutherland shopping centre. It is still in Railway use.



The western side of the tramway inspection pit in the western wall of the cutting leading under the railway bridge. The location of the steps leading down into the pit can be seen at the right hand end.

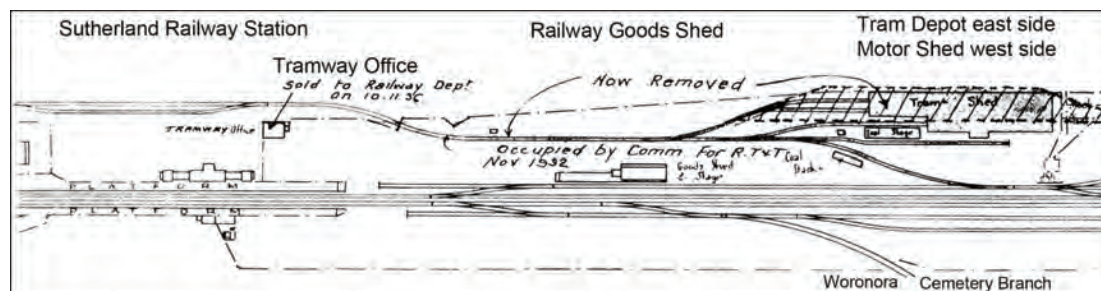
Victor Solomons

The steam tram depot at Sutherland. STM Archives



Diagram of the railway and tramway track at Sutherland, late 1930s.

V.C. Solomons collection



BENDIGO

BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

www.bendigotramways.com

On 5 October, the Bendigo Tramways delivered a tram pop-up bar to Chandon Australia to be featured at Chandon S Chic Easy events nationally this spring. The tram was expertly repurposed by the team at the Tramways and shows how old trams that have reached the end of their working life can be given a new lease

of life. Thanks to Jacinta Allan MP, Lava Baptiste, Chandon Australia Brand Ambassador and everyone else who came to the handover event.

The Chandon S Chic Easy experience will be visiting Melbourne, Sydney, the Gold Coast and Perth.



Chandon No. 88 (former MMTB W2 275 and Bendigo 33) in the depot yard.

Bendigo Tramways

Tram 44 is having repair works carried out to the front drivers cab.

Bendigo Tramways



The interior of Chandon 88.

Bendigo Tramways

Decorated both inside and out with hand-made crochet bunting, seat covers, blankets and cushions, Birney 302, the Yarn Bomb tram operated from 31 August to 11 September.

Bendigo Tramways



Sam the Story tram ran from 4 to 10 August as part of the 2017 Bendigo Writers Festival.

Bendigo Tramways



Birney, the depot cat.



Through stories of bravery, resilience and courage in the face of adversity, the Anzac Centenary Tram explores the impact of World War One on the local Bendigo community. It departs from Central Deborah Gold Mine at 10:00am each Tuesday, Thursday and Saturday. Bendigo Tramways

FERNY GROVE

BRISBANE TRAMWAY MUSEUM SOCIETY

PO Box 94, Ferny Hills, Queensland 4055

www.brisbanetramwaymuseum.org

Peter Hyde

The last few months have seen major progress on many projects around the site. Two stand out for their importance.

FM car 400

The first event, which has long been anticipated, was the lowering of the body of prototype FM 400 back onto its bogies on 29 August. In the weeks that followed, the motors and brakes were connected. The latter task was more difficult than usual as there is no pit in the workshop at present. An electrical test was scheduled for 7 October but unfortunately the discovery of a major air leak after pumping up the brake system prevented the first movement of the tram in over a decade. After this is rectified it will still be several months before the remaining 'tidying-up' work on the car is completed and it can re-enter service.

Commemoration of Paddington Depot fire

On the evening of 28 September, the second event, the annual night operations on the anniversary of the fire that destroyed Paddington Depot were held. These

proved to be the most successful ever, with standing loads on most trams and convoys of two trams operating at times. The sausage sizzle stall alone took \$945. Several car trips had to be made to a local supermarket for more bread and sausages! Thanks are due to the 23 members who assisted that night.

The Brisbane City Council sent its newest bus which was displayed beside two older vehicles: bus No. 80 from 1948; and a Panther bus – the type that replaced the trams in the late 1960s. Both buses were from the fleet of the Queensland Omnibus & Coach Society. It was pointed out during the event that Paddington Depot existed for 47 years (1915-1962) and that the Museum has commemorated the occurrence of the fire since 1970 – also 47 years. In the weeks leading up to the event the lighting in the grounds was upgraded with the addition of extra permanent lights.

Other projects

Conversion of the old concrete water tank into a storage facility for electrical items has been completed.

An unusual method of winching the bogie into position under the car body. Peter Hyde





Carefully lining up the king pin under the car with the bogie.
Peter Hyde

Adjusting the brakes the hard way - without benefit of a pit.
Peter Hyde

Restoration of the tower wagon has entered its final stages with only minor finishing work still to be done.

In the store shed, a concrete base has been laid to support a large installation of pallet racking which was donated recently. This will facilitate the sorting of various spare parts which have been stored in a rather haphazard way since their rushed delivery from the old museum site in 1972!



Connecting the motors of No. 400 after placing the car back on its bogies.
Peter Hyde

John Lambert installs additional permanent grounds lighting in preparation for night operations on 28 September.

Peter Hyde



A comfortable load travels on Combination 47 early in the evening. Thomas Wyndham



Early arrivals wait for their tram. Thomas Wyndham

Peak hour! Dropcentre 341 prepares to depart with a standing load.

Thomas Wyndham



Three generations of BCC buses – the latest member of the current fleet, Panther 498 from the tram replacement fleet and AEC Regal Mk 4 from 1948.

Thomas Wyndham

Towards late evening travel was less crowded. Phoenix 554 awaits departure time

Thomas Wyndham



HADDON

MELBOURNE TRAMCAR PRESERVATION ASSOCIATION

324 Sago Hill Road, Haddon, Victoria 3351

www.mtpa.com.au

Anthony Smith

Restoration of W5 792

During July, the replacement crown planks were permanently bolted into position at both ends of the tram after which the handbrake staff stirrup irons were aligned and fitted to the underside of these planks.

The quarter panel side destination boxes previously removed from 792 were taken out of store for restoration work to commence. They were found to be in poor condition with damaged timber sections in both boxes and access hatches that would require the splicing of new timber sections to make them again suitable for reuse.

These repairs have now been completed by our joinery contractor and the removal of old varnish and paint was then undertaken by our restoration team in August. This work is now complete; the boxes have received an initial coating of shellac and the interiors painted white as per original specification, and they have been reinstalled into 792.

Also during August, work commenced on fitting new timber pillars into both saloon areas. These new pillar timbers had been acquired some years ago from surplus stock from Preston Workshops in an unfinished state. They have now been machined and primed in readiness for installation. It was also necessary to manufacture new saloon bulkhead corner timbers using the unserviceable original units as patterns. These have now been fitted into both saloon areas.

Overhead fittings

During early September we were able to acquire a large quantity of span wire and fittings from scrap for the purpose of salvaging serviceable fittings. After considerable time and effort by member, Daniel Edwards in untangling this mountain of wire, we have managed to obtain a large quantity of fittings such as porcelain and reel insulators, spiral wraps, trolley wire ears and frog pan units that can be reused.



Jacqui Smith cleaning the outside bodywork of VR 41.

Anthony Smith

W4 670 interior being cleaned.

Jacqui Smith





Rolling stock

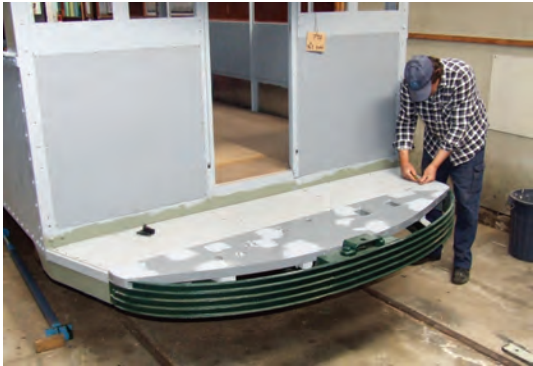
Under team leader Jacqui Smith, a program of tram cleaning has commenced with the exterior and interiors of VR 41, W2 407, W3 663, W4 670 and SW5 849 undertaken during early September. This has also involved the cleaning of the truck frames and life guard gear to remove years of accumulated grime along with the polishing of all glass areas on these trams. This leaves only L 103 to receive this attention to complete the project.

Right: Daniel Edwards storing spare destination boxes on the new shelving in the storage container.

Anthony Smith

View showing new saloon pillars being fitted into 792.

Anthony Smith



Anthony Smith fitting one of the new crown planks on 792.
Jacqui Smith

Left: A restored side destination box after fitting into 792.
Anthony Smith

Storage containers

During early October, new shelving was installed in one of the storage shipping containers to house the spare destination boxes, and a raised floor structure was built over the No. 9 and No. 15 trucks in another storage unit. This raised area has now been utilised to house spare tram seats and frames whilst still allowing easy removal of the tram trucks should they be required.



Recently acquired overhead span wire and fittings on arrival at Haddon. Anthony Smith



LOFTUS

SOUTH PACIFIC ELECTRIC RAILWAY CO-OP SOCIETY

PO Box 103, Sutherland, NSW 1499

www.sydneytramwaymuseum.com.au

From SPER News

Transport Heritage Sector Day and grants presentation

The third annual Transport Heritage sector development day was held at the Hazelhurst Gallery in Gympie on Saturday 14 October, followed by an evening grants event at the Museum, where space was made in the Display Hall by removing Berlin 5133 and Brisbane 180 to allow room for presentations and refreshments.

Along with delegates from other rail heritage groups, Peter Kahn and Martin Pinches represented the Museum at Hazelhurst. Workshops were held and presentations were made by representatives of Transport Heritage NSW.

At 5:00pm representatives of the various groups attended the museum at Loftus. Howard Collins OBE, Chief Executive of Sydney Trains was an entertaining Master of Ceremonies. He first introduced the Parliamentary Secretary to the Transport Minister, Mark Caure, MP, and our local member for Heathcote, Lee Evans, MP. Howard Collins then announced the successful grant recipient organisations. Their representatives came forward to



Howard Clark and Martin Pinches accept the grants award for trolleybus 19, with Lee Evans (second left) and Howard Collins (right). Margot Stuart, THNSW



The 2017 grants award recipients, with Howard Collins, Mark Caure and Lee Evans.

Margot Stuart, THNSW

receive certificates from one of our guest MPs. A total of \$154,345 in grants, including GST, was awarded to nine different groups for a total of twelve different projects.

On behalf of the Museum, Martin Pinches and Howard Clark received award certificates for two projects: \$13,500 for repair and restoration of our Liverpool Street Signal Box, and \$9,285 for the restoration of trolleybus 19 to display condition, including installation of glass, stair hand rails and manufacture and upholstery of two end longitudinal seats.

Other groups to be awarded grants were Illawarra Light Railway Museum, Oberon Tarana Heritage Railway, Richmond Vale Preservation Co-Op, Sydney Bus and Truck Museum, the Rail Motor Society, Lachlan Valley Society Co-Op, Zig Zag Railway and Shoalhaven Historical Society.

At the conclusion of presentations, Howard Collins called on Bill Parkinson to showcase the product of our 2016 heritage grant by driving our freight car 24s onto the traverser. Just that morning the workshop team had powered up the car for the first time in more than 70 years, and it emerged from the workshop onto the traverser to the applause of the audience. Details of the last stages of restoration of this car are given below.

Refreshments and drinks were provided courtesy of Transport Heritage NSW, and our thanks extend to their team, led by David Bennett, for a successful event enjoyed by all. David posted a live video of the proceedings on Facebook, and by 10:00pm it had received 1681 viewings.

To wrap up the day, R1 1979 was readied for a trip on the Sutherland Line by Scott Curnow and Geoff

Olsen for attendees. It became the first tram carrying passengers to ascend the new track on Army Hill to our North Terminus, where many commented upon the excellent new track finished over recent years by our dedicated team, along with the brick paving at the terminus. The new heritage style waiting shed similar to our Miranda shed, and utilising only the original seat from the Parrawi Road shed, was built by Sydney Trains' contractors. In coming months, the former substation building, beautifully restored by Sydney Trains will become available for use by the Museum, housing substation equipment, our Melbourne grip car and Sydney trailer, and other exhibits.

Track and associated work

Work has continued at the Waratah Loop with five cubic metres of concrete being purchased on 15 July and another two on 13 September to expedite progress. Surplus concrete has also been received at infrequent intervals including drops of up to five cubic metres.

The last two rail joints were welded on 2 September. These had been left fish-plated to allow for expansion until concreting was well advanced.

At this time most of the area has been concreted, the fence has been relocated to its correct position further from the tracks by contractors engaged by Transport for NSW and the kerbing will be extended in the near future.

A gravel path has been laid along the fence by Transport for NSW and the brick paving of the square area south of the new waiting shed has been finished by our CSO workers. Turf has been laid on much of the completed

Some surplus concrete arrived in Concrete's largest truck on 16 August 2017. Martin Pinches



areas near the gates at the southern end of the compound, greatly improving the general appearance.

On 9 September our contractor returned and completed excavating along the TAFE retaining wall north of Pitt Street. The spoil was transported in our Daihatsu tip truck to Army Hill where filling of the eastern side cess area is about three quarters complete. The second half of the driveway slab leading to the northern gate of the Army Depot was concreted on 20 September.

A scrap dealer has removed rails and steel recovered from the Old Site fire that was too distorted and heat affected for further use.

Overhead

On 13 September overhead line car 99u was used to assist Engadine Fire and Rescue to remove the last two

of the current series of redundant poles. This completes the pole replacements for the time being. All new poles have either new or overhauled bracket arms installed.

Planning and preparatory work is under way for wiring the second track at our Northern Terminus, but new poles need to be installed before the overhead can be erected.

Trams in the workshop

The contractor working on W2 392 has completed the saloon and drop centre framing repairs, fitted new fascia boards and is now fitting new drip rails. New Zincalume sheeting is being fixed to the sides and undercoated.

Ballast motor 42s has received controller and air governor repairs but will need workshop attention soon to replace a defective motor.

Concreting continues on 23 August. The metal fence has since been moved back to its correct position behind the pole.
Martin Pinches





Freight car 24s was moved a short distance in the workshop on the morning of 14 October to test the electrical work and bogies.
Richard Jones

As noted in the report on the sector development day, further significant milestones have been reached recently with the restoration of freight car 24s to operating condition. In early September the painting of the interior of 24s had been completed whilst on 14 September the exterior roof was fully repainted with Navy Dressing, a very important job that was required to much improve the appearance of the car. Work has started to rub back the sides of the car in preparation for an exterior repaint as the paint had faded in parts since it was last done back in the 1990s.

During September the second McGuire bogie GE 67 motor had been fully refurbished and re-assembled, and then installed into the second bogie that had been previously fully cleaned, checked and painted.

Over a couple of weeks up to early October all axle boxes on both bogies had been checked, old wadding replaced with new, and the boxes refilled with oil. Under-car conduits were completed and cable run through them.

On 4 October the lifting beams and the jacks were installed to lift 24s to replace the two fully refurbished McGuire bogies under the tram. The bogies were driven under 24s using the motor generator set and correctly placed. 24s was then slowly lowered into position. This was accomplished in record time with all lifting items returned to their proper storage places before afternoon tea!

A big milestone was reached on the morning of Saturday 14 October when 24s moved under its own



Birney 11 ready to be loaded for its return to Bendigo on 4 September.
Richard Jones

Our replica drivers cab was on display at the AMRA's annual model railway exhibition at Liverpool over the holiday weekend from 30 September to 2 October 2017. Scott Curnow is handing out leaflets with Sabastian Critchley in the cab.

David Critchley



power for the first time in over 70 years. At 11:22am the wandering lead was attached, the compressor started and brakes tested. Bill Parkinson drove the tram in the workshop to make sure that controls worked and after a few adjustments were made to the wiring, several test movements were made in the workshop and onto the traverser. In the afternoon both couplers were reattached and life shields put into position, ready for the car's ceremonial appearance in the evening.

A great result by all those involved, and the restoration of 24s is nearly completed.

Birney 11 returns to Bendigo

Birney car 11 was loaded on 28 August and Craig Parkinson, in his capacity as 'Australian Train Movers', transported the car back to its home in Bendigo. He returned with two bogies, one being an unmotored No.1 truck and the other a motored No.15 truck, which belong to STM and were stored in Bendigo.

We are grateful to Bendigo Tramways for the loan of No. 11 for many years.

Launceston 14

Our Launceston 14 Friends team are making good progress with body restoration works on this car. These include the fixed drivers' bulkheads and passenger seats in the open saloons. The ceiling has been repaired where necessary and painted, and works are under way on repairing and splicing new timber in end saloon bulkhead pillars.

The joinery on the bulkhead at the No. 1 end has been completed, with work now being carried out on the No. 2 end. The joinery is as it was on many Launceston trams manufactured in 1911-12 – 'tool maker quality'.

A strip down of old paint has been completed and the bulkhead, drop end and ceiling of the saloon of No. 2 end have been undercoated ready for their top coat. Work on No. 1 end is now under way.

Metal seat ends have been fitted on both No. 1 and 2 ends. Both bench seats have been completed and fitted to match the metal ends. Work has commenced on the "throw-over" seat backs for each end.

All Huon pine panels and lining have been sanded, giving a beautiful smooth honey coloured finish. Any damage to the lining has been made good by removing the damage and replacing with new Huon pine. All Huon pine paneling has been seal coated for protection.

Leon Colgrave is to visit our group to advise on the type of paint for the exterior of car 14. Leon is a retired smash repair business owner and is the person who painted Launceston trams 29 and 8.

Movements from MOTAT, Auckland

On 29 September former MMTB rail grinder 3 (previously Sydney and Newcastle grinder No. 2) was lifted by forklift onto an open-sided container and 'shrink wrapped' for shipment below decks back to Sydney. It was due to be delivered to Loftus in mid-November.



C 29 and R 1740 on the depot access track during our Photographers Afternoon and Evening event on 16 September.
Josh Dreves

The car was overhauled for use by the Museum of Transport and Technology (MOTAT) in Auckland. However following a management restructure there it fell out of favour, much to the frustration of many volunteers. It will be an interesting addition in the Display Hall in place of Birney 11.

Sydney R car 1808 left MOTAT on 2 August. It was delivered to the Tramway Historical Society (THS) at Ferrymead on 14 August and works are under way to prepare it for service on the Christchurch City tramway. This will include a repaint in a blue colour scheme.

Due to regulatory needs the original glass windows are to be replaced with toughened safety glass. This is a time consuming job involving the removal of internal panelling and window sills, then the tedious job of detaching the original glass from the aluminium holding clamps, which after more than 80 years are expected to present problems 'unfreezing' the brass fixing screws

which over the years are likely to have fused with the clamps.

This project marks another milestone in our relationship with Christchurch Tramway Limited, and as a commercial lease will provide important cash flow towards the costs of restoring Christchurch 'Yank' 12 for us at THS in future years.

Sydney P 1729 and PR1 1573

Works on overhauling the GE247 motors for these cars at THS, Ferrymead received a setback recently. Thieves in broad daylight accessed the rear door of the workshop and escaped with the end casting plates and axle bearing holders from the floor area below the bench where a dismantled overhauled motor was awaiting return of field coils for re-assembly. Whilst a vehicle number was obtained, to date nothing has been recovered and THS are now attempting to source replacement parts from an identical motor.



Wedding parties continue to use the museum's trams for their wedding photographs. This group attended on a rather dull 8 October.
Scott Curnow

Unloading a truckload of second-hand rail from Kensington at the museum on 2 August.
Martin Pinches



Recovered rail from Kensington

The museum has benefited recently from the donation of rail lifted from Anzac Parade at Kensington, in preparation for the laying of new track for the CBD and South East light rail line. Three loads of rail have been recovered, the most recent being unloaded on 7 September. A diamond crossing and some point work components were included in the third delivery.

There is now sufficient near-new 102lb per yard grooved rail for a future relay of both tracks in our street from the scissors crossover to the previous re-laid track at the front gates. These rails were rolled at Australian Iron & Steel, Port Kembla in 1955 and were out of use after 25 February 1961.

There is also a quantity of 80lb tee rail with bolt-on groove which is being cleaned of adhering concrete by our CSO workers using our electric jack hammers. These rails are being welded into two lengths of about

60 metres for an up-coming relay of the track south of Depot Junction to the second span pole outside the south gates.

Railway substation, Sutherland

A contractor for Transport for NSW has mounted two of the Kogarah trolleybus substation panels and part of one of the Town Hall station wooden escalators in the former railway substation building which is soon to be handed over to the museum for display purposes.

Forklift No. 3

Number 3 forklift, which sees a lot of use at the museum, required attention after the starter motor failed causing the workshop to be without it for some time. Kirrawee Auto Electrics sourced new brushes and put it back together, but this was not a simple fix. Ultimately the motor had to be rewound and put together again before it worked correctly.



Our Back to the '50s Day on 15 October used trams in the livery of the 1950s – green and cream!
Scott Curnow

BALLARAT

BALLARAT TRAMWAY MUSEUM

PO Box 632, Ballarat, Victoria 3353

www.btm.org.au

Dave Macartney and Warren Doubleday

Operations and infrastructure

The rebuild of No. 18's truck continues at a slow pace. New springs have been obtained as the old ones would soon have to be replaced, with several found to have cracks. Reassembly should now be fairly straightforward.

Tram No. 27 is out of service while the side panels in one corner are being replaced following collision damage in Wendouree Parade. When the cover strips were removed it revealed a small portion of the original paint scheme. Instead of the cream with dark



Tram No. 18's truck sans motors – some more fine tuning to do on 13 October 2017.

Warren Doubleday.

Receiving the Grant Certificate from Sharon Knight MLA is Peter Waugh, Marketing Manager along with other BTM workers in front of No. 40 on Tuesday 10 October 2017.

Heidi Flower



The new side panel on Tram No. 27 – pending painting – 13 October 2017.

Warren Doubleday



The removal of the cover strips over the damaged panel on No. 27 showed the original 1935 colours at the top – not the ones we thought. Warren Doubleday



brown lining, it was found that the 1935 paint scheme comprised yellow panels with red lining. Unfortunately, colour photography was a rarity in 1935!

Tram No. 671 is getting a roof resealing and paint after leaks were detected. The new colour for the roof will be mid-grey colour rather than the black of the last nine years.

Cuthberts939 continues to attract attention, mainly from local people looking for a venue for various personal celebrations. Bookings average around three per month, which is a handy addition to the traffic revenue.

Overhead repairs were carried out in Wendouree Parade on 22 August, with additional span wires being installed at the loop, and the bracket arm on pole No. 22 being straightened. As well, two additional replica tram stop shelters were installed by the City Council on 25 August, one beside the access track at Depot Junction and the other opposite the playground.

State Government Grant

The Museum was advised during mid-September that it was successful in obtaining a grant from the Local History Program Grant operated by the Public Record Office Victoria. The grant of \$8000 for the enhancement of the interpretation of Ballarat's heritage trams role to the community. We propose to provide interpretative panels in four of the tram shelters that are placed around the depot or along the Wendouree Parade tram line. A certificate was presented to the Museum on Tuesday 10 October by Sharon Knight MLA, Member for Wendouree.

Renewal of accreditation

In the last issue, we reported on the visit of the Museum Accreditation Panel, Museums Australia, part of our renewal process. The Museum was first accredited in 1997 and was advised in mid-August that our



Food to go soon! – One of the hamburger vans passes by the depot on 5th October on its way to set up and to feed many happy mouths. Peter Waugh

accreditation would be renewed. The Museum was commended for its community spirit and engagement as well as the amount of work undertaken since the panel's previous visit. A number of recommendations were made that will be implemented in due course. The panel also made a visit to our off-site store at Bungaree.

From 5 to 8 October, the Hank Marvin Market rolled into town and installed a pop-up Hamburger venue opposite the tram depot. These were no ordinary burgers, but all sorts of specialised and exotic offerings from many different cultures. Not cheap, but many prominent tramway people were to be seen stuffing their faces. The extra visitors to the Gardens gave the last few days of the school holidays a much needed boost.

WHITEMAN PARK

PERTH ELECTRIC TRAMWAY SOCIETY (INC)

PO Box 257, Mount Lawley, Western Australia 6929

www.pets.org.au

Michael Stukely

Annual General Meeting

The Society's thirty-sixth Annual General Meeting was held in the members' room at the Car barn on Sunday, 30 July. The following Office Bearers were elected: President, Allan Kelly; Vice-President, Michael Stukely; Secretary, Robert Pearce; Treasurer, Tony Kelly; Membership Secretary, David Brown; Councillors, Garry Barker, Roy Daley, Shane Parsons.

In the 12 months to 31 March, our five available trams ran a total of 9,057.6 km (the 2015-16 total was 9,389.2 km). The mainstay of the tram fleet was W2 329 (4,800 km), along with W7 1017 (1,632 km) and W2 441 (705.6

km), and there was again very significant running by WAGT (Perth) E 66 (1,262.4 km), while Fremantle 29 ran 657.6 km. It is noteworthy that Fremantle 29 has now been in service at Whiteman Park for over 25 years, following the completion of its restoration by the Society in mid-1992.

Traffic operations and service cars

Patronage on the trams in June was disappointingly low. This is surprising given that June was exceptionally dry for that time of the year. By comparison, passenger

Fremantle 29 at the temporary terminus and tram stop at the Lolly Stop, at the west end of Whiteman Village, on 3 September. Beyond the tram, the track is blocked off while a new access road, with roundabout and tramway crossing, is installed on the Village side of Village Junction Station. For several months, trams have turned here rather than at the Station.

David Brown



The sun does not always shine at Whiteman Park. Most published photographs show our trams in bright sunlight, but on 1 July PETS President Allan Kelly was the duty motorman. From the relatively dry Village cafe, he captured W2 329 waiting for passengers in inclement conditions.

Allan Kelly

The contractor's caterpillar loader spreads road-base inside the new car barn on 3 May.

Lindsay Richardson





Bill Allnutt stripping old paint from the front door support and saloon corner post on WAGT (Perth) A 130 on 31 May.

Lindsay Richardson

A failed timber traction pole near the new carbarn being removed on 23 August. Noel Blackmore is operating the crane, assisted by Colin Spooner (left), Ian Kelly and Ray White.

Lindsay Richardson



Bound for the Village, W7 1017 enters Village Junction Curve after departing Village Junction Station on 11 June. The tram is at the site of the planned level crossing for the Park's Fire Escape Link Road, with construction works soon to commence. Michael Stukely

numbers in the July school holidays, with seven days per week services, were good. This was also the case in August, with good overall results for the month.

Melbourne W7 1017 and W2 329 were the regular service cars in June and July. Fremantle 29 was the service car for most of August, with 1017 running on just one day. Both 329 and 1017 have now had air-horns fitted at both ends by Brian Hossack and helpers, and these give excellent warning to motorists at road crossings. All operational trams are now fitted with air-horns.

New carbarn project

Planning and preparations have been progressing for the laying of the first lengths of grooved rail for the new Road 8 in the new carbarn building, which is nearest to the main line. Special Projects Officer, Lindsay Richardson, reports that the first stage of the points installation

program will be the eastward relocation of the points leading to the Lindsay Richardson Car barn fan. The existing railway-type mainline points will be replaced with tramway points. The relocation is necessary to allow space for the installation of the three new sets of points for the new car barn roads.

Tram restoration

Body-number transfers for WAGT (Perth) A class tram No. 130 have been received, and these will be applied at a later stage to the saloon sides and end aprons. Work has continued on the stripping back of body timbers and priming the front aprons at both ends. Measuring up for the side body panels for replacement has been completed.

New Park roadworks – and a new level crossing

Since late June the area between Whiteman Village Junction Station and the public access road that passes alongside the tramway at Village Junction Curve (leading out of the Park to Beechboro Road) has been the scene of major new road works for the Whiteman Park Fire Escape Link Road. The project has included the construction of a new road crossing over the tram line between the Station and Village Junction Curve. It has been necessary for the contractors to have full possession of the whole site for the duration of the works.

Since 22 June our tram service has stopped short of the normal terminus at the Station – instead, reversing at the



Looking towards the Village Junction Station on 24 June 2017. The new road formation reaches the site of the tramway-road level crossing.

Michael Stukely

The check-rail has been re-set using PETS spacer blocks. On 11 September the contractors are preparing to weld a rail joint approaching the new level crossing, which has been excavated ready for concreting.

Michael Stukely



far end of the village near the Lolly Stop. The overhead beyond here had been electrically isolated and earthed, and a sleeper barrier was placed on the track at the temporary terminus.

This new construction is the latest of a number of initiatives taken in recent years to improve fire safety generally in the Park, following bush fires in the Park and surrounding areas several years ago. Access to the car parks near the station from the Beechboro Road entrance has, until now, only been possible by driving around about 90% of the village area. The only emergency evacuation route from there has required visitors, Park staff, and volunteers to drive through the village; this could have involved driving towards a fire, or to an area already crowded with vehicles.

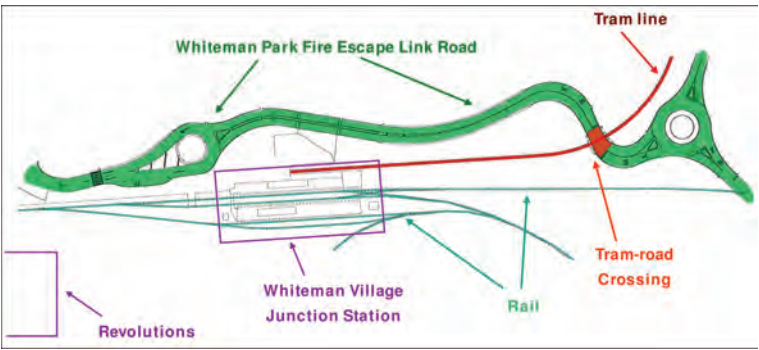
The new road link provides a very short and direct link from the Station, Revolutions Transport Museum and the adjacent car parks to the Beechboro Road exit. Incoming emergency vehicles, such as ambulances and fire appliances, will also have faster and more straightforward access, which should lead to shorter response times in the event of their services being required.

The concrete pour was completed on the new level crossing on Friday, 15 September. The new road to the roundabout can be seen on the right.

Michael Stukely

The alignment and path of the tram track approaching the station are unchanged, but the shortest and most efficient connection between the western car parking areas and the access road has involved constructing a new crossing over the tramway alignment. Although not desirable from a tram operations viewpoint, building the new crossing was essential if emergency access was to be improved. Approach roads to the crossing have been designed to keep the speed of road traffic as low as possible and to give maximum visibility of trams from the road and vice versa. Another benefit of the new crossing is that it may reduce the road traffic using the existing crossing at the other end of the village.

As part of the project, the tramway infrastructure has been upgraded for some distance on either side of the new crossing. Sleepers are now all steel on these sections of track; old worn rails on the curve have been replaced with joints welded; the check-rail has been re-set using PETS spacer blocks, and extended through and beyond the crossing; and new spun concrete traction poles have been erected to replace the ageing wooden poles on the curve.



Plan of the Whiteman Park Fire Escape Link Road, showing the new tramway level crossing.

David Brown

Installation of the new spun concrete traction poles on Village Junction Curve is progressing, on 28 August.

Michael Stukely



Some unforeseen problems had to be overcome in the course of the installation. Because of the high water table in the area the holes dug for the poles filled with water very quickly. Water had to be pumped out and concrete liners were installed to a depth of two metres with a concrete base. The poles were then erected and their bases concreted into place.

By early October, the road crossing over the tramway had been installed and concreted, with trackwork still to be completed on the Station side. Although the eight new poles had been erected, some pull-off attachments as well as the final alignment and re-adjustment of the overhead on the full curve remains to be completed.

Track

In addition to the major contract works on the Village Junction curve, our track team has been continuing to replace deteriorated timber sleepers on the main line with steel sleepers. The Bennett Brook South Curve near the original Mussel Pool platform, was fully re-sleepered with 11 steel sleepers on 29 July and 2 September. On 7 October, nine sleepers were replaced between the cattle grid and Village road crossing, with four rail joints also being lifted and packed. Five steel sleepers were installed at that location during June. Roy Daley has continued carrying out maintenance work on the points, and some lifting and packing along the track. He has also continued to refit parts to the sleeper puller machine.

Replacing deteriorated timber sleepers with steel sleepers at the Bennett Brook South level crossing on 29 July – Michael Stukely (left), Lindsay Richardson, Nick Tsiaglis and Shane Parsons. Jordon Blain



ST KILDA

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Colin Seymour

Sixtieth anniversary celebrations

The sixtieth anniversary of the formation of the Australian Electric Transport Museum (AETM) in South Australia was celebrated on Sunday and Monday, 1-2 October, the Labour Day long weekend in SA. The celebration included:

- The sixtieth anniversary celebrations
- Official naming of the Christopher Steele Tram Maintenance Depot, and
- Re-launch of H1 type tram 381.

On Sunday 1 October, operations commenced at 10:00am. Staff started to arrive on site at 7:00am to place the trams in position and to have the site ready for visitors. The shunting of the fleet for the day was handled in a timely manner with seven Adelaide trams (Nos. 1, 42, 118, 186, 264, 282 and 360) positioned for the start of operations. Car 381 was powered up behind the closed shed doors of the Tram Maintenance Depot on Road 4 before being revealed later in the day. The visiting fleet of restored buses arrived on site, parked appropriately next to the Trolley Bus Shed. For most of the day, trams were run in convoys of two.

Formal proceedings commenced at 1:00 pm. Local Channel 9 news anchor – and rail enthusiast – Brenton Ragless was the Master of Ceremonies. After welcoming everyone, he handed over to Museum Archives Officer, Colin Seymour who introduced the Mayor of Salisbury, Gillian Aldridge, and the sister of the late Christopher Steele, Jane Kedge, who travelled from Canberra for the event. Colin acknowledged Council's contributions to the new maintenance depot as well as the assistance provided by History SA and Arts SA. He also acknowledged Roger Wyatt from the P4 Model Railway Group for his engineering expertise in designing the new pit and NED (North East Demolitions) for the concreting of the shed. After briefly describing Christopher's contributions to the Museum, Colin invited the Mayor and Christopher's sister to remove a curtain to reveal the large plaque dedicating the Tram Maintenance Depot to Christopher Steele.

After the plaque was unveiled, Brenton Ragless gave a short speech detailing the history of tram 381. He also

thanked the volunteers who carried out the restoration. After his speech the doors of Road 4 were pulled open and 381 was driven out of the shed by William Adams to the applause of the large crowd.

After the speeches, visitors were invited to board car H1 381 as well as F1 264 for the inaugural run to the Playground terminus. Both trams ran with standing room only because of the large crowd present. Almost every run for the rest of the day included car 381 in convoy with another Adelaide tram. The convoy included No. 1, thereby enabling the first and last trams from the former system to be seen running together, much to the delight of the crowd. Trams ran with high passenger loadings for most of the day, with the final run occurring just before 5:00pm.

Apart from the regular tramway operations, other activities on the day included a very popular barbecue and a popular high tea in restaurant tram H 378, parked just inside the access doors on Road 10 of the Northern Depot. A display of restored buses and a second hand sale was located in front of the Trolley Bus Shed. Buses R Us provided a shuttle bus service between Salisbury interchange and the Museum.

Monday, 2 October was supposed to be the quieter of the two days, but that is not how it turned out! Visitors were once again arriving early before the first tram service departed. Apart from No. 1, the same line up of trams from the previous day was available for traffic. Only two crews were rostered for the day. However, a frequent service was run thanks to hard work by the volunteers in attendance. Regular convoy operation was again required because of the number of visitors. H type tram 360 ran a couple of solo journeys, but despite its high crowd carrying capacity, even this tram was very full. Of course, the newly recommissioned 381 was always popular and always filled up quickly. The other activities provided on the Sunday were again popular.

Many AETM members and friends helped to make the event highly successful. Special thanks go to William Adams and Geoff Grantham for organising the event. Geoff and his staff from Buses R Us not only operated

Prior to opening for the day, Adelaide tramcars A 1, B 42, E 118, C 186, H 360, F1 264 and F1 282 (behind 264) await their passengers on the depot fan.

Andrew Gilbertson



the shuttle bus service from Salisbury Interchange to the Museum for the event, but also managed the very successful barbecue. The operation of the high tea was very much a family affair, with William's family contributing to the success of the service on board Adelaide's former restaurant tram.

Cleaning and shunt day

In the lead up to the event, a cleaning and shunting day was held on 23 September to give the tram fleet and the Museum a thorough tidy up. There was a great response to our call for volunteers. In addition, several members of the staff at Buses R Us were also present with blower vac equipment and other cleaning tools which made

short work of cleaning the Northern and Southern tram sheds as well as the Trolley Bus shed. Added to the work at the main Museum site, a track crew took works car W2 354 along the lakeside track to repair a track weld. A large shunt program was also carried out to place the trams in position for the anniversary celebrations.

Completion of car 381 refurbishment

On 10 August the body of car 381 was reunited with the trucks after they received a thorough inspection and service. The brake rods were reinstalled and adjusted. Static brake testing using the workshop air supply was carried out. The traction motor leads were reconnected and a 'bump test' was carried out to check for correct

Dedication of the AETM's new Tram Maintenance Depot to the late Christopher Steele on 1 October 2017. The photo shows the Mayor of Salisbury, Gillian Aldridge holding the curtain which covered the plaque. Chris's sister Jane and Colin Seymour, Museum Archives Officer are also in attendance. The sign reads 'This building is dedicated to Christopher Steele (1937 – 2015), a founding member of the Museum who led the way and put in a huge physical effort in building the original tram depot on this site during the 1960s. The original depot was replaced by this building in 2011'.

Steve McNicol





The celebrations also included the recommissioning of H1 type No. 381. It had been out of traffic for over sixteen years. SA TV personality Brenton Ragless from Channel 9 relaunched the tram which is pictured coming out of Road 4 of the depot building, ready to enter traffic again.

Steve McNicol

H1 381 departs the Museum with another load of happy passengers on 1 October 2017.

Andrew Gilbertson



operation. The controllers were also serviced. The lighting circuits were restored to full operation while the door engines were also tested. The overhauled air compressor was mounted on the tram on 2 September.

On 3 September, after three return trips to Mangrove Street, 381 was run to the Playground to check clearances at the new platform. This was the first time in seventeen years that 381 had been there.

Silver streamliner H1 381 at the St Kilda Playground terminus on a test run on 17 September 2017.
William Adams



Cousins H 360 and H1 381 stand side by side in the afternoon light during the AETM's sixtieth anniversary day on 1 October 2017.

Andrew Gilbertson

Thanks should be extended to Kym Smith, Jack Pennack, Bruce Lock and Michael Crabb for carrying out the myriad tasks on 381 before it was recommissioned after a long period of storage.

Tram 381 history

The last tram built for the former Adelaide tram system, No. 381, was supposed to be the first of an order of 40 trams of the H1 type. The tram was built by J A Lawton of Seaton, which also built a number trolley and diesel buses for the MTT around this time.

While under construction in 1952, tramway and transport policy was changed which saw the wholesale

closure of the tramway network and replacement by buses. Car 381 was completed but the order was cancelled. Car 382, which was partly built, was cut up for scrap on the factory floor. Car 381 remained the newest tram in Adelaide until 2006 when the current fleet of Adelaide trams entered service.

H1 381 entered service in January 1953 and was mainly used on the Kensington Gardens to Henley Beach service until early 1957 when trams services on those lines were replaced with buses. It was withdrawn later that year. Car 381 was in service for just under five years, but it has been in preservation for 52 years. It was placed in storage by the MTT in the Maylands perway depot on Magill Road. The depot is still standing.



Three beautifully presented former STA (SA) buses on display for the weekend. They show three of the liveries carried by the fleet. They are all privately owned and are a credit to their owners.

Steve McNicol

The Alpha and Omega of the Municipal Tramways Trust, A 1 and H1 381, stand together in lovely afternoon sunshine at the Playground terminus for the first time in many years.

Andrew Gilbertson



Car 381 was delivered to the Museum in 1965 and was running again soon after operations began in 1974. It continued in Museum service until 2000 when it was withdrawn due to worn wheels.

Interior and external refurbishment was carried out from 2013. Re-profiling of the wheels was carried out by Genesee and Wyoming Australia at Dry Creek in earlier this year following a grant from History SA. Detailed mechanical and underbody work was carried out at the Museum before the tram re-entered service on 1 October.

Christopher Steele Tram Maintenance Depot

The new Christopher Steele Tram Maintenance Depot was constructed and fitted out between 2011 and 2017 at a cost of over \$250,000, with most of the money

coming from the Museum's own funds and from members' donations.

The late Christopher Steele was one of the founding members of the Museum in 1957. Christopher led the way, and put a huge physical effort into building the original tram depot. The work was done by volunteers from 1961 to 1965 using mostly second hand materials.

If it were not for Christopher's efforts in these difficult early years, the Museum may not have survived. The secure housing of the trams enabled the Museum to open as a static display fifty years ago in July 1967. This in turn enabled the focus to move to restoring the trams for eventual operation. In 1973, Christopher was contracted by the Salisbury Council to oversee the construction of the tram line to St Kilda, with tramway operations commencing in March 1974.

The R and S Valiant Club visited the AETM on 21 September 2017 as part of their national rally. Approximately 100 entrants with over 50 vehicles attended. Trams 360, 282, 42 and 186 were used.

Ron Jenkins



Christopher played a key role in the establishment of a permanent museum archives facility in the early 2000s. One of his last projects for the Museum was to assist with the internal refurbishment of tram 381.

In the early 2000s Christopher retrieved an old Adelaide double deck trolleybus, No. 433, which he planned to restore as a retirement project on his property. Sadly, Christopher passed away in 2015, aged 78 and the bus was never restored. The unrestored vehicle is now on display in our Trolleybus Shed.

Two Adelaide drop-centre trams are rarely in service at the same time. However, both cars 282 and 264 were in service for the sixtieth anniversary celebrations as seen here along the lake on 2 October 2017.

Sean Zhang

By 2011 the original tram shed was showing its age and had to be replaced with the current depot that securely houses trams and enables us to carry our tram maintenance in an excellent environment. In honour of Christopher, the new building has been named the Christopher Steele Tram Maintenance Depot.

Track and overhead

In other work, six overhead poles are in the final stages of preparation prior to their being used to replace life-expired poles along the lakeside. Recent trackwork has seen the curve between the entrance to the Northern Depot and the perway crossing regauged and re-spiked. A broken weld at Pole 19 has been pulled together and re-welded.



BYLANDS

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Graham Jordan

Visitor Entrance Centre

The fit-out of the large rear portion of the Visitor Entrance Centre is gathering pace, with another internal wall being erected at the rear of the building. On the other small internal wall, built recently, our Marketing Manager, William Fedor, has placed descriptive display panels relating to Victoria's tramways history.

We intend to relocate the former MMTB board table to the Visitor Entrance Centre. However, before this can occur, remedial work will be required to arrest the deterioration and repair the damage it suffered when it was located in the Exhibition Shed.

A padbolt and new lock has been installed on the front door of the Visitor Entrance Centre as an added security measure.

New main entrance and site improvements

The large tram museum sign that was permanently attached to our western front gate has been transferred to the eastern gate, which is the new main entrance for museum visitors. A contractor has been engaged to regrade and resurface the eastern driveway from the front gate to the caretaker's house. This roadway was damaged by regular frequent flooding in recent times as a result of unauthorised drainage and other changes undertaken by the Kilmore Men's Shed during their period of tenancy at Bylands.

Our northern boundary fence has received attention in recent times. When the stored rail was relocated from McKerchers Road several months ago, it was necessary to remove a section of our northern fence to gain access to our property. It was therefore decided to replace the former fence with something in keeping with the other farm fencing in the vicinity. A local contractor erected the new fence during August. The opportunity was also taken to install a gate at the reservation alignment where it crosses McKerchers Road. A second gate was also placed on the eastern driveway, which will provide better access for larger vehicles.

Storage of PCC bogies at Newstead

At least twenty years ago the Sydney Tramway Museum was given permission to store several sets of PCC-type bogies at Bylands, free of charge and on a temporary basis. After a long delay the first set of bogies were moved from Bylands to Len Millar's property at Newstead in central Victoria on 2 October. Transfer of the second set, currently stored in the Exhibition Shed, will follow before the end of the year.

Water supply problems

On 22 September we found that our 22,000 litre steel water tank on the western side of the Exhibition Shed was empty, with a large quantity of water lying in the



Some of the new display material prepared for the Visitor Entrance Centre.

William Fedor

immediate area. Following the removal of several other tanks around the site, this water tank was our sole source of water for the Visitor Entrance Centre as well as our toilets and the caretaker's house. The tank also supplied a larger Country Fire Authority tank located nearby. Loss of our water supply forced the closure the

museum to the public from late September. However, a new poly tank is expected to be installed and connected to our plumbing system in the near future.

The museum sign has been relocated to the eastern gate. The new second gate is to the left.
Graham Jordan



The new northern fence at McKerchers Road.

Corey Robertson

The first set of PCC bogies owned by the STM being loaded at Bylands for transport to Newstead.
Graham Jordan





The Australian Electric Transport Museum's Adelaide H1 car 381 departs the museum grounds on its first passenger journey after being re-launched on 1 October 2017.

Steve McNicol



The Sydney Tramway Museum's freight car 24s was driven out of the workshop onto the traverser on 14 October 2017. Restored to operating condition under a 2016 Transport Heritage Grant, it was the first time in 70 years it had operated under its own power.

Martin Pinches