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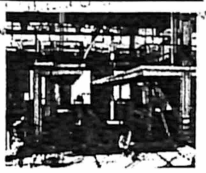

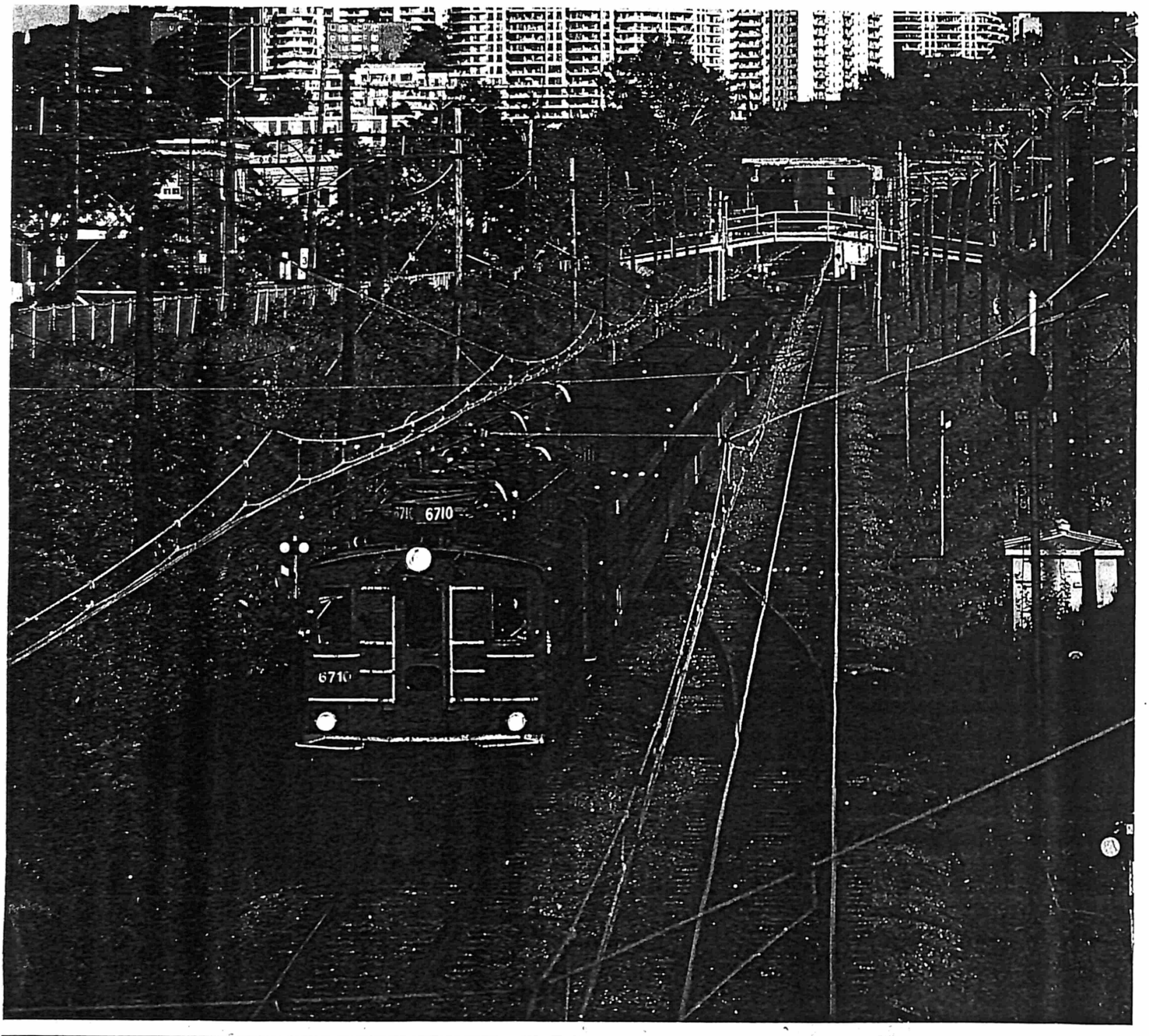

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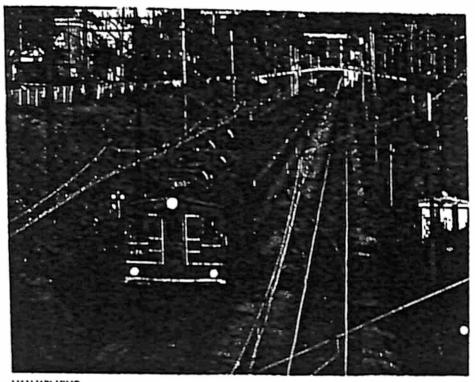

VAN WILKINS

ON THE FRONT COVER: A pair of original General Electric box cabs trailing eight pre-World War II coaches heads upgrade with Mount Royal in the background in this 1990 view.

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Departments

Free Congress Foundation

The Free Congress Research and Education Foundation is a non-profit public policy research institution. Founded in 1977, the Free Congress Foundation is active in a wide variety of public policy areas that include judicial reform, analysis of electoral trends, state policy issues, issues that pertain to national culture, and transportation policy.

In 1988, Free Congress began publishing of *The New Electric Railway Journal* in response to a need for a periodical that would provide a pro-transit but critical look at the rapidly reviving electric railway industry. Consistent with the Foundation's emphasis on innovation and reform, *The New Electric Railway Journal* seeks to promote electric railways as a major element in the solution to our nation's urban transportation problems, but to do so in ways that ensure the taxpayer gets maximum benefit from public moneys used to support rail transit. The Free Congress Foundation's non-profit status and freedom from any industry connections allow *The New Electric Railway Journal* to look objectively at developments in the transportation field, and with a focus on the broad interests of the American public.

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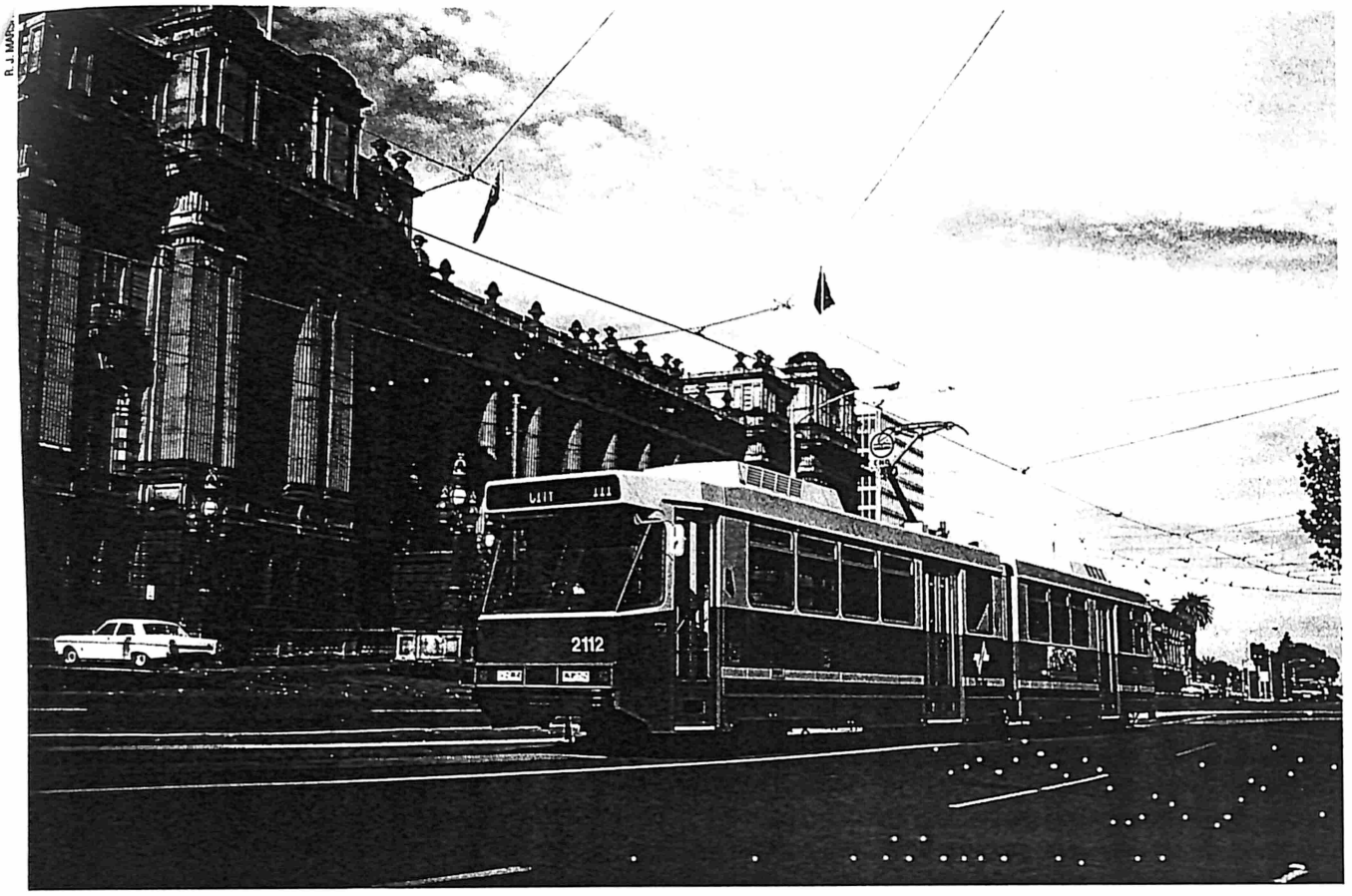


ABOVE: Newly delivered B2 2112 passes Parliament House on Spring Street. A two-block extension in this street completed the City Circle in 1994.

A Fair Go for the Streetcar

Michael Venn

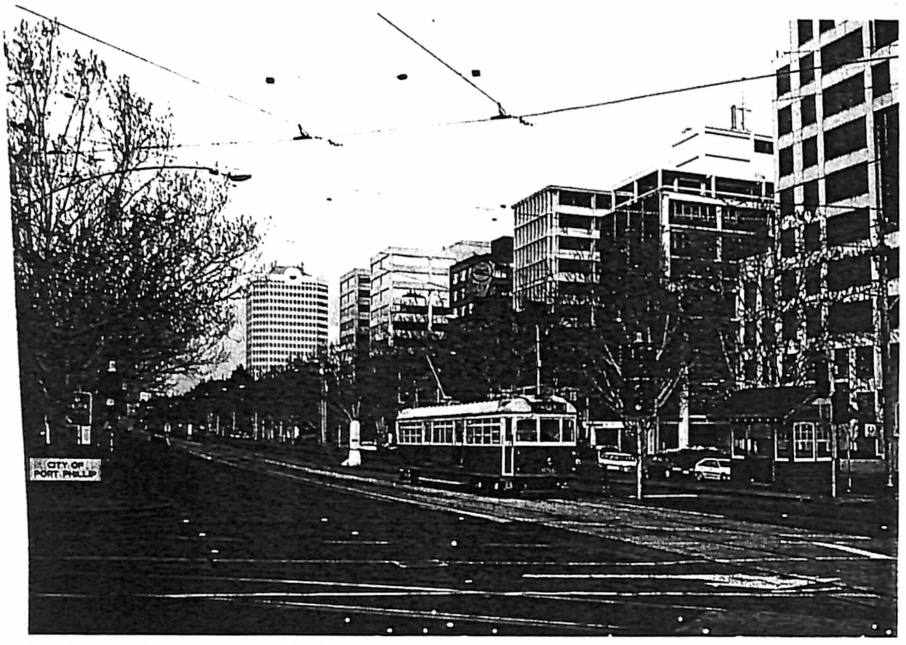
Often, one person can have a salutary effect on the course of public transport. In the U.S., Jim Mills in San Diego and Bill Owen in Dayton exerted a positive influence far beyond that of the average individual. And in Australia, there was one such person as well—Robert Risson.

MELBOURNE BOASTS THE LARGEST network of electric trams in the English-speaking world, and the largest outside of Eastern Europe. But how has this traditional streetcar system, with twenty-seven lines, 149 route miles of track and 540 trams, survived and grown in a low-density Western city of three million people, with U.S. levels of car ownership?

Paradoxically, its survival owes much to the huge success of the cable tram network it supplanted, which at its zenith in 1925 was the world's largest. Because electric tramways were excluded from the Melbourne central business district until 1925, most of the infrastructure was still in good condition some thirty years later when pressure mounted to abandon trams for buses.

Major-General Risson

The last cable trams were run on some northern suburban routes until 1940, but conversion of these last routes to electric traction was deferred for the duration of the War. Double-decker buses ran as "temporary" replacements, which might well have



ABOVE: Heritage awareness in St. Kilda Road: overhauled SW6 No. 896 repainted in the old Melbourne & Metropolitan Tramways Board livery, passes a refurbished tram shelter erected in 1915. Fully one-third of Melbourne's tram routes funnel into this pleasant, tree-lined boulevard.

become permanent but for the appointment of Robert Risson as Chairman of the Tramways Board in 1949. A Major-General in the Army Reserve, he managed the Tramways like a military division, and brought the full force of his formidable personality to bear upon politicians and the press.

The logistical superiority of trams appealed to Risson, who admired their ability to shift crowds. When a government sympathetic to public transport was elected in 1953, he seized the opportunity and secured the funds to replace the last cable lines with eight miles of new electric tramway, and to build forty new trams. These were in service for the 1956 Olympic Games, during which the tramways demonstrated their crowd-moving capability, as they had two years previously during the first Royal Visit when trams carried an additional 350,000 passengers in a sensational two-week period.

Risson also had the advantage of an archaic law which required that the Tramways Board maintain the road surface between the rails. Local government road maintenance authorities were only too pleased to pass off their responsibilities to the Tramways Board, which was a State government authority—more so because the mass concrete track adopted in the 1950s was relished by motorists for its smooth road surface!

He saw to it that the infrastructure and vehicles were kept in good shape, with several miles of track reconstructed annually during the fifties, and twenty miles of new trolley wire being strung in 1952 alone. Of the 810-car fleet in 1956, availability was a creditable 90 percent. There were 144 cars less than fifteen years old. But 1955–56 was the last of the good years. A capital drought set in that lasted nearly twenty years.

By the late fifties the Melbourne press was openly hostile to trams, painting them as an annoying anachronism that inhibited traffic flow and wasted public funds. All other state capital cities in Australia abandoned their tram networks between 1958 and 1969, and in Melbourne's southern suburbs the Victorian Railways also abandoned its seven miles of street tramway between 1956 and 1959. These lines were independent of the Tramways Board and were in poor condition, but as a sop to anti-tram interests Risson closed a mile of his own network in 1960. Even darker days were to follow, with 1962 seeing the closure of three miles of lightly trafficked and semi-isolated lines in the Western suburbs. These were worked exclusively by single truck cars—some of them Birneys. In 1963 the government developed a strategy to phase out trams by authorizing a "Transportation Study" by a firm of New York consultants known for their anti-tram bias. But Risson countered by ensuring a senior Tramways engineer was seconded full time to the Study team, and had himself appointed to the controlling Committee. He saw to it that the final report stopped short of recommending closure of the trams.

"All-Electric" Trams

Sir Robert soldiered on as Chairman until 1970, nursing the system through the years of benign neglect. His knighthood and retirement after nearly twenty-one years in command coincided with the election of a more liberal State Premier and a softening

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of attitudes towards the Board. Remaining as a government transport adviser for another seven years, he witnessed the easing of funding constraints and the launch of a prototype "all-electric" tram in 1973. That year saw an order approved for 100 new cars, based on its design, and also marked an end to seventeen years of downward-trending tram patronage.

In 1975 the Board Chairman was on first-name terms with the technicians battling to overcome the teething troubles on the new trams. All were on twenty-four–hour call out, knowing that the tramway's survival depended on their success. The new "Z"-class cars were a radical technological departure from the earlier "W"-classes, and drew twice the electric current. Their introduction taxed the whole mechanical, electrical and civil engineering infrastructure, which by then dated back fifty years.

Nevertheless, they worked, and ridership continued to climb. In a further vote of confidence, a two-mile line extension was opened in 1978; it was the first new line in twenty-two years. Two repeat orders for the "Z"-class variants followed; they brought the class to 230 cars by 1983. The last 115 of these introduced chopper control and regenerative braking, in an effort to ease the current demands on the system's aging electrical sub-stations. The launching in 1982 of the first Restaurant Tram (a converted W2) marked a symbolic watershed in the public opinion, after which trams came to be regarded as a "Melbourne Icon."

Amalgamation and Expansion

In 1983 the Tramways Board was amalgamated with the suburban lines of the Victorian Railways to form "The Met." The new organization lifted the Tramway's profile, and tram patronage received a boost with the introduction of multi-modal tickets. Throughout the eighties most new capital expenditure was devoted to visible projects. Seventy "A"-class trams were purchased between 1984 and 1988, and two prototype "B1" articulated variants of the "A" were tested.

Two inner-city HRT lines were converted to light rail standard in 1988, and in the twelve years since the amalgamation seven miles of line have been extended along the median strips of divided highway. A City Circle service commenced in 1994 after the completion of a two-block connecting track, the free service run by restored "SW6" cars being highly successful.

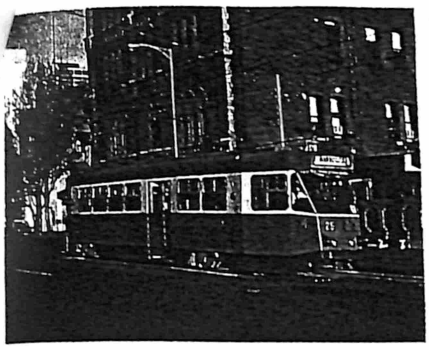
In 1988 delivery of 130 articulated "B2"-class trams commenced, for use on the light rail and other routes. These fully air-conditioned cars draw 1000 amps and cannot operate effectively without strengthened power supplies. A program of overhead and sub-station renewal therefore commenced in earnest in the late eighties. The last few rotary-converter substations are about to be phased out and funds have been provided for the replacement of seven mer-

— CONTINUED ON PAGE 29

PHOTO CREDIT: THE AGE, MELBOURNE

PHOTO CREDIT: THE AGE, MELBOURNE

ABOVE: Well-disciplined and neatly uniformed staff on clean trams: Robert Risson gives a fare to one of his troops on an SW6, circa 1960. **AT RIGHT:** Old Soldier and new Tramways Chief: as a staff officer, Robert Risson had helped turn the tides of war against Rommel's Afrika Korps at El Alamein, and then against the Japanese invading force in New Guinea. In 1950 the battle of the Melbourne Tram was just beginning, and this time Risson was to be the supreme commander. On ANZAC Day of that year, he proudly leads his old Brigade down the tram tracks in Collins Street, with Melbourne's commercial life at a standstill. Australia's most solemn holiday honors its Army's heroic defeat at Gallipoli in 1915, and the fallen in many other campaigns. Robert Risson's next campaign, however, was to be a victory. He carried extraordinary personal authority and commanded respect, even from the powerful, most of who were returned soldiers who had achieved lesser rank. Sir Robert became the saviour of Melbourne's trams.



ABOVE: Melbourne owes the rebirth of its tramways to the Z1 class and the teams that ensured their success. Here 25, resplendent in its radical orange livery, arrives at the Bourke Street terminus beside the century-old Tramways building in 1978. **AT RIGHT:** The three faces of today's fleet at Brunswick Depot, March 1991. Classic wide-bodied SW5 873 is flanked by flat-fronted B2 2057 and torpedo-fronted Z3 158.

— *CONTINUED FROM PAGE 27*

cury-arc rectifier substations. An accelerated program of track reconstruction is also under way.

During the last twenty years much has also been done to keep what is basically a traditional street tramway abreast of modern traffic conditions. The modernization of the fleet has markedly improved tram acceleration and braking. Crew safety has been enhanced and delays reduced by the replacement of 78 manual switches with transponder-activated automatic turnouts and signals, and a program to replace trolley poles with pantographs. Customer safety is provided by some 458 fully protected, center-of-road Safety Zones.

Fairways

Since 1983 a "Fairway" program costing over $A25 million has been implemented to give trams a "fair-go" on shared roadway. Traffic signals at approximately 600 intersections and pedestrian crossings have been altered to detect the presence of trams through transponders and alter signal phasing to reduce tram waiting time. Special "Fairway" signs and line marking along forty miles of tram routes now designate full-time (all hours) bans on motorists using the tram track as a regular traffic lane.

Traffic regulations have been amended to make it an offense to delay trams under Fairway conditions, but turning and briefly passing obstructing vehicles is allowed. There are a further six miles of part-time (peak hours) Fairway. Road widening treatments at over fifty heavily congested intersections have further reduced delays.

The tensions between road traffic engineers and the needs of a modern tram network remain, with some local governments and strip shopping merchants being reluctant to provide tram priority measures that involve curbside parking restrictions, but where Fairways apply the reduction in congestion benefits everybody. It is almost unknown to see an emergency vehicle stuck in Melbourne traffic because tram Fairways provide ambulances, fire engines and police cars with perfect emergency routes.

Since January of 1993 Driver Only conditions have been progressively introduced by the Public Transport Corporation on both its Met Tram and Met Train divisions as part of a reform process. Tram conductors will be completely phased out when a multi-modal Automated Ticketing System is commissioned in 1996. Cost reductions already achieved have permitted the restoration of evening and weekend services on several tram routes.

The Heritage Fleet

Melburnians are now so protective of their system that scrapping or export of any surplus trams is forbidden. There were 190 cars of the wide-bodied W5- to W7-classes stored under cover, off-system in June of 1995. Of the 111 cars of these classes still operational, fifty-three have recently been overhauled and painted in their original livery.

In addition to its service fleet, the PTC has formed a "heritage fleet" of over thirty trams, dating from 1906 to 1956, and occasionally borrows other ex-Melbourne cars from Victoria's four established tram museums. (They retain between them over one hundred operational or restorable trams, representing nearly every class of tram that ran in Melbourne). The PTC's heritage fleet will form the nucleus of a fifth operating tram museum, to be based at the heritage-listed Hawthorn Depot, built in 1917.

Melbourne's boast as being one of the world's most livable cities owes much to its street tramways and Fairway strategy, which have helped revitalize residential life in the city and the leafy inner suburbs. But congestion threatens this pleasant quality of life and the city's venerable trams. One would hope that Melbourne's citizens will continue to adopt traffic management initiatives which give their trams a "fair go."