# MEDIA RELEASE

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# INDEPENDENT REPORT FAVOURS RETENTION OF W-CLASS TRAMS

The Chairman of the National Trust of Australia (Victoria), Simon Molesworth, today released the findings of the independent "Options and Feasibility Study for W-Class Trams".

Speaking at Tasma Terrace, he said, "I am very pleased to report that the study vindicates the Trust's Classification and promotion of the W-Class Trams. The major finding is that it makes technological and economic sense to upgrade and refurbish the W-Class Trams.

It shows that substantial savings can be made if the upgraded Ws are used, instead of the unreliable and unattractive 1970s I-Class Trams."

The study should be considered truly independent. It was commissioned by the National Trust, using funds generously supplied by the Public Transport Commission. It was overseen by a joint Trust/PTC Committee. The Consultants, Ove-Arup engineers, and Cam Com, were chosen by tender, and were entirely independent of the PTC and the Trust.

The study is particularly critical of the Z-Class Trams. It shows that the PTC's original assumptions - that the public prefers modern vehicles, and that they are mechanically superior - simply does not apply to the Z-Class Trams.

These trams have replaced the W-Class on many routes im recent years. This is despite the fact that W-Class Trams:

- use 30% less power
- can carry 24% more passengers
- are 19% less likely to break down
- travel just as fast on busy routes
- have an accident rate no worse than any other class
- will cost no more to maintaim (when upgraded)

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#### NATIONAL TRUST MEDIA RELEASE 18/8/93

### INDEPENDENT REPORT FAVOURS RETENTION OF W-CLASS TRAMS

"And of course, the W-Class Trams have 100% more character", added the Chair of the Trust's Friends of the W-Class Trams Committee, Don Gibson.

"Most Melburnians agreed. The PTC's own survey showed that 89% of respondents felt that the W-Class Trams are a part of Melbourne," said Mr Gibson.

The most important findings of the report are that:

- 1. The Z-Class Trams desperately require a major overhaul costing at least \$109,000 each.
- 2. In order to maintain a modern fleet, they will have to be totally <u>scrapped</u> in fifteen years time.
- 3. The W-Class Trams require an overall of about \$142,000 each.
- 4. But will last indefinitely.

Therefore, over time, the potential savings though maintaining the Ws are enormous - up to \$780,000 per tram, on a thirty-year basis.

"We must spend what little money there is wisely. We can buy great savings in the future, and at the same time, save the best of the past for the present," said Simon Moleworth.

"We ask the Kennett government not to make the same short-term, short-sighted mistakes of the previous government. We must make a commitment to preserving an important, in fact priceless, icon of the city.

"The W-Class Trams are a major element of the character and identity of Melbourne. We must not lose those things that make us special," Mr Molesworth concluded.

W-CLASS TRAMS: A PART OF MELBOURNE

# THE NATIONAL TRUST

THE NATIONAL TRUST, ESTABLISHED IN 1956, IS A NON-PROFIT, NON-GOVERNMENT, COMMUNITY ORGANISATION WHICH WORKS TO CONSERVE AUSTRALIA'S BUILT AND NATURAL HERITAGE.

IN VICTORIA, THE TRUST IS SUPPORTED BY 25,000 MEMBERS AND A NETWORK OF VOLUNTARY COMMITTEES WHO ARE DEDICATED TO THE PRESERVATION OF HISTORIC BUILDINGS, LANDMARKS AND TOWNS, AS WELL AS URBAN AND NATURAL CONSERVATION AREAS.

# FRIENDS OF THE W-CLASS TRAMS

THE W-CLASS TRAMS COMMITTEE IS ONE OF THESE WORKING GROUPS. OUR OBJECTIVE IS THE PRESERVATION OF OF THE OLDER TRAMS AS AN INTEGRAL PART OF MELBOURNE'S CHARACTER.

OUR CITY IS IN DANGER OF LOSING THE W-CLASS TRAMS, AND THE COMMITTEE NEEDS PUBLIC SUPPORT TO WIN THE CAMPAIGN TO SAVE THEM.

PLEASE CONTACT THE NATIONAL TRUST FOR DETAILS OF HOW YOU CAN HELP.



National Trust of Australia (Victoria) Tasma Terrace 4 Parliament Place <u>EAST MELBOURNE 3002</u> Telephone: (03) 654 4711



**Cam**Com Campaign Communications



# OPTIONS AND FEASIBILITY STUDY FOR W-CLASS TRAMS



Prepared for the National Trust of Australia (Victoria) by Ove Arup & Partners and CamCom

July 1993

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# EXECUTIVE SUMMARY

Ove Arup & Partners, with CamCom, were appointed by the National Trust of Australia (Victoria) to undertake the "Options and Feasibility Study for W-Class Trams", (the "W-Class Tram Study").

The study consists of four parts:

- Part A Technical Assessment (prepared by Ove Arup & Partners)
- Part B Option Identification (prepared by CamCom)
- Part C Option Assessment (prepared by CamCom)
- Part D Strategy Plan (prepared by CamCom).

Key points from each of these study parts are set out below.

# Part A - Technical Assessment

The Part A component of the study primarily investigated the relative costs of various technical aspects of both the W and Z1/Z2-Class trams. Significant points arising from these investigations included:

- expected future crew costs for both tram types will be around \$84,000 per year per peak period tram. It should be noted that this assumes driver only operation
- W-Class trams use approximately 70% of the energy used by a Z1/Z2-Class tram. With the proposed improvements to the W-Class trams (primarily heating) this power consumption will increase slightly. Future energy costs are estimated to be \$9,250 per W-Class tram and \$12,400 per Z1/Z2-Class tram per annum
- current estimated annual maintenance costs are around \$47,000 and \$28,000 per tram for W and Z1/Z2-Class trams respectively. With the currently proposed productivity improvements within the PTC and the proposed W-Class tram enhancements, these maintenance costs are expected to reduce to around \$15,000 per tram per annum
- refurbishment costs to bring both tram types back to "as new" condition are estimated to be around \$100,000 per tram
- the total desirable "refurbishment package" cost is in the order of \$40,000 greater for W-Class trams than for Z1/Z2-Class trams
- virtually all of the Z1/Z2-Class trams are currently under lease arrangements. Based on information provided by Treasury it is estimated that these lease costs (as at March 1993) amount to a present value capital commitment of approximately \$142,000 per tram. These lease costs will remain whether Z1/Z2-Class trams are operational or not
- W-Class trams appear to be more reliable (in terms of availability for service)
- both tram types appear to have similar accident/incident involvement rates
- the W-Class trams have a greater passenger carrying capacity than the Z1/Z2-Class trams although they have a similar seating capacity

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- the step provisions on the Z1/Z2-Class trams are considered to provide easier access for passengers than those on the W-Class tram
- with one man operation, it can be anticipated that loading/unloading rates will be similar for both types of vehicle. On this basis it can be expected that travel times will be similar for both W and Z1/Z2-Class trams in mixed traffic environments. In segregated environments with speed limits greater than 50 km/h, it can be expected that Z1/Z2-Class trams will provide faster travel times
- with the provision of heating on the W-Class trams and upgraded heating on the Z1/Z2-Class trams, and given that similar comfort levels can be provided by the seats furnished, it is considered that both tram types will have similar comfort levels
- an all pantograph network would appear to be a logical longer term objective for the network (within the context of this study however, pantographs would be cost neutral)
- the longer term fleet profile must be addressed with respect to replacement of existing vehicles
- on the basis that upgraded W-Class trams are maintained indefinitely into the future and that Z1/Z2-Class trams are replaced in around 15 years with newer vehicles, the W-Class trams provide a significant long term cost advantage over the Z1/Z2-Class trams
- only those options which provide a full refurbishment and upgrade of the W-Class trams are considered to be appropriate if W-Class trams are to be retained into the 21st Century as general public transport vehicles
- if future replacement costs of the Z1/Z2-Class trams are excluded, the future costs for both tram types over a 15 year time frame will be similar.

#### Part B - Option Identification

A number of options which would maximise the retention of W-Class trams on the Melbourne tram network were identified. Key options were:

- replacement of Z1 and Z2-Class trams with W-Class trams
- supplement current PTC tram services with additional W-Class tram services
- provision of increased tram frequency on PTC services
- extension of the tram network
- specialist tram services such as:
  - luxury commuter trams
  - sightseeing trams
  - gambling trams
  - ethnic culture trams
  - corporate trams
  - history trams
  - audio visual (advertising) trams
  - restaurant trams

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- theatre trams
- club trams
- party trams
- retail trams.

In addition to the above options, a number of potential funding sources and management options were identified. These were:

- potential funding sources:
  - operational income
  - state budget allocation
  - federal budget allocation
  - sponsorship
  - surplus PTC equipment sales
  - cancellation or modification of proposed fleetwide system enhancements
  - management options:
    - PTC
    - separate Board/Authority/group within or without the PTC
    - private ownership with operational rights.

# Part C - Option Assessment

The options identified in Part B were assessed in detail as part C of the study. Key background information used in the assessment was:

- an additional (to those detailed in Part A) short term upgrade option was identified. This upgrade would provide those improvements needed for passenger comfort and to minimise ongoing maintenance costs, but would not initially include other upgrade components such as an improved brake system
- annual average fare revenue per tram is estimated at \$124,000 per tram per year
- total average revenue per peak hour scheduled tram is conservatively estimated at \$129,000 per year per tram for a tram system of between 400 and 500 trams
- W-Class trams have a significantly greater heritage value than do Z1/Z2-Class trams
- W-Class trams have an essential cultural/tourism value which is not easily quantified in pure commercial terms
- detailed assessment of many of the identified options is limited by:
  - the apparent lack of route specific PTC data e.g. patronage etc.
  - commercial agreements with existing operators etc.
- in the longer term, it can be expected that there will be an increasing demand for public transport facilities and that this will lead to extensions of the existing system

- the most likely sources of additional funding in relation to increased W-Class trams are:
  - further Federal grants under the "Better Cities Program"
  - from the sale of surplus trams and other equipment.

Based on the assessment of all the options outlined in part B, the following options appear to be technically and commercially viable in operational terms:

- substitution of Z1/Z2-Class with upgraded and refurbished W-Class trams
- supplement current PTC tram services with additional W-Class tram services under special management\_arrangements
- increase PTC tram frequency on existing services using W-Class trams.

In addition to the above, it was identified that potential future expansions of the tram network would require additional vehicles. It was further identified that although W-Class trams may not be the most appropriate trams for such future expansions, W-Class trams could replace existing modern trams on inner routes and thereby enable these trams to be used on an expanded network.

It was further identified that a number of specialist operations, such as additional restaurant trams etc, may also be feasible. The scope for such services may however be limited by existing commercial arrangements.

# Part D - Strategy Plan

An implementation strategy for each of the four options identified as being feasible in Part C has been developed. Key steps for each option are set out below:

- Substitution of Z1/Z2-Class trams:
  - agree on upgrade configuration for W-Class trams
  - determine cost for the upgrade through a competitive tendering system
  - finalise phase-in plan for substitution
  - sell surplus Z1/Z2-Class trams
  - undertake public relations campaign to accompany the introduction of upgraded W-Class trams
- Supplementary Services:
  - call for expressions of interest
  - develop appropriate operating/evaluation procedure
  - if shown to be viable, call for tenders
- Increased PTC tram frequency:
  - determine current patronage/demand relationships for each tram route
  - prioritise routes for potential increased service
  - increase tram frequencies with concurrent local marketing initiatives
  - undertake ongoing review of service to maximise patronage and revenue

# Extension of tram network:

- determine number of W-Class trams required for existing services
- determine number of W-Class trams which will be required for currently committed extensions
- implement refurbishment works on required W-Class vehicles
- arrange appropriate storage of remaining W-Class trams pending future requirements.

In addition to the above, and subject to clarification of existing commercial arrangements, it may also be appropriate to call for expressions of interest for other specialised tram operations; e.g. restaurant, advertising trams etc.

In view of the lack of a quantified tourism/heritage value of W-Class trams, studies aimed at assessing these aspects would assist considerably with future W-Class tram operation planning. On this basis both a heritage and tourism study would appear to be appropriate in the short term.

A number of management options were identified in part C. Irrespective of which management structure is adopted, it is important that it incorporates appropriate checks and balances to ensure that the potential advantages of the existing W-Class tram fleet are not lost to the Melbourne transport network.



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# NATIONAL TRUST OF AUSTRALIA (VICTORIA)

#### HISTORY OF THE W-CLASS TRAMS

The W series of trams were first introduced in 1923 by the newly-formed M&MTB.

Various models (W, W1, W2 ... W7) were continually produced, mostly by the Preston Workshops, until 1957. By this time there were over 600 Ws on the streets.

The electric W series trams replaced Melbourne's extensive cable tram network by 1940, as well as the various middle suburban electric systems provided by local councils.

Through dominating Melbourne's inner suburbs and city streets for at least 50 years, the W-class tram has become an icon of Melbourne.

#### MODERN TRAMS

The first new trams, the Z trams, were introduced in 1975 and the Ws began to be removed from service.

The first Zs were very unpopular:

- the orange colour was vilified;
- the seated conductor and small entry meant long delays;
- the heating was excessive in winter;
- they were too hot in summer;
- the over-tight acceleration and brakes led to passenger injuries;
- the lack of a rear door meant bunching of passengers in the centre (later models - the Z3s - included a rear door).

#### THE CLASSIFICATION

In recognition of the cultural, historical, and indeed scientific importance of the Ws, the Trust classified the remaining vehicles (approximately 300) in October 1990.

The fleet also has international significance as by far the largest remaining stock of original working electric trams in the world.

The classification was also in the face of continual removal of the trams from service.

Some vehicles were sold overseas, until a Federal ban on exporting machinery built locally (before 1945) was revealed.

In February 1991, the "Friends of the W-Class Trams Committee" was formed by the Trust to lobby for the retention of the fleet.

#### THE CANNIBALS

In July 1991 the PTC proposed to remove half the fleet from the streets in order to provide spare parts to keep the other half operating.

After considerable public outcry and media attention, the former Premier, Joan Kirner, announced that as many Ws as possible would be retained, and none used for spare parts or sold. She said:

The W trams are to Melbourne what gondolas are to Venice.

#### CROSS-LINKING

Nevertheless in June 1992 the PTC produced a cost-cutting reform known as cross-linking which was used to justify the retention of only about 114 out of the 300 Ws.

A major public outcry against service reduction and disruption prevented implementation.

In late 1992 the Trust convinced the Minister to fund a report to look specifically at the economics of retaining the Ws.

#### STORAGE

Unable to sell or scrap Ws, the PTC determined *not* to use them, and began to store some in a warehouse in North Melbourne.

There are now 46 housed in poor conditions without adequate fire protection.

#### THE PROTOTYPE

Meanwhile the PTC was preparing an "upgraded" W and revealed, in March 1993, a vehicle so modernised that it had lost all its character. Following representations from the Trust, work was stopped on this vehicle.

#### THE OPTIONS & FEASIBILITY STUDY

Completed in August 1993, this study concluded that retention and refurbishment of the W-class tram is technologically and economically feasible.

The Trust has accepted the findings of the report but also believes that, with more accurate data, it could be shown that refurbishment costs for the Ws are almost the same as for the Zs.