

**Submission  
No 9**

## **INQUIRY INTO RAIL INFRASTRUCTURE PROJECT COSTING IN NSW**

**Organisation:** Jacana Consulting

**Date received:** 22/09/2011

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**Submission to:**  
**Inquiry into rail infrastructure project costing in NSW**

Version 1.1

Prepared by

**Jacana Consulting**

21 September 2011

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Hon. Natasha Maclaren-Jones, MLC  
Committee Chair

**INQUIRY INTO RAIL INFRASTRUCTURE PROJECT COSTING IN NSW**

Dear Hon. Natasha Maclaren-Jones, MLC

Thank you for the invitation to make a submission to the inquiry. The enclosed submission draws on a wide range of rail infrastructure project experience over a period of 30 years.

Jacana Consulting, and its associated trading name of Transport Network Associates, has undertaken rail infrastructure project planning, evaluation, environmental assessment and project costing, including benefit cost analysis.

Examples of rail projects I have project managed include:

- ❑ National Rail Corporation inter state rail infrastructure investment options and costings, linking Brisbane, Sydney, Melbourne, Adelaide and Perth;
- ❑ National rail workshop study, including costs and performance;
- ❑ NSW North Coast rail bridge replacement design and contracts;
- ❑ Sydney Metropolitan and South Coast rail infrastructure including:
  - project construction,
  - renewal, and
  - maintenance.

For 12 years I worked in NSW Government agencies including Treasury, Department of State Development, Ministry of Transport and State Rail Authority, involving rail policy, programs and contracts

Other rail infrastructure project experience has included work for local government on light rail and the augmentation of the Long Term Strategic Plan for Rail while working as senior Manager Transport at the City of Sydney responsible for integrated transport planning.

Unfortunately, due to recent illness in the family, I have not had the time available that I would have liked to make a more comprehensive submission. I trust the attached submission will be of assistance to the Committee and look forward to providing a more substantive response to assist the Committee.

I will now be available for the public hearings if required subject to suitable dates. I look forward to assisting the Committee wherever possible.

Your sincerely

Robert (Bob) Miller B.E., B.Ec.  
Director  
Jacana Consulting

## Terms of Reference

The terms of reference into rail infrastructure project costing in NSW are addressed below.

### **(a) Methodologies used by Transport Construction Authority, NSW Treasury and other Government agencies to cost rail projects**

#### **Background**

Historically, wide easements were acquired for many rail corridors in NSW, perhaps with expectations that additional tracks would be required. However, with the rapid development of the motor vehicle especially after the 1920s, there were vast swaths of surplus land not required for rail expansion.

It was perhaps because of such past excesses in land purchased for rail corridors that Treasury and other agencies, as well as Governments, were reluctant to 'forward purchase' land for future possible rail projects.

In recent decades, Treasury has been somewhat more forth coming with rail corridor land purchases including:

- 1980s corridor gazettal of the Maldon Dombarton Railway, which was some 40% completed before being terminated in an early 1990s mini budget;
- 1980s corridor gazettal for light rail between Hoxton Park and Parramatta, that was subsequently developed as the Parramatta-Liverpool bus transit way;
- 1980s extension of the East Hills rail line to Glenfield, connecting to the main western line through to Cambelltown;
- 1990s Sydney Light Rail route from Central to Lilyfield, and recently proposed extension to Dulwich Hill, that is largely based on use of the former Darling Harbour freight railway line.

#### **Planning constraints on rail corridors and infrastructure costs**

Efficient and effective planning of public infrastructure by state agencies is central to the role of Government and a major determinant of final project costs.

While most State agency infrastructure planning is undertaken in conjunction with the Metropolitan Strategy', rail infrastructure planning has been conspicuously absent in past documentation, even though the integration of land use and transport planning is given some consideration.

However, in most OECD countries integrated land use and transport planning is the starting point for rail infrastructure planning. (refer to Appendix)

While it is often talked and written about in NSW, and even included in a draft SEPP policy documents some ten years ago, integrated land use and transport planning for rail infrastructure in NSW has usually been quite limited, involving such rail related infrastructure projects as the bus-rail interchange program, the Airport rail line and Chatswood-Epping rail line.

Since the bus-rail interchange projects are funded by the dedicated commercial parking levy, Treasury has few objections. As a consequence it is perhaps the most effective example of integrated land use and transport planning for bus-rail infrastructure in NSW. However, the program does not contribute funding to rail line infrastructure planning or strategic land use planning acquisition to assist urban node redevelopment that would enhance public transport patronage.

An example of the lost opportunities to achieve major savings in rail infrastructure costs, due to contract and funding constraints, is the Green Square Redevelopment in inner Sydney – one of the largest urban renewal projects in Australia.

A few other major studies have developed detailed integrated land use and transport plans for rail infrastructure. These include:

- 'St George Regional Transport Strategy' in 2001
- 'Long Term Strategic Plan for Rail' in 2003

Only the first of the above studies is known to have quantified the rail cost savings that could be achieved. The St George Regional Transport Strategy assessed and modelled some 12 corridor options, including a Hurstville-Strathfield rail corridor.

The Hurstville Strathfield rail infrastructure project had one of the lowest costs compared with other projects at the time (such Chatswood-Epping), with the added advantage that it diverted passengers from the very busy Illawarra line and freed up capacity of one train per peak hour that could be used to increase rail services elsewhere on the network, at very low additional cost

In an environment where Transport NSW, Transport Construction Authority and Department of Planning know that availability of funds from Treasury is likely to be very limited the agencies tend to support projects where there is at least some prospect that Treasury will agree to funding.

There are competing priorities between these agencies that can result in reduced efficiency and /or effectiveness – resulting in higher than necessary project costs

Where there is Treasury opposition to a rail project, options for State transport executives are limited – drop the project, or support small scale rail infrastructure projects, or be bold and brave with a large scale integrated network – something that many public servants are reluctant to pursue.

This later option was adopted by Ron Christie in the 'Long Term Strategic Plan for Rail' that made some significant progress with corridor identification, gazettal and funding to protect proposed tunnel alignments through the CBD.

With an improved rail infrastructure planning framework project costs need to be compared with specific outcome measures, such as rail network benefits and potential land use value as outlined above. Such an evaluation framework would reset priorities to clearly determine the level of rail infrastructure costs that could be justified.

Rather than define a project scope and then attempt to justify the costs and obtain funding as occurs at present, an improved rail infrastructure planning framework would determine the level of project costs that could be justified based on the economic, social and environmental benefits and costs..

The reasons why rail infrastructure planning needs to be developed in parallel with the 'Metropolitan Strategy' land use plan, include

- Five year planning cycle in the 'Metropolitan Strategy' and National Census is a key input into planning economic and social infrastructure by the Commonwealth, State agencies and local government;

- A Rail Network Infrastructure Planning Framework that effectively integrates with land use planning will assist to determine the combined project benefits, that in turn establish a cap on project costs that can be justified;
- Such a forward planning framework will provide the benefits of early advice on potential project impacts on:
  - Local and Commonwealth government facilities
  - Businesses, commercial property owners, and developers;
  - Rural and urban property owners.

### **Methodologies used by Treasury**

Treasury methodologies that affect rail infrastructure projects include the following:

#### 1. State Budget outlays affecting rail infrastructure:

- Recurrent outlays for rail infrastructure: are already a significant part of the State Budget – with few opportunities for major savings assuming current service levels are maintained, even if privatisation of Rail Corp was to be pursued;
- Capital outlays that require significant borrowings obviously add to the State debt unless offsetting cost reductions can be found;
- Competing Health and Education budgets have been a large, and growing, proportion of the State Budget, however, the COAG Health agreement could ease the pressure on the State objective of maintaining its credit rating;
- This potential for easing the pressure on the State Budget could provide some scope to reduce borrowing costs for the Government's rail infrastructure program, particularly if the current impasse on Commonwealth rail project requirements is resolved.

#### 2. Development and maintenance of economic and financial methodology for evaluation of State capital works program

Some senior public servants have been of the view that unless the Premier or Treasurer personally supports a project, Treasury will oppose rail infrastructure expenditure irrespective of the benefits that can be quantified.

Some adjustment to the practices currently used in economic benefit cost analysis is warranted, given that significant rail benefits appear to be excluded based on a somewhat arbitrary scope of the evaluation.

### **(b) Concept estimates for rail project costs**

The Airport Rail line, an important piece of rail infrastructure for the Olympic Games, suffered from being the first rail project of its type in Australia and very difficult ground conditions. No doubt, improvements to the State liabilities in this contract have been made. But the changes to reduce State liability have very likely contributed to the high costs of subsequent projects.

Another example, the Chatswood – Parramatta rail line proposed in the 1990s at a capital cost of some \$1 billion was completed after some 15 years at a cost of some \$1.5 billion, and was truncated at north Epping.

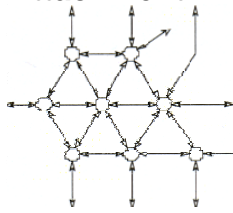
Of course there are explanations of project cost over runs due to project scope variations and environmental approval conditions, but there are also more serious concerns about the transparency, accountability and probity of some participants in the project. In addition, there were significant problems involved with modelling the patronage forecasts.

**(c) Differences between rail and road project costs methodologies**

Over recent decades rail corridor gazettal and land acquisition have generally been announced by NSW Governments as individual policy initiatives, with the result that current taxpayers pay the full present day cost for a future project, with the benefits of new rail services not commencing for sometimes 10 or more years after project initiation. The current short term planning focus can have major short term impacts on residents and businesses, sometimes causing unnecessary stress and financial impact.

In contrast, major road corridor property requirements have often been purchased incrementally by RTA over several decades, as properties become available, with little disruption to residents. This has the benefit of spreading taxpayer property acquisition costs across two or even three generations.

**Attachment 1 - Previously submitted to Senate Standing Committee**



**Transport Network Associates**

The Secretary  
Senate Standing Committee on Rural and Regional Affairs and Transport  
PO Box 6100  
Parliament House  
Canberra ACT 2600

27 February 2009

Dear Sir/Madam

Please find attached a submission to the inquiry into the investment of Commonwealth and State funds in public passenger transport infrastructure and services.

Several key questions are identified for consideration of the Committee based on over thirty years experience working in the transport industry, both from within Government as well as consulting to Government and industry in Australia. These questions include:

- ◆ the significance of strategic land use planning and statutory planning to public transport performance, cycling and walking outcomes
- ◆ the adequacy of public transport corridor planning, particularly in the major cities
- ◆ the adequacy of public transport demand assessment and the relationship with the above matters
- ◆ the effectiveness of the current multiple institutional arrangements in delivering public transport services
- ◆ the effectiveness of the multiple stakeholder arrangements across a range of contracted tasks from planning, option evaluation and funding arrangements, through to infrastructure, vehicles and systems specification, construction contracts, operations and maintenance

It is noted that the terms of reference do not make specific mention of inquiring into the relevance of strategic land use planning and statutory planning to the performance of public transport. This matter is a central theme to this submission.

The submission highlights serious weaknesses in the planning, evaluation and investment of Commonwealth and State funds in public passenger transport infrastructure and services. Proposals to address some of these key weaknesses are identified with a view to significantly improving the economic, financial, social and environmental outcomes in our cities and regions.

Your sincerely

Bob Miller  
Director



## CONTENTS

1. Terms of reference
2. Current and historical levels of public investment in private vehicle and public passenger transport services and infrastructure (ToR b)
3. Assessment of the benefits of public passenger transport, including integration with bicycle and pedestrian initiatives(ToR c)
4. Role of Commonwealth Government legislation, taxation, subsidies, policies and other mechanisms that either discourage or encourage public passenger transport (ToR e)
5. Best practice international examples of public passenger transport services and infrastructure (ToR f)
6. Measures by which the Commonwealth Government could facilitate improvement in public passenger transport services and infrastructure (ToR d)

## ATTACHMENT

### EXAMPLES OF INTERNATONAL INTEGRATED LAND USE AND PUBLIC TRANSPORT INFRASTRUCTURE PLANNING APPROACHES

1. Terms of reference

On 4 December 2008 the Senate referred the following matter to the Rural and Regional Affairs and Transport Committee for inquiry and report by 18 June 2009:

The investment of Commonwealth and State funds in public passenger transport infrastructure and services, with reference to the August 2005 report of the House of Representatives Standing Committee on Environment and Heritage, Sustainable Cities, and the February 2007 report of the Senate Standing Committee on Rural and Regional Affairs and Transport Committee, Australia's future oil supply and alternative transport fuels, including:

- a. an audit of the state of public passenger transport in Australia;
- b. current and historical levels of public investment in private vehicle and public passenger transport services and infrastructure;
- c. an assessment of the benefits of public passenger transport, including integration with bicycle and pedestrian initiatives;
- d. measures by which the Commonwealth Government could facilitate improvement in public passenger transport services and infrastructure;
- e. the role of Commonwealth Government legislation, taxation, subsidies, policies and other mechanisms that either discourage or encourage public passenger transport; and
- f. best practice international examples of public passenger transport services and infrastructure.

## 2. Current and historical levels of public investment in private vehicle and public passenger transport services and infrastructure (ToR b)

This submission has a focus on public passenger transport services and infrastructure.

Unlike most OECD countries Australia has had a poor record of Commonwealth investment in metropolitan and regional public transport over several decades. There has been massive investment by both Commonwealth and the States in highway development since the 1970s which has benefitted bus and coach services. However, investment in other public transport services has been sporadic.

Government policies have been a key factor in the successes (and failures) of public transport services around the world over many decades.

In Australia, closure of tram and train services, especially during the 1960s and 1970s, accelerated the shift to motor car travel and the decline in public transport patronage.

In addition to the Commonwealth reports cited in the terms of reference there were other initiatives relevant to the current inquiry during the 1990s. These included:

- ◆ Ecological Sustainable Development - Transport report (c. 1992) that considered options to improve the transport system.
- ◆ Better Cities program - significant Commonwealth contribution to public transport infrastructure investment in several cities.
- ◆ interstate rail investment program during 1990s
- ◆ Alice Springs to Darwin rail line investment
- ◆ track upgrading in some sections of the interstate rail network.

The public transport benefits from these Commonwealth initiatives has been generally positive, though at substantial cost, resulting in improved interstate passenger services.

In contrast to the quite limited Commonwealth initiatives during the recent years there have been several major initiatives by the States to improve public transport services and invest in infrastructure.

Some highlights of the potted history of planning, investment, disinvestment and services by the States since the 1960s is outlined below:

- ◆ Queensland
  - ◆ Brisbane rail electrification completed for Expo 88;
  - ◆ North Coast rail electrification completed, primarily for freight;
  - ◆ Gold Coast rail line rebuilt;

- ◆ higher speed train services introduced on North Coast;
- ◆ SEQ 2010 project resulted in a program of major corridor capacity enhancement based on integrated land use - public transport planning.
- ◆ NSW
  - ◆ closure of tram and rail lines prior to 1970s;
  - ◆ Sydney Area Transport Study prepared in mid 1970s - the last metropolitan wide transport plan;
  - ◆ Sydney 's 'centres policy' adopted to underpin the growth in public transport use;
  - ◆ Eastern Suburbs Railway opened in 1979, some 40 years after construction commenced;
  - ◆ rail electrification completed to Newcastle, Wollongong and Kiama
  - ◆ East Hills rail line extended to Glenfield
  - ◆ new public transport corridors gazetted in 1990s, with three other major corridors yet to be planned
  - ◆ new tram route opened from Central to Wentworth Park
  - ◆ several public transport plans prepared, and discarded, over past 20 years, with only one achieving a high level of land use and public transport integration
  - ◆ Olympic Park rail line opens in 2000
  - ◆ metropolitan planning since 2001 has not been supported with an integrated public transport plan
  - ◆ new bus route planning and contract framework introduced
  - ◆ Murwillumbah rail line closed
  - ◆ metro planning commenced in 2007, which aims to integrate with land use planning
  - ◆ planned rail line extensions to Sydney's north-west and south-west urban release areas deferred in 2008
  - ◆ recently opened Epping - Chatswood rail line incurred major cost increases largely due to inadequate planning (audit should be undertaken to document key lessons for the future)
  - ◆ Illawarra and Hunter land release and population growth has not been planned to integrate with improved public transport
- ◆ Victoria
  - ◆ Loney report recommends closure of some rail services in 1980s

- ◆ corporatisation of public transport achieved significant cost efficiencies
- ◆ privatisation of public transport services in 1999 achieved little, but increased costs
- ◆ private sector public transport operator 'walks away' from State contract
- ◆ modest tram corridor capacity expansion including Docklands, Box Hill and La Trobe University
- ◆ new regional trains, e.g. to Ballarat
- ◆ privatised public transport contracts renewed in 2008
- ◆ comprehensive integrated land use - public transport plan needs development
- ◆ South Australia
  - ◆ Adelaide's North East suburbs transport corridor investigation leads to investment in an O-Bahn busway system by early 1980s
  - ◆ Adelaide rail electrification investigation in late 1980s resulted in decision not to proceed (based on deficient assessment)
  - ◆ recent tram extension completed into Adelaide CBD
- ◆ W.A.
  - ◆ closure of rail lines prior to 1990;
  - ◆ Inner Perth and Fremantle rail electrification completed in 1990s;
  - ◆ new Northern Suburbs rail line constructed along freeway corridor;
  - ◆ new Southern Suburbs rail line opened by 2008.

#### Key factors in State based public transport service provision

The failure of public transport policies and plans of the 1960s and early 1970s were in large part caused by severe budget cut backs, that often resulted in reduced services and maintenance. The Granville rail disaster in Sydney was one example of the result of these policies. This would not be the last tragedy where decision makers did not provide adequate funding for basic maintenance and investment in public transport to meet the needs of population growth in key cities and regions.

State based public transport service provision largely recovered from the rapid patronage decline of the 1960s and 70s, and benefited from periods of reinvestment since the 1970s. Following this investment public transport patronage set new record highs in some Australian cities. However, regional and interstate public transport patronage did not generally recover.

Over recent decades state revenues were adversely affected by reductions in state taxes and periodic economic down turns. In addition, Commonwealth allocations to states with larger populations were not adequate to maintain service levels for state public transport, health and other services. Local government finance also suffered, with 'unfunded mandates' from State Governments requiring new and improved services to be provided. In NSW this was accentuated through 'rate pegging' of councils over many years.

The downward pressure on State revenues resulted in some Governments restraining State borrowings to maintain credit ratings. Capital works programs suffered in those States. Increased revenue during the recent minerals boom masked this financial impact in some States.

Many economists rationalised that lower levels of public investment was beneficial after financial deregulation freed up credit markets, which assisted private sector investment. However, the asset base of many essential public services, such as public transport and health, could not be maintained at the level required to ensure system reliability, and sometimes, even system safety.

Regional public transport patronage on the periphery of capital cities has grown with increasing population and improved commuter services into the capital cities. However, public transport services in those regions distant from capital cities are generally very limited, with many towns limited to little more than school bus services. The major regional cities generally have retained at least a basic bus service.

Long distance bus and rail services have been adversely affected by low air fares. However, long distance bus services have benefited from large scale highway investment. Long distance train services have been adversely affected by historically long travel times due to low speeds and infrastructure constraints on most routes in the eastern states that limit the market potential to largely budget travellers and concession card holders. Investigation of 'Very High Speed' rail in Australia since the 1980s has ignored the potential to progressively rebuild the east coast interstate rail network. Investigation of this potential indicates substantial potential to achieve much reduced travel times for both passenger and freight rail between the eastern states.

The above factors are not unique to Australia. Both the USA and Europe have also experienced major structural changes to the transport system, and failures, over the last decade and more.

The lessons from major inquiries into transport system failures not only need to be learned, and reforms adopted, but the role of public policy and the key public institutions involved needs examination.

An example of the complex institutional arrangements that apply to public transport in NSW is illustrated below, which is a major contributing factor to high costs and long lead times for project development. The complexity of approval processes and multiple agencies in decision making highlights the need to streamline Government investment decision making to achieve public transport improvements in a more cost effective and timely manner.



### 3. Assessment of the benefits of public passenger transport, including integration with bicycle and pedestrian initiatives (ToR c)

There are substantial economic, financial, social and environmental benefits for communities, cities and regions across the nation from existing public transport, bicycle and pedestrian facilities, particularly when integrated. These benefits include:

- ◆ efficient public transport contributes to the attraction of international investment in Australian capital cities by providing employers with access to a skilled workforce who can reliably commute to the capital cities' CBDs, even during severe traffic congestion;
- ◆ cycling and public transport can attract commuters away from car travel, restraining traffic congestion and freeing up road capacity for essential business travel and goods vehicles, and allowing some road projects to be deferred or re-prioritised;
- ◆ substituting car travel with walking, cycling and/or public transport reduces social and environmental impacts, including:
  - ◆ road crashes, involving injury and death, family trauma and substantial costs
  - ◆ air emissions, such as greenhouse gases and toxic gases.



#### 4. Role of Commonwealth Government legislation, taxation, subsidies, policies and other mechanisms that either discourage or encourage public passenger transport (ToR e)

Commonwealth policy on public transport has varied over the past 40 years ranging from little support to significant investment programs. As indicated previously the massive investment by both Commonwealth and the States in highway development since the 1970s has benefited bus and coach services.

In regard to taxation at least three Commonwealth taxes are relevant to use of public transport:

- ◆ GST is applicable on public transport fares, adding 10% to fares
- ◆ Business Fringe Benefits are a common part of salary packaging, with employer provided cars very popular. Fringe Benefits Tax can be calculated using the log book or statutory method of calculation. For example, based on the second method of calculation the Fringe Benefit varies from 26% of a car value (with low vehicle kilometres travelled) down to as little as 11% of a car value (with high vehicle kilometres travelled). This results in an incentive for the business to ensure that employees drive enough kilometres so the lower band is reached to minimise the Fringe Benefit Tax payable
- ◆ salary sacrifice - The cost of public transport fares can be paid from pre tax income in packages offered to employees, reducing the effective cost of travel, but FBT is payable at top marginal rate so there is little financial benefit to public transport users.

The extent to which tax arrangements encourages greater car use, or discourages public transport use warrants examination as part of the current inquiry.

Commonwealth policy on investment in public transport should aim to ensure that it contributes to improved economic, social and environmental outcomes in the cities and regions across the country, given the tax revenue that the Commonwealth receives from the cities and regions. While this relationship has been acknowledged in relation to road infrastructure through Commonwealth investment, the contribution of rail based public transport to wealth creation and tax receipts appears not to have been explicitly acknowledged.

Over recent decades Commonwealth investment in public transport has been sporadic at best, with only limited improvements to the interstate rail network. There have been several public transport improvement projects that have benefited from Commonwealth investment, particularly in the early 1990s. Nonetheless, there has not been a coherent funding agreement with the States to support longer term planning and development of public transport for the regions and cities.

The underlying feature of Commonwealth policy on public transport appears to have been a focus on minimising outlays and containing costs.

There appears to have been little Commonwealth acknowledgment of the contribution that public transport makes to attracting international investment to Australian capital cities by providing employers access to a skilled workforce who can reliably commute to the capital cities' CBDs. The role of public transport in

contributing to Gross Domestic Product through private sector investment and employment generation (as well as taxation receipts) needs to be explicitly recognised by Commonwealth policy on public transport - as it is in most OECD countries.

Hence, Commonwealth policy on public transport needs to be developed which links funding support for public transport to city and regional population levels and forecast growth.

A joint agreement with the States is needed to plan, fund and develop public transport for the regions and cities across the nation.

## 5. Best practice international examples of public passenger transport services and infrastructure (ToR f)

A critical question needs to be addressed - what is the nature of the institutional reform required? There are lessons to be learnt from examples of best practice around the world.

The International Association of Public Transport has a 'Mobility in Cities' database on urban transport, comparing transport system performance of over 50 cities around the world, involving 120 performance indicators. This is a major resource for assessing best practice in public transport.

The Attachment to this submission outlines examples of best practice land use - transport planning and public transport management in major cities around the world.

Examples include the following:

- ◆ Berlin, Toronto and Barcelona - lessons for Sydney, Melbourne and Brisbane
- ◆ San Francisco - lessons for Adelaide and Perth
- ◆ Portland and Auckland for smaller cities

Planning for growth in many of Australia's capital and regional cities has moved towards best practice policies - a key prerequisite to effective and efficient public transport systems.

Over recent decades Sydney's 'Centres Policy' has led to major redevelopment around several commercial centres on rail lines. This policy has been a major contributing factor increasing job opportunities in the CBD as well as middle ring centres. The policy has contributed to increasing the potential for walking, cycling and/or using public transport between middle ring centres and the CBD. The policy has also supported bus-rail interchanging and assisted public transport to retain a comparatively high mode share for journey to work trips, despite massive motorway development, heavy congestion affecting bus services and other public transport system and infrastructure problems.

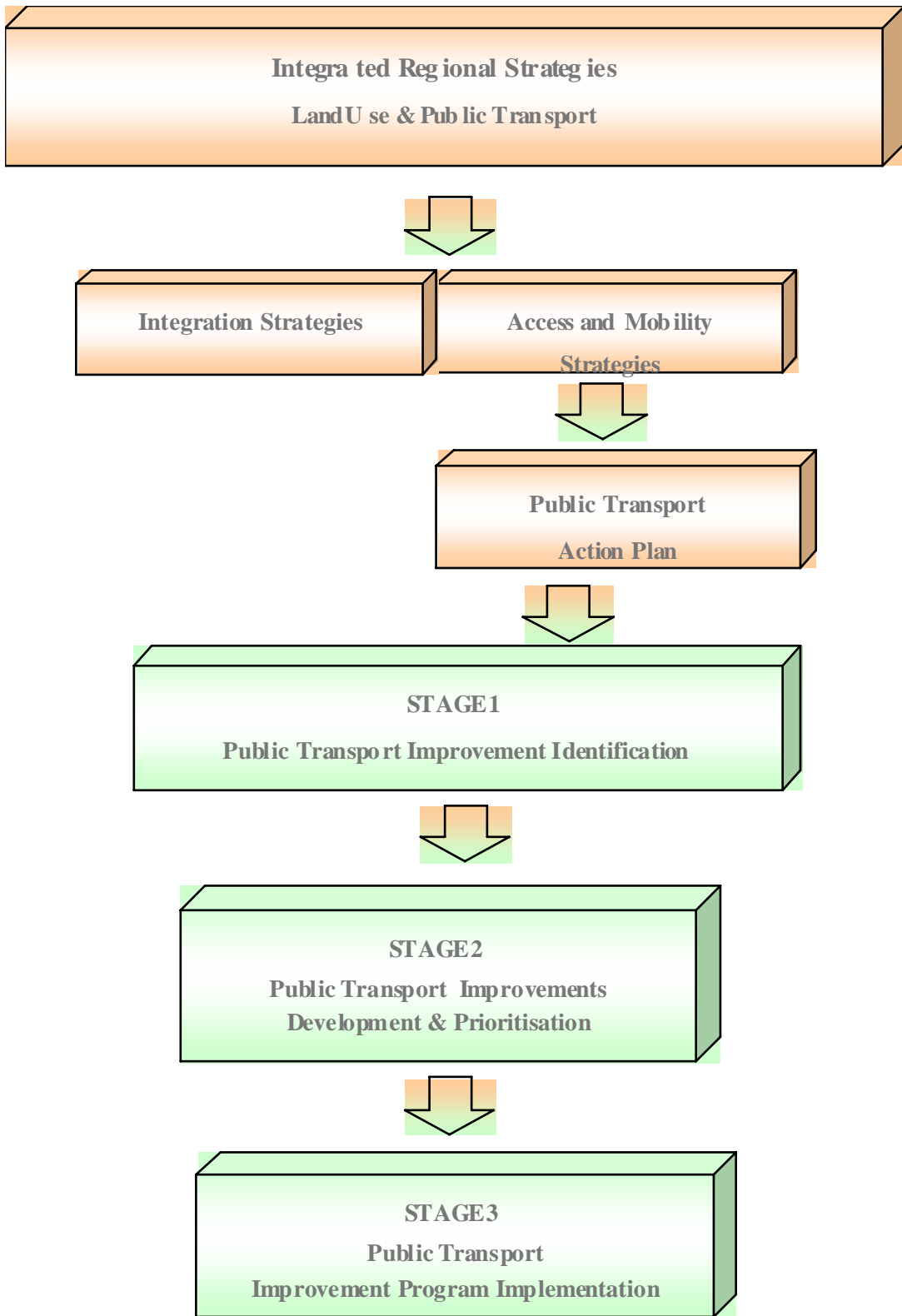
Key lessons from many of the best practice examples above include the following:

- ◆ National governments are involved in funding arrangements - most best practice public transport systems in major cities around the world involve national governments in funding arrangements, often along with state and city governments;
- ◆ Regional strategic planning needs to integrate land use with public transport, cycling and walking;
- ◆ Integration of multi modal public transport services need to incorporate walking and cycling - virtually all best practice public transport systems in major cities around the world are based on integration of multi modal public transport, walking

and cycling - to cater for various travel market segments, peak period passenger volumes and travel time requirements;

- ◆ Network planning and public transport service co-ordination - most regulated public transport services have continued along historical routes, with some additional routes added to serve new urban development and renewal areas. A renewed focus on 'network planning', rather than route planning is essential to achieve integration of multi modal public transport services and achieve more cost effective services;
- ◆ Public transport corridor planning and development, within cities, regions and interstate to include interchange facilities
  - ◆ in major cities congestion costs on key road and rail corridors is a major impediment to improving public transport, reducing competitiveness with car travel;
  - ◆ dedicated public transport corridors are required on high volume routes;
  - ◆ public transport priority on other key corridors is essential.

The simplified flow chart below illustrates the Regional Planning process through to infrastructure and service implementation. The focus of the flow chart is the public transport component of the process (road infrastructure planning and implementation for private vehicles is not shown for simplicity).



- ◆ Institutional arrangements that are effective and efficient in delivering public transport services

Best practice public transport, cycling and walking facilities and services overseas critically depend on effective and efficient institutional arrangements. There are too many State and Commonwealth agencies that have a role in planning, developing, operating, maintaining and determining resource allocation for public transport.

Streamlining institutional arrangements would yield substantial benefits, such as through removing duplication, standardising assessment, approval processes and contract documentation for infrastructure, vehicles, control systems and ticketing systems.

Institutional arrangements should be audited to determine the extent of streamlining required in each state, and the reforms that are required to achieve key performance requirements, including:

- ◆ Public accountability - performance measures that are meaningful to the travelling public are essential, including economic, financial, social and environmental indicators. The accountability of senior public transport officials for major deficiencies in safety, reliability and financial management is a key issue that needs to be addressed. For comparison, the accountability of state and federal officials in the USA warrants examination
- ◆ Openness - publicly available information on the performance of each public transport operator should provide the public and media with factual information and statistics on a range of key performance measures, such as taxpayer contribution, system reliability and personal safety incidents, etc. The national public transport database resourced by the Federal Department of Transport in the USA warrants examination;
- ◆ Transparency - public participation strengthens tax payer confidence that investment in public transport benefits the whole community through lowering congestion costs for business and other vehicles.

6. Measures by which the Commonwealth Government could facilitate improvement in public passenger transport services and infrastructure (ToR d)

Based on the above best practice principles for improving public transport systems, several initiatives have been developed for consideration by the inquiry:

- a. Commonwealth policy on public transport needs to be developed which links funding support for public transport to city and regional population levels and forecasts;
- b. Council of Australian Government prepare joint agreement with the States to plan, fund and develop public transport for the regions and cities across the nation.
- c. Council of Australian Government establish regional and urban planning agencies to develop regional integrated land use and multi-modal transport plans to address economic, social and environmental challenges based on:
  - ◆ joint funding by the Commonwealth and each State
  - ◆ target setting to implement Commonwealth and State policies based on scenario planning and assessment of options for public comment;
  - ◆ public participation program to encourage business and community involvement;
  - ◆ seconding State and local government planning and transport staff;
  - ◆ reporting to a board with representatives from the Commonwealth and State, regional councils, business, social and environmental organisations.
- d. Develop an improved national toolbox of evaluation techniques for improving strategic land use planning and assessment of public transport performance, cycling and walking outcomes based on best practice (as outlined above), including:
  - ◆ benchmarking public transport policy development with international best practice
  - ◆ public transport demand assessment
  - ◆ economic evaluation techniques
- e. Develop national and state public transport corridor plans - for cities, inter-regional and interstate links, building on existing road and rail planning
- f. Review national and state institutional arrangements for developing and delivering substantial improvements to public transport services to reduce reliance on private transport, including rationalising the number of agencies involved by transferring regional planning from state capitals to new regional and urban planning agencies (see above).

- g. Investigate potential public transport improvement projects, including the following:
- Investigate 'Very High Speed' rail potential to progressively rebuild the east coast interstate rail network to achieve much reduced travel times for both passenger and freight rail between the eastern states.
  - Adelaide
    - Commonwealth support for rail electrification
    - Commonwealth support for light rail extension
  - Melbourne:
    - plan rail capacity expansion priorities
    - light rail link to Melbourne Airport
  - Sydney, Wollongong and Newcastle
    - integrate transport/land use planning under one responsible agency
    - extend the proposed inner Metro proposal
    - review previous study on Hurstville-Strathfield rail link
    - complete property acquisition for south-west and north-west rail links
    - retain cross harbour and CBD rail corridors for future heavy rail or metro development
    - develop plan for inner city light rail expansion
    - develop public transport plans for Wollongong and Newcastle
  - Queensland
    - South-East Queensland: develop light rail plan for inner Brisbane and Gold Coast to Tweed Heads corridor
    - Far North Queensland: develop bus priority corridors in line with urban growth in Cairns and Townsville.
  - Perth: rail extension to Perth Airport.



ATTACHMENT

EXAMPLES OF INTERNATIONAL INTEGRATED LAND USE AND PUBLIC TRANSPORT INFRASTRUCTURE PLANNING APPROACHES

City	Government control and approach	Relevant Strategic Document	Innovations
NORTH AMERICA			
<p>Toronto, Canada</p>	<ul style="list-style-type: none"> <li>• Controls City pop of 2.5 mill and Greater Toronto pop of 4.75 million (projected to grow to 7.5 million by 2031)</li> <li>• Land Use Planning, Road Building, Fire and Police, Parks and Zoo and other City Administrative services for Greater Toronto.</li> <li>• 44 elected Councillors (elected every 3 years) with \$6.4 billion operating budget</li> <li>• Provincially mandated funding for hospitals and housing and other social services (36% of overall budget)</li> <li>• 100% control of TTC (metro transit) and 50% funding of GO Regional Transit services</li> </ul> <p>Toronto Plan is the guiding land use vision document and integrated transport planning approach is contained within in it.</p>	<p>The vision document the Toronto Plan (2000), inc “A Transportation Vision for the City of Toronto” Contains:</p> <ul style="list-style-type: none"> <li>• policies relating to pricing and finance, transit priority, aspects of urban design that promote the use of more environmentally friendly modes of transportation such as walking and cycling, improvements in goods movement, and protection of the environment.</li> <li>• priorities for investment in transportation infrastructure such as new rapid transit routes, commuter rail stations, and major renovation to key elements of the existing system,</li> <li>• targets for transit ridership, reductions in greenhouse gas emissions and accessibility for the disadvantaged which are important for measuring progress with respect to achieving goals.</li> </ul> <p>Subsequent development of Toronto Official Plan (2002), which is an integrated strategic document for the future integrated growth of the city. It includes Chapter 2: Shaping the City, which contained higher order transit corridors and surface transit priority network.</p>	<p>Influence over transit network</p> <p>Ability to link land use to transit investment</p>

City	Government control and approach	Relevant Strategic Document	Innovations
San Francisco, USA	<ul style="list-style-type: none"> <li>Controls the downtown area and surrounding suburban areas – pop of approx 800,000 people.</li> <li>Controls land use planning and other traditional council operations as well as police, fire, local legislation, public transport (buses and trams) and Airport.</li> </ul>	<p>2004 Countywide Transportation Plan is a 30 year blueprint for transport investment and integrated land use and transport planning. It is developed by the San Francisco County Transportation Authority - the regional Transportation Authority responsible for setting transportation investment priorities for the city, developing and maintaining a computerized travel demand forecasting model and related databases, and programming state and federal funds for local transportation projects.</p>	<p>Like most regional transport plans in US, linked to modelled projections and funding opportunities</p>
Washington DC, USA	<ul style="list-style-type: none"> <li>Controls the DC area – population of approx 600,000 people.</li> <li>Controls land use planning and other traditional council operations as well as police, fire, local legislation.</li> <li>Washington Metropolitan Area Transit Agency manages public transport – which is partially funded by several counties in the region.</li> </ul>	<p>Currently updating the 1997 State Strategic Transportation Plan for DC. Again the Regional Transportation Authority (Metropolitan Washington Council of Governments) produces the most relevant strategic plan (Capital Long Range Transportation Plan).</p> <p>Sets out a list of projects for the next 25 years in line with metro growth. Is reviewed every year as part of the Transportation Improvement Program (TIP), which programs state and federal funds for transport projects.</p>	
EUROPE			
Barcelona	<ul style="list-style-type: none"> <li>Controls approx 1.6 million people (metro area of 2.9 million) focused on central area.</li> <li>Controls land use planning and other traditional local functions.</li> </ul>	<p>Participates in the integrated Strategic Metropolitan Plan of Barcelona with other metro Councils</p> <p>It recognises and supports the ATM's Infrastructure Master Plan 2001-2010.</p>	<p>Metro wide approach to integrated planning – from local perspective</p>

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	<ul style="list-style-type: none"> <li>Transport controlled by Autoritat del Transport Metropolitan</li> </ul>		
Berlin	<ul style="list-style-type: none"> <li>Operates as the State of Berlin, with a House of Reps (169), 8 senators and a Lord Mayor.</li> <li>Department of Urban Development controls urban issues, including roads, traffic and cycling</li> </ul>	Urban Development Plans outline the objectives and direction of all the planning functions of the Department (such as Berlin Centres 2020). Integration takes place across all the plans developed.	
London	<ul style="list-style-type: none"> <li>The Greater London Authority has responsibility for metropolitan London – population of approx 7.5 million</li> <li>Controls the metro urban functions of London, including economic development, land use planning, transport and policing. Transport for London is one of its agencies and is responsible for transport provision and policy.</li> <li>The City of London borough manages the financial heart of London and controls the traditional functions of a Council, including land use control – traffic, parking and transport is under the control of the larger TfL. It has a resident population of only 7,000 people.</li> </ul>	<p>The Mayor of London's Transport Strategy (2001) sets the direction for transport policy and provision in Metro London, within which each borough is to implement through funding from TfL. Very much and infrastructure and policy plan that only talks about integration across modes, fares and ticketing. The congestion charging scheme came out of this Strategy.</p> <p>The London Plan was developed in 2004 as the metro area's special development plan. Integrated land use and planning strategies are contained within this document and supports the transport infrastructure and policies contained within the Transport Strategy.</p> <p>The City of London Borough has developed its transport plan through the City of London Transport Community Strategy 2004-2014. The plan largely supports the objectives of the TfL strategy but relates it to the local level. The implementation of TfL's strategy is more specifically reflected through yearly borough spending plans.</p>	The creation of the GLA provided the structural integration London required, which is then implemented at the local level.

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ASIA			
Singapore	<ul style="list-style-type: none"> <li>• A city state governed by a President – therefore no real local government structure. Population of over 4 million people (long term projection of 5.5 million).</li> <li>• Governs all urban functions, including planning and transport</li> <li>• Relevant departments are Ministry of Transport and Ministry of National Development</li> </ul>	<p>The Singapore Government set a Land Transport Authority in 1995 (under the control of the Ministry of Transport) to facilitate integrated land use transport outcomes. The way to achieve this is outlined in ‘A World Class Land Transport System’ White Paper (<a href="http://www.mot.gov.sg/white_paper.html">http://www.mot.gov.sg/white_paper.html</a>). The white paper outlines modal share targets, adopting travel demand management policies, how to improve public transport networks and how to support these through supporting fare structures that fund the works.</p>	<p>Specific targets are set that drive transport policy response.</p>