Introduction

My name is Lyall Kennedy. I am a Transport Economist with over 38 years experience in transport delivery and planning. I have held senior executive roles in the State Government and the private sector. I am currently Director of Kennedy Consulting Pty Limited providing transport management and planning advice to the private and public sectors.

I also spent four years on Ashfield Council including as Mayor in 2011 and 2012.

I am very concerned that the WestConnex project has been ill conceived and the weaknesses of the proposal have been amplified through poor governance.

My submission largely focuses on transport issues. Whilst I don't cover other aspects of the EIS, I am concerned about other aspects particularly the impact on air quality and the loss of houses within the Haberfield Conservation Area.

I strongly urge the Department of Planning & Environment to reject the M4 East EIS. Some of the reasons I call for this are elaborated below.

I would welcome the opportunity to expand on my concerns at any public hearings that may be held as part of your deliberations.

Lack of Transparency and Proper Process in Project Selection

The Federal and NSW governments have called WestConnex the largest road infrastructure project in Australia's history. For such a major piece of infrastructure it has had a relatively short period of review. It appears to have been 'fast-tracked' bypassing important evaluation steps aimed at providing assurance to government and the taxpayers that the project is the best solution.

The Productivity Commission in its recent inquiry into public infrastructure found

> "an urgent need to comprehensively overhaul processes for assessing and developing public infrastructure projects."

It pointed to

> "numerous examples of poor value for money arising from inadequate project selection, potentially costing Australia billions of dollars".

It argued that further spending under the status quo will simply increase the cost to users, taxpayers and the community, and lead to more wasteful infrastructure.[1]

At the request of the Senate Select Committee into the Abbott Government's Budget Cuts, the Grattan Institute recently prepared a paper on infrastructure financing and expenditure with a focus on transport infrastructure.[2]

> "To get a better return from infrastructure spending, governments should focus on selecting the right projects, and on making the business cases and their underlying assumptions more transparent. Governments can also get a

[1] *Inquiry into Public Infrastructure,* Productivity Commission (2014)

[2] *Submission to Select Committee into the Abbott Government's Budget Cuts,* Marion Terrill, Transport Program Director Grattan Institute (August 2015)

better return through use of new technologies to get more value out of existing infrastructure; through minor augmentation and relief of pinch points; and through more systematic maintenance.

"The capacity to waste money is a serious risk for infrastructure, given the very large amounts of money involved."[3]

"Infrastructure investment over the past five years has been about one per cent of GDP higher than a decade earlier. Such a significant increase would have been expected to have some visible effect on GDP growth. There is no evidence it has done so, with GDP growth still well below three per cent per annum and below historic growth rates.

"The wrong projects can destroy value and divert funds from projects that would be more valuable to the economy and community."[4]

"Australia could get better value from public infrastructure by making better project selections. Unreliable or non-existent cost-benefit analyses have been an obstacle to optimal project selection. Recent large infrastructure projects in Australia have typically suffered from cost overruns of about 15 per cent, while patronage has been 15 per cent lower than projected, on average. As a result, real cost-benefit multiples are expected to be about 25 per cent lower than projected on average. All other things being equal, this consistent overestimation of benefit-cost ratios is making uneconomic projects look viable at the approval stage."[5]

Unfortunately, the WestConnex project does not appears to be an example of industry best practice in project selection and transparency (see NSW Auditor General's comments below). Calls for the release of the business case have been opposed by both the Federal and NSW governments. If there is such a compelling business case, then why isn't it being shared with the Australian taxpayers who are bearing the risks associated with this project.

The Auditor General's Performance Audit of WestConnex[6] conducted in 2014 highlighted the importance of proper evaluation and identified some serious deficiencies in the development of the WestConnex project.

The Executive Summary concluded

"In the period covered by this audit, the processes applied to WestConnex to provide independent assurance to Government did not meet best practice standards…

"The preliminary business case submitted for Gateway review had many deficiencies and fell well short of the standard required for such a document.

[3] Ibid Page 1
[4] Ibid Pages 5-6
[5] Ibid Page 6
[6] *Performance Audit WestConnex: Assurance to the Government*, New South Wales Auditor-General, 2014

Further, on our analysis, the business case put to the Government still included some deficiencies that independent Gateway reviews and external assurance arrangements, if they had occurred, should have identified…

"The post-business case governance arrangements did not clearly separate board-level responsibilities for commissioning from responsibilities for delivering the WestConnex project. After not separating the roles, they also failed to provide mechanisms to effectively manage the conflict between these roles.

"The WestConnex project offers several lessons. While good internal controls are critical, they are not a substitute for externally managed Gateway reviews. Steering committees and boards cannot be responsible for both project delivery and independent assurance and reporting to the Government. Responsibility for commissioning should be clearly differentiated from the responsibility for project delivery. Challenging deadlines heighten the need for good assurance but, paradoxically, also the risk of departure from best practice."[7]

The NSW Government's Major Projects Assurance Framework

"The Government approved a new Major Projects Assurance Framework in December 2011…

"The objective of the Framework is to increase the Government's confidence and assurance in planning and implementation of major projects through their entire lifecycle, specifically:

- prevent projects failing or not realising their stated objectives/benefits
- improve clarity in the feasibility phase of projects
- drive better governance
- inform Cabinet Infrastructure Committee intervention.

"A key component of the Major Projects Assurance Framework is the Gateway review system. The Gateway system is a series of structured reviews at key decision points (gates) in a project's lifecycle. Gateway gives the Government a level of independent assurance on:

- whether an investment in a project is warranted
- the strategic options considered
- the agency's capacity to manage and deliver the project on time, on budget and achieve desired project outcomes
- whether a project is on track and ready to move to the next

[7] Ibid Pages 3-4

phase."[8]

The WestConnex Concept

"Based on the Major Projects Assurance Framework, we expected a Gateway review (or similar arm's length, independent review) either during the concept phase or early in the development of the business case.

"The Major Projects Assurance Framework introduced a Gate Zero to provide assurance that projects are well justified after considering a wide range of options. A Gateway review or similar should therefore be conducted early in a project's life cycle to provide assurance around whether:

- the need for a project is properly defined
- there is justification for addressing that need
- the best value means of servicing that need are being proposed after considering a broad range of alternatives and their associated costs and benefits.

"We also expected that Infrastructure NSW or some other body would have recognised the need for a Gateway review during the concept phase, or early in the development of the business case and taken steps to ensure this occurred, including reporting to the Cabinet Infrastructure Committee.

"There was no independent Gateway review or equivalent undertaken at the concept stage. Infrastructure NSW has indicated that the concept paper it prepared to advise Government before WestConnex was publicly announced was not subjected to any independent assurance reviews. The first gateway review was of the preliminary business case late in the business case development phase...

"We saw no evidence that:

- the Government specifically exempted WestConnex from the Major Projects Assurance Framework Gate Zero
- provided an explanation or justification for the variation from the Major Projects Assurance Framework
- the alternative approach adopted was assessed as being equivalent to, or better than, the Major Projects Assurance Framework.

"…we believe that a Gate Zero Gateway review should have been conducted. It would have provided independent assurance that the project was justified…

"Infrastructure NSW's roles at this stage of the WestConnex project were in conflict. It was responsible for developing the WestConnex concept and at the

[8] Ibid, Pages 10- 11

same time it was the key agency responsible for providing assurance to Government over major capital projects including WestConnex. A fundamental principle is separation between those providing independent assurance and those developing and delivering a project."[9]

Developing the Business Case

"Given no Gate Zero Gateway review was conducted during the concept phase, we expected one (or an equivalent arm's length, independent expert review) at the beginning of this phase.

"In line with the Transport for NSW Investment and Gating System we also expected to see the following Gateway reviews (or equivalent arm's length, independent expert reviews)

- a strategic business case review (Gate One)
- a preliminary business case review (Gate Two)
- a final business case review (Gate Three).

"We expected there would be acquittals of each of these reviews, and that the review reports and acquittals would be provided formally to Infrastructure NSW and followed up in each subsequent Gateway review or equivalent. We also expected regular progress reports to, and monitoring by, Infrastructure NSW."[10]

"We expected to see outputs from the other peer reviewers but detailed reports were limited to infrastructure solutions, capital costs and traffic analysis. Even here, timing was a concern. The peer reviewer engaged to review the traffic analysis produced a report, but not until November 2013 after the business case went to the Government. The reviewer's report indicated that the review was supposed to be continuous throughout the process of modelling, but the traffic modellers were too pressed for time to consult on a continuous basis with the peer reviewer. The reviewer described the exercise as more an audit than a peer review. The reviewer concluded that the traffic data he received in early August 2013 'raises questions about the underlying quality of the modelling'.

"The agencies concerned advised us that significant analysis and review of traffic numbers was undertaken by the specialist work streams established within the Project Office. However, we have seen no evidence of an independent, arm's length review of the traffic analysis used for the final business case, by someone technically qualified to do so, before the business case was presented to the Government.

"We did not find peer review outputs for land use, urban planning or transport planning."[11]

[9] Ibid Pages 16-17
[10] Ibid Page 21
[11] Ibid Page 26

Gateway review of a preliminary business case

"One formal, independent Gateway review was conducted during the development of the business case. This was of a preliminary business case.

"In its report to the Sydney Motorways Project Office (dated 14 June 2013), the Gateway Review Panel concluded that

> "due to lack of key information presented for the review, the Gateway Review Panel was not able to form a view on whether the project is a worthwhile and prudent investment (both economically and financially viable) for the NSW Government".

"Further, the Gateway Review Panel stated that:

> "A number of key documents were delivered later than anticipated and the Review Panel had very limited time to review the Silver business case.

"Relevant documentation relating to a number of critical areas of the business case was not available for review - these included the Governance Section, Financial Plan and Communications Plan. The absence of these documents did impact on the ability to review related sections.

"The Review Panel did not have access to a number of Stakeholders or documents that were considered essential in order to satisfactorily complete the review.

"The Review Panel noted that not all key benefits nor all key risks were adequately documented, and that the business case would benefit from these and other inclusions".[12]

"The Gateway Review Panel also found the preliminary business case should have been more advanced than it was and would have benefited from previous iterations and review processes which had not occurred.

"The Gateway Review Panel's 'traffic light' risk ratings against the Gateway criteria were all red and yellow, with no greens."[13]

[12] Ibid Page 28
[13] Ibid Page 29

Business needs and benefit (Service) delivery	**Yellow**
Funding and value for money	**Red**
Sustainability	**Yellow**
Governance	**Red**
Risk Management	**Yellow**
Project Delivery	**Red**
Stakeholder management	**Red**
Change management	**Red**
Cost management	**Yellow**

Red: critical and urgent – project strategy to address the shortcomings/recommendations is to be established before project is further progressed.

Yellow: Important and urgent – project should go forward with action on recommendations. Source: WestConnex preliminary business case Gateway review 2013.

Matters a Gateway review may have identified

"We reviewed the final business case and identified some issues with the underlying analysis which we believe a full Gateway review should have identified.

"These deficiencies related to the way the business case dealt with risks around traffic projections, project cost, economic benefits, financial analysis, governance arrangements and the procurement strategy."[14]

Purpose of the business case

"Roads and Maritime Services say that the assurance provided to the Government on the WestConnex business case was appropriate for its purpose.

"It says the overall objective outlined in the Business Case Implementation Plan was to "produce a business case that demonstrates the overall technical and financial viability of the WestConnex scheme, consistent with the State's Fiscal Strategy".

"Roads and Maritime Services advised that at the conclusion of the business case in July 2013, Stage 1 was regarded as being sufficiently developed to proceed to procurement and environmental planning phases. For the other stages, the business case outlined a pathway for their further development and planning. It says that it was always envisaged that there would be additional Gateway reviews conducted on the component parts of the scheme.

"Roads and Maritime Services' arguments do not justify the lower level of independent assurance provided on WestConnex than that offered by the

[14] Ibid Page 31

> Major Projects Assurance Framework. The objective was to "produce a business case that demonstrates the overall technical and financial viability of the WestConnex scheme, consistent with the State's Fiscal Strategy." Approval of the business case was the key decision point so far for this project, and arguably the stage at which independent assurance was most critical."[15]

Failure to abide by the Major Projects Assurance Framework and employ best practice governance from project inception has greatly reduced community confidence. The Community is being asked to comment on an EIS that is deficient in analysis of project justification.

A condition of consent for the M4 East should include adherence to the NSW Government's Major Projects Assurance Framework. Vital gateway reviews which should have been undertaken before the preparation of the EIS (and certainly before awarding construction contracts) should be commissioned, completed and made publicly available before any further approvals are issued.

What came first – WestConnex or the Strategic Plans

EIS proponent requires that it is consistent with all the strategic planning instruments in Sydney. Requiring this project to be consistent with all the strategic planning instruments sounds reasonable until you realise that all these plans were rewritten in 2012/2013 to place WestConnex at the centre of their transport strategies.

Up until 2012, metro strategy development in NSW was based on developing the broad strategy planning objectives and then discussing options to meet these strategic objectives before proposing individual projects/actions. Linking the M4 with the M5, as proposed by WestConnex, was never included as a project to realise previous Metropolitan Strategies.

Once WestConnex became the number one infrastructure project proposed by Infrastructure NSW, all the strategic planning documents were rewritten to include WestConnex. In fact, it became the centrepiece of the transport strategy. This was after extensive community consultation was undertaken in February 2012 for the Long Term Transport Master Plan which did not include Westconnex.

At the time, Les Walinga, the then Director General of Transport, was on the Board of Infrastructure NSW and at the same time was developing the Long Term Transport Master Plan. When Infrastructure NSW proposed WestConnex as the major infrastructure project of its plan, Les Walinga resigned from the Board citing conflict of interest as he was proposing public transport solutions in the Long Term Master Plan and was not supporting WestConnex. Even within Infrastructure NSW there was doubt about the appropriateness of WestConnex.

Even with the bastardisation of the planning process, this submission identifies areas where the M4 East extension is inconsistent with the Metro Strategy. These include:

- Does nothing to alleviate Western Sydney congestion
- Is an unsustainable solution as it will reach capacity by 2031

[15] Ibid Page 31

- Does not relieve traffic congestion on most downstream intersections

Who Benefits from the WestConnex Motorway?

Given that WestConnex provides a direct link to Sydney Airport but not to the city or Port Botany (which is eight kilometres from WestConnex) who is the big winner out of this project?

I would suggest that Macquarie Airports the then owner of Sydney Airport appear to be a major beneficiary. They have been pushing since at least 2004 in each of their Master Plans for improved links to the M4.

In 2011 the debate on a second Sydney airport was well advanced with the Federal Government considering a further proposal. If billions of taxpayers' money was to be spent on improving the road connections to the airport this would cement it as the primary airport for Sydney for decades to come.

But how could an individual company influence the deliberations of Infrastructure NSW? One way may be to have the Chairman of Macquarie Airports Max Moore-Wilton as a Board member.

The only major attractor that is served by WestConnex is Sydney Airport. According to the WDA spin, among the benefits that WestConnex delivered included reducing the travel time from Parramatta to the airport by 40 minutes and bypassing up to 52 sets of traffic lights. They failed to say that you can now avoid the 52 traffic lights now in 2015 by catching the train which takes 45 minutes from Parramatta to the airport. According to google maps it takes between 39 and 54 minutes to drive between Parramatta and the airport. The claim of a 40 minute saving seems heroic.

The cover of the Strategic Environmental Review released by WDA in 2013 was a picture of the airport.

NSW NOW The new state of business

WestConnex

Strategic Environmental Review

September 2013

Sydney has underinvested in public transport over the past 30 years

In 1998 the NSW government released *Action for Transport 2010 an integrated transport plan for Sydney*.[16] The plan proposed to

> "redress the [then] current imbalance in the road and public transport system."[17]

The plan included a

> "10 point action plan for Sydney:
>
> 1. Getting the best out of the Sydney system
> 2. Improving Sydney's air quality
> 3. Reducing car dependency
> 4. Meeting the needs of our growing suburbs
> 5. Getting more people on public transport
> 6. Safeguarding our environment
> 7. Making space for cyclists and walkers
> 8. Preventing accidents and saving lives
> 9. Making freight more competitive
> 10. Giving the community value for money"[18]

The plan listed (at page 5) 21 projects to be completed or started by 2010 these were:

Rapid Bus Only Transitways

1. **Liverpool to Parramatta (2003)**
2. Parramatta to Strathfield (2002)
3. St Marys to Penrith (Stage 1 2003) (Stage 2 2008)
4. **Parramatta to Blacktown (2004)**
5. Blacktown to Castle Hill (2009)
6. Blacktown to Wetherill Park (2006)
7. Parramatta to Mungerie Park (2010)

Heavy Rail

8. **Airport Line (2000)**
9. Bondi Beach Railway (2002)
10. Parramatta Rail Link to Epping and Chatswood (2006)
11. Hornsby to Newcastle High Speed Rail (Stage 1 to Warnervale 2007) (Stage 2 to Newcastle work to start by 2010)

North West Rail Link Epping to Castle Hill (2010)

12. North West Rail Link Epping to Castle Hill (2010)
13. Sutherland to Wollongong High Speed Rail (2010)
14. Hurstville to Strathfield Railway (To start by 2010 and be completed by 2014)

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[16] *Action for Transport 2010 an integrated transport plan for Sydney,* 1998, NSW Government,
[17] Ibid, Page 2
[18] Ibid, page 3

15. Liverpool Y Link (Work to start by 2010)

Light Rail

16. **To Lilyfield (2001)**

Road Improvements

17. **Eastern Distributor (2000)**
18. **M5 East (2002)**
19. **Cross City Tunnel (2004)**
20. **M2 to Gore Hill (2004)**
21. **Western Sydney Orbital (2007)**

All the projects in bold were built. It can be seen from the list that every road project was delivered. Of the 16 public transport projects only four were completed.

The inability for successive governments to deliver public transport projects has made Sydney (particularly western Sydney) more car dependent. Building more roads has not had any lasting impact on road congestion. The traffic projections in the current M4 East EIS show the tunnel at capacity by 2031.

> "2031 AM peak and PM peak operational performances (in comparison to the 'do minimum' results) are detailed in Table 10.7 and Table 10.8 respectively.
>
> High traffic densities are now recorded in the project's mainline tunnel east of Concord Road, particularly westbound during the AM peak and eastbound in the PM peak where capacity is reached."[19]

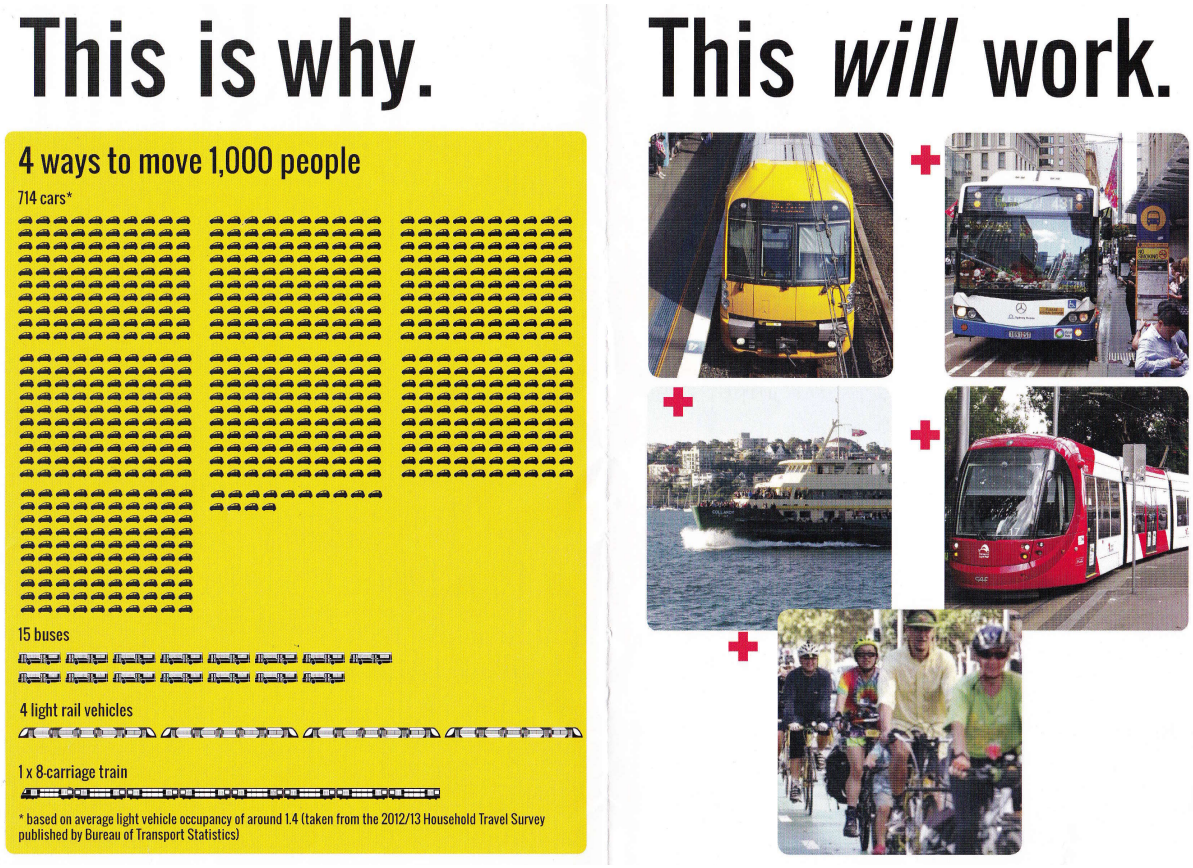
What is the plan post 2013? Building more roads will not solve traffic congestion in Sydney.

WestConnex clearly fails to:

- Reduce car dependency
- Meet the needs of our growing suburbs
- Get more people on public transport

The Benefit-Cost analysis of WestConnex is evaluated over a 40 year period. Relieving traffic congestion on the corridor appears to be a major objective of the project. The project reaches capacity in the M4 East tunnel within eight years after project completion. This does not seem to be an effective means of relieving congestion. The Cost-Benefit analysis should include costs of additional measures required over the remaining 32 years of the project life to maintain the claimed congestion and travel time savings. If included, it is likely that the project costs will significantly outweigh any benefits.

[19] *M4 East EIS* Volume 2A Appendix A-G, page 10-6



The M4 East Past and Present

The M4 East was previously proposed in 2003/2004. The Sydney Motorways Project Office prepared a strategic environmental review of the WestConnex project in 2013.[20] Chapter 4 of the review outlined the WestConnex scheme development and alternatives. It is worth noting that this section covering alternatives to the then $10.5 billion project was only four pages long out of a 127page document. The review gave a brief history of the M4 East proposal.

> "The M4 Motorway between Emu Plains and Concord has been progressively developed over a 40 year period. The section between Parramatta and Concord was opened in 1992. An eastern extension of the M4 Motorway to the Sydney CBD was subsequently planned and a scheme was publicly exhibited in 2003 to 2004 which proposed extending the motorway to the City West Link and widening the existing motorway. This scheme did not proceed due to concerns over economic viability and environmental impacts."[21]

In the current M4 East EIS the following explanation is given:

> "Between 2003 and 2004 a preferred option for an eastern extension of the M4 to the Sydney central business district (CBD) was developed and publicly exhibited. This option, referred to as the M4 East, proposed extending the M4

[20] *WestConnex Strategic Environmental Review* Sydney Motorways Project Office, September 2013
[21] Ibid, Page 25

> to the City West Link and Parramatta Road at Ashfield as well as widening the existing motorway between Homebush Bay Drive and Concord Road. This scheme was put on hold indefinitely by the then NSW Government. The 2003 preferred option formed the basis of the concept design for the M4 East project, which forms part of WestConnex."[22]

The two reports appear to contradict each other. It is quite a different proposition to a project being abandoned "due to concerns over economic viability and environmental impacts" and simply putting the project "on hold". There is no analysis in the current EIS as to the reasons why the original proposal did not proceed. The comments in the Strategic Environmental Review should have been addressed in the EIS. What has changed since 2004 that now makes the M4 East economically viable with positive environmental impacts? The failure to release the business case further exacerbates the situation.

The project should not be approved without a full appraisal of the economic and environmental impacts of the proposal with particular reference to how the current proposal overcomes the previous concerns raised in 2004 that led to its abandonment.

Why is the M4 East and WestConnex needed?

> "Parramatta Road is now one of the six most congested transport corridors in Sydney, with high travel demand and average travel speeds of private vehicles during the morning peak of about 30 kilometers an hour."[23]

The EIS does not say where Parramatta Road sits in the top six most congested roads in Sydney. Is it the worst or is it the sixth worst? If it is the sixth worst why is $15.5 billion being spent on this corridor while the other five more congested corridors are not being given priority? There is no discussion in the EIS on the comparative advantages of spending the money on WestConnex as opposed to the other congested corridors.

> "The Parramatta Road corridor is also one of Sydney's busiest corridors for public transport. It has one of the highest number of bus passengers during the morning peak of any major bus route in Metropolitan Sydney."[24]

Buses from the inner west carry around 10,000 passengers in the busiest hour into the city (as measured at Broadway). This includes the routes along Parramatta Road and King Street Newtown. However, in the study area, in particular Parramatta Road between Concord Road and Burwood Road there are no existing bus services. Between Burwood Road and Wattle Street, there is only one bus route the 461. This route has a peak frequency of 4 buses per hour. This gives a capacity of less than 250 passengers per hour. It is not a strong bus route due in part to its proximity to the main western rail line which accounts for most of the peak public transport

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[22] *WestConnex M4 East Environmental Impact Statement, Volume 1A,* WestConnex Delivery Authority, September 2015, Page 4-1

[23] Ibid, Page ii

[24] Ibid, Page ii

demand on the corridor.

The EIS paints a false picture of public transport in the corridor. It suggests that there is already high public transport service and use on the corridor and that WestConnex will free up lanes on Parramatta Road for more and faster bus services. The implementation of bus lanes is the main public transport initiative of WestConnex. However, the project does not deliver bus lanes along the length of the Parramatta Road until after 2031.

WestConnex will have a net negative impact on public transport use. Refer to section on Congestion pricing for more information on why expansion of urban motorways has a negative impact on public transport.

Congestion Pricing as a First Step in Tackling Congestion

Given that congestion levels are only likely to be reduced for a maximum ten years, at which point we will be back to where we are in 2015, there needs to be consideration of alternative ways to manage and reduce congestion.

Infrastructure NSW commissioned a discussion paper on congestion pricing.[25] The paper reviews previous efforts to mange congestion:

> "Almost everywhere, not just in New South Wales, governments have persisted in excluding congestion pricing from their changing mixes of anti-congestion measures, despite increasing urging from economists over the past 60 years to apply this policy instrument. These changing policy mixes have typically failed to stop congestion from worsening in medium-sized and large cities around the world. So, failed anti-congestion strategies are the norm.
>
> "Until the late-1970s, governments typically saw road building as the solution to congestion. However, high costs and assumed futility because of traffic attraction by new capacity ("induced traffic" or "induced demand") led to changes to anti-congestion strategies. Governments increasingly switched resources from roads to public transport, cycling and walking facilities, and operating subsidies for public transport. In some cases, governments re-allocated some pre-existing road lanes from general purpose use to access by buses and other multi-passenger vehicles, which effectively added to public transport subsidies. Many governments buttressed these policy changes with measures such as higher on-street and off-street parking charges, information programs regarding public transport services, and promotion of car-pooling arrangements.
>
> "All of these policy instruments were meant to reduce demand for road space and increase demand for alternatives to road-use by single occupancy vehicles. Transport planners typically described some or all of these policy instruments as "demand management measures". They considered them to be substitutes for congestion pricing.

[25] *Pricing Congestion in Sydney*, ICIL Tasman, April 2012

> "These "demand management measures" failed to stop the inexorable worsening of congestion, even though the major measure, subsidised public transport, involved 100 per cent capital subsidies and operating subsidies in excess of 75 per cent of operating costs. Indeed, costs of all of these "demand management measures" have been found to be high relative to numbers of passengers attracted from single-occupancy vehicles. An important oversight by proponents of these measures is that they are just as likely as increases in road capacity to be undermined by "induced traffic". Another neglected problem is that public transport subsidies have facilitated inefficient operating arrangements.
>
> "Public transport, cycling and walking have often been described as "sustainable transport", because use of these modes by commuters reduces congestion and emissions caused by cars. However, the fiscal unsustainability of an ineffective strategy of trying to reduce congestion to acceptable levels through heavy subsidies has been overlooked.
>
> "Many governments also took steps to change urban land regulation policies to try to increase urban densities, at least in and around major activity centres and major public transport hubs and routes. They hoped that this would encourage greater use of transport modes other than cars, and improve the viability of public transport. However, these actions have not reduced congestion and may have increased it. They have overridden consumer preferences and distorted relative prices of land and capital, inducing substitution of capital for land. The result has been resource misallocation.
>
> "Because massive public transport subsidies, other "demand management" policies, and regulated increases in urban density have made little impact on congestion, some governments, notably those in New South Wales, Victoria and Queensland re-considered their policies of restraint on provision of general purpose arterial road capacity, particularly in the case of by-pass or orbital roads. Toll roads (typically involving public private partnerships) were often preferred to provision of free-access arterials, because of the high costs of urban arterial road provision in the context of fiscal stress associated with high costs of maintaining public transport subsidies.
>
> "While governments have claimed that toll roads would help alleviate congestion, these roads typically have been priced simply to recover full costs (including a reasonable rate of return on capital). Such pricing is incompatible with congestion-alleviation, because full cost recovery is possible only if tolls are set to toll-off sufficient potential users to ensure a wide difference in quality of service between tolled and free-access facilities. Pricing of new roads to alleviate congestion would require low and possibly negative prices."[26]

The paper then goes on to argue the benefits of congestion pricing:

> "Current anti-congestion policy-mixes for Sydney, as for most other major metropolitan areas, are ineffective and economically inefficient. Economically

[26] Ibid, Pages vii-viii

sensible reform would substitute congestion pricing for heavy public transport subsidies, parking levies/supply restraints, and tolling of new roads.

“Ideally, prices under a congestion pricing regime would reflect marginal external costs of congestion -- the difference between congestion costs caused and borne by each road-user. Prices would vary over time, across the network, and between vehicle-types. Prices would be highest in the busiest periods and locations, and for the largest vehicles. Zero prices would apply in free-flow conditions.

“This “internalisation” of marginal external costs of congestion would induce changes to travel modes, routes and times, reducing traffic at peak times and locations. Delays, stress, fuel and emissions would be cut and transport facilities would be better utilised.

“Congestion pricing would ensure “induced traffic” effects did not undermine benefits of new road, public transport, cycling and walking facilities, and information programs on urban transport options. Therefore, it would increase benefits from these initiatives. Meanwhile, these infrastructure and “demand management measures” would help pricing to induce changes in peak-period travel behaviour.

“Congestion pricing is primarily a policy instrument for alleviation of congestion in an efficient way. It is very different concept to applying tolls to new roads to recover their full costs or to existing roads to raise money for further investments in urban transport infrastructure or some other purpose. “Unlike cost-recovery tolling of new road segments in dispersed locations, or tolling of existing roads to raise money, congestion pricing would improve efficiency of use of metropolitan road and public transport networks.

“Of course, congestion pricing yields revenue as a by-product of its primary function. Moreover, there is reasonable evidence to suggest that under plausible assumptions, a well-designed congestion and road damage pricing system could provide enough revenue to cover full costs of providing and maintaining a metropolitan urban arterial road network.

“Parking levies and supply restrictions have sometimes been proposed as a simplified form of congestion pricing. However, these measures would not address the contribution to congestion of through-traffic, commercial vehicles, and the length, route and timing of trips. In contrast, a well- designed congestion pricing system would do so.

“Pricing of crowded roads would improve bus fuel economy, trip times, and service reliability. It would increase demand for bus and rail services, allowing higher service-frequency and route-density, which would attract still more passengers. Induced increases in residential and commercial densities around public transport corridors and destinations would reinforce these trends. A cycle of increasing demand for services and declining unit social costs of public transport-use would occur.

“Congestion pricing should be accompanied by a restructuring of public

transport fares. Congestion pricing raises effective prices of using single-occupancy vehicles in peak times and locations relative to effective prices of travel at other times and routes, and by other transport modes, including public transport. Therefore, continuation of subsidies to public transport to change relative prices of car and public transport-use would be redundant. Moreover, the reduced cost structure of public transport would have to be factored into fares. They should also be adjusted to manage passenger congestion and allow for broader, flatter peak periods. The various effects of congestion pricing should improve public transport's viability, reducing subsidy requirements.

"It is extremely important to note that congestion pricing is an essential element of an economically efficient anti-congestion package for Sydney, but it is not sufficient. It must be complemented by increases in road capacity – particularly debottlenecking and by-pass investments – and increases in public transport capacity, but not public transport subsidies. Capacity increases are required for efficient congestion alleviation beyond the short-term future."[27]

This conclusion is consistent with the findings of the Grattan Institute report on the return from transport infrastructure spending.

Questions asked at Canada Bay Information Session 6 October 2015

I attended an information session hosted by WDA on 6 October. I raised a number of questions with the WDA Traffic representative, Ian McCarthy. A summary of my questions and the answers provided are outlined in the table below.

[27] Ibid Pages viii-ix

Question	Answer
EIS Claims that it will reduce the numbers of long distance vehicles on Parramatta Rd. Where are the stats on travel distances along the corridor?	Not included in the EIS. Estimate is that 40-45% of trips are <5km long.
What are the major origins and destinations for trips along the corridor?	Not yet done. O/d data to come later.
Where is the analysis of freight movements on Parramatta Rd?	Not included in EIS. Updated Business Case (due to be released in next 2 months) will include freight analysis.
Where are the traffic counts of trucks on the corridor?	Not included in EIS.
What volume of freight by type uses Parramatta Rd?	Not included in EIS. Possibly in the Air Quality section. Ian agreed to seek figures for me.
What proportion of freight could be transferred to rail?	Bureau of Transport Statistics (BTS) report on freeight has been provided to WDA but not released. Ian agreed to ask for a copy.
How much freight (truck movements/tonnage) would be on the corridor if the Enfield and Moorebank intermodal terminals were operating?	Intermodl terminals have been taken into account in the modelling. (not sure how this has been done. I think it might be from BTS)
Why is the peak direction to the west in the morning and east in the pm?	Didn't have a defininative explaination. However, suggested that it may have been because of existing congestion which limits the flow in the peak direction.
Where is the analysis of LoS for North/South movement at intersections?	LoS for north/south movements has been done but not included in EIS. LoS at intersections includes all arms.
What is the likely impact on travel times if tunnel operating at capacity as predicted for 2031?	Does have impact on travel times, however, not significant. WDA will provide info on how travel times have been calculated.

Do the traffic figures include or take account of urban growth projections for future residential and employment along the corridor?	Forcast projections are included - using BTS projections. Urban growth projections have not been included as they were not available. In ny case they are over a 30 year period.
How were the strategic routes for time sving nalysis selected? Why was Penrith to Surry Hills identified as one of the routes?	Not sure why selected.
Potential queing in tunnel from congestion on Wattle street.	Believe there is enough capacity on exit ramps to cater for queuing. There is about 1km from Timbrell Drive intersection and the exit ramp. The exit slip lane starts as one lane and becomes 2 lanes before exiting (I didn't get the actual length of the one and 2 lane sections). Queuing is based on 95 percentile. Challenge is to get the Timbrell Drive intersection below capacity. Think it is currently at about 1.2 [need to check EIS]. It is criticasl that this intersection is below capacity, due to its impact on traffic exiting the tunnel. Likely to be a condition of approval. Some options being actively considered are making the Mortley Ave to Timbrell drive movement restricted to buses only. Cutting away the "redundant" footpath on adjacent to the new pedestrian footbridge to provide 2 right turn lanes from Timbrell Drive. Extending the slip lane in Wattle street for the left turn into Timbrell Drive.

Ian McCarthy committed to providing me with more detailed responses by Friday 9 October via email. I forwarded the above table to Mr McCarthy on 7 October under the following email:

> *Hi Ian*
>
> *It was good chatting with you on Tuesday. I ran into Matt at the Strathfield meeting last night. He told me that you were working on responses to my questions. Attached is what I took out from the discussion. Happy for you to add another column with any additional thoughts/clarifications.*
>
> *I have also attached a paper prepared for Infrastructure NSW on Congestion Pricing which gives a good explanation of the past strategies to deal with congestion over the decades. Although it is marked "Confidential" I downloaded it from the website. I think you and Matt might be interested in this (if you haven't already read it).*
>
> *Matt asked to be included in the email in case I have entered your email address incorrectly.*
>
> *Kind Regards*
>
> *Lyall Kennedy*
> *Director*
> *Kennedy Consulting Pty Limited*
> *0422 286 345*

Unfortunately, I am still awaiting a reply.

Freight benefits are an integral part of the justification for WestConnex. It should be noted that when WestConnex was first reviewed by Infrastructure Australia it was classified as a freight project. However, there is no analysis of the current freight movements in the corridor or any discussion of alternative options for freight. This is a major weakness of the EIS. WestConnex should not be approved until the community has had an opportunity to see and review all the freight claims and impacts.

Managing Traffic to Stop Queuing in the M4 East Tunnel

Possibly the most concerning aspect of the M4 East proposal from a traffic perspective is the possible congestion on the city west link heading east going back into the M4 tunnel at Wattle Street.

The City West Link was deliberately designed with six sets of traffic lights between Haberfield and the city. This platoons traffic heading towards the Harbour Bridge and reduces congestion on the approach to the bridge.

I'm not an expert on queuing theory, however, my understanding is that every additional vehicle that joins a queue has an exponential impact on delay times.

When you look at what is happening on the north side of the Harbour Bridge, much, if not all, of the travel time savings gained through the Lane Cove tunnel are negated by the extended queue time to get to the bridge.

According to the EIS, by 2031, the M4 East tunnel is at capacity. The intersection at Timbrell Drive is also at capacity. This will result in periods when the queue on Wattle Street will extend into the tunnel. The EIS talks in vague terms about how this might be managed including ramp metering and variable speed limits in the tunnel.

Ramp metering will increase delays in the tunnel as it will restrict the flow of vehicles out of the tunnel onto Wattle Street. Variable speed limits in the tunnel will have a negligible impact on reducing congestion in the tunnel and will also increase the time vehicles spend in the tunnel.