

Submission on CBD – South East Light Rail EIS

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31 December 2013



I object to the CBD –South East Light Rail for the following reasons:

1. **It will not be effective and efficient in meeting public transport demands.** Heavy Rail, as called for by Randwick Councillor Tony Bowen is required.

Why is there no serious examination of heavy rail options that would extend the Eastern Suburbs Rail, for example, through Randwick and connect with Green Square. This would provide a rail link for Randwick to the airport. By opting for what is proposed as a short-term compromise the chance of getting heavy rail in the future is reduced. In the scramble for limited infrastructure \$ any question of funding Eastern Rail will be dismissed with '*you've got the tram*'.

2. **The greater good is not served.**

For residents south of Kingsford bus services will terminate at UNSW and Kingsford. This will create an impediment for the more disadvantaged accessing CBD based services, particularly those with mobility issues. Improving the journey experience of people with disabilities is an objective of the Transport for NSW Disability Action Plan 2012-2017 <http://www.transport.nsw.gov.au/content/transport-nsw-disability-action-plan-2012-2017> This is being ignored.

3. **Commuters to the CBD will have longer commute times,** see letter below from Matraville resident.

**Southern Courier 24/9/13**  
**Information needed**

I attended the information session on the light rail on September 9 and found it very disappointing.

The bus strategy expert was sick and there was no replacement.

I was told I would be contacted by the bus expert and 10 days later I have still not heard from them.

The expert on transport planning was surprised when I mentioned that there are many bicycles that ride in the bus lane on Anzac Parade.

When I asked two experts how the buses from Bunnerong Rd would connect to the bus interchange, they looked dumbfounded.

The proposal near UNSW is very interesting. The design has the light rail crossing four lanes, during peak hour, to drop commuters at the university and nobody seems to think this would increase congestion.

I can catch a bus from Matraville to Martin place during peak hour traffic, and the time is 37 minutes.



**This week's Picture of the Week is I Poulos. Email your images of life in th [courier.com.au](mailto: courier.com.au).**

Under the proposed light rail it will take around 59 minutes.

**SONIA, Randwick**

**No failures**

LIAM Alban ("Clean campaign wasted", September 17) claims the

Displacement on current figures: These are expected to grow with increase in densities in South East: 5-81: Interchange:

*Kingsford stop would cater for the more than 1,400 bus transfer passengers per hour that are expected to use the interchange in 2021. (NOTE this does not include passengers terminating around UNSW/Todman Avenue area – details of turn around unknown!)*

*Randwick stop would cater for the approximately 870 bus transfer passengers per hour that are anticipated to use the interchange in 2021.*

#### Maroubra Junction - CBD\*

- South East bus services reallocated from the light rail corridor according to customer demand
- Extra bus services connecting Sydney Airport to Bondi Junction, Kingsford and the Inner West
- High capacity vehicles
- High quality interchanges with consistent wayfinding and signage
- Address bus pinch points with bus priority treatments on:
  - Anzac Parade between Maroubra Junction and Kingsford
  - (pending light rail development) Anzac Parade between Kingsford and Moore Park
- Rapid route service to South East suburbs ahead of implementation of light rail
- Connections at Kingsford and Maroubra Junction to increased east-west services to Sydney Airport

In the longer term:

- Progressively extend the operating hours for bus lanes on Anzac Parade between Maroubra Junction and Kingsford

\*Part of this route will be serviced by the new CBD and South East Light Rail

## 4. Loss of heritage – street trees

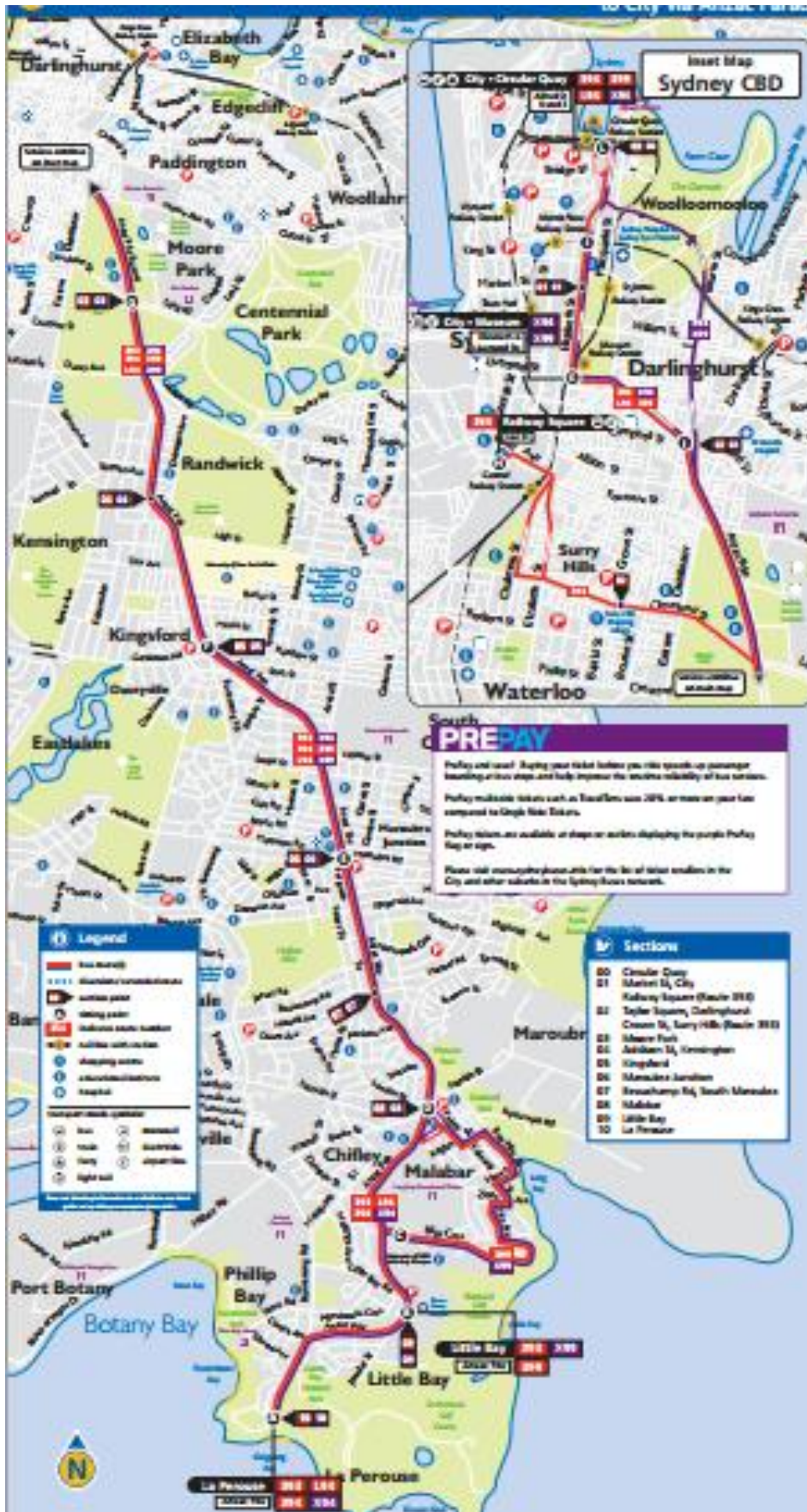
### 5.2.9 Street trees

Approximately 760 existing street trees would be required to be removed as part of the construction and for the operation of the CSELR proposal. This would include significant trees along Alison Road, Wansey Road, Devonshire Street and High Cross Park. Further details regarding the proposed impact of the CSELR proposal on existing street trees and the proposed mitigation strategies, including tree replacement strategies for each of the precincts, are provided in Chapters 12 to 17 in Volume 1b of this EIS.

5. **Tourism for historic La Perouse will be negatively impacted**, eg Aboriginal groups marketing cultural experiences such as <http://www.dailytelegraph.com.au/newslocal/city-east/bare-island-at-la-perouse-will-host-a-fundraiser-for-bare-hands/story-fngr8h22-1226770238204> The direct bus connecting Sydney Harbour with Botany Bay at La Perouse will terminate around Kingsford. As there will be less incentive to catch public transport to the South East more will be arriving in cars or not visit the area.



## Farm Cove Sydney Harbour to La Perouse Botany Bay – Historic Journey since January 1788



[http://www.sydneybuses.info/routes/393\\_394\\_L94\\_X94\\_399\\_X99map.pdf](http://www.sydneybuses.info/routes/393_394_L94_X94_399_X99map.pdf)

6. **Light Rail has poorer safety record.** A 2012 Monash University Study found : "The most common mechanism for all crashes was striking an object on a carriageway (20%), with the most common objects being tram tracks, potholes, grates and tree branches." ..... "Of the 31 riders who struck an object on a carriageway (DCA code 166), 15 struck tram tracks, 5 struck potholes, 3 struck grates, 3 struck tree branches, and one each struck another cyclist's wheel, a speed hump, a witch's hat, rubble and a lamp post base." <http://www.bicyclenetwork.com.au/media/vanilla/file/MONASH%20ALFRED%20CYCLIST%20CRASH%20STUDY.pdf>

and

Professor Graham Currie, Chair of Public Transport, Institute of Transport Studies, Monash University: *Research perspectives on the merits of Light Rail vs Bus*, presentation given at the BITRE Colloquium, Canberra, 18–19 June 2009  
<http://www.infrastructureaustralia.gov.au/publications/files/LightRailVSBus.pdf>

7. **Light Rail system is not as flexible.** Bus routes can be closed for street parades, fun runs, cycling events, in emergency situations and the buses can be re-routed. This can't happen with Light Rail.
8. **Bus drivers can stop to help the less able negotiate entry to the bus.** This service is not available on Light Rail.
9. **Bus Drivers can, in an emergency, drive directly to a police station or hospital.** Note the South Eastern routes have security guards for good reason.

In Volume 28 Elton Consulting outline the Social Wellbeing and Health Benefits. This is totally misleading. How can they state that it will improve mobility and social interaction for the elderly and disabled. The elderly and disabled living in the South East will lose their direct services to the city. Can you imagine what an impediment it will be to visit the city, particularly in the evening, knowing that you have to disembark around Kingsford (in cold/rain/dark) to wait for a bus to Little Bay/La Perouse/Malabar. Volume 28: Social Impact (Elton Consulting)

<https://majorprojects.affinitylive.com/public/7cbda6974fb088f89a87f8c2f8b345b9/28%20CS%20ELR%20EIS%20Technical%20Paper%203%20-%20Social%20Impact%20Assessment.pdf>

*Social wellbeing and health benefits*

- The CSELR would enhance people's health and social wellbeing through improved access to major regional facilities, such as the University of NSW, Moore Park, Centennial Park, the Moore Park Sports and Entertainment Precinct (including the Entertainment Quarter, formerly known as Fox Studios), and Randwick hospitals precinct.
- Improved road safety from reduced traffic congestion.
- Health benefits from enhanced active travel opportunities from cycling and walking.
- Improvements in air quality, with attendant health benefits.
- Health and social wellbeing benefits by providing people with access to greater employment opportunities.
- Health and social wellbeing benefits from increased mobility and social interaction, particularly for elderly and disabled persons.]

The area around Prince of Wales Hospital will be further congested making access for family and friends delivering and visiting patients even more difficult. Parking at the

hospital is difficult and when spots are obtained the costs are expensive. This restricts access and impacts patient recovery. Elton should document the experiences of those in the South East who visit Prince of Wales regularly particularly since the closure of Prince Henry (another project that Elton worked on.)

Elton Consulting also refer to greater access for Centennial Park and sports grounds. These are heavily used already. The Light Rail may make it easier to move people from Central Station and the CBD to these destinations but is this for the greater public good. Would it be better to develop these types of facilities near to where people live given the population centre of Sydney is Ermington. We can expect visitors to the beaches as there is nothing comparable but the Light Rail does nothing to make those trips easier, in fact it will add to the congestion and make it more difficult.

10. **To achieve ‘crush capacity’ numbers there will be fewer seats available on Light Rail.** We have an aging population with people expected to work onto 70. The time on the bus is used to do work something that is not possible when standing and trying to keep balance.
11. **A Light Rail service is not as reliable as a Bus service.** When a bus breaks down the whole system is not broken. This is a recent example of what can happen – the Hay Street Light Rail system was out of action for more than a week  
<http://www.smh.com.au/nsw/light-rail-suspended-after-double-derailing-20131008-2v5hn.html>
12. **In November 2006, the NSW Government categorically ruled out building a light rail system in Sydney’s CBD, on the grounds that:**

*“light rail would only take about 20% of the buses off the streets of our city”;*

*“light rail would rely on the transfer of significant numbers of bus passengers at the CBD periphery to the light rail system – patronage studies have shown that commuters are reluctant to use public transport once an interchange is imposed”;*

*“surveys suggest that up to as many as 89% of bus commuters want a direct trip into and out of the city, not an interchange onto another transport mode”; and that:*

*“the lead time and construction requirements to implement a light rail system are significant, disruptive and costly”.*

[http://www.transport.nsw.gov.au/sites/default/file/metrodocs/Metro%2520Network%2520Development/00-NSW%2520Urban%2520Transport%2520Statement%2520Nov%25202006%2520\(A97\).pdf](http://www.transport.nsw.gov.au/sites/default/file/metrodocs/Metro%2520Network%2520Development/00-NSW%2520Urban%2520Transport%2520Statement%2520Nov%25202006%2520(A97).pdf)

13. **The University of New South Wales is currently served by multiple bus services – see**

[http://www.sydneybuses.info/network-interchange-maps/UNSW\\_TransportGuide\\_2011.pdf](http://www.sydneybuses.info/network-interchange-maps/UNSW_TransportGuide_2011.pdf)

The biggest single share of student traffic to UNSW is currently carried by the 891 express bus service from Central Station via dedicated bus lanes along Albion St, Flinders St, Anzac Parade et al. Fares are \$2.88 (full) or \$1.44 (concession) if prepaid as a “MyBus 2 TravelTen” ticket.



Each bus is about 12.5 metres long and carries about 45 seated and about 15 standing passengers, depending on model. Buses run at intervals of one minute or less in peak periods, with multiple buses loading and unloading simultaneously. The bus journey between Central and UNSW takes approximately 16 minutes.

Sydney's SE Light Rail proposal is a result of sustained pressure from influential figures at UNSW to replace these buses with a heavy rail or "Metro" connection to Central Station and thereby make UNSW more attractive to students.

The University does not practice 'demand management' eg. it does not flatten peaks by teaching across the week and across the year, increased on-line services.

Light Rail was not generally regarded as a serious contender. For example,

*the official UNSW Development Control Plan states that "Light Rail along Anzac Parade from the City ... would directly serve less than 10% of the staff and students already well served by buses" ... and would be "Slower than Metro and not competitive with 891 bus".*

*The UNSW 2020 Transport Strategy therefore did not support such a light rail link and instead recommended that additional bus services be introduced to directly connect UNSW with suburbs including Parramatta, Kings Cross, Bondi Beach and the North Shore.*

[http://www.randwick.nsw.gov.au/library/scripts/objectifyMedia.aspx?file=pdf/120/77.pdf&siteID=1&str\\_title=20100908\\_2020\\_Master\\_Plan\\_Transport\\_Strategy\\_-\\_UNSW\\_Kensington\\_Campus.pdf](http://www.randwick.nsw.gov.au/library/scripts/objectifyMedia.aspx?file=pdf/120/77.pdf&siteID=1&str_title=20100908_2020_Master_Plan_Transport_Strategy_-_UNSW_Kensington_Campus.pdf)

However, when plans announced in 2006 to build a heavy-rail "ANZAC Metro" (running under Anzac Parade between the CBD and Maroubra) were abandoned in 2010, the UNSW withdrew its objections to light rail.

The light rail proposal would employ a fleet of about 40 articulated trams, each 45 metres long and able to carry about 100 seated and 200 standing passengers. Each tram will weigh over 50 tonnes and will probably cost at least \$6 million.

Nobody seriously suggests that current bus services are either slow or inadequate (bus travel time is 16 minutes and average waiting time in peak hours is less than 5 minutes) but the hurly-burly at the multiple bus stops outside Central and UNSW is regarded as unsightly. An orderly line of gleaming new trams would look very nice on UNSW marketing brochures.

*InfrastructureNSW conceded that a SE Light Rail line down Anzac Parade might "offer a better quality travel experience" for the 5-10,000 students and staff who currently travel by bus between Central Station, UNSW, and the Prince of Wales hospital, but "would not compete on travel time with existing bus services" for most commuters.*

[http://www.infrastructure.nsw.gov.au/pdfs/SIS\\_Report\\_Complete\\_Print.pdf](http://www.infrastructure.nsw.gov.au/pdfs/SIS_Report_Complete_Print.pdf)

14. Various local property developers, politicians and Councils have been delighted to assist in UNSW's campaign, on the basis that a State-Government-funded and subsidised light rail connection would cost them nothing and will benefit them with **financial gains** – see Sydney Morning Herald, 13/10/2010

<http://www.smh.com.au/nsw/light-rail-to-push-up-house-prices-20100312-q469.html>

*One of the world's leading urban planners, Professor Ed Blakely, said the introduction of permanent infrastructure - such as light rail or even a simple overhead wire for a trolley bus - encouraged better development. "You get a better result than with an ordinary bus route because people fear that the bus can move away."*

## 15. Congestion and loss of commercial amenity

Figure 5.3 Typical artist's impression of a 'civic style' canopy design for stop shelter



### Bicycle parking facilities

Secure bicycle parking facilities would be provided at the proposed Randwick and Kingsford stops. Additionally, 'u-rail' type bike parking facilities are also proposed to be provided at each of the stops outside of the City Centre Precinct in addition to the Circular Quay stop. Convenient bicycle parking facilities would be provided near platforms. These locations would be determined during detailed design. Figure 5.4 summarises the proposed rail and bus interchange locations and bicycle parking facilities at each light rail stop.

Volume 3: page 5-16 Parsons Brinkerhoff

<https://majorprojects.affinitylive.com/public/af988042f1463435bbe7c7ce83554acb/04%20CSELR%20EIS%20-%20Chapter%205%20-%20Part%20A.pdf>

Where is the space for bicycles and where are the monitored security cameras (which could be installed in a controlled space – underground train station).

Which businesses are losing access to deliveries and customers. Where are the typical people in the artist's impression – those in wheelchairs, on sticks, with large bags, unfit, elderly.

## 16. Few people outside Surry Hills and Precinct in Randwick seem to yet be aware that the "dedicated corridors" described in the proposal will require between one and four



vehicle lanes to be permanently removed from streets along about half of the route, including Wansey Road and much of the commercial section of Anzac Parade.

Similar light rail “vanity projects” all over the world (eg Edinburgh, Honolulu, Jerusalem, Malaga/Velez, Ottawa, Portland, San Juan Puerto Rico et al) are causing gridlock and/or bankrupting local governments. For example, Malaga’s financially disastrous light rail system has been scrapped, and its near-new trams leased at bargain prices to the NSW Government for use on the Dulwich Hill line. The cost of Edinburgh’s new 18.5km light rail system, originally budgeted at £375 million, has blown out to over £1 billion; it replaced a previously profitable bus service but will require at least £45 million per annum in subsidies if/when it is completed. The facts about these and other light rail fiascos are very easily “googled”.

#### **17. Cost of building & operating the SE Light Rail:**

Construction costs of the 9km SE Light Rail scheme represent \$1100 million of the \$1600 million specified in the NSW Government’s announcement.

[http://www.transport.nsw.gov.au/sites/default/files/b2b/projects/Sydneys\\_Light\\_Rail\\_Future\\_December\\_2012.pdf](http://www.transport.nsw.gov.au/sites/default/files/b2b/projects/Sydneys_Light_Rail_Future_December_2012.pdf) - pp 26 et al

At a 5% discount rate, this represents a financing/opportunity cost of \$55 million per annum.

Depreciation, maintenance and operating costs will amount to at least \$45 million per annum. The long, heavy, battery-and-overhead-powered trams specified by some of the stakeholders are rumoured to be fearsomely expensive to maintain. See Note 1, below.

The SE Light Rail system, designed to reduce the demand for buses on a handful of routes between Central, Randwick and Kingsford, is thus likely to cost at least \$100 million per annum.

To put this into perspective, the ENTIRE income of the NSW State Transit Authority in 2011-12 was about \$680 million. This represented a total of 220 million bus trips annually. The ENTIRE State Transit Authority bus fleet was valued at about \$100 million. See STA 2011-2012 Annual Report

#### **18. Loading and unloading rates:**

SE Light Rail proponents claim that the trams will carry “up to 9000 passengers per hour”, which appears to be based on running one of these \$6 million, 45-metre trams every 2 minutes through an evenly-balanced chain of stations, with two-thirds of passengers standing and with relatively few people embarking or alighting at each stop.

This sort of 2-minute schedule may conceivably be achievable if the proposed light rail system were merely shuttling passengers slowly between destinations along George Street in the CBD.

However, the peak-hour route between Central and UNSW involves loading all tram passengers at one end of the route and unloading them again at the other end. Technically, “dwell times” at Central and UNSW will be significant on this primarily “point to point” section of the light rail system.

There is little possibility of stopping a tram, loading or unloading a full load of 300 passengers, driving this tram away from the loading platform, and replacing it with the next tram, in 2 minutes.

Tram loading and unloading rates at Central and UNSW are in fact unlikely to be significantly faster than the current parallel loading and unloading of multiple buses at their extended kerbside stops. Despite the optimistic claims of some Light Rail proponents, many of the existing buses will still be needed at peak hours.

And, of course, buses will still be needed to transport the majority of UNSW's 40,000+ students and staff who do not commute via Central Station.

In addition to this, it must be remembered that the George Street section of the light rail system is expected to replace the dozens of incoming bus routes which currently carry passengers past Central to their destinations in the CBD. Overall, the rush-hour scrimmage at Central as passengers are forced to switch between transport modes to get to or from the CBD and the UNSW is likely to get worse rather than better.

**19. Similarly, claims that trams will replace all the current multiple-bus services ferrying racegoers to and from Randwick Racecourse, and carrying sports and rock music fans to and from the SCG, Allianz Arena and the Moore Park Entertainment areas, are based on a misunderstanding of the nature of the light rail system and should not be believed.**

For example, the Australian Turf Club appears to be under the mistaken impression that the proposed light rail system can transport 12,000 people (ie 40 trams, each crammed with 100 seated and 200 standing racegoers) to or from the racecourse in an hour.

See [https://www.australianurfclub.com.au/pdf/media/media-131207-ATC Applauds NSW Government Light Rail Initiative.pdf](https://www.australianurfclub.com.au/pdf/media/media-131207-ATC%20Applauds%20NSW%20Government%20Light%20Rail%20Initiative.pdf)

In reality it can't. Many buses will still be required.

## **20. Likely passenger numbers:**

According to a much-quoted but rather outdated report <http://www.isf.uts.edu.au/publications/blackmasonstanley1999traveldm.pdf>

“Around 7000 people use train/bus connections and catch UNSW Express buses from Central Railway station. Importantly, commuters are not the only user group on these services. Part-time students, part-time staff and visitors to both UNSW and the Randwick Health Complex, comprising the four hospitals, use these bus services.”

If one optimistically assumes that these passenger numbers have risen to, say, 10,000 per day in each direction during the ~30 week UNSW academic year, and that 75% of travelers will switch from the current Mercedes buses (where most passengers get a seat) to light rail (where most passengers would have to stand), one could predict about 3 million tram trips per annum.

Most of these travellers would be students with a 50% fare concession, and numbers – especially at peak hours – can be expected to fall rather than rise as broadband-based learning progressively reduces students' needs to physically attend the UNSW campus.

Outside peak hours, most current Randwick and Kingsford buses are spectacularly empty for many hours of the day. If one optimistically assumes that 8 passengers travel on each of the proposed "every two minute" trams in each direction, ie another 500 passengers an hour or say 6000 passengers per day – this raises the total to around 5 million tram trips per annum.

The Australian Turf Club claims that "almost half a million people attend race days at Royal Randwick each year". It is remotely possible, if unlikely, that the tram system will be able to handle up to 50% of these travellers, and a similar number of Moore Park patrons, raising the total to around 6 million tram trips per annum.

This estimated total of 6 million trips per annum within a 9km light rail system is remarkably high, but not absurd, by international standards. Recent US experience suggests that between 2 and 4 million trips per annum would be more common for a light rail system of this size.

(see [http://en.wikipedia.org/wiki/List\\_of\\_United\\_States\\_light\\_rail\\_systems\\_by\\_ridership](http://en.wikipedia.org/wiki/List_of_United_States_light_rail_systems_by_ridership) et al)

## 21. Cost per trip:

Assume (generously) that on average only 70% of these 6 million tram trips per annum involve student or other concessions.

Assume that everybody buys a ticket – which, from experience in Melbourne and overseas, is extremely unlikely on such multi-doored trams.

**On this basis, trips would need to be priced at a minimum of \$25 (full fare) or \$12.50 (concession) for the proposed light rail system to recover costs of around \$100 million per annum. Alternatively, the light rail system would need to be heavily subsidised by NSW taxpayers and/or by greatly increased fares on all competing bus routes.**

Ignoring the costs of the necessary dedicated light rail infrastructure, the incremental operating cost of a typical tram is between \$150 and \$450 per hour. This is easily googled from numerous sources.

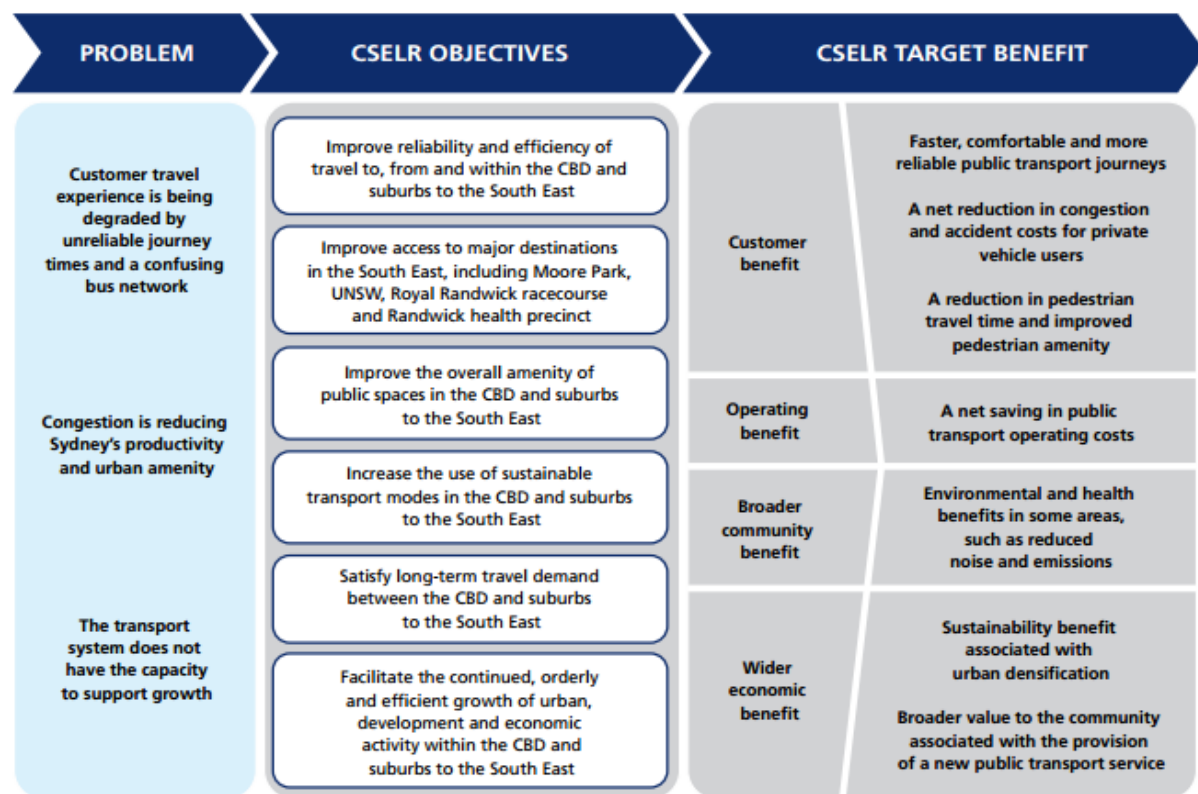
The long, heavy, battery-and-overhead-powered trams proposed for the Sydney Light Rail system are far from typical, but if one generously estimates that they will only cost \$300 per hour and run for 15 hours per day, 7 days per week, operating costs will be around \$1.5 million per tram per annum.

At least 40 trams will be required to provide an every-two-minute service on a network on which trams are estimated to take approximately 40 minutes to travel from end to end – ie 80 minutes for a "round trip" from Kingsford to Circular Quay. On this basis, direct operating costs for the SE Light Rail part of the system (excluding capital costs, depreciation, and the cost of maintaining the track, stations, electric power lines and other network infrastructure) are likely to total at least \$45 million per annum.

**22. The EIS is littered with spurious statements such as below.** Who says it is a confusing bus network. Where is the engagement with real customers and with bus drivers to help improve the system. The objective in the table below is to improve efficiency but it won't - the trip will be longer and it will involve changing modes of transport.



Figure E.2 Problem, objectives and benefits alignment



Where is the evidence that there will be a net reduction in vehicle accidents. The studies indicate there will be more accidents when Light Rail is introduced.

Current congestion issues can be addressed by -

- incentivising the provision of jobs near where people live. Major infrastructure builds such as a second airport at Badgery's Creek are an example of what is required.
- Providing university places near where students live is required via hubs.
- Decentralising freight and distribution.
- Implementing the Metrostrategy 'City of Cities' so the focus is not on the CBD.
- Upgrading sporting and other entertainment facilities near where people live is required rather than transporting them across the city. The only facilities that can't be provided elsewhere are the beaches but the Light Rail will do nothing to improve

access to beaches (try carrying family surfboards and picnic on public transport).



<http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/sydney-bus-future-final-web.pdf>

It's agreed we need to look at meeting transport needs for future growth but the solutions should be long-term and innovative Heavy Rail and examples as below not a return to the



past.

<http://www.youtube.com/watch?v=t1gTzc7-IbQ>

23. ***Happy Days* impressions. The impacts of Light Rail.** While photographs of students waiting for buses opposite UNSW are used to demonstrate the current bus problem, in the artists' impressions of Light Rail everything is streamlined – 'happy days'. We don't see hundreds of people milling in the middle of the road waiting for the Light Rail. We don't see people in wheelchairs. We don't see how it would operate during rain. We don't see the cyclists handling the tracks, the overhead wires are not prominent, and we don't see how street fairs or breakdowns are handled. The least subsidised mode of transport is bus and in emergencies buses are brought out.

We also don't see what happens to the residents and businesses which are displaced during and after the completion of the Light Rail. Every transport solution will have impacts but they have to be weighed up carefully against alternatives. Is 'we have to do something' a good enough reason not to fully examine some of the small (eg. bus route changes, ticketing, demand management) and large (extension of heavy rail) measures that can be adopted instead of Light Rail.

Example:



### Stop furniture

Furniture at each stop would generally include seating within a shelter, OPAL ticket machine readers, six lean posts, and general waste rubbish bins.

The final design quantities and materials for the stop furniture at each precinct would be developed during detailed design. This would be undertaken in consultation with the requirements of the relevant local councils and would then be applied to elements such as the furniture elements, vertical screens and shelter canopies.

Each of the platform elements would be designed to be modular (including the canopy, vertical elements, central 'pod' seating and signage elements). This would allow for easy maintenance and replacement of individual elements, and would permit the module to respond uniquely to each location by adding and subtracting elements depending on the levels of visual transparency, connectivity, and shelter required. This approach would also allow for shelter expansion to respond to increased patronage in the future, if required.

Each stop would provide weather protection. The shelter at each stop would provide for both standing and seating space including space for wheelchairs and prams. Across each of the separate precincts, modular canopy and shelter forms would remain similar, assisting to provide consistency across the wider CSELR proposal.

The shelters would typically comprise a steel frame canopy structure with either a glazed or solid panel wall and roof to provide weather protection on each platform. Most stops would be designed to incorporate smaller scale canopies over the platform. The Rawson Place stop would be designed to provide a larger unified canopy across the multiple platforms at this location.

How long do the OPAL machines last. What do passengers do when they are damaged. How big are the platforms. There will be fewer collection points so they need to accommodate more potential passengers. How long do the shelters last. Maintenance and security are major issues now.

The following are a random collection of comments about the project and copies of timetables.

#### 1. admin

says:

April 8th, 2013 at 4:19 pm

Comments from transport website:

resident from Matraville:

I am really concerned about the proposed light rail. I think Randwick council only seems to be concerned about commuters to the uni, to sporting events and to the races. I catch a bus every day to and from the city from Matraville along Anzac pde during peak hour traffic, approximately 480 times in one year during peak hour. Sporting events or races only occur occasionally during the year and most of the time on the weekend or in off peak. The bus service has always been excellent and I am really concerned on how the light rail will impact on bus services that go further south of Kingsford.

People who travel from the western, northern or southern regions by car to uni most probably will not change their habits as they will still have to catch a train to the city and then change to light rail. This is no different to the options they have now. Why would they stop driving.

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I am strongly opposed to expansion of light rail.

Light rail is inferior to buses in every way – speed, capacity, flexibility and cost. Specifically, a bus network can provide a convenient service to a much larger catchment area, cater to more destinations, adapt more easily to peaks in demand (e.g. with express services), cause less disruption of other traffic, and do not require overhead wires or stops in the middle of the road. Bus routes can also adapt over time to changing demand patterns by adding new routes.

Artists impressions of future light rail systems always show a couple of cars traveling freely in the vacant lane but Anzac Parade is highly congested and adding trams will make this worse. Meanwhile light rail would do little to reduce traffic because it would not serve the majority of commuters, who would continue to rely on buses and cars or else be forced to interchange.

If we spent even a fraction of the cost of this proposed light rail system on upgrading the existing bus network we could all be riding to work in air conditioned comfort without having to walk miles to a light rail stop and facing an even more congested road.

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I don't think this is a good idea at all. It seems like a half baked solution and stopgap measure only.

It is better to invest in underground rail extension from Bondi, as it will definitely reduced the congestion and also save money in the long run. The current bus network serves randwick, maroubra, and kingsford well enough at the moment (not in the long run though, hence the need for underground rail network).

Not to mention ugly electrical and suspension cable hanging everywhere, ruining Sydney beautiful skyline. Don't make Sydney sky as messy as Melbourne city, where you can't even enjoy the sky or take a photo of it's great architecture without all those cable ruining your picture...

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Interestingly an article in todays Telegraph indicates a journey time between Randwick and the CBD of 39 minutes

<http://www.dailytelegraph.com.au/news/a-heavy-price-to-pay-for-the-light-rail-revolution/story-e6freuy9-1226550708529>

Whereas current busses according to <http://www.131500.com> takes 30 mins or less! (eg royal randwick to wynyard)

I think there is an issue here that the NSW Government needs to consider prior to committing to the propsal in its current state.

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The trip from Coogee to Town Hall is going to take longer on the tram than the bus. Please don't assume that just because something runs on rails it will be fast. The tram is going to be

completely at-grade running on surface roads causing traffic chaos. Buses aren't great but at least they're quicker than the proposed light rail system.

I think it's a waste of money and resources. It will use the same roads space as the existing buses, but less efficiently as taxis and motorbikes won't be able to share the same lanes. It still needs to stop at all the same traffic lights and doesn't have a significantly larger carrying capacity than a few large buses. I imagine that the time it will take will be the same, and the amount of passengers waiting at the stops will be the same, and no express options are possible as with the existing bus network.

I would have hoped that the heavy rail from Bondi Junction would have been extended, and would prefer to see the budget for this improvement saved until there was enough for a proper heavy rail system from Bondi to Maroubra.

### Bus service mystery

WE have been told the student express bus services for UNSW will cease with the new light rail as well as a lot of designated school buses. We have not been told where bus stops will be, frequency, what the changed routes will be, how we get to surrounding suburbs.

When I raised these issues of project staff a few months ago I was told to wait for the EIS. Well the impacts and answers are not in the EIS.

Also, at a recent precinct presentation EIS project staff were unaware of the schools impacted by the light rail. The Our Lady of the Sacred Heart High and Our Lady of the Rosary Primary schoolchildren, currently using the Lorne Ave and Darling St bus stops at Kensington, are expected to walk more than a block over busy roads to catch or alight from the light rail past Todman Ave. Todman Ave is a known spot notorious for car accidents.

They need their own school buses to continue and a light rail stop near Lorne Ave/Darling St Kensington. Protect our children!

**STELLA, Kingsford**

### Truck troubles

THE most recent accident involving two large trucks at Hillsdale last week just adds further proof that we need to keep these large heavy vehicles off residential streets and away from people's homes. With the volume of large trucks Perry St endures, it simply

amazes me that an accident hasn't yet occurred on that road.

**STEVE, Matraville**

### Park concrete issue

I read with horror the article from a local resident in Conversations that stated High Cross Park will be removed and turned into a terminal station for the light rail project. On checking this fact I have found it to be true so, as suggested in the article, voiced an objection to the proposal. I thank the writer for bringing this overlooked fact to my attention. Not only will we lose the park but also the avenue of trees in Kensington on Anzac Parade. I'm totally dismayed at yet more concrete over green space, it never ends.

**JOHN REID, Randwick**

### Campaign steams on

AFTER a concerted community campaign the NSW Liberal Government has announced that the Randwick and Anzac Parade South urban activation precincts have been temporarily put on hold. This is just a temporary delay on UAP's and this isn't good enough. The Minister can still rezone our area for high rise with the stroke of a pen. The community wants local rezoning issues dealt with by Randwick Council, not a Planning Minister and a Premier who know nothing about our local area. Our community campaign is full steam ahead because the only way local residents will be able to sleep eas-

ier is to scrap these plans entirely and deal sensibly with any local planning issues.

**MICHAEL DALEY, Maroubra  
state Labor MP**

### Heavy issue

THE recent heavy rail push by local Labor politicians is about giving themselves a superficially saleable rail policy that they can show is different to that of the Liberals who are committed to light rail. But it is mainly just political showmanship that they have not thought through. Light rail is relatively cheap but heavy rail is expensive and will have to be surrounded with intensive residential redevelopment to pay for them. But Labor opposes intensive residential redevelopment, don't they?

**MURRAY MATSON, Randwick  
Greens Councillor**

### Off the rails

THE Mayor and Cr Murray Matson's hysterical responses (Railing against Labor, December 10) to Labor's amendments to the council submission for the light rail EIS are entirely predictable. These amendments were moved to give some balance to the major impacts proposal.

But it seems nothing short of complete capitulation to the State Government's plans for light rail are acceptable to the Liberals and the Greens on council. Our residents deserve better than an open

invitation for light rail.

**TONY BOWEN, Randwick Labor  
Councillor**

### In harmony

REFLECTING on how in harmony the Randwick councillors were with their community they represent, it made me feel that the year was coming to a good end. Thank you to all the Randwick councillors for your cooperation with your community on the UAP and your consolidated front against poor planning from the State Government. We are now asking for the same consideration on light rail. At the recent light rail EIS briefing at Kensington the meeting called for heavy rail to be investigated by Randwick Council, not light rail.

**MARGARET HOGG, Maroubra**

### School creates buzz

AT the end of November my school, Daceyville Public, had a Creative Life Festival. We had a few celebrities perform and do workshops with the students. It was lots of fun and the first time that it's happened so we didn't know what to expect. My favourite part of the festival was the opening ceremony. Some of the students from the South Sydney High School performance group came and they were hilarious. It made me feel lucky that my school got to have such a wonderful week.

**HARRISON JONES, 10**



## Precincts need facts

AT the precincts forum, run by the Department of Planning and Infrastructure last week, regarding the Urban Activation Precincts, I was horrified to hear confirmation about an invite-only "community forum" which the department had run as part of the UAP community consultation process.

This involved recruiting UNSW students to hear the proposals for the "uplifting" – the Department of Planning's term for high rise developments. It is obvious these students would support light rail and highrise accommodation close to the university. This would serve them well for the short time they need to live or access the area.

Questions from the members of the precincts were largely left unanswered or responses were made which aimed at placating this well informed group.

I also attended the light rail open forum at Randwick and was told the residents of Coogee and Randwick who use the popular 373 and 372 bus routes will now be horribly disadvantaged as they will no longer have access to this wonderful route.

Transparency of the UAP and the light rail is lacking. The impact of the light rail and the UAP is unfortunately not widely known.

**MARIA MORAN, Randwick**

Southern Courier 17/12/2013

Letter in SMH 13/12/2013: Sydney transport: Applause for bus plan as trams are no solution  
At last there is a sign of intelligent transport planning, instead of nostalgia, from Transport Minister Gladys Berejiklian's portfolio ("Rapid expansion: bus stops axed in plan for quicker system", December 12.)

The rapid bus plan is essentially a statement that trams are not flexible, efficient, cost-effective or a practical solution for Sydney's current and future transport needs. The new bus policy is also tacit admission that the time frame needed for implementation of 19th-century tram technology, by destroying existing thoroughfares to install rails, is a futile waste of public funds and has no net increase in overall passenger capacity or scalability for expansion. An express service on a tram line is clearly impossible, because trams can't overtake, or skip stops, so the system is inherently capacity-challenged. If environmentally justified in the

future, overhead wires for electric buses can be introduced quickly with enhancement, but no compromise, to service or passenger capacity; including express, skip stops and contingency for overtaking a breakdown or traffic hazard.

A tram, as a transport solution, is simply an expensive anachronism, and billions can be saved by stopping trams and their tracks.

John Ward Bango



# from City to La Perouse & Malabar via Anzac Parade

TIMING POINT ▶	L	J	I	H	G	F	E	D	C	B	A
◀ time period											
◀ showing route number											
◀ accessible service											
	City - Circular Quay Alfred St - Stand E	City - Martin Place Elizabeth St	Darlinghurst Taylor Square	Railway Square Lee St - Stand A	Moore Park Anzac Pde & Cleveland St	Kingsford Anzac Pde - Stand E	Maroubra Jn Anzac Pde & Maroubra Rd	Malabar Anzac Pde & Franklin St	Malabar Heights Anzac Pde & Bliga Cr	Little Bay Anzac Pde	La Perouse Anzac Pde loop

Monday to Friday													
AM	L94	&	p10:10	p10:13	p10:21	.....	.....	p10:34	p10:39	10:47	.....	10:51	10:53
	399	&	p10:19	p10:22	p10:31	.....	p10:37	p10:47	p10:52	11:00	11:10	11:12	.....
	L94		p10:25	p10:28	p10:36	.....	.....	p10:49	p10:54	11:02	.....	11:06	11:08
	393	&	.....	.....	.....	p10:25	p10:39	p10:49	10:55	.....	.....	.....	.....
	393	&	.....	.....	.....	p10:35	p10:49	p10:59	p11:05	11:13	.....	11:17	.....
	L94		p10:40	p10:43	p10:51	.....	.....	p11:04	p11:09	11:17	.....	11:21	11:23
	399	&	p10:48	p10:51	p11:00	.....	p11:06	p11:16	p11:21	11:29	11:39	11:41	.....
	393	&	.....	.....	.....	p10:54	p11:08	p11:18	11:24	.....	.....	.....	.....
	L94	&	p10:55	p10:58	p11:06	.....	.....	p11:19	p11:24	11:32	.....	11:36	11:38
	393	&	.....	.....	.....	p11:04	p11:18	p11:28	p11:34	11:42	.....	11:46	.....
	L94	&	p11:10	p11:13	p11:21	.....	.....	p11:34	p11:39	11:47	.....	11:51	11:53
	399	&	p11:18	p11:21	p11:30	.....	p11:36	p11:46	p11:51	11:59	12:09	12:11	.....
	393		.....	.....	.....	p11:24	p11:38	p11:48	11:54	.....	.....	.....	.....
	L94	&	p11:25	p11:28	p11:36	.....	.....	p11:49	p11:54	12:02	.....	12:06	12:08
	393	&	.....	.....	.....	p11:34	p11:48	p11:58	p12:04	12:12	.....	12:16	.....
	L94		p11:40	p11:43	p11:51	.....	.....	p12:04	p12:09	12:17	.....	12:21	12:23
399	&	p11:48	p11:51	p12:00	.....	p12:06	p12:16	p12:21	12:29	12:39	12:41	.....	
393	&	.....	.....	.....	p11:54	p12:08	p12:18	12:24	.....	.....	.....	.....	
L94	&	p11:55	p11:58	p12:06	.....	.....	p12:19	p12:24	12:32	.....	12:36	12:38	
PM	393	&	.....	.....	.....	p12:04	p12:18	p12:28	p12:34	12:42	.....	12:46	.....
	L94	&	p12:10	p12:13	p12:21	.....	.....	p12:34	p12:39	12:47	.....	12:51	12:53
	399		p12:18	p12:21	p12:30	.....	p12:36	p12:46	p12:51	12:59	1:09	1:11	.....
	393	&	.....	.....	.....	p12:24	p12:38	p12:48	12:54	.....	.....	.....	.....
	L94	&	p12:25	p12:28	p12:36	.....	.....	p12:49	p12:54	1:02	.....	1:06	1:08
	393		.....	.....	.....	g12:31	g12:45	u12:55	.....	.....	.....	.....	.....
	393	&	.....	.....	.....	p12:34	p12:48	p12:58	p1:04	1:12	.....	1:16	.....
	L94		p12:40	p12:43	p12:51	.....	.....	p1:04	p1:09	1:17	.....	1:21	1:23
	399	&	p12:48	p12:51	p1:00	.....	p1:06	p1:16	p1:21	1:29	1:39	1:41	.....
	393	&	.....	.....	.....	p12:54	p1:08	p1:18	1:24	.....	.....	.....	.....
	L94	&	p12:55	p12:58	p1:06	.....	.....	p1:19	p1:24	1:32	.....	1:36	1:38
	393		.....	.....	.....	g1:01	g1:15	u1:25	.....	.....	.....	.....	.....
	393	&	.....	.....	.....	p1:04	p1:18	p1:28	p1:34	1:42	.....	1:46	.....

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PM times - bold text

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PrePay-only bus stop or service - purple text

[http://www.sydneybuses.info/routes/393\\_20120318\\_tt.pdf](http://www.sydneybuses.info/routes/393_20120318_tt.pdf)



from La Perouse & Malabar to City via Anzac Parade													
TIMING POINT ▶	A	B	C	D	E	F	G	H	I	J	K	L	
▶ time period ▶ showing route number ▶ accessible service	La Perouse Anzac Pole loop	Little Bay Anzac Pole	Malabar Heights Anzac Pole & Bilga Cr	Malabar Anzac Pole & Franklin St	Maroubra Jn Anzac Pole & Maroubra Rd	Kingsford Anzac Pole	Moore Park Anzac Pole & Cleveland St	Railway Square Lee St	Darlinghurst Taylor Square	City - Martin Place Elizabeth St	City - Museum Liverpool & Elizabeth sts	City - Circular Quay Young St	
Monday to Friday													
AM ▼	L94	8:17	8:21	.....	8:27	p8:35	p8:45	.....	.....	p8:59	p9:11	.....	9:15
399		.....	8:14	8:16	8:27	p8:36	p8:46	p8:55	.....	p9:01	p9:15	.....	9:20
393		.....	8:23	.....	8:29	p8:37	p8:46	p8:56	9:09	.....	.....	.....	.....
393		.....	.....	.....	.....	.....	p8:50	p9:00	9:13	.....	.....	.....	.....
394		.....	.....	.....	.....	p8:45	p8:52	p9:01	.....	p9:07	p9:21	.....	9:26
393 &		.....	.....	.....	.....	p8:47	p8:54	p9:04	9:17	.....	.....	.....	.....
394		.....	.....	.....	.....	p8:48	p8:55	p9:04	.....	p9:10	p9:24	.....	9:29
393 &		.....	8:35	.....	8:41	p8:49	p8:56	p9:06	9:19	.....	.....	.....	.....
399 &		.....	8:29	8:31	8:42	p8:50	p8:57	p9:06	.....	p9:12	p9:26	.....	9:31
L94 &		8:38	8:42	.....	8:48	p8:56	p9:02	.....	.....	p9:16	p9:28	.....	9:32
399 &		.....	8:36	8:38	8:49	p8:57	p9:04	p9:13	.....	p9:19	p9:32	.....	9:36
393		.....	8:45	.....	8:51	p8:59	p9:06	p9:16	9:29	.....	.....	.....	.....
393 &		.....	.....	.....	.....	p9:05	p9:12	p9:22	9:34	.....	.....	.....	.....
L94 &		8:52	8:56	.....	9:02	p9:10	p9:16	.....	.....	p9:30	p9:39	.....	9:42
393		.....	8:56	.....	9:02	p9:10	p9:17	p9:27	9:39	.....	.....	.....	.....
399		.....	8:55	8:57	9:09	p9:17	p9:24	p9:33	.....	p9:39	p9:49	.....	9:53
393		.....	9:08	.....	9:14	p9:22	p9:29	p9:40	9:52	.....	.....	.....	.....
L94 &		9:05	9:09	.....	9:15	p9:23	p9:29	.....	.....	p9:44	p9:53	.....	9:56
393 &		.....	.....	.....	.....	p9:30	p9:36	p9:47	9:59	.....	.....	.....	.....
L94 &		.....	.....	.....	9:25	p9:33	p9:39	.....	.....	p9:54	p10:03	.....	10:06
393		.....	.....	.....	.....	p9:36	p9:42	p9:53	10:05	.....	.....	.....	.....
L94		9:25	9:29	.....	9:34	p9:42	p9:48	.....	.....	p10:03	p10:12	.....	10:15
393 &		.....	9:30	.....	9:34	p9:42	p9:48	p9:59	10:11	.....	.....	.....	.....
399 &		.....	9:26	9:28	9:40	p9:47	p9:54	p10:04	.....	p10:10	p10:20	.....	10:24
393		.....	.....	.....	.....	p9:52	p9:58	p10:09	10:21	.....	.....	.....	.....
L94		9:38	9:41	.....	9:46	p9:54	p10:00	.....	.....	p10:15	p10:24	.....	10:27
393 &		.....	.....	.....	.....	p10:02	p10:08	p10:19	10:31	.....	.....	.....	.....
L94 &		9:53	9:56	.....	10:01	p10:09	p10:15	.....	.....	p10:30	p10:39	.....	10:42
393 &		.....	10:00	.....	10:04	p10:12	p10:18	p10:29	10:41	.....	.....	.....	.....
399 &		.....	9:56	9:58	10:10	p10:17	p10:24	p10:34	.....	p10:40	p10:50	.....	10:54
L94 &		10:08	10:11	.....	10:16	p10:24	p10:30	.....	.....	p10:45	p10:54	.....	10:57
393 &		.....	.....	.....	.....	p10:32	p10:38	p10:49	11:01	.....	.....	.....	.....
L94 &		10:23	10:26	.....	10:31	p10:39	p10:45	.....	.....	p11:00	p11:09	.....	11:12
393 &		.....	10:30	.....	10:34	p10:42	p10:48	p10:59	11:11	.....	.....	.....	.....

times • normal text      PM times • bold text      (4)      PrePay-only bus stop or service • purple text

AM times - normal text

PM times - bold text

(4)

PrePay-only bus stop or service - purple text

Potential impact and stage	Rating and effects	Rating with mitigation or enhancement
Operations	<p><b>Significantly Positive</b></p> <p>When operation of the light rail begins and construction finishes, the removal of construction activity and introduction of public domain improvements should be seen as a significant positive to the area. Access to the area, and especially the University of NSW would be greatly enhanced. This would be particularly the case for people making trips from Central.</p> <p>The Kingsford retail precinct should benefit from greater accessibility and would have urban regeneration opportunities in conjunction with its designation as part of the Randwick Urban Activation Precinct. Urban amenity improvements associated with construction of the light rail may provide a unified Kensington/Kingsford corridor along Anzac Parade.</p> <p>Some residents living in <u>Maroubra</u>, La Perouse and other points south-east of the Kingsford terminus have expressed concerns about a possible reduction in express bus services to the CBD. The inclusion of the Opal ticketing system on light rail services should ease concerns about having to pay additional fares upon transferring from a bus to light rail service if required.</p>	<p><b>Significantly Positive</b></p> <p>Light rail stops would incorporate a high quality urban design that would reflect the precinct in which they would be located to assist in minimising impacts to visual amenity resulting from the provision of the CSELR proposal.</p> <p>Consultation would be required with stakeholders to identify potential opportunities to integrate CSELR public domain improvements with other city planning strategies to improve access to local community services and further enhance the public domain along the route.</p> <p>Where possible, public open spaces directly affected by the CSELR proposal would be reinstated as soon as practicable.</p>



Figure 5.4 Key CSELR interchange facilities

