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A Submission on the Sydney Light Rail Extension Stage 1– Inner West Extension Environmental Assessment

Prepared by: EcoTransit Sydney

Date: 12 November 2010

Authorised by the Executive Committee of EcoTransit Sydney

The submission (including covering letters) consists of:
20 pages

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12 November 2010

To whom it may concern,

Please accept this submission from EcoTransit Sydney regarding the *Sydney Light Rail Extension – Inner West Extension Environmental Assessment* prepared by Parsons Brinckerhoff for Transport NSW.

Application reference number: MP 10_0111

Attention: Diane Fajmon

This submission was prepared and submitted on behalf of the not-for-profit, sustainable transport advocacy group, EcoTransit Sydney, in response to the request for feedback.

Political Donations Disclosure Statement to the Minister or the Director-General

Please be advised that as per the requirements set out in the Environmental Planning Assessment Act 1979 and related legislation, EcoTransit Sydney has not made any donations or gifts exceeding \$1000 in the relevant period.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'J. Bignucolo', written in a cursive style.

John Bignucolo
Secretary
EcoTransit Sydney

1 Summary

EcoTransit Sydney is writing in support of the Sydney Light Rail Inner West Extension as outlined in the Environmental Assessment.

The Rozelle freight rail line has existed as a transport corridor for a century and its planning controls and zoning reflect that purpose. Changing demographics and land use have meant that it also represents an opportunity for a significant addition to public transport capacity and local amenity in the Inner West at comparatively little cost, and all that flows from that in terms of personal mobility, access to sustainable transport for all members of the community, alleviating road congestion and addressing climate change.

The opportunity of fully employing an existing, grade-separated double track rail line that passes through a built-up area where existing public transport has reached or exceeded capacity is too good to miss. Instead of freight, light rail will move people – quietly, quickly, conveniently and frequently.

EcoTransit Sydney is strongly supportive of the NSW Government's policy outcome, as set out in the Metropolitan Transport Plan¹ to extend the light rail service beyond Lilyfield to Dulwich Hill using the Rozelle rail freight line and boost public transport capacity in the Inner West.

The determination to maintain a dual track configuration along the entire route is absolutely the correct decision. It will maximise reliability, service flexibility and frequency while reducing the costs of the extension by avoiding the more complex signalling systems needed for a single track operation.

The criteria used in the selection of stop locations has resulted in a sound proposal for a set of light rail stops. EcoTransit Sydney welcomes the recognition of the importance of locating stops as close as possible to significant interchange locations with heavy rail and bus services. Also welcome was the willingness to locate stops so as to connect with facilities and areas of local significance.

EcoTransit Sydney strongly supports retention of the Waratah and Arlington stops, and strongly opposes the proposal, canvassed during community consultations following the release of Transport NSW July 2010b, that they be replaced by a single stop at Hill St/Terry Rd.

EcoTransit Sydney recommends that the NSW Government take advantage of the opportunity presented by the light rail extension to reconsider its determination to exclude the light rail service from the MyZone ticketing scheme.

In the context of the Environmental Assessment's analysis of the GreenWay, EcoTransit Sydney is supportive of the preferred options for:

- A largely in-corridor, off formation, shared path along the west side of the double-track light rail line.
- A cycling/pedestrian bridge over Parramatta Road.

The maintenance of path continuity and grade separation by the provision of underpasses at the road bridges passing over the rail line is a welcome and noteworthy outcome.

With regard to the options listed in §6.4 “Alternative schemes with the project,” EcoTransit Sydney supports:

- The alternative scheme for a new pedestrian and cycle bridge over Marion Street. (§6.4.1)

¹ Metropolitan Transport Plan – <http://www.nsw.gov.au/metropolitantransportplan>

EcoTransit Sydney does not have a particular preference on the option for:

- Locating the GreenWay shared path within the rail corridor in the vicinity of Waratah Mills and Weston Street; (§6.4.2)

The preferred option for an on-street cyclepath along Weston Street described in the Environmental Assessment is one to which EcoTransit Sydney is not opposed.

We are strongly opposed to:

- The two alternative locations of the Dulwich Hill Interchange stop. (§6.4.3)

The submission concludes with a brief summary of the *City West Cycle-Link*, a proposal from EcoTransit Sydney that would provide a grade-separated cycling and pedestrian facility connecting the northern end of the GreenWay cycleway at Lilyfield to the Anzac Bridge, without requiring the use of the rail formation. The proposal would provide a shared path subway under the City West Link Road, bypassing James, Norton and Henry Streets and Derbyshire Road. It would subsequently connect to the Anzac Bridge cycleway at White Bay.

By virtue of its close proximity to the entrance of the City West Cycle-Link subway, we note the opportunity at the Leichhardt North light rail stop to construct an integrated, closely coupled interchange providing access to light rail, walking and cycling facilities. EcoTransit Sydney suggests that the Department of Planning coordinates with Transport NSW and the Roads and Traffic Authority to investigate it as a supplementary project.

2 Track Configuration

The Rozelle freight rail line has existed as a dual track transport corridor for a century and its planning controls and zoning reflect that purpose. Changing demographics and land use have meant that it also represents an opportunity for a significant addition to public transport capacity and local amenity in the Inner West at very little cost, and all that flows from that in terms of personal mobility, access to sustainable transport for all members of the community, alleviating road congestion and addressing climate change.

EcoTransit Sydney is in strong agreement with the conclusion outlined in §5.1.2 “Track configuration and route length” of the report for the maintenance of a double track configuration along the entire length of the light rail route from Lilyfield to Dulwich Hill.

There is a welcome recognition in the Environmental Assessment report of:

- How valuable a piece of urban rail transport infrastructure the Rozelle freight line actually is, and the importance and benefits of maintaining a double track configuration along the entire length of the existing rail line;
- Its importance in public transport and land use planning terms for the broader Inner West;
- An acknowledgement of the corridor's ability to service a broad cross-section of the community including public transport users, cyclists and pedestrians;
- A recognition of the potential network benefits that an extended light rail service would offer in terms of substantial trip substitutions and in connecting to other public transport modes, particularly bus routes and the heavy rail network at Dulwich Hill and Lewisham.

2.1 Parramatta Road underbridge

EcoTransit Sydney welcomes the Environmental Assessment's endorsement of Option 2, as described in §5.1.2 “Parramatta Road underbridge, which would raise the existing Parramatta Road rail bridge by approximately 0.5 metres. Raising the bridge will remove the potential operational risk to the light rail service posed by trucks colliding with, and damaging the rail bridge.

2.2 Alternate proposals for the rail corridor

In addition to a dual track extension of the light rail to Dulwich Hill, other proposals have been put forward that favour other uses of the rail corridor. Chief among them have been proposals to convert the rail corridor into a cycling route where the cycleway is located on one or both tracks of the formation. EcoTransit Sydney believes this would yield a poor outcome for the broader community.

There are several underlying assumptions to the alternate proposals for providing – at best – a single track for light rail west of Lilyfield:

- That demand for public transport in the Inner West has not saturated available capacity nor is congestion on our roads a constraint on an extension of bus operations;
- That adding a high capacity², flexible grade-separated public transport mode, offering a

² http://en.wikipedia.org/wiki/Light_rail#Capacity_of_light_rail_versus_roads

north-south cross-connection to the heavy rail system and bus routes offers little in the way of broad community benefit;

- That a single track is sufficient for light rail, which is invariably derided as a comparatively low capacity and low frequency service and that questions of dual versus single track configuration are not relevant to the *viability* of the light service from the point of view of an operator;
- That providing a constrained *boutique* service is sufficient for the Inner West, even though it would offer little or no utility or community benefit as a transport mode, and is a worthwhile use of a valuable, publicly-owned transport corridor.
- That no provision can be made for a cycleway located almost wholly within the rail corridor.

Consequently, according to this view, one or both of the existing rail tracks should become a cycleway.

EcoTransit Sydney is not persuaded of the validity of this view, as it runs counter to the experience of the existing light rail service, whose patronage has continued to grow despite higher fares and its unjustified exclusion from MyZone and transport fare concession schemes.

The existing light rail service to Lilyfield uses a double track configuration. We note that cycling and GreenWay proponents continue to advocate for the allocation of at least one of the tracks through the Lilyfield cutting for use as a veloway³. Introducing an arbitrary dual track/single track operational disjunction at Lilyfield would be contrary to the practical operation of the light rail service and the interests of the commuting public. This would also run counter to the operational benefits in having two tracks available along the entire route, particularly in terms of turn-around and service frequency, while maximising flexibility and fault tolerance.

For example, the benefits to the Maryland Transit Administration when it upgraded from single to double track were described in the following terms⁴:

At the time that the Maryland Transit Administration (MTA) constructed the Central Light Rail Line serving the Baltimore metropolitan area, funds were not available to make the entire 29-mile system double-tracked. Twelve miles of the system were single track only, which over the years has resulted in operations, capacity and maintenance problems. JMT, in joint venture, designed the double tracking for two of the eight single track segments, between the Linthicum and Cromwell stations. The addition of a second track gives MTA much greater flexibility in scheduling and greatly reduce safety concerns throughout the Central Light Rail Line system.

The opportunity of fully employing an existing, grade-separated double track rail line that passes through a built-up area where existing public transport has reached or exceeded capacity is too good to miss. Instead of freight, light rail will move people – quietly, quickly, conveniently and frequently.

³ Their broader plan calls for a single track as far as the Lewisham West stop, after which both tracks would be used for a veloway to Dulwich Hill.

⁴ JMT Corp – <http://www.jmt.com/popups/doubletrack.html>

3 Stop Locations

EcoTransit Sydney is in agreement with the strategic criteria used to determine stop locations as set out in Chapters 5 and 6 of the Environmental Assessment. The resulting set of stop locations, shown in Figure 5.1, is one with which EcoTransit Sydney is largely in agreement. This is particularly the case with the following stops:

- Lewisham West, providing an interchange with the heavy rail network at Lewisham Station
- Arlington, which connects to the Dulwich Hill shops and sporting amenities at Summer Hill;
- Dulwich Grove, which provides an interchange to the bus services travelling along New Canterbury Road
- Dulwich Hill Interchange, which provides an interchange with buses and the heavy rail network at Dulwich Hill station.

EcoTransit Sydney would urge that Transport NSW continue to place a very high priority on ensuring that light rail stops are situated so as to permit the tightest possible integration of light rail with bus and heavy rail services, and the smooth, quick transfer of passengers between modes. This would be in keeping with accepted best practice in public transport network design.

The provision of these modal interchanges will be a crucial factor in ensuring high patronage levels on the light rail service, and for maximising the convenience, connectivity and utility of the service for the commuting public.

3.1 Lewisham West stop

The separation of the Rozelle freight line from Lewisham Railway station, coupled with land use developments in the immediate area presents a challenge for the provision of an effective interchange between the light rail and heavy rail networks at Lewisham.

EcoTransit Sydney supports the proposal to locate the Lewisham West light rail stop between Longport Street and Old Canterbury Road. ***We would urge, however, that the stop be located so that it does not preclude the possibility of it serving as a viable transport interchange between the light rail and heavy rail networks. This is best achieved by locating the stop as far north (ie close to Longport Street) as possible.***

Based on discussions with officers from Transport NSW and Marrickville Council, it has been estimated that locating the stop adjacent to Hudson Street will force passengers to walk over 500m when changing between the light and heavy rail networks. This is far too long a distance for it to be considered a viable transport interchange and runs counter to one of the key transport design principles of the light rail extension.

EcoTransit strongly recommends that the Lewisham West stop be moved further north to a position where it would provide the quickest, most convenient possible pedestrian link between the Lewisham West stop and Lewisham Station. This link is vital because it will enable light rail to act as a feeder to the Main Western line and as a convenient shortcut between the Bankstown and Main Western lines, thereby taking pressure off Redfern Station. Over time, and with the integration of light rail into the MyZone scheme, these functions will assume considerable importance.

In this case, the location of the stop should be considered in relation to the design for the two developments proposed for either side of the light rail line, but particularly the Lewisham Estate redevelopment. This is because a quick, safe and convenient access route between the light rail stop and the station must necessarily pass through the proposed Lewisham Estate redevelopment and its success will rely on being integrated with this development.

In particular the pedestrian link must avoid at-grade road crossings since the surrounding roads are very busy. By locating the stop further north and applying the principles of Transit Oriented Development, an opportunity would exist for creating a shorter, more direct connection between the light rail stop and Lewisham Station.

The best, most direct route for this link is shown in Illustration 3.1. Passengers transferring from the light rail stop to Lewisham station would traverse the proposed retail precinct of the Lewisham Estate development. Passing through an active shopping precinct will offer an enhanced level of convenience and personal safety for passengers.



Illustration 3.1: Connecting the light and heavy rail networks at Lewisham

After exiting the shopping precinct, stairs and a lift would provide access to a bridge over Longport Street and then Old Canterbury Road before entering the west end of the westbound Lewisham platform. Direct access to the west end of the Lewisham Station should be supplemented by a subway connection (serviced by lifts) between the platforms at the west end of the station.

We note that the NSW government's proposed integrated electronic ticketing scheme would allow tag on/tag off facilities to be located at either end of Lewisham Station, and obviate the need for the

single egress points currently favoured for ticketing control.

The resulting connection would be approximately 270m in length. This scheme would allow a stop to station transfer time of about 2 min. 30 secs, which is very reasonable. It compares with, say, walking from Platform 22 at Central to the Eddy Avenue bus rank or light rail stop, or transferring from the city to the country platforms.

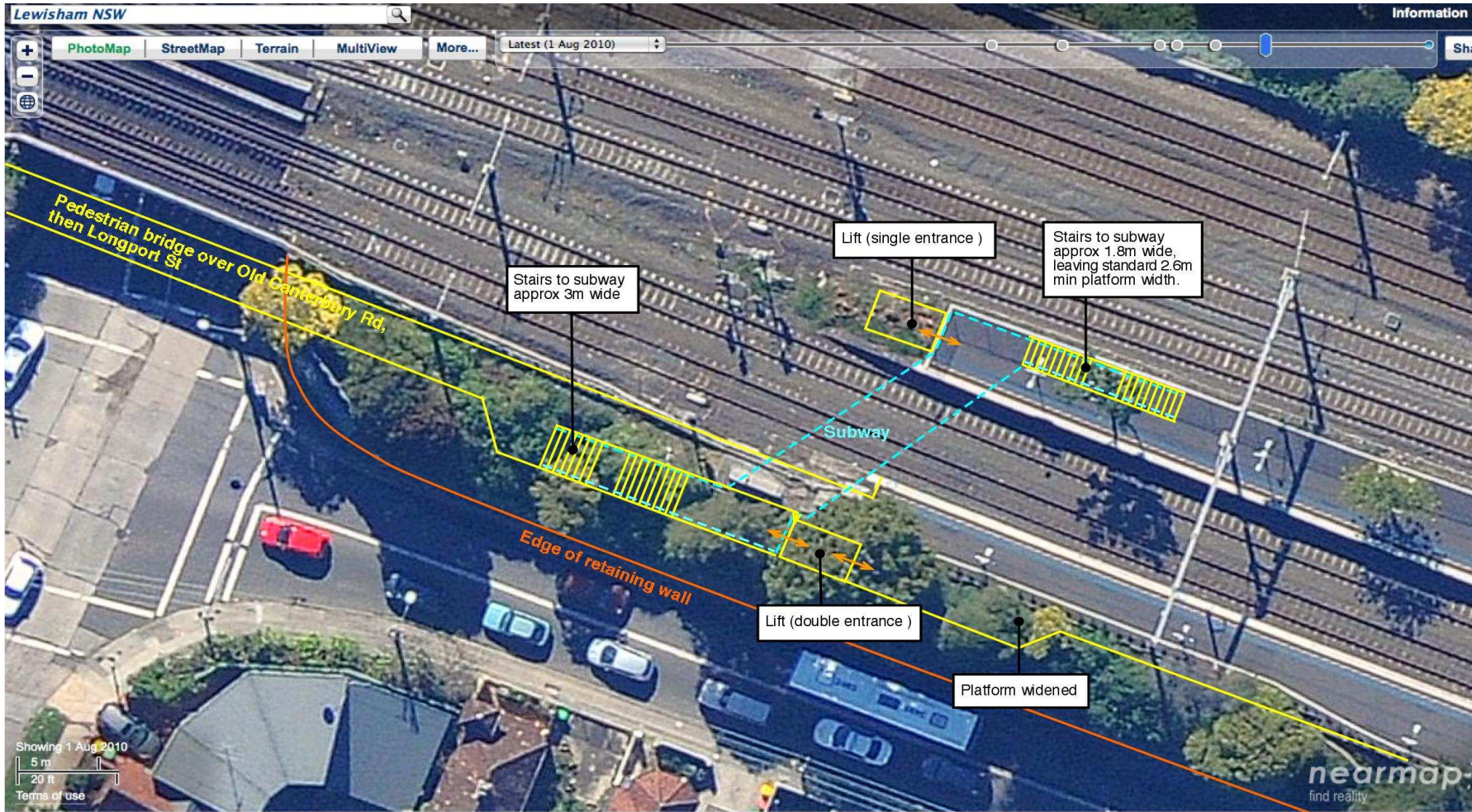
The only currently feasible alternative to this scheme is an on-street route involving a signalised pedestrian crossing of Old Canterbury Road (opposed by the RTA) and a walking route via Henry and Victoria streets involving a walk of over 500m. Access via the heavily trafficked Railway Terrace should be ruled out because the footpath is narrow, dangerous and unpleasant to use.

Locating the stop as suggested by EcoTransit Sydney does not affect its ability to effectively service the desire lines associated with the Lewisham Estate and Allied Mills developments. For example, residents and light rail passengers will still have easy access the Hudson Street axis connecting to Old Canterbury Road.

EcoTransit Sydney acknowledges that construction of the proposed connection is outside the scope of the light rail extension project. However, its feasibility is predicated on the location of the Lewisham West light rail stop chosen by this project.

This scheme could be accomplished in two stages: initially a simple at-grade pedestrian access to the western end of the west-bound platform of Lewisham Station then, later, the inter-platform subway with lifts, stairs, etc, could be done in conjunction with RailCorp works intended to bring Lewisham Station into conformance with accessibility standards. Such a scheme would be an ideal application of Section 94 funding resulting from the Lewisham redevelopments and would be supplementary to an accessibility upgrade to the existing station entrance and underpass that included lifts. A concept plan for the connection at Lewisham Railway Station is shown in Illustration 3.2.

EcoTransit strongly recommends that Transport NSW convene a taskforce with representatives of all relevant state and local government agencies, with input from the Lewisham Estate developers to plan for and enable implementation of this scheme.



Lewisham Station – Light Rail Stop Link
 Proposal for subway connecting Inner West line platforms

EcoTransit Sydney
 August 2010

Gavin Gatenby, EcoTransit Convenor
 9567 8502

Illustration 3.2: Lewisham Railway Station connection

3.2 Dulwich Hill Interchange stop

EcoTransit Sydney is strongly supportive of the preferred location and design of the Dulwich Hill Interchange stop. It is ideally situated to maximise the benefit from its role as an interchange between the light rail, heavy rail and bus networks, and its placement in a cutting will minimise operational noise impacts.

Given the decades-long operational lifetime of the asset, the long-term community and operational benefits accruing from the preferred Dulwich Hill Interchange stop location justify the modest additional construction costs referred to in the Environmental Assessment. As such, it is strongly preferred to the alternative stop locations described in §6.4.3.

Motivated by the critical importance of fast and convenient mode interchange at Dulwich Hill, EcoTransit has proposed that if the double-sided platform design shown in the preferred location is ruled out for reasons related to the width (and therefore trafficability) of Bedford Crescent, a single-sided, double-length platform, which is the next best operational solution, should be preferred to the two alternative stop locations canvassed during the community consultation.

We are opposed to the two alternative locations, shown in Figures 6.35 and 6.35, as these would mean a much longer walk between the stop and the station and would therefore unnecessarily increase transfer times between light and heavy rail and buses and for these reasons they should be ruled out of consideration.

3.3 Hill St/Terry Rd alternative stop

During community consultations following the release of the *Stage 1 Light Rail Extension Product Definition Report*⁵, it was noted that one of the options presented for discussion was the replacement of the Waratah and Arlington stops with one at Hill St/Terry Rd.

While not listed as an option in the Environmental Assessment, EcoTransit Sydney would like to take this opportunity to express its strong support for the retention of the Waratah and Arlington stops and its objection to the proposal that they be replaced by a single stop at Hill St/Terry Rd.

The primary basis of the objection to the single Hill St/Terry Rd stop would be the negative impact it would have on patronage and accessibility. One can compare the number of properties that fall within the 400m walking catchment of each stop, as shown in Illustration 3.3.

Those areas marked in white indicate the properties that would fall outside the 400m patronage catchment as a consequence of substituting the Hill St/Terry Rd stop for the Waratah and Arlington stops. These areas include several medium density developments, and given typical occupancy rates, correspond to 1200 residents.

The loss of convenience and amenity for these community members would not be balanced by any equivalent benefit associated with the Hill St/Terry Rd stop.

EcoTransit Sydney believes that there additional arguments in favour of the Arlington stop that further weaken the case for the Hill St/Terry Rd option:

⁵ Transport NSW July 2010b.

- The extensive medium density residential developments in its vicinity which would fall outside the 400m walking catchment if the Hill/Terry option were selected;
- The existence of a regionally important sporting venue and recreational facilities in the immediate vicinity;
- It services an area to the west that is inside the 800m walking catchment (e.g. Trinity Grammar School) that is not inside the 800m catchment of either of the other two adjacent stops⁶.
- The access it would provide to the Dulwich Hill shopping strip.

⁶ GHD July 2010B, p. 25.

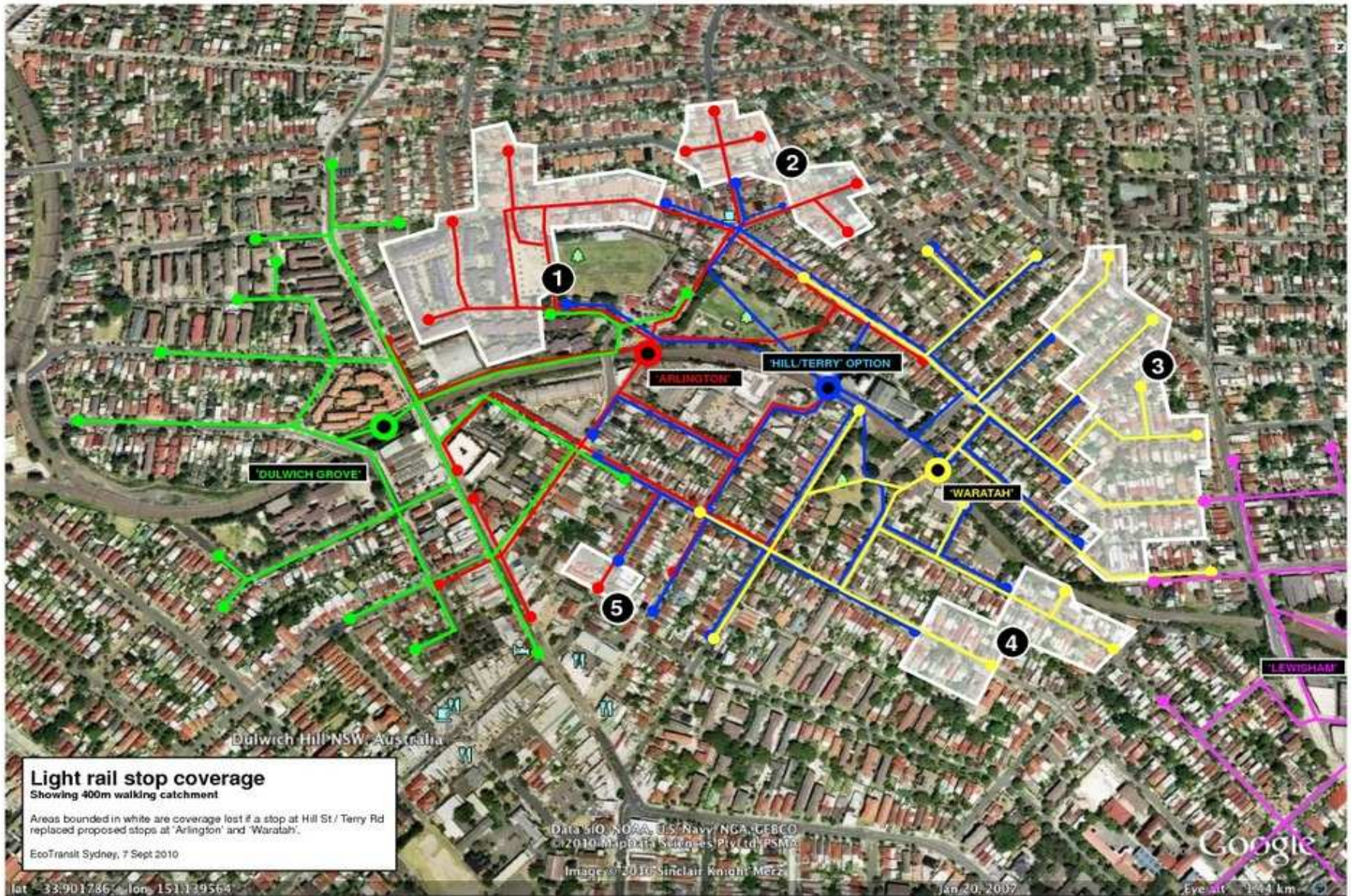


Illustration 3.3: Light rail stop coverage

3.4 Naming principles for stop locations

It is EcoTransit Sydney's view that the selection of stop names contains some that are unhelpful from the point of view of "wayfinding". We feel that some of the stop names suggested bear a closer relation to the usually short-lived locality names beloved of real estate marketing which are designed to convey a sense of status rather than geographical accuracy. In this category we would definitely place 'Arlington' and 'Dulwich Grove'.

It is important that stop names should give light rail travellers a distinct idea of geographical location, particularly when this may involve transfers to other modes. It is preferable therefore to call a stop located at New Canterbury Road just that. This area has never, to the best of our knowledge been called 'Dulwich Grove' and there is certainly no grove there. If it is named that it will inevitably be necessary to add "Alight here for New Canterbury Road bus stops" or some similar formula.

The Arlington sporting ground is far less well known than the co-located Johnson Park. Constitution Road is a well known route and the stop should be named after it or Johnson Park.

The stop tentatively named Taveners Hill would be far better called either Parramatta Road (because of the bus interchange function) or Battle Bridge, a widespread vernacular name, which gives a more precise idea of its location.

4 Fares and Ticketing

The discussion in §10.3 "Patronage forecasts" invariably leads to a consideration of the effects on patronage of the exclusion of the light rail service from the NSW Government's MyZone ticketing scheme. In light of the recently announced Metropolitan Transport Plan and its commitment to a significant extension to light rail services in the Inner West and CBD, EcoTransit Sydney would urge the government to review its determination⁷ that the light rail service be excluded from the MyZone integrated fare structure scheme.

We note that the current and proposed light rail network falls completely within the *MyMulti1* region – the region with the highest public transport modal split in Sydney. Public transport users, particularly those commuting in the Inner West and Inner City, would benefit from having light rail seamlessly integrated with the other elements of the broader public transport network via MyZone.

From the point of view of a passenger travelling on the public transport system, the exclusion of the light rail service from MyZone (whether from multi-zone tickets or absent a *MyTram* single-mode option) makes little sense and serves as an effective disincentive to using the service. It also runs counter to the stated – and sound – modal integration and fare structuring principles underpinning the MyZone scheme⁸:

The new fare structure offers:

- *standard fares regardless of where you live and where you are travelling*
- *the benefits of broad fare bands without the disadvantages of a physical geographic boundary*

⁷ As outlined in the Frequently Asked Questions for MyZone – <http://www.myzone.nsw.gov.au/faq.html>

⁸ MyZone FAQ "General" Section – *Why has the NSW Government introduced this fare structure?*

- *greater integration through the introduction of multi-mode tickets across CityRail, Sydney Ferries, State Transit and private bus services*
- *standard multi-trip tickets on public and private buses in the greater metropolitan area*
- *large benefits for commuters who travel more often or over longer distances*

It is incongruous and inconsistent that *private bus services* are deemed suitable for inclusion in MyZone, but the current light rail service and its soon to be operational extensions are not. The stated reason:

Unlike private buses, these [ie light rail] services are operated without a Government subsidy and existing ticketing arrangements for these services will therefore apply.

overlooks the fact that private bus services formerly operated without a Government subsidy as a matter of public policy.

It was the Government that chose to alter this arrangement, motivated by the desire to achieve better integration, simplified fare structures and improved service delivery for passengers. It is difficult to follow the government's reasoning as to why it is sound public policy to extend subsidies to one public transport mode, namely the private bus industry by, for example:

- Spending hundreds of the millions of dollars on purchasing buses for private operators;
- Extending support for Pensioner Excursion Tickets and school passes under the School Student Transport Scheme.

while at the same time penalising another public transport mode, namely light rail, by excluding it from the MyZone scheme and its associated operational and ticketing benefits.

Passengers will be reminded on a daily basis of the incongruity, and the plain frustrating inconvenience of excluding light rail from the MyZone scheme when one observes the extent to which the current (and soon to be extended) light rail network is physically adjacent to other public transport modes, such as heavy rail and buses.

For example, a passenger intending to board the light rail at Dulwich Hill and alight at Lewisham in order to connect with the main Western heavy rail line will be unable to use their MyZone ticket for this part of their journey. They will reasonably ask why physical integration and fare integration are seemingly beyond the policy and technical capacity of the NSW Government?

EcoTransit Sydney is aware of the covenant between the NSW Government and the operators of the light rail that requires the service to be operated without a Government subsidy. We are also aware of a previous determination by former Transport Minister Michael Costa that deemed light rail a “luxury” service, apparently on par with taxis.

The characterisation of the light rail as a “luxury” service is an inaccurate description of its current operational profile and fails to take into account the service benefits that will result from the extensions from Lilyfield to Dulwich Hill and from Haymarket to Circular Quay via Barangaroo⁹. These include:

⁹ NSW Government February 2010a, “An expanded light rail network,” p. 32.

- Enhanced cross network connectivity by, for example, offering a direct north-south connection between the main Western and Bankstown lines for Inner West commuters;
- Increases in patronage flowing from the broader passenger catchments along the extended routes;
- Directly, and sustainably, servicing the immense trip generator centered on the Barangaroo precinct.

For the travelling public, these benefits will not be fully realised if the light rail service remains segregated from the integrated fare system providing by the MyZone scheme. The nonsensical nature of the segregation is underscored by noting the extent to which the (present and future) light rail network is physically adjacent to other transport modes, whether they be the heavy rail or bus networks. According to the NSW government's apparent reasoning, being able to use the same ticket when alighting at a train station and then boarding a (private) bus represents a worthy societal and public transport outcome, but alighting at a light rail stop and then boarding a bus does not.

At the present time, approximately 3.5 million trips are made on the light rail service each year, and the service has enjoyed steady year-on-year growth in passenger numbers. In response to an enquiry from EcoTransit Sydney concerning the number of journeys undertaken by periodical ticket holders, Metro Transport Sydney reported in early 2008 that:

- 20% of patronage comes from weekly or annual ticket holders.
- Research showed that roughly 50% of all trips are made for work or business purposes.
- Most trips are by regular passengers who travel at least once per week, and many travel every day.

These are hardly the characteristics of a “luxury” or “boutique” service.

EcoTransit Sydney is supportive of the improvements that will flow from the integration of Sydney's public transport network via the MyZone ticketing scheme. However, the scheme as it stands fails to recognise the value of the (current and future) light rail service to Inner West and Inner City residents. Excluding light rail from the MyZone ticketing scheme will disadvantage it as a transport mode, effectively suppressing passenger demand. It militates against the NSW Government's stated policy aim of reducing road congestion through improvements in the utility and coverage of the public transport system, and thereby encouraging people out of their cars and onto public transport.

5 Greenhouse gases and energy usage

In addition to the mitigation measures for operational emissions outlined in Chapter 15 “Greenhouse gases and energy,” EcoTransit Sydney would strongly urge that the NSW government require of the operator of the light rail service that it use electricity generated from renewable sources.

6 GreenWay Cycleway alignment options

In the context of the Environmental Assessment's analysis of the GreenWay, EcoTransit Sydney is supportive of the preferred options outlined in §5.2 “Greenway shared path options” for:

- A largely in-corridor, off formation, shared path along the west side of the double-track light rail line.

- A cycling/pedestrian bridge over Parramatta Road.
- A pedestrian/cycling bridge over Marion Street (as outlined in §6.4.1)

The maintenance of path continuity and grade separation by the provision for underpasses at the road bridges passing over the rail line is strongly supported by EcoTransit Sydney. This is a sound design decision and will deliver an excellent long term outcome for cyclists and pedestrians, ensuring a safe, direct, continuous, grade-separated facility along the length of the light rail extension.

EcoTransit Sydney acknowledges that the GreenWay shared path in the vicinity of Weston Street does present a dilemma due to the conflicting requirements of vegetation and habitat remediation on the one hand, and changes to existing road treatments to accommodate future increases in cycling numbers that could conceivably affect local residents.

EcoTransit Sydney notes the validity of the rationale set out in the Environmental Assessment for the preferred option of diverting the cycleway along Weston St, given:

- The narrowness of the rail corridor in the vicinity of Weston Street and the resulting close proximity of the shared path and the rail formation;
- The presence of the Hawthorne Canal, which further complicates the task and increases the cost of extending the shared cycleway along this portion of the rail corridor;
- The very low number of car movements along Weston Street which would justify its designation as a low speed, local traffic area that would require little in the way of bicycle-specific road treatments¹⁰;
- The short additional distance associated with the deviation that would suggest it would have little effect on trip times;
- The need to provide for additional security and privacy measures given that an in-corridor shared path would be adjacent to the rear yards of residents;
- The negative effect on bushcare sites, remnant habitat and vegetation of extending the cycleway through this section of the corridor.

The relatively lightly trafficked nature of many of the roads along the rail corridor presents an opportunity for the creation of a zone, or *trellis*, of cycle-friendly low-speed streets on either side of the rail corridor. As well as enhancing local amenity, such a precinct would maximise both light rail patronage and cycle-commuting and would constitute, at minimal expense, a model for such arrangements which could be implemented elsewhere. The idea has been described¹¹ in the following terms:

Creating a Trellis

A quiet street network providing easy and safe connections to a GreenWay "spine", improving active transport accessibility across the rail corridor and Hawthorne Canal and providing for improved streetscapes, amenity, stormwater management and biodiversity. This concept was put forward at the Marrickville Belonging community leaders project as the "Marrickville Trellis", to capture themes of a growing, linking, network which provided security and greater greenery. Such a network could be implemented progressively in conjunction with local initiatives for water sensitive urban design, traffic calming, bushcare

¹⁰ See RTA Bicycle Guidelines 2005

¹¹ Marrickville Shire Council 2009, p. 7

and community gardens;

With regard to the alternative scheme described in §6.3.2 of extending the shared path along the corridor in vicinity of Weston Street, EcoTransit Sydney acknowledges that such a solution is possible, but would require careful design and engineering practice, as suggested in the Environmental Assessment. If the in-corridor option is solution is adopted, all possible measures should be undertaken to maintain the ability of the west side of the line to act as a viable wildlife corridor.

In order to minimise the impact on remnant vegetation in the narrow space available, the path should, wherever possible, use the airspace above Hawthorne Canal. Dense hedge-like habitat planting could be used to separate the shared path from the rail line. Additional measures would also be required to maintain privacy and to prevent access from the shared path to the rear yards of residents in accordance with the *crime prevention through environmental design* principles noted in §6.3.2 of the Environmental Assessment.

Compared with the diversion along Weston Street, an in-corridor route would offer a slightly more direct route for pedestrians and cyclists. Should path utilisation increase in the future, additional cyclists and pedestrians could be accommodated without affecting the amenity presently enjoyed by Weston Street residents.

6.1 Pedestrian and cycling bridge over Marion Street

EcoTransit Sydney supports the option outlined in §6.4.1 “Pedestrian crossing at Marion Street” for a new pedestrian and cycle bridge over Marion Street. From the point of view of commuting cyclists (and pedestrians) the indicative design, with the cycleway bridge located on the west side of the rail bridge, has several advantages over a signalised crossing:

- Cyclists will not be forced to slow down, or stop for several minutes, thereby maintaining their momentum and the continuity of their journey;
- It would connect directly to the cycleway adjacent to the Hawthorne Canal (in Richard Murden Reserve);
- It would maintain the separation of cyclists from busily trafficked roads that is a feature of the rest of the cycleway;
- It avoids the risk of collision with buses and cars on what is a busily trafficked road and bus route;
- The northern portion of the GreenWay cycleway will likely be the busiest section, drawing cyclists from the Leichhardt, Ashfield and Marrickville LGAs, and connecting to the regional bicycle route to the CBD along Lilyfield Road.
- Given the importance of Marion Street as a traffic and bus route between Haberfield and Leichhardt, EcoTransit Sydney doubts that the Roads and Traffic Authority and Sydney Buses would agree to a signalised pedestrian crossing being installed on Marion Street at the proposed location. Nor that those agencies would agree to Marion Street being traffic-calmed as a means of reducing risk and conflict for pedestrians and cyclists using the crossing.

The above factors suggest that there is a strong long-term community benefit in providing a

pedestrian and cycling bridge over Marion Street.

7 Crafting a cycleway connection with the Anzac Bridge

EcoTransit Sydney is of the view that based on the estimates and projections outlined in the Environmental Assessment, the light rail extension to Dulwich Hill will offer an excellent service for public transport commuters in the Inner West, and the GreenWay shared cycleway will facilitate an increase in commuter cycling usage to Leichhardt and the CBD.

While acknowledging that the scope of this submission is limited, like the Environmental Assessment, to consideration of the *Sydney Light Rail – Stage 1 – Inner West Extension* project, EcoTransit Sydney would urge the NSW government to consider the broader transport network outlook for cyclists and investigate how it might also improve the connection for cyclists from the end of the GreenWay at Iron Cove to the CBD. This will require a coordinated approach from the Department of Planning, the Roads and Traffic Authority and Transport NSW.

To that end, EcoTransit Sydney has proposed a cycling and pedestrian facility called the *City West Cycle-Link*¹² that extends from the end of the GreenWay at Iron Cove to the Anzac Bridge. This facility would:

1. Provide a cycling and walking tunnel running across and under the City West Link Road, from Darley Road in the west to Derbyshire Road in the east.
2. Closely integrate with the proposed Leichhardt North light rail stop.
3. Connect with local street and benefit pedestrians who would no longer need to cross the slip lane running from the City West Link Road onto Darley Road;
4. Allow cyclists to bypass the climb up Lilyfield Road between the Hawthorne Canal and James Street;
5. Connect with and extend the cycling route along Darley Road proposed as part of the GreenWay project;
6. Provide a grade-separated alternative to Lilyfield Road by creating a comparatively flat and direct connection to the Anzac Bridge cycleway at White Bay via the Lilyfield rail cutting and the Rozelle rail lands.
7. When coupled with the GreenWay cycleway running along the western alignment between Dulwich Hill and Lilyfield, provide an essentially grade-separated route for cyclists and pedestrians between Dulwich Hill and Pyrmont via the Anzac Bridge.

7.1 Leichhardt North Stop and the City-West Cycle-Link

In addition to integrating with bus services, the Leichhardt North stop also has the potential to integrate with enhanced pedestrian and cycling facilities, by virtue of its location immediately adjacent to the entrance of the City West Cycle-Link subway and tunnel proposed by EcoTransit Sydney.

The location affords the government an opportunity to create an integrated, well designed and closely coupled interchange providing access to light rail, walking and cycling facilities, and

¹² <http://www.ecotransit.org.au/ets/citywest-cyclelink>

improved connections with local streets. The resulting additional access for pedestrians and cyclists would also increase the flow of people in the vicinity of the stop, enhancing the sense of safety of light rail commuters.

We note the benefit of the Cycle-Link subway to pedestrians who would no longer need to cross the slip lane running from the City West Link Road onto Darley Road. We would encourage the government to coordinate construction of the subway with the works associated with constructing the Leichhardt North light rail stop.

8 References

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