



**Submission to Department of Planning and Infrastructure
Sydney CBD and South East Light Rail Project
(SSI 6042)**


**Prepared on behalf of
Wansey Road Action Group**

December 2013

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1. EXECUTIVE SUMMARY

The Central Business District and South East Light Rail Project (CSELR) comprises the construction and operation of a new light rail service, including approximately 12 kilometres of new light rail track from Circular Quay to Central, Kingsford and Randwick via Surry Hills and Moore Park. Part of the route of the CSELR, between Anzac Parade Kensington and Randwick, includes the whole of Wansey Road Randwick.

The Wansey Road Action Group (WAG) represents all property owners in Wansey Road, Randwick excluding seven residences owned by University of NSW. While WAG is supportive of this new public transport initiative, unless elements of the proposal are altered the light rail network will fundamentally alter the character and amenity of Wansey Road, in addition to creating various ongoing operational problems.

The purpose of this submission is to request that the alignment of the CSELR be altered to avoid Wansey Road by utilising land that is available within the Royal Randwick Racecourse, as shown in the image below:

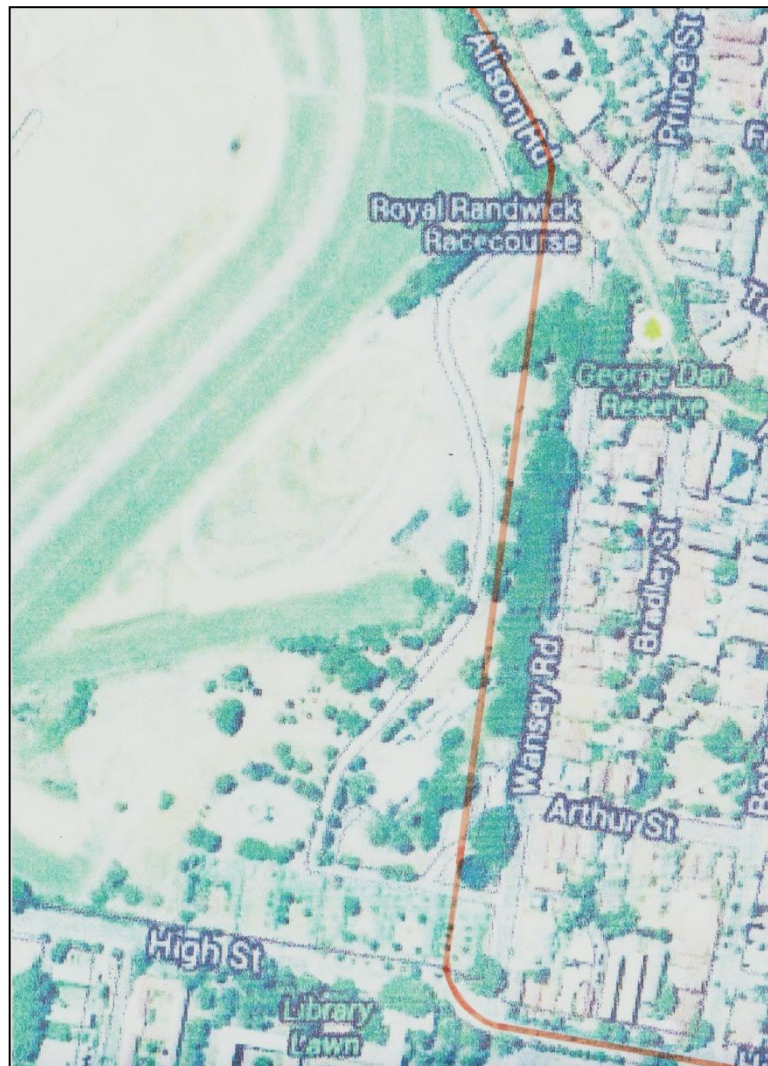


Figure 1: WAG preferred alignment for the CSELR in the vicinity of Wansey Road

This re-alignment fully satisfies the key elements considered for the design of this section of the CSELR, as noted at section 4.3.3 of the EIS, and being:

- No displacement of kerbside parking;
- No impacts to local traffic flow as Wansey Road can remain in its current configuration;
- The line would not be located in proximity to trees in Royal Randwick Racecourse directly adjacent to the Wansey Road footpath;
- It would not require re-engineering of the retaining wall currently supporting Wansey Road on its western side adjoining the Royal Randwick Racecourse;
- There would be no vertical geometry issues at the crest of Wansey Road; and
- It allows for the retention of stop locations at both the Alison Road and High Street ends of Wansey Road to serve these catchments.

Further **the re-alignment has the support Randwick City Council** via its decision of 3 December 2013.

WAG understands that TNSW is currently undertaking a benefit-cost analysis of WAG's preferred alignment (within the RRR) and the current proposed alignment within the Wansey Road reserve. Such an analysis is an essential assessment tool for the selection of the optimum alignment of the corridor relative to Wansey Road and we request that WAG is provided access to the benefit-cost report prior to the Department making any determination on the final alignment.

We further submit that the benefit-cost analysis must include all intangible costs within its assessment, i.e. inclusive of cost equivalents for loss versus retention of significant trees, additional noise and amenity impacts on Wansey Road residents and the like. Any assessment that simply quantifies direct and tangible land and construction costs would be inadequate as an assessment tool.

In all instances the route of the CSELR project through Randwick utilises main road corridors which have a fundamentally different character, context and amenity than is the case for Wansey Road - a local road which is uniformly characterised by residential housing. Even High Street Randwick is not comparable to Wansey Road given its almost total dominance by the University of NSW campus and the Prince of Wales Hospital precinct. The "greater good" that will be served by the CSELR project is not disputed by WAG. However that benefit should not at the permanent cost of Wansey Road residents. A viable alternative utilising the Royal Randwick Racecourse, as identified in this submission should be implemented as it satisfies all evaluation criteria nominated within the EIS, and essentially resolves all of the impacts identified by both WAG and Randwick City Council. The CSELR is a permanent piece of infrastructure - its impacts on Wansey Road will also be permanent without the intervention of the DPI and the Minister.

Should the Department of Planning and Infrastructure (DPI) grant approval to the light rail CSELR project, the conclusion to this submission sets out a number of conditions that we submit should be imposed on the approval, inclusive of specific conditions should an alignment within Wansey Road, notwithstanding WAG's objection.

2 BACKGROUND TO THIS SUBMISSION

The Wansey Road Action Group (WAG) represents all property owners in Wansey Road, Randwick excluding seven residences owned by University of NSW.

It is important to acknowledge that WAG is supportive of this new public transport initiative and the benefits it will bring to the Randwick community. However WAG also recognises that unless elements of the proposal are altered, the light rail network as proposed will fundamentally alter the character and amenity of Wansey Road, in addition to creating various ongoing operational problems.

In an effort to work collaboratively with Transport for NSW (TNSW), a detailed submission was provided by WAG, ahead of the formal public notification of this State Significant Infrastructure application, outlining its concerns. Importantly, that submission also identified a solution that would maintain the route of the light rail relative to Wansey Road, but with an altered alignment that would largely resolve WAGs concerns.

We have incorporated much of the substance of that earlier submission in this submission, have reviewed how the EIS has assessed the specific issues raised and provided a current position in relation to each issue.

3 WANSEY ROAD, RANDWICK

A summary description of Wansey Road, Randwick is provided below:

- A local road, about 550m in length, connecting with Alison Road at its northern end and High Street at its southern end;
- Provides two lanes of traffic, plus kerbside parking on both sides of the road;
- The eastern side of the road is wholly residential, other than for George Dan Reserve at the intersection with Alison Road;
- The western side of the road comprises land which is part of the Royal Randwick Racecourse (RRR); and
- A strong landscape character and associated high level of visual amenity resulting from mature trees along the western side of the road. That vegetation is partly located within the road reserve, but predominantly is within the RRR site, along its boundary common with western side of Wansey Road.

Figure 2 below further describes the setting and context of Wansey Road, Randwick:



Figure 2: Aerial photo of Wansey Road Randwick (in yellow) and adjoining lands (Source: Sixmaps)

The existing landscape character of Wansey Road, its limited dimensions to accommodate truck movements associated with RRR, and evidence of demand for street parking are

demonstrated in the following images:



Figure 3: Landscape qualities of Wansey Road



Figure 4: Landscape qualities of Wansey Road



Figure 5: Narrow width of Wansey Road



Figure 6: Truck movements for RRR



Figure 7: Existing demand for street parking



Figure 8: Existing demand for street parking

4 RELATIONSHIP WITH THE SYDNEY CBD AND SOUTH EAST LIGHT RAIL PROJECT

The Central Business District and South East Light Rail Project (CSELR) comprises the construction and operation of a new light rail service in Sydney, including approximately 12 kilometres of new light rail track from Circular Quay to Central, Kingsford and Randwick via Surry Hills and Moore Park. The proposal includes changes to property and utilities access, and traffic management changes within the direct corridor of the proposal.

Part of the route of the CSELR, between Anzac Parade Kensington and Randwick, runs down Wansey Road, with stops at both its northern and southern ends as shown on Figure 9 below.

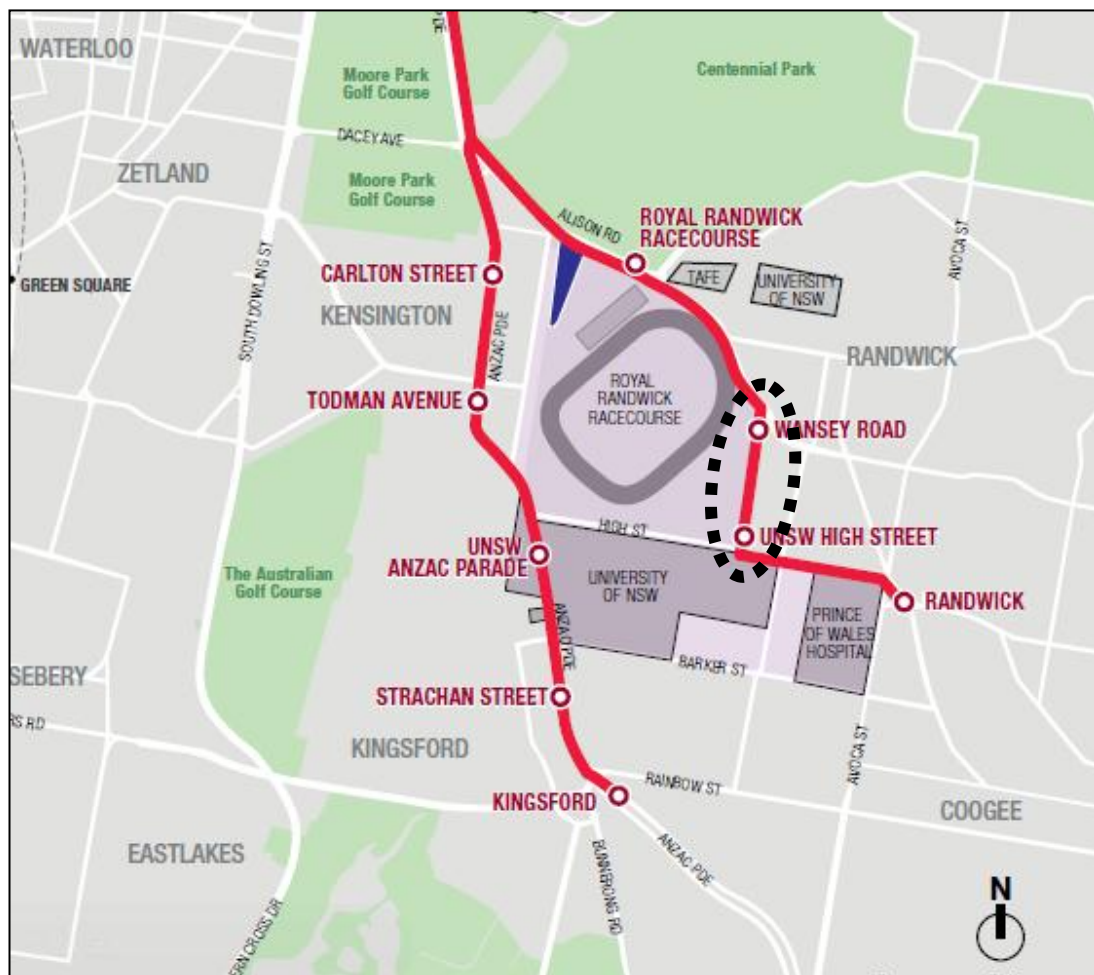


Figure 9: Part of the CSELR route

(Source: CSELR EIS Parsons Brinkerhoff)

5 KEY IMPACTS FOR WANSEY ROAD, RANDWICK

Provided below are images which illustrate the existing and proposed future configuration and presentation of Wansey Road Randwick as a consequence of the introduction of the CSELR project:



Figure 10: View north along Wansey Road, near the intersection with Arthur Street (Source: googlemaps)

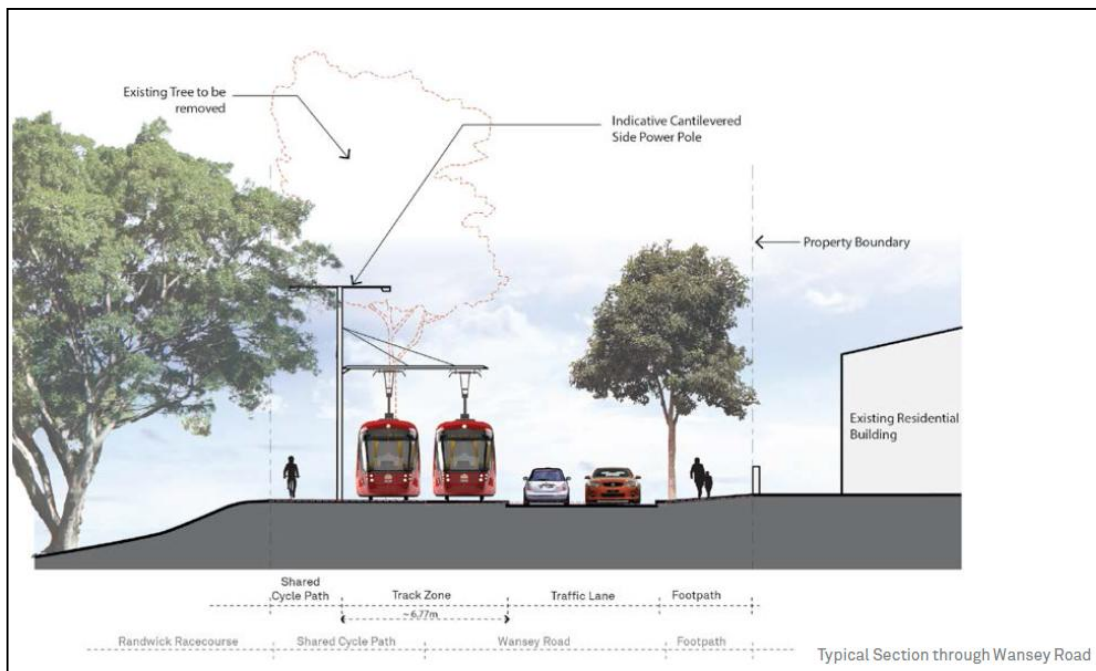


Figure 11: Proposed CSELR along Wansey Road (Source: p 146 CSLER Landscape & Visual Assessment)

We note that Figure 5 does not appear to correlate with the EIS in that it shows the existing pedestrian pathway along the eastern edge of Wansey Road being retained - however we have not identified any confirmation of that fact within the project documentation.

Further, as noted at section 7 below, we do not understand why kerbside parking along the eastern edge of Wansey Road is shown as removed, when that is not identified at section 4.3.3 of the EIS as part of the preferred option.

In its pre-exhibition submission to TNSW the WAG identified various impacts from the CSELR project, being:

- Visual impacts
- Pedestrian hazards
- Traffic hazards
- Loss of street parking
- Operational impacts

Our evaluation of the CSELR project relative to these matters is provided below.

6 EVALUATION OF EIS RESPONSE TO KEY IMPACTS

6.1 Visual impacts

Concerns identified by WAG

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified its concerns that the CSELR project would cause a severe reduction in the visual beauty of the existing streetscape due to:

- The introduction of the light rail infrastructure into Wansey Road;
- The removal of existing trees;
- The alignment of the light rail, which would affect several Fig trees. Works associated with the CSELR could result in either the destruction of, or significant damage to, these fig trees due to impacts to both their canopies and root systems noting that no track specifications were available to define the depth and width of the foundations of the tracks.

Evaluation of EIS

In terms of the Randwick Precinct, the EIS notes:

- Approximately 400 planted trees are within the Precinct which predominantly comprise Hills Weeping Figs, Plane Trees, Norfolk Island Pines, Cook Pines, Eucalypt species, Paperbarks, Moreton Bay Figs, evergreen Brush Boxes and street tree plantings of semi-mature Chinese Tallow;
- The CSELR project would require removal of about 280 trees, or 70% of the total number of trees along the route;
- The majority of impacted trees are located along Alison and Wansey Roads, and High Street, Randwick; and
- Wansey Road contains approximately 110 trees which typically comprise Moreton Bay Figs, and Hills Figs, in good condition.

In terms of the present visual and landscape character of Wansey Road, the EIS notes (at page 15-67):

"Along Wansey Road, the streetscape is enclosed by a double row of large mature Fig trees, located on the street and within George Dan Reserve, with overarching branches. These trees define the character and feel of this residential area. The built form in this area is predominately distinguished by Federation and Interwar dwellings overlooking the racecourse. At the eastern end of Wansey Road, opaque fencing encloses areas of stabling and associated areas of the racecourse."

In terms of visual sensitivity relative to Wansey Road, the EIS notes (at page 15-68):

"Port Jackson and Moreton Bay Figs at Royal Randwick racecourse on Alison Road, the George Dan Reserve and Wansey roads, create an avenue of planting which are identified

on Randwick City Council's (2007) Register of Significant Trees and are considered to be of regional sensitivity. The Figs contribute to the significance of the racecourse as a landscape element and provide amenity to the adjoining streets"

In addition to the acknowledged good health and value of these trees to the landscape character of Wansey Road, the EIS also acknowledges the heritage values of these same trees at Table 15.30.

When evaluating the general landscape and heritage impacts from the removal of trees along Wansey Road to accommodate the CSELR infrastructure, the EIS confirms:

"Removal of the trees along Alison Road, Wansey Road and in the north-western area of the site would result in the loss of plantings of Exceptional and High significance that contribute to the aesthetic and historic significance of the racecourse. The substantial bulk of the proposed above-ground substation on the Alison Road alignment, in conjunction with the extensive removal of trees, would increase the amount of built infrastructure on the edge of the racecourse. This would be a major adverse impact on the conservation area." (p15-88)

and

"The loss of trees of 'exceptional significance' (Randwick DCP, 2013), would result in a substantial loss of street tree cover." (p15-71)

and

"The light rail track would run parallel to the western side of Wansey Road with catenary structures and wires overhead at this point. Some replacement street trees would be in accordance with the Transport for NSW 'Vegetation Offset Guide' (2013d): however, this would not restore the character of the vegetation lost at the western end of Wansey Road and within the racecourse grounds during construction. This view would open up to the racecourse to the west" (Table 15.25)

and

"Along Wansey Road, stop infrastructure, including a single canopy roof structure and platforms, would terminate the existing view with the canopy of trees forming a less prominent background element. With the introduction of elements such as the stop canopy, platform, overhead wires and roadside barriers, there would be additional visual clutter at street level." (Table 15.25)

and

"The CSELR would be seen along the western edge of the racecourse and the UNSW stop with platform structures and associated elements introduced centrally in the foreground of the view, creating visual clutter at street level." (Table 15.25)

and

"This view would change considerably as the trees along the western boundary of Wansey Road, which define and visually enclose local views from the racecourse, are removed to accommodate the site corridor and stop works." (Table 15.25)

WAG response to EIS

Based upon the above, it is of concern then that the EIS can:

- Acknowledge the good health and value of these trees, to both the landscape qualities of the Wansey Road and the RRR; and
- Acknowledge the significant change to the landscape of Wansey Road and RRR that will result from the CLSEPR as proposed

but not alter the route of the rail line to avoid those outcomes. Worse still, is that the proffered 'mitigation measures' are highly qualified outcomes, couched by uncertain commitments such as:

- *"consider opportunities.....to recreate the canopy of lost trees on the western side of Wansey Road" (p15-77)*
- *"Detailed design of the Wansey Road stop....would seek to retain as many as practicable of the significant trees of Royal Randwick Racecourse" (p15-92)*
- *"Where significant trees must be removed...suitable replacements would be made where possible" (p15-02)*

These are essentially hollow undertakings, caveated to allow for any outcome that accommodates the needs of the project as construction proceeds.

To further evaluate the impacts of the effects of the CSELR project on the visual qualities of Wansey Road, WAG engaged Mayne-Wilson and Associates (MWA), Conservation Landscape Architects. A summary of the advice from MWA is provided below:

- *The chief contributor to the stronger than usual aesthetic and visual character of the streetscape are the rich canopies of the row of mature Moreton Bay Fig Trees along most of the western edge of the street, some metres behind and downslope from the boundary fence. Indeed, the Wansey Road character is unique because of these trees. Most of these have been assessed as having exceptional or high heritage significance.*
- *The removal of the two grassed verges and their various street tree plantings and their replacement by light rail lines with associated overhead wires would markedly increase the ratio of hard surfaces along the Wansey Road corridor, which is considered undesirable.*
- *To some (as yet unconfirmed) extent, this would be compensated for in the (uncertain) event that proposals within the EIS to infill gaps within the row of Fig trees would actually be implemented. This may not, however, eventuate.*
- *The six old Hills Fig Trees at the entry to Wansey Road off Alison Road are unlikely to be significantly impacted upon by the new works.*
- *As a consequence of the marked increase in the ratio of hard surfaces within the street, and adverse impacts such as the proposed total removal of parking along*

Wansey Road, and various traffic issues dealt with by other consultants, it is considered preferable to have the proposed new rail line built within the grounds of the Randwick Race Course, well to the west of the heritage Fig Trees. The location of alternative proposed route for that rail line are shown in this report. None would impact adversely on known heritage items. From a landscape perspective, this is viable, and would provide a much better landscape outcome.

- *There are, however, significant other heritage and cost issues arising from that proposed relocation. These would include the necessity for the preparation of a Heritage Impact Assessment, because the RRC is within a heritage conservation area and has already been proposed for listing on the State Heritage Register (which the Heritage Council is ready to endorse). It is not anticipated that the cost of preparing the latter would be very substantial, nor that it would be likely to identify any undesirable impacts or constraints.*

Our review of the EIS did not reveal any information regarding the evaluation of options for the associated infrastructure of the CSELR project, including the overhead wiring system and associated structural supports. These elements require careful consideration to minimise visual blight.

In conclusion, we consider the EIS has not satisfied concerns in relation to tree loss and visual landscape associated with the current alignment along Wansey Road and it is inappropriate to pursue that option when the alternative alignment within the RRR largely overcomes the identified impacts.

6.2 Pedestrian impacts

Concerns identified by WAG

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified its concerns that the CSELR project would result in increased dangers for pedestrians:

- No 'buffer' between pedestrians and road traffic that is created by kerbside parking on the eastern side of Wansey Road;
- A shared pedestrian and cycle path is proposed to be built directly alongside the Light Rail alignment. This will create unnecessary danger for both pedestrians and cyclists. The problem will be exacerbated when the trains and cyclists are both travelling downhill at speed.
- The existing shared pedestrian/cycle path is already a hazard, and the new shared pathway will be narrower than is presently the case. Opportunity exists for the existing cycleway in Doncaster Avenue to link with a dedicated cycleway in High Street, and lead to both Alison Road and Centennial Park. This route could be easily and more safely used instead.

Evaluation of EIS

In terms of operational impacts on pedestrians the EIS notes only, at Table 15.10, that the shared cycleway and footpath along the western side of Wansey Road would be reinstated. There is no acknowledgement that the width of that facility would be greatly reduced, no

discussion of whether it would meet any design standards or guidelines, no assessment of whether that facility would be safe given its proximity to the light rail track, whether fencing is needed between that path and the track, and if so what the added visual impacts of that fencing might be.

In short there does not appear to be any analysis of risks to pedestrians or cyclists using the shared pathway.

WAG response to EIS

WAG submits that no decision on the CSLER alignment along Wansey Road must be made until the proponent has:

- Prepared a comprehensive risk assessment for the project, to identify and evaluate all risks for residents, motorists, pedestrians and cyclists.

6.3 Traffic hazards

Concerns identified by WAG

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified the following traffic hazards as a result of the CSELR project:

- At present in Wansey Road, 12 garages are located on the street boundary of their properties – opening right on to the footpath. To exit those garages, residents will have to back directly out into a moving lane of traffic. The limited space available will mean that before drivers can clear and close their garage or gate, their car will be projecting (possibly by as much as 855mm) into the oncoming lane of traffic;
- The narrow dimensions of the new carriageway will mean that resident's cars will likely have to cross over the new centre line to access/egress their own properties;
- Without a parking lane there will be no capacity for residents/emergency vehicles (such as ambulance and fire brigade)/visitors/delivery vehicles, etc to pick up or drop off passengers/children/goods, etc without stopping the traffic flow;
- For sites which do not have the benefit of onsite parking, there will be no capacity for disabled passengers to alight or be picked up in the roadway due to the absence of kerb side parking. The lack of kerbside parking will not necessarily prevent drivers from setting down/collecting passengers in the street out of convenience or necessity, creating dangerous circumstances;
- The current light rail plans indicate that no space has been provided for motor vehicles to pickup or drop off passengers using either of the stops in Wansey Road. This will create a significant traffic and pedestrian hazards; and
- Wansey Road is shown as a very narrow street with only 2 lanes of traffic. Randwick City Council uses large service vehicles to collect garbage, recycled waste and green waste every Monday morning. This collection is a slow, stop-start process. With Wansey Road proposed to be only 2 narrow lanes wide, these collections will stop the traffic and impact on the flow of traffic in both directions of the road; and
- Resolution of the conflict between the CSELR Project Proposal for the Wansey Road stop and the entry to the new RRR stables.

Evaluation of EIS

Section 15.3 of the EIS addresses local traffic, transport and access issues, with section 15.3.2 specifically considering operational impacts.

For the purposes of integrating the CSELR project into the existing street network the EIS (p15-14) confirms that for Wansey Road:

- *"Two way traffic would be retained; and*
- *No provision for on street parking would be provided due to the **reduced road cross section**" (our emphasis)*

Then at Table 15.8 the EIS summarises the operational impacts on property access once the CSLER is operational.

Given the concerns flagged by WAG to TNSW ahead of the formal exhibition of the EIS, it is perplexing that the commentary and analysis in the EIS on impacts to property access focuses only the two driveways in Wansey Road which serve the RRR, and chooses to entirely ignore consideration with regard to the 26 residential properties that also have a frontage Wansey Road.

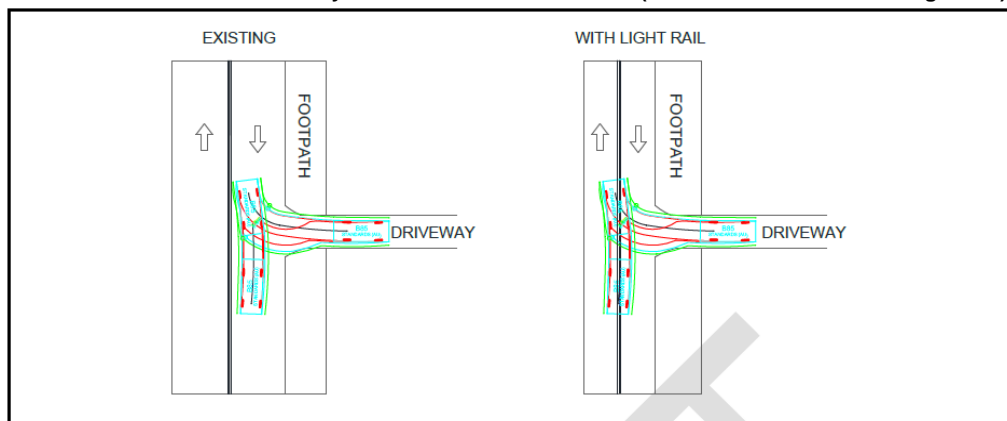
To ensure that this issue is properly evaluated, WAG engaged McLaren Traffic Engineering to assess the issue of traffic hazards for Wansey Road if the CSLER is to proceed as proposed. In summary McLaren Traffic Engineering have advised:

- Reversing vehicles are currently able to use the kerbside parking lane in Wansey Road to slowly back up into for a better view of oncoming vehicles before having to move into the flow of traffic within the two way road element. Eliminating kerbside parking reduces the ability of drivers reversing onto the reduced vehicular carriageway to see oncoming traffic- thereby increasing risk;
- Without this kerbside parking lane, drivers must have an unreasonably large 'head turning angle' to properly see oncoming traffic from their driveways. The 'head turning angle' to achieve the required 'cone of vision' is well beyond 1800, which is physically impossible for many drivers. The normal 'cone of vision' of the driver of a forwarding vehicle is about 750 to 1000. The risk is further inflated given that buses currently use Wansey Road (particularly Route 891 in the northbound direction) contrary to formal bus routes (see figure 4 above);
- Eliminating kerbside parking requires vehicles entering the road carriageway to cross two lanes of traffic going in both directions. The existing width from the kerb to the middle of the road carriageway is about 5m. The installation of light rail yields a distance of 3m from the kerb to the middle of the laneway, hereby increasing conflict / risk with two way traffic flow, including trucks & buses that require greater stopping distances. With the light rail, vehicles will need to cut across both lanes of traffic given the manoeuvring distance is at least 5m from the kerb, as shown in the following swept path drawings.



Figure 12: Examples of existing Wansey Road garages on street frontage boundary (Source: googlemaps)

Figure 13: Swept path analysis demonstrating egress movements from garages will require vehicles to cross the centre line of Wansey Road (Source: McLaren Traffic Engineers)



**B85 Reverse Exit onto Wansey Road
Tested @ 5km/h**

**RED = Tyre Paths
BLUE = Vehicle Body
GREEN = 300mm Clearance**

WAG response to EIS

WAG's preference is for the CSELR alignment to be altered to avoid Wansey Road as described at section 7 below.

However if the Department ultimately forms the view that the alignment must remain within Wansey Road then, in terms of traffic hazards and safety for residents and all other users of Wansey Road, WAG submit that the information it has provided demonstrates that:

- The CSLER project must retain kerbside parking along the eastern edge of Wansey Road. This would improve safety for all residents of Wansey Road and all other users of Wansey Road. Importantly, it would also be consistent with the 'preferred option'

already identified in the EIS.

- The design of the CSLER must be altered to ensure all vehicle movements from properties along Wansey Road do not require cars to cross the centre line of Wansey Road to complete movements to/from garages serving dwellings.

WAG further submit that no decision on the CSLER alignment along Wansey Road must be made until the proponent has:

- Prepared a comprehensive risk assessment for the project, to identify and evaluate all risks for residents, motorists, pedestrians and cyclists. In addition to the matters identified in the McLaren Traffic Engineering report, that risk assessment must also consider:
 - Capacity for emergency vehicles, delivery vehicles, and service vehicles (e.g. Council garbage trucks) to operate with Wansey Road
 - The current light rail plans indicate that no space has been provided for motor vehicles to pickup or drop off passengers using either of the stops in Wansey Road. This will create a significant traffic and pedestrian hazards as McLaren Traffic Engineers advise that the current road layout will not support such traffic; and
 - Resolution of the conflict between the CSELR Project Proposal for the Wansey Road stop and the entry to the new RRR stables.

6.4 Loss of street parking

Concerns identified by WAG

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified the following concerns regarding the loss of kerbside parking within Wansey Road as a result of the CSELR project:

- Parking is a key issue for all residents of Randwick and especially for those who live around the Alison Road and Wansey Road areas. It is a suburb full of older-style 1920's and 1930's residences and blocks of flats. Many are 3 storeys high with no parking or maybe just one parking space per unit, but typically none have visitor parking at all. UNSW Students, both visiting and resident in the University, extensively use the parking spaces currently available in this area;
- It is estimated that the light rail project will result in the loss of 342 parking spaces in Randwick. Wansey Road provides 150 car spaces or 43% of the total spaces to be lost, 64 on the eastern side and 86 on the western side. The western side is non-restricted parking while on the eastern side a large proportion is restricted to 1-hour parking from 8.30am to 5.00pm Monday to Friday with resident exemption. The loss of these parking spaces will significantly affect residents and their visitors. Further, it will significantly reduce property values and rentals in this area due to this loss of facility.
- Secondary impacts from the loss of all parking in Wansey Road are that drivers will search for parking spaces in the nearby streets however the available parking in those streets is currently occupied by residents.

- People in Randwick can currently use the bus service or in the future will use the new Light Rail service to go to the CBD – but they will still need their cars for purposes other than going to the CBD. Therefore the introduction of the CSELR will not reduce the demand for motor vehicles. **Therefore, reducing car parking facilities in the area of the proposed Light Rail by 342 spots without providing any alternative solution for residents and visitors, employees and resident and non-resident students is regarded by WAG as poor planning indeed.**

Evaluation of EIS

City Plan Strategy and Development are not traffic consultants however it appears that the EIS is dismissive of concerns regarding the loss of street parking spaces on the basis that demand will reduce by virtue the operation of the CSELR.

However it remains the case that residents will still need their cars for purposes which cannot be met by the CSLER. The style and nature of existing housing in the locality is such that some residents are compelled to rely upon street parking. Further, facilities such as the UNSW campus and Hospital attracts people from all over Sydney - and not all will benefit from the access that the CSELR will provide.

The EIS (p 15-22) notes that if demand for parking levels remains unchanged in the future with no modal shift as a result of the CSLER project then there would be a potential for parking demand to outstrip supply. The EIS further notes (also p 15-22) that Zone 2 is likely to have sufficient capacity within the local area surrounding the CSLER corridor in the morning peak to accommodate any displaced demand however effective capacity could potentially be reached in the interpeak and afternoon peak.

It is apparent to us then that EIS is equivocal in its ability to accurately analyse the likely demand for parking and the capacity of the locality around Wansey Road to absorb parking demand as a consequence of lost street parking.

That however is a wider consideration, as the immediate impact for Wansey Road is more significant, with the EIS nominating that all street parking in Wansey Road will be lost.

We note the report on the CSELR adopted by Council at its meeting on 3 December 2013 addresses in extensive detail its concerns with regard to lost parking. We will not revisit Council's concerns here, as they will be provided to the DPI by Council, other than to note that Council:

- Objects to the loss of substantial on-street parking throughout the route;
- Objects to the alignment of the CSELR along Wansey Road; and
- Intends to continue to lobby for alternate route for the CSELR that avoids Wansey Road, allowing for the retention of significant trees and the retention of kerbside parking for residents.

WAG response to EIS

The loss of all street parking with Wansey Road is not acceptable to WAG. It is

unprecedented that a local residential street could have no street parking whatsoever.

The alternate alignment for the CSLER as noted at section 7 below, and supported by Randwick Council, would resolve the problem (as well as all other concerns of WAG).

In the event that the Department and the Minister do not approve the alternate alignment, then at the very least the CSELR project must retain 1 lane of kerbside parking within Wansey Road, along its eastern edge.

6.5 Operational noise impacts

Concerns identified by WAG

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified its concerns with noise impacts from the operation of the CSELR project:

- In Wansey Road, the existing residences will be located only 12 metres from the proposed Light Rail alignment. At peak times, the trains are expected to be moving at about 3 minute intervals in two directions. This will mean not only will residents have to contend with the currently existing two way traffic noise and vibration, but in future they will also have to contend with additional train noise and vibrations every minute and a half as a heavy 45 metre-long train passes by; and
- With the planned period of operation extending for 20 hours a day, from 5.00am to 1.00am, residents will get little respite from the impact of train noise, vibration and increased traffic flow resulting from the Light Rail operation.

Evaluation of EIS

City Plan Strategy and Development are not acoustic consultants however we raise the following concerns with the evaluation of operational noise impacts at section 15.5.2 of the EIS:

A. Validity of "existing noise environment" levels for Wansey Road

We question why noise monitoring for Noise Catchment Area 05.3 (NCA 05.3) was undertaken based only on readings from No. 3 Wansey Road, Randwick (i.e. Noise monitoring location BG8 - Figure 15.19b of EIS).

We consider that noise monitoring at that location to establish existing background noise levels would be significantly influenced from road traffic noise on Alison Road Randwick which, according to statistics from Roads and Maritime Services, has an annual average daily traffic volume of more than 40,000 vehicles.

The EIS (at page 15-49) states that:

"Predicted noise levels at residential receptors in the Randwick Precinct that would experience the highest airborne noise levels during a regular daily service are summarised in Table 15.15 for the following two scenarios, without noise mitigation:

- 2021 scenario (at opening)
- 2036 scenario (future operations, 15 years after opening).

*This table is intended to indicate worst-case noise levels at the facades of residential receptors nearest to the alignment. Where the receptor is a multi-storey building, the predicted noise levels are representative of the most affected storey. **At all locations, the worst-case noise levels are due to the close proximity of the alignment to adjacent receptors on straight sections of track between stops where the LRVs would be operating at their highest speeds.*** (our emphasis)

Given the proponent has identified where the 'worst case scenario operating noise' levels would occur it would be appropriate for the existing noise environment to be established by noise monitoring in those same locations. For the purposes of Wansey Road we consider that existing noise levels should be measured at the midpoint of that street, which correlates with the location where CLER would be operating at its highest speed.

We would also expect that the midpoint of Wansey Road would be less affected by road traffic noise from Alison Road than would be the case at No.3 Wansey Road. Such an approach would therefore give a more accurate analysis of the true impact of the operating levels of the CSELR in Wansey Road.

B. Impacts from additional noise associated with 'special events'

Section 5.4.2 of the EIS notes that typically the CSELR would operate between 5.00 am and 1.00 am, seven days a week, initially operating with a three minute interval between services, but with a design capacity would allow for a service frequency with two minute intervals when required.

The EIS further notes that operating hours would be adjusted, if required, to cater for special events, including in relation to RRR. At page 15-51 the EIS notes that special events:

- Typically would be provided once or twice a week;
- Would require an increased frequency of service prior to the start of events as well as after, with the greatest load occurring at the end of events as crowds are dispersing; and
- Would generally be serviced by 45 metre LRVs at an increased frequency of up to every 2.5 minutes, however about one-third of all events would attract crowds of sufficient size to require 90 metre LRVs (two joined 45 metre vehicles) to clear crowds within the target of one hour after an event.

In terms of noise impacts for residents, the EIS states (at page 15-52):

"If the special event service frequency occurs for one hour after 10.00 pm with 45 metre LRVs, the night-time average (LAeq(9hour)) noise levels would be up to 2.0 dB higher than the level on nights without special events.

The perceived noise impacts are likely to be due to the noticeable increased frequency of noise events from LRV passbys on special event nights, rather than the increase in night-time average (LAeq) noise levels.

The noise impacts of special event services are considered acceptable in the context of the short duration of special event services, typically on one or two occasions each week."

It is of concern that the proponent can so easily dismiss an additional night time noise source, likely to occur in the order of 100 times per year and that would generate noise levels 2.0dB higher than on 'standard' nights when special events did not occur.

C. Noise from warning bells

Given that Wansey Road is proposed to be bookended by two stations the WAG is pleased to note the contentions in the EIS (p 15-52) that:

"the warning bells would only be used in the event of emergencies or where the driver considers there is a danger to public safety. The use of warning bells would not form part of normal rail operations (i.e. they would not be used on approach or departure from stations, or at level crossings)"

D. Treatment of the track to reduce operating noise

In its submission to TNSW ahead of the public exhibition of the EIS, the WAG identified that other light rail system have utilised measures such as laying grass between the tracks to both improve the visual presentation of the tracks, and to also assist in attenuating noise from operations of the light rail carriages.

Table 16 of the Noise and Vibration by SLR Consulting Australia Pty Ltd provides a summary of additional Operational Noise Mitigation Options, and identifies that:

"It may be possible to utilise a sound and absorbing finish in place of normal paving. The benefit over paved track sections is difficult to quantify. Potential issues include wear and maintenance of the surface, durability and whether absorptive properties are maintained when exposed to weathering. Possibly feasible in areas where normal road traffic does not need to travel over the track surface."

The report indicates that such a measure is estimated to achieve a reduced operational noise level of 2dB in LAeq and LMax.

That report further states, at section 5.9:

"Absorptive paving trackforms – at this stage, no examples of constructed embedded light rail tracks incorporating absorptive paving materials have been identified. It is normal for other vehicles to be able to drive over the embedded tracks meaning

standard road surface paving materials are more common with embedded rail systems. Some porous concrete type sound absorptive products that can be driven on by maintenance vehicles are available for use in tunnels or on slab track, but as these would normally be installed on segregated rail lines the durability of the products is unknown for the purpose of use in a road context. Away from intersections in the affected area of Devonshire Street the requirement for other vehicles to drive on the light rail tracks would be minimal, so durability equivalent to standard paving may not be required. The feasibility of this option and the potential noise benefit would require more investigation during the detailed design stage."

We further note that, at page 52, the Noise and Vibration report states that acceptance of the noise level increases of 2dB or less, at locations where noise traffic levels dominate, is appropriate - such being the case for the Randwick Precinct.

However as noted at 'A' above we consider that the baseline noise levels for Noise Catchment Area 05.3 (NCA 05.3) are influenced by road traffic on Alison Road, and likely would not reflect lower noise levels elsewhere in Wansey Road - which is also the same location where noise from the CSELR is likely to be at its greatest.

It is therefore disappointing that the EIS failed to nominate the use of such absorptive paving materials to mitigate operational noise impacts for the residents of Wansey Road.

WAG response to EIS

In terms of noise impacts generally WAG request that:

- Further noise monitoring be undertaken at Wansey Road as noted above to ensure that accurate existing noise levels are established for the purposes of evaluating the operational noise impacts of the CSELR, including for 'special events'; and
- The DPI ensure an independent peer review of all acoustic aspects of the CSELR project is undertaken to establish the veracity of contentions and mitigation measures in the EIS.

We submit that until such further analysis is undertaken the DPI cannot be satisfied that the proposed alignment along Wansey Road is satisfactory in terms of its impacts on existing residents. It supports our submission that the relocation of the alignment into the RRR is the preferred location to ensure acceptable noise, vibration and other operational impacts.

In terms of noise from "warning bells" during operation WAG request that any approval granted to this project include conditions which:

- Require the proponent to evaluate warning bell systems and select the system which will produce the least amount of noise; and
- Require that the operation of the CSELR comply with the undertaking in the EIS regarding the use warning bells.

If the CSELR project is approved, without modification to the Wansey Road alignment (refer

to section 7 below) then WAG requests the Minister impose a condition that:

- Requires the use of absorptive paving materials for the entire section of track located within Wansey Road (and indeed all other locally roads affected by the route of the CSELR).

7 PREFERRED SOLUTION

Section 4.3.3 of the EIS states that 4 options for the Wansey Road alignment were considered, as illustrated in the image below:



Figure 14: EIS Wansey Road alignment options

(Source: Figure 4.8 of CSELR EIS)

The EIS concludes (at a p 4-19) that:

"Based on the above observations, the preferred option for the CSELR proposal was identified as Option 1 — along the western side of Wansey Road, which would retain two-way traffic but remove all parking from the western side of Wansey Road."

If Option 1 is the preferred outcome for the project, it is unclear why the proposal consequently requires the removal of all on street parking in Wansey Road as noted at pages 15-14 and 15-21 of the EIS.

It is also disappointing that the EIS did not evaluate the preferred alignment for Wansey Road as nominated by the WAG in its pre-exhibition submission to TNSW. The preferred alignment identified by WAG is presented in the image below.

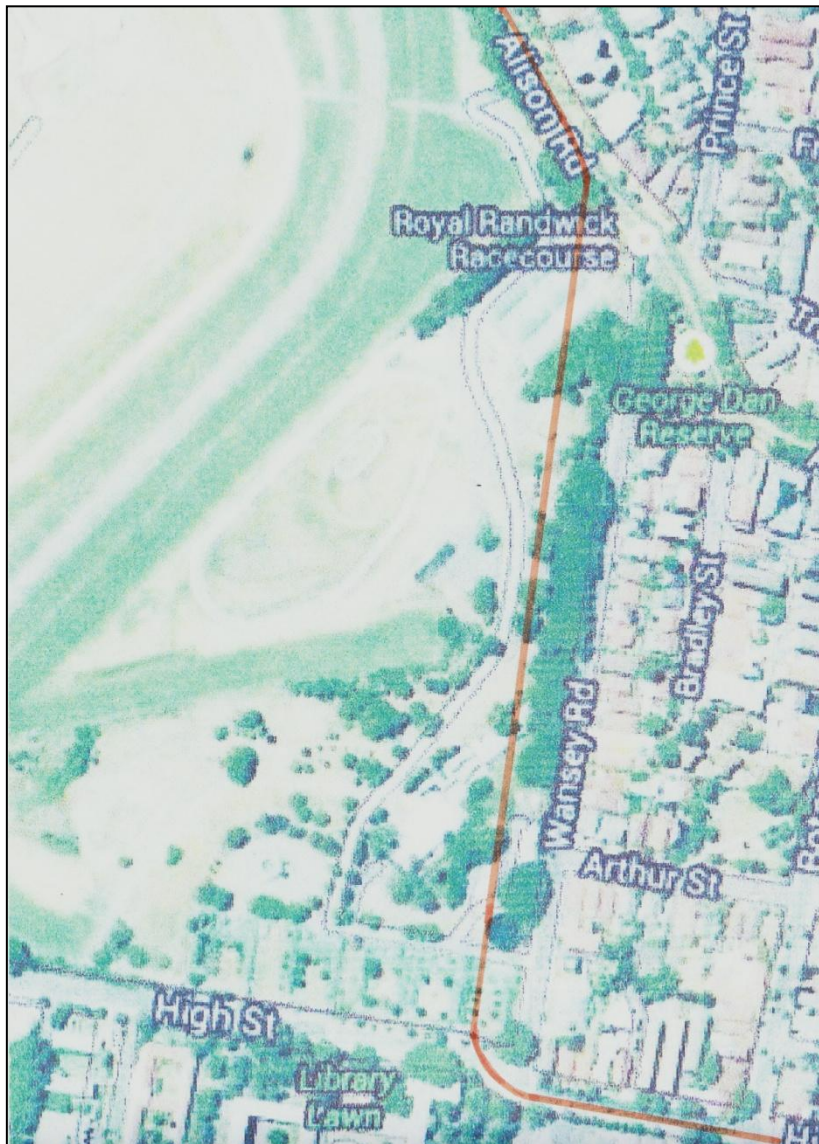


Figure 15: WAG preferred alignment for the CSELR in the vicinity of Wansey Road.

This re-alignment fully satisfies the key elements considered for design of this section of the CSELR, as noted at section 4.3.3 of the EIS, and being:

- No displacement of kerbside parking;
- No impacts to local traffic flow as Wansey Road can remain in its current configuration
- The line would not be located in proximity to trees in Royal Randwick Racecourse directly adjacent to the Wansey Road footpath;
- It would not require re-engineering of the retaining wall currently supporting Wansey Road on its western side adjoining the Royal Randwick Racecourse;
- There would be no vertical geometry issues at the crest of Wansey Road; and
- It allows for the retention of stop locations at both the Alison Road and High Street ends of Wansey Road to serve these catchments.

Further, WAG has identified that this altered alignment would also provide the following advantages over the option nominated in the EIS:

- It will bring the trees into the public domain (part of the rail and/or road reserve), making for a highly attractive streetscape and route for the light rail passengers;
- Pedestrian and vehicle safety will be significantly enhanced by placing the CSELR in its own corridor;
- Moving the Wansey Road stop into Alison Road will also improve pedestrian and vehicle safety and will increase the patronage catchment area of the CSELR;
- Property access for residents, visitors, the disabled and emergency vehicles will remain as at present;
- To a significant degree noise and vibration impacts for residents will be eliminated by the greater distance between the CSELR and homes down most of Wansey Road;
- No re-engineering of Wansey Road infrastructure would be needed, except for the area near the stop at the southern end of Wansey Road;
- Increased profile and physical presence of the Light Rail alignment on the racecourse property would integrate easily with the planned Urban Activation Precinct residential development of that site in the future;
- Employs best practice of separating the Light Rail from road traffic and pedestrians / cyclists as well as residential buildings; and
- Large vehicles will be able to utilise Wansey Road more easily.

Finally, we note that Randwick City Council supports changes to the CSELR project, as it relates to Wansey Road, (Report M17/13) noting the Council:

- Objects to the light rail alignment on Wansey Road;
- Objects to the loss of substantial on street parking;
- Is concerned about the impacts of the light rail on the local street network;
- Is concerned about noise and vibration impacts at sensitive locations; and
- Seeks to continue discussion with TNSW for an alternate alignment of the light rail route on Wansey Road into Royal Randwick Racecourse to retain a higher proportion of significant trees and to reduce impacts upon the adjacent residential properties

Realigning the CLSER as proposed at Figure 1 (and 15) would therefore also respond to and resolve the concerns noted by Council.

8 CONCLUSION

In its earlier submission to the CSELR, WAG raised concerns in relation to its proposed alignment within the Wansey Road reserve. These issues related to:

- Reduction in visual beauty of streetscape through the presence of rail infrastructure and loss of significant trees;
- Increased pedestrian and traffic hazards;
- Loss of car parking along Wansey Road; and
- Operational issues, including increased noise and vibration over extended operating period adjacent to residential properties fronting Wansey Road, including potential property damage.

In response to these concerns WAG submitted that the rail corridor should be removed from the road reserve and into the RRR, west of the existing substantial trees on that property.

Having now had the opportunity of reviewing the EIS and its assessment of the above identified concerns, we submit that the level of assessment is either less than adequate or does not satisfy WAG's concerns that the impacts can be adequately mitigated. We conclude that the concerns previously expressed by WAG about the current road reserve alignment are unsatisfactorily resolved and that alignment should not be adopted on the basis of the EIS.

As such, we submit that WAG's (and Randwick Council's) request to have the corridor relocated within the RRR should be adopted. That alignment within the RRR largely resolves the identified concerns without causing any obvious reduction in operational efficiency of the system.

WAG has previously requested and understands that TNSW is currently undertaking a benefit-cost analysis of WAG's preferred alignment (within the RRR) and the current proposed alignment within the Wansey Road reserve. We have not seen the outcome of this analysis but submit that it is an essential assessment tool for the selection of the optimum alignment of the corridor relative to Wansey Road. We therefore request that WAG is provided access to the benefit-cost report prior to the Department making any determination on the final alignment.

In advance of its release, we foreshadow that it should include all intangible costs within the assessment, i.e. inclusive of cost equivalents for loss versus retention of significant trees, additional noise and amenity impacts on Wansey Road residents and the like. Any assessment that simply quantifies direct and tangible land and construction costs would be inadequate as an assessment tool.

Done in this manner we are confident that any additional monetary costs that may result from the preferred RRR alignment will be offset to a significant extent by these tangible and intangible benefits and the reduced 're-engineering' costs involved in the Wansey Road reserve alignment.

The WAG preferred alignment seeks to vastly improve the amenity of the area in every aspect and WAG has advised City Plan Strategy and Development that view is shared by every special interest group in the Randwick area, including UNSW, ATC, Randwick Council and every resident represented by WAG. This support is due to the preferred solution having a lack of environmental impacts.

WAG has rigorously looked at many options including the EIS suggested Wansey Road option. WAG finds it inconceivable that TNSW would promote an environmentally inferior solution to a superior solution that has the broad support of all relevant local parties, including Randwick City Council.

WAG has previously submitted and confirms that if, and only if, a rigorous benefit-cost analysis comparison of the alternative alignment conclusively proves that the Wansey Road reserve alignment produces significantly greater net benefit than the RRR alignment then the Wansey Road reserve alignment should be considered. However, as previously indicated, if the CSLER remains in Wansey Road then the actual alignment of the rail line should be at the western-most part of the road reserve, to be the furthest distance from residents to minimise impacts. In those circumstances, WAG submits that conditions, as follows, should be imposed on any approval of the project:

- A. The CSLER project must retain kerbside parking along the eastern edge of Wansey Road. This would improve safety for all residents of Wansey Road and all other users of Wansey Road. Importantly, it would also be consistent with the 'preferred option' identified in the EIS at p 4-19.

In terms of the configuration of Wansey Road, the footpath in front the houses on the eastern side of the street must be retained, with an adjoining lane of kerbside parking as noted above. Traffic in Wansey Road is to be one-way southbound, with a lane of planting, then the second footpath (cycleway) as a minimum separating the traffic from the CSELR infrastructure at the western side of Wansey Road.

- B. The design of the CSLER must be altered to ensure all vehicle movements from properties along Wansey Road do not require cars to cross the centre line of Wansey Road to complete movements to/from garages serving dwellings.
- C. The proponent must prepare a comprehensive risk assessment for the project, to identify and evaluate all risks for residents, motorists, pedestrians and cyclists. That risk assessment must consider, but not be limited to:
 - Capacity for emergency vehicles, delivery vehicles, and service vehicles (e.g. Council garbage trucks) to operate with Wansey Road;
 - The current light rail plans indicate that no space has been provided for motor vehicles to pickup or drop off passengers using either of the stops in Wansey Road. This will create a significant traffic and pedestrian hazards as McLaren Traffic Engineers advise that the current road layout will not support such traffic;
 - Resolution of the conflict between the CSELR Project Proposal for the Wansey Road stop and the entry to the new RRR stables; and

- Safety for pedestrians and cyclists using the shared pathway on the western side of Wansey Road.
- D. Further noise monitoring be undertaken at Wansey Road as noted above to ensure that accurate existing noise levels are established for the purposes of evaluating the operational noise impacts of the CSELR, including for 'special events'
- E. The DPI requires an independent peer review of all acoustic aspects of the CSELR project is undertaken to establish the veracity of contentions and mitigation measures in the EIS.
- F. The proponent must evaluate warning bell systems and select the system which will produce the least amount of noise
- G. The operation of the CSELR must comply with the undertaking in the EIS regarding the use warning bells.
- H. Absorptive paving materials must be utilised for the entire section of track located within Wansey Road, Randwick.
- I. Move the Wansey Road Light Rail stop around the corner into Alison Road and retain the stables entrance as planned for the development application for the new Randwick Racecourse horse stables complex
- J. Locate power poles between the tracks rather than alongside the tracks to reduce impacts on the tree canopy and soften the visual presentation of the CSELR infrastructure
- K. To minimise the visual impact of the CSELR infrastructure especially for the residents of Wansey Road, the proponent must evaluate the design of the overhead wire system and select design which minimises the visual intrusion of the overhead wire system.
- L. The pathway on the western side of Wansey Road is designated for use by pedestrians only, and that cyclists be required to use the much safer the alternative route via High Street and Doncaster Avenue, which should be made a dedicated cycleway.

In all instances the route of the CSELR project through Randwick utilises main road corridors which have a fundamentally different character, context and amenity than is the case for Wansey Road - a local road which is uniformly characterised by residential housing. Even High Street Randwick is not comparable to Wansey Road given its almost total dominance by the University of NSW campus, the Australian Turf Club grounds and the Prince of Wales Hospital precinct.

The "greater good" that will be served by the CSELR project is not disputed by WAG. However that benefit should not at the permanent cost of Wansey Road and other Randwick residents. A viable alternative utilising the Royal Randwick Racecourse, as

identified in this submission should be implemented as it satisfies all evaluation criteria nominated within the EIS, and essentially resolves all of the impacts identified by both WAG and Randwick City Council. The CSLER is a permanent piece of infrastructure - its operational efficiency, safety and impacts on the Randwick area and Wansey Road in particular will also be permanent without the intervention of the DPI and the Minister.

WAG considers that the EIS process will be enhanced by it being able to discuss these issues with the DPI and the Minister so they have a better understanding of the benefits that can accrue to the community of Randwick and the broader users of the CSELR. To this end WAG requests to meet and consult with the DPI and the Minister to ensure that its submission is properly and fully considered.