

The Honorable Michael Daley
Minister for Roads
Parliament House
Sydney

Dear Sir,

Re: Phasing of Lights at the intersection of Darley Road & Alison Road

I am writing in regards to the poor design for cyclists and pedestrian traffic of signalled intersections. Specifically, I would like to raise my concern about the particularly inefficient and dangerous intersection between Alison Road and Darley Road, Randwick.

My primary recommendation is related to the changing of the phasing of the lights at this intersection. This would be done in a fashion so that the left hand slip lane for cars turning from Alison Road to Darley Road would be red for some of the time that traffic exiting Darley Road is red. This would allow cyclists and pedestrians to traverse the whole of Darley Street simultaneously and resolve several issues of efficiency and safety of the intersection with minimal impact on the motoring traffic. I will now detail the relevant issues and potential actions to be taken.

Location

This intersection is on major cycling routes which connect Centennial Park, Randwick TAFE, the University of New South Wales and the southern Eastern Suburbs to the centre of Sydney and the Inner West. The quality cycling facilities in the vicinity of this intersection are well used and demonstrate how appropriate dedicated facilities can attract cyclists and improve the feeling of safety amongst the cycling population. (see Appendix A for map with the location of the intersection and Alison Road cycleway). As the intersection lies on an RTA road, it is the responsibility of the RTA to ensure appropriate management of this road.

Current Situation

Currently, there is no bike signal at the lights and cyclists who enter from the bike routes are forced to use the pedestrian signals for this intersection. While this infers that cyclists should dismount from their bikes, this would cause a high degree of inconvenience and so cyclists tend to stay on their bikes as they negotiate the intersection. One cannot blame them for this, as a driver is never forced to get out and push their car through an intersection which connects two roads. It seems imperative that the Roads and Traffic Authority should investigate why an intersection which connects two well used off road bike paths does not have signalisation for bikes.

This concern is secondary to my major worry about this intersection. The intersection currently has three sections of road which pedestrian and cycling traffic are required to

cross to go from one section of the Alison Road cycleway (adjacent to the Randwick Racecourse) to the other (adjacent to Centennial Park). These are shown Appendix A.

For a normal cycle of the signalised intersection, there are two phases and when traffic wishes to turn right from Alison Road into Darley Road, an extra phase is triggered. The phasing of the lights is such that the traffic along Alison Road has a green light for the majority of the cycle (this includes traffic turning left into Darley Road) and the traffic exiting Darley Road has a relatively small green phase. This is usual for a signalised traffic light as it reflects the traffic volumes along these roads. The two main phases can be seen in the diagrams in Appendix A.

Through an examination of the light phases it becomes clear that there is a lack of efficiency for cyclists and pedestrians, and there are large wait times on the relatively small traffic islands. This is due to the fact that pedestrian signals at adjacent crossings are not green at the same time and the long phase for the Alison Road traffic compounds these problems as one has to wait for this phase at least once (but more than often twice) while negotiating this intersection. To explain this point simply, I give examples of typical occasions of a cyclist negotiating this intersection from each direction which can be found in Appendix B.

These scenarios (found in Appendix B) give some indication, of how these traffic lights frustrate cyclists at a personal level and can lead to dangerous situations for both cyclists who are patient enough to follow the signals and for those that take their chances. Along with the many different ways cyclists manage to negotiate this intersection, there is a lot of people that take risk to avoid the entire intersection. In light of these attitudes to the intersection as it currently is, it seems dire that action be taken to rectify this intersection for the cycling and walking community.

Current traffic conditions

I conducted a count of cycling traffic on the 6th May, 2009 from 8.10 am to 8.50 am. There were 77 cyclists who crossed Darley Road during this period. There were 52 cyclists who were city bound and 25 were heading away from the city. Interestingly, there were many different ways cyclists negotiated this intersection. I observed that a majority of cyclists crossed the slip lane section while the pedestrian signal was red. In the evening peak the number of cyclists able to cross on the red is reduced due to the heavier flow on the left slip lane from Alison to Darley Road.

During the same period that the count was conducted, I also recorded the timing of the phases of the lights. It was found that the time for one cycle was approximately 110 seconds. The green phase for Alison Road through traffic was approximately 69 seconds, while the green phase for Darley Road traffic was 41 second. When there was right turn traffic from Alison Road, a short phase of approximately 10 seconds for this traffic was allowed for.

A cyclist may be required to wait for a whole cycle plus an extra green phase for Alison Road through traffic as well as time to cross the last section of road, which sums to approximately 155 seconds. This is more than three times as long as cars could possibly wait (provided traffic is free flowing).

Proposed actions

There are a number of characteristics of this intersection that need to be considered in a plan of action.

- The lack of signals for cyclists
- The lack of integration between the phases for pedestrians and cyclists
- The size of the traffic islands (particularly the one adjacent to Centennial Park)
- The hindrances to safety on entering and exiting the intersection (such as the steep slope (to the gutter) on the Centennial Park end and the bus shelter at the Randwick Racecourse end).

All these issues need to be addressed as a complete project if we wish to establish a comprehensively safe and attractive intersection for cyclists and pedestrians. Some issues, however, have priority as they can be implemented in a short space of time and would provide immediate benefits. My recommendations address such issues.

My primary recommendation is a changing of the phases so that the left hand slip lane is red for cars turning from Alison Road to Darley Road for some of the time that traffic exiting Darley Road is red. This would allow cyclists and pedestrians to traverse the whole of Darley Street simultaneously. This would subsequently reduce the strain on the small traffic island as there would be less need to wait there and would also prevent people from urges to try their luck when the pedestrian signal is red on these sections of the road. I believe this could be done without a drastic drop in the level of service as we are not drastically changing how long the phase for the left turn from Alison Road is; instead we are merely changing when this occurs in the cycle. In any case, traffic is often congested along Darley Road and so the throughput of the left turning traffic from Alison Road would rarely be affecting people's travel time.

I have asked community members whether they support this measure, by sending out a petition (see attached). I have received much support, with many people adding their comments about the problems they have endured and their strong resentment that nothing has been done up until now to fix this intersection. The local bike user group Bikeast also fully supports this recommendation. Faculty Management at UNSW has also shown its support.

My second recommendation would be to introduce bicycle signals to the intersection. This would legitimise the way cyclists currently use the intersection. It would signal to cyclists that the RTA acknowledge them and wish to take care of them. It would also help as a way-finding tool, as cyclists will see that this is the way they should go. I have

also become aware that signals for cyclists should allow cyclists to cross an intersection in one phase. There may need to be discussion as to whether, in the future a change in the phasing would be possible so that cyclists could enter and exit the intersection in one phase. However, I realise at this stage, this would take a great deal of political will, so do not expect immediate action on this front.

I will not make immediate recommendations regarding the size of the traffic island (and also believe by pursuing a change in the phasing, this issue will not be so problematic) as it is a larger infrastructure matter. However, it does seem highly feasible that more space could be dedicated to cyclists and pedestrians on this intersection. There are very few cars that turn right from Alison Road into Darley Street; however, there is a wide lane for them to enter Daley Street which I feel could be narrowed to enable an increase in the size of the traffic island. I would need to consult the related road design rules to be certain, but from my judgement I suspect this will be possible.

Motivations for addressing this issue

There are a number of strategies currently in place at a state and local government level to try and encourage cycling in Sydney. There has been a general acknowledgement of the benefits of cycling on an environmental and economic front, as well as for the health and welfare of the community. These cycling strategies are acting to monopolies on these advantages of cycling, by increasing both the numbers of people cycling and the safety, efficiency and enjoyment of those who are currently cycling.

The strategies in question include

- Action for Bikes – BikePlan 2010
- City of Cities: Metropolitan strategy
- NSW Greenhouse Plus
- Sustainable Sydney 2030 - City of Sydney Strategic Plan: A City for Walking;
- Cycling and Cycling Strategy and Action Plan 2007-2017

The recently released Randwick City Bike Plan mentions the importance of considering the condition of “cycle routes entering and leaving the City from other Council areas such as Botany and the City of Sydney, as well as Centennial Park”. This intersection which lies on such a cycle route should be included in this consideration.

As part of the NSW government’s response to the recommendation of the CBD mobility forum, it is mentioned that they should consider implementing immediate action to reduce traffic light/walk signal cycle times. While this document is designed for the CBD, the same reasoning can be applied for the intersection in question as it is heavily frequented by pedestrians and cyclists and a reduction in waiting times would be beneficial.

Pikora and his co-researchers found that the permeability of streets by bike was a significant determinant of cycling for recreation and for commuting (Pikora et al, 2003).

The design of intersections is a component of this permeability factor. This demonstrates that a poorly designed intersection could have negative repercussion, not only on how happy and efficient cyclists are, but on how many people are choosing to cycle.

A quick response to these recommendations and the implementation of appropriate changes would show how the government is acting in line with its pro-cycling strategies and is prepared to look at the detail to uncover relatively simple ways of improving cycling conditions. Such action would also demonstrate to cyclists that you are in touch with their concerns and are listening to them, as you wish to benefit from their expert knowledge of using bikes in the city. This connection with the cycling community is important, both for the reputation of the government, but also for the cyclists, who can often feel helpless and abandoned when there are no clear information avenues between them and the governing bodies.

I appreciate you tending to this matter promptly and taking seriously the concerns of the cycling citizens of New South Wales.

Yours Sincerely

Jacqueline Hicks