



Brisbane Central Business District Bicycle User Group

CBD BUG

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Mr Gerard Waldron
Managing Director
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Via email: info@arrb.com.au

Dear Mr Waldron

Members of Brisbane Central Business District Bicycle User Group (CBD BUG) recently participated in the ARRB Austroads Webinar - "Cycling Aspects of Austroads Guides". We note there was considerable interest from other webinar participants in "sharrows". We would like to share our first-hand experience in Brisbane with this city's extensive use of road surface markings of yellow bicycle outlines - officially called Bicycle Awareness Zones (BAZ). These are essentially a yellow sharrow minus the arrow. We see them falling under "Advisory Treatments" in Cycling Aspects of Austroads Guides.

As background for you, the Brisbane CBD BUG is a grass roots volunteer organisation of more than 700 members, representing the interests of people riding bicycles to, from and within the Brisbane city centre. The CBD BUG is highly active in seeking policy decisions at all levels of government supporting people who want to cycle, and in particular relating to improved infrastructure, end-of-trip facilities, integration of cycling needs with other transport modes and a regulatory environment friendly towards people riding bikes. CBD BUG members meet monthly to exchange information and ideas, discuss issues of relevance and determine the direction of policies to benefit people riding bicycles.

The CBD BUG's analysis of Brisbane City Council (BCC) bikeway data has revealed that 303.6km (50.2%) of the 604.8km on-road component of Brisbane's so called "cycling network" is actually just BAZ. We contend that BAZ has been used as a cycling infrastructure fig leaf instead of providing separated/safe facilities. It is all too easy to paint a bike symbol on the pavement. It is much more politically expensive to implement speed restrictions or remove existing on-street car parking to provide conditions that would actually encourage people from a wide range of capabilities and ages to ride bikes.

BAZ has not encouraged people to take up riding bicycles. Despite a growing cycling "network", which BCC regularly boasts as being over 1,100km (on-road mostly made up of BAZ), the mode share to cycling in the city has essentially remained constant over the last 20 years at less than 2.0%. BAZ has been used by policy makers to dupe the broader community onto thinking Council is providing real cycling infrastructure. This creates the perception for people in the non-cycling community that there is not demand for real cycling infrastructure, and creates a risk of Council withdrawing funding for more appropriate facilities - on the grounds that those already provided aren't attracting additional people to ride bikes.

Therefore, we strongly encourage ARRB to endorse sharrows in only extremely limited circumstances.

We offer the following comments on Queensland Transport and Main Roads (TMR) technical guidance regarding BAZ.

In 2009 TMR released Technical Note 1.39 "Bicycle Awareness Zones" that provided guidelines for the provision of BAZ on roads. IN our view this guideline was rightly critical of the use of BAZ: "BAZ does not adequately define a cyclist operating space, provides inappropriate road position guidance to riders and provides a poor traffic separation experience to a new rider".

"Main Roads deems that BAZ provides neither a safe nor attractive facility. To achieve strategic targets Main Roads will strongly pursue the implementation of formal bicycle facilities in lieu of BAZ".

Appendix A of the technical note detailed the *Cycling on State Controlled Roads Policy*, which articulated the following policy intention.

'This policy states that "Along priority cycling routes, Main Roads will positively provide for cyclists in road-upgrading projects." BAZ is not considered "positive provision" due to the lack of separation cyclists receive from traffic and the historical severity of cyclist and parked car collisions. Further, BAZ treatments are not considered "cycle friendly" due to lack of safe operating space. As such BAZ treatments are not supported under this policy.'

The 2009 technical note stipulated a number of restrictions on the use of BAZ: they should be used on roads with speed of 60km/h or less, with traffic volumes less than 3,000 per day and "On routes where the majority of cycling specific infrastructure (on-road cycle lane or offroad path) has been implemented." and "As a last resort, and preferably as a temporary measure to enhance continuity along the cycle route until better facilities can be provided."

Under these comments and restrictions BAZ could be fitted in limited circumstances into the Austroads Figure 2.2 Separation of cyclists and motor vehicles by speed and volume.

Most of BCC's treatments involving BAZ did not comply with the TMR guideline at the time of their installation. As such they are little more than a ploy to give the media and the broader community the impression that Council has a genuine intent to foster the increased use of bikes for transport, while actually resulting in little to no actual additional safety for people riding bikes.

Regrettably, in December 2013 TRUM Technical Note 1.39 *Bicycle Awareness Zones* was changed without public consultation or notification. We contend that the new guideline allows for a significant downgrading of the level of service for people riding bicycles, and that it does not conform to the guidelines offered in Austroads Figure 2.2. As such it should be reviewed in favour of the earlier and more restrictive guideline.

It appears a single small study was used to assess the effectiveness of BAZ and to loosen the existing guideline further. It is especially noteworthy that the study has not been published in any peer reviewed journal. Such an approach flies in the face of TMR's claims to utilising an evidenced based approach and its "safe systems" principles.

Instead, we contend it would be far more prudent for TMR to have considered the peer-reviewed literature, of which there is a considerable and growing amount. Our reading of that literature is that shared-lane markings have no objective safety benefit, nor do they lead to an increase in the number of people riding bicycles.

The most important papers on the issue are those by Professor Kay Teschke of the University of British Columbia and her colleagues concerning "sharrows" or "bike symbols" in Canadian cities.¹ Professor Teschke commented that "Bicycle Awareness Zones" are functionally equivalent to the sharrow concept and are "in every way comparable to sharrows as used in the jurisdictions in our study".

¹ M. Winters and K. Teschke (2009) "Route Preferences Among Adults in the Near Market for Bicycling: Findings of the Cycling in Cities Study" *American Journal of Health Promotion* 25(1):40-47.

Concerning the 2009 Winters and Teschke study, Professor Teschke commented as follows.

Study subjects were shown 3 photos of each of 16 route types, including sharrows. Here they are called "major city streets with bike symbols", with or without parked cars. Figure 2 makes clear that sharrows on streets with or without parked cars received negative ratings from women, potential and occasional cyclists.

The results for women and men parallel those for people with children and those without, respectively, though the results are not shown. Sharrows on streets with parked cars received negative ratings from all groups except regular cyclists. The upshot is that sharrows do not encourage cycling, and therefore have no value as an addition to a "bike network".

Bike lanes, particularly without parked cars were better than sharrows, but our conclusion, based on the results of the preferences study and the injury study, is that the only route type that both is safe and encourages cycling on collectors or arterials is cycle tracks (physically separated bike lanes).

The "Figure 2" referred to in the 2009 Winters and Teschke study paper is provided for your information at Attachment 1 to this letter.

A 2013 paper by Harris et al showed shared lane markings offer cyclists no significant protection against injury.² Crucially, this research, unlike that conducted by TMR or CDM Research, controlled for traffic exposure level.

Focus groups led by Elliott Fishman³ confirmed the research findings of Winters and Teschke.

Another criticism, which echoes many of the comments made by participants in other groups, was that Bicycle Awareness Zones were insufficient in terms of providing a reasonable level of safety for bicyclists. The following extracts illustrate this point:

*"People have to realize that painting a bicycle on a road does not make it a cycle lane".
(Female, mid thirties, CityCycle group)*

*"To me the bicycle symbols in Brisbane are just a token. They don't improve safety"
(Female, late thirties, non and infrequent rider group)*

If then deemed necessary, TMR could have subsequently conducted a far more extensive and rigorous examination of the effectiveness of BAZ in Brisbane, something we would encourage ARRB to perform before making any changes to Austroads that endorse the use of sharrows.

CBD BUG members are happy to further discuss our experience with BAZ and look forward to your deliberations on sharrows.

Yours faithfully



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² Harris, M. Anne, et al. (2013) "Comparing the effects of infrastructure on bicycling injury at intersections and non-intersections using a case-cross-over design." *Injury prevention* 19(5):303-310.

³ Fishman, E., Washington, S., and Haworth, N. (2012) "Barriers and facilitators to public bicycle scheme use: a qualitative approach." *Transportation Research Part F : Traffic Psychology and Behaviour*, 15(6), pp. 686-698.

Figure 2
Mean Preference Score for 16 Route Types According to Cyclist Segment (A) and Gender (B)

