Submission to Inquiry into Cycling Issues

Transport, Housing and Local Government Committee

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My background

I am a solicitor living in Townsville. I practise in personal injury law. I have been cycling for about four years for fitness.

I ride between 5 and 10 hours per week covering around 7000 to 8000 km per year.

I find that most motorists are reasonable co-users of the roads with cyclists. However, there is an increasing tide of anti-cycling sentiment playing out on the local roads and I have been subjected to unprovoked appalling driving behaviour by motorists (and their passengers), mostly when I am riding alone, including:

- verbal abuse and intimidatory driving close to me or the cycling groups I am in;
- objects being thrown at me while cycling including a partly full can of Coke and a ball;
- utility vehicles, buses and trucks regularly overtaking me within a few centimetres of my right elbow even though I was travelling inside the bike lane at the relevant times.

Recent tragedies - impetus for legislative change

Tragically, Sue Bell, a member of the Townsville cycling community was recently killed when a truck towing an oversize load trailer made contact with her or the group that she was riding with causing a multiple rider crash. Several others in the group suffered injuries as well. That incident is still under police investigation. Initial reports suggest that the group of mature-age riders (late 50s - early 60s) was riding single file to the left of the white line on the road shoulder. Alcohol does not seem to be a factor and there is as yet no publicly available evidence of any adverse behaviour by the truck driver apart from his misjudgment of the group vis a vis the position of his oversize load. Sue's death follows the recent tragic deaths of Tanya Roneberg¹, a Cairns triathlete who was run down by a drink-driver and Richard Pollett², an aspiring violinist who was killed in Brisbane when the driver of a truck 'misjudged' his position on the road when trying to overtake on a narrow point on busy Moggill Road.

And the carnage continues with a seriously injured group-ride-cyclist on 3 July 2013 in Cairns after what appears to be a hit and run collision by a truck.³

There is a great sense in the cycling community that our laws are inadequate for the protection of cyclists. It is folly to pretend that ingrained attitudes by an increasing number of motorists towards cyclists can be resolved by education alone. The law must be reformed as a real deterrent against this driver behaviour and this needs to be coupled with a no-nonsense public awareness campaign.

It is surely time for decisive legislative action if the government is serious about supporting the aspirational Queensland Cycling Strategy document.⁴

Minimum separation rule

Much has already been written on the subject of a 1m (or 3 foot in the US) rule. Most responsible motorists, in my experience, give a separation distance of greater than 1m voluntarily and without legislative coercion at the moment. However, there are a

¹ http://www.cairns.com.au/article/2013/05/18/242590_local-news.html *More than a thousand cyclists ride in memory of Tanya Roneberg*

² http://www.smh.com.au/executive-style/fitness/blogs/on-your-bike/one-metre-between-life-and-death-20130519-2jugh.html *One metre between life and death*

³ http://www.cairns.com.au/article/2013/07/03/244744_local-news.html *Cyclist hurt in horror hit at Cairns*

⁴ http://www.parliament.qld.gov.au/documents/committees/THLGC/2013/INQ-CYC/tp-18Jun2013QCS.pdf significant number of people who have no regard for doing the right thing. They assert that they have an inalienable "right" to travel in "their lane" and refuse to yield a proper separation distance to cyclists voluntarily.

A 1.5m rule is evident in many countries, particularly in Europe. New Zealand has adopted this distance as a 'recommended' safe passing margin.⁵

I respectfully submit that a minimum 1m separation distance needs to be made law, with an increased separation distance of 1.5m in areas where the speed limit is 70km/hr or more.

Difficulty of enforcement is no excuse for failing to reform the law. Many cyclists now carry inexpensive video cameras to record adverse driver behaviour. CCTV is legion in many areas.

As the Richard Pollett case has shown us, the truck driver can escape liability for "misjudgment." This outcome is completely unacceptable. There ought to be strict liability where a cyclist is injured because the motorist failed to give the minimum separation distance or travelled onto the bike lane.

Penalties for negligent misjudgment need to be increased substantially. There needs to be a deterrent for risk-taking with cyclists' lives. However, negligence by way of misjudgment is only one issue that needs to be addressed. There must also be a tough legislative response for what is, at its heart, serious criminal conduct when that behaviour towards cyclists is deliberate. A wider issue is whether tough legislation to deal with deliberate "road rage" or road bullying behaviour ought to extend right across the board to all road users. That is worth considering as well.

⁵ http://www.nzta.govt.nz/resources/roadcode/about-other-road-users/sharing-road-with-cyclists.html; http://www.adelaidecyclists.com/group/VoteForCyclists/forum/topics/nz-sign-of-give-cyclists-15m? commentId=3086792%3AComment%3A78559&groupId=3086792%3AGroup%3A49542

Penalty for breach

The law must provide significant penalty for breach of the minimum separation distance if the government is serious about encouraging cycling on roads. I respectfully suggest that a sliding scale ought to apply, with simple offences infringing the minimum separation rule having parity with similar offences for failing to give way, incorrect lane changing etc.⁶ Serious infringement offences should have parity with other laws:

- simple breach of minimum separation rule or driving in bike lane without excuse, (no contact, no injury but not deliberate⁷) - ticket fine of \$330.00, 3 demerit points;
- simple breach as above but resulting in a non grievous bodily harm (GBH) injury
 fine of \$1500.00, 6 demerit points;
- simple breach as above but resulting in GBH injury or death refer to similar penalties under the *Work Health and Safety Act* 2011 - court imposed maximum fine of 1500 penalty units + loss of licence for twelve months
- aggravated breach of minimum separation rule, eg., deliberate driving in bike lane, intimidatory driving at cyclist, causing an object to be projected towards a cyclist, no injury or a non GBH injury - <u>deemed</u> dangerous driving simpliciter under s.328A Criminal Code and maximum court ordered penalties as prescribed 200 penalty units or 3 years imprisonment + loss of licence for two years;
- aggravated breach of minimum separation rule as above resulting in GBH injury or death - <u>deemed</u> aggravated dangerous driving under s.328A Criminal Code and maximum court ordered penalties as prescribed 10 years imprisonment + loss of licence for five years.

Registration

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⁶ http://www.tmr.qld.gov.au/~/media/Licensing/Licence%20demerit

^{%20}points/Demerit_points_schedule_nov2012.pdf

⁷ An offence of strict liability would exclude any defence based on misjudgment

Most abuse towards cyclists that I read in the media, on the Internet and hear on the road from irate motorists is to 'get off the road' and 'pay rego' (with or without expletives). Registration of bicycles to put cyclists on an even keel to motorists seems an absurd argument to me but seems to be a popular catchery the world over.⁸ Bike registration would seem to be a nightmare to administer and enforce by government. Bicycles do not cause roads to break up and require repair.

The RACQ⁹ puts it very well:

"RACQ does not support registration for cyclists. Many cyclists already pay registration for their motor vehicle so they should not be penalised if they choose to ride a bicycle instead on occasion. As many children have bicycles and some adults have multiple bicycles, any registration scheme would be complex and costly to administer and enforce. The additional red tape would result in little if any revenue benefit.

The cost of additional bicycle infrastructure is minor compared to the potential congestion and air quality benefits. Bicycles do not cause damage to the road network itself as they are very light compared to cars and trucks."

Helmet Laws

I note several submissions made to the Committee contend that wearing bike helmets ought not be compulsory on the basis that there is no evidence that helmets save lives or reduce injury and that more people would ride bikes if they were not forced to wear a helmet.

With respect, there is no compelling evidence that people refuse to ride bikes due solely to having to wear a helmet. That is a cop out. It is more likely that fear of injury or death puts people off riding bikes on roads.

⁸ In the UK the equivalent abusive term is 'pay road tax.'

http://www.racq.com.au/motoring/advocacy_for_motorists/road_safety/sharing_the_road_with_cyclists/cyc ling_frequently_asked_questions

I have two damaged helmets that speak to saving me from more serious head injuries. Both incidents were low speed (around 20km/hr) involving wet conditions when my front wheel slid out while turning or cornering. One incident was on a road, the other on a bike path. The one on the bike path in particular could have been very serious had I not been wearing a helmet. My helmet hit the concrete before I had time to put my arms out.

No-one keeps statistics on how many riders' brains are saved by helmets.

I fail to see why the rest of the community should pay for millions of dollars in medical care, extra insurance premium costs and welfare costs to pay to care for brain damaged riders who would not have been brain damaged if they had worn a helmet.

Sharing the Road

Much has already been written criticising the cycling facilities available on public roads. The following picture of a "bike lane" on Charters Towers Road Townsville is a classic; but is not a rarity in Queensland. Frankly, it would be better to have no bike lane symbol at all. Motorists and cyclists alike are confused when they see these road markings. No wonder there is anger out there.

No experienced bike rider would ride inside the bike lane next to a parked car in door opening range yet the motorist is irritated when the cyclist is in "their" lane and not the designated bike lane.

There is an alternative - to adopt the "Bicycle Awareness Zone" (BAZ) marking system on the lane beside the parking lane. However, TMR currently prohibits BAZ on main roads with multiple lanes.¹⁰ It is beyond belief that the bike lane shown below on Charters Towers Road can somehow be safer to the cyclist than the BAZ system which could have a yellow bicycle symbol on the lane next to the parking lane. That would

¹⁰ http://www.tmr.qld.gov.au/~/media/busind/techstdpubs/TRUM/1_39july2009.pdf

signal to the motorists that use the lane that they are in a shared lane and to expect bicycles in it. They can then decide whether to stay in the lane or change lanes.



Example of BAZ marking:



There needs to be a shifting of attitude within TMR on BAZ markings. They ought to be more widespread to carry the clear signal that roads are to be shared, particularly where there in an inadequate bike lane or shoulder.

Yours sincerely

Rohan Armstrong



Connecting Queensland

BICYCLE AWARENESS ZONES

1 Purpose

This note provides guidelines for the provision of Bicycle Awareness Zones (BAZ) on roads that form critical links in the cycle network, but which have constraints that prevent implementation of formal facilities such as bicycle lanes. BAZ should only be used after all other options for achieving a formal bicycle facility have been thoroughly investigated. Traffic engineering judgement needs to be applied to site specific treatments to ensure that BAZ treatments are used safely, taking into account local conditions.

BAZ treatments are "retrofit only" facilities for application to the existing road surface. BAZ must not be used in greenfield or capital improvement projects.

Department of Transport and Main Roads prohibits the use of BAZ on state controlled roads and will strongly pursue the implementation of formal bicycle facilities in lieu of BAZ. The reasoning surrounding this prohibition is presented in Appendix A.

2 Related documentation

This note should be read in conjunction with:

- · Guide to Traffic Engineering Practice, Part 14: Bicycles (Austroads, 1999);
- · AS 2700-1996: Colour Standards for general purposes;
- Road Planning and Design Manual, Chapter 5: Traffic Parameters and Human Factors (Queensland Department of Main Roads, 2002);
- Manual of Uniform Traffic Control Devices (MUTCD), Part 9: Bicycle Facilities (Queensland Department of Main Roads, 2000) (based on AS/NZS 1742.9); and
- Queensland Transport's Technical Cycle Note B5: Finding space for on-road bicycle lanes.

3 Background

Within Queensland, there are currently two different approaches to implementing advisory treatments for cyclists, these being: Section 4.4.6 Austroads Guide to Traffic Engineering Practice (GTEP) Part 14: Bicycles and the Bicycle Awareness Zone (BAZ) treatment trialled and implemented by Brisbane City Council. This note has been developed to ensure the BAZ treatment receives consistent application across Local Governments.

4 What is a Bicycle Awareness Zone?

Bicycle Awareness Zones (BAZ) are advisory treatments to indicate or 'advise' road users of the potential presence of cyclists and the position where cyclists may be expected to ride on the road. A BAZ treatment gives a similar message to, and may be used in conjunction with sign W6-7 Bicycles as specified in MUTCD Part 9 s2(e). **BAZ are not dedicated bicycle facilities.** Dedicated facilities are represented by a white painted bicycle symbol, pole mounted signs and unbroken lane line.

Queensland Government 2

A BAZ is distinguished by on-road yellow bicycle symbols which generally straddle the white edge line as shown in Figures 1, 2, 7 and 8. In instances where streets are very narrow, the BAZ may not have a white edge line as shown in Figures 3, 5 and 6. BAZ should only be installed in the presence of dividing lines to reduce the likelihood of drivers enacting unsafe overtaking manoeuvres.

The bicycle symbol is to comply with MUTCD Part 9 Figure 2.2 with a preferred dimension of 1100mm x 1800 mm. For extra emphasis over short lengths (e.g. 100m or less) of highly constrained road (e.g. over a narrow bridge) 1530mm x 1800mm symbols may be used. Symbols are to be coloured yellow (Y14 Golden Yellow colouring as defined in AS 2700) and placed at nominal intervals of 200m. Additional symbols may be required on curves and crests to ensure the symbols remain visible.

Figure 1 shows the preferred intersection pavement marking layout for BAZ with edge lines at an unsignalised intersection. Where existing edge lines continue around the kerb return, they will need to be removed. Yellow symbols should also be placed at the transitions between unbroken white line and continuity line.



Figure 1: Preferred intersection pavement marking layout for BAZ with edge lines at an unsignalised intersection

5 Role of Bicycle Awareness Zones

Bicycle Awareness Zones seek to:

- Increase awareness amongst motorists and cyclists of the need to share road space to maximise safety for cyclists;
- Warn cyclists that the road is not wide enough to accommodate a standard bicycle lane and that they should consequently ride more cautiously;
- · Show the likely path of travel of experienced cyclists;
- · Improve awareness of cycle routes to encourage cycling as a viable transport method;
- · Reinforce that bicycles use wide kerbside lanes;
- Encourage considerate driving behaviour, such as motorists giving appropriate clearance to cyclists; and
- Provide a connecting treatment to fill a missing link in the cycling network, pending the eventual provision of higher standard facilities.



Figure 2: Typical layout for a BAZ with edge line in an urban street with high parking demand

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Figure 3: BAZ (without edge line) encouraging motorists to drive closer to the median

6 When should Bicycle Awareness Zones be used?

Bicycle Awareness Zones are generally appropriate in the following situations:

- If the proposed route for the BAZ forms part of a cycle network identified within the local cycle network plan, or links to the existing cycle network;
- After the use of methods in Queensland Transport Cycle Note B5 determine that higher order treatments (for example, bicycle lane) cannot be provided on existing roads, due to constrained road space;
- · On roads with speed limits of 60km/h or less;
- On routes where the majority of cycling specific infrastructure (on-road cycle lane or offroad path) has been implemented. The BAZ should connect to a cycle facility at each end, and must not start or end at a point of high risk to inexperienced cyclists; and
- As a last resort, and preferably as a temporary measure to enhance continuity along the cycle route until better facilities can be provided. The road authority should document the options considered and also what measures would be needed to achieve a better treatment in the longer term.

7 When are Bicycle Awareness Zones not suitable?

Bicycle Awareness Zones are not suitable treatments in the following situations:

- Greenfield situations higher order bicycle facilities such as bicycle lanes and paths should always be provided in newly developing areas;
- · Roads with posted speeds greater than 60km/h;
- · Roads where traffic volume exceeds 3000 AADT (Annual Average Daily Traffic);
- Roads with angle parking, as converting to parallel parking will enable an Austroads GTEP Part 14 compliant bicycle facility;
- · Multilane roads;
- Where the proposed route is part of the cycle network identified within a Principal Cycle Network Plan (PCNP)

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- · Where bicycle lanes are achievable through minimal infrastructure works; and
- State-controlled roads (The Main Roads BAZ policy is presented in Appendix A).

8 Design and implementation of Bicycle Awareness Zone treatments

8.1 Assessment and selection process

Road authorities must evaluate and document all issues and options for a particular link or site before concluding that a BAZ is a suitable treatment.

Queensland Transport's Technical Cycle Note B5 outlines an assessment process to select the most suitable cycle treatment, this process should be utilised and is outlined in steps 1-3 below:

- 1. Route investigation understand existing road space and how it is used. Appendix B Bicycle lane design worksheet is provided to document the existing road environment.
- 2. Identify all practical options assess the site to determine the preferred treatments in conjunction with Figure 4 Bicycle Awareness Zone decision tree and Cycle Note B5 (Table 1: Ways to gain on-road space to make provision for on-road cycling). Tables 1 and 2 provide guidance on the choice of appropriate cycling treatments given varying road environments. These treatments are shown diagrammatically in Figures 5, 6 and 7. Table 2 also includes an example of how to achieve an Austroads compliant bicycle lane in lieu of BAZ.
- Identify preferred option using the preferred treatments identified in step 2, evaluate these against considerations such as construction cost, difficulty of construction, impact on other stakeholders, level of service and consistency along the route. Document the preferred option in Appendix B - Bicycle lane design worksheet.

8.1.1 Approval

Appendix B - Bicycle lane design worksheet must be completed for every BAZ treatment and signed off by an RPEQ.

8.1.2 Design Audit

The design audit is a risk assessment to be carried out pre-installation in order to identify any additional factors or problems that might make the proposed location unsuitable for installation of a BAZ.

8.1.3 Post installation audit

A post installation audit should be undertaken by a qualified road safety auditor in order to identify any safety issues in the operation of the BAZ. Austroads GTEP Part 14 (Appendix A) outlines an example of a Bicycle Safety Audit checklist - this should be used as the basis for the whole of route bicycle safety audit.

9 Education

In order to enhance road users understanding of the role of BAZ, a local education campaign targeted at motorists and cyclists should be implemented following the infrastructure works.

10 Review of guidance note

This note is to be reviewed 24 months from the date of adoption (May 2009) and every 24 months thereafter. The next review is due in May 2011.

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Issue: 31/7/2009

Total lane width	Vehicle lane width	Bicycle facility		
2.8m to 3.0m	2.8m to 3.0m	BAZ (without edge line) X=1.3m See Figure 5		
3.1m to 3.6m ¹	3.1m to 3.6m ¹	BAZ (without edge line) X=1.3m See Figure 5		
3.7m to 3.9m	3.7m to 3.9m	Preferred Treatment: White bicycle symbol refer Austroads GTEP Part 14, Page 31, Figure 4-16(b) Or yellow bicycle symbol where required for local consistency. X=3.0m See Figure 5		
4.0m or greater	2.8m ²	1.2m bicycle lane achieved		

Table 1: Lane configurations without parking

Notes:

- 1 Austroads Part 14 Section 4.4.7 and Main Roads Road Planning and Design Manual, Section 7.2.4 both caution the use of facilities between 3.0 and 3.7m. Intermediate widths (3.5m) are wide enough to encourage cars to pass bicycles, but not wide enough to do so safely.
- 2 Subject to traffic volumes, speeds and road geometry, wide kerbside lanes may be required instead of a BAZ if 2.8m vehicle lane widths are not appropriate.



Figure 5: Dimensions for BAZ without edge lines (without parking) (Adapted from Brisbane City Council - UMS 861)

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Total Seal Width (Including parking)	Austroads compliant Bicycle lane achievable in lieu of BAZ ¹	BAZ (not suitable above 3000AADT)		
Less than 10.6m	Parking not achievable, refer to configurations without parking			
10.6m to 10.8m	1 x 2.1m parking bay 1 x 0.4m "safety strip" 2 x 1.2m bike lanes 2 x 2.8m vehicle lanes ²	BAZ (without edge line) See Figure 6		
11m to 12.8m	1 x 2.1m parking bay 1 x 0.5m "safety strip" 2 x 1.2m bike lanes 2 x 3.0m vehicle lanes	BAZ (with edge line) 2.5m to 3.4m from kerb 2 x 3.0m vehicle lanes See Figure 7		
13m or greater	1 x 2.3m parking bay 1 x 0.7m "safety strip" 2 x 1.5m bike lanes 2 x 3.5m vehicle lanes	BAZ not applicable (Austroads GTEP Part 14 compliant bicycle lane is achievable) 1 x 2.1m parking bay 1 x 0.4m "safety strip" 2 x 1.2m bike lanes 2 x 2.8m vehicle lanes ²		

Table 2: Road configurations with parallel parking

Notes:

- 1 Refer Austroads GTEP Part 14 figure 4-6 to view Bicycle/Car Parking Lane layout.
- 2 Reductions to parking availability may be required if vehicle lane widths less than 3.0m are not appropriate. Lane width considerations subject to traffic volumes, commercial vehicles, speeds, road geometry and visibility.





Figure 6: Dimensions for BAZ with parallel parking (without edge lines) (Adapted from Brisbane City Council - UMS861)



Figure 7: Dimensions for BAZ with parallel parking (with edge lines) (Adapted from Brisbane City Council - UMS861)

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Appendix A: Main Roads BAZ Policy

Main Roads is committed to improving road safety. Vulnerable modes such are cyclists are overrepresented in killed and seriously injured crash statistics. As cyclists are legitimate road users infrastructure must account for their vulnerable nature. Main roads decision making is informed by *Roads Connecting Queenslanders*, Main Roads long-term strategic direction and the *Main Roads Cycling on State Controlled Roads policy*. These documents are available online at www.transportandmainroads.qld.gov.au. This position paper looks at relevant policy in relation to BAZ treatments and deems that BAZ is not an appropriate treatment on state controlled road.

Roads Connecting Queenslanders (RCQ)

Roads Connecting Queenslanders (RCQ) provides the strategic, long-term policy direction for Main Roads for the next decade and beyond. It is the strategy to enable Main Roads to undertake a total road system focus, adopt a stewardship role of the state's roads, efficiently deliver road projects and manage road operations. RCQ seeks to achieve four key outcomes:

RCQ Outcome 1: Safer roads to support safer communities

Safety is Main Roads top priority. Separation is one of the key principles in safe road operations with increasing importance in high speed and high volume traffic situations. BAZ treatments do not dedicate road space to cyclists and result in the cyclist operating envelope being fully exposed to following traffic. Most state controlled roads form the principal desire lines for cyclists. Fully exposing the cyclist operating envelope to speed differentials greater than 30km/h in combination with high frequencies of passing vehicles is deemed as unsafe.

BAZ treatments can often compromise the safe cyclist operational envelope with the intent of retaining on-road parking. If a conflict occurs between road user safety and on-road parking, then parking should be removed. In most cases this would result in a dedicated bicycle lane being easily implemented.

As BAZ treatments do not provide adequate operational space for cyclists, road safety can be degraded. Therefore BAZ treatments cannot be supported under this strategic outcome.

RCQ Outcome 2: Efficient and effective transport to support industry competitiveness and growth

Efficient and effective transport requires predictable road operations. BAZ treatments generally result in cyclists attempting to hold a lane or weaving between the shoulder and the lane. This impacts on predictable road operations and is incompatible with safe and efficient road operations on state-controlled roads which tend to be higher speed and higher volume roads.

Legally, crossing the edge line is a change of lane manoeuvre and requires the cyclist to give way to traffic in the road lane. Events such as a door opening on a parked car allow very little time for a cyclist to react. This change of lane manoeuvre will generally be challenging for the cyclist, as the obstruction ahead must be avoided while also giving way to traffic approaching from the rear.

There is a tendency for cyclists to travel too close to parked vehicles due to pressure from vehicles approaching from behind. BAZ offers poor guidance to an inexperienced cyclist to stay clear of the "door zone" of parked cars. This situation is clearly depicted in Figure 8. Available crash history in Queensland (1992-2009) records 407 incidents have occurred where a cyclist has impacted with a car door. Many incidents record the cyclist being thrown into the travel lane to be subsequently hit by a following vehicle. Similarly, 1347 incidents involve being rear-ended or side swiped by a following vehicle, many of these

incidents appear to be in the presence of parked vehicles. Crash history indicates that cyclists must be given operational space around parked cars and clear of through traffic.



Figure 8: Bicycle Awareness Zone (with edge line and parking)

As BAZ treatments do not provide adequate operational space for cyclists overall road efficiency can be degraded. Therefore BAZ treatments cannot be supported under this strategic outcome.

RCQ Outcome 3: Environmental management to support environmental conservation

Cycling is a sustainable mode of transport and can reduce the environmental impacts associated with road congestion, carbon emissions and other forms of pollution.

A recent review of the current state controlled road network used the criteria presented in this technical note (Roads with posted speeds 60km/h or less and 3000 AADT or less). This review did not identify any sections of state controlled road that were suitable for BAZ. Using BAZ on the state controlled roads will only hinder greater adoption of this sustainable mode of transport and therefore cannot be supported under this strategic outcome.

RCQ Outcome 4: Fair access and amenity to support livable communities

Fair access, amenity and livability for communities will be improved with a greater rollout of a safe and connected network of bicycle facilities. Main Roads has obligations under the Queensland cycle strategy to encourage more people to cycle more often. Main roads key role in achieving this is the implementation of infrastructure that supports the directness, attractiveness, comfort and safety of trips made by bicycle.

BAZ treatments only cater to experienced cyclists who have learned how to operate amongst traffic and who are willing to accept less separation from traffic than members of the wider community. Higher order bicycle facilities offering operational space and separation from traffic are required to overcome the negative perceptions that many Queenslanders hold as a barrier to cycling. By not being an inviting facility to new cyclists BAZ treatments cannot be supported under this strategic outcome.

Cycling on State Controlled Roads Policy

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.

Conclusion

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 is signatory to the Queensland cycle strategy and must be mindful of achieving the 2011 targets to increase the numbers of Queenslanders who choose to cycle.

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 B: Bicycle lane design worksheet

12	Appendix B - Bio	ycle lane design wo	rksheet	a second a second s
Project Name / Number				the second second
Existing environment				
Section description Street			T	
from				
10		Contractor and the second	And the second second	
Posted speed limit				
Vehicles Per Day (VPD)		Γ		
Traffic mix (% HGV / LGV / cars)				
Describe how proposed connection contributes to an identified cycle route.				
Potential cyclists Expected cyclist volume (hourly)	*	qr'	· -	1
Likely cyclist type	- desired - whether		<u> </u>	1
(for example, commuter, recreational, u	ality)		9	Sec. 14
Existing road layout				
Side 1				
Parking turnover (high, med, low)				
Parking restrictions				
Existing lane widths Parking				
Traffic				
Traffic				
Side 2	WV		St. Sea	
Existing lane widths Traffic				
Bike	And the second s			
Parking				
Parking restrictions [
Parking turnover (high, med, lowr)				
Sealing shoulders Indenting car parking Rationalising car parking Road widening at the median Road widening (in direction of travel)				
Removing a motor vehicle lane Combinations of above options				
Proposed bicycle facility				
Determine treatment by using TRUM No	te 1.39, Figure 4 - Bicycl	e Awareness Zone decisio	in tree.	
Treatment Side 1: (circle chosen treatment)	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane
Treatment Side 2: (circle chosen treatment)	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane	BAZ (no edge line) BAZ (edge line) Wide kerbside lane Exclusive bicycle lane
Width Side 1			1975	No. State
Proposed lane widths Parking				
Bike				
Traffic				
Width Side 2			L	
Proposed lane widths Traffic T	- i - the summing of a			and the second s
Traffic				
Bike				
f BAZ is the chosen cycle treatment, describe how an Austroads Part 14 compliant facility could be provided in the future.				
Comments:			· · · · · · · · · · · · · · · · · · ·	
an an Alamatan an a				
		-1.961		
Approved by				
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