

ACT LEGISLATIVE ASSEMBLY
INQUIRY INTO VULNERABLE ROAD USERS

25 October 2013

Committee Secretary
ACT Legislative Assembly
Inquiry into Vulnerable Road Users
committees@parliament.act.gov.au

Dear Sir/Madam,

GTA Consultants (ACT) Pty Ltd (GTA) is pleased to provide a submission to this important inquiry. GTA is a traffic & transport consultancy which has been operating in Canberra for over four years. GTA has undertaken a number of cycling and pedestrian-related projects in the ACT during this time.

GTA, through its Australia-wide practice, has extensive experience in reviewing national and international best practice approaches to protecting and encouraging vulnerable road users through infrastructure design, education and promotion. GTA studies road crash data, and issues faced by vulnerable road users, and recommends and designs improved infrastructure.

Introduction

Our submission reviews some other submissions made to this inquiry, reviews some international research findings, and recommends some changes that could be made in the ACT to better protect and encourage vulnerable road users.

Endorsement of other submissions

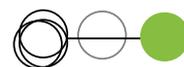
GTA endorses the submissions made by Pedal Power¹ and the Amy Gillett Foundation² to this inquiry. By taking into account diverse yet related factors such as urban planning, transport networks, cycling education and encouragement, and regulation and enforcement, Pedal Power's submission outlines a holistic approach to improving conditions for vulnerable transport users. The Amy Gillett Foundation offers some very practical recommendations concerning a minimum overtaking distance, and speed limit reductions. While the first would primarily protect cyclists, the second would be beneficial for all vulnerable road users.

Recent international research

SWOV and Fietsberaad, respectively, are the preeminent road safety research and cycling policy agencies in The Netherlands. Recent research on non-fatal serious injuries provides valuable insights into road safety for vulnerable road users, especially cyclists. Some aspects of the research are particularly relevant to cycling safety in the ACT, given the network structure with a mixture of commuter paths, shoulder lanes and local streets. As the research has not been translated GTA offers the following summary.

¹ Submission to the ACT Legislative Assembly Inquiry into Vulnerable Road Users, Pedal Power ACT Inc., 2013

² Submission to the ACT Legislative Assembly Inquiry into Vulnerable Road Users, Amy Gillett Foundation, 2013 (Draft)



Figures 1 to 3 provide an overview of the research from The Netherlands. It is evident that:

- Non-fatal serious injuries (which are increasing) follow different patterns than fatalities (which are reducing), particularly where there is no motor vehicle involvement (Figure 1, Figure 2). As is the case in The Netherlands, much of the Australian road safety focus is on fatalities and we lose sight of serious injury patterns and trends **<<Refer to Recommendation #1>>**.

Figure 1 - Bicycle Deaths in the Netherlands 1990 to 2010³

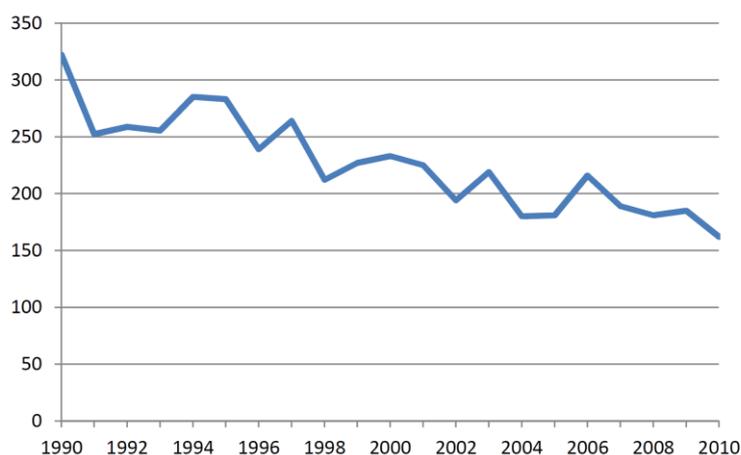
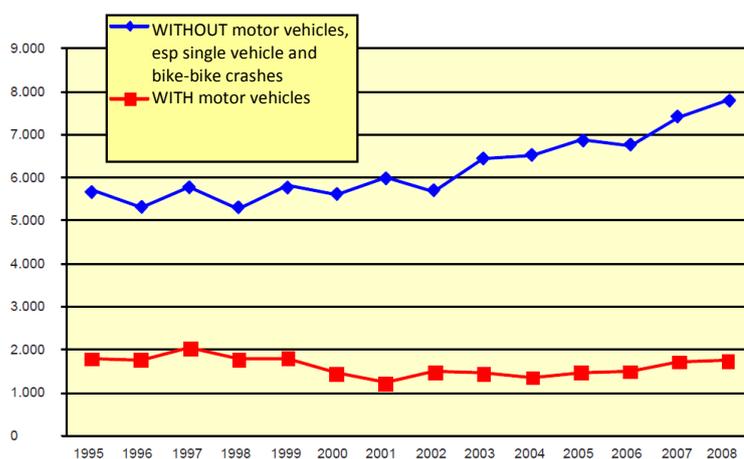


Figure 2 - Serious bicycle injuries WITH and WITHOUT motor vehicle involvement (MAIS2+)⁴



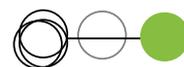
- Only 5% of non-motor vehicle crashes are reported, which complicates the research. Research by GTA for the ACT Government and the NRMA-ACT Road Safety Trust⁵ indicates similar problems in the ACT **<<Refer to Recommendation #2>>**.

³ Source - Summary, p6, Fietsberaad Publicatie 19a.

<http://www.fietsberaad.nl/library/repository/bestanden/Fietsberaadpublicatie19%20webversie.pdf>

⁴ Source - Figure 1.1, Fietsberaad Publicatie 19a.

<http://www.fietsberaad.nl/library/repository/bestanden/Fietsberaadpublicatie19%20webversie.pdf>



- 98% of non-fatal injuries WITHOUT motor vehicle involvement in The Netherlands concern cyclists, the remainder being pedestrian only injuries, e.g. "trip and fall".
- 6% of non-fatal injuries WITHOUT motor vehicles involve two or more bicycles. Again, this is not dissimilar to the GTA research findings.
- 92% of non-fatal injuries WITHOUT motor vehicles involve single vehicle bike crashes, with a 50-50 split in "fall" and "infrastructure".
 - The "fall" injuries appear to relate particularly to children, who are less experienced. While this may not be a big issue in ACT, due to the relatively low uptake of cycling among our young, cycling skills training at schools could fulfil the dual purposes of training and promotion/encouragement **<<Refer to Recommendation #3>>**. Good examples of local government school programs exist in Brisbane, Ipswich and a series of other Queensland Councils. Moreover, informal discussions with the cycle skills training industry indicate there are significant community concerns in Australia about personal cycling skills and riding in traffic. This is exemplified by increasing numbers of experienced but "rusty" riders as well as new riders seeking to update/learn skills through agencies such as *BikeWise* in Sydney and *Cam's Cycling Coaching* in Brisbane. *AustCycle*, *Cycling Australia*, *Pedal Power* and other State/Territory cycling agencies provide support for these organisations in terms of training and certifications, and importantly, insurance. However better coordination and greater government support is required, possibly including subsidised cycling training for staff who ride for work/ to work, or wish to do so **<<Refer to Recommendation #4>>**.
 - In terms of "infrastructure" related crashes (Figure 3), some Dutch patterns are less relevant to the ACT: e.g. "longitudinal grooves" may relate to extensive use of flagstone pavers in The Netherlands; collisions with kerbs relates to urban cycleways being separated from footpaths by a kerb and a height difference, i.e. there are virtually no urban "shared paths" in The Netherlands. However, much of the remaining "infrastructure" crash pattern relates to non-compliant or poorly maintained infrastructure, which is commensurate with findings by Australian claims and insurance officers, as presented at a local government risk management seminar⁶ in September 2012. The cost of claims ranges from several hundred dollars to many millions. It is noted that all eight cases presented in the two papers by the claims and insurance officers concern non-compliant infrastructure, which is identified as a considerable and imminent risk to Australian local governments **<<Refer to Recommendation #5, #6>>**.
- Serious but non-fatal injuries in crashes WITH motor vehicles are far less prevalent for bicycles (Figure 3) but trends are increasing. Key factors include:
 - "**Untangling**". Separation of the bicycle and general road networks with a fine-grained access network for bikes and a coarse motor traffic network. This is of

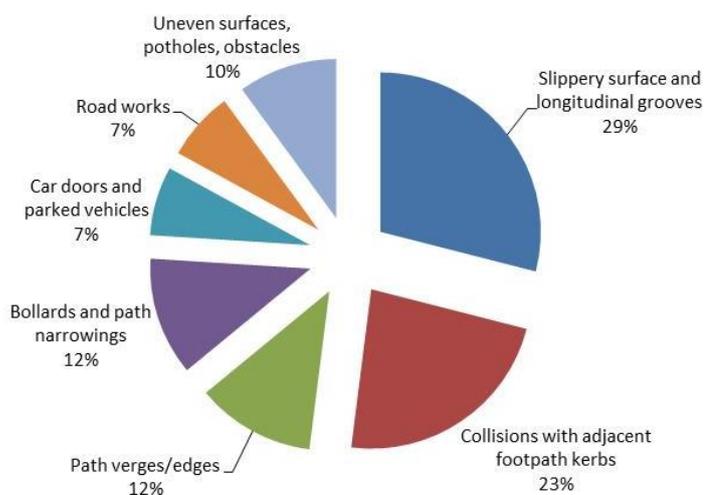
⁵ ACT Safer Cycling Strategy, GTA Consultants, 2012

⁶ Source - <http://www.unitedindependentpools.org/documents.asp?catID=528>

particular relevance to the ACT, with the existing network of commuter paths along major roads and through parklands forming a strong starting base. The challenge is two-fold: 1) connectivity with the local street network <<Refer to Recommendation #7>>; and 2) the relatively low pathway network density <<Refer to Recommendation #8>>.

- “**Cycle tracks**”. Separate paths for bicycles along the main road network with detailed attention to the crossings of side streets, especially for two-way paths. Again, the network of commuter paths “in the road reserve” forms a strong starting base for the ACT, but there is a need to improve priority and safety at side streets <<Refer to Recommendation #9>>.
- “**Crossability**”. This focusses on the need for speed reduction measures at intersections and the provision of wide medians at crossings of roads with more than one lane in each direction <<Refer to Recommendation #10>>.
- “**Blind spots**” for heavy vehicles, especially at signalised intersections. “Advanced bicycle stop lines” and bike paths with wide verges appear to be effective <<Refer to Recommendation #11>>.

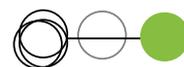
Figure 3 - Typology of serious bicycle injury crashes associated with infrastructure⁷



Other vulnerable road users

Although the Dutch research findings relate mainly to cyclists, many of the issues and solutions mentioned above are relevant to other vulnerable road users including pedestrians, and people who use low-speed wheeled devices including wheelchairs, mobility scooters and perhaps even Segways.

⁷ Source - Figure 1.2, Fietsberaad Publicatie 19a.
<http://www.fietsberaad.nl/library/repository/bestanden/Fietsberaadpublicatie19%20webversie.pdf>



Improving road crossings, reducing traffic speeds, and separating active travel facilities from roads will be beneficial for other vulnerable road users. One example would be improvements in the provision of kerb ramps, which could help users of mobility scooters, and pedestrians with mobility issues who have difficulty stepping up onto high kerbs. The benefits of protection for vulnerable road users should not be underestimated as the ACT's population continues to age and greater numbers of vulnerable users are expected in future.

Recommendations

1. Prepare annual reports comparing trends in fatalities and serious injuries, by mode of transport
2. Improve the reporting of bicycle and pedestrian crashes, especially where there is no motor vehicle involvement and especially on pathways
3. Develop a school cycle skills program to improve riding ability and promote cycling, similar to the programs at selected Queensland Councils
4. Encourage, support and coordinate private industry initiatives in cycling skills training
5. Audit the ACT commuter path network with a view to identifying and rectifying non-compliant infrastructure, e.g. the use and application of pathway terminal treatments, path-side verges obstacles, signs and markings, surface condition, maintenance standards, etc.
6. Review and update Design Standard DS13 Pedestrian & Cycle Facilities in the context of the audits under Recommendations #5, #7 and #9
7. Audit and rectify as required the interface between the commuter path network and local streets, including intersection/crossing priority, transitions, traffic speeds, wayfinding, etc.
8. Research and agree on an appropriate density for a fine-grained commuter pathway network and develop a prioritised implementation program
9. Audit and rectify as required the intersections and crossings of the commuter path network along main roads, particularly in terms of intersection/crossing priority, transitions and traffic speeds
10. Develop a **Demonstration Project** for an "**untangled**" route along local streets and commuter/local paths with a focus on "**crossability**" and intersection speed reduction - GTA suggests a route from Dickson to City east of Northbourne Avenue
11. Expand the application of "advanced bicycle stop lines" at signalised intersections, with a focus on routes with high volumes of bicycles, heavy vehicles and buses.

We would be pleased to provide evidence to the Committee, if requested.

Yours sincerely

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