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VicRoads Network Policy and Standards
Via email to tem@roads.vic.gov.au

DRAFT SPEED ZONING GUIDELINES, JULY 2016

Thank you for the opportunity to input to these guidelines.

Towards Zero 2016//2020 Victoria's Road Safety Strategy and Action Plan notes that with the population growing and ageing, Monash University forecasts that "...trauma levels could rise in the next five years unless we take bolder approaches to road safety." (Victorian Government 2016)

Rather than taking a bolder approach, the Draft Speed Zoning Guidelines appear to reflect a 'business as usual' approach. They do not seem to promote the application of lower urban speed limits, even though experience has shown that reducing speed limits is one of the most cost-effective ways of reducing road trauma.

The Guidelines themselves note:

"Studies have indicated that the introduction of the 50 km/h default built-up speed limit in Victoria resulted in a reduction in all casualty crashes of around 12%, and a 25-46% reduction in pedestrian fatal and serious injury crashes on those roads."

The Guidelines do not appear to promote a similar reduction in road trauma. In fact, they have a potential to obstruct efforts to reduce trauma, by preventing the application of 30 km/h speed limits. They may frustrate the realisation of *Towards Zero 2016//2020 Victoria's Road Safety Strategy and Action Plan*.

Background – Victoria Walks

Victoria Walks is a walking health promotion body, established by VicHealth in 2009, working to get more Victorians walking more every day. Our vision is for vibrant, supportive and strong neighbourhoods and communities where people can and do choose to walk wherever possible.

Our cities, towns, neighbourhoods and urban areas have become largely automobile dependent and less walkable. This has contributed to the emergence of more sedentary lifestyles in which Victorians do not engage in the recommended levels of physical activity. Physical inactivity is a significant factor in the dramatic rise in the levels of obesity and preventable diseases such as Type II diabetes and cardiovascular disease.

Walking-friendly neighbourhoods and urban spaces are essential to encourage and enable people to walk. Walking is associated with positive health outcomes, improved fitness and better physical, social and mental health. Making towns, cities and suburbs more walkable has many health, environmental and economic benefits.

Recommendations

1. Amend Table 1 – Overview of Speed Limits to allow for the application of 30 km/h speed limits, by adding the following or similar wording:

30 km/h	• Pedestrian activity areas, including shopping precincts, town centres and school zones
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2. Amend Table 1 – Overview of Speed Limits to explicitly allow for the application of 40 km/h speed limits to local residential streets, as follows:

40 km/h	• Pedestrian activity areas, including shopping precincts, town centres, school zones and local residential streets (Refer to section 5.3)
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3. Make any other changes necessary to the remainder of the document to give proper effect to the changes above.

The rationale behind these recommendations is explained in the remainder of this submission.

Need for 30 km/h speed limit option

There is unequivocal evidence that 30 km/h is safer than higher speed limits. There is strong evidence to suggest that a 30 km/h limit is necessary to give a pedestrian a good chance of surviving a crash.

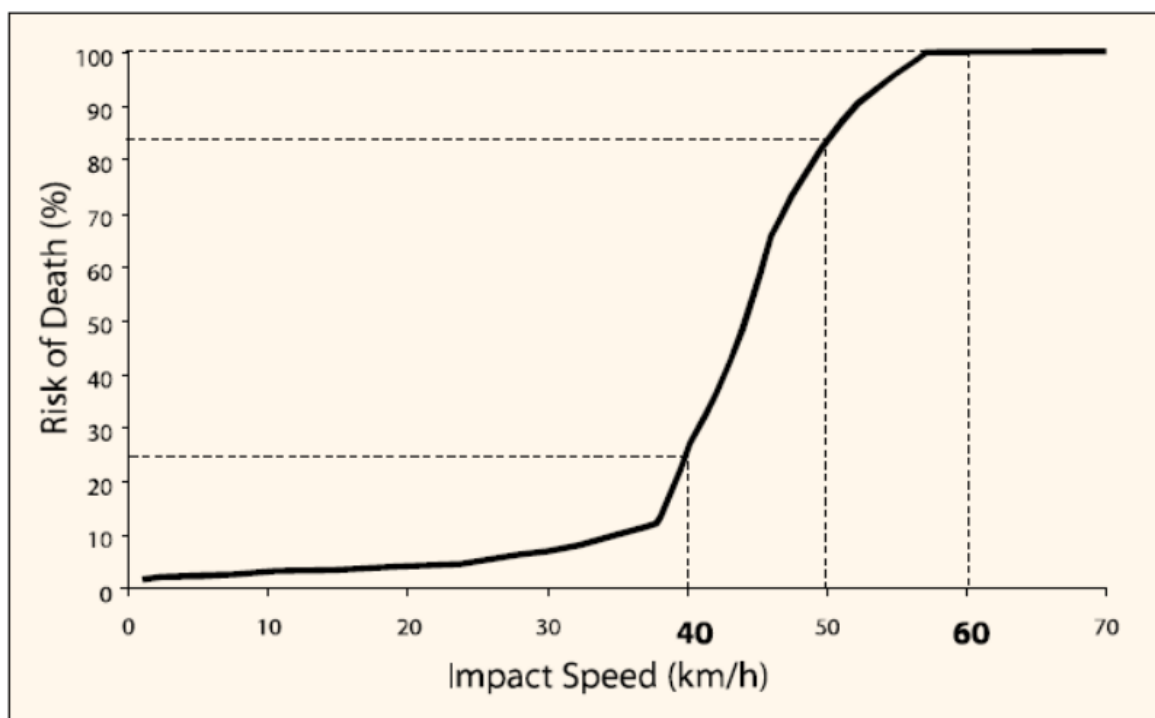
The safety benefits of 30 km/h speed limits for both car occupants and pedestrians are evidenced by the Guidelines themselves, which note in Appendix A:

“For impacts with poles or trees when only 20-25% of the frontal structure is directly contacted, any speed above 30 km/h is highly likely to result in serious injury to the car occupants. For side-impact crashes by another light passenger vehicle, the vehicle struck in the side can only offer occupant protection without likelihood of serious injury when the striking vehicle is impacting at a speed under 50 km/h and the impacted vehicle has full occupant protection including side and curtain air bags. For side-impact crashes into a tree or pole this speed is 30 km/h.

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“The relationship between vehicle speed and crash severity is critical for pedestrians as shown in Figure A.2. Pedestrians and cyclists are likely to be relatively safe only in areas with traffic speeds of below 40 km/h. At this speed, most potential collision situations can be recognised by drivers and avoided. If a collision occurs, damage and injury will be light to severe but rarely fatal. On average, eight out of ten pedestrians die if hit by a car travelling at 50 km/h, while only one out of ten dies if the car is travelling at 30 km/h.”

Figure A.2 as referenced above is shown below.



Risk of pedestrian death as a function of vehicle impact speed

This illustrates that the risk of pedestrian death rises exponentially with collision speeds beyond 30 km/h. It is estimated that less than 10% of pedestrians would die when struck by a vehicle travelling at 30 km/h, compared with fatality rates of around 25% at 40 km/h and over 80% at 50 km/h.

The benefits of 30 km/h speed zones have been demonstrated in practice. A comprehensive study of the introduction of 20 mph (32km/h) zones in London found a 32% reduction in pedestrian casualties (fatalities and injuries). The benefits for child pedestrians were even more significant – a 47% reduction for those aged 0-5 and a 51% reduction for 6-11 year olds. There was a decrease of 42% for traffic casualties overall (Grundy et al 2009).

Despite this evidence, the Guidelines (Table 1 – Overview of Speed Limits) do not provide for the application of 30 km/h speed limits.

Applying 40 km/h speed limits to local streets

Under the heading “Safer speeds on local streets”, *Towards Zero 2016//2020 Victoria’s Road Safety Strategy and Action Plan* says:

“In partnership with local government, the Government will engage local communities about the need for safer speeds on local streets where a lot of pedestrian and cyclist deaths and serious injuries happen.

Traffic calming measures will also slow down vehicles in local streets, encouraging more people to walk or ride. Over the next five years, local streets will be made safer with further investment in local safety measures.” (Victorian Government 2016).

Given that the default urban speed limit is 50 km/h, the clear implication is that 30 or 40 km/h speed limits will be needed to support this vision of slower speed on local streets.

Table 1 – Overview of Speed Limits restricts 40 km/h zones to “Pedestrian activity areas, including shopping precincts, town centres and school zones.” The intent appears to be to

allow 40 km/h limits on local streets, because section 5.3 says that pedestrian activity areas includes local residential streets. That intent should be explicitly reflected in Table 1.

To discuss any aspect of this submission, please contact Duane Burt, Senior Advisor on 9662 3975 or dburt@victoriawalks.org.au.

References

Grundy, C; Steinbach, R; Edwards, P; Green, J; Armstrong, B; Wilkinson, P (2009). 'Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis,' *BMJ* 2009;339:b4469

Victorian Government (2016) *Towards Zero 2016//2020 Victoria's Road Safety Strategy and Action Plan*