

# 2019 ACRS SUBMISSION on the 20-Year State Infrastructure Strategy Discussion Paper (June 2019)



## ***About the Australasian College of Road Safety***

The Australasian College of Road Safety was established in 1988 and is the region's peak organisation for road safety professionals and members of the public who are focused on saving lives and serious injuries on our roads.

The College Patron is the Governor-General of the Commonwealth of Australia.

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## 1. Introduction

The ACRS welcomes the opportunity to provide a submission on the 20-Year State Infrastructure Strategy Discussion Paper published by Infrastructure SA in June 2019.

We recognise that the Discussion Paper necessarily is very high level and focusses broadly on a wide range of economic and social infrastructure crucial to the well-being of South Australians, in regional and remote areas as well as Greater Adelaide.

That said, we are quite shocked to note the reference and response to the fact that hundreds of road users in South Australia are killed or seriously injured each year while making everyday use of infrastructure which is under the care and control of a variety of public agencies. We note that the discussion paper says that the safety of road users is not the least of Infrastructure SA's concerns. We also note that zero reference is given to the safety of road users as a future focus of Infrastructure SA. We are left wondering how this discussion paper relates to the formally documented strategies and stated positions of the Government of South Australia, and of the Australian Government.

Once Infrastructure SA has considered the integral role that infrastructure plays in the life, death and disability of South Australians on our road infrastructure, the South Australian Chapter of the Australasian College of Road Safety would be happy to engage in your task. For now, this submission provides the Chapter's input on the transport sector and particularly road infrastructure for consideration by Infrastructure SA as it develops the 20 Year State Infrastructure Strategy.

The Australasian College of Road Safety (ACRS) is the region's peak membership association for road safety professionals, advocates, and members of the public who are focused on saving lives and serious injuries on our roads. The College provides a rich, collaborative environment promoting communication, networking, professionalism & advocacy across all spheres of road safety – including policy, advocacy, research, application & dissemination.

ACRS membership includes experts from across all areas of road safety: policy makers, academics, community organisations, researchers, federal, state and local government agencies, private companies and members of the public ([www.acrs.org.au](http://www.acrs.org.au)). The College has Chapters in Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia, Western Australia, Northern Territory and New Zealand.

## 2. Background

### 2.1 The Safe System Approach

The objective of road safety is changing from ameliorating crash rates, to the elimination of death and serious injuries on our roads. This shift in focus is important, as it recognises human frailty in two ways:

- Human beings make innocent mistakes. While there are serious road crashes resulting from blatantly irresponsible behaviours, many more serious crashes occur through innocent human error; simply by people making mistakes;
- The physical tolerance of the human body to road trauma in various crash scenarios. This diagram shows an approximate pictorial representation of the relationship between impact speed and the risk of death for differing crash configurations involving a passenger car.



The diagram is highly instructive, and points to the following:

- Critical impact speeds differ markedly across differing crash circumstances
  - Pedestrians are highly vulnerable at impact speeds of about 30 km/h or higher
  - Vehicle occupants in side-on collisions (for example at an intersection) at impact speeds of about 50 km/h or higher, and
  - Vehicle occupants in head-on collisions (for example, on the open road) at impact speeds of about 70 km/h or greater
- Beyond the critical impact speed, the risk of death rises rapidly; small increases in impact speed translate into large increases in the risk of death.

This change towards the elimination of fatal and serious injuries in road crashes is often termed “Vision Zero”, and is not aiming to eliminate all crashes; minor crashes that people survive without serious injury are tolerable and can even be lessons learnt. This recognises that crashes will continue to occur through human error.

The Safe System approach is enshrined in the national road safety strategies of both Australia and New Zealand with the ultimate goal of achieving zero road fatalities and serious injuries. The way the key elements of the transport system interact is crucial to achieving a favourable safety outcome.

Vision Zero has five pillars under the idea that road safety is a shared responsibility between road managers and road users, another key shift from the former view of all responsibility laying with drivers, riders and pedestrians.

The five pillars are:

- Safer Roads
- Safer Speeds
- Safer People
- Safer Vehicles
- Post-Crash Response.

Their relationships are shown diagrammatically here from Towards Zero Together South Australia’s Road Safety strategy 2020.



There are strong inter-relationships between all elements, and in the context of the 20 Year State Infrastructure Strategy, the linkages between safe roads and safe speeds are particularly important.

Furthermore, road safety management is a key pillar recognised in the WHO/UN Global Plan for the Decade of Action for Road Safety 2011-2020.

## 2.2 The Australian Road Assessment Program (AusRAP)

The public has become very aware of the Australasian New Car Assessment Program (ANCAP) star ratings on the safety of new cars as measured by their crashworthiness. 5 star ratings have become a key purchasing criteria, and this is certainly contributing towards the reduction of fatalities and serious injuries. The Australian Road Assessment Program (AusRAP) is a similar star rating scheme that is applied to roads and the roadside. An initiative of the Australian Automobile Association, AusRAP provides a comprehensive assessment of road attributes such as geometry (divided / undivided, alignment, intersections and access points, etc), roadside hazards such as trees, utility poles, steep drop-offs, etc, and condition of the surface, line markings, etc. Austroads subsequently funded development of the Australian National Risk Assessment Model (ANRAM) which provides a system to identify road sections with the highest risk of severe crashes on a nationally-consistent basis. ANRAM is built on existing Australian and international risk-based road safety programs such as AusRAP and iRAP. Austroads has a current project which is investigating the development of a management tool that will encourage safety considerations to be integrated into infrastructure planning decisions from the outset.

The last national AusRAP report was in 2013 and the following table outlines the star ratings for South Australian National Highways with speed limits of 90 km/h or more.

Highways Length (km)	Proportion in each Star Rating				
	★	★★	★★★	★★★★	★★★★★
2,041.1	14%	23%	59%	4%	0%



## 2. Comments

ACRS is pleased to provide input and comment that it considers important in the further development of the 20 Year State Infrastructure Strategy.

### 3.1 Federal Inquiry into the National Road Safety Strategy 2011–2020

On 8 September 2017 an inquiry into the National Road Safety Strategy 2011–2020 was announced by the then federal transport minister Hon Darren Chester MP. A panel of four was convened to conduct the inquiry. It was co-chaired by Associate Professor Jeremy Woolley (Director of the Centre for Automotive Safety Research at the University of Adelaide) and Dr John Crozier (Chair of the Trauma Committee at the Royal Australasian College of Surgeons). Official advisors were the then President of the Australasian College of Road Safety, Lauchlan McIntosh AM, and CEO of the International Road Assessment Program (iRAP), Rob McInerney.

This important report was released by the Deputy Prime Minister Hon Michael McCormack MP in September 2018. The report focusses on high order governance and management of the road safety problem. The key finding was the National Road Safety Strategy 2011 – 2020 is not meeting targets and essentially there has been an implementation failure. The report highlighted a lack of mainstreaming road safety in the management of the road transport system. A key issue that arose is the need for dramatic change in road safety management given the inadequately acknowledged scale of the national road injury problem and the costs to the economy now and into the future from road trauma. So far in 2019 road trauma is increasing, rather than reducing towards zero fatal and serious injuries.

Twelve recommendations were made in the Inquiry Report. While these are at a national level, several pertaining to governance and infrastructure are considered to be relevant for factoring into the 20 Year State Infrastructure Strategy.

These follow with original numbering, along with comments relating the nationally-focused recommendation to the 20-Year State Infrastructure Strategy:

1. *Create strong national leadership by appointing a Cabinet minister with specific multi-agency responsibility to address the hidden epidemic of road trauma including its impact on the health system.*

It is noted that Corey Wingard MP (Minister for Police, Emergency Services and Correctional Services; Minister for Recreation, Sport and Racing) has a specific ministerial responsibility for road safety, which needs to be addressed across a number of portfolios.

2. *Establish a national road safety entity reporting to the Cabinet minister with responsibility for road safety.*

It is noted that arrangements are being put in place following the abolition of the Motor Accident Commission, but no-one outside of government at the time of writing has any knowledge of current leadership arrangements for road safety in South Australia.

3. *Commit to a road safety fund.*

This federal level recommendation suggested a national fund of \$3 billion per annum that could be applied in all key domains of the Safe System that directly influence road safety outcomes, such as: leadership and skills development; speed management; infrastructure safety; vehicle safety; enforcement, and post-crash care.

This recommendation could be addressed in the 20 Year State Infrastructure Strategy, on a pro-rata basis at the State level, at least for the infrastructure related elements of speed management and infrastructure safety. The existing Community Road Safety Fund could be reformed to provide a suitable foundation for a larger and more comprehensive fund. Such a state road safety fund would be a transparent vehicle for the receipt of federal road safety funding.

4. *Set a vision zero target for 2050 with an interim target of vision zero for all major capital city CBD areas, and high-volume highways by 2030.*

The Federal Inquiry recommended the formal establishment of targets for zero fatalities and serious injuries; overall for 2050, with interim targets of 2030 for major capital city CBD's and all freeways, motorways and high-volume highways. Other targets suggested include attaining a 75% reduction in fatalities and serious injuries by 2040, and residential streets by 2040.

These targets could be addressed in the 20 Year State Infrastructure Strategy.

5. *Establish and commit to key performance indicators in time for the next strategy that measure and report how harm can be eliminated in the system, and that are published annually.*

The ACRS has called for some years now to make the publication of safety star ratings on the National Road Network a condition for any Commonwealth investment in the network, and this principle can be applied across all road infrastructure funding for South Australia. It also should be a condition of funding that road infrastructure designs are assessed and given a star rating. An appropriate target for designs would be at least 4 Stars, which includes consideration of the design speed and intended speed limit.

8. *Accelerate the adoption of speed management initiatives that support harm elimination.*

There will be many roads which do not have sufficient traffic to justify significant infrastructure improvements, or if justified, the improvements will occur well into the 20 year life of the strategy.

The main way such roads can achieve higher safety levels (and a higher Star Rating) is to reconsider posted speed limits in terms of safe speeds. Many roads where speed limits should be lowered would need some minor infrastructure changes to signal a new speed environment to road users, aiding acceptance and compliance. Significant reductions in fatalities and serious injuries are possible with travel speeds occurring at safe speeds for the road type and mix of road users, particularly vulnerable road users such as pedestrians, people with disabilities, cyclists and motorcyclists.

The ACRS considers that this should be recognised in the strategy with an explicit statement along the lines that reduced speed limits with any necessary associated traffic calming measures should be considered for roads in the infrastructure pipeline or not currently being considered for significant road infrastructure improvements.

9. *Invest in road safety focused infrastructure, safe system and mobility partnerships with state, territory and local governments that accelerate the elimination of high-risk roads.*

In terms of safety focussed infrastructure, the ACRS reiterates points made under Recommendation 3 that South Australia should establish a comprehensive road safety fund as a leader in road safety, perhaps founded on the existing Community Road Safety Fund. This fund should as a minimum invest in road infrastructure safety improvements and implementation of safe speeds with associated traffic calming as necessary.

10. *Make road safety a genuine part of business as usual within Commonwealth, state, territory and local government.*

By including road safety funding and performance indicators in the 20 Year State Infrastructure Plan, the South Australian Government would be demonstrating leadership in mainstreaming road safety as a genuine part of business as usual within the state's public service.

### 3.2 Specific Comments on the Discussion Paper

ACRS provides the following specific comments on the Discussion Paper:

- The Transport section of the Discussion Paper has a very strong emphasis on the economic importance of road transport infrastructure. In the *Current State* section (pg. 31) the focus is largely on congestion and the expected increase in economic costs stating that *The Australian Infrastructure Audit (2015) estimated that the cost of delay in Adelaide will increase from what was approximately \$1b in 2011 to \$4b in 2031 in the absence of any additional capacity.* While there is a brief mention on the importance of road safety with fatality statistics, there is no mention of serious injuries or the economic cost of road trauma, which are very significant.
- According to the recently published *Vehicles as a Workplace – Work Health and Safety Guide*,<sup>1</sup> *Vehicle use is by far the most significant contributor to work-related traumatic injury.* This reinforces the need to couple an emphasis on road safety, particularly in the heavy vehicle sector, along with transport's economic importance in the 20 Year State Infrastructure Strategy.
- The *Future Focus* section (pg. 33) outlines some very high level areas that will be considered by the strategy. Missing is an item on road safety and the desire to move towards Vision Zero through infrastructure improvements and speed management.

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<sup>1</sup> *Vehicles as a Workplace – Work Health and Safety Guide* published by Austroads in conjunction with several jurisdictional workplace safety organisations including Work Safe SA.



### **3.3 Conclusion**

The key themes from the Federal Inquiry of stronger leadership and mainstreaming road safety within all departments represent a significant opportunity for the 20 Year State Infrastructure Strategy. While it remains important that governments have comprehensive road safety strategies, the inclusion of key road safety considerations, performance indicators and funding within the 20 Year State Infrastructure Strategy would represent demonstrate the mainstreaming that is necessary for effectively tackling road trauma and support the WHO/UN Global Plan for the Decade of Action for Road Safety 2011-2020.

Once Infrastructure SA has considered the integral role that infrastructure plays in the life, death and disability of South Australians on our road infrastructure, the South Australian Chapter of Australasian College of Road Safety would be happy to engage further in your task.

### 3. Attachments

#### Attachment 1 – ACRS Membership

The Australasian College of Road Safety membership consists of the following:

- All Australian and New Zealand road safety research agencies
- Australian and New Zealand universities
- Injury prevention, brain injury and neuroscience research organisations
- Australasian medical representative groups
- Australian federal government road safety & health promotion agencies
- State and Territory road transport agencies
- Local government agencies
- Policing agencies (both federal and state)
- Emergency services agencies
- Road safety research funding organisations
- Medical associations
- Safety promotion and training agencies
- Carer advocacy groups and associations
- Independent road safety consultants
- State vehicle and personal insurance agencies
- Driving schools and instructor associations
- Road safety advocacy groups, including motorcycles, children, youth, pedestrians, cyclists
- Road industry groups, including vehicles, trucks, roads
- International road safety consultants, agencies and advocacy groups
- Fleet safety associations
- Independent economist consultants and companies
- Engineers & engineering associations
- Legal firms
- Trucking companies
- Vehicle manufacturing companies
- Vehicle safety advocacy and testing organisations
- Other public or private companies interested in or working in the field of road safety
- Secondary, tertiary and post-graduate students currently studying in the road trauma field
- Interested members of the public