

# CASE STUDY

## RAP PARTNERSHIPS SAVING LIVES

### Bruce Highway Cooroy to Curra B



Safety  
jump from  
2-stars to 4 &  
5-stars (20%  
5-star)

82% reduction  
in fatal and  
serious injuries

Reduction  
in head-on,  
run-off-road and  
intersection  
crashes

Risk of death  
and serious  
injury more than  
halved

AUD\$1.43+  
billion  
invested  
in safety

The Cooroy to Curra section of Queensland's Bruce Highway in Australia used to be one of the deadliest highway stretches in the country. It is now one of the safest, improving from a 2-star safety rating to 4- and (20%) 5-star, following a State and Federal Government funded upgrade. Road infrastructure improvements have enhanced safety and efficiency on this important transit and freight corridor, with long distance traffic now separated from local traffic movements.

## KEY ACHIEVEMENTS

### Total project

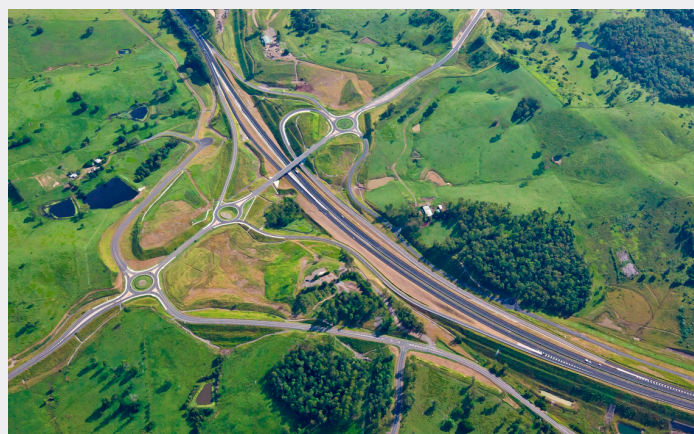
- In July 2009, work commenced on the 4-part project which involves a 62km realignment and upgrade of the Bruce Highway to 4 lanes between Cooroy and Curra, including a bypass of Gympie. Construction has been completed over almost 9 years on 3 of 4 project sections, with a Government investment of AUD\$1.43+ billion. Detailed designs are now complete for Section D and Australian and Queensland Government funding is committed.

### Section B

- The Section B component of the 4-part upgrade project commenced in September 2009, following safety lobbying by the Royal Automobile Club of Queensland (RACQ). The AUD\$513 million project delivered a new four-lane divided highway between Sankeys Road (Federal) and Traveston Road (Traveston), with construction completed in December 2012. As well as improving access during flooding and traffic efficiency, major safety improvements were achieved with a new highway built to modern motorway standards and capacity for upgrade to six lanes in the future.
- The Australian Road Assessment Programme (AusRAP) undertook a before and after Star Rating assessment of the 12km Section B stretch identifying a safety improvement from 2-stars to 4 and 5-stars following strategic engineering treatments.
- The original highway stretch was undivided, had hazardous roadsides and 'at-grade' intersections. Though it had undergone some safety improvements with a reduced speed limit of 90km/h,

it remained largely unforgiving of driver error resulting in many fatality and serious injury crashes.

- The stretch has now been upgraded to dual divided carriageway with paved shoulders separated by median motorcyclist friendly safety barriers that reduce the risk of head-on and loss of control type crashes and the risk of injury in run-off road crashes. Interchanges rather than intersections have significantly reduced the risk of intersection crashes.
- The AusRAP assessment showed an 82% reduction in fatal and serious injuries in the three years after opening when compared to the Old Bruce Highway prior to 2010.
- As a result of the infrastructure improvements, the speed limit has been able to be lifted to 110km/h, yet the risk of death and injury has more than halved.



Completed Traveston interchange looking north. © 2013, Department of Transport and Main Roads, the Queensland Government

The risk of death and injury has more than halved as the star rating has risen from 2-star to 4 and 5-star.



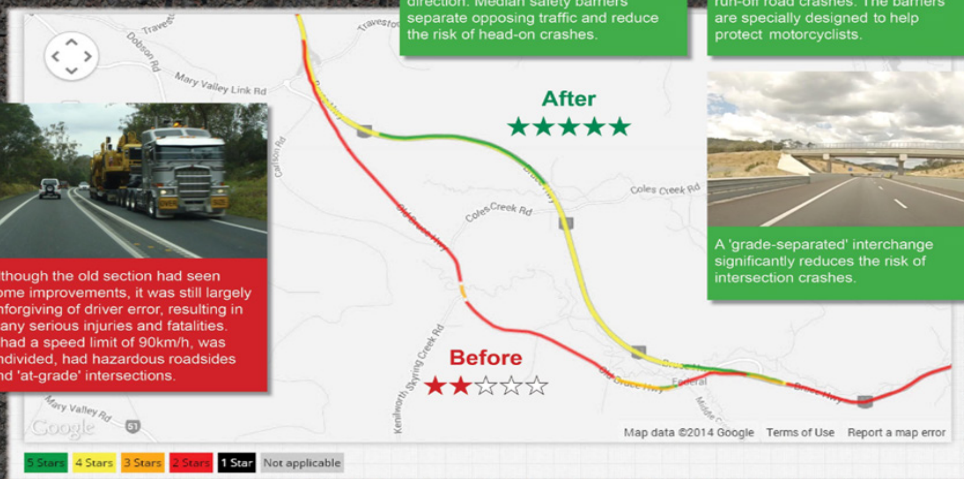
## Bruce Highway Cooroy to Curra: Section B Upgrade



The new section has a speed limit of 110km/h and two lanes in each direction. Median safety barriers separate opposing traffic and reduce the risk of head-on crashes.



The new section has roadside safety barriers that reduce risk of injury in run-off road crashes. The barriers are specially designed to help protect motorcyclists.



Although the old section had seen some improvements, it was still largely unforgiving of driver error, resulting in many serious injuries and fatalities. It had a speed limit of 90km/h, was undivided, had hazardous roadsides and 'at-grade' intersections.



A 'grade-separated' interchange significantly reduces the risk of intersection crashes.

Year	Casualty Crashes	Casualty Crashes Per Year
2008-12	19	3.8
2013-16	3	0.75

Pre-project data
Post upgrade data

Casualty crashes dropped by over 80% with head-on and run-off-road crashes reducing dramatically.

## TIMELINE FOR SUCCESS

2004	Queensland Department of Transport and Main Roads commences Strategic Planning Study
Sept 2009 - Dec 2012	Section B upgrade (started first for safety reasons)
July 2013 - May 2017	Section A upgrade
Mar 2016 - Feb 2018	Section C upgrade
May 2016 - Feb 2018	Detailed design completed and Australian and Queensland Government funding committed for Section D
Feb 2018	Release of AusRAP Crash Risk and Star Rating Assessment Report for Section B

## FOR MORE INFORMATION

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To view **Time Lapse Imagery** of the Section B upgrade in progress or to download the **Full Length Map**, visit <https://www.tmr.qld.gov.au/Projects/Name/B/Bruce-Highway-Cooroy-to-Curra/Bruce-Highway-Cooroy-to-Curra-Upgrade-Section-B-Federal-to-Traveston>.

To learn more about the costs and casualty reductions associated with road treatments used effectively in this project (such as barriers, intersection grade separations and carriageway duplication), check out iRAP's **Toolkit** at <http://toolkit.irap.org>.

Top image caption: Wide Bay Member Llew O'Brien with former Minister for Infrastructure and Transport Darren Chester and Gympie MP Tony Perrett at the Bruce Highway Cooroy to Curra Upgrade under construction. Photo courtesy of Renee Albrecht.



A world free of high risk roads: #3StarorBetter

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