

# Motorcyclists



Fact sheet #1 of 13



## Safety standard

All new installations of road safety barriers (including terminals) shall be fitted with motorcyclist injury countermeasures, such as rubrail, suitable to the barrier type, taking into consideration fauna movements.

## Safety countermeasure

Around half of all fatal motorcycle-barrier crashes in Australia involve the motorcyclist sliding along the ground. In sliding impacts, the trauma is often caused by impact with the vertical posts of barriers.

Road safety barriers have been proven to reduce crash risk and outcomes for people in vehicles, and are typically designed for light passenger vehicles. However, barriers do not account for the vulnerability of motorcyclists.

Risk management principles are embedded in Transport and Main Roads' *Generalised hazard assessment process*\* which states that if a roadside hazard cannot be removed or relocated then it should be redesigned so that it presents a reduced level of severity to all road users.

Countermeasures that can reduce the severity of outcomes for motorcyclists when they collide with road safety barriers include:

- Rubrails (Figure 1) which are additional rails attached on the lower section of the guardrail system so that motorcyclists do not directly hit the vertical posts.
- Devices covering sharp edges, such as a post or barrier end terminal caps and covers (Figure 2).

Where there is a site-specific risk associated with the provision of under-run, for example, where wildlife may become trapped on the roadway, or a build-up of debris increases the risk to motorcyclists, a break in the under-run may be provided. Rationale for breaks in the under-run will be documented in an Engineering report.

## Safety outcome

Rubrails are estimated to reduce crash severity for motorcyclists by up to 25% compared to untreated guardrails.

\* *Road Planning and Design Manual (RPDM) 2nd edition Volume 3 Part 6 Roadside Design, Safety and Barriers*

\*\* *Fauna Sensitive Road Design Volume 2.*

This fact sheet is designed to assist the implementation of 13 safety standards for new and upgraded infrastructure on Queensland's state-controlled roads, as per the department's *Road Safety Policy* (2018, Appendix A). While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.

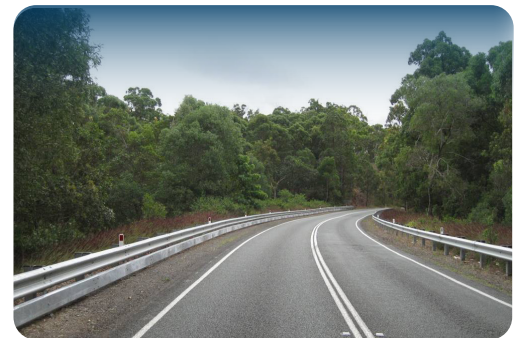


Figure 1: Safety barrier with a rubrail



Figure 2: Barrier end terminal cover

**18%** of road fatalities and serious injury crashes

from 2016 to 2020 involved motorcyclists. However, motorcycles represent only 5% of registered vehicles on Queensland roads.



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