

Head-on – Rural



Fact sheet #8 of 13

Safety standard

Rural roads with Annual Average Daily Traffic (AADT) greater than 4,000 vehicles per day, shall have a Wide Centre Line Treatment (WCLT) and Audio Tactile Line Marking (ATLM).

Safety countermeasure

Head-on crashes account for about 8% of serious road casualties across Australia.

The highest risk of head-on fatalities is on high-speed roads with high traffic volumes. Fatigue and distraction also increase the risk of a head-on fatality. A 100mm wide single-barrier centreline provides very little protection if a vehicle departs from its traffic lane to the right.

- Wide Centre Line Treatment (WCLT) improves safety by increasing the separation between vehicles travelling in opposite directions with a wider centre line.
- Audio Tactile Line Marking (ATLM) alerts motorists through both sound and vibration when they are veering out of their lane towards oncoming traffic or the edge of the road.

Safety outcome

A properly installed WCLT (see Figure 1) is estimated to provide a head-on crash reduction of about 60% on high-volume rural roads.

For guidance, refer to *Road Planning and Design Manual (RPDM) 2nd edition Volume 3 Part 3 Geometric Design*, Table 3-G 1 regarding WCLT widths, and *MRTS45 Specification for Road Surface Delineation*, which indicates the basis for exceptions due to noise.



61%

of head-on fatal and serious injury crashes

between 2016 to 2020 occurred on 12% of the state-controlled road network, where traffic volumes were greater than 4,000 vehicles per day.

Figure 1: Example of both Wide Centre Line Treatment (WCLT) and Audio Tactile Line Marking (ATLM) installed on a road



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.



**Queensland
Government**