

# Speed limits and speed management

## About ARRB:

ARRB Group Ltd (ARRB) provides research, consulting and information services to the road and transport industry. ARRB applies research outcomes to develop equipment that collects road and traffic information and software that assists with decision making across road networks. ARRB is the leading provider of road research and best practice workshops in Australia.

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# Speed limits and speed management

managing speeds for safer environment

Speed is a major factor in the occurrence and severity of road crashes. In-depth studies have shown that speed is a factor in 20-35% of crashes. Speeds 5 km/h above the average in urban areas and 10 km/h above the average in rural areas double the risk of a casualty crash.

In addition, the chance of dying in a crash increases dramatically above certain impact speeds for the following types of crashes:

- pedestrian/cyclist struck by vehicle - 20 to 30 km/h
- motorcyclist struck by vehicle - 20 to 30 km/h
- side impact vehicle into a pole or tree - 30 to 40 km/h
- side impact vehicle to vehicle - 50 km/h
- head-on vehicle to vehicle - 70 km/h.

The need to apply appropriate speed limits and various speed management techniques has become a focal point of the Safe System approach adopted by all Australasian jurisdictions.

ARRB has been involved in extensive research on the topics of speed and speed management. This research is being used in the development and application of speed limit setting policies, and engineering and enforcement practices by Australian and New Zealand authorities. Through the in-depth understanding of speed management issues it is possible to identify ways in which the problem of speeding can be addressed.

ARRB has conducted a number of evaluation studies of:

- school speed zones
- changes in speed limits
- speed cameras
- heavy vehicle advisory speed warning at curves
- variable speed limits
- wet weather speed limits
- pedestrian safety measures
- local area traffic management (LATM)
- measures that influence driver perception of speed.



ARRB has reviewed and provided advice on effective speed enforcement strategies, methods of setting speed limits based on road and roadside risk and speed limit hierarchies.

To assist in the consistent assessment of speed limits, ARRB developed a suite of PC-based decision support tools referred to as X-LIMITS. Each of these applications was tailored to the specific guidelines and administrative processes of the road authority. The following X-LIMITS applications were developed: VLimits 2.0 (Victoria), SALIMITS (South Australia), QLIMITS/SLR-QLD (Queensland), NLIMITS (New South Wales), WALIMITS 3.0 (Western Australia) and TLIMITS (Tasmania). Overseas applications have been developed for New Zealand (NZLIMITS) and the United States (USLIMITS).

With ARRB's extensive human factors, traffic engineering and road design experience, it is able to offer a range of services to reduce the high number of casualties related to speed.

