

Traffic Note 43

Date: June 2004
From: Safer Roads
Authorisation: Peter Croft, Manager Safer Roads

Signature: _____

No. of pages: 3

Speed limits less than 50 km/h - guidelines

Background

The urban speed limit in New Zealand is 50 km/h. This is the most appropriate speed limit for conditions where there are conflicting vehicle movements (such as crossing and turning at intersections and driveways) and where there are vulnerable road users (pedestrians, cyclists and other people using slow moving devices).

However, where there is higher than usual vulnerable road user activity, a speed limit less than 50 km/h may be used. This note describes the requirements for setting a speed limit less than 50 km/h and guidelines for applying them.

Setting of Speed Limits Rule 2003 requirements

Section 3.2(6) of the *Land Transport Rule: Setting of Speed Limits 2003* (the rule) contains legal requirements when proposing a speed limit less than 50 km/h.

3.2(6) A road controlling authority may propose to set a speed limit of less than 50 km/h but, unless section 4 applies, may only set the proposed speed limit if:

- (a) the calculated speed limit for the relevant road is 50 km/h; and*
- (b) the proposed speed limit would be likely to increase the safety of pedestrians, cyclists or other road users; and*
- (c) safe and appropriate traffic engineering measures are installed so that the measured mean operating speed is within 5 km/h of the proposed speed limit.*

Section 4 of the rule provides for speed limits in “designated locations” which include places such as car parks, schools, hospitals and camping grounds. Reference should be made to *Section 4* to determine if the road being considered is in a designated location.

Disclaimer: The Land Transport Safety Authority (LTSA) has endeavoured to ensure the material in this document is technically accurate and reflects legal requirements. However, the document does not override governing legislation. The LTSA does not accept liability for any consequences arising from the use of this document. If the user of this document is unsure whether the material is correct, they should make direct reference to the relevant legislation and contact the LTSA.

Speed Limits New Zealand, contained in *Schedule 1* of the rule, is the procedure that must be used to calculate the speed limit.

If conditions do not encourage drivers to slow down to the proposed speed limit, a greater spread of vehicle speeds is likely. This will not "increase the safety" for vulnerable road users, as they will have more difficulty judging approaching vehicle speeds when crossing or entering the traffic stream.

The rule requires a speed limit less than 50 km/h to have a mean operating speed within 5 km/h of the proposed limit. Vehicle speeds might already meet this requirement and, as long as all other requirements of the rule are met, the proposed lower speed limit can be set. However, in most cases the mean speed will not be within 5 km/h of the proposed limit and traffic engineering measures will be required to achieve lower speeds.

These are minimum requirements when considering a speed limit lower than 50 km/h and, along with other traffic management options, should be considered before and during this process to ensure the speed management strategy in the area is effective.

Engineering measures

There are many different individual engineering measures available to reduce vehicle speeds. Carefully selected combinations of treatments can further reduce vehicle speeds when a single treatment may not suffice.

Possible treatments include:

- signing techniques: statutory speed limits, priority signing at intersections
- route diversion techniques: channelling, roundabouts, partial road closures, full road closures, better routes for through vehicles
- vehicle operation techniques: road narrowing, speed cushions, humps and tables, pavement treatment, modified alignment, chicanes
- perceptual measures: street planting and other vertical elements (e.g. threshold signs, lighting poles), parking, road markings, constraining visibility
- activity: pedestrians and cyclists either sharing the road space, or regularly walking beside and crossing the road; regular parking manoeuvres.

Although mentioned as a technique, simply installing a lower speed limit sign with no other treatments will, in most cases, only marginally reduce the mean speed and will probably increase the range of speeds. If the current mean operating speed is not within 5km/h of the proposed speed limit engineering treatments are required.

It is difficult to estimate mean speeds for a particular engineering measure before it has been installed, as other prevailing conditions will affect driver speeds. Even after comprehensive consultation before installation, the public, businesses or the emergency services may be critical of the treatment after installation. Substantial changes to the treatment may be needed to placate criticism or achieve desired speeds.

It is therefore important that the initial installation is made with the consideration it might need to be changed. Temporary structures are available to trial treatments but permanent treatments must be installed when the treatment is accepted and is achieving the required results.

Speed limits less than 50 km/h aim to create a better environment for vulnerable road users and any engineering treatments used must not hinder their movement.

Consultation

The Director of Land Transport Safety may, under section 7.1(7) of the rule, request any information relevant to a proposed speed limit of less than 50km/h. This will include details of the expected safety benefits, measured mean operating speeds and proposals for engineering measures to reduce speeds.

Critical steps

- Determine whether there is a greater presence of vulnerable road users compared to typical urban roads. If not, the standard urban speed limit of 50 km/h should apply.
- Using *Speed Limits New Zealand*, calculate the speed limit of the road. If it is 50 km/h then a lower speed limit can be considered.
- Measure the current mean operating speed.
 - If it is above 50 km/h, consider installing engineering measures to reduce the mean below 50 km/h before considering a lower speed limit. This may be a better alternative to installing a lower speed limit and the treatments necessary to comply with the requirements for a lower speed limit.
 - If it is below 50 km/h but not within 5 km/h of the lower speed limit being considered, engineering treatments should be planned and proposed along with the lower speed limit when undertaking consultation.
 - If it is below 50 km/h and within 5 km/h of the lower speed limit being considered, the lower speed limit can be proposed without additional engineering treatment.
- After a lower speed limit is set, continue to monitor the mean operating speed, particularly where engineering treatments are installed. Where the mean operating speed is not within 5 km/h of the set speed limit, alter the engineering treatments to ensure compliance.

Conclusion

When the mean operating speed is within 5 km/h of the speed limit, then vehicles will be travelling at the safe speeds required. In most cases, engineering treatments will be needed to achieve this.

Placement of a speed limit sign by itself, with no associated engineering treatments, will have little or no effect on the overall mean operating speed.