

Appendix 3: Active warning signs trial (Revision 2)

Purpose of trial

In many overseas jurisdictions, flashing lights are used to give additional emphasis to the warning or instruction given on a sign. In New Zealand such use was restricted formerly to variable message signs including those installed on Auckland and Wellington motorways, some road work vehicles, variable speed limits in school zones and advance warning to traffic signals.

There is sometimes a need for warning signs that become 'active' only when a temporary condition exists. However, in many situations the high cost of full variable message signs cannot be justified.

The Timaru District Council and the Invercargill City Council proposed a trial of the use of flashing lights attached to signs in four specific applications: stock crossings, school patrol ahead, on school buses (2 options) and school warning (SCHOOL ZONE) as described in the attached Gazette notice. These signs were distinguishable from other signs because they had white, red or yellow symbols or wording on a black background.

The results from the initial trials in Timaru District and Invercargill City were promising but inconclusive. These were therefore been extended and an additional trial of the school patrol ahead and school zone signs was established in Dunedin City.

The Director of Land Transport (Director) considered the application for a trial in Dunedin City Council and his approval along with the extension to the original trial was published in the *NZ Gazette* on 27 April 2006. (See attached copy.)

Need for approval

The 'active' signs are proposed alternatives to existing signage and differ significantly from the legislated format. In the case of the Option 1 school bus sign, the implications in terms of driver obligations required formal recognition of the sign format to be given by the *NZ Gazette* notice. The Director was therefore required to approve the signs for the purposes of the trial.

Results and action

The extended trial of the active **school bus sign** (option 1 with symbol of children) showed positive results with drivers slowing down when passing a school bus with the yellow lights flashing. It was therefore decided to replace the existing active symbolic School Bus sign (W17-1.3 in Schedule 1 of the Land Transport Rule: Traffic Control Devices) with a revised active sign having a green-yellow symbol of children on a black background. This change was made in the 2007 amendment to the TCD Rule.

School Zone and School Patrol signs: The extended trial in Dunedin showed positive results in reducing vehicle speeds outside schools where warning signs with the children "symbol" and the words SCHOOL ZONE were activated with alternately flashing amber lights. However an increase in vehicle speeds was recorded in some sites where the active SCHOOL PATROL sign had been installed.

It was therefore decided to approve by Gazette notice the active SCHOOL ZONE warning sign with "children" symbol (sign D in the trial) for use outside schools (including those schools with operating school patrols) on roads which meet defined selection criteria. The

recommended criteria and technical details for these signs are set out in Traffic Note 56 *Active school warning signs* (issued October 2008).

Sign B "School Patrol – Prepare to Stop" was found to be less effective in reducing traffic speeds than sign D SCHOOL ZONE. It was therefore decided to recommend the use of the SCHOOL ZONE sign at locations where School Patrols are operating and not to approve sign B for general use.

The active **stock crossing sign** (symbol of a cow with the words PREPARE TO STOP) has been approved by Gazette notice for sites where standard reflective warning signs are considered to be inadequate. The selection process for this sign and several other types of fixed active warning signs is explained in Traffic Note 57 *Active warning signs (not at schools)*, issued October 2008.

The Active SCHOOL ZONE and "Stock crossing" signs will be included in the draft 2010 TCD Amendment Rule.

Contact details

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