

## Appendix 5: Pedestrian countdown signals trial

### Purpose of trial

The purpose of this trial is to evaluate the effectiveness and safety of pedestrian countdown traffic signal displays situated at intersections without conflicting turning traffic movements. The sequence of pedestrian displays is same as in clause 6.6(4) of the TCD Rule, but during the clearance phase (when a flashing red man is displayed), an additional countdown 'clock' showing the number of seconds remaining in that phase is also displayed, either in the lantern for displaying the green man or in an additional adjacent lantern. .

Land Transport New Zealand received an application from Auckland, Wellington and Hutt City Councils to trial the introduction of pedestrian countdown signals at four existing signalised intersections, namely:

Auckland: Quay Street / Queen Street and Queen Street/Victoria Street  
Wellington: Vivian Street (SH 1)/Taranaki Street  
Hutt: Queens Drive/Margaret Street/Bunny Street

[The trial in Wellington was not proceeded with because of changes to the phasing at Vivian/ Taranaki Streets due to the rerouting of State Highway 1 with the opening of the inner city bypass.]

Countdown pedestrian signals are widely used in USA and Canada and their use is approved by the US Federal Highway Administration in their Manual on Uniform Traffic Control Devices (Section 4E.07).

### Need for approval

These pedestrian displays are additional to those permitted by clause 6.6 of the TCD Rule.

The Notice of approval for this trial was published in the *NZ Gazette* on 26 October 2006. (See attached copy for more details.)

### Operation Sequence

The pedestrian and vehicle signals operate as for a standard scramble phase (Barnes dance) or one leg of T junction (where turning vehicles are held by a red signal until the end of the pedestrian phase so they do not conflict with pedestrians), except that when the green man sequence has been completed, the flashing red man sequence begins and a 'clock' is also displayed showing the number of seconds remaining until the next (steady red man phase) begins.

### Results

A report on the two Auckland sites has been received from Auckland City Council. The results for the two sites showed good pedestrian understanding of the Countdown signals. However the sites differed in the impact of the Countdown signals on the occurrence of risky pedestrian behaviour which was measured in two ways:

- a) the pedestrian is still on the roadway when the steady red man is showing.  
At one site (Queen Street/Victoria Street) this fell from 9.0% to 5.0% and at the other (Quay Street) it rose from 1.0% to 5.5% of pedestrians crossing.

- b) The pedestrian starts to cross when the red man is flashing  
At Queen Street/Victoria Street, this behaviour remained almost the same (23.0% before and 23.7% after) whereas at Quay Street, this rose from 5.6% to 10.8% of pedestrians crossing.

These results reflect the difference in the locations of the two sites. Queen Street/Victoria Street is a cross road in a main shopping street whereas the Quay Street site is a crossing on a major road between a major ferry terminal and a major train & bus station..,

### **Action**

NZTA will propose that the TCD Rule be amended to allow the option of countdown pedestrian signals only at scramble phase intersections and mid block crossings.

### **Contact details**

For further information about the trial please contact:

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