

Appendix 6: Alternative pedestrian traffic signal display trial (Nearside mid-block)

Purpose of trial

The purpose of this trial is to evaluate the effectiveness and safety of alternative pedestrian traffic signal displays at mid-block signalised pedestrian crossings:

- (a) situated on the pedestrian's nearside of the roadway (instead of the usual far side),
- (b) with smaller displays than those required by Schedule 3 of the Rule and
- (c) a pedestrian signal display sequence different to the requirements of subclause 6.6(4) of the Rule.

The NZ Transport Agency (the Agency) received an application from Hutt City Council to trial the introduction of a full PUFFIN (Pedestrian User Friendly Intelligent) signalised pedestrian crossing with near side pedestrian signal aspects at an existing mid-block signalised crossing in Railway Avenue, Lower Hutt.

A PUFFIN crossing is a road crossing for pedestrians which is controlled by traffic signals and for which:

- (i) the pedestrian signal displays are situated on the same side of the road as a pedestrian who walks up to the crossing, and
- (ii) the red flashing human figure display is replaced by a steady red human figure during the pedestrian clearance phase, and
- (iii) the presence or absence of pedestrians on the crosswalk is established by overhead detectors mounted on poles, and
- (iv) the presence or absence of pedestrians on the footpath by the kerb is established by detectors mounted either overhead or under the feet of the pedestrian.

PUFFIN pedestrian crossings are widely used in Britain and their use is endorsed by the UK Department for Transport.

This trial is only for the nearside pedestrian display element of the PUFFIN crossing concept.

Need for approval

Two variations from the requirements of the Land Transport Rule: Traffic Control Devices (TCD Rule) needed to be approved by the Agency to allow nearside pedestrian displays to operate:

- (1) a smaller size of pedestrian symbol than the minimum described in Schedule 3; and
- (2) a different pedestrian display sequence from that set out in subclause 6.6(4).

While the TCD Rule does not specifically state that pedestrian displays should be on the far side of the roadway, this is the current standard NZ practice. So the nearside position in this trial is also being tested.

The detection of pedestrians on the crosswalk or on the footpath beside the signals is not required by the TCD Rule. However some existing standard pedestrian signals may employ such auxiliary detection systems.

The first notice of approval for this trial at one site was published in the *NZ Gazette* on 23 April 2009 for six months. A second notice extending the trial to six other sites was published on 29 October 2009 (see attached copies for more details).

Operation Sequence of mid block installation with nearside displays (only)

The vehicle displays operate as for standard mid-block pedestrian signals. For the pedestrian displays on the pedestrian's side of the road, a red man will display when the pedestrian pushes the button. When the vehicle signals are red, a green man will display for a set time. A steady red man is shown on the nearside pedestrian signal rather than a flashing red man. After a set time which allows pedestrians to cross the road, the red man continues to display and the vehicle signals then change to green.

Results

Stage 1 Near-side displays and altered pedestrian signal sequence (only) at one site: The initial trial was for 6 months (May to Oct 2009) at one site in Railway Ave, Lower Hutt. As funding was limited, an evaluation of pedestrian behaviour before and after the installation of near-side pedestrian displays (only) was undertaken by Opus Central Laboratories. The introduction of the near-side displays (and altered pedestrian signal sequence) was found to result in a higher rate of pedestrian compliance with signals than the standard signaled crossing. This means that the change in signal displays has resulted in an increase in desirable pedestrian behaviours.

The results of the Stage 1 trial have been considered by the TCD Steering group and they have agreed that for mid-block crossings only, Nearside displays (without the flashing red man) be included as a proposal in the TCD Amendment Rule for consultation.

Stage 2 Other sites

Hutt City Council then applied for the trial to be extended to 6 other mid-block signaled crossings with different pedestrian and vehicle flow patterns. NZTA issued a second gazette notice to allow this. Due to budgetary and equipment installation issues, Hutt City has yet to evaluate these sites. .

Contact details

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