

## Ramp Metering Signal Trial

Pursuant to section 78 of the Transport Act 1962, and pursuant to a sub-delegation to me by the Director of Land Transport Safety by an instrument dated the 3rd day of May 1999, I, Peter Graeme Croft, Manager Safer Roads, hereby authorise the erection, installation and maintenance of experimental signs and signals:

- (i) at the location described in Schedule 1;
- (ii) subject to the form set out in Schedule 2;
- (iii) subject to the conditions set out in Schedule 3
- (iv) for the period specified in Schedule 4; and
- (v) the form, sequence and timing of the displays described in Schedules 2 and 3 to this notice are in substitution to, variation from or equivalent to the signs and signals described in Part XI of the Traffic Regulations 1976.

These experimental signs and signals shall be used for the purpose of evaluating their use and the experiment shall be called the Ramp Metering Signal Trial.

### Schedule 1

#### *Location of Trial*

1. The ramp metering signals and signs, described as display A and display C in Schedule 2 to this notice, are to be located on the north-bound on-ramp to State Highway No. 20 at Rimu Road, Manukau City.
2. The signs described as display B in Schedule 2 are to be located on Rimu Road on the approaches to the said on-ramp.

### Schedule 2

#### *Form of Signs and Signals*

The ramp metering signals must comprise at least:

- (i) for each approach lane to the signals on the ramp, either on the left or right hand side as appropriate, a display mounted on a single column (display A) with two single-column, 3-aspect traffic signals separated by a traffic sign which displays the words "One Vehicle Per Green Each Lane";
- (ii) for each approach to the ramp and visible to approaching drivers in sufficient time to give them the option of avoiding entering the ramp, a display (display B) with a variable traffic sign which displays either the words "Ramp Signal On" or a blank message and two yellow disc signals, one mounted above and one mounted below the variable traffic sign;
- (iii) for each approach lane on the ramp in advance of display A, a display (display C) with a traffic signal warning sign erected above a variable traffic sign which displays either the words "Prepare to Stop" or "Ramp Signal Off".

### Schedule 3

#### *Operating Displays and Sequence*

##### 1. *Off-state displays*

When the ramp meter signals are in the off-state, traffic entering State Highway No. 20 from the Rimu Road on-ramp proceeds normally and the ramp metering signals and signs display the following:

- (a) In display A, none of the traffic signal aspects are illuminated;
- (b) In display B, the yellow disc signals and the variable traffic sign are blank; and
- (c) In display C, the variable traffic sign reads "Ramp Signal Off".

##### 2. *On-state displays and sequences*

When the ramp meter signals are in the on-state, traffic entering State Highway No. 20 from the Rimu Road on-ramp shall be controlled by the displays and sequence of signals described as follows:

- (a) In display A, the signals must operate in the following sequence:
  - (i) the yellow disc signals, flashing at approximately one Hertz for a period of at least 10 seconds, followed by the red disc signals;
  - (ii) the red disc signals are followed by the green disc signals displayed for a maximum period of 1.3 seconds;
  - (iii) the green disc signals are followed by the yellow disc signals displayed for a maximum period of 0.7 seconds;
  - (iv) the yellow disc signals are followed by:
    - (A) the red disc signals in (a) (ii); or
    - (B) the red disc signals for at least 3 seconds followed by the yellow disc signals, flashing at approximately one Hertz for a period of at least 10 seconds followed by the ramp metering signals and display B and display C moving to the off-state described in paragraph 1 of this Schedule.
- (b) In display B, the variable traffic signs read "Ramp Signal On" and the yellow disc signals flash alternately at approximately one Hertz with approximately equal on- and off-times;
- (c) In display C, the variable traffic signs read "Prepare to Stop".

### Schedule 4

#### *Duration of the Trial*

The period of the ramp metering trial shall start after 14 January 2004 and shall end on 14 January 2005 unless otherwise notified in the *New Zealand Gazette*.

Dated at Wellington on this 16th day of December 2003.

PETER GRAEME CROFT, Manager Safer Roads.

au40