

technical memorandum



road safety hardware series

Delineation associated with barrier systems

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Purpose

To advise on the recommended practice for delineation associated with flexible (wire rope safety barrier) and semi-rigid (W-Beam & Thrie-Beam) barrier systems in road side (left hand shoulder) and median installations on the State highway network.

Background

The use of delineation devices in association with flexible and semi-rigid barrier systems has varied greatly within New Zealand in both quality and consistency. Delineation devices and road safety barriers are separate systems that serve different, specific purposes. Combining them can, on occasion, lead to unintended adverse outcomes in regard to the messages sent to drivers about the road alignment ahead.

This is particularly important in regard to night-time delineation. Mounting edge marker posts (EMPs) on top of barrier system posts results in variation in height of the reflective markings which in turn can lead to mis-information about the route ahead when viewed during hours of darkness.

The following recommended practice aims to address installation practices, minimise the risk of mis-guiding road users and ensure a consistent message is given to all.

As an interim measure, notwithstanding the current guidance in MoTSaM Part 2, section 5.05 and pending completion of Traffic Control Devices Manual (TCDM) Part 5, the following practice should be followed unless approval of any alternative solution has been given by the National Traffic & Safety Manager.

Recommended practice

1 On the shoulder:

- a) All wire rope safety barrier (WRSB) posts installed on the shoulder shall have a secondary white reflectorised marking on the top of the post at 15m centres along its length, or at the closest value to this for the system post spacing used. A secondary yellow reflectorised marking may only be used where the WRSB posts are adjacent to Type C edge marker posts as detailed in the Transport Agency Manual of Traffic Signs and Markings (MoTSaM) Part 2, Section 5.05, Figure 5.11a
- b) Primary delineation comprising correctly marked and spaced edge marker posts (EMPs) complying with the requirements of MoTSaM Part 2, Section 5.05 must be installed immediately in front of flexible (wire rope safety barrier) and semi-rigid (W-Beam & Thrie-Beam) barrier systems, not behind or on top thereof

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- c) As an alternative primary delineation to EMPs, red raised reflective pavement markers (red RRPMS) may be used immediately behind the edge line in accordance with Road and Traffic Standard 5 (RTS5)
- d) Modified EMPs attached to road safety barrier system posts must not be used unless the mounting method has been accepted by the National Traffic & Safety Manager.
- e) Secondary delineation reflectors on WRSB posts must not exceed 4000mm² in area

2 In a median:

- a) All WRSB installations in medians must have a secondary yellow reflectorised marking on the top of the post or post cap (as appropriate to the particular system) at 15m centres along its length, or at the closest value to this for the system post spacing used.
- b) For grassed medians, where there is more than 1 metre between the edge of seal and a flexible (wire rope safety barrier) or semi-rigid (W-Beam & Thrie-Beam) barrier system, primary delineation using either EMPs complying with the requirements of MoTSaM and installed at the correct spacings must be provided or RRPMS complying with the requirements of MoTSaM and installed at the correct spacings must be used.
- c) For sealed medians, or where there is less than 1m between the edge of seal and the flexible (wire rope safety barrier) or semi-rigid (W-Beam & Thrie-Beam) barrier system, primary delineation using RRPMS complying with the requirements of MoTSaM and installed at the correct spacings must be used.
- d) In narrow median installations, where the overall median width between the opposing edge lines is 2m or less, yellow RRPMS may be used as primary delineation
- e) Modified EMPs attached to road safety barrier system posts must not be used unless the mounting method has been accepted by the National Traffic & Safety Manager.
- f) Secondary delineation reflectors on WRSB posts must not exceed 4000mm² in area

Endorsed by: National Traffic & Safety Manager