

AS 1742.4:2020



STANDARDS
Australia



Manual of uniform traffic control devices

Part 4: Speed controls



AS 1742.4:2020

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Manual of uniform traffic control devices

Part 4: Speed controls

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Preface

This Standard was prepared by the Standards Australia Committee MS-012, Road Signs and Traffic Signals, to supersede AS 1742.4—2008.

The objective of this Standard is to provide road authorities throughout Australia with a set of uniform requirements and traffic control devices for the regulatory control of traffic speeds.

It is one in a series of 14 Standards which together form the Manual of uniform traffic control devices. The series comprises the following Standards:

AS 1742.1, *Manual of uniform traffic control devices, Part 1: General introduction and index of signs*

AS 1742.2, *Manual of uniform traffic control devices, Part 2: Traffic control devices for general use*

AS 1742.3, *Manual of uniform traffic control devices, Part 3: Traffic control devices for works on roads*

AS 1742.4, *Manual of uniform traffic control devices, Part 4: Speed controls* (this Standard)

AS 1742.5, *Manual of uniform traffic control devices, Part 5: Street name and community facility name signs*

AS 1742.6, *Manual of uniform traffic control devices, Part 6: Tourist and services signs*

AS 1742.7, *Manual of uniform traffic control devices, Part 7: Railway crossings*

AS 1742.9, *Manual of uniform traffic control devices, Part 9: Bicycle facilities*

AS 1742.10, *Manual of uniform traffic control devices, Part 10: Pedestrian control and protection*

AS 1742.11, *Manual of uniform traffic control devices, Part 11: Parking controls*

AS 1742.12, *Manual of uniform traffic control devices, Part 12: Bus, transit, tram and truck lanes*

AS 1742.13, *Manual of uniform traffic control devices, Part 13: Local area traffic management*

AS 1742.14, *Manual of uniform traffic control devices, Part 14: Traffic signals*

AS 1742.15, *Manual of uniform traffic control devices, Part 15: Direction signs information signs and route numbering*

Principal variations from the 2008 edition are as follows:

- (a) Guidance on how speed limits should be set has been removed. Refer to the relevant Austroads guides.
- (b) The term “Speed Restriction” is replaced by “Speed Limit”.
- (c) “Speed Limit Buffer” signing has been removed. The “Speed Limit AHEAD” sign replaces the speed limit buffer.
- (d) Addition of an “ON RAMP” (R9-17) supplementary plate.
- (e) Addition of supplementary “END Speed Limit AREA Midblock” (R4-13) sign.
- (f) Addition of a “Speed Limit AREA Reminder” (R4-17) sign.
- (g) Addition of an example supplementary variable speed limit “VSLs” sign.
- (h) Addition of “Class of vehicle” signing (or supplementary plate) examples.

The relationship between Australian Standards and publications produced by Austroads should be noted. The former provides specifications and procedures that ensure that products and services are safe and reliable, and consistently perform the way they are intended. Austroads provides guidance

documents that deal with the design, construction, maintenance and operation of the road network. Austroads documents are also used by road authorities in New Zealand.

In cases of similar subject matter, this is dealt with across both sets of documents. Where this occurs, each document aims to provide information that is consistent, complimentary and supportive of the other.

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Introduction

The purpose of speed limits is to assist with the safe and orderly movement of traffic and the interactions of motorized vehicles with each other and other road users. This involves consideration of safety, mobility and amenity.

The involvement of speed related factors in road crashes is well established and generally it is well understood by the community. There is also an understanding that speed limits impact on the amenity of users of abutting property (including their vehicular access) as well as generally impacting on levels of mobility.

Experience and research have demonstrated that arbitrarily imposed speed limits that are too low for the particular road, traffic and roadside environments on a section of road attract poor levels of compliance, regardless of the level of enforcement. Ideally, limits are set such that road users can readily understand the reasons for setting them at a particular level. This gives the limits credibility, so it is more likely they will be voluntarily observed by the majority of motorists. The literature on this topic includes examples where unreasonably low speed limits have been increased and travel speeds have reduced: a speed limit needs to have a sound basis in order for travel speeds to align with it. This is more so now, with increased levels of police enforcement, including the extensive use of automated methods of infringement detection.

The setting of effective speed limits will usually be based on a road's traffic function, traffic activity and layout and roadside development and activity. Road geometry and condition, and crash risk are also factors for consideration. However, it should not be assumed that the provision of a lower speed limit will address all perceived road safety issues. Beyond general principles, more detailed advice on such matters is no longer contained in this Standard; readers are referred to jurisdictional supplements and the Austroads publications: *Guide to Road Safety, Part 3: Speed Limits and Speed Management*, and *Guide to Traffic Management Part 5: Link Management*.

In the absence of signs to the contrary, the general urban speed limit is 50 km/h and the general rural speed limit is 100 km/h (except for variations in Western Australia, the Northern Territory and Tasmania). Depending on the environment, speed limits are signed at 10 km/h increments between 10 km/h (in shared zones) and 110 km/h (except for a variation in the Northern Territory) on higher standard rural roads and expressway type roads. This Standard sets out the signing arrangements and other associated features available for speed limits to comply with the requirements of the Australian Road Rules.

NOTES

Australian Standard®

Manual of uniform traffic control devices

Part 4: Speed controls

Section 1 Scope and general

1.1 Scope

This Standard specifies the traffic control devices to be used for the regulatory control of traffic speed. The Standard does not cover temporary speed limits or the use of advisory speed signs.

NOTE Speed matters excluded from this Standard are covered in the following references:

- (a) Temporary speed limits at works on roads — AS 1742.3.
- (b) Determination of advisory speeds and the use of supplementary plates — AS 1742.2.
- (c) Unsigned limits applied by existing legislation to classes of vehicle or driver, e.g. National Heavy Vehicle Regulator and jurisdiction regulations and guidelines.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

NOTE Documents for informative purposes are listed in the Bibliography.

AS 1348, *Roads and traffic engineering — Glossary of terms*

AS 1742.2, *Manual of uniform traffic control devices, Part 2: Traffic control devices for general use*

AS 1743, *Road signs—Specifications*

AS 4049.5, *Paints and related materials — Pavement marking materials, Part 5: Performance assessment of pavement markings*

AS 5156, *Electronic speed limit signs*

1.3 Terms and definitions

For the purpose of this Standard the definitions in AS 1348 and those below apply.

1.3.1

expressway type road

divided highway for through traffic with full or partial control of access and generally with grade separation at intersections

Note 1 to entry: The term includes expressways, freeways, tollways and motorways.

1.3.2

local area

area containing only local and collector roads which is bounded by arterial and sub-arterial roads or features such as rivers, railway lines or the limit of urban development

1.3.3

local street

road or street that serves primarily to provide access within a locality

1.3.4**may**

indicates the existence of an option

1.3.5**shall**

indicates a statement is mandatory

1.3.6**should**

indicates a recommendation

1.3.7**speed limit**

maximum speed at which a vehicle is legally permitted to travel on a particular section of road

1.3.8**speed zone**

length of road or a network of roads (an area) to which a single speed limit applies and which is signposted

1.3.9**traffic control device**

any sign, signal, pavement marking or other installation placed or erected by a public authority or official body having the necessary jurisdiction, for the purpose of regulating, warning or guiding road users

1.3.10**traffic route**

road or street that serves primarily to enable travel between localities

Note 1 to entry: Typically, arterial, sub-arterial and major collector roads.

1.3.11**85th percentile speed** **V_{85}**

speed, in kilometres per hour, at or below which 85 % of all vehicles are observed to travel under free-flowing conditions past a nominated point

Note 1 to entry: A guide to the determination of 85th percentile speed is given in AS 1742.2.

Section 2 Speed management

2.1 General

2.1.1 Objective of speed management

The objective of speed management is to contribute to road safety, mobility and amenity on public roads by providing a system of speed limits that are compatible with the speed environment.

Speed limits should be set so as to encourage, as far as practicable, a uniform speed of travel and hence reduce the potential for conflicts due to speed differentials between vehicles. Excessive variation among vehicle speeds can indicate either an inappropriately set speed limit or that drivers' perception of the speed environment is open to confusion. The second of these causes may require corrective action other than reassessment of the speed limit.

2.1.2 General principles

2.1.2.1 Determining speed limits

The following recommendations and requirements apply when determining speed limits:

- (a) Speed limits shall be capable of being practically and equitably enforced by use of speed zones of adequate length, by limiting speed limit changes, and by clarity and frequency of signposting.
- (b) Where the speed limit exceeds the maximum safe speed of travel due to an isolated geometric deficiency or hazard, advisory speed signs displayed in conjunction with the relevant warning signs in accordance with AS 1742.2 shall be used to advise drivers of the desired speed.
- (c) Speed limit signs on unsealed roads have traditionally displayed the default urban or default rural limit. Jurisdiction supplements may provide guidance if other speed limits are to be permitted within that jurisdiction.
- (d) All signposted speed limits shall be in multiples of 10 km/h (except for a variation in South Australia that allows 25 km/h in school zones and road work sites).

2.1.2.2 Installation of speed limit signs

The following recommendations and requirements apply when installing speed limit signs:

- (a) Speed limit signs shall be located at speed zone changes and boundaries of default limits. Special attention is required in siting such signs to ensure that they are prominently displayed to approaching drivers.
- (b) Signs are normally installed on the left side of the roadway. At speed zone changes (typically speed reductions) and boundaries of default limits, signs should be duplicated on the right side. Signs may also be duplicated on the right hand side of a multilane carriageway.
- (c) Attention is needed in locating signs to ensure that they do not obscure one another or otherwise obscure visibility, particularly at intersections.
- (d) No other sign should be installed on any post carrying a speed limit sign unless it is a sign specified for auxiliary use with a speed limit sign in either this or another Australian Standard. Where it becomes necessary to convey two or more different messages at the one location, separate signs located a minimum of 0.6 V_{85} metres apart should be used.

2.2 Types of speed zones

2.2.1 Default speed limits

Default speed limits are applied by statute or regulation to various classes of road according to their environment, in the absence of other more definitive means of setting speed limits. The categories of default speed limit are as follows:

- (a) *Default rural speed limit* — Applies in other than built-up areas in the absence of a speed zone.

NOTE 1 This limit is 100 km/h in all jurisdictions except Western Australia and the Northern Territory where it is 110 km/h.

NOTE 2 An 80 km/h default rural speed limit on unsealed roads applies in Tasmania.

- (b) *Default urban speed limit* — Applies in built-up areas in the absence of a speed zone. A built-up area is defined in jurisdiction regulations.

NOTE 3 The limit in all jurisdictions is 50 km/h except in the Northern Territory, where it is 60 km/h.

2.2.2 Speed zones

Speed zones shall comprise one of the following:

- (a) A linear speed zone, which is applied to a length of road by means of appropriate speed limit signing at each end — [Clause 3.1.3](#).
- (b) An area speed zone, which is applied to a network of roads within a defined area with appropriate speed limit signing at each entry to and exit from the area — [Clause 3.1.8](#).
- (c) A school zone, which is a speed limit associated with a school — [Clause 3.1.9](#).
- (d) A shared zone, which is a speed limit applied to an area or length of street shared by both vehicles and pedestrians — [Clause 3.1.10](#).

The speed limit in a linear speed zone may or may not be the same as the default speed limit that would otherwise apply. The speed limit in an area speed zone, a school zone or a shared zone is usually not the same as the default limit which would otherwise apply.

2.2.3 Length of a linear speed zone

The minimum length of a linear speed zone should be as specified in [Table 2.1](#).

Table 2.1 — Minimum lengths of speed zones

Speed limit km/h	Length of zone km
10, 20, 30	No minimum length
40	0.4
50	0.5
60	0.6
70	0.7
80	0.8
90	0.9
100	2.0
110	10.0
School zone only	0.2

2.2.4 Time based speed zones

Part time or variable speed limits may apply at regular times each day on roads with varying functions throughout the day, e.g. school zones or high pedestrian activity areas on peak hour routes.

2.2.5 Offset speed zones

Speed zones on a particular length of roadway that have different speed limits for each direction of travel are permitted under the following conditions:

- (a) *On a divided road* — Where the roadside development adjacent to each roadway or traffic conditions on each roadway are different to the extent that a different speed limit is warranted for each.
- (b) *On a divided or undivided road* — Where an intermediate speed zone is required. For example a reduced speed limit on the approach to a railway level crossing. An offset speed limit should not be greater than 0.4 km in length.

Section 3 Speed limit signing

3.1 Speed limit signs

3.1.1 General

Signs used in the application of various types of regulatory speed control are listed in [Table 3.1](#). All such signs shall be reflectorized in accordance with AS 1742.2.

Table 3.1 — Speed limit signs size table

Sign	Sign No.	Size, mm	Clauses for additional details
Speed Limit	R4-1A	450 × 600	3.1.3
	R4-1B	600 × 800	
	R4-1C	900 × 1 200	
	R4-1D	1 200 × 1 600	
SHARED ZONE	R4-4	450 × 750	3.1.10
END SHARED ZONE	R4-5	450 × 750	3.1.10
SCHOOL ZONE	R4-8A	450 × 300	3.1.9
	R4-8B	600 × 400	
END SCHOOL ZONE	R4-9A	450 × 450	3.1.9
	R4-9B	600 × 600	
END Speed Limit	R4-12B	600 × 1 000	3.1.3(b)
	R4-12C	800 × 1 334	
Speed Limit AREA	R4-10A	450 × 750	3.1.8
	R4-10B	600 × 1 000	
Speed Limit AREA Reminder	R4-14A	450 × 750	3.1.8
	R4-14B	600 × 1 000	
END Speed Limit AREA	R4-11A	450 × 750	3.1.8
	R4-11B	600 × 1 000	
Supplementary END Speed Limit AREA Midblock	R4-13A	450 × 150	3.1.8
	R4-13B	600 × 200	
	R4-13C	900 × 300	
	R4-13D	1 200 × 400	
Times of Operation	R9-1-1A	450 × 300	3.1.11(d)
	R9-1-1B	600 × 400	
	R9-1-1C	900 × 600	
	R9-1-1D	1 200 × 800	
	R9-1-2A	450 × 450	
	R9-1-2B	600 × 600	
	R9-1-2C	900 × 900	
	R9-1-2D	1 200 × 1 200	
ON BRIDGE	R9-15A	450 × 300	3.1.11(a)
	R9-15B	600 × 400	
	R9-15C	900 × 600	
ON RAMP	R9-17B	600 × 400	3.1.11(c)
	R9-17C	900 × 600	

Table 3.1 (continued)

Sign	Sign No.	Size, mm	Clauses for additional details
Speed Limit AHEAD	G9-79A	450 × 750	3.1.3(c)
	G9-79B	600 × 1 000	
	G9-79C	800 × 1 350	
SERVICE ROAD	R9-16A	450 × 300	3.1.11(b)
	R9-16B	600 × 400	

3.1.2 Sign size

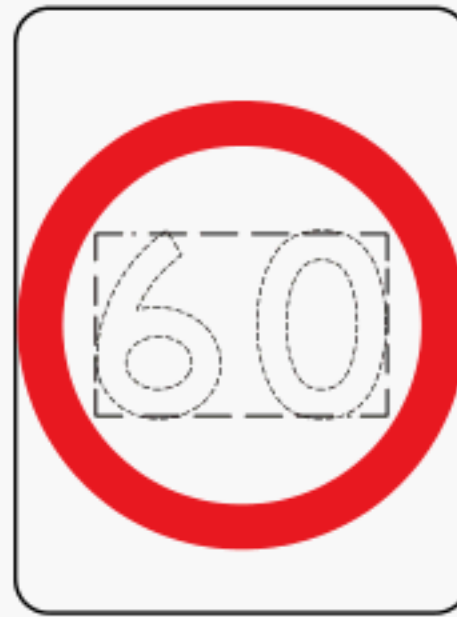
The recommended sizes of the principal speed control signs to be used in various situations are given in [Table 3.2](#).

Table 3.2 — Recommended sizes of speed control signs

Application	Recommended sign size ^a
Start or end of default urban or rural limit:	
Reduction in speed limit of 30 km/h or more	C
All other cases	B
Start or end of a linear speed zone:	
On expressways (other than ramps)	C or D
Reduction in speed limit of 30 km/h or more	C
All other cases	B
Start or end of area speed zones (R4-10 and R4-11 signs)	B
END Speed Limit (R4-12)	B
Speed Limit AHEAD (G9-79)	B
Repeater signs:	
Expressways (other than ramps)	C
All other on-road cases (refer to 3.1.6(h))	A or B
In road related areas (e.g. car parks)	A
^a Sign dimensions together with corresponding sizes of supplementary plates are given in Table 3.1 .	

3.1.3 Signs for linear speed zones and default speed limits

The following signs shall be used:

(a) *Speed Limit (R4-1)*

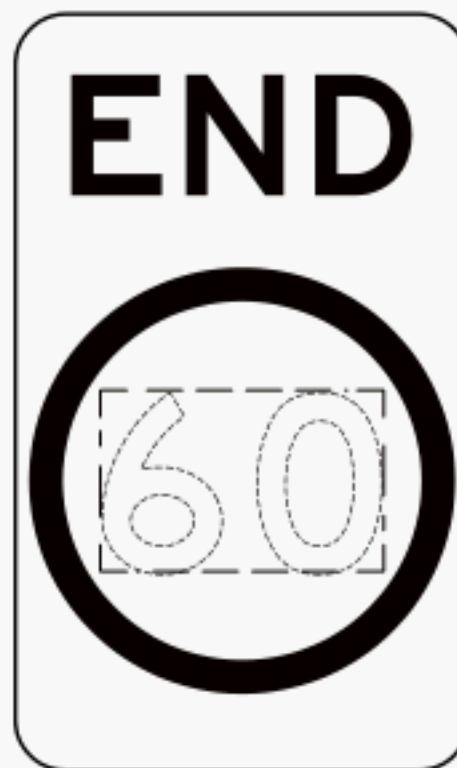
R4-1

The Speed Limit sign shall be used to indicate the speed limit which applies in the linear speed zone about to be entered, and shall be used at the beginning of a default urban or default rural speed limit except where the requirements of Item (b) apply.

The sign shall also be used —

- (i) as a repeater sign as permitted in [Clause 3.1.6](#); and
- (ii) in conjunction with other signs at school zones (see [Clause 3.1.9](#)).

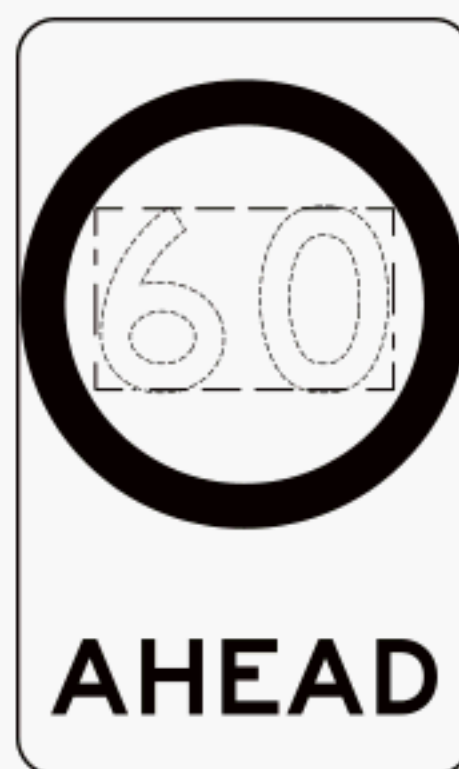
For the signposting of variable speed limits, see [Clause 3.1.12](#).

(b) *END Speed Limit (R4-12)*

R4-12

The END Speed Limit sign shall be used at the start point of a section of road covered by the default rural speed limit where it is not practicable or desirable to indicate the speed limit applying beyond the point by means of a Speed Limit (R4-1) sign. This would be the case where the speed value of the alignment beyond the start point is substantially lower than the default rural speed limit or there is a hazard such as a busy intersection or railway level crossing just beyond the start of the limit and it is not appropriate to extend a lower speed limit into this area.

(c) *Speed Limit AHEAD (G9-79)*



G9-79

A Speed Limit AHEAD (G9-79) sign shall be used where there is a reduction in the speed limit of greater than 30 km/h. The Speed Limit AHEAD sign should typically be located 300 m to 400 m before the start of the lower speed zone. The distance may be reduced in accordance with AS 1742.2—2009 Appendix D.

3.1.4 Signposting of linear speed limits

The following requirements and recommendations apply to the signposting of linear speed zones:

- (a) Start and end points of linear speed zones shall be signposted as follows:
 - (i) *Start of zone* — The start of a speed zone shall be indicated by Speed Limit (R4-1) signs indicating the speed limit.
 - (ii) *End of zone* — The end of a speed zone shall be indicated as follows:
 - (A) *Speed Limit (R4-1) sign* — Used to indicate the start of a new speed zone or the default urban/rural speed limit which applies beyond the end of the zone.
 - (B) *END Speed Limit (R4-12) sign* — Used where the conditions specified in [Clause 3.1.3\(b\)](#) apply.

NOTE A linear speed zone also ends at a dead end or where the road terminates at a T intersection.

3.1.5 Signposting of default limits

The following requirements and recommendations apply to the signposting of the start and end points of default limits:

- (a) *Start of default rural speed limit* — When leaving a built-up area, one of the following signs shall be placed to face traffic entering the default rural limit area:
 - (i) Where the road beyond the start of the limit is of an appropriate geometric standard a Speed Limit (R4-1) sign with the value of the default speed limit.
 - (ii) Where Item (i) is not applicable because the road beyond the start of the limit is not of an appropriate geometric standard or physical road condition, the END Speed Limit (R4-12) sign (see [Clause 3.1.3\(b\)](#)).
- (b) *Start of default urban speed limit* — Speed Limit (R4-1) sign shall be placed to face traffic entering the urban area. Requirements for Speed Limit AHEAD signs shall be as set out in [Clause 3.1.3\(c\)](#).

It is recommended that signs provided as in Items (a)(i) and (b) be placed on both sides of the roadway.

3.1.6 Repeater signs

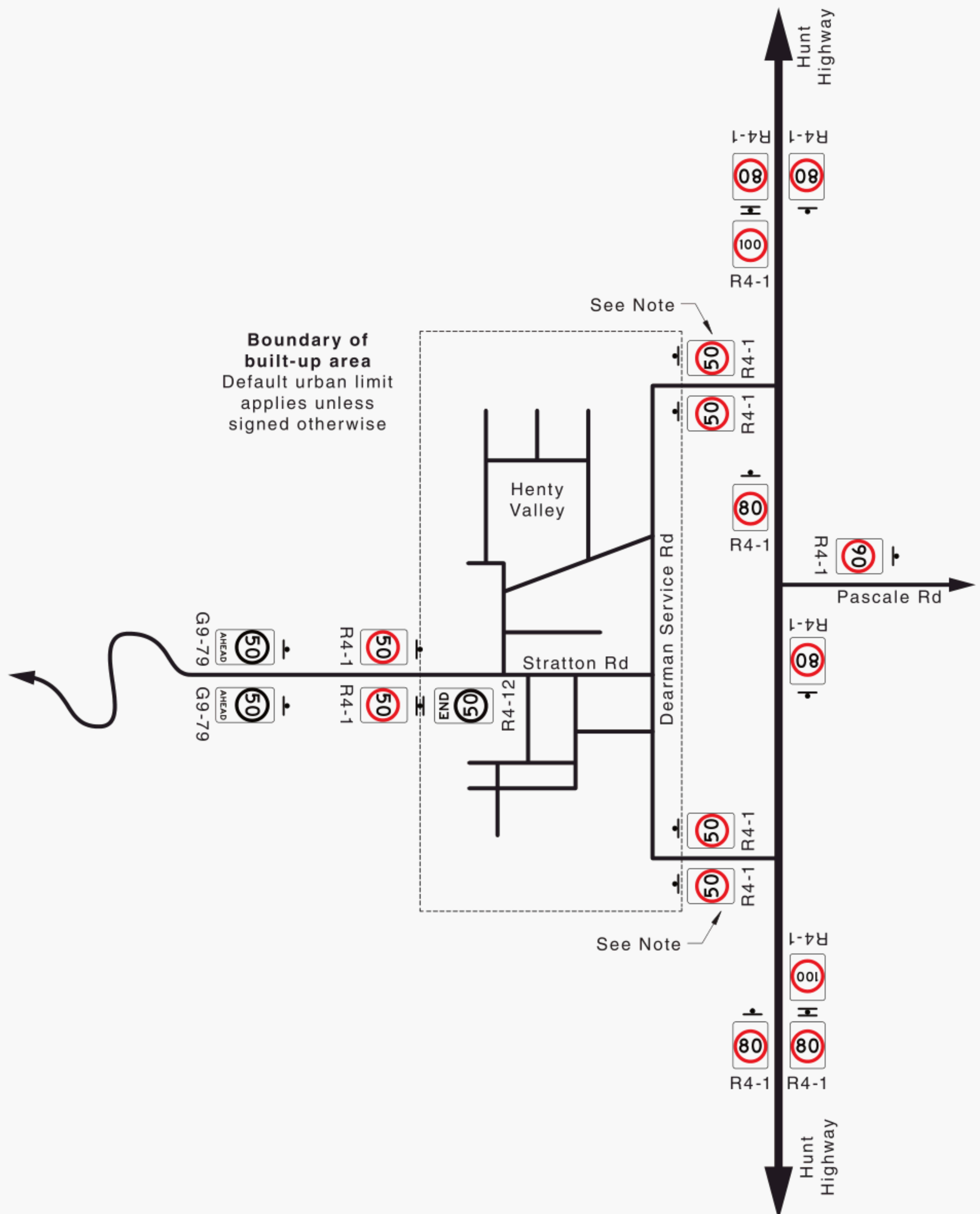
Repeater signs are used within a linear speed zone to confirm the speed limit applying within the zone. They are provided in accordance with the following requirements and recommendations:

- (a) They may be provided just beyond the beginning of a zone where there is a speed reduction at the start of the zone and there is evidence that the limit is not being adequately observed.
- (b) They may be provided elsewhere within the zone as a regular reminder of the speed limit.
- (c) They shall be provided as in Item (b) where the speed limit is inconsistent with the speed environment.
- (d) They should be provided just beyond important intersections for the benefit of drivers who have turned from another road, if the limit is other than the default limit.
- (e) They shall be provided where there are frequent changes to the speed limit and drivers require the additional confirmation of the limit that applies at any point.
- (f) They are not generally used within a default urban or rural speed limit.
- (g) Where used, they shall be located and spaced as follows:
 - (i) Just beyond a change of speed limit (Item (a) above) — a single sign on the left side of the roadway not exceeding 500 m beyond the start of the limit.
 - (ii) At locations inconsistent with the speed environment (Items (c) and (e) above) — single signs on the left side of the roadway at a spacing of 0.8 km to 1.0 km.

NOTE It is not expected that signs will be required for this purpose in speed zones above 90 km/h.
 - (iii) As a general reminder of the speed limit (Item (b) above) — single signs on the left side of the roadway at a spacing no greater than approximately 4 min (urban) or 10 min (rural) of travel time at the speed limit.
 - (iv) Just beyond an intersection on the major road (Item (d) above) — a sign on both sides of the road up to 150 m (urban) or up to 400 m (rural) beyond the intersection.
- (h) Except as below, the Speed Limit R4-1B, sign shall be used as the repeater sign in all cases. In low speed urban areas, generally where the speed limit is 60 km/h or less, Sign, R4-1A may be substituted if it will be sufficiently conspicuous against the urban visual background. The sign R4-1C is required on expressways.

3.1.7 Typical applications of speed limit signs

Typical applications of speed limit signs to indicate both default urban/rural limits and speed zones are illustrated in [Figures 3.1\(A\)](#) and [3.1\(B\)](#).



NOTE See [Clause 2.1.2.2](#).

Figure 3.1(A) — Application of speed limit signs at default limits and linear speed zones (Example 1)

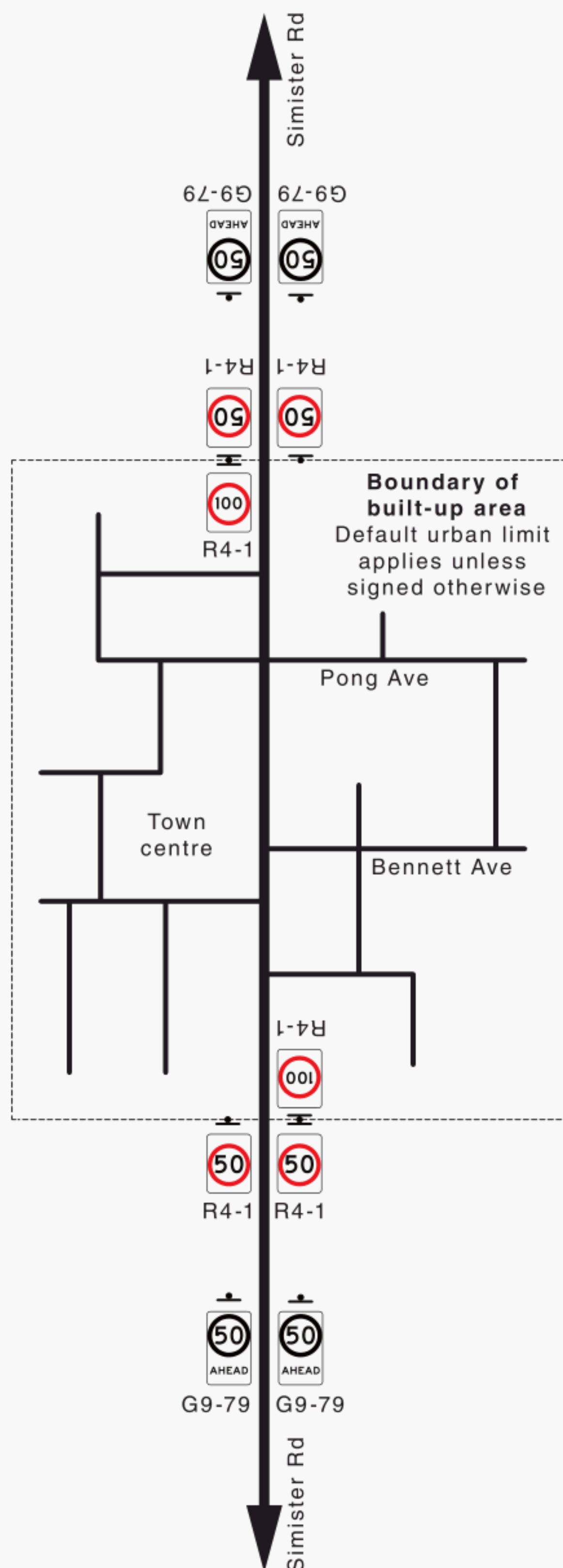


Figure 3.1(B) — Application of speed limit signs at default limits and linear speed zones (Example 2)

3.1.8 Area speed zones

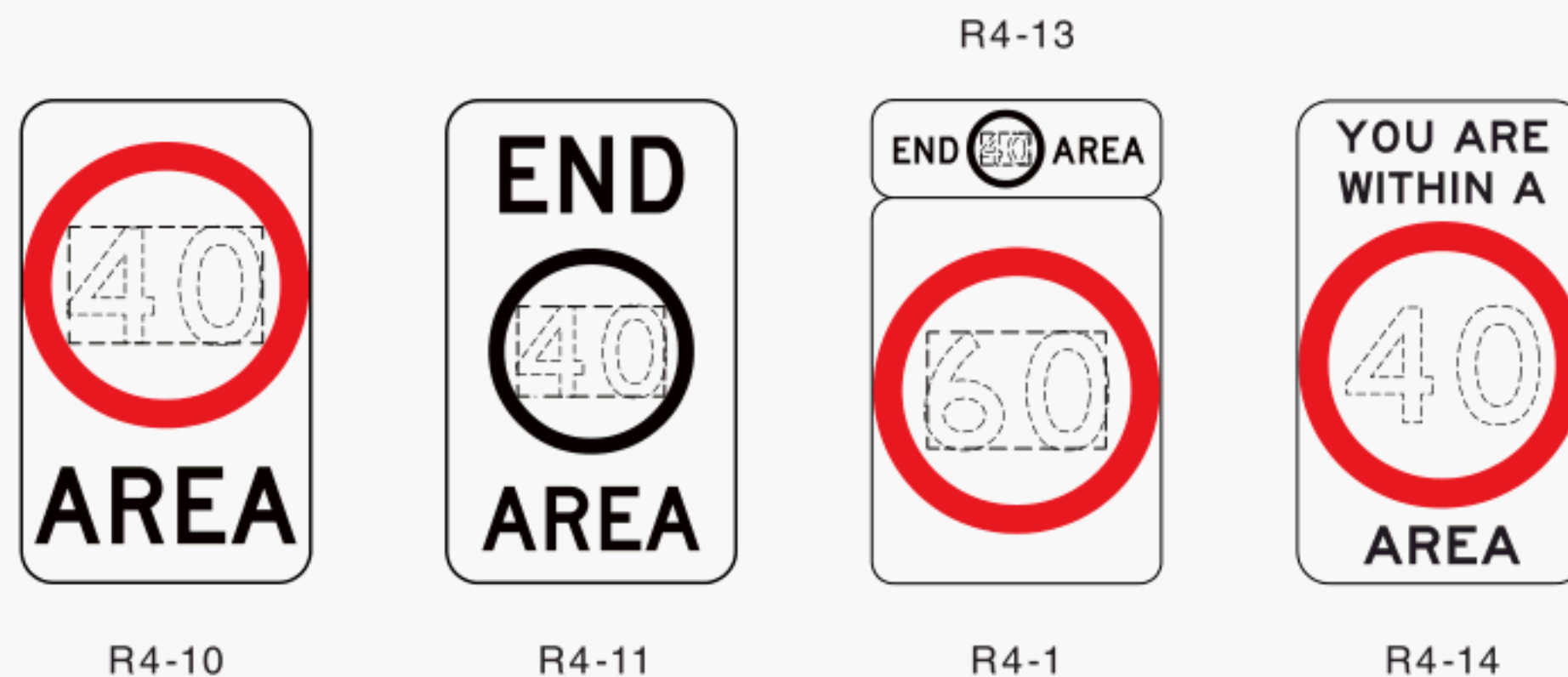
Signs used to create an area speed zone are as follows:

Speed Limit AREA (R4-10)

Speed Limit AREA Reminder (R4-14)

END Speed Limit AREA (R4-11)

END Speed Limit AREA Midblock (R4-1 and Supplementary R4-13)



Each entry and exit point to and from an area speed zone shall be signposted as follows:

- (a) *Entry signs* — Speed Limit AREA (R4-10) signs shall be placed to face traffic at each entry into the area speed zone. They shall be positioned a sufficient distance from any intersection to be readily seen and noticed by drivers after they have turned from the intersecting street.
 - (b) Where a reminder of the speed limit is required within the area speed zone, it shall be provided by use of Speed Limit AREA Reminder (R4-14) signs. The R4-1 or R4-10 sign shall not be used as a repeater sign within an area speed zone. A reminder may be required where there is evidence that the limit is not being adequately observed or where the area is extensive.
 - (c) *Exit signs where the road terminates at a T intersection* — END Speed Limit AREA (R4-11) signs shall be placed to face traffic at every such exit from the area speed zone.
- NOTE These signs should be placed at the same location as entry signs but facing the opposite direction. Speed limit (R4-1) signs may be required nearby on the road beyond an exit from the area speed zone.
- (d) *Exit signs where the road continues beyond the end of the area* — Where the speed limit beyond the end of the area speed zone is a linear speed zone other than the urban default limit, an End Speed Limit AREA Midblock assembly (consisting of a R4-1 sign below and a R4-13 sign) shall be installed, instead of an End Speed Limit AREA (R4-11) sign.

It is recommended that entry and exit signs are “B” size and placed on both sides of the roadway.

3.1.9 School zones

A school zone is a short length of linear speed zone in the vicinity of a school with a speed limit lower than on the approaches. It is a part time speed limit.

The following signs are displayed in conjunction with the Speed Limit (R4-1) sign at the start and end of a school zone, as shown in [Figure 3.2](#).

SCHOOL ZONE (R4-8)

END SCHOOL ZONE (R4-9)

A school zone shall have at its start an assembly consisting of a Speed Limit (R4-1) sign with the SCHOOL ZONE (R4-8) sign and a Times of Operation (R9-1 series) sign mounted below or beside it. The times of operation shall indicate the days on which the operating times apply, e.g. SCHOOL DAYS.

A supplementary plate with the legend WHEN CHILDREN PRESENT may be substituted for the times of operation plate subject to jurisdictional regulations.

A pair of horizontally opposed alternately flashing yellow lights on a black target board may be used above the school zone assembly.

The layout of the three signs in the assembly may be varied, however it should be consistent within a jurisdiction. The signs may be assembled on a single signboard.

An electronic sign may take the place of part or all of the assembly.

The end of the zone shall be indicated by a Speed Limit (R4-1) sign showing the continuing speed limit beyond the school zone and may include the END SCHOOL ZONE (R4-9) sign mounted above or below it.

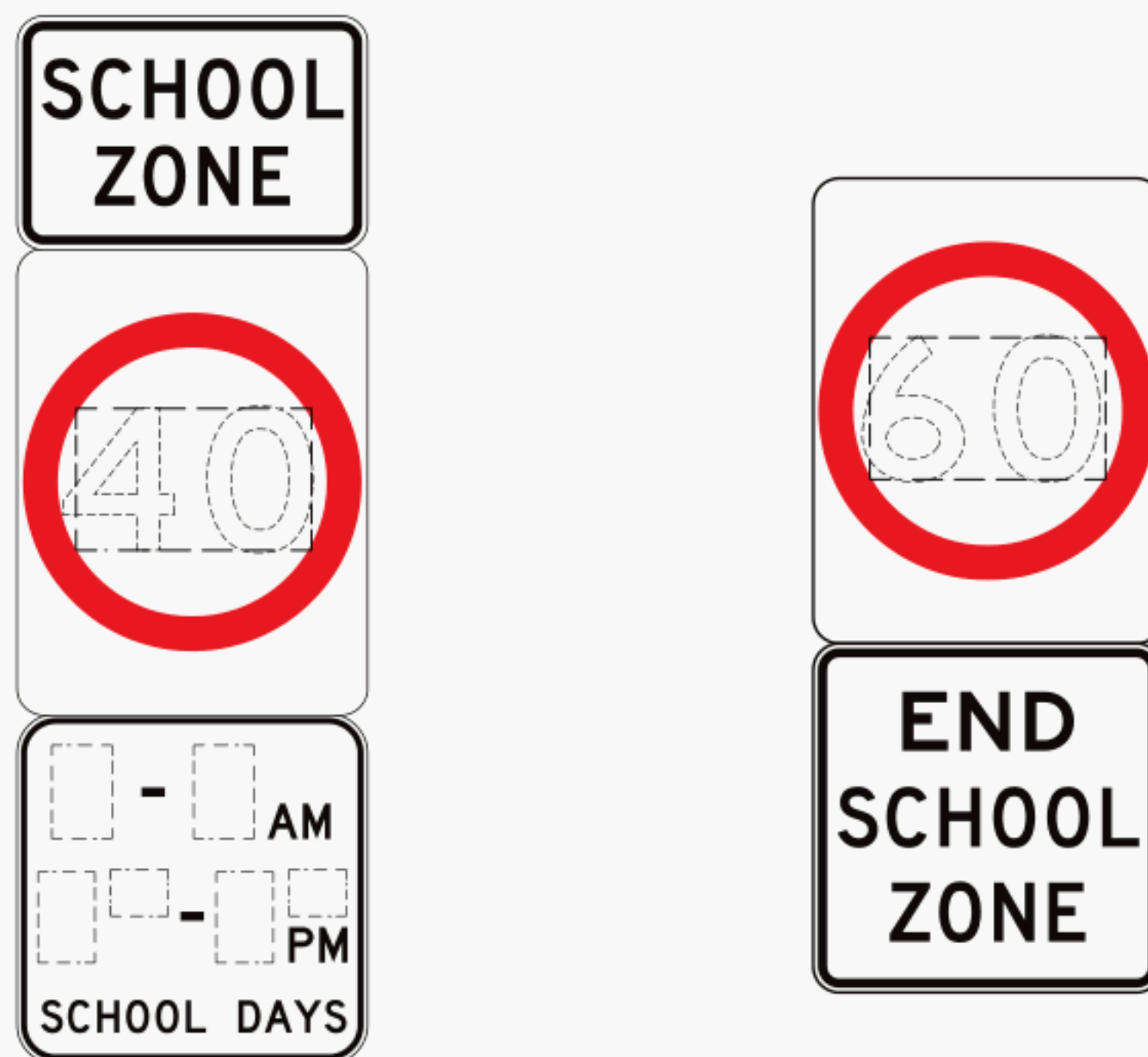


Figure 3.2 — Examples of school zone assemblies

3.1.10 Shared zones

The following signs shall be used at the start and end of shared zones:

SHARED ZONE (R4-4)

END SHARED ZONE (R4-5)



R4-4



R4-5

A shared zone is a road, a network of roads or a road-related area where pedestrians and vehicular traffic share the road space. Drivers within a shared zone must give way to pedestrians at all times and must only park in marked bays or where permitted by parking control signs. Pedestrians are required to not unduly hinder the movement of vehicles. To achieve these interactions safely, the speed limit within a shared zone is 10 km/h.

In the design of a shared zone the environment needs to be altered to make it obviously different from other streets. The SHARED ZONE (R4-4) sign shall be installed at every entrance and the END SHARED ZONE (R4-5) sign shall be used at every exit from a shared zone. Refer to jurisdictional publications for shared zone design considerations.

3.1.11 Supplementary plates

The following requirements and recommendations apply to supplementary plates:

(a) *ON BRIDGE (R9-15)*



R9-15

Where a lower speed limit is to be placed on a bridge, an assembly comprising the Speed Limit (R4-1) sign and the ON BRIDGE (R9-15) sign shall be placed at the beginning of the bridge. End of zone signing in accordance with [Clause 3.1.4\(a\)\(ii\)](#) shall be installed at the end of the bridge.

NOTE 1: R9-15 replaces the old sign code of G9-45.

(b) *SERVICE ROAD (R9-16)*



R9-16

Where a speed limit on a service road is different from that applying on the through road, the SERVICE ROAD (R9-16) sign may be required with the Speed Limit (R4-1) sign to show through road drivers that the limit applies only to the service road.

NOTE 2: R9-16 replaces the old sign code of G9-81.

(c) *ON RAMP (R9-17)*

R9-17

Where the speed limit on a substantial part of an exit ramp is different from that applying on the expressway, the ON RAMP (R9-17) sign may be required in conjunction with the Speed Limit (R4-1) sign to show drivers on the expressway that the limit applies only to the ramp. If used, this sign assembly shall be located on the ramp and not on the expressway.

The requirement in [Clause 3.1.3\(c\)](#) to use a Speed Limit AHEAD (G9-79) sign where a speed limit reduction is greater than 30 km/h does not apply at expressway exits. However if, due to restricted forward visibility, advance advice of the lower limit on the ramp is required on the expressway, this should be provided by using the G9-79 sign with the ON RAMP (R9-17) supplementary plate.

NOTE 3: R9-17 replaces the old sign code of G9-90.

(d) *Times of Operation (R9-1)*

R9-1-1



R9-1-2

Where a speed limit is to be imposed part-time, or full-time on specific days of the week the Times of Operation (R9-1 series) sign shall be used with the Speed Limit (R4-1) sign to show drivers that the times of operation are limited.

If the R9-1 series sign is to apply on public holidays, the legend "INCLUDING PUBLIC HOLDS" shall be included under the times of operation.

It is recommended that where observance is likely to be poor or the zone is on an arterial road where a significant portion of the traffic comprises non-regular users, a means of alerting road users during the applicable times, such as a flashing signal mounted above the sign assembly or a variable message sign, be provided.

(e) *Class of vehicle*

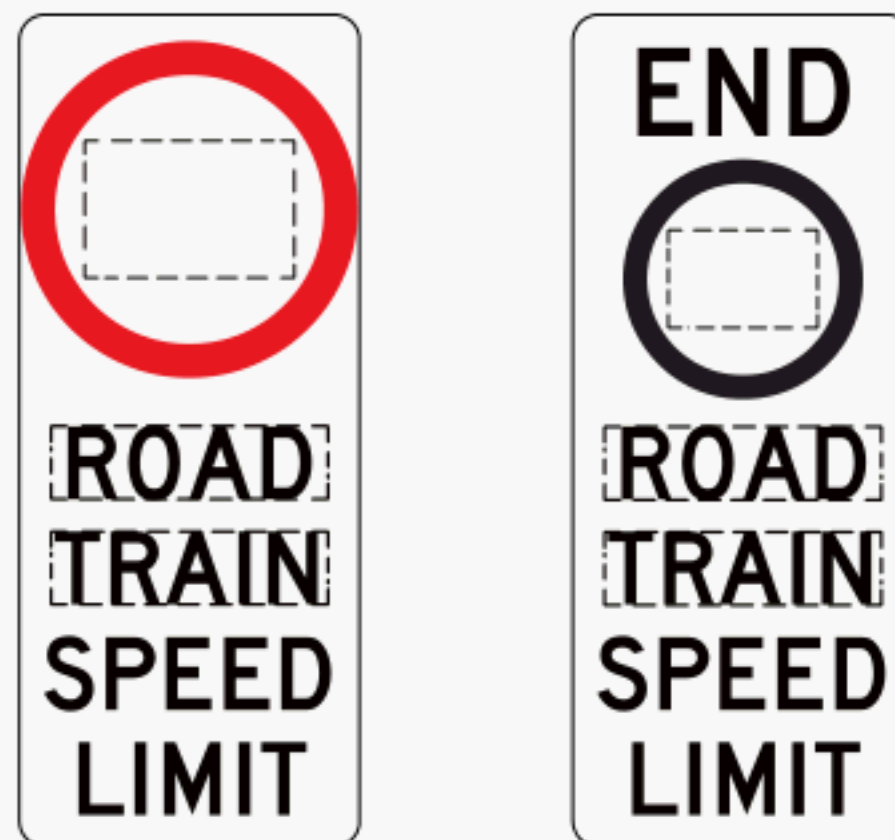


Figure 3.3 — Examples of class of vehicle signing

Where a speed limit is to be imposed to a class of vehicle which is different from that applying to all other vehicles, a class of vehicles sign (or supplementary plate with an R4-1 sign) shall be used. An END class of vehicle sign (or supplementary plate) shall be installed at the end of the speed zone where the different speed limit for the particular vehicle class ends. See [Figure 3.3](#) for example signs.

(f) *Other supplementary plate messages*

Other supplementary plates may be considered for use in situations where additional guidance regarding location and/or day and/or times apply, e.g. ON BEACH.

3.1.12 Variable speed limits

The need for periodic changes in the speed limit of a linear speed zone may arise for reasons such as changes in weather or other ambient conditions, periodic increase or decrease in traffic volumes or in activity at a traffic generator, or timed changes at a school zone.

Variable speed limits shall be displayed in one of the following ways:

- (a) Use of the Times of Operation sign (R9-1 Series) in conjunction with a Speed limit (R4-1) sign and any other supplementary sign required to inform drivers of the reason for the changed speed limit e.g. school zone signs.
- (b) Use of variable speed limit signs (VSLs) displaying a limit which can be changed either mechanically, electrically or electronically. For enforcement purposes the VSLs shall have the times when the speed limit is changed recorded.

VSLs displays shall be limited to one of the following:

- (i) A display that is identical in design and colour to the Speed Limit (R4-1) sign.
- (ii) An electronic display that is identical in layout to the Speed Limit (R4-1) sign but has illuminated white numerals within an illuminated red annulus on a black background. The sign may be rectangular or square as shown in [Figure 3.4](#). See AS 5156 for electronic speed limit signs.

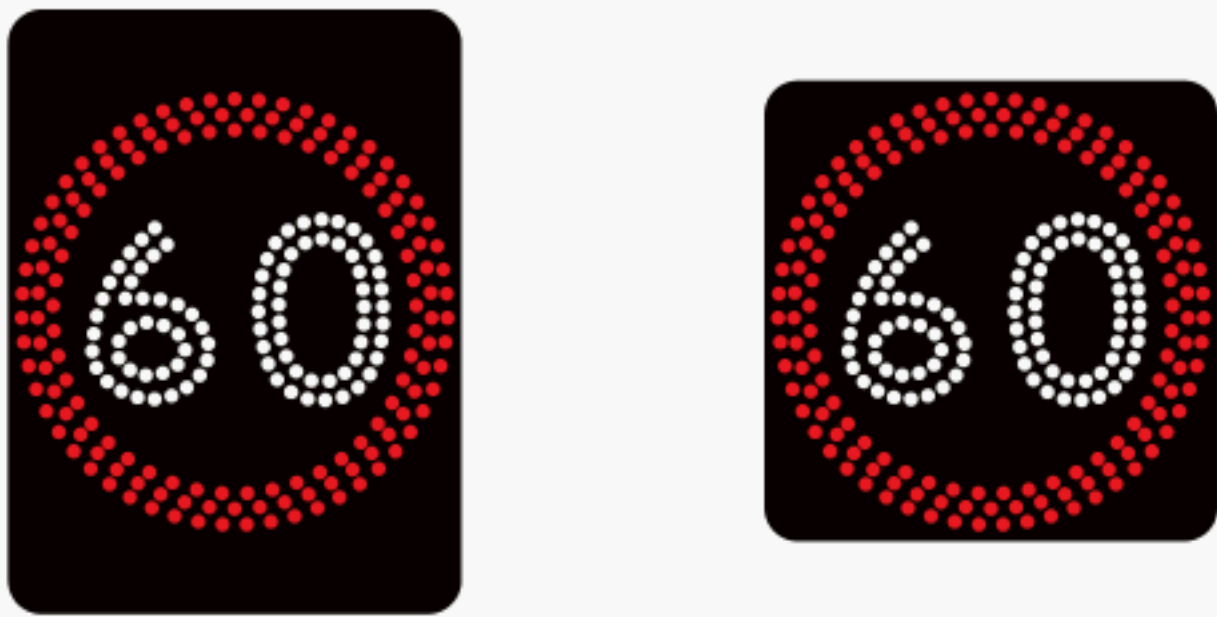


Figure 3.4 — Example of variable speed limit signs

Sign size and design for VSLs shall be either in accordance with the static sign size and design as outlined in this Standard and AS 1743, or square. When a square version of an electronic speed limit sign is used, its width shall be the same as the rectangular version.

When VSL is designed for specific applications, the sign size should not be smaller than those shown in Table 3.3.

Table 3.3 — Variable speed limit sign sizes

Location	Size
Shopping precincts or high pedestrian activity areas	Size B
Tunnel	Size B Size A may be used where size constraints prohibit the use of Size B signs
Expresswaytype road	Size C
Other	Size C on other high speed roads (80 km/h or more) Size B for all other cases

A supplementary sign may be installed at limited locations along the road to advise motorist of the speed limit when the VSL display is blank. Refer to Figure 3.5 for an example sign design.



Figure 3.5 — Example of a supplementary VSL sign

The design of VSL signs shall meet the requirements of AS 5156 for sufficient conspicuity. The flaring effect of illuminated numerals may be an issue, especially for smaller sign sizes. The intensity of the illumination will affect the level of flaring experienced and thus the illumination should be adjusted based on the lighting conditions, especially during daylight hours. Flaring is not usually an issue with the smaller VSL size used in road tunnels due to the more controlled lighting environment.

When displaying the normal speed limit, all of the red annulus shall be illuminated and non-flashing. When displaying other than the normal speed limit, the inner part of the red annulus shall flash and the outer part of the red annulus shall remain illuminated and non-flashing in accordance with AS 5156.

3.2 Conflict with advisory speed signs

Advisory speed signs within any speed zone or default limit shall not show a speed greater than the speed limit (refer to AS 1742.2). Advisory speed signs should be reviewed when speed limits are altered. Speed limit signs and advisory speed signs showing different speed values from one another shall not be placed where drivers can read both at the one time, or otherwise placed so close that they might appear to be conveying contradictory messages.

3.3 Pavement markings

The marking of the speed limit on the pavement adjacent to static speed limit signs, where desired and where the pavement surface is suitable, shall be limited to locations where there is a change in speed limit. Elongated numerals shall be used. No additional words or symbols shall be included. A separate set of numerals shall be placed in each traffic lane.

NOTE On two-way roads, numerals should only be painted if there is a painted separation line and there is enough lateral separation between sets of numerals on opposite sides of the roadway to avoid them appearing as a single 4 or 5 digit number.

Numeral marking shall be in accordance with AS 1742.2 and they shall meet the skid resistance level given in AS 4049.5.

Bibliography

AS 1742.3, Manual of uniform traffic control devices, Part 3: Traffic control devices for works on roads

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