Queensland Manual of Uniform Traffic Control Devices

Part 9: Bicycle facilities

July 2024

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About this document

The use of signs, markings and other devices on bicycle facilities, based on uniform standards and practices, is essential in the interests of safety for both bicycle riders and other road users. This document sets out the traffic control devices used at bicycle facilities and describes the devices, their use and location. It reflects a community demand for improved bicycle facilities and covers matters including:

a) A variety of treatments for bicycle lanes on roads including joint-use functions with other vehicle types and full- or part-time operation

b) Treatment of bicycle lanes at signalised and unsignalised intersections

c) A variety of treatments for off-road bicycle paths, both exclusive use and shared with pedestrians

d) Mid-block road crossings of bicycle paths

e) Provisions for bicycles on freeways

f) Requirements for navigational aids (direction signs and the link) expressed as a series of design principles rather than prescription forms of signposting.

How to use this document

This document is designed to be read and applied together with AS 1742.9-2018 *Manual of Uniform Traffic Control Devices Part 9* (AS 1742.9-2018). You must have access to the Australian Standard to understand what applies in Queensland.

This document:

- sets out how AS 1742.9-2018 applies in Queensland
- has precedence over AS 1742.9-2018 when applied in Queensland
- has the same section and clause numbering and headings as AS 1742.9-2018.

The following table summarises the relationship between AS 1742.9-2018 and this document:

Applicability	Meaning
Accepted	The Australian Standard section or clause is accepted.
Accepted, with amendments	Part or all of the section or clause has been accepted with additions, deletions or differences.
New	There is no equivalent section or clause in the Australian Standard.
Not accepted	The Australian Standard section or clause is not accepted.

References

The following references apply when reading AS 1742.9-2018.

Reference to…	Means
AS 1742.9-2018	AS 1742.9-2018, as amended by this document For example, a reference to AS 1742.9-2018 means you must refer to the Australian Standard Part 9, **and** Part 9 of the Queensland *Manual of Uniform Traffic Control Devices* (Queensland MUTCD). Throughout AS 1742.9-2018, references are made to other parts of the Australian Standards (for example, when reading Part 9, you may be referred to Part 3 for further information.) In this case, you must refer to the equivalent Part within the Queensland MUTCD first. Check the applicability of the equivalent Part in the Queensland MUTCD **before** referring to the referenced Australian Standard Part.
MUTCD	Queensland *Manual of Uniform Traffic Control Devices*
QGTM	*Queensland Guide to Traffic Management*
Queensland (Q) series / Traffic Control (TC) signs	Queensland (Q) series signs provide some additional examples of the Australian Standard signs used for Queensland.
TRUM	*Traffic and Road Use Management* manual

Relationship table

Section	Clause	Description	Applicability
1	**Scope and general**		
	1.1	Scope	Accepted
	1.2	Objective	Accepted
	1.3	Referenced documents	Accepted with amendments
	1.4	Definitions	
	1.4.1	*Bicycle lane*	Accepted
	1.4.2	*Bicycle path*	Accepted
	1.4.3	*Footpath*	Accepted
	1.4.4	*May*	Accepted with amendments
	1.4.5	*Path*	Accepted
	1.4.6	*Separated path*	Accepted
	1.4.7	*Shall*	Accepted with amendments
	1.4.8	*Shared path*	Accepted
	1.4.9	*Should*	Accepted with amendments
	1.4.10	*Bicycle*	New
	1.4.11	*Registered Professional Engineer of Queensland (RPEQ)*	New
	1.4.12	*Innovative treatments*	New
	1.5	Signs – General requirements	Accepted
	1.6	Colour	Accepted with amendments
	1.7	Variation to treatments and Registered Professional Engineer of Queensland certification	New
2	**Bicycle provisions on arterial roads and local streets**		
	2.1	General	Accepted with amendments
	2.2	Signs	Accepted with amendments
	2.2.1	Bicycle activated warning signs	New
	2.3	Pavement markings	
	2.3.1	*General*	Accepted
	2.3.2	*Other pavement markings*	Accepted with amendments
	2.3.3	*Pavement colour*	Accepted with amendments
	2.4	Bicycle provisions mid-block	
	2.4.1	*Bicycle lane (full-time)*	Accepted with amendments
	2.4.2	*Bicycle lane (part-time)*	Accepted
	2.4.3	*Bicycle lane adjacent to car parking bays*	Accepted
	2.4.4	*Advisory treatments*	Accepted with amendments

Section	Clause	Description	Applicability
	2.4.5	*Bicycle contraflow facility*	Accepted
	2.5	Bicycle lane treatments at intersections	
	2.5.1	*General*	Accepted
	2.5.2	*Intersection at minor streets*	Accepted with amendments
	2.5.3	*Signalized intersections*	Accepted
	2.5.4	*Treatments at left turn slip lanes*	Accepted
	2.5.5	*Roundabouts*	Accepted
	2.6	Bus stops	New
3	**Bicycle path and footpath provisions**		
	3.1	General	Accepted
	3.2	Signs	Accepted with amendments
	3.3	Pavement markings	Accepted with amendments
	3.4	Footpaths and shared paths	Accepted
	3.5	Separated paths	Accepted
	3.6	Bicycle paths	Accepted
	3.7	Road crossings mid-block	Accepted
	3.7.1	*Summary of treatments*	Accepted
	3.7.2	*Road traffic gives way*	Accepted
	3.7.3	*Path traffic gives way*	Accepted with amendments
	3.7.4	*Traffic signal control*	Accepted with amendments
	3.8	Road crossings at intersections	
	3.8.1	*Unsignalized intersections*	Accepted
	3.8.2	*Signalized intersections*	Accepted with amendments
4	**Bicycle provisions on expressway type roads**		
	4.1	General	Accepted
	4.2	Signs	Accepted
	4.3	Application of signs to freeway interchanges	Accepted with amendments
	4.4	Pavement markings	New
5	**Navigational aids for cyclists**		
	5.1	General	Accepted
	5.2	Bicycle symbol	Accepted
	5.3	Colour and reflectorization	
	5.3.1	*Colour*	Accepted
	5.3.2	*Reflectorization*	Accepted
	5.4	Direction signs	Accepted
	5.5	Location of signs	Accepted

Section	Clause	Description	Applicability
Appendices			
A	Illumination and reflectorization of signs (normative)		
	A1	*Scope*	Accepted
	A2	*General*	Accepted
	A3	*Means of illumination*	Accepted
	A4	*Means of reflectorization*	Accepted
B	Installation and location of signs		
	B1	*Scope*	Accepted
	B2	*Uniformity of location*	
	B2.1	General	Accepted
	B2.2	Longitudinal placement	Accepted
	B2.3	Lateral placement and height of signs on or adjacent to roadways	
	B2.3.1	*General*	Accepted
	B2.3.2	*Lateral placement – Rural roads*	Accepted
	B2.3.3	*Lateral placement – Urban roads*	Accepted
	B2.3.4	*Height – Rural roads*	Accepted
	B2.3.5	*Height – Urban roads*	Accepted
	B2.3.6	*Overhead mounting*	Accepted
	B2.4	Placement of signs on paths	Accepted
	B3	*Sign orientation*	Accepted
C	Selection of appropriate sign size		
	C1	*Scope*	Accepted
	C2	*Size of signs*	Accepted
	C3	*General principles for size selection*	Accepted

Contents

Figures

1 Scope and general

1.3 Referenced documents

Addition

Transport Operations (Road Use Management) Act 1995.

1.4 Definitions

1.4.4 May

Addition

Indicates the existence of an option. Where the word 'may' is used, it indicates that use of the device is conditional, or optional. Usually, no specific requirement for design or application is intended.

1.4.7 Shall

Addition

Indicates that a statement is mandatory. Where certain requirements in the design or application of the device are described with the 'shall' stipulation, it is mandatory that, when an installation is made, these requirements be met.

1.4.9 Should

Addition

Indicates a recommendation. Where the word ‘should’ is used, it is considered to be recommended usage, but not mandatory. Any recommendation that is not applied must be based on sound traffic engineering judgement and documented.

1.4.10 Bicycle

New

As defined in Schedule 4 *Definitions* of the *Transport Operations (Road Use Management) Act 1995.*

1.4.11 Registered Professional Engineer of Queensland (RPEQ)

New

A person who is registered as a Registered Professional Engineer of Queensland (RPEQ), under the *Professional Engineers Act 2002* (Qld) with the Board of Professional Engineers of Queensland.

1.4.12 Innovative treatments

New

Innovative treatments that provide improved safety, efficiency, and/or value-for-money outcomes are encouraged. Such treatments may include:

a) innovative use of current devices

b) alternative device layouts using existing and/or improved devices, and/or

c) new devices or practices.

New or improved devices, treatments, or practices require approval by the Department of Transport and Main Roads (see Clause 1.7 for guidance about variations to optimal treatments) prior to their use or adoption.

For trials of new or innovative traffic control devices, treatments, or practices, a submission in accordance with the requirements of the Queensland *Manual of Uniform Traffic Control Devices* (MUTCD) Part 1 Clause 1.13 shall be submitted to TrafficEngineering.Support@tmr.qld.gov.au.

1.6 Colour

Addition

To accommodate different materials and varying conditions, an approximate colour match to one of the following three AS2700 S greens is permitted – G13 Emerald, G16 Traffic green or G23 Shamrock. Approximate colour match is determined in accordance with AS/NZS 1580.601.1. A consistent green colour should be provided along a route or within a given locality.

1.7 Variation to treatments and Registered Professional Engineer of Queensland certification

New

This Part of the *Manual* contains mandatory requirements (*shall*), recommendations (*should*) and options (*may*). The application of these mandatory requirements and recommendations is intended to provide the optimal level of safety and traffic efficiency. It is acknowledged that, in some instances, variations to these requirements and recommendations may be necessary and, as such, variations to these requirements and recommendations may be undertaken as follows:

a) Where recommendations (*should*) are not adopted, a risk assessment shall be undertaken and certified by a Registered Professional Engineer of Queensland (RPEQ).

b) Where mandatory requirements (*shall*) are not adopted, a risk assessment shall be undertaken and certified by an RPEQ.

   Notifications of variations to mandatory requirements (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au for information purposes and for the benefit of identifying potential future practice changes – not for approval or endorsement. These variations may include learnings that may be attributed to the variation of a *shall* requirement, such as operational, cost or safety impacts.

c) Where innovative treatments (see Clause 1.4.12) that are outside the scope of the Queensland MUTCD are proposed to be adopted, a risk assessment shall be undertaken and certified by an RPEQ.

d) All proposed innovative treatments require approval by Transport and Main Roads prior to their use or adoption. Requests for approval of innovative treatments (including all relevant information) shall be emailed to TrafficEngineering.Support@tmr.qld.gov.au. As part of an approval to use or trial an innovative treatment, Transport and Main Roads may require that the applicant provides a detailed evaluation report on the performance and effectiveness of the treatment. Transport and Main Roads may use the results of the evaluation to identify potential future practice changes to this Part of the *Manual*.

e) The use of options (*may*) is not a variation to the optimal treatment and does not require certification by an RPEQ.

2 Bicycle provisions on arterial roads and local streets

2.1 General

Difference

Item (f), replace ‘Clause 4.1’ with ‘Clause 2.4.4(c)’.

2.2 Signs

Difference

Item (l) *WATCH FOR Bicycles (G9-57)*, first paragraph, change ‘shall be’ to ‘may’ to read:

> The WATCH FOR Bicycles sign *may* be used at locations…

Addition

- Item (l) *WATCH FOR Bicycles (G9-57)*, add last paragraph:

  > For the cases in Items (iii), (iv) and (v), the sign may be mounted below any appropriate STOP, GIVE WAY or Roundabout regulatory sign.

- Item (m) *Cyclists DISMOUNT (G9-58)*. add items (iii) STAIRCASE and (iv) PEDESTRIAN MALL.

2.2.1 Bicycle activated warning signs

New

Warning signs may be implemented as electronic bicycle-activated warning signs, refer *Queensland Guide to Traffic Management* Part 10 *Transport control – types of devices* Section 7.6.9 *Vehicle activated intersection and road geometry signs*.

2.3 Pavement markings

2.3.2 Other pavement markings

Addition

(c) *Pavement arrow* Pavement arrows may be used in conjunction with the bicycle symbol where a bicycle lane has been provided on the approach to traffic signals (see Figure 2.10) where some movements are restricted. The arrow is white in colour.

2.3.3 Pavement colour

Addition

For further information on the use of pavement surfacing in bicycle lanes, refer *Queensland Guide to Traffic Management* Part 10 *Transport control – types of devices* Section 8.6 *Use of coloured pavements*.

2.4 Bicycle provisions mid-block

2.4.1 Bicycle lane (full time)

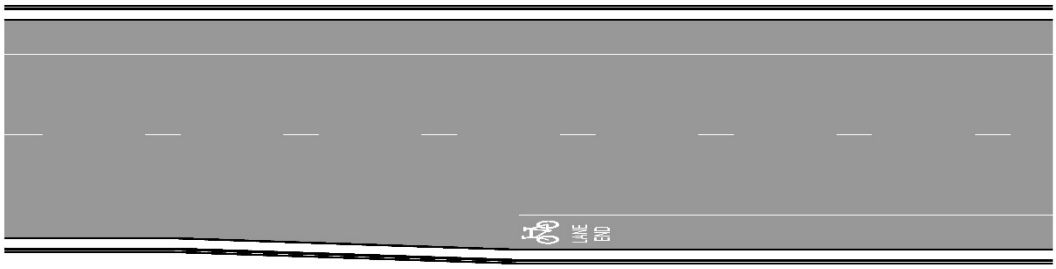
Addition

Bicycle lane terminations at mid-block should be pavement marked as per Figure 2.4.1(a). W6-Q04 and W8-Q11 SHARE THE ROAD warning sign and supplementary plate should be installed downstream of a mid-block bicycle lane termination.

Additional advisory pavement markings should be provided at the bicycle lane departure points and merging point into the adjacent lane as per the *Queensland Guide to Traffic Management* Part 10 *Transport control – types of devices*, Section 8.5.9: *Bicycle Awareness Zones in Queensland*. Warning and awareness raising signage should also be installed, such as G9-57.

In situations where a transition to an off-road bicycle facility can be provided, signage and pavement markings should be provided in accordance with W6-Q06 *Narrowing Cycle Lane Layout.*

Figure 2.4.1(a) – Preferred pavement marking of mid-block bicycle lane termination



2.4.4 Advisory treatments

Addition

Information on advisory treatments is contained in:

- the TRUM manual Volume 1 Part 8 *Local area traffic management* Section 8.12.1-1 *Advisory Bicycle Lanes and Cycle Streets,* and
- *Queensland Guide to Traffic Management* Part 10 *Transport control – types of devices* Section 8.5.9 *Bicycle awareness zones in Queensland* and the associated *Bicycle awareness zones guideline*.

2.5 Bicycle lane treatments at intersections

2.5.2 Intersection at minor streets

Addition

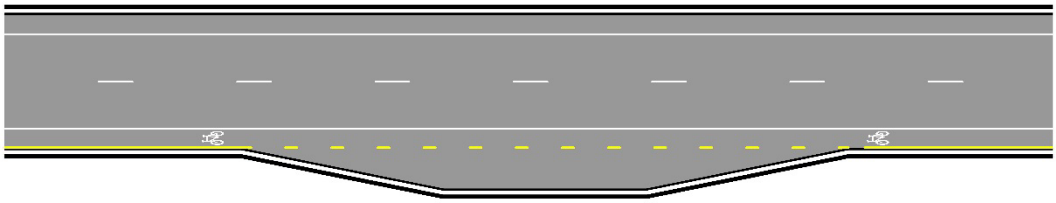
Refer to Figure 2.9(d). Where motor vehicles need to drive in a bicycle lane more than 50 metres in advance of the intersection, W6-Q05 sign SHARE BICYCLE LANE FOR LEFT TURN shall be installed.

2.6 Bus stops

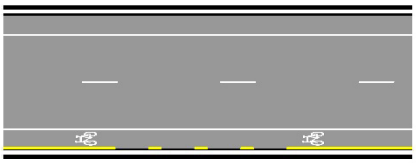
New

The bicycle lane should remain unbroken past the bus stop. An additional broken yellow line shall be used to define the parking restriction in the bus stop bay area, examples are shown in Figure 2.6.

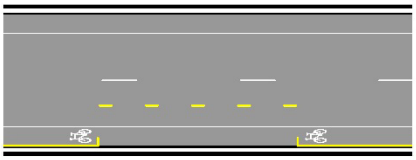
Figure 2.6 – Marking of bicycle lanes past bus stop



(a) Indented bay



(b) Inline



(c) Inline box

3 Bicycle path and footpath provisions

3.2 Signs

Difference

- Replace item (a) *Give way (R1-2)* with:

  (a) *Give way (R1-2)*

  This sign may need to be used on a bicycle path or shared path on the approach to a road crossing to reinforce the requirement that bicycle traffic needs to give way to road traffic. A give way line (see Clause 3.3(f)) shall be used in conjunction with this sign. A STOP sign may be needed in extreme circumstances (see Clause 3.7).

  A special reduced size sign is specified for path use (see Table 3.1). For added emphasis, the R1-2A size sign may be used. The give way pavement symbol may be used in lieu of this sign (see Clause 3.3(g)).

- Item (g) *Pedestrian warning (W6-1)*, *Bicycle warning (W6-7)*, *Bicycle / pedestrian warning (W6-9)*, *Crossing arrows (W8-23)*, replace W6-1 sign with:

Addition:

- Item (e) *Shared path (R8-2)*, add:

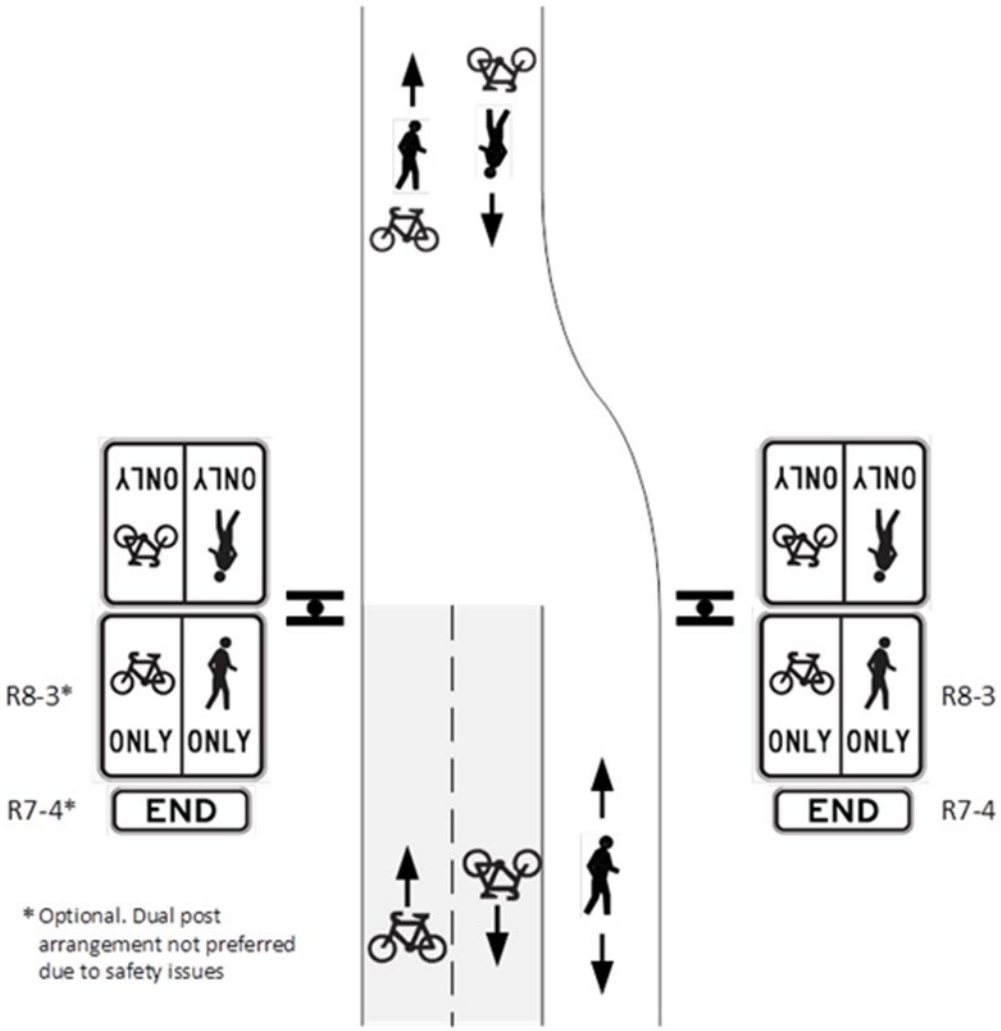
  Unless signed otherwise, the Queensland Road Rules permit people of any age to ride wheeled recreational devices, personal mobility devices or bicycles on footpaths irrespective of the path being signed as a shared path. Hence the Shared Path (R8-2) sign is generally unnecessary in Queensland.

  The Shared Path (R8-2) + END (R7-4) sign combination shall not be used.

  Figure 3.2 shows the appropriate signing to signify a change in path designation between a separated path and a shared path / footpath.

  Shared path pavement markings may be used on any path intended for shared use operation even if R8-2 signs are not installed.

Figure 3.2 – Standard midblock arrangement to change path designation between separated and footpath / shared path



Addition:

- Item (k) *Slippery for bicycles* (W6-11), add:

  It shall be limited for use as a temporary measure pending appropriate restoration of the pavement surface.

3.3 Pavement markings

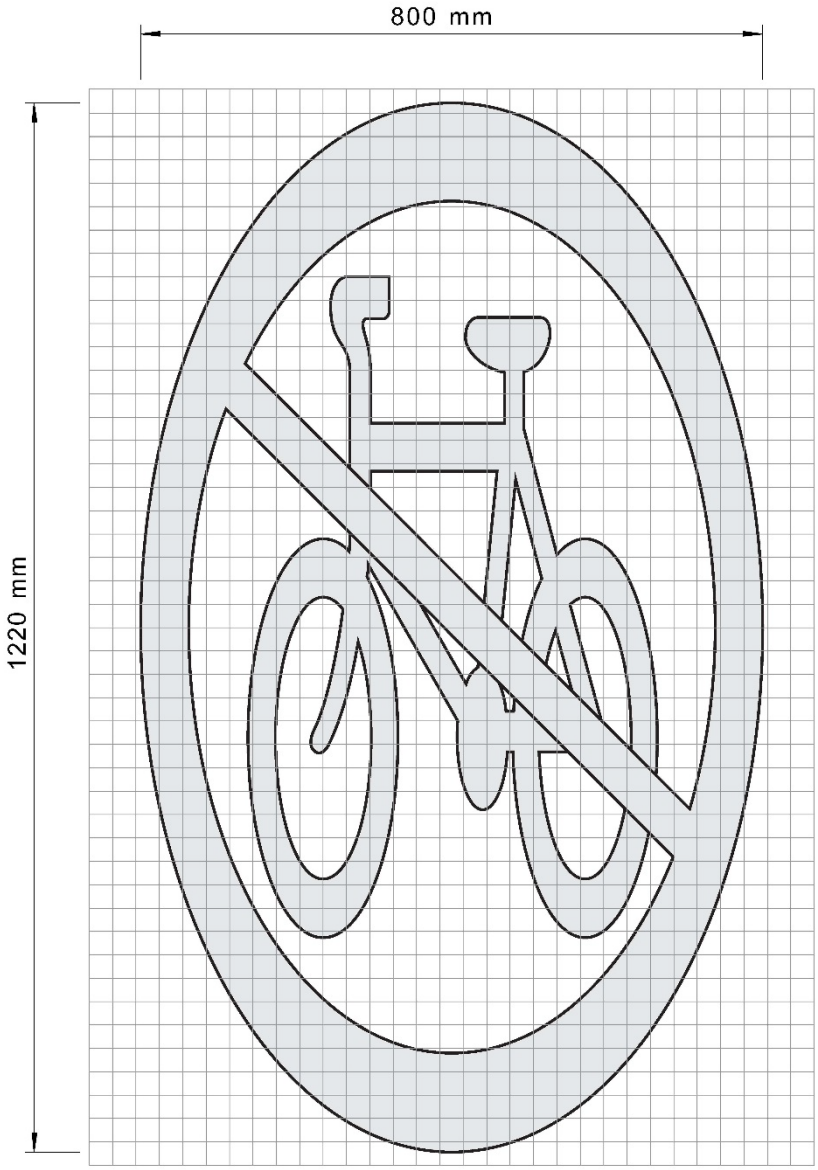
Difference

- Replace Item (g) *Give way or stop pavement marking* with:

  (g) *Give way or stop pavement marking* In lieu of a give way or stop sign, a give way or stop pavement marking, respectively, may be marked on the path [see Figure 3.2(1)].

- Item (h) *No-bicycle symbol*, replace reference to Figure 3.2(b) with Figure 3.3(b).
- Replace Figure 3.2(2) *No-bicycles pavement symbol for paths* with Figure 3.3(b) *No-bicycles pavement symbol for paths.*

Figure 3.3(b) – No-bicycles pavement symbol for paths



Addition, a new item (k)

(k) Any approved sign face may be implemented as a pavement marking symbol instead of or to supplement an equivalent pole mounted sign: limiting the number of poles near paths reduces potential for path user collisions with poles.

Where a pavement marking symbol is used instead of its pole mounted equivalent, then Approach Sight Distance shall be adequate to ensure visibility of the pavement marking symbol.

Using a pavement marking symbol to supplement a pole mounted equivalent should be limited to exceptional circumstances to limit unnecessary visual clutter.

The selection and application of a pavement marking symbol shall follow the requirements applicable to the relevant sign.

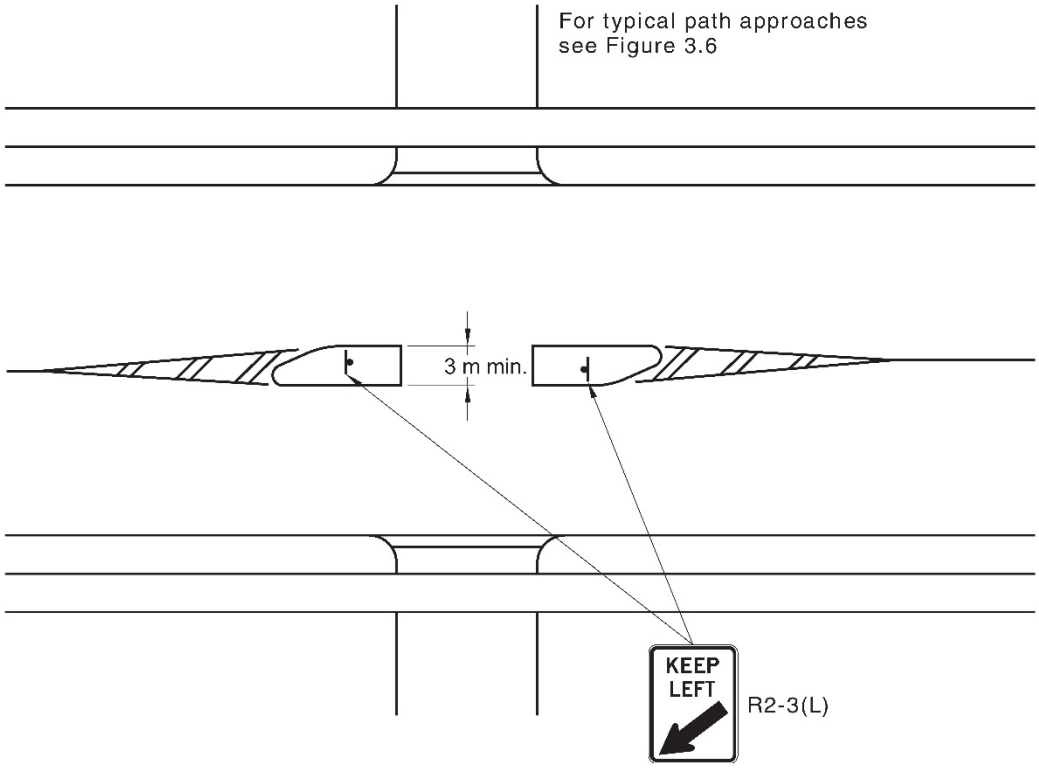
3.7 Road crossings mid-block

3.7.3 Path traffic gives way

Difference

Replace Figure 3.8 *Use of a refuge island to stage path traffic across a high-volume road* with Figure 3.7.3 *Use of a refuge island to stage path traffic across a high-volume road.*

Figure 3.7.3 – Use of a refuge island to stage path traffic across a high-volume road



NOTES:

1 Parking restrictions may be required on the approaches to the crossing.

2 Refer to AS1742.2 for advance signing requirement for a refuge island.

Addition to Item *(b) At-grade intersection*

With reference to AS 1742.2 Figure 2.2 Note 4, where the terminating road is a bicycle path or shared path, the dimension to the apex of the visibility triangle should be 1.0 m.

3.7.4 Traffic signal control

Deletion

Delete Item (a) *Road crossings*, delete second paragraph.

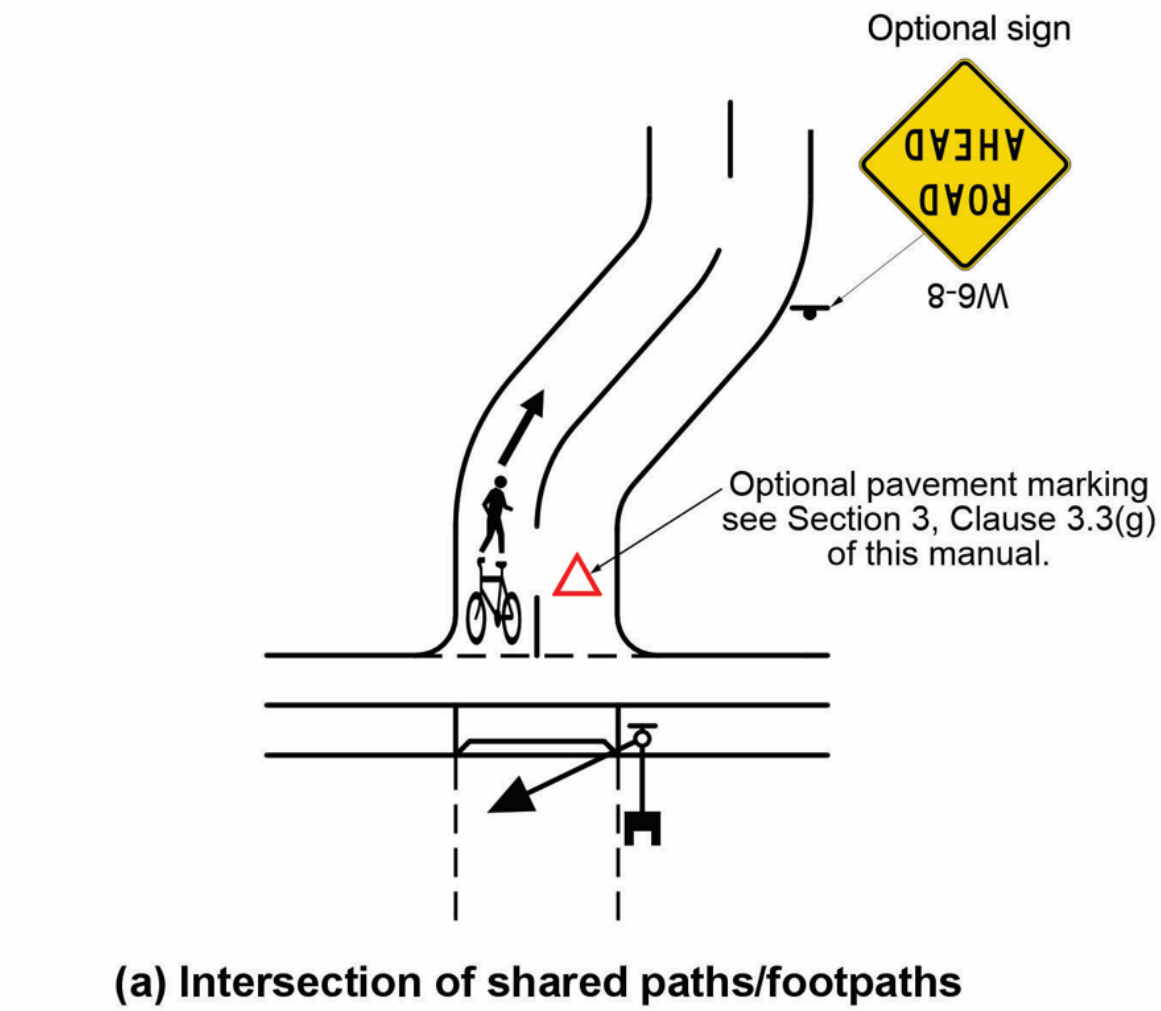
3.8 Road crossings at intersections

3.8.2 Signalized intersections

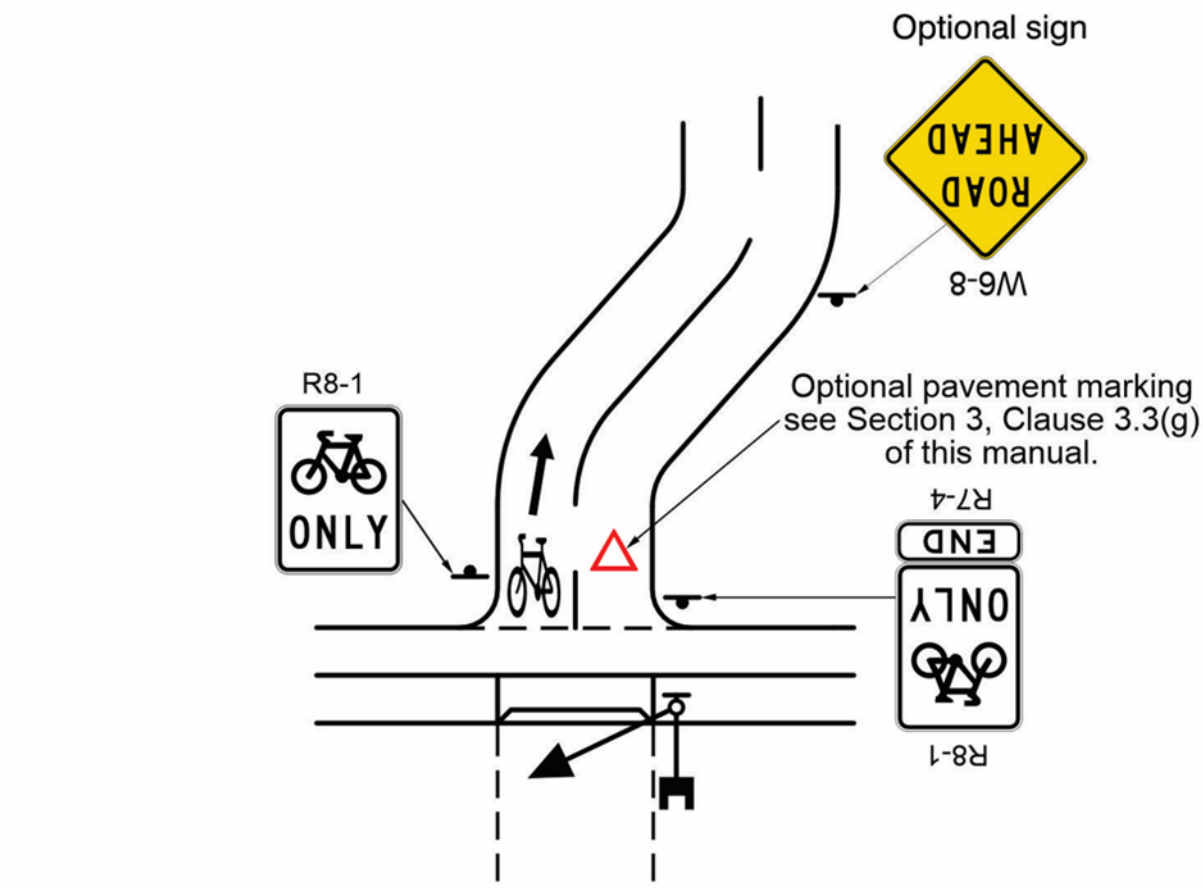
Difference

Replace Figure 3.10 *Use of mid-block pedestrian / cyclist operated traffic signals at a bicycle crossing or at a shared or separated crossing* in AS 1742.9 with Figure 3.8.2 *Signing of mid-block traffic signals at a crossing of bicycle path or shared path.*

Figure 3.8.2 – Signing of mid-block traffic signals at a crossing of bicycle path or shared path



(a) Intersection of shared paths/footpaths



(b) Intersection of bicycle path with shared path/footpath

4 Bicycle provisions on expressway type roads

4.3 Application of signs to freeway interchanges

Difference

- Replace NOTE with

  NOTE: For further details, see Section 14 *Cyclists* of Part 4C of Austroads *Guide to Road Design*.

- Figure 4.3 NOTE: replace ‘forced off’ with ‘directed off’.

4.4 Pavement markings

New

Where bicycles are known to use a rural freeway and appropriate interchange signing is provided for cyclists, bicycle pavement symbols or warning signage may be considered for use. Bicycle pavement symbols at up to 1 km spacing will generally be adequate.

Where provisions are made for cyclists to cross a freeway ramp (see Figure 4.1 in AS 1742.9), a bicycle pavement symbol may be placed on the shoulder in advance of the crossing location. If used, the bicycle symbol shall be yellow in colour. For size and shape, refer to Figure 2.2(1) *Bicycle pavement symbol for road use* in Section 2.3.2 of AS 1742.9.