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## **POLICY FOR THE INSTALLATION OF BICYCLE PAVEMENT SYMBOLS ON CARRIAGEWAYS**

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### **AUTHORISATION**

As Executive Director Road Network Services, I authorise the issue and use of this Policy and Guidelines on behalf of the commissioner of Main Roads.

**EXECUTIVE DIRECTOR ROAD NETWORK SERVICES**

Date: 20 / 10 / 2002

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## 1 POLICY STATEMENT

Main Roads Western Australia will:

Install and maintain Bicycle Pavement Symbols on carriageways<sup>1</sup>, which meet the guidelines in this policy and are considered suitable for cycling.

Where information provided in this policy is in conflict with the guidelines in other publications, this policy and associated guidelines shall take precedence. Where the guidelines are unclear, clarification may be obtained from the *Manager Traffic & Safety*.

Where this policy and guidelines cannot be complied with, authorisation to proceed contrary to these guidelines shall be obtained from the *Manager Traffic & Safety*.

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1. "carriageway" means a portion of road that is improved, designed or ordinarily used for vehicular traffic, and includes the shoulders, and areas, including embayments, at the side or centre of the carriageway, used for stopping or parking of vehicles; and, where a road has 2 or more of those portions divided by a median strip, the expression means of each of those portions, separately.

## 2 SCOPE

In order to provide a consistent approach to the provision of Bicycle Pavement Symbols on Highways and Roads, this policy is to be applied in conjunction with:

- The guidelines in section 4 of this policy,
- Main Roads Policy for Cycling Infrastructure,
- AS 1742.9 – 2000, “Bicycle Facilities”<sup>2</sup>,
- Road Traffic Code 2000 (RTC 2000)<sup>3</sup>, and
- Austroads Guide to Traffic Engineering Practice “Bicycles” Part 14<sup>4</sup>.

The policy applies to public roads on which cyclists may legally ride. The application of this policy is not for off road cycling infrastructure such as shared paths, bicycle paths or separated paths.

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2 Australian Standard Manual of Uniform Traffic Control Devices Part 9: Bicycle facilities – 2000

3 Western Australian Road Traffic Code 2000, State Publishing House, Perth, Western Australia

4 Austroads Guide to Traffic Engineering Practice “Bicycles” Part 14, 1999, AUSTRROADS Sydney.

### 3 DEFINITIONS

#### 3.1 Bicycle Pavement Symbol

Under the RTC 2000 a bicycle pavement symbol has no legal significance when used on a carriageway.

Bicycle pavement symbols, as shown in Figure 1, are used to indicate to other road users the potential presence of cyclists, or to indicate to cyclists that the facility is in accordance with current cycling standards and guidelines.



Bicycle Pavement Symbol

Figure 1

#### 3.2 Sealed Shoulder

A sealed shoulder as defined in Austroads Part 14 is the sealed edge of roads outside of the travelled carriageway (the shoulder) of roads where cyclists might be expected to ride. An edge line applied between the sealed shoulder and the travelled section of a carriageway delineates it.

An edgeline as defined by the RTC 2000, is a contiguous white line marked along the carriageway at or near the far left or far right side of the carriageway.

#### 3.3 Bicycle Lane

A bicycle lane means a marked lane, or part of a marked lane –

- (a) beginning at a bicycle lane sign applying to the lane; and
- (b) ending at the nearest of the following:
  - (i) an “end bicycle lane” sign applying to the lane
  - (ii) an intersection (unless the lane is at the unbroken side of the continuing road at a T-intersection or continued across the intersection by broken lines);
  - (iii) if the carriageway ends at a dead end – the end of the carriageway.

## 4 GUIDELINES

### 4.1 Criteria

#### 4.1.1 Highways and Main Roads with Sealed Shoulders or Bicycle Lanes

Bicycle pavement symbols shall be installed within sealed shoulders or bicycle lanes on highways or main roads, where the following requirements are met:

- The sealed shoulder or bicycle lane width is in accordance with the desirable range as shown in Austroads Part 14, Section 4, Table 4-1
- The adjacent traffic lane width is in accordance with Austroads Part 14, Section 4, Figure 4-4.
- Main Roads WA will not install bicycle pavement symbols on Main Roads or Highways where parking is permitted across the sealed shoulder.

#### 4.1.2 Local Roads with Sealed Shoulders or Bicycle Lanes

Bicycle pavement symbols shall be installed within sealed shoulders or bicycle lanes on highways or roads, where the following requirements are met:

- The sealed shoulder or bicycle lane width is in accordance with the acceptable range as shown in Austroads Part 14, Section 4, Table 4-1
- The adjacent traffic lane width is in accordance with Austroads Part 14, Section 4, Figure 4-4.
- The sealed shoulder or bicycle lane width continues over a distance of at least 500m, or if less than 500m is a section of a designated bicycle route, without any narrowing below the required width, except as allowed at squeeze points in Austroads Part 14, Section 4.4, Road Treatments for Cyclists, or an entire road length if less than 500m.
- Where a lane for cycling exists between parallel car parking bays and the adjacent traffic lane the bicycle/car parking lane widths shall be in accordance with the acceptable range shown in Austroads Part 14, Section 4, table 4-2.
- Where a lane exists between angled car parking bays and the adjacent traffic lane the bicycle/car parking lane width and overall facility layout shall be in accordance Austroads Part 14, Section 4, table 4-3 (acceptable range) and figure 4-9, and the posted speed environment equal to or less than 70km/h. An additional 0.6m shall be added where overhang of the kerb by the parked vehicle is not possible.

Main Roads will only install bicycle pavement symbols where parking is permitted across the sealed shoulder where the car parking demand is minimal.

Pavement symbols shall only be installed on rural roads that comply with this section of this policy where they are regularly used by more than 25 cyclists per day.

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5. Width “the measured distance perpendicular to and from opposing kerb faces or edge of trafficable pavement surface suitable for cycling”.

### **4.1.3 Local Roads without Sealed Shoulders or Bicycle Lanes**

Bicycle Pavement symbols shall only be installed on roads without sealed shoulders or bicycle lanes where all of the following requirements are met:

- Bicycle / Car Parking widths cannot be achieved in accordance with section 4.1.1 of this policy.
- The road is part of a bicycle route in accordance with an endorsed bicycle network or strategy by the Local Government Authority or State Government Organisation.
- The minimum width from the face of kerb to the road centre line is not less than 3.7m.
- Where car parking demand is minimal

Where bicycle pavement symbols are installed in accordance with this section of the policy an edgeline shall not be installed.

## **4.2 Sealed Shoulders or Bicycle Lane Width**

### **4.2.1 Measurement of Sealed Shoulder Width**

The dimensions of the sealed shoulder shall be measured from the face of the adjacent kerb or edge of seal to the centre of the edgeline. The edgeline is typically 80mm to 150mm wide.

If there are poor surface conditions existing adjacent to or within the sealed shoulder they shall be corrected prior to bicycle pavement symbols being installed.

Any damaged road furniture such as stormwater grates or rough surfaces where cyclists are required to “weave” outside the defined lane, shall be repaired, to ensure it is not a hazard to road users prior to the installation of the pavement symbols.

## **4.3 Bicycle Pavement Symbol**

### **4.3.1 Pavement Symbol Dimensions**

Bicycle symbols on roads shall be installed, as illustrated and to the dimension defined in AS 1742.9 – 2000, Section 2.3 Pavement Markings, Figure 2.2, Bicycle Pavement Symbol for Road Use.

Where the sealed shoulder width is less than 1.5m, the dimensions of the bicycle symbol shall be reduced to 900mm wide by 1300mm long.

### **4.3.2 Pavement Symbol Colour and Material**

The symbols shall be installed in white reflective pavement marking in accordance with Main Roads Specification 604 Pavement Marking.

### **4.3.3 Pavement Symbol Location and Spacing**

Bicycle symbols shall be located in accordance with Austroads Part 14, Section 9.6 and AS 1742.9 – 2000.

Symbols in sealed shoulders or bicycle lanes between intersections shall be equally spaced as follows:

- less than 100 km/h to a maximum of 400m centres.
- 100km/h or greater to a maximum of 1000m centres.

Pavement Symbols shall not be installed in sealed shoulders located on the median side (centre) of a carriageway.

Bicycle Pavement Symbols shall be located on other roads meeting requirements of this policy in the following locations:

- At intersections in the no stopping or no parking zone.
- As close as practicable to the kerb
- Any no stopping or no parking zones between intersections but not less than 50m centres
- less than 100 km/h to a maximum of 400m centres.
- 100km/h or greater to a maximum of 1000m centres.

## 5 IMPLEMENTATION OF THIS POLICY AND GUIDELINES

All new roadworks and upgrades where cycling is permitted shall meet the requirements of this policy.

Existing roads where they meet the requirements of this policy will be progressively provided with bicycle pavement symbols. The timing of retrofit works will be determined by the availability of funds and other works program priorities.

Priority for retrofitting bicycle pavement symbols in existing sealed shoulders or bicycle lanes shall take into consideration:

- Cyclist Demand – actual and potential recognising Local Bicycle Routes and the Perth Bicycle Network.
- Stakeholders recommendations

Opportunities to minimise retrofit costs by combining improvement works with the installation of bicycle pavement symbols within sealed shoulders.

Main Roads will maintain bicycle pavement symbols installed on highways and main roads that meet the requirement of this policy and its guidelines.