

Minimising Pedestrian-Cyclist Conflict on Paths



Information Note No 7

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Information

Path users are more likely to act predictably and with least interference with other path users if they know where they are, where they are going and how to get there. Information to support this may be obtained prior to making the trip but will need reinforcement at the actual location.

The main issues (see *Overview*) potentially addressed by this Information Note are:

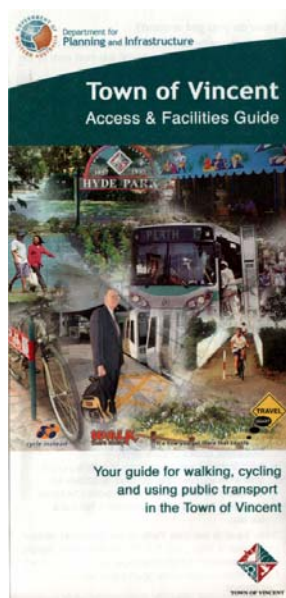
- footpath users
- people with disabilities
- young/inexperienced
- user behaviour: awareness
- user behaviour: operational
- speed
- signage and information.

Provision of Information

Uncertainty about where they are or how to get to where they want to be is a potentially significant cause of unpredictable behaviour (including standing still on the path), especially in areas of high usage with multiple local destinations. Whilst destination signage for cyclists is becoming increasingly common on shared paths and cycle paths, such information is rarely provided for pedestrians.

Information has important potential to reduce conflict between cyclists and pedestrians. Appropriate information might include:

- maps – pre-trip and on-the-way. They should be web-based and updatable, and focus on access (e.g. Travelsmart 'Access and Facilities' maps)
- signage, including destination and location signage – reduces uncertainty



- pavement marking, such as logos, stencils and centre lines.

Maps

The most useful maps to facilitate use of paths by pedestrians and cyclists show a range of activities and destinations, as well as the walking and cycling facilities and routes that are available.

Maps should be available in hard copy at convenient locations and also on the worldwide web (see e.g. <http://www.dpi.wa.gov.au/travelsmart/maps.html>).



Legend	
Perth Bicycle Network (PBN) - Continuous Signed Routes	Tertiary Education
PBN Route Number	Bicycle Lockers
Principal Shared Path	Bicycle Shop
Local Bicycle Friendly Street	Bicycle Parking
Shared Path	Community Cultural Centre
Bicycle Lanes or Sealed Shoulder Either Side	Playground
Train Station with Train Connection	Water Fountain
Train Station	Skate Park
Railway, Underground, Crossing	Delicatessen
Major Road	Post Office
Minor Road, Proposed Road	Post Box
Road Bridges, Footbridges, and Underpass	Barbeque
Traffic Light	Public Toilet
Walk Trail	Accessible Toilet
Major Destination	Telephone
Shopping Area	Sporting Facility
Parks and Recreation	Hospital
Ovals, Prepared Ground	Place of Worship
Bushland	Picnic Area
Industrial Area	Child Health Centre
Local Government Authority Boundary	Police
Major Shopping Centre	Kindergarten
	Car Parking
	Traffic Direction

An 'Access and Facilities' map with legend showing activities as well as walking and cycling routes

Direction and location signage

Quality signage, customised for a specific area, can also form an important part of 'branding', supporting not only recognition but also economic development.

Case study: Bristol Legible City Initiative

An example of a high quality signage system is the pedestrian signage system created for the Bristol Legible City Initiative. This is the most comprehensive system in Europe designed specifically to encourage walking and to aid wayfinding in a complex city centre environment.

The system consists of direction signs and monolith shaped map panels which help the user identify where they are, and help them plan their journey through a combination of text and map information. Each panel is double sided, with the same type of information repeated on each face, but orientated towards the direction in which you are looking. The panels are titled by the name of the street and which neighbourhood the user is in.



Bristol Legible City pedestrian signage system

A unique 'heads-up' pedestrian mapping system with the addition of three-dimensional landmarks was also developed as part of the Bristol Legible City Initiative to aid the general public. In this system, the maps used on panels in the street are oriented according to where they are situated, and not north-south. What you see on the map is right in front of you, hence each panel required individual design.



Bristol Legible City 'heads up' mapping system

Source: Bristol City Council (2003)

'Heads-Up' mapping makes 'point of use' maps usable without users having to re-orient themselves – the map shows exactly what the users see in front of them.

Advisory signage

Adequate advisory signage should be provided as people may not realise that the same rules apply to off-road paths as public roads. Signage may include 'Share the path', direction/destination signing and distance signs. It should be developed with community groups, and placed in prominent locations and at all access points especially on major paths. Key messages should also be presented in words and symbols, for example:

- indicating to keep left
- advice to give warning when approaching another user from behind



- advising people on how to walk their pets (the latter could be placed on the same pole as a dog faeces bin and faeces bag dispenser to attract dog walkers)
- advising who needs to give way (at junctions of paths)
- advising cyclists to slow down and not to pass pedestrians too close
- advising users to be considerate and keep alert for other users
- advising pedestrians to allow room for cyclists to pass
- reminders regarding the correct use of bells, and that bicycles are too quiet for pedestrians to hear if the bell is not used.



Sign design and placement should be in accordance with the relevant state and local government guidelines.

It should be noted that signs asking cyclists to dismount or slow down are often ineffective.

Furthermore, the use of behavioural signage may not be appropriate in all situations, as signage can often

clutter a path and may detract from the trail experience in bushy or secluded areas. An understanding of path users, the trail environment and the most common conflicts should be gained before installing any signage.

Signs may need to be lit at night, if after-dark usage is significant and lighting from other sources does not illuminate them adequately.

Pavement markings

All shared pathways should have a broken centreline marking. At approaches to conflict points and at a maximum spacing of 200 m, bicycle and pedestrian symbols and pavement arrows should be placed on paths (refer AS 1742.9), indicating that everyone must keep left as described. In some situations, it may be desirable to place the pavement symbols as often as every 100 m. This serves the purpose of both increasing awareness of other users and reinforces the fact that people should keep left.



Markings on a shared pathway

Even though there is no longer a legal requirement for pedestrians to keep to the left of paths, footpaths may benefit from a broken line or other delineator painted in the centre in a similar manner to shared pathways with just a pedestrian and an arrow. This will help encourage pedestrians to keep left and also help to increase pedestrian traffic flow in congested areas.

It is also recommended that the Australian Road Rules be amended to re-introduce the requirement for all path users to keep left on shared paths, in order to match and support the many sensible codes of conduct already in use.

Pavement markings can also be used to indicate the presence of potentially conflicting uses, without the visual intrusion that signs on posts can present.



Markings on a shared path to indicate the presence of conflicting pedestrian movements

With appropriately sensitive design, pavement markings may also be used on footpaths where levels of use are likely to be high.



Low impact delineators may be appropriate on pedestrian-only paths where usage is expected to be high.

Creating awareness of hazards

Squeeze points such as narrow paths on bridges and access control devices such as bollards and chicanes should be minimised. Where they are unavoidable, they should be highly visible and, where appropriate, clearly signed.

Hand rails associated with shared paths should be designed to be detectable by all users, particularly the vision-impaired, and must comply with Austroads GTEP 14: Bicycles (Austroads 1999).

Paths that do not provide adequate access for users with wheelchairs, mobility aids, adult tricycles or other devices may need to be clearly identified as suitable only for certain types of user if they cannot be upgraded.

References

Austroads 1999, *Guide to Traffic Engineering Practice - Part 14: Bicycles*. Austroads: Sydney, NSW.

Bristol City Council 2003, *Bristol Legible City Project*. Bristol, UK. <http://www.bristollegiblecity.info/>

Standards Australia 2000, *Manual of Uniform Traffic Control Devices, Part 9 : Bicycle Facilities, AS 1742.9-2000*. Standards Australia: Sydney, NSW.