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Sidelines
Traffic

Applying Safe Systems Principles to Priority Crossings for Pedestrian and Cycle Paths



Where pathway users are given priority across a road using regulatory Give Way or Stop signs and line marking, it is referred to as a priority crossing.
(Raised Priority Crossings for Pedestrian and Cycle Paths, TMR, 2019)

When building path networks, we need to think about:

- Who needs to get around?
- Where do they want to go?
- What parts of the networks are the biggest deterrents?

Are they

- Children
- Older people,
- Bike riders travelling long distances

One regional survey in Queensland found people wanted to get to parks followed by schools and places for recreational riding

What do the users say are the scariest parts of the network?
Parents often talk about crossings



"I'd never let my kids cross here on their own, it's just too dangerous"



(Criteria to work out if it's safe)

Safe Systems Principles

- Functional
- Homogeneous Speeds
- Predictable
- State of Awareness
- Forgiving

Assumes humans make mistakes (What we are trying to do)

Safe Systems Outcomes
Crashes don't result in serious injuries or deaths

Attributes of priority crossing facilities at side roads

'Homogenous' and 'Forgiving' < 30km/hr

Essential

- Motorist speed at crossing
- Lighting
- Regulatory signs and lines

Give Way or Stop

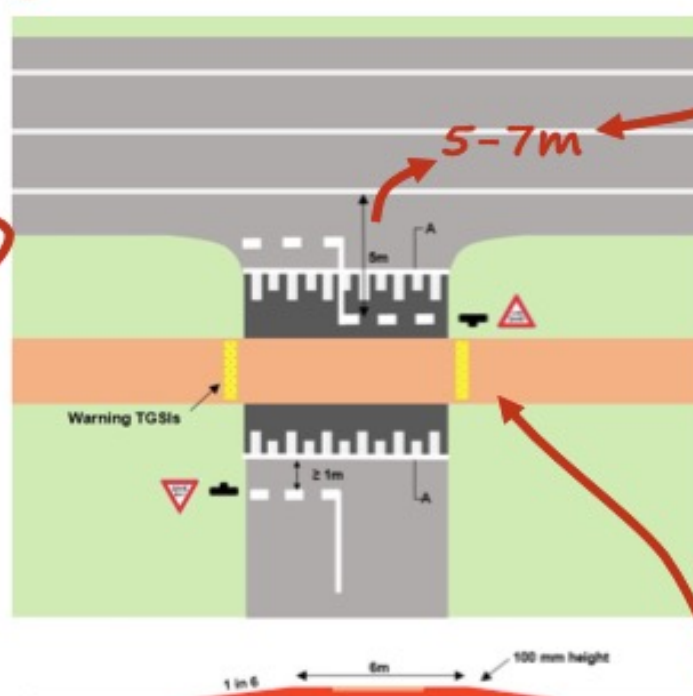
1:6 desirable,
1:15 (bus routes)

Important

- Platform height and grade
- Kerb radius
- Coloured surfaces
- Visibility

"Predictable"

Reduce speeds



Highly desirable

- Rider speed
- Set-backs from traffic lanes

'State of awareness'
Separate crossing from road

Supportive

- Motorist volumes
- Warning signs
- Limiting intersection movements
- Crossing distance

'Functional', path has same priority as parallel road



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1: Reinforce the functional hierarchy of the pathway

Arterial routes
Through Function

Collector routes
Through & Access Function

Access routes
Access Function



Path has same priority as the road



People walking and cycling don't have to give way at every intersection

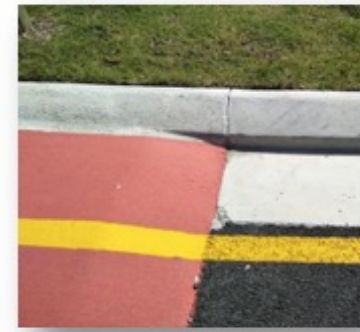


2: Homogenous Speeds when mixing

Equitable speeds between path users and vehicles at crossing points (<30km/h)



Creates time for users to observe each other and react. Reduces severity and likelihood of crashes



Turn radii reduced

1:6

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3. Predictable traffic movements

Users can predict their own course, and the course of others



Clearly delineate who has right of way

Highlight where road users come into conflict



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4. State of awareness of users/ limits of cognitive abilities

Considerate of cognitive abilities of users



How much information do users need to consider at one time

Licensed road users are responsible for giving way

Vehicle drivers = licensed users



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5. Forgiving environments

Infrastructure must be forgiving



What kind of crashes could occur?

Impacts should not result in severe injury or death?



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