

Pedestrian Refuge at Signalised Intersection Crossings

Road Design Note

RDN 04-02

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Abstract

This technical guideline has been developed to provide additional guidance to the documents listed in Section 2 regarding the design of pedestrian refuges at signalised intersection crossings.

1. Commentary

Signalised intersection crossings should:

- Allow pedestrians to cross both carriageways in one movement in a single pedestrian phase (i.e. avoid a staged crossing).
- Be located across approaches between the stop lines and the intersecting road.
- Pass behind median noses so that very slow-moving pedestrians (physically impaired or aged) have a secure refuge if they become stranded in the centre of the road. Refer Figure 1.
- Provide pedestrian storage areas commensurate with the demand and user category that the design is catering for (i.e. sufficient space provided on medians, left-turn islands and footpaths for pedestrians and cyclists demands where appropriate).
- Where the following conditions are met, it may be acceptable to mark the crosswalk lines in front of median island noses.
 1. low approach speeds (≤ 60 km/h posted speed limit)
 2. 6 through/turn lanes or less of traffic for pedestrians to cross

In these situations, it is important that pedestrians can comfortably cross both carriageways in one movement in a single pedestrian phase and sufficient clearance of at least 0.6m is provided to the intersecting road. Refer Figure 2.

- A median pedestrian refuge should not be included if a 2m minimum width across the median cannot be provided for the full width of the pedestrian crosswalk. In these situations, alternative or supportive treatments should be

considered to ensure that the site provides for safe and efficient pedestrian movement.

- As far as it is possible given the geometric orientation of the intersection approach carriageways, the crossing should provide a straight and perpendicular path across the road (i.e. crosswalk lines do not change direction through a median) in order to:
 - Assist safe use by vision-impaired pedestrians
 - Minimise crossing distance and hence pedestrian phase time
 - Facilitate the orientation of tactile ground surface indicators
- Include pedestrian push buttons at each end of the crossing and at each pedestrian refuge.
- Be free of obstructions/hazards and have appropriately designed kerb ramps and/or cut throughs that enable provision of sufficiently sized islands and medians to cater for the required demands and appropriate traffic signal hardware and signs.

2. References

1. Austroads Guide to Road Design Part 4: Intersections and Crossings
2. Austroads Guide to Road Design Part 3: Geometric Design
3. Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management
4. Australian Standard AS 1742.14: Traffic Signals
5. VicRoads/DoT supplementary guidance to the above listed documents

Approved by



Chief Engineer - Roads



Figure 1: Example of typical signalised intersection crossing with crossing passing behind median nose



Figure 2: Example of typical signalised intersection crossing with crossing passing in front of median nose (intersections with low approach speeds and 6 lanes or less of traffic for pedestrians to cross)

Revision History

Version	Date	Clause	Description of Change
1.0	April 2021	All	First version

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