

Standard

Infrastructure - General - Traffic Control

Doc. No.: CE-019-ST-0022

Version: 1.02

Date: 7/07/2023



PROUD OPERATOR OF



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1 PURPOSE

This standard specifies the minimum requirements for design and installation of tram network signals and associated signage used to control pedestrians and vehicles (other than trams) in shared areas around the Melbourne Metropolitan Tram Network (MTN).

2 SCOPE

This standard shall be used by Yarra Trams and any consultants, contractors, Road Authorities and Designer's working for Yarra Trams and requiring the design and installation of signals and signage for the control of movements of pedestrians and vehicles (other than trams) in shared areas around the tram network.

The scope of this standard is all arrangements for control of any pedestrians in any part of the MTN. This includes Yarra Trams passengers, staff, contractors, the general public and emergency services.

3 COMPLIANCE

This standard shall be fully complied with. Deviation from this standard is only permitted when a waiver has been sought and approved by Yarra Trams.

'Shall' statements are mandatory in the context of compliance with requirements stipulated in this standard.

'Should' statements are considerations in the context of compliance with requirements stipulated in this standard.

'Information' statements provide additional content for clarification purposes only and are not requirements in the context of compliance with this standard.

'So far as is reasonably practicable' statements must at a minimum result in the provision of a technical risk assessment, including a list of proposed design controls to demonstrate compliance to this standard.

All design activity shall be managed in accordance with the Yarra Trams 'Manage Design' procedure. Design activity includes consideration of design constructability, Safety in Design, RAM, Human Factors, design sustainability, single design platform, security in design, design competency and all relevant statutory requirements.

Any third party or contractor undertaking activities related to pedestrian and vehicle movement other than trams on the Yarra Trams network shall complete and return a compliance schedule for this standard. Assessment of compliance shall be provided for each requirement, defined by one of three permissible responses:

- Compliant;
- Partially Compliant;
- Non-Compliant.



4 REQUIREMENTS

4.1 General Requirements

- 4.1.1 The signals, signage and devices for the control of movements of pedestrians and vehicles (other than trams) in shared areas around the tram network shall be defined as those expressly concern with pedestrians and those concerned with vehicles other than trams.
- 4.1.2 Consultation with VicRoads and the Local Government shall be conducted to provide context for pedestrian and vehicle movement at each specific location thus supporting the wider operation of the road network while ensuring safe and effective operation of the tram network.

4.2 Control of Movements of Pedestrians

- 4.2.1 Pedestrians shall be advised of safe passage in shared environments using a combination of signals, signage and associated devices appropriate for the purposes of control of movements of pedestrians.
- 4.2.2 In the shared environment of the MTN, signals, signage and devices used by Yarra Trams for the control of pedestrians shall comply with VicRoads Traffic Engineering Manual Volumes 1, 2 and 3.
- 4.2.3 Signage used at Tram Stops for the control of pedestrian movements shall comply with the Yarra Trams Flag and Totem Stylesheet per “Hard Signage Guide” and the PTV Master Style Guide.
- 4.2.4 Pedestrian warning signage at tram depots shall comply with Yarra Trams Line Marking and Signage Standard.
- 4.2.5 Pedestrian warning signage at tram depots entry and exits lanes shall comply with VicRoads Traffic Engineering Manual Volumes 1, 2 and 3. This introduces a new concept as the pedestrians may also be our staff and this standard may also then need to consider workshop vehicles such as forklifts and other plant. Maybe cover these elsewhere
- 4.2.6 Installation of signals and signage devices used by Yarra Trams for the control of pedestrians shall comply with VicRoads Traffic Engineering Manual Volumes 1, 2 is and 3.



4.3 Control of Movements of Vehicles

- 4.3.1 In the shared environment of the MTN, signals, signage and devices used by Yarra Trams for the control of vehicles other than trams shall comply with VicRoads Traffic Engineering Manual Volumes 1, 2 and 3.
- 4.3.2 The uses of bollards both fixed and flexible for the control of vehicles other than trams shall conform to:
- ED00X – Bollards
 - “Road Design Notes” referred to in VicRoads Traffic Engineering Manual Volumes 1, 2 and 3.
- 4.3.3 Signage for the control of vehicles other than trams at tram depots shall comply with Yarra Trams Line Marking and Signage Standard.
- 4.3.4 Road markings and lines used by Yarra Trams for the control of vehicles other than trams shall comply with:
- Typical drawing for ped crossings (insert numbers)
 - VicRoads Traffic Engineering Manual Volumes 1, 2 and 3.

5 RELATED DOCUMENTS



Name	Document Number
Australian Standard Colour Standards for General Purposes	AS 2700:2011
Australian Standard Traffic Signal Lanterns	AS 2144:2014
Australian Standard Traffic Signal Posts, Mast Arms and Attachments	AS 2339:2017
Electricity Safety (Installations) Regulations 2009	
General Rules and Driving Rules (2017)	
Occupational Health & Safety Act 2004	
Occupational Health & Safety Regulations 2007	
Rail Safety National Law	
Road Management Act	
Road Management Act – Code of Practice	
Road Safety (Traffic Management) Regulation	
PTV's Master Style Guide includes: "Hard Signage Guide" and Yarra Trams Flag and Totem Stylesheet.	
VicRoads Specification: The Supply of Traffic Signal Lanterns	TCS 038-2015
VicRoads Traffic Management Manual Volume 1	
VicRoads Traffic Management Manual Volume 2	
VicRoads Traffic Management Manual Volume 3	
Yarra Trams Electrical Infrastructure Safety Rules	IN-002-ST-0002
Yarra Trams Line Marking and Signage Standard	20150529
Yarra Trams Specification and Application of tram signals	SIG - 001 - 1.0 – 2015
Yarra Trams Tram Signal Controller Standard	SIG - 002 - 1.0 – 2017
Yarra Trams Tram Signal Lantern Standard	SIG - 001 - 1.0 – 2017

6 DOCUMENT VERSION CONTROL

Version History	Date	Detail
1.0	12 Mar 2020	First published version
2.0	XXX	Updated to align with DTP, Austroads, AS, NTS.

7 GLOSSARY

Note that words defined in this document must be consistent with the glossary in Yarra Trams and list in alphabetical order.



Word	Definition
DTP	Department of Transport and Planning
MTN	Melbourne Metropolitan Tram Network