



Transport
Roads & Maritime
Services

Traffic Signal Design

Section 16 References

Issue No: 1.4 23 December 2016



Preface

The traffic signal design guidelines have been developed to assist in designing traffic control signals. The information contained in the various parts is intended to be used as a guide to good practice. Discretion and judgement should be exercised, taking into account all the factors that may influence the design of traffic signals at any particular site.

The guidelines make reference, where relevant, to current Australian Standards or the Austroads Guides, and are intended to supplement and otherwise assist in their interpretation and application. If any conflict arises, the Australian Standards, the Austroads Guides and the RMS Supplements are to prevail.

The complete set of traffic signal design guidelines is as follows.

| Section Title | Appendix Title |
|--|---|
| 1 Investigation | A Design Plan Checklist |
| 2 Warrants | B Traffic Signal Symbols |
| 3 Design Process | C Location and Function of Lanterns |
| 4 Plan Requirements | D Location and Dimensions of Components |
| 5 Geometry | E Left Turn on Red |
| 6 Pavement Marking | F Level Crossing Interface – Concept of Operations |
| 7 Phasing and Signal Group Display Sequence | G Level Crossing Interface – Traffic Signal Design Guidance |
| 8 Lanterns | |
| 9 Posts | |
| 10 Signs | |
| 11 Detectors | |
| 12 Controller | |
| 13 Provision for Future Facilities | |
| 14 Signalised Mid-block Marked Footcrossings | |
| 15 Special Situations | |
| 16 References | |

Primary references and complementary material

Roads and Maritime has adopted the Australian Standards and the Austroads Guides as its primary technical references. Roads and Maritime has developed the following complementary material which must be used in conjunction with the Standards and Guides.

- Australian Standards Traffic Supplements.
- Supplements to the Austroads Guides.
- Traffic Signal Design Guide.
- Delineation Manual.
- NSW Bicycle Guidelines.
- Standard Drawings.
- Technical Directions.
- Technical Specifications.

These documents are published on the Roads and Maritime website at www.rms.nsw.gov.au.

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About this release

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|---|--|
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16.1 Introduction

The following references are under constant revision and the user should always ensure that these are the most up-to-date references available.

16.2 Australian Standards

- AS 1742 Manual of Uniform Traffic Control Devices.

16.3 Australian Road Research Board (ARRB)

- Research Report ARR 123, Traffic Signals: Capacity and Timing Analysis, R. Akcelik, fifth reprint, 1993.

16.4 Austroads

- Guide to Traffic Management.
- Guide to Road Design.
- Guide to Road Safety.

16.5 Road Rules

- NSW Road Rules 2014.

16.6 Roads and Maritime installation specifications

- SI/PTCS/1 Installation of permanent traffic counting stations, February 1986.
- SI/TCS/8 Installation and reconstruction of Traffic Light Signals, Revision 1, August 2003 (including Appendix A and Appendix B).

16.7 Roads and Maritime design guidelines and user manuals

- CADD Manual
- Delineation
- NSW Bicycle Guidelines
- Traffic Sign Register
- User Guide for Pedestrian Facilities (in preparation)
- Traffic signal operation, 18 October 1991 (Document No. RTA-TC-106)
- Traffic Signal Practice, 1999 (This manual continues to be used on sites installed prior to the release of the new Traffic Signal Design manual in February 2008).
- SRMS Principles and Operational Strategies (Document No. SRMS-UM-001).

NOTE: The Traffic & Transport Policies & Guidelines Register on the RMS website should also be checked for any updated or interim advice. This would normally be in the form of a Technical Direction.

16.8 Roads Maritime TS-TN series of specifications

- TS-TN-019 Specification of Signal Group Operation (Supersedes VD018-8).
- TS-TN-020 Specification of Detector Logic Operation (Supersedes VD018-10).
- TS-TN-021 Specification of Pedestrian Movements Operation (Supersedes VD018-11).
- TS-TN-022 Specification of Ancillary Operation (Supersedes VD018-12).
- TS-TN-026 Standard for Single Diamond Overlap Phasing (Supersedes VD018-5, 14).
- TS-TN-027 Standard for Double Diamond Overlap Phasing (Supersedes VD018-6).

16.9 Roads and Maritime supplements

- RMS Smart Motorway Supplement for LUMS including VSL (2016).
- RMS Smart Motorway Supplement for Ramp Signals (2016).
- RMS Smart Motorway Supplement for Traveller Information (2016).

RMS guidelines and technical reference documents can be found on the RMS website:

www.rms.nsw.gov.au.

If you cannot find one of our documents contact:

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