

QPRC



**QUEANBEYAN PALERANG
REGIONAL COUNCIL**

**DEVELOPMENT DESIGN
SPECIFICATION**

D9

**CYCLEWAY AND PATHWAY
DESIGN – SOUTH
JERRABOMBERRA**

VERSION 2 – MARCH 2018

TRIM REF: SF140543/04-01
C1844507

Amendment Record for this Specification Part

This Specification is Council's edition of the AUS-SPEC generic specification part and includes Council's primary amendments for development at South Jerrabomberra.

Details are provided below outlining the clauses amended from the Council edition of this AUS-SPEC Specification Part. The clause numbering and context of each clause are preserved. New clauses are added towards the rear of the specification part as special requirements clauses. Project specific additional script is shown in the specification as italic font.

The amendment code indicated below is 'A' for additional script 'M' for modification to script and 'O' for omission of script. An additional code 'P' is included when the amendment is project specific.

Amendment Sequence No.	Key Topic addressed in amendment	Clause No.	Amendment Code	Author Initials	Amendment Date
VERSION 1	South Jerrabomberra referenced	D9.01.1	A	KD	20/03/15
	Queanbeyan PAMP and South Jerrabomberra specifications referenced	D9.03	A		
	South Jerrabomberra DCP referenced	D9.05.1	A		
	Additional minimum design standards inserted in Table D9.1. Requirement for pram crossings at kerb lines added.	D9.10	A		
	Googong specifications referenced	D9.11	A		
VERSION 2	Update references to QPRC	N/A	M	CS	9/08/2017
	Deemed to comply omitted	D9.12	O	CS	28/03/2018
	Subbase thickness increased to 150mm	Table D9.1	M		

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**DESIGN SPECIFICATION D9
CYCLEWAY AND PATHWAY DESIGN – SOUTH JERRABOMBERRA – VERSION 2**

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DEVELOPMENT DESIGN SPECIFICATION D9 CYCLEWAY AND PATHWAY DESIGN – SOUTH JERRABOMBERRA – VERSION 2

GENERAL

D9.01 SCOPE

1. This Specification sets out requirements to be used in the design of various types of cycleways and pathways associated with development at South Jerrabomberra.
2. All relevant design principles contained in the AUSTRROADS Guide referenced below must be integrated in the design of cycleways and associated infrastructure. This Specification serves as a companion document to the AUSTRROADS Guide extended to incorporate basic requirements for pathways.
3. The RTA NSW Bicycle Guidelines document is intended to provide technical assistance on a range of conditions particular to NSW and should be read in conjunction with AUSTRROADS. Where there are differences between these guidelines the advice in the RTA Guidelines will prevail.

AUSTRROADS

**RTA NSW
Guidelines**

D9.02 OBJECTIVES

1. This Specification aims to set standards and document requirements related to the provision of cycleways and pathways which encourage pedestrian activities and cycling for transportation and recreational purposes. Cycleways and pathways are to be safe and convenient and shall maintain a satisfactory level of service for all pathway users including users with disabilities and limited mobility.

Safety

**Level of
Service**

D9.03 REFERENCE AND SOURCE DOCUMENTS

(a) Council Specifications

- South Jerrabomberra Development Control Plan (2015)
Queanbeyan Pedestrian and Mobility Plan (2010)
- D1 - Geometric Road Design – South Jerrabomberra
D13 - Vehicular Access Design – South Jerrabomberra

(b) Australian Standards

- AS 1742 - Manual of uniform traffic control devices.
AS 2156.1 - Walking tracks, Classification and signage
AS 2156.2 - Walking tracks, Infrastructure design
AS 2890.3 - Bicycle parking facilities
SAA HB69.14 - Guide to traffic engineering practice – Bicycles
AS Collection 005 - Access and mobility – People with disabilities
AS/NZS 1158.3.1 1999 - Lighting for Roads and Public Spaces

(c) Other

- AUSTRROADS - *Guide to Traffic Engineering Practice
PART 13 Pedestrians, PART 14 Bicycles.*
- *Planning and Designing for Bicycles - NAASRA (now
AUSTRROADS) Technical Report June 1988.*
- Roads and Traffic Authority of NSW (RTA)
- *NSW Bicycle Guidelines.*
- Ministry of Transport, Victoria - State Bicycle Committee
- *Planning and Design of Bicycle Facilities.*
- NSW Planning and NSW Police

D9.04 CONSULTATION

1. The Designer must consult with Council, the Developer's Landscape Architects/Designers and relevant authorities prior to and during the preparation of cycleway and pathway design.

**Landscape
Designers
Public
Authorities**

D9.05 PLANNING CONCEPTS

1. Specific requirements for cycleways and pathways within South Jerrabomberra are provided in Council's Development Control Plan for South Jerrabomberra. The Designer will need to enquire about such documents and comply with requirements defined.

**Subdivision
Code and
Bicycle Plan**

- The Designer should be familiar with cycleway geometric design requirements in terms of:

**Geometric
Design**

- width
- grade
- stopping sight distance
- change in grade
- horizontal curvature
- crossfall and drainage
- superelevation
- sight distance on horizontal curves

**AUSTROADS
& RTA Guides**

These requirements are discussed in the AUSTROADS Guide and RTA Guidelines.

3. The Designer shall incorporate all the requirements for disabled access as appropriate for pathway design in accordance with Council Policy and South Jerrabomberra Development Control Plan and AS Collection 005.

**Disabled
Access**

D9.06 CYCLEWAY AND PATHWAY TYPES

1. Cycleways can be provided on road and off road. The AUSTROADS Guide and RTA Guidelines provide detailed descriptions, warrants, widths, pavement marking etc for the majority of these cycleways.

**On Road
Off Road**

2. Common alternative cycleway types include:

On Road

- Shared Parking/Bicycle Lanes
- Wide Kerbside Lanes
- Shared Traffic Lanes
- Exclusive Bicycle Lane
- Sealed Shoulder

Off Road

- Shared Use Bicycle/Pedestrian Pathway
- Separated Pathway
- Exclusive Cycleway

The AUSTROADS Guide and RTA Guidelines provide advice on the suitability of pavement conditions, drainage pit grates etc for on road cycleways.

**AUSTROADS
& RTA Guides**

3. Common pathway types include:

- Exclusive Pedestrian Pathways
- Shared Use Bicycle/Pedestrian Pathways

By definition pedestrian pathways are "off road" in that pedestrian facilities routinely designed adjacent to roadways are termed footpaths and are designed to meet criteria outlined in Council's Subdivision Code and typically related to road cross section detailing.

Footpaths

4. Pathways by comparison diverge from the road alignment either within the road reserve or across land reserves. Pathways can be provided in conjunction with overland floodways or retention basins.

Land Reserves

D9.07 PROVISIONS FOR CYCLEWAYS AND PATHWAYS AT STRUCTURES

1. Designers shall consider the best way to provide for the uninterrupted movement of cyclists and pedestrians at proposed and existing structures wherever possible. Structures include bridges and underpasses over rivers, roads or railways. The reference and source documents provide information on:

**Bridges
Underpasses**

- acceptable widths and clearances
- types of cycleways and pathways
- handrails
- bicycle bridges
- approach ramps
- etc.

D9.08 SIGNAGE AND PAVEMENT MARKING

1. The Designer shall provide adequate signposting design for cycleways and pathways.

2. Signs and pavement marking will provide for the safe and convenient use of the facility. The signs and pavement marking will comply with AS 1742.9 Bicycle facilities.

Compliance

D9.09 END OF JOURNEY FACILITIES

1. Consideration must be given to the design of adequate facilities at common destinations of cyclists and pedestrians so as to encourage cycleway and pathway usage.

2. Such facilities could include:

- seats
- standby areas
- secure bicycle parking
- picnic facilities

Facilities

3. Bicycle parking installation design should meet appropriate criteria discussed in the AUSTROADS Guide and RTA Guidelines, and be fabricated to meet AS 2890.3.

Parking

D9.10 MINIMUM DESIGN STANDARDS

1. Notwithstanding the guidelines provided in this Specification and referenced documents the following minimum standards have been determined for Off-Road path types, as shown in Table D9.1.

Table D9.1 Off Road Path Types - Minimum Design Standards

	Cycleway	Pathway	Shared Use Pathway	
			Low Use	High Use
Path Width	2.0m	1.5m	2.0m	2.5-3.0m
Formation Width	3.0m	2.0m	3.0m	3.5-4.0m
Crossfall	min.	1:40	1:40	1:40
	max.	1:20	1:20	1:20
Grade	max.	3%	5%	5%
		5% for 120m 10% for 30m	NA	10% for 30m
Granular sub-base (minimum compacted thickness at 97% standard compaction)	150 mm	150 mm	150 mm	150 mm
Path material	25MPa concrete with SL72 mesh	25MPa concrete with SL62 mesh	25MPa concrete with SL72 mesh	25MPa concrete with SL72 mesh
Path concrete thickness (compacted thickness)	100 mm	80 mm *	100 mm	100 mm

* Path thickness to be increased to the requirements for driveways at vehicular access locations – see D13 – Vehicular Access Design – South Jerrabomberra for further detail of required driveway standards.

2. At kerb crossing points, a pram crossing must be provided for the path in accordance with ACT TAMS standard drawing DS3-02

Pram Crossings

D9.11 DOCUMENTATION

1. The following listing outlines Council's minimum requirements for presentation of cycleway and/or pathway designs.

- All plans for cycleways/pathways are to be presented at the reduction ratio 1:500. Plans will include signs and markings as well as fencing, railings and other furniture associated with the cycleway.
- The cycleway plan sheet may be incorporated into the road plan where clarity permits. Specific details are to be provided at reduction ratio 1:200.
- Longitudinal Sections will be required for all off-road cycleways where grades exceed 4%.
- Longitudinal Sections will have reduction ratios of 1:500 horizontal and 1:100 vertical.

Plans

Long Sections

- Cross Sections will be presented at 1:100 reduction ratio (natural) and transition tables will be required where cross falls vary or superelevation is provided.
 - A typical cross section will be detailed to indicate pavement materials and layer depths.
2. All Drawings shall be in accordance with the minimum drafting requirements in the Specification for QUALITY ASSURANCE REQUIREMENTS FOR DESIGN – SOUTH JERRABOMBERRA.

**Cross
Sections**

D9.12 RESERVED

D9.13 RESERVED

D9.14 RESERVED



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