

State Planning Provision Review 2022 - Submission 29

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Hello State Planning

I'm considering making a submission regarding cycling infrastructure. Is there someone that I can touch base with to learn more about what is an 'urban', 'collector' and 'arterial' road in the context of Hobart so I can shape my submission.

Previously I lived in WA and would commute 60km round trip from home to work 3-4 times per week. I was super fit and marginally slimmer. In my recent visits back, it seems all their major highways and the roads into and around the city have cycle ways as part of the design and build.

I now live in Molesworth and I would commute on my bike from home to work (only 35km) if it were safer. The only safest option is to drive to Claremont or Berridale to join the intercity cycleway, which then only gives me about 14 km riding distance, so I am super keen to see "high quality High quality parallel off-road bicycle path with grade separated, signalised or priority crossings at intersections is appropriate, linking Hobart with growing regional centres and towns.

I have found that the various surveys to date are still very much focussed on the services within an approximate 10km radius of the city, and any reforms occurring still have a focus on passenger vehicles, albeit electric ones. All previous state planning talks about 'cyclists' in the opening summaries, but then what actually occurs is small grants to towns to educate drivers and pedestrians/cyclists.

Many thanks
Tanya

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Guide to Road Design Part 6A
Paths for Walking and Cycling



Austroads



Guide to Road Design Part 6A: Paths for Walking and Cycling



Austroads

Sydney 2017

Guide to Road Design Part 6A: Paths for Walking and Cycling

Second edition prepared by: Peter Aumann and Tony Arnold

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Abstract

The *Guide to Road Design Part 6A: Paths for Walking and Cycling* provides guidance for designers and other practitioners on the design of paths for safe and efficient walking and cycling, both within the road corridor and outside the road corridor. The guide provides information on considerations that should be given in providing a path, describes the types of paths and covers the requirements of path users, e.g. operating spaces, factors that influence path locations, and geometric design criteria for a path and related facilities such as intersections between paths, and terminal treatments. Detailed guidance is provided on path location, alignment, width, clearances, crossfall, drainage and sight distance requirements.

The location and design of paths may be influenced by a range of aspects that need to be considered and facilities that need to be accommodated within roadsides. In particular, designers should refer to the *Guide to Road Design*:

- Part 6: Roadside Design, Safety and Barriers (Austroads 2010a)
- Part 6B: Roadside Environment (Austroads 2015b).

The design of pedestrian and cyclist paths may also be influenced by design considerations and requirements covered in other parts of the *Guide to Road Design*. In addition, road designers should also refer to relevant parts of the *Guide to Traffic Management* in relation to traffic management devices and requirements that may need to be accommodated within a roadside or may otherwise influence the design.

Keywords

Planning, pedestrian paths, bicycle paths, shared paths, separated paths, path user requirements, operating space, location of paths, alignment, horizontal curvature, gradient, width, clearance, intersections, fences, terminal treatments, bridges, culverts, bicycle safety audits.

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Austroads

About Austroads

Austroads is the peak organisation of Australasian road transport and traffic agencies.

Austroads' purpose is to support our member organisations to deliver an improved Australasian road transport network. To succeed in this task, we undertake leading-edge road and transport research which underpins our input to policy development and published guidance on the design, construction and management of the road network and its associated infrastructure.

Austroads provides a collective approach that delivers value for money, encourages shared knowledge and drives consistency for road users.

Austroads is governed by a Board consisting of senior executive representatives from each of its eleven member organisations:

- Roads and Maritime Services New South Wales
- Roads Corporation Victoria
- Queensland Department of Transport and Main Roads
- Main Roads Western Australia
- Department of Planning, Transport and Infrastructure South Australia
- Department of State Growth Tasmania
- Department of Infrastructure, Planning and Logistics Northern Territory
- Transport Canberra and City Services Directorate, Australian Capital Territory
- Australian Government Department of Infrastructure and Regional Development
- Australian Local Government Association
- New Zealand Transport Agency.

Second edition published June 2017

First edition published October 2009

The second edition has been restructured and contains editorial and technical changes. The title has been amended to better reflect the information on the functions and types of paths covered in this edition. Updated information and new information have been included with the key changes as follows:

- Sections 1 to 4 has been reworded to provide generic information that is relevant for pedestrians and cyclists.
- Section 1.1: Universal Access – additional information on providing universal access.
- Sections 2.2: Pedestrian Path and 2.3: Bicycle Path – amended to include information on levels of service.
- Section 3: Path User Considerations – amended to broaden the range of path user considerations.
- Section 3.2.1: Pedestrians – amended to include information on mobility scooters.
- Section 5.1: Width of Paths – additional information for path widths based on volumes.
- Section 5.7: Sight Distance – additional commentary on pedestrian needs and sight distance and replacement of Figure 7.7 with an equation to determine stopping sight distance.
- Section 6.5: Special Treatments for Intersections of Paths with Paths – new section consolidating treatments for special circumstances.
- Section 7.3: Treatments for Intersections of Paths with Roads – new information on path terminal treatments.
- Section 7.5: Special Treatments for Intersections of Paths with Roads – new section on terminal treatments for special circumstances.
- Section 8.3: Culvert Underpasses – new information on principles in providing paths through culverts.
- Appendix B: Speed Limiting Treatments – new appendix providing information on speed limiting treatments on paths.
- Appendix C.3.1: Bituminous Surface Pavements – additional information on bituminous surfaces.
- Appendix C.4: Life Cycle Costing – new section on life cycle costing.
- Commentary 1: Planning and Need for a Path – transferred from Section 2 as information relates to network plans and operation.

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This Guide is produced by Austroads as a general guide. Its application is discretionary. Road authorities may vary their practice according to local circumstances and policies. Austroads believes this publication to be correct at the time of printing and does not accept responsibility for any consequences arising from the use of information herein. Readers should rely on their own skill and judgement to apply information to particular issues.

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1. Introduction

1.1 Purpose

Austrroads *Guide to Road Design* seeks to capture the contemporary road design practice of member organisations; refer to the *Guide to Road Design Part 1: Introduction to Road Design* (Austrroads 2015a). In doing so, it provides valuable guidance to designers in the production of safe, economical and efficient road designs.

Guidance on the design of roadside features and facilities is contained in three parts of the *Guide to Road Design*:

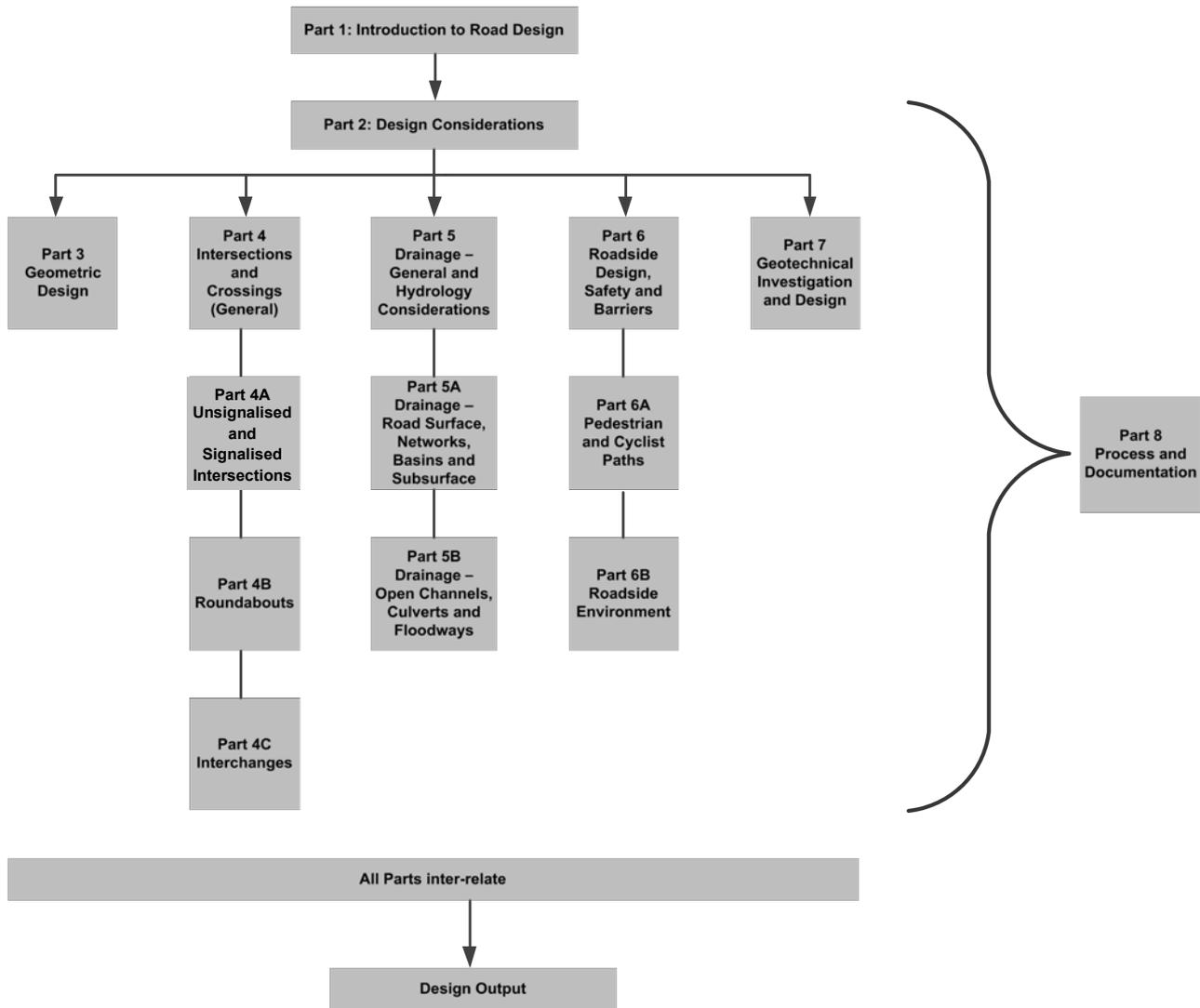
- Part 6: Roadside Design, Safety and Barriers (AGRD Part 6) (Austrroads 2010a)
- Part 6A: Paths for Walking and Cycling (AGRD Part 6A)
- Part 6B: Roadside Environment (AGRD Part 6B) (Austrroads 2015b).

AGRD Part 6 provides an introduction to roadside design and also provides detailed guidance on roadside safety (e.g. hazard identification, mitigation and treatment) and the use and design of safety barriers. *AGRD Part 6A* covers the geometric design of pedestrian and cycling paths and the design of associated facilities, while *AGRD Part 6B* provides guidance on other roadside features and facilities (Figure 1.1).

Paths are provided to meet the transportation and recreational needs of pedestrians and cyclists. They may be situated in road reserves, through parkland reserves, or beside rivers or coastal areas to provide safe and convenient routes and facilities for pedestrians and cyclists. *AGRD Part 6A* therefore provides guidelines for the design of paths generally and not only for the integration of paths into road designs.

Figure 1.1 shows that *AGRD Part 6A* is one of eight guides that comprise the Austrroads *Guide to Road Design*. Collectively these parts provide information on a range of disciplines including geometric design, drainage, roadside design and geotechnical design, all of which may influence the location and design of paths within road related areas.

Figure 1.1: Flow chart of the Guide to Road Design



1.2 Scope of this Part

AGRD Part 6A describes the types of paths and their location, provides guidance on alignment, width and other geometric requirements, and information on the design of treatments such as path intersections and terminals.

When used in conjunction with other relevant parts of the *Guide to Road Design* and the *Guide to Traffic Management*, this Part provides guidelines for the geometric design of paths (pedestrian, bicycle and shared paths). It does not provide information on planning matters including the development of bicycle and/or pedestrian networks as this relates to network planning. Information on planning for a path is contained in *Guide to Traffic Management Part 5: Road Management* (Austroads 2014) and the *Guide to Traffic Management Part 4: Network Management* (Austroads 2016a) with some additional information contained in Commentary 1.

[\[see Commentary 1\]](#)

In some situations bicycle paths may also interface with bicycle lanes on the road and reference should be made to the *Guide to Road Design Part 3: Geometric Design* (AGRD Part 3) (Austroads 2016b) and *Guide to Road Design Part 4: Intersections and Crossings: General* (Austroads 2017a) for further information.

For signing and pavement marking requirements for the purposes of establishing the type of paths described in this guide, designers should refer to AS 1742.9:2000.

Designers should understand that the design standard adopted for a particular facility should relate to the transportation role it has in the bicycle or pedestrian network. Some bicycle paths and shared paths are designed to perform an arterial function whilst others have an access function. For example, a veloway is a very high standard bicycle path (in terms of width, alignment, clearances, access etc.) that provides a major arterial link for cyclists and this type of facility should be designed for high operating speeds (e.g. the 7 km long Adelaide Southern veloway alongside the Southern Expressway in South Australia).

1.3 Safe System Approach

Adopting a Safe System approach to road safety recognises that humans, as road users are fallible and will continue to make mistakes, and that the design and operation of road infrastructure, including pedestrian paths and bicycle paths should not penalise people with death or serious injury when they do make mistakes. In a Safe System, therefore, paths should be designed in a manner that ensures that the users of the paths are not killed or seriously injured should a crash occur. This requires the designer to appreciate and understand the interactions between the various elements and in particular the likely crashes that may occur.

Paths outside of the road corridors should be design to be forgiving with minimal hazards. Paths within road corridors may involve conflicts with motor vehicles and preferably any conflicts. A Safe System approach ideally removes conflicts between motor vehicles and vulnerable road users, such as cyclists and pedestrians. For example, an underpass provides an alternative crossing of a busy road. Where conflicts cannot be avoided, the conflict between motor vehicles and vulnerable road users needs to be design or managed to reduce the incidence and severity of crashes, should they occur.

Further information on the Safe System approach can be found in the *Guide to Road Design Part 1: Introduction to Road Design* (Austroads 2015a).

2. Types of Path

2.1 General

The types of paths are:

- pedestrian path
- bicycle path or cycle track¹
- shared path
- separated path.

2.2 Pedestrian Path

A pedestrian path² is reserved for use by pedestrians, people in wheelchairs, mobility scooters and personal mobility devices, such as a walking frame. These paths provide an important part of the transport network either for trips undertaken entirely by walking, or as the first or last link in a trip that utilises other types of transport.

There are distinct zones within the area between the edge of the road and the frontage of adjacent property, and it is important to distinguish between the total width and the width of the zone likely to be used by pedestrians who are walking through this zone (NZ Transport Agency 2009). Table 2.1 describes the zones and Figure 2.1 illustrates them.

The same principles apply in off-road environments, except that one or more of the zones described in Table 2.1 may be absent or duplicated on the opposite side of the path.

Table 2.1: Zones associated with pedestrian paths

Area	Purpose
Street furniture zone	• Used for placing features such as signal poles, lighting columns, hatch covers, sandwich boards, seats and parking meters
	• Can be used for soft landscaping/vegetation
	• Creates a psychological buffer between motorised vehicles and pedestrians
	• Reduces passing vehicles splashing pedestrians
	• Provides space for driveway gradients
Dining zone	• The area for the provision of dining facilities
Through route (or clear width)	<ul style="list-style-type: none"> • The area where pedestrians normally choose to travel (this should be kept free of obstructions at all times) • In retail precincts, people with vision impairment may utilise the building line to assist their orientation along the path

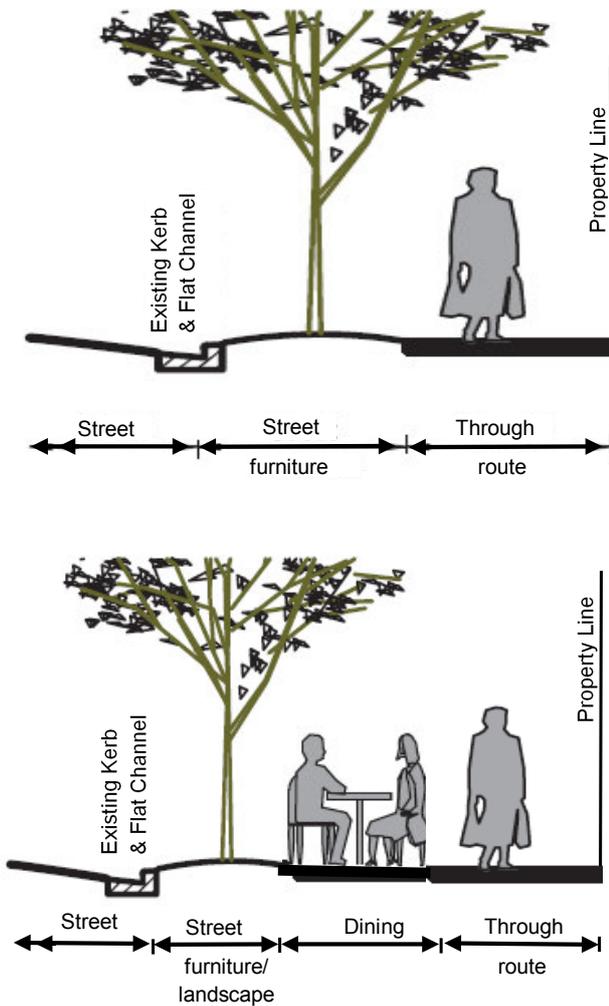
Note: The zones which are located in the area between the street and boundaries of adjacent properties, and also referred to as urban borders (AGRD Part 3 (Austroads 2016b)).

Source: Based on NZ Transport Agency (2009).

1 In some jurisdictions the term cycle track that is a separated bicycle facility in an urban corridor that combines the benefits of a bicycle lane (where bicycles have priority at intersections) and a bicycle path. Refer to Queensland Department of Transport and Main Roads (2015b).

2 It should be noted that in some jurisdictions, pedestrian paths are able to be used by cyclists.

Figure 2.1: Examples of pedestrian path zones



Note: In residential areas the pedestrian path may be offset from the property boundary to facilitate the path alignment and safety. Designers should refer to the local road agency for their requirements.

Source: Adapted from NZ Transport Agency (2009).

2.3 Bicycle Path

A bicycle path³ or track, which may be one-way or two-way, is for the use of cyclists and is most appropriate where:

- there is a significant cycling volume or where an exclusive use path is desirable, and pedestrians are provided with a separate path
- there is limited motor vehicle access across the path
- it is possible to achieve an alignment that generally allows cyclists uninterrupted and safe travel at a relatively consistent speed.

³ For the purposes of this Part the term bicycle path has been used for a bicycle-only path. Where a path is able to be used by pedestrians the path is indicated to be a shared path.

Cyclists generally prefer riding on exclusive off-road bicycle paths, rather than along roads and shared paths that provide a similar level of service (for information on levels of service refer to *Level of Service Metrics (for Network Operations Planning)* Austroads (2015f)). An off-road bicycle path caters for full range of cyclists including inexperienced cyclists or those wanting to avoid travelling alongside motor vehicles and so there may be a broad range of cyclists using the off-road path.

In some locations the provision of suitable off-road bicycle paths may not be able to be achieved due to physical and financial constraints.

Figure 2.2 shows an example of a bicycle path within a road related area. Special attention must be given to the path design in the vicinity of bus and tram stops, and preventative measures may need to be taken to avoid illegal parking of cars and the placement of garbage bins on the paths. It should be noted that a bicycle path for exclusive use by cyclists requires the establishment of signs that indicate its exclusive use as a bicycle path.

Figure 2.2: Example of a bicycle path in a road related area



Source: City of Sydney (personal communication 2016).

2.4 Shared Path

A shared path is where pedestrians and cyclists share the same path space. A shared path may be appropriate where demand exists for both a pedestrian path and a bicycle path but where there is a low number of pedestrians or cyclists and the use is not expected to be sufficiently great enough to provide separate facilities.

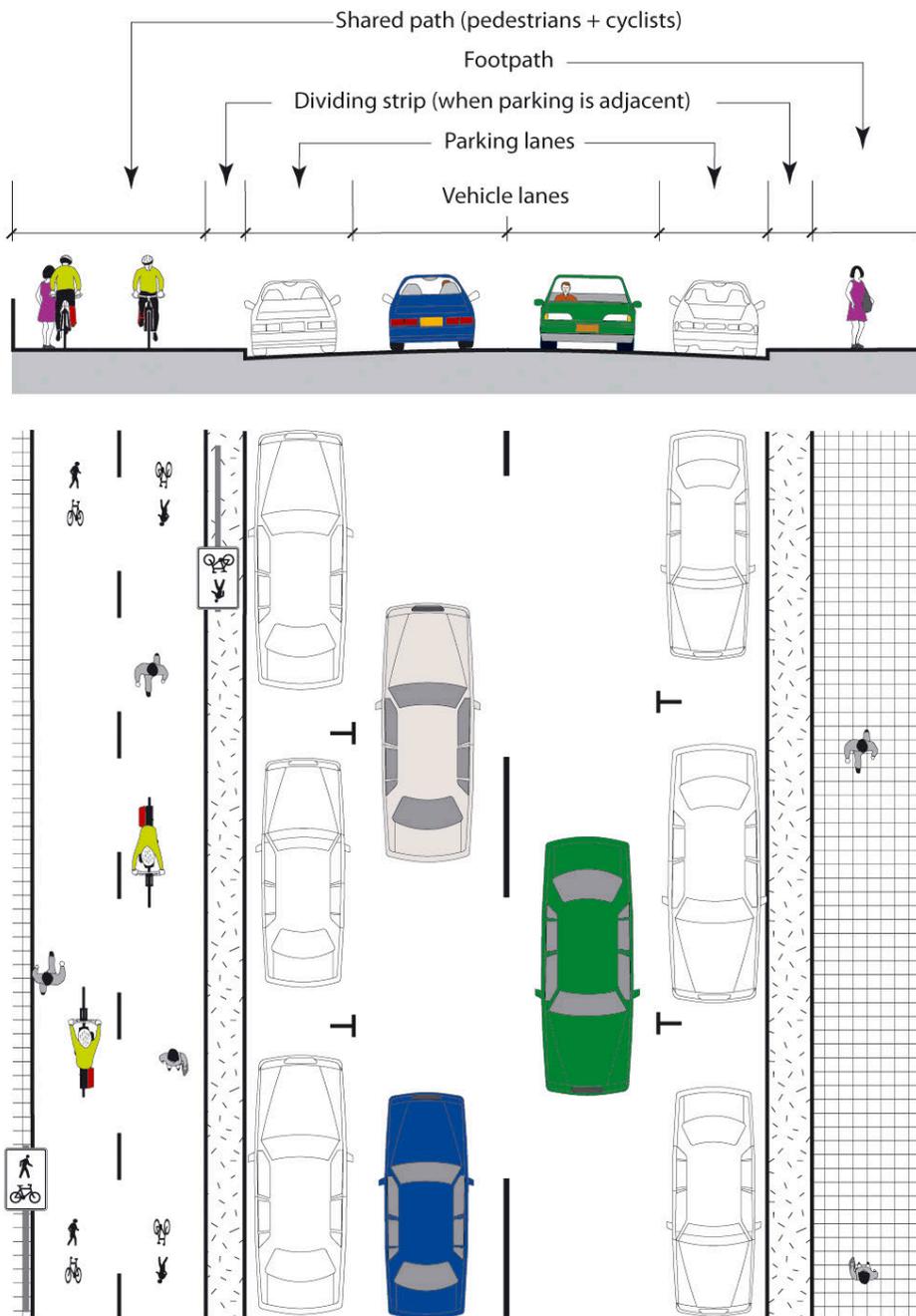
Shared paths can be used for a variety of purposes including recreation, local access and providing feeder links between high capacity paths. However, if such a link is provided, it may need to be designed in a manner that moderates cyclist speeds to ensure the safety of pedestrians.

Shared paths that use existing pedestrian paths may be satisfactory where they provide a:

- convenient and safe option for inexperienced cyclists, recreational cyclists and young cyclists
Because pedestrian paths usually have narrow widths and driveway crossings or side streets intersecting at frequent intervals they are only suitable for low cycling speeds.
- safer option for cyclists at squeeze points such as narrow, heavily trafficked sections of road, roundabouts, bridges, underpasses or railway level crossings
In such cases it may be appropriate that the connections between the pedestrian path and the road be properly designed so that cyclists can leave and enter the general traffic stream safely and conveniently. Special ramps that have a flatter gradient and smooth invert can be provided to cater for bicycles.

Figure 2.3 shows an example of a shared path within a road related area.

Figure 2.3: Example of a shared path in a road related area



Source: Roads and Traffic Authority (2005).

A significant issue associated with shared paths is the variety of users who display various characteristics that can lead to conflict between them, and discomfort for all path users. These characteristics include differences in speed, space requirements, age, user expectation (as some users expect exclusive or priority use) and predictability (e.g. cyclists, pedestrians walking dogs, in-line skaters, and skateboard riders). Austroads (2006) describes the key conflict issues between pedestrians and cyclists on shared paths and pedestrian paths and provides guidance on key conflict minimisation strategies and options.

2.5 Separated Path

A separated path is a path divided into separate sections, one of which is designated for the exclusive use of cyclists and the other for the exclusive use of pedestrians. A separated path may be appropriate where there are safety or conflict issues such as where there are a high number of pedestrians and/or cyclists (Austroads 2006), or the desired level of service on a shared path is not being met (Austroads 2015f).

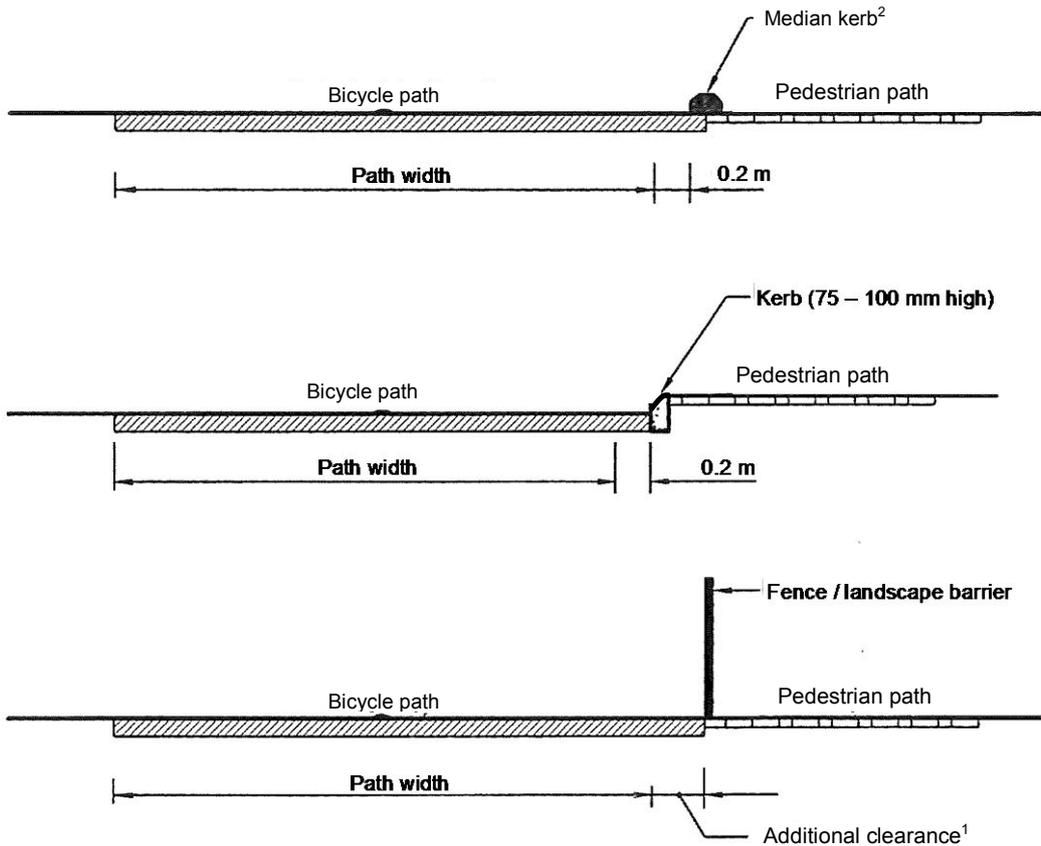
These situations typically arise in areas that attract high pedestrian and cyclist movements (e.g. foreshore promenades and major inner city bridges). However, separated paths should not be provided in busy shopping centres where large numbers of pedestrians are expected to cross the path and conflict with cyclists.

The use of a separated path may cause some confusion amongst cyclists and pedestrians as to their correct use. To better clarify the use of these paths, visual cues make it intuitive to users which path they should use through the use of an appropriate path surface (e.g. pavement materials, colours and textures), with a clearly defined separation zone supported by signing, linemarking and pavement symbols being used (Queensland Department of Transport and Main Roads 2015a). Should linemarking be used to separate cyclists from pedestrians then raised tactile separation lines are suggested to assist those with vision impairment to differentiate the pedestrian and cyclist areas.

In addition, it may be appropriate to have the pedestrian path and bicycle path at different levels, separated by a semi-mountable kerb or a small grass dividing strip. Examples of treatments to separate the paths are shown in Figure 2.4.

Where high standard bicycle and pedestrian paths are provided, such as on foreshore promenades, path users may be given priority at intersecting side streets (Austroads 2017a). Austroads (2017a) contains guidance on treatments that provide priority for cyclists and pedestrians at side roads (e.g. 'bent-out' and 'bent-in' treatments).

Figure 2.4: Examples of physical devices to separate bicycle paths and pedestrian paths



1 For guidance on clearances refer to Section 5.5.

2 The separation between the pedestrian path and bicycle path may also be a flush or mountable type kerb or a painted separation line.

Notes:

The bicycle paths may be one-way or two-way operation.

Different materials may also be used to differentiate and delineate the pedestrian and bicycle treatments.

Any kerb used may be an upright or mountable kerb.

A deflection rail providing 150 mm clearance should be provided where clearances are not able to be achieved, refer to Section 5.5.3.

Where wide nature strips exist, consideration should be given to the construction of separated one-way paths (see Figure 2.5). These paths enable bicycles to travel on the side of the road, in the verge area, in one direction, with bicycle movement in the opposite direction provided on the other side of the road.

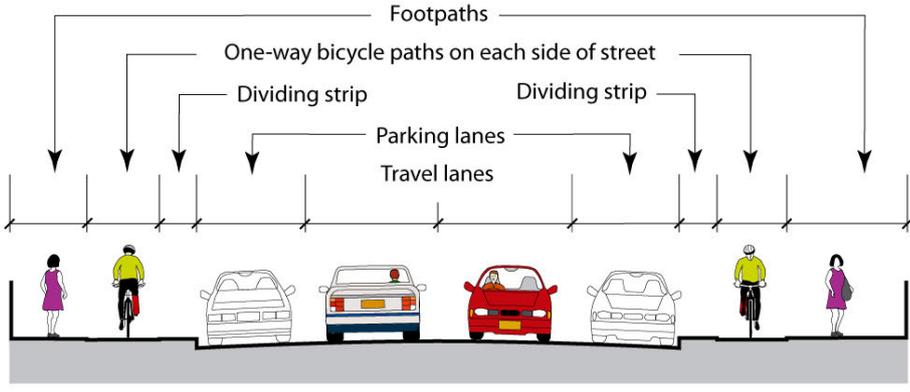
The treatment can be advantageous when:

- they are used with other traditional bicycle lane treatments located on roads, in order to maintain continuous access for cyclists past squeeze points
- other constraints exist for the construction of bicycle lanes in the carriageway
- a safety problem exists for cyclists in the road carriageway
- there is a high proportion of inexperienced cyclists.

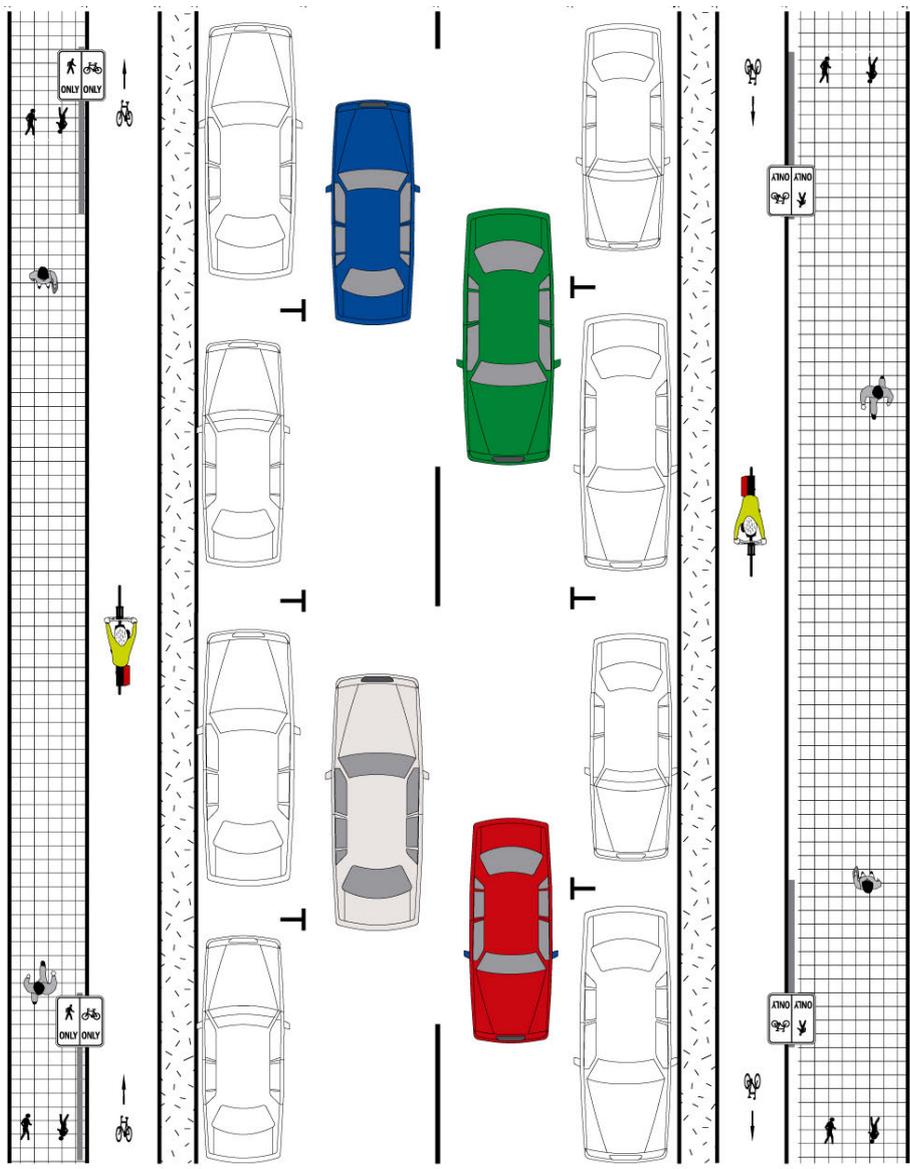
The treatment is appropriate where:

- there is a limited number of driveway crossings (preferably less than one per 100 m)
- adequate sight lines exist, to significant road and pedestrian path access points
- a separation/barrier exists between the path and the road carriageway.

Figure 2.5: Example of a separated one-way bicycle path in a road related area



Elevation



Plan

Source: Roads and Traffic Authority (2005).

A separated one-way path treatment should provide for cyclist travel in the same direction as the adjacent traffic lane, other than in a one-way street. However, designers should confirm the suitability of the treatment with respect to local requirements.

The accommodation of any path in a road related area requires consideration of access for maintenance personnel and equipment and the placement of road furniture (signs, signals, barriers, bus/tram stops) and other items, refer to Section 3.2.2, which may adversely affect operation of the path. This can be problematic with separated paths that require considerable space in order to ensure appropriate use.

The clearances to physical (vertical) separation devices shown in Figure 2.4 are essential. The clearances for kerb and fence separated facilities should be sufficient to ensure cyclists do not catch handle bars in fence components or pedals with upright kerbs. Where fence clearances cannot be met cyclist deflection rails should be installed, refer also to Section 5.5.1 and 5.5.3.

Physical, horizontal or vertical separation of the bicycle path and pedestrian path is preferred to linemarking. Should linemarking be used to separate bicycles from pedestrians then tactile pavement markings are recommended. In assessing the need for physical separation between pedestrian and cyclist areas, factors such as operational width and clearance requirements, speed of cyclists, category of use characteristics, volume of use and the likelihood of pedestrian activity in the cycling space should be considered.

When a barrier is used to separate the bicycle and pedestrian path sections, the desirable minimum width of the pedestrian path section should be 1.5 m, to allow passing manoeuvres on that section of the path, amongst other reasons (e.g. pedestrian volumes). Separated paths should be designed to accommodate the passing of pedestrians by personal mobility devices.

3. Path User Considerations

3.1 General

In order to develop appropriate and practical design solutions designers should have a sound understanding of what is required to ensure that pedestrian and cycling networks offer an environment that provides a convenient, safe and pleasant journey with direct routes that minimise the length of travel and travel time to destination.

The characteristics that contribute to a path network, that serve the needs of pedestrians and cyclists, includes paths that are safe, connected, legible, comfortable, convenient, universal and pleasant (based on NZ Transport Agency 2009 and de Groot 2007).

Safe

Path networks should:

- provide surfaces that provide good surface grip, are free of tripping hazards, smooth, clear of obstructions and are well maintained (e.g. no broken paving)
- have well design landscaping that does not encroach sight lines or operating space
- have adequate lighting to ensure that pedestrians feel safe when using paths at night
- minimise conflicts between path users taking into consideration path widths or the provision of separated paths
- have information signs reminding users of appropriate behaviours in using the path.

Connected

Well-connected paths should:

- have continuous routes and travel paths as short as possible
- integrate with public transport
- provide crossings that are appropriate for the traffic volume and traffic speed environment
- provide crossing opportunities at locations that are difficult to cross (e.g. major roads, railways) with short waiting times at signalised crossings
- provide good access to key destinations
- where path volumes are high and consistent (e.g. inner-city routes) consideration should be given to prioritising and wherever practicable coordinating traffic signals to improve the level of service for pedestrians and cyclists.

Legible

To inform path users, a path network should:

- provide clear distance and directional signs to destinations, and/or pavement marking information
- have clearly visible street name signs and repeater street names
- have clearly visible place names
- enable local features to be identified that can assist path users to orientate themselves and be aware of their location
- be supported with readily available path network information (e.g. published local maps, information boards, tourist information).

Comfortable

In order to provide an appropriate level of comfort the path or route should:

- have path widths that provide the desired level of service (Austroads 2015f)
- be set back from carriageways to create a physical separation from motor traffic
- provide facilities for path users, such as resting places and drinking fountains
- provide adequate and safe storage areas for pedestrians to wait, including at intersections, such that the flow of other path users, including cyclists is not impeded
- be well maintained to ensure maintenance intervention levels are met to provide a smooth surface
- be substantially free from litter, debris and other deposits
- be constructed to prevent ponding of surface water
- have places to rest and shelter from inclement weather
- be adequately lit to ensure that path users feel safe when using the paths at night.

Convenient

A convenient walking environment for pedestrians should:

- be as continuous as practicable
- ensure that streets can be crossed easily and safely (e.g. raise road crossings to path level)
- minimise delays at road crossings (e.g. keep crossing distances and waiting times at signals short)
- include cyclist and pedestrian signals or phases at signalised intersections.

Universal

Paths should cater for all users by:

- having gradients that cater for mobility impaired users where practicable
- having contrasting coloured pavement surfaces to highlight demarcated areas of path
- having tactile treatments and physical features, that may be used to aid wayfinding, including signs to aid in wayfinding by vision impaired persons where required.

Pleasant

A path network can provide a pleasant journey for path users by:

- having high quality supporting facilities, such as seating, resign places, drinking water, interpretative information that is located clear of the operating space of the path
- being located so that scenic features in the vicinity can be viewed from the path.

The design of a path should also consider the level of service that it is intended to be provided on the path. The level of service includes some of these characteristics. More information on levels of service is contained in *Level of Service Metrics (for Network Operations Planning)* (Austroads 2015f).

3.2 Operating Space

3.2.1 Pedestrians

General

While it is not possible to identify all design situations in this Part, basic reach and geometric parameters, and operating envelopes may be established that assist in the appropriate design of all components of the street system and facilities provided for or used by pedestrians. This section provides information regarding maximum limits of reach and minimum dimensions necessary to accommodate most people with disabilities. However, designers should not simply design for these maximum limits and minimum dimensions but should ensure the design provides the highest level of service to pedestrians that is practicable.

As it may be necessary to accommodate a variety of uses in pedestrian areas, design envelopes should include the type of pedestrian activity and local considerations that impact on placement of street furniture or capacity. For example:

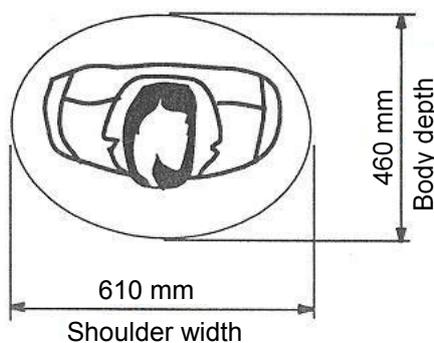
- proximity to shops – additional area/width required for people carrying shopping bags
- climate – sub-tropical locations could incorporate umbrellas and similar furniture that requires greater widths and clearances
- the design envelope should allow for backpacks, briefcases and other devices used by pedestrians and which would affect storage capacity generally and on traffic islands in particular
- proximity to retirement centres – additional width and storage length to accommodate personal mobility devices.

Pedestrian space

Body depth and shoulder width are the primary human measurements used by designers of pedestrian spaces and facilities, where shoulder breadth is the factor affecting the practical capacity. The plan view of the average adult male human body occupies an area (the body ellipse) of about 0.14 m². However, a 460 mm by 610 mm body ellipse (Figure 3.1) equivalent to an area of 0.21 m² is used to determine practical standing capacity, allowing for the fact that many pedestrians carry personal articles, natural psychological preferences to avoid bodily contact with others and body sway.

With respect to normal path operation where pedestrians and cyclists are moving at speed and sharing space it is considered that a one metre width should be used as the basis of the design envelope to allow adequate operating space and clearances for pedestrians.

Figure 3.1: Plan view of pedestrian body ellipse



Reach

While there is a wide variation in the size of people and their reach, basic limits that should be adopted for the purposes of design are shown in Figure 3.2. It can be seen that the overlap between the heights is easily accessible by wheelchair users and people with mobility difficulties. This means that anything that must be reached, e.g. holding rails, audio tactile push buttons, by both groups should lie between approximately 0.6 m and 1.57 m above the ground. Wheelchair users are also constrained in the limits of their horizontal reach, as shown in Figure 3.2.

Wheelchairs and mobility scooters

There are a wide variety of wheelchairs and mobility scooters available for people to use to aid their mobility. These include manual wheelchairs, motorised wheelchairs and mobility scooters. The dimensions of these mobility aids can vary and designers should refer to AS/NZS 3695.1:2011 and AS/NZS 3695.2:2013 for information on manual and powered wheelchairs.

Wheelchair and mobility scooter users generally require more space than other people to move around. An example of the reach limits for an occupant of a wheelchair is shown in Figure 3.2. Designers should consider the size of wheelchair or mobility scooter that should be used in the design of specific facilities or treatments and may have to establish the appropriate design vehicle for particular situations within a jurisdiction. As a guide, the Australian Disability Standards for Accessible Public Transport (2002) requires a manoeuvring space of 2.07 m by 1.54 m for a wheelchair or mobility scooter to turn 180°. Reference may also be made to AS 1428.1:2009. Consultation with local community organisations may also provide information on the wheelchairs and mobility scooters.

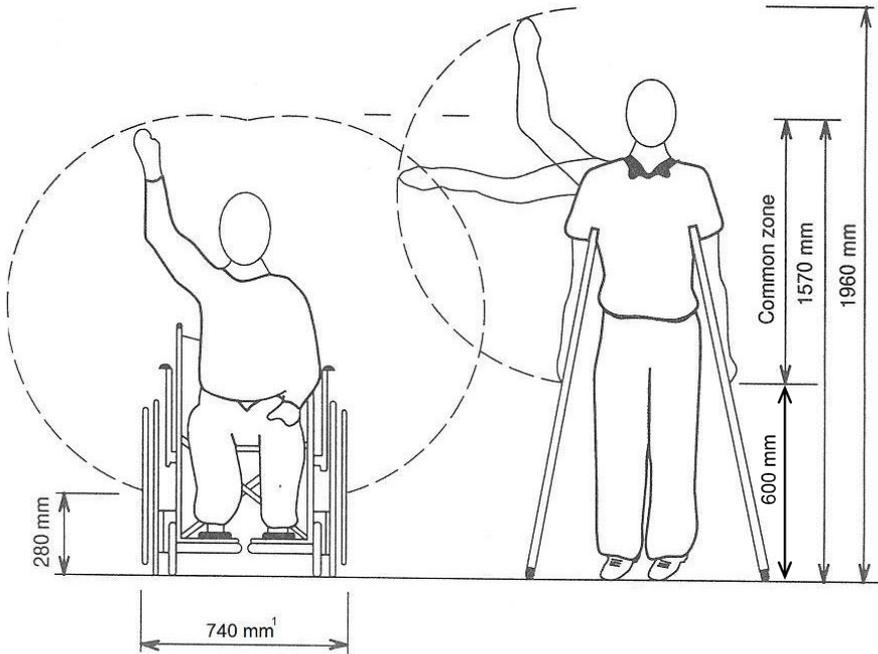
In considering the minimum width required for wheelchairs and motorised scooters, designers should also refer to AS 1428.1:2009 regarding minimum widths for accessways, walkways, ramps, landings and doorways.

General spatial requirements

Figure 3.5 shows the radius of turn for a wheelchair when wheels are moved in opposite directions and when pivoting about a locked wheel. The radii represent the swept path of the wheelchair and therefore it is essential for designers to allow sufficient clearance from the swept path to fixed objects to allow for variance in the location at which the rider chooses to commence the turn, and to provide comfortable and safe operating conditions. This clearance is necessary to avoid the risk of damage to the wheelchair, damage to street infrastructure and injury to the wheelchair rider.

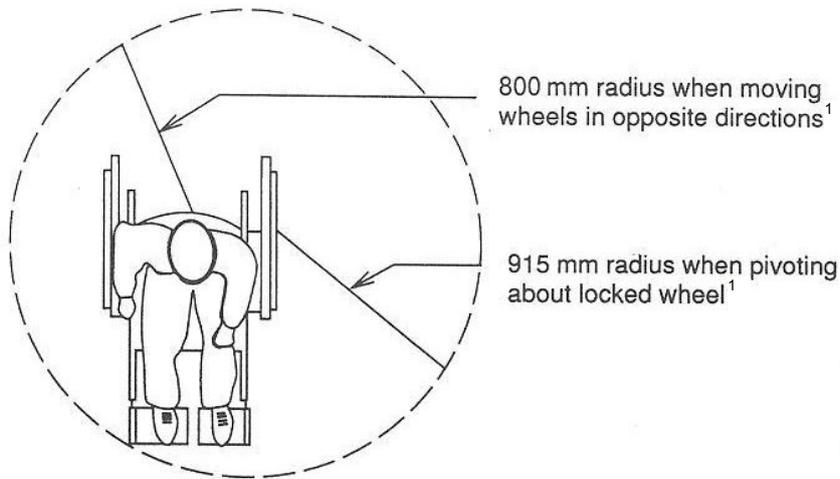
Figure 3.4 shows the various widths for path users with mobility impairment. While personal mobility scooters are not included in Figure 3.4 it is considered that most scooter models can be accommodated within the widths shown.

Figure 3.2: Reach dimensions for mobility impaired people



¹ Includes clearance for knuckles of hands.

Figure 3.3: Wheelchair turning envelope

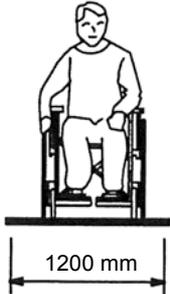


¹ Radius is the swept path of the wheelchair; clearance between path and objects (e.g. walls, poles) must be provided.

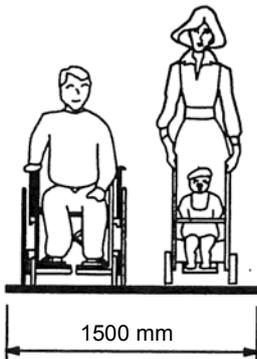
Figure 3.4: Pedestrian path width requirements for people with mobility impairment



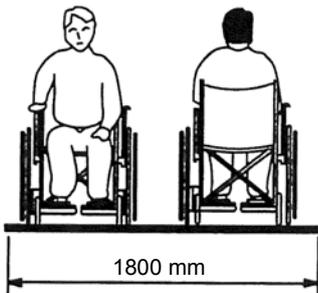
- (a) A clear width of 1000 mm is adequate for people with ambulant disabilities, just allows passage for 80 per cent of people who use wheelchairs, and is in accordance with AS 1428.1



- (b) People who use wheelchairs require a clear width of 1200 mm



- (c) A clear width of 1500 mm allows a wheelchair and a pram to pass



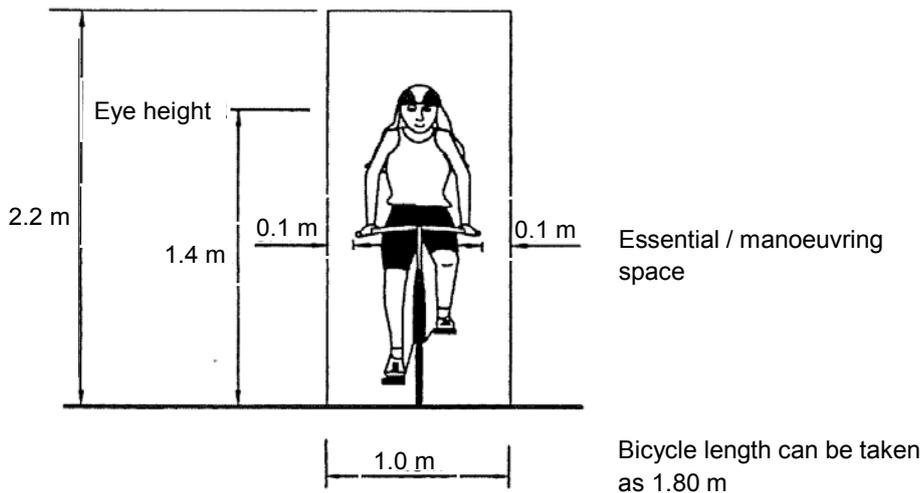
- (d) To allow two wheelchairs to pass comfortably, a clear width of 1800 mm is required

Source: AS 1428.2:1992.

3.2.2 Cyclists

The cyclist design envelope (Figure 3.5) and clearances to obstructions or hazards (see Section 5.5.1) may be used to construct the appropriate width of facility required for cyclists under various conditions. The envelope is assumed to be consistent over the range of operating conditions and allowance for higher speeds is provided through larger clearances to both other cyclists and fixed objects beside the path. Appendix A provides guidance on how the envelope and clearances are applied to particular situations in order to determine satisfactory operating widths.

Figure 3.5: Cyclist design envelope



Note: The path width may vary on uphill sections of path, refer to Section 5.4.

The 1.0 m width of the envelope shown in Figure 3.5 allows for the width of a bicycle and for variations in tracking. Not all bicycle riders can steer a straight line and when riding uphill experienced riders work the bicycle from side to side while inexperienced riders may wobble. To allow for this operating characteristic the 1.0 m envelope width should be increased to 1.5 m for uphill travel, refer also to Section 5.1.3 for guidance on path widths. Further guidance on uphill travel is contained in Section 5.4.

Bicycle riders also need adequate clearances to fixed objects and to passing vehicles in addition to the 1.0 m envelope; refer to Section 5.5.1 for guidance on clearances.

Space to ride

Where data is available (e.g. census information and jurisdictional surveys) the space required for new major bicycle paths should be based on an estimation of the likely demand for cycling on the proposed facility.

However, where such information is not available the bicycle design envelope and clearances shown in Figure 5.6 provide the basis for the design of the bicycle facilities described in this part. It is important for designers to understand the basis of the design, including clearance requirements, so that they can make appropriate judgements in constrained situations where knowledge of minimum cyclist space requirements is needed. The envelope is relevant to the design of lanes on roads, off-road paths and bicycle parking facilities (AS 2890.3:2015).

In some situations it may be appropriate to provide for alternative forms of pedal cycles in the design of facilities. For example, it may be appropriate on heavily used recreational paths to allow for the space (e.g. width, length, swept path) required by a bicycle trailer that is commonly used by parents to tow young children.

Smooth surface

A smooth, skid resistant, surface is desirable for bicycles to be used effectively, comfortably and safely. Surfaces used for cycling should desirably be smoother than those acceptable for motor vehicles and persons responsible for path construction and maintenance should be made aware of this requirement. Guidance on surface tolerances is provided in Section 5.10.

It is also important that the design restricts debris from accumulating on paths. Surface water should not flow across the path in situations where soil, mulch or other debris could be carried onto the path. It is generally preferable that water is collected and piped under the path. Similarly, a maintenance regime should be in place to enable the removal of any debris that could inconvenience cyclists or create hazardous conditions by placing a solid object in the path of cyclists or causing the surface to become slippery (e.g. broken glass, rocks, mud after inundation, loose leaves or berries etc.).

Speed maintenance

For bicycles to be most effective as a means of transport, cyclists must be able to maintain speed without having to slow or stop often. While many cyclists typically travel at speeds between 20 km/h and 30 km/h, a significant number of cyclists travel at speeds in excess of 35 km/h to 40 km/h on the flat and may reach speeds in excess of 50 km/h on downhill gradients. Once slowed or stopped it takes considerable time and effort to regain the desired operating speed.

In some locations, such as in commercial precincts or urban residential neighbourhoods, maintaining path speeds may be less important and higher speeds may be counter-productive to encouraging inexperienced cyclists to use the path and may also result in safety concerns involving pedestrians. The higher speeds may also be a deterrent in attracting or encouraging new cyclists. In these areas, the operating speed on the path may need to be moderated to take into consideration the experience levels and the number of the cyclists using the path.

Bicycle routes, especially off-road, should be designed for continuous riding, minimising the need to slow or stop for any reason including steep gradients, rough surfaces, sharp corners, obscured sight lines, intersections, or to give way to other people because the width available is too narrow.

Sight lines

It is important that appropriate sight lines are provided between a cyclist's eye height and pedestrians to assist in minimising conflict, and between a cyclist's eye height and the path surface so that cyclists can stop in the event that a hazard exists on the path (e.g. mud deposited during inundation, potholes due to washouts, broken glass, and fallen tree limbs).

Designers should therefore resist the temptation to provide curves that are smaller than necessary (e.g. to create an artificially winding path for aesthetics or urban design reasons). It is much better for the safety of path users if larger curves with greater sight distance are provided. Refer to Section 5.7 for information on sight distance.

4. Design Considerations

4.1 Location of Paths

4.1.1 General

Paths have a safe functional design requirement to provide a high level of amenity for people, either walking and/or cycling. Paths may be used by the full range of cyclist categories and to achieve this objective a designer should have:

- an understanding of the objectives for the proposed path
- an understanding of the expected numbers of path users
- a recognition of the needs of all pedestrians and cyclists
- an appreciation of the need for appropriate path geometry e.g. width and alignment, to cater for the path users
- an appreciation of the location, available space and destinations.

Paths may be located:

- in road related areas which have direct access to abutting properties
- in reservations of major new or existing access-controlled arterial roads or freeways
- along river frontages and foreshores
- through parkland
- along railway reservations
- leading to and across bridges.

4.2 Factors of Influence – Path Location

Factors that influence the location of paths include the need to:

- recognise the existing desire lines being followed by pedestrians and/or cyclists
- achieve the best alignment possible to provide comfortable, convenient and safe travel, within the available resources. It is acknowledged that cost may be a factor in determining the location and elements of a path.
- identify locations of local features that may be of interest to path users
- avoid sharp horizontal curves, particularly at intersections or at the bottom of steep downgrades, where cyclists use the path
- achieve adequate sight distance along the path to observe other path users
- optimise the personal security of users of paths located in relatively isolated areas
- provide access for emergency service vehicles and maintenance vehicles at path entrances or other strategic points
- landscaping and planting considerations including vegetation removal (especially vegetation that has thorns that may puncture tyres), planting sizes at maturity and maintaining adequate sight distances and accumulation of debris
- owners of private property abutting the reservation, who may be concerned that provision of a path will adversely affect privacy or the security of their property
- the possible advantages that can be derived from incidental lighting from fixed sources or motor vehicles
- the choice of aesthetically pleasing locations (to encourage use)
- constraints such as geographical features, environmentally sensitive areas, areas of significance for Indigenous Australians etc.

4.2.1 Factors Influencing Roadside Alignment

Where a path is located in a road reserve and abutting development results in driveways at frequent intervals, a choice may exist between locating the path:

- adjacent to the kerb
- adjacent to the property boundary
- at an intermediate point, say 1.0 m behind the kerb.

However, in many cases the road related area will be too narrow to allow a choice in the location of a path.

It may be necessary for a path alignment to shift between the road reserve boundary and the kerb in order to retain vegetation, avoid obstacles, utilise bridges or connect to path crossings of the road. The alignment should be easy to follow, continuous and avoid sharp changes in direction.

Factors that influence the choice of alignment are summarised in Table 4.1.

Where there is an issue of vehicles failing to give way as they enter or leave the abutting properties or blocking the path, it may be necessary to reinforce the priority to the path users. Methods to reinforce the priority include continuing the path surface material across driveways to provide a contrast with the driveway surface, or alternatively through the use of appropriate signs or pavement markings.

Where a path crosses the minor road of a T-intersection or major access point and priority is given to the path users, consideration should be given locating the path at an appropriate distance from the main road. This will ensure vehicles are able to store and give way to path users so to not interrupt traffic flow on the adjoining main road. Where this is not possible consideration should be given to reversing the priority at the crossing, refer also to *AGRD Part 4* (Austroads 2017a).

Table 4.1: Factors considered in the choice of path alignment in road related areas

Path location	Factors for consideration
Adjacent to a kerb	<ul style="list-style-type: none"> • In many cases is the only option because of the road reserve width available. • Offers the best visibility of path users to drivers reversing out of their properties, particularly where high screen walls exist at the boundaries. • Will be used in two directions and allows cyclists to run off the path and ride against the flow of motor traffic on the road pavement. Overseas experience has shown wrong-way movements to be a major problem (Cross & Fisher 1977). • May result in parked cars being a hazard to pedestrians and cyclists due to the opening of vehicle doors into the path (refer also to Section 5.5.1). • May result in persons entering and exiting parked cars being put at risk due to the proximity of bicycle movements to the cars (refer also to Section 5.5.1). • Follows the longitudinal profile of the kerb and is therefore generally cheaper to construct because of reduced earthworks. • May be preferred by abutting landowners in terms of privacy and nature strip disruption. • May result in the effective path width being reduced by kerb returns (however, the use of AS 1428.1:2009 style side ramps would be of some assistance at driveways or the path profile being adversely affected at the cross over. • If wide, may be viewed as detracting from the appearance of the streetscape and may imply a higher speed environment. • Is less pleasant because of traffic noise, fumes and speed, and perhaps the splashing of water from gutters. • May be relatively unaffected by the presence of fences varying in height and type, or having sharp or exposed edges or protrusions.

Path location	Factors for consideration
Adjacent to a property boundary	<ul style="list-style-type: none"> • Provides a more pleasant environment and is perceived to be safer. • May limit visibility of path users to drivers reversing out of driveways, or to drivers turning left from the abutting carriageway, where path users are beyond the driver's peripheral vision. • Does not necessarily follow the kerb profile and may result in steeper gradients or be more costly to construct. • May be viewed as having a lower negative visual impact on the street than a kerbside path. • May be unacceptable to abutting land owners. • Is more efficient for the mail service, if the nature strip is very wide. • Should preferably be deviated to a location at least one car length back from road intersections, adjacent to which the path crosses, to facilitate passage behind a queued car. • Allows space for garbage bins to be accommodated clear of the path and for pit lids for utilities to be located outside of the path surface. Locating pits within paths should be avoided as the lids can create an uncomfortable ride and constitute a trip hazard for pedestrians.

4.2.2 Paths in Medians

Paths are not usually located in central medians, however, they may be acceptable where:

- the median is wide and the outer verges narrow
- the spacing of intersections is large
- the speed environment of the road is low
- motor vehicles are required to give way or stop for path users
- safe crossings of the carriageways and intersections can be made (e.g. traffic volumes low to moderate, major intersections controlled by traffic signals).

Similarly, it may also be acceptable to locate a path in an outer separator of a major road, depending on site conditions and traffic conditions. However, this should only be done where there are few entries and exits from the service road, and crossings at these locations can be designed to ensure that they are safe by:

- physically controlling vehicle ingress and egress speeds
- providing good sight distance
- making the priority clear to motorists and path users.

Disadvantages of providing paths in medians include providing access to the path across a carriageway, the median needs to be wide to provide some separation to motor vehicles and motorists do not expect pedestrians or cyclists at median openings and therefore they may be put at risk at these crossings.

Where paths are provided along wide central medians, sufficient distance should be provided between the path crossing points of the road between the carriageways of the main road, to provide adequate storage of vehicles to prevent interruption to traffic flow on the main road.

An example of a path located in a median at a road crossing is shown in Figure 4.1.

Figure 4.1: Example of a median path at a road crossing



Image capture: Apr 2015 © 2016 Google

Source: Google Maps (2016), 'Victoria', Map data, Google, California, USA.

4.3 Path Width

The path width required depends on the envelope (i.e. space) occupied by pedestrians and/or cyclists using the path together with appropriate clearances. The clearances are required between path users travelling in the same direction or opposite directions, and also between path users and the edge of the path. Some allowance for the ability of cyclists to ride in a consistent wheel path (i.e. tracking of the bicycle within the envelope) is provided. Pedestrian and cyclist envelopes and examples of their application to determine the widths presented in Section 5.1 are contained in Appendix A.

While path width can be developed from cyclist and pedestrian envelopes and required clearances, the choice of a width in many situations is subjective because data is not usually available on the level and type of use that could be expected. Some jurisdictions systematically collect traffic data on existing path networks and some investigation has been done on the development of models to estimate the traffic flow on proposed paths (Land Transport New Zealand 2008). However, in the absence of a relationship between path width and parameters such as cyclist operating speed, volumes of pedestrians and cyclists, mix of pedestrians and bicycles, practitioners should consider a number of factors, such as the:

- level of pedestrian and cyclist use
- types of use expected e.g. where pedestrians may travel in large groups
- types of cyclists likely to be attracted to the path
- objectives of the path (e.g. provide a major link for cyclists including school children)
- speed of cyclists
- traffic regime
- available clearances
- user envelopes.

In many cases there will be more than one type of user to be accommodated and their requirements may differ. For example, where a path follows a scenic route but also is intended to attract cyclists from an alternative high speed road environment, it will be necessary to provide a good experience for cyclists and these cyclists wanting to minimise their travel time should be provided with an alignment and other conditions to minimise the travel time.

With many jurisdictions now allowing cycling on pedestrian paths, the increasing use of personal mobility devices and encouragement to increase cycling and walking, there is growing need to ensure path widths are provided that accommodate safe movements of path users, including passing or overtaking movements. This is particularly the case for separated paths where legislation may restrict the use of the path to only the designated use.

4.4 Bicycle Paths

The principles of designing a path for bicycles are similar to those used in designing roads and it is essential that the path has an alignment and cross-section to suit the function of the path and the speed and volume of traffic, drainage that prevents inundation and debris from washing onto the surface, and adjacent areas that are forgiving to cyclists that leave the path.

The vertical and horizontal alignment (and combinations of these), width of path and clearances adopted, are important to the safe operation of a path. Paths attract a variety of users from experienced cyclists to young children and inexperienced cyclists (Table C1 3) and hence it is desirable to consider the characteristics of all likely users and to design the path to suit the needs of the type of user for which it is intended.

The geometric standard adopted for a path will depend on its role within the bicycle network. Paths may perform an arterial function for a specific user group (e.g. veloway), have a mixed-use function for cyclists, pedestrians and other types of use (e.g. in-line skaters) or have a local access function.

A veloway is a high-standard exclusive bicycle path catering for high-volume and/or high-speed arterial movement. There are few veloways in Australia. This Part does not provide guidelines that are specific to the design of veloways. While the information in this section may assist in the design of veloways the values adopted for design elements will depend on local circumstances and should be determined by the responsible agency.

5. Design Criteria

Paths attract a variety of users as (example outlined in Table C1 3) and the needs of all likely users should be considered in the design of a path (see also Commentary 1).

[\[see Commentary 1\]](#)

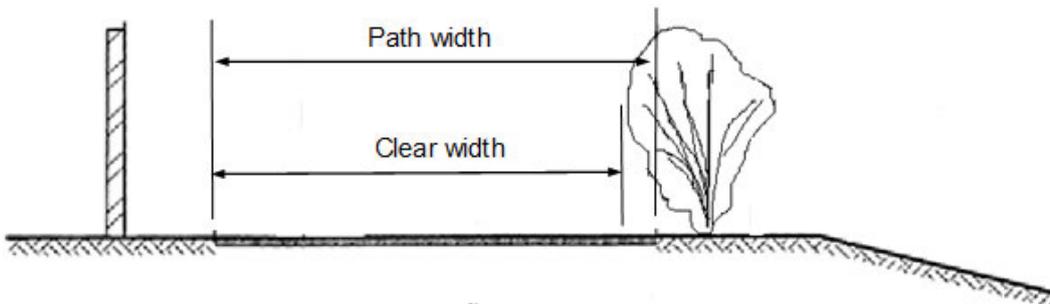
5.1 Width of Paths

5.1.1 Clear Width

The widths provided in this Part are for a clear width on a path (Figure 5.1). Intrusions in or over a path, such as vegetation, signs, poles, fences or seats may become obstacles or hazards to path users, reducing the width of the clear path and should be removed wherever practicable. In locations where the intrusion is unable to be removed, path users need to be alerted to the presence of the intrusion with sufficient time to enable the obstacle or hazard to be avoided.

For guidance on the clearances to obstructions or hazards, refer to Section 5.5.

Figure 5.1: Example of clear width



5.1.2 Pedestrian Paths

The suggested width requirements for pedestrian paths are shown in Table 5.1. The operating space required for mobility impaired pedestrians is illustrated in Figure 3.4 and while personal mobility devices (e.g. scooters) are not included in the figure it is considered that most scooters could be accommodated within the widths shown (refer to product suppliers for further information). As a guide, the desirable minimum width of a pedestrian path that has a very low volume is 1.2 m with an absolute minimum of 1.0 m at constrained locations and with agreement by the relevant road agency. These widths should be increased at locations where:

- high pedestrian volumes are anticipated
- a pedestrian path is adjacent to a traffic or parking lane
- a pedestrian path is combined with bicycle facilities
- the pedestrian path is to cater for people with disabilities
- overtaking of path users is expected.

The roadside often has to accommodate many features including paths. It is therefore important that enough space is provided to ensure that all features can be accommodated and pedestrians have a clear space in which to operate. In some cases the relevant road agency may desire to implement an urban design solution within the roadside.

The crossfall of a paved pedestrian path may vary from flat (but achieving an adequately drained surface) to 2.5%. Provided that drainage is satisfactory, a lower crossfall is preferred (i.e. 1.0%) as a higher crossfall may cause problems for some people.

Table 5.1: Width requirements for pedestrian paths

Situation	Suggested minimum width (m)	Comments
General low volume	1.2 ⁽¹⁾	<ul style="list-style-type: none"> • General minimum is 1.2 m for most roads and streets. • Clear width required for one wheelchair. • Not adequate for commercial or shopping environments.
High pedestrian volumes	2.4 (or higher based on volume)	<ul style="list-style-type: none"> • Generally commercial and shopping areas.
For wheelchairs to pass	1.8	<ul style="list-style-type: none"> • Refer also to AS 1428.1:2009.
For people with other disabilities	1.0	

¹ In constrained locations an absolute minimum of 1.0 m should be provided. In these situations, path users should be able to detect other path users with sufficient time to respond and take appropriate actions.

Notes:

While the minimum width may be used where volume is low it is generally desirable to provide a path that will accommodate two pedestrians side by side.

Wider than the minimum width (e.g. up to 5 m) may also be necessary at locations where pedestrian flows are high or where pedestrians gather such as in the vicinity of schools and associated road crossings, at recreation facilities and at important bus stops.

Where volume is significant it may be necessary to provide adequate congregation areas clear of the path required for through movement of pedestrians.

Where a path is < 1500 mm wide, the path should be widened at regular intervals to provide opportunities for wheelchair users to pass. Refer also to the *Pedestrian Planning and Design Guide* (NZ Transport Agency 2009).

In some instances pedestrian volumes will be very high and a path width corresponding to or greater than those suggested in Table 5.1 for high pedestrian volumes will be required. This may depend on the level of service the path is to provide and designers should also refer to any local planning requirements. Refer to *Level of Service Metrics (for Network Operations Planning)* (Austroads 2015f) for guidance on levels of service.

Constrained widths should be avoided or treated (e.g. by removal of obstacles) wherever practicable. However, where it is not possible to remove the obstacle an absolute minimum width can be used over a very short length at an obstruction (Figure 5.2), and if a narrow pedestrian path cannot be avoided over a greater length passing areas should be provided wherever possible (Figure 5.3).

It is also important that the edges of paths do not have a drop-off that may cause a pedestrian to slip or trip, or cause a wheelchair to overturn, such as along the back of a kerb. This consideration is critical where minimum path widths are used. In addition, any obstruction within the path should be highlighted (e.g. bright contrasting colour) to reduce the likelihood that pedestrians will collide with it, and have any aspects removed that could cause path users to be ‘snagged’ by it.

Figure 5.2: Minimum pedestrian path widths

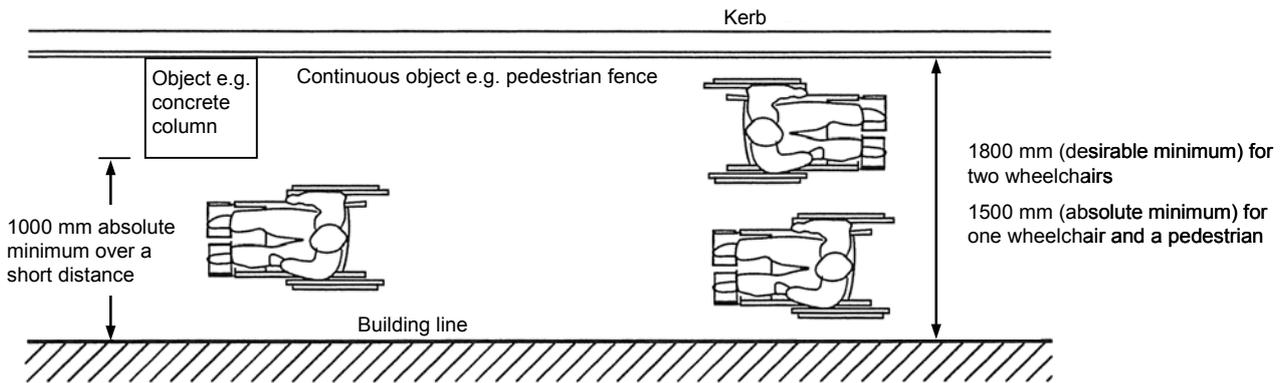
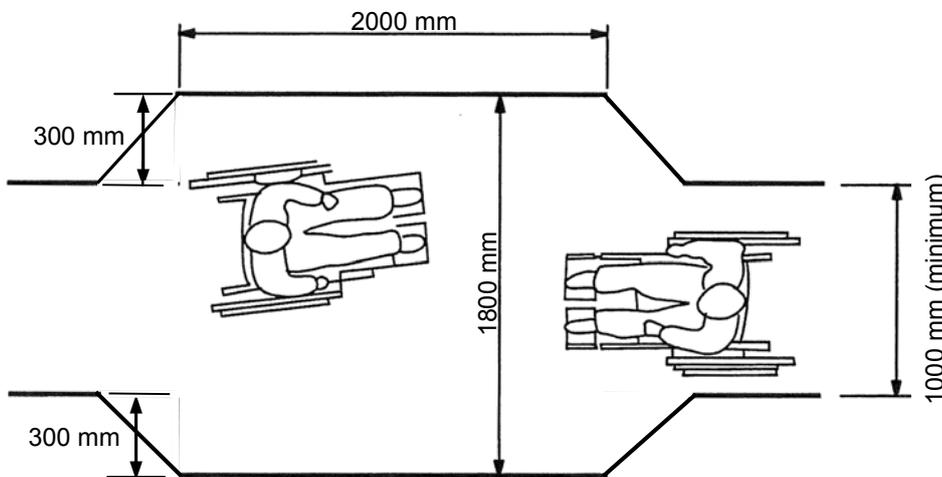


Figure 5.3: Example of passing areas in constrained locations



Notes:

The passing area could also be provided by widening by 600 mm to one side of the path.

Refer to AS 1428.1:2009 for alternative design.

Source: Based on AS 1428.1:2009.

5.1.3 Bicycle Paths

When the volumes of cyclists are not able to be determined, it is suggested that the widths shown in Table 5.2 provide acceptable ranges for bicycle paths. The upper limit of the acceptable range in the table should not discourage designers from providing a greater width where it is needed (e.g. very high demand that may also result in overtaking in both directions).

Table 5.2: Bicycle path widths

	Suggested path width (m)	
	Local access path	Regional path
Desirable minimum width	2.5	3.0
Minimum width – typical maximum	2.0 ⁽¹⁾ – 3.0 ⁽²⁾	2.5 ⁽¹⁾ – 4.0 ⁽²⁾

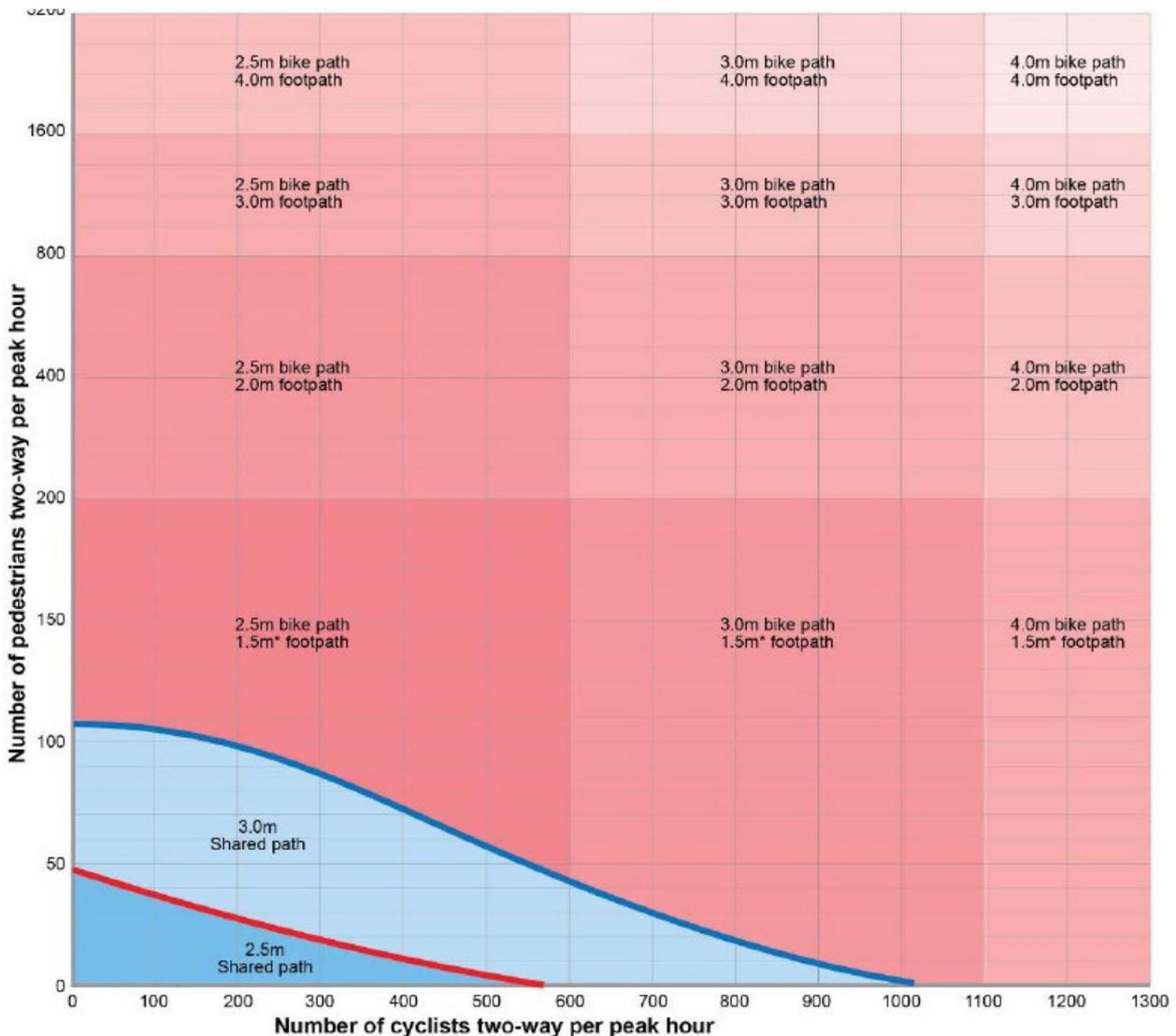
1 A lesser width should only to be adopted where cyclist volumes and operational speeds will remain low.

2 A greater width may be required where the number of cyclists is very high.

In general, a width less than lowest value of the acceptable range shown in the tables should not be adopted. An exception is the local access path that is provided to connect a local area to a community facility (e.g. shopping centre) and it is expected that the volume of cyclists and operating speeds will remain low throughout the life of the path. In such cases a width less than 2.0 m may be considered. A width greater than the upper value of the acceptable range may be required where a very high number of cyclists are expected to use the path.

When a bicycle path is primarily for high volumes and there is an emphasis on capacity, it is suggested that the path widths shown in Figure 5.4 and Figure 5.5 be used.

Figure 5.4: Path widths for a 50/50 directional split



* Indicates that the 1.5 m footpath width is the low use minimum only and is not appropriate at higher pedestrian volumes.

Notes: The chart is not to be used for pedestrian paths only.

In this guide, the term pedestrian path is used for a footpath.

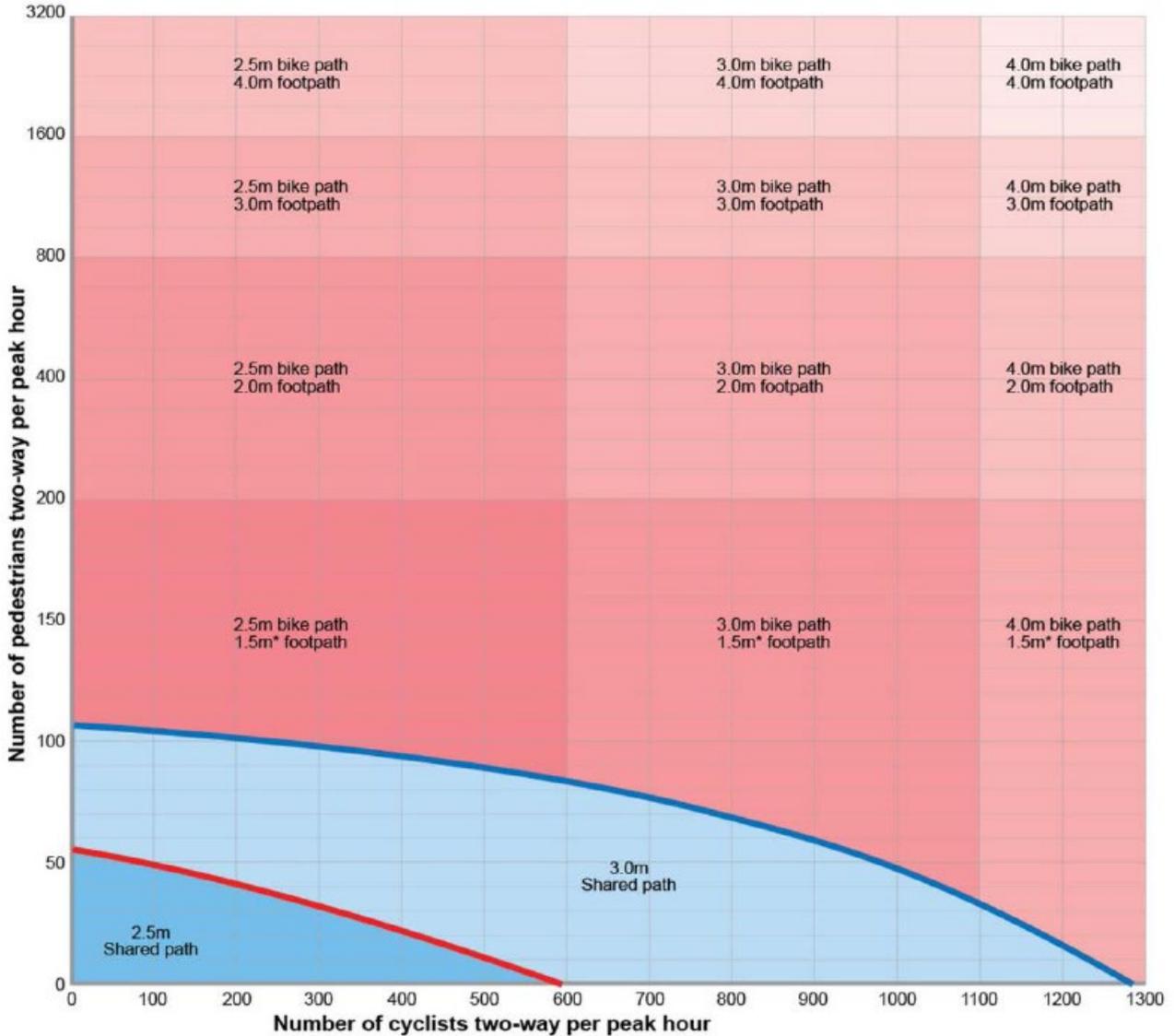
Where the path widths are shown for a bicycle path and a pedestrian (footpath) path together, these are separated paths.

A 50/50 directional split is typical for most recreational paths which have high use in both directions.

The directional split refers to the proportion of the total number of path users travelling in each direction, e.g. a 50/50 directional split means that 50% of the total volume of path users travel in each direction.

Source: Queensland Department of Transport and Main Roads (2015a).

Figure 5.5: Path widths for a 75/25 directional split



* Indicates that the 1.5 m footpath width is the low use minimum only and is not appropriate at higher pedestrian volumes.

Notes:

This chart is not to be used for pedestrian paths only.

In this guide, the term pedestrian path is used for a footpath.

Where the path widths are shown for a bicycle path and a pedestrian (footpath) path together, these are separated paths.

A 75/25 directional split (i.e. there is a greater volume of path users in one direction) is typical for most commuter paths which have high peak directional volumes.

The directional split refers to the proportion of the total number of path users travelling in each direction, e.g. a 75/25 directional split means that 75% of the total volume of path users travel in one direction and 25% travel in the opposite direction.

Source: Queensland Department of Transport and Main Roads (2015a).

5.1.4 Shared Paths

Table 5.3 shows suggested widths and acceptable ranges of width for shared paths. The upper limit of the acceptable range in the table should not discourage designers from providing a greater width where it is needed (e.g. very high volumes that may also result in overtaking in both directions).

Alternatively, where there is an emphasis on the capacity of the shared path, it is suggested that the path widths shown in Figure 5.4 and Figure 5.5 can be used.

Table 5.3: Shared path widths

	Suggested path width (m)		
	Local access path	Regional path ⁽³⁾	Recreational path
Desirable minimum width	2.5	3.0	3.5
Minimum width – typical maximum	2.0 ⁽¹⁾ – 3.0 ⁽²⁾	2.5 ⁽¹⁾ – 4.0 ⁽²⁾	3.0 ⁽¹⁾ – 4.0 ⁽²⁾

1 A lesser width should only to be adopted where cyclist volumes and operational speeds will remain low.

2 A greater width may be required where the numbers of cyclists and pedestrians are very high or there is a high probability of conflict between users (e.g. people walking dogs, in-line skaters etc.).

3 May be part of a principal bicycle network in some jurisdictions.

5.1.5 Separated Paths

Table 5.4 and Table 5.5 show suggested widths and acceptable ranges of width for two-way and one-way separated paths respectively. However, where it is appropriate designers may provide a greater width than the typical maximum shown in the tables and Figure 5.4 and Figure 5.5 can be used.

Table 5.4: Separated two-way path widths

	Suggested path width (m)		
	Bicycle path	Pedestrian path	Total
Desirable minimum width	2.5	2.0	4.5
Minimum width – typical maximum	2.0– 3.0	≥ 1.5	≥ 4.5

Table 5.5: Separated one-way path widths

	Path width (m)		
	Bicycle path	Pedestrian path	Total
Desirable minimum width	1.5	1.5	3.0
Absolute minimum width	1.2 ⁽¹⁾	≥ 1.2	≥ 2.4

1 A minimum width of 2.0 m is required where passing within the cyclists' path section occurs or where it is desirable that passing manoeuvres by cyclists occur outside of the pedestrian path section of the facility.

5.2 Bicycle Operating Speeds

Bicycle operating speeds on paths are influenced by a combination of human and other factors, including:

- the type of bicycle
- purpose of the trip (e.g. commuting, riding to gain fitness including group riding)
- age, confidence and level of fitness of the cyclist
- condition of surface
- alignment standard of the facility
- gradients
- widths
- path user volumes
- prevailing weather conditions.

It is important to recognise that under appropriate conditions many fit cyclists can maintain relatively high speeds. Speeds in excess of 35 km/h can be maintained on the flat while speeds of over 50 km/h can be attained on moderate gradients.

It is recommended that paths be designed for a speed of at least 30 km/h (Shepherd 1994) wherever possible and desirable given the purpose of the path, and in other cases for the anticipated operating speeds⁴. However, it should be recognised that it may be necessary to adopt higher or lower design speeds in specific circumstances. For example, it is desirable to provide a high standard curve at the bottom of a steep downgrade but designers may be forced to adopt tight curves in providing a path down the face of an escarpment. In such circumstances the potential hazard should be appropriately highlighted (e.g. adequate sight distance, delineation and warning signs).

Where it is considered necessary to moderate the speeds of cyclists, such as at entry points and areas shared with pedestrians, physical treatments may be necessary to moderate cyclist speeds, refer to Appendix B.

There may also be locations where high bicycle speeds cannot be moderated and in these locations consideration should be given to providing a separate pedestrian path.

5.3 Horizontal Curvature

Where a path location or alignment is not constrained by topography or other physical features, a generous alignment consisting of straights and large radius curves is desirable. Such an alignment will provide good sight lines that are essential for safety as well as a pleasant riding experience for cyclists.

While the anticipated type of use is a factor for consideration, the fact that a path is provided primarily for recreational use does not remove the need for a good alignment; nor should it encourage designers to provide tight curves to achieve what they consider to be a visually pleasing alignment. Many recreational cyclists travel at relatively high speeds and the radii of curves should be chosen to cater for the expected operating speed on the particular section of path. In addition, tight curves should not be provided to improve visual amenity because:

- Pedestrians and cyclists are likely to cut across to the opposite side of the path, increasing the likelihood of path user conflict.
- There will be a subsequent requirement to treat the area on the inside of curves at additional cost in order to constrain cyclists and pedestrians to travel along the inadequate alignment.

The minimum horizontal radii shown in Table 5.6⁵ should be used where a flat surface is used and it is not possible or desirable to provide superelevation. Table 5.7 shows the minimum radii that should be used in combination with superelevation. However, AS 1428.1:2009 requires that the crossfall on a path used by pedestrians should not exceed 2.5% (i.e. 1 in 40). Therefore, it follows that the minimum radii used on shared paths should be no less than those shown in Table 5.7, corresponding to a superelevation of 2.5%. It also follows that the values from Table 5.7 for a superelevation greater than or equal to 3% should only be used on exclusive bicycle paths. From a cyclist's perspective curves should generally have positive superelevation so that they can be comfortably negotiated.

Where practicable designers should not design for the minimum radius as tight curves can result in sight distance restrictions, a poor level of service and some cyclists choosing an informal alternative path to avoid the restriction. Exceptions include locations where the alignment is severely constrained (e.g. steeply sloping land) and smaller radii cannot be avoided. However, isolated tight bends that do not have preparatory approach geometry should be avoided as at night, in an unlit environment, curve warning signage may not be visible with bicycle lights.

4 The operating speed should not be confused with the design speed. The design speed is the speed adopted for the design of the path. The operating speed is the speed at which cyclists adopt in travelling along the path.

5 The radius of the horizontal curves shown in Table 5.6 and Table 5.7 have been determined using the horizontal curve equation that can be found in *Guide to Road Design Part 3: Geometric Design* (Austroads 2016b).

It is acknowledged that a curvilinear alignment is often preferred to achieve a visually pleasing path for cyclists. However, minimum radius or sharp curves should not be used to achieve landscaping objectives to the detriment of the level of service and social safety for cyclists on any path that has a commuter, major recreational or utility function.

Table 5.6: Minimum radius of horizontal curves without superelevation

Design speed (km/h)	Minimum radius (m)
20	10
30	25
40	50
50	94

Note: Based on zero superelevation and friction factors of 0.31, 0.28, 0.25 and 0.21 for speeds of 20, 30, 40 and 50 km/h respectively.

Table 5.7: Minimum radius of horizontal curves that have superelevation

	Superelevation (%)				
	2	3	4	5	6
Speed (km/h)	Minimum radius (m)				
20	10	9	9	9	9
30	24	23	22	21	21
40	47	45	43	42	41
50	86	82	79	76	73

Notes:

Based on friction factors of 0.31, 0.28, 0.25 and 0.21 for speeds of 20, 30, 40 and 50 km/h respectively.

For intermediate values of superelevation the horizontal curve equation found in Guide to Road Design Part 3: Geometric Design (Austroads 2016b) can be used.

Table 5.6 and Table 5.7 apply to bicycle paths and shared paths, however the application of superelevation on a shared path needs to consider the suitability of the crossfall for pedestrians, refer to Section 5.6.1.

5.4 Path Gradients

As a general principle longitudinal gradients on paths for cycling should be as flat as possible. The potential hazard for cyclists due to high speeds on steep downgrades is as important as the difficulty of riding up the grade when determining maximum gradients on two-way paths.

AS 1428.1:2009 and AS 1428.2:1992 have specific requirements for pedestrians, including wheelchair users, and require level rest areas at a specific spacing (see Table 5.8). While these standards were developed for pedestrian and wheelchair access to buildings and premises there is a need to consider their requirements with respect to the design of pedestrian inclusive paths. Where it is considered appropriate to provide compliant path gradients and flat landings the requirements of AS 1428.1 – 2000 should be incorporated into the path design.

Designers should consult any jurisdictional guidelines; however, in the absence of such guides the following approach is suggested:

- Where a path is proposed for a relatively short transverse pedestrian/cyclist overpass (e.g. across a road, creek or railway), it may be appropriate for it to be a shared path. For a shared path, the ramps should be provided with landings at a spacing that complies with AS 1428.1:2009. However, because these landings result in a reduction in cyclist comfort and convenience they may only be acceptable to cyclists if used over a relatively short length.
- Where a gradient that requires landings under AS 1428.1:2009 is proposed on a path (including a longitudinal path on a road bridge) that has to provide for ramps greater than 200 m in length, the provision of standard landings may present an inconvenience or hazard for cyclists, particularly those travelling downhill. If there is a need for pedestrian landings in this situation they should be provided on a separated facility or outside the shared path, on both sides.

5.4.1 Universal Access

Where the topography of the road or area where a path is to be located does not allow path grades to meet the requirements of AS 1428.1:2009, designers, in Australia, may refer to the Australian Human Rights Commission's Advisory note on streetscape, public outdoor areas, fixtures, fittings and furniture (Australian Human Rights Commission 2013).

5.4.2 Ease of Uphill Travel

Figure 5.6 shows the maximum lengths of uphill gradient acceptable to cyclists. The figure is based on a review of the ease of uphill travel (Andrew O'Brien & Associates 1996).

In using the figure designers should understand that:

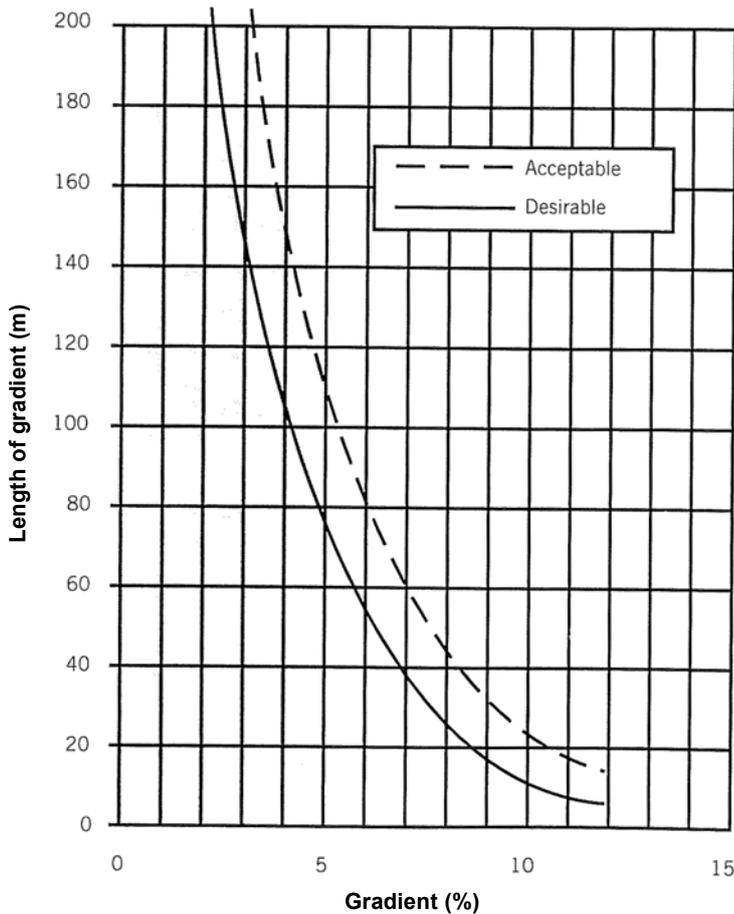
- Above 3% the acceptable length reduces rapidly and it is considered this is the desirable maximum gradient for use on paths. However, in practice there are cases where it is not feasible to achieve a 3% maximum and the designer has no choice but to adopt a steeper gradient.
- In cases where 3% cannot be achieved consideration should be given to limiting gradient to a maximum of about 5% and providing short flatter sections (say 20 m long) at regular intervals to give cyclists travelling both uphill and downhill some relief from the gradient.

It is sometimes difficult to achieve these gradients where a path follows streets with driveways or a creek or river and a connection between paths must be achieved in the vicinity of a steep escarpment. It should also be noted that a long, uphill grade preceded by a downgrade is more acceptable than one preceded by a flat or slightly rising grade.

For uphill gradients consideration should also be given to:

- cyclist speeds on approach to an uphill section
- exposure to wind
- width of path – where the recommended gradient cannot be achieved it may be desirable to widen the path to cater for slower cyclists to be passed, the sideways displacement of bicycles being ridden uphill, or to allow for cyclists walking side by side.

Figure 5.6: Desirable uphill gradients for ease of cycling



Notes:

Gradients and the associated length would normally be based on the distance between the tangent points for an isolated steep section. However, where there are consecutive grades of varying steepness (all uphill) or large radius vertical curves, these should be calculated based on the intersection points of the respective vertical curves.

In general, the 'acceptable' line in the figure would be satisfactory for paths with a high proportion of regular or physically fit cyclists, which in most instances would include commuter and sporting cyclists. Otherwise, the 'desirable' line in the figure is recommended.

Source: Based on a review by Andrew O'Brien and Associates (1996).

5.4.3 Safety and Downhill Travel on Paths

Gradients steeper than 5% should not be provided unless it is unavoidable. It is most important that sharp horizontal curves or fixed objects do not exist near the bottom of hills, particularly where the approach gradient is steep (greater than 5%) and relatively straight. If a curve must be provided at the bottom of a steep grade then consideration should be given to providing additional path width, and a clear escape route or recovery area adjacent to the outside of the curve.

Many cases where gradients are in excess of 5% occur on the approaches to grade-separated facilities (e.g. underpasses) and in these situations the provision of widened paths or clear escape routes is not practicable. In these cases adequate sight distance should be provided together with appropriate delineation and warning signs.

There may be existing bicycle facilities that have gradients which require riding skills beyond inexperienced and young cyclists when they are riding down the grade. As a guide, a gradient greater than 10% over 50 m with horizontal curves or a gradient of 12% over 50 m on a straight path should be avoided. Steep grades must not be combined with sharp horizontal curvature (i.e. curves < 20 m radius).

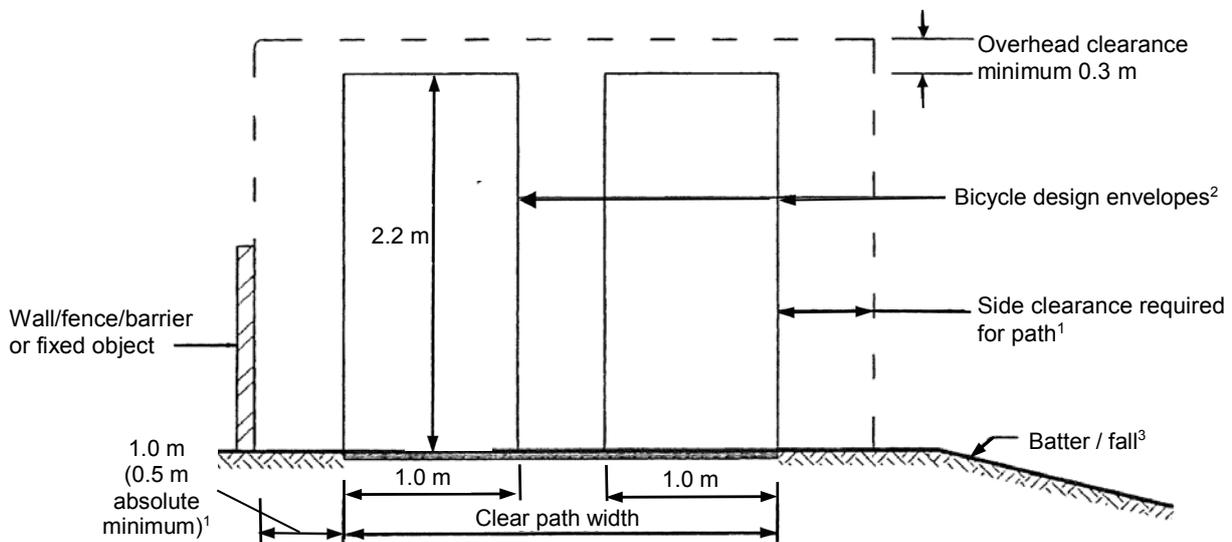
Intersecting paths, underpass access points and other circumstances that may result in conflict for cyclists should not be provided at the bottom of steep grades, except where there is no alternative. If an intersection must be provided then it is important that adequate sight distances are provided on all approaches.

5.5 Clearances, Batters and Need for Fences

5.5.1 Clearances

The clearances (Figure 5.7) may be used to construct the appropriate width of the facility required for paths that cyclists use. The envelope based on Figure 3.5, is assumed to be consistent over the range of operating conditions and allowance for higher speeds is provided through larger clearances to other cyclists and fixed objects beside the path.

Figure 5.7: Clearances between cyclist envelope and potential path hazards



1 This may be reduced to 0.3 m where a fence or obstacle has smooth features.

2 Refer to Section 3.2.2 for guidance on bicycle design envelopes.

3 Refer to Section 5.5.3 for guidance on batters and need for a fence.

5.5.2 Bicycle paths

It is important for safe operation that adequate clearance is provided between bicycle operating spaces for cyclists travelling in opposite directions and between the cyclist operating spaces, and potential hazards beside paths (e.g. fixed objects, vertical drops, steep batters).

The clearance between cyclist operating spaces varies according to the type of use and operating speeds as follows:

A minimum lateral clearance of 1.0 m is required between opposing bicycle operating spaces where the path caters for higher speeds e.g. 30 km/h, because of the high relative speed which exists when cyclists approach one another from opposite directions (e.g. closing speed of 60 km/h).

On paths where the speeds of cyclists are not likely to exceed 20 km/h a minimum lateral clearance of 0.5 m is necessary between opposing bicycle operating spaces.

Consideration should be given to the provision of a centreline on all two-way paths that have a minimal clearance between opposing flows in order to provide guidance and certainty regarding the opposing travel path.

The following guidelines should be applied for clearances between the cyclist operating spaces and potential hazards beside paths:

- Where the areas beside the path and the path alignment are both relatively flat a lateral clearance of at least 1.0 m (0.5 m absolute minimum) should be provided between the edge of any path for cycling and any obstacle, which if struck may result in cyclists losing control or being injured. However, on high-speed paths it is most desirable to have a clearance considerably greater than 1.0 m. This is particularly important on small radius horizontal curves where cyclists may lean in when travelling around the curve.
- Where it is considered that an obstacle or hazard beside the path has attributes that could cause serious injury to cyclists (e.g. sharp surfaces such as the rear side of the posts and rails of steel W-beam road safety barrier), designers should assess the risk of cyclists losing control on the particular section of path, and consider either increasing the lateral clearance or shielding cyclists from the hazard. Depending on the situation a rub rail behind the posts or a cyclist fence near the edge of the path could be provided.
- Where a vertical drop or a steep batter exists or must be provided adjacent to the path the guidance in Section 5.5.2 should be applied.

Obstacles beside paths include bushes, culvert end walls, trees and large rocks used in landscaping. Provided the design and end treatments are appropriate, or where extenuating circumstances exist, a lesser clearance may be acceptable for fences and other obstacles that have smooth features and are aligned parallel to the path (0.3 m absolute minimum).

These horizontal clearances are partially illustrated in Appendix A.

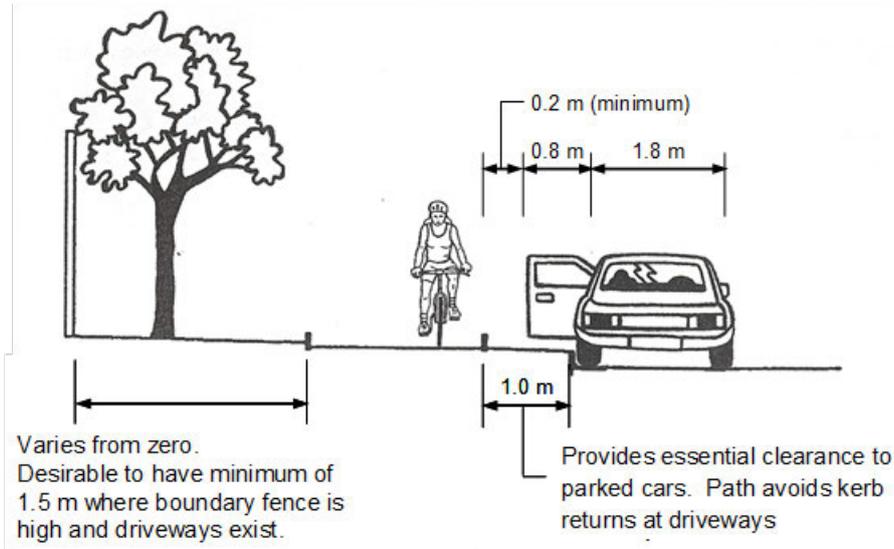
In urban arterial road related areas it is recommended that where practicable paths are to be located with adequate clearance from both road traffic and the property line so that adequate sight distance is achieved for vehicles and pedestrians leaving driveways and gateways (Figure 5.8). A related consideration is that a path too far from the adjacent carriageway may decrease the likelihood of path users being seen because they are outside the peripheral vision of turning drivers. Wider clearances or physical barriers, including low profile landscaping, may be appropriate where:

- the kerbside lane is heavily trafficked
- high speed limits exist (e.g. 80 km/h and above)
- children on bicycles or inexperienced cyclists regularly use the path.

For this reason it is recommended that where practicable, paths in urban arterial road related areas be located with adequate clearance from both road traffic and the property line so that adequate sight distance is achieved for vehicles and pedestrians leaving driveways (Figure 5.8).

In addition, it is necessary for the path to be located with sufficient distance from the kerb that it enables driveways to be formed without adversely affecting the profile of the path, necessary road furniture to be located near the kerb and errant cyclists to recover without encroaching onto the road. However, where the only option is for the path to be located close to the kerb, consideration should be given to extending the path to the roadside as a sealed shoulder in order to avoid maintenance where it is difficult to access with machinery.

Figure 5.8: Location of path in road reserve



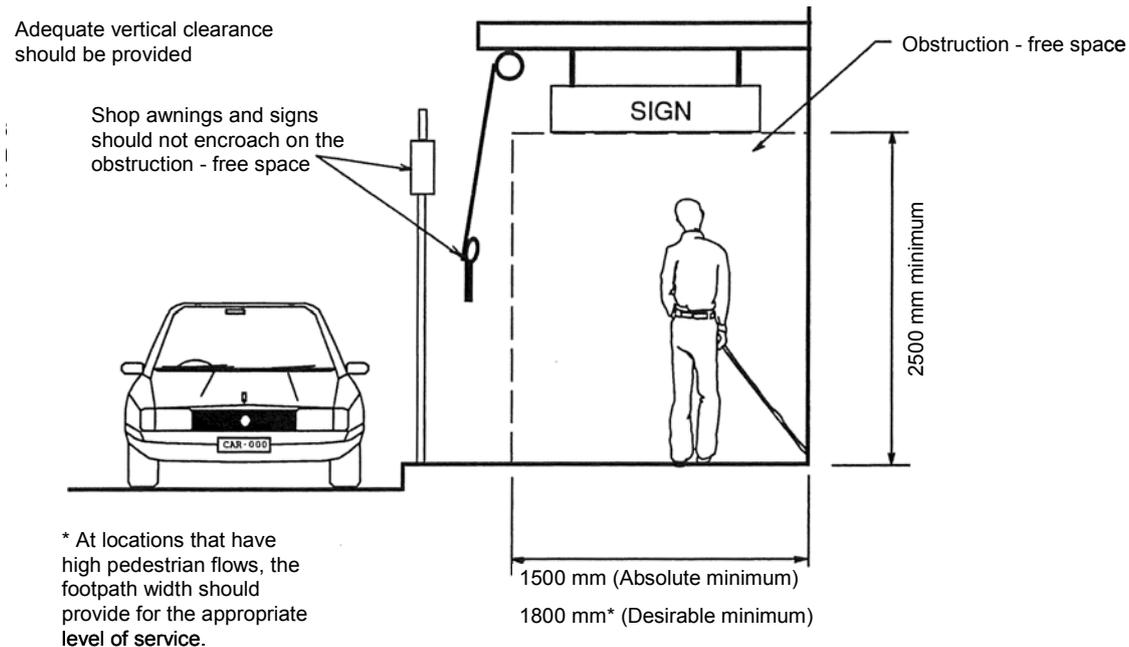
Note: Further information on path locations in road related areas is contained in Section 4.2.1.

Pedestrian path vertical clearance

An adequate vertical clearance should be provided over the full width of the pedestrian path, completely free of overhanging projections and obstructions (Figure 5.9). Clause D2.3.5 of AS 1742.2:2009 requires that the vertical clearance to a sign that overhangs a footway or bicycle path is no less than 2.5 m.

For urban areas AS 1742.2:2009 (Clause D2.3.5) requires a minimum vertical clearance to a sign of 2.0 m above the top of the kerb to prevent obstruction to an occasional pedestrian. It is considered that this should be interpreted to mean a sign that is located outside of the limits of the path and recommended clearances. It should be noted that AS 1428.2:1992 also requires a minimum vertical clearance of 2.0 m to fixtures and fittings to buildings (e.g. lights, awnings, opening windows) and that this is a minimum provision. Some municipalities require trees overhanging pedestrian paths to be trimmed to a clearance of 3.0 m.

Figure 5.9: Envelope of height requirements



Note: The vertical clearance to an obstruction (e.g. sign), shown as 2500 mm, is required by AS 1742.2:2009.

Bicycle path vertical clearance

The minimum vertical clearance required by cyclists is 2.5 m, (i.e. 0.3 m above the cyclist design envelope) measured above the riding surface (Figure 5.7). This applies to tree branches, underpasses, doorways, sign structures and any other overhead structure. Where it is absolutely necessary to use the minimum clearance (e.g. at sites where space is constrained and the achievement of a greater clearance would have significant implications regarding the cost of a facility or impacts on other infrastructure) the designer should obtain the agreement of the relevant authority/agency.

5.5.3 Batters and Fences

General

The installation of a fence at the side of a path used by cyclists is desirable where:

- there is a steep batter or large vertical drop located in close proximity to the path
- the path is adjacent to an arterial road and it is necessary to restrict cyclist access to the road
- a bridge or culvert exists on a path
- a hazard exists adjacent to a particular bicycle facility
- cyclists are likely to be 'blazing a separate trail' at an intersection between paths or around a path terminal.

Fences may also be needed where the path geometry, e.g. a downhill grade followed by a sharp curve in the path may be a location where cyclists misjudge the speed the curve can accommodate and run off the path. In these locations a recovery area is needed for the cyclists if they travel off the path and the criteria in Figure 5.10 may not be appropriate. Treatments in these situations should be guided by a risk assessment.

There may be some locations where a treatment such as a vegetation fence could be used. Depending on the severity of the hazard (as determined from a risk assessment) the provision of dense shrubbery that prevents cyclists from reaching a hazard may be suitable.

Steep batter or vertical drop

Figure 5.10 provides a specific recommendation for the provision of a fence on a path in close proximity to a steep batter or vertical drop. In addition to those referred to in the figure, other circumstances may exist where it may be desirable to erect fences even if provision is not required by the figure (e.g. a curving path alignment, located in the vicinity of batters or a drop-off, bridges).

Figure 5.10 highlights the circumstances in which either a partial barrier fence (Figure 5.11), or a full barrier fence (Figure 5.12) or equivalent form of protection should be used. These barriers are intended to prevent access to a slope or to a fall away from a path or other riding surface, where injury might otherwise be expected in the event of a cyclist riding inadvertently off the line of a path. Examples of these fences are provided in the *Guide to Road Design Part 6B: Roadside Environment* (Austroads 2015b).

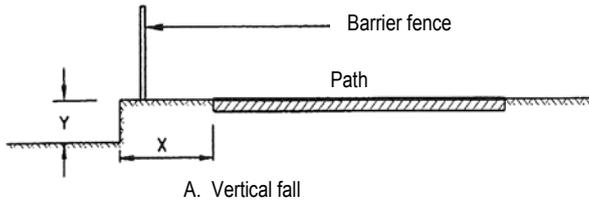
The minimum height of a fence should be 1.2 m (Figure 5.11 and Figure 5.12) and should be used only where the severity of the hazard is considered to be low. A higher fence ≥ 1.4 m, should be considered where the fence is protecting path users from a very severe hazard (e.g. high vertical drop from a structure to a body of water or rocks) or at a location where there is a risk of cyclists being vaulted off their bicycle if they collide with the fence, such as on a sharp curve following a steep downhill grade. The fence heights suggested should be verified by a risk assessment for each location that considers the type of hazard and its location near the path.

After determining what type of barrier fence is required, care must be taken in selecting the form of either partial or full barrier fencing so to not cause a hazard to cyclists. Where barrier fencing is provided directly adjacent a path with vertical components or balusters, consideration should be given to including a cyclist deflection rail (Figure 5.12). Cyclists deflection rails are design to enable a cyclist to deflect off the smooth horizontal rail striking the rail between the cyclists shoulder and elbow (i.e. between 1.2 m and 1.4 m from path surface) so that handlebars (typically 1.0 m from surface level) do not get caught in the vertical components of the fence. Infill panels as show in Figure 5.12 may also be considered as an alternative to deflection rails so to remove the hazard of vertical components of a barrier fencing however care must be taken to not restrict sight lines (Section 5.7). The infill panels of a fence should also have a fine weave mesh or similar to prevent bicycle wheels from being trapped or catching in the fence panel.

The terminal treatment of the fence also needs to be considered to avoid it being a hazard to cyclists. An example of a terminal treatment which has been flared away from the line of the rail to reduce the likelihood of a cyclist colliding into the end of the rail is shown in Figure 5.13.

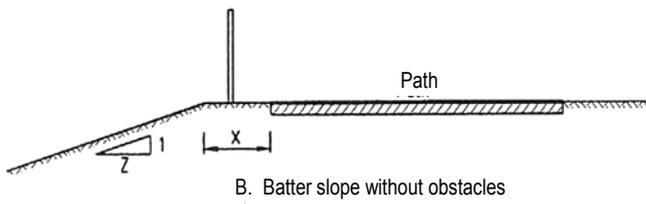
Similar or even more stringent measures may be required adjacent to roads. Where a batter or fall is located in close proximity to a road, designers should have regard for the requirements of Figure 5.10, particularly where no kerb exists at the edge of a road. However, the measures required should be decided upon with consideration of all road users and of the particular circumstances

Figure 5.10: Requirement for fence barriers at batters and vertical drops

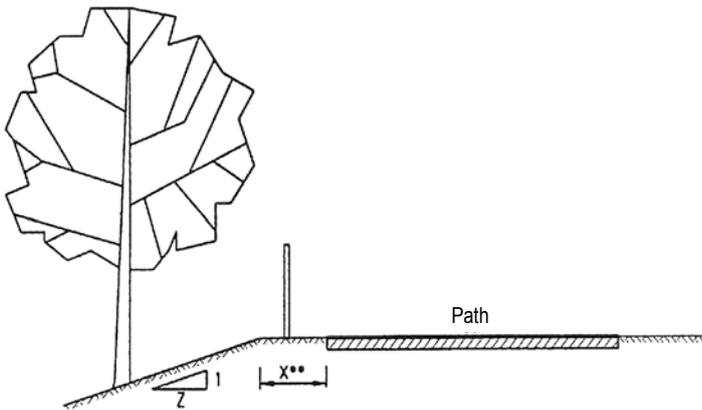


	X (m)	Y (m)
Fence not required*	<2	<0.25
Partial barrier fence required	<5	0.25 to 2
Full barrier fence required	<5	>2

* Batter off the surface where fall is within 1 m of path.



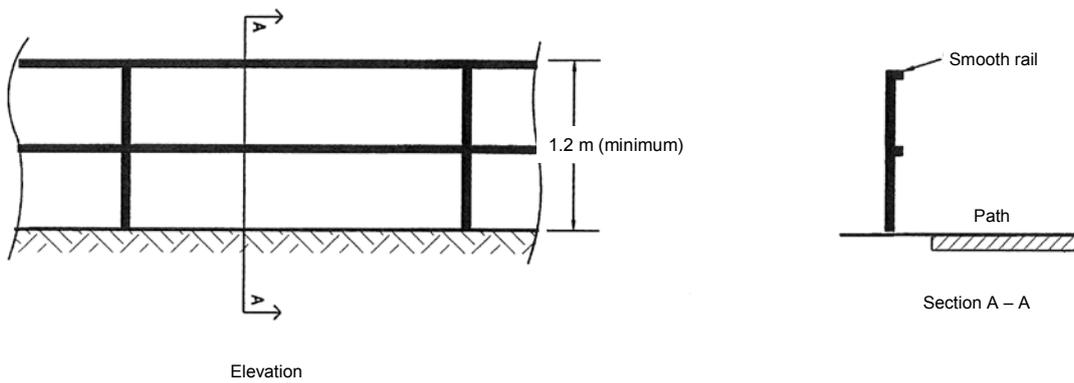
	X (m)	Z (m)
Fence not required	<1 1 to 5	>8 >3
Partial barrier fence required	<5	1 to 3
Full barrier fence required	<5	<1



	X (m)	Z (m)
Fence not required	<1 1 to 5	>8 >4
Partial barrier fence required	<5	3 to 4
Full barrier fence required	<5	<3

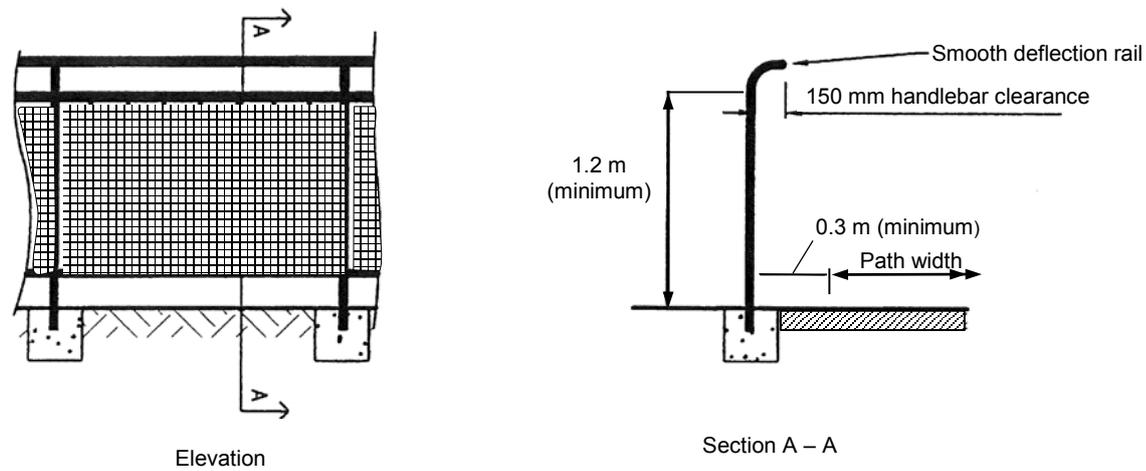
** Barrier fence required if obstacle within 1 m of path.

Figure 5.11: Example of a partial barrier fence



Notes: Any fence placed in road-related area should also be assessed for roadside suitability.

Figure 5.12: Example of a full barrier fence



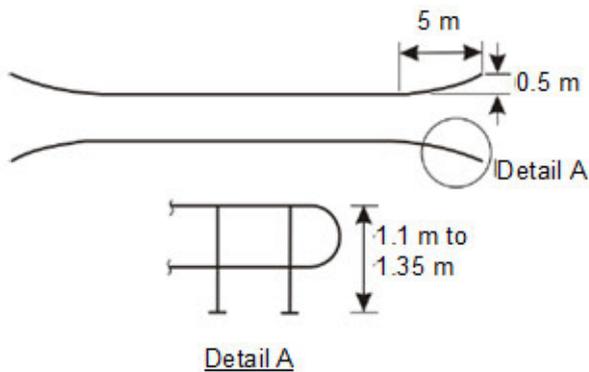
1 This may be reduced to 0.3 m where a fence has smooth features.

Notes:

Cyclist deflection rails should be placed between 1.2 m and 1.4 m above path surface so that cyclists are able to use the part of the arm between the shoulder and elbow to glance against the smooth longitudinal rail. This prevents the cyclist handle bar located approximately 1.0 m above the path surface from being caught in the vertical components of the fence.

Any fence placed in road related area should also be assessed for roadside suitability.

Figure 5.13: Example of flared bicycle rail terminal



Source: Queensland Department of Transport and Main Roads (2015a).

5.6 Crossfall and Drainage

5.6.1 Crossfall

Water ponding on paths has a significant impact on the level of service provided to cyclists as spray leads to grit on both bicycle and rider and pedestrians, who may have to travel off the path to avoid the ponded water. On straight sections crowning of the pavement is preferable as it results in less accumulation of debris. On sealed surfaces a crossfall of 2–4% should be adequate to effectively dispose of surface water whereas unsealed surfaces may require 5% to prevent puddles of water from developing.

The crossfall of a paved pedestrian path may vary from flat (but achieving an adequately drained surface) to 2.5%. Provided that drainage is satisfactory, a lower crossfall is preferred (i.e. 1.0%) as a higher crossfall may cause problems for some people. Where paths are for pedestrian use or shared use, the needs of other path users (e.g. mobility impaired pedestrians) should be considered. In particular, AS 1428.1:2009 specifies that a path crossfall should not exceed 2.5% (1 in 40) or 3.3% (1 in 33) if the path has an asphalt surface.

A two-way crossfall on a path with a central crown, may provide an opportunity for wheelchair users to obtain relief from one-way crossfalls.

Section 5.3 provides information on the horizontal radius of curves and the corresponding superelevation that is required. With reference to Table 5.7 there is limited value in using higher rates of superelevation, and as such it is generally preferable to use a low path crossfall and thereby accommodate the needs of a range of path users.

5.6.2 Drainage

Paths should be constructed so that water does not pond on the surface and debris does not wash onto the path during heavy rain. The path should therefore have adequate crossfall and catch drains to collect water and prevent water and litter from flowing onto the path. In flat terrain it may be adequate to simply elevate the path above the adjacent land, but designers should ensure that the path shoulders are matched to the path surface level and graded with a suitable crossfall (preferably on a slope flatter than 1 in 8).

Catch drains will often be required on the inside of curves and pipes will often be needed to carry water under the path. On large radius curves (e.g. 100 m) an adverse superelevation of 2% may be provided to avoid the need for the catch drain and pipes. However, this should only be done where the catchment area above the path is relatively small and has a surface stable enough that debris is unlikely to wash over the path. Figure 5.14 shows typical cross-sections and drainage requirements of paths for cycling.

Regional paths should be designed for an equivalent flood immunity as that adopted for local roads unless suitable safe alternative routes can be easily accessed from the path. Regional paths that follow watercourses will have to satisfy the requirements of the responsible drainage authority. For most regional paths adjacent to freeways and arterial roads, an average recurrence interval of at least five years should be adopted whereas a two-year average recurrence interval should be satisfactory for paths that have a lesser function and/or have readily accessible alternative routes. In addition, for safety of path users, the water flow depth and velocity need to be assessed, refer to *Australian rainfall and runoff: revision project 10: appropriate safety criteria for people: stage 1 report*, (Engineers Australia 2010).

Where sections of a path are likely to be subjected to inundation (e.g. along a linear trail adjacent to a watercourse, less important routes) it is important that signs should be erected to warn users of any risk (e.g. flooding, slippery surface after inundation, accumulation of debris on the path) and that maintenance measures are in place to assist cyclists and pedestrians (e.g. well-signed detours, barricades). In such situations the drains should be designed to minimise the likelihood of blockages and the consequent ponding of water at low points in the alignment.

Where paths have to pass under the abutments of structures and headroom is limited, necessitating the level of the path being below the flood level, it may be possible to construct a flood wall between the path and the river to hold back water during minor flood events. In extreme conditions the water can overtop the wall and flow along the path.

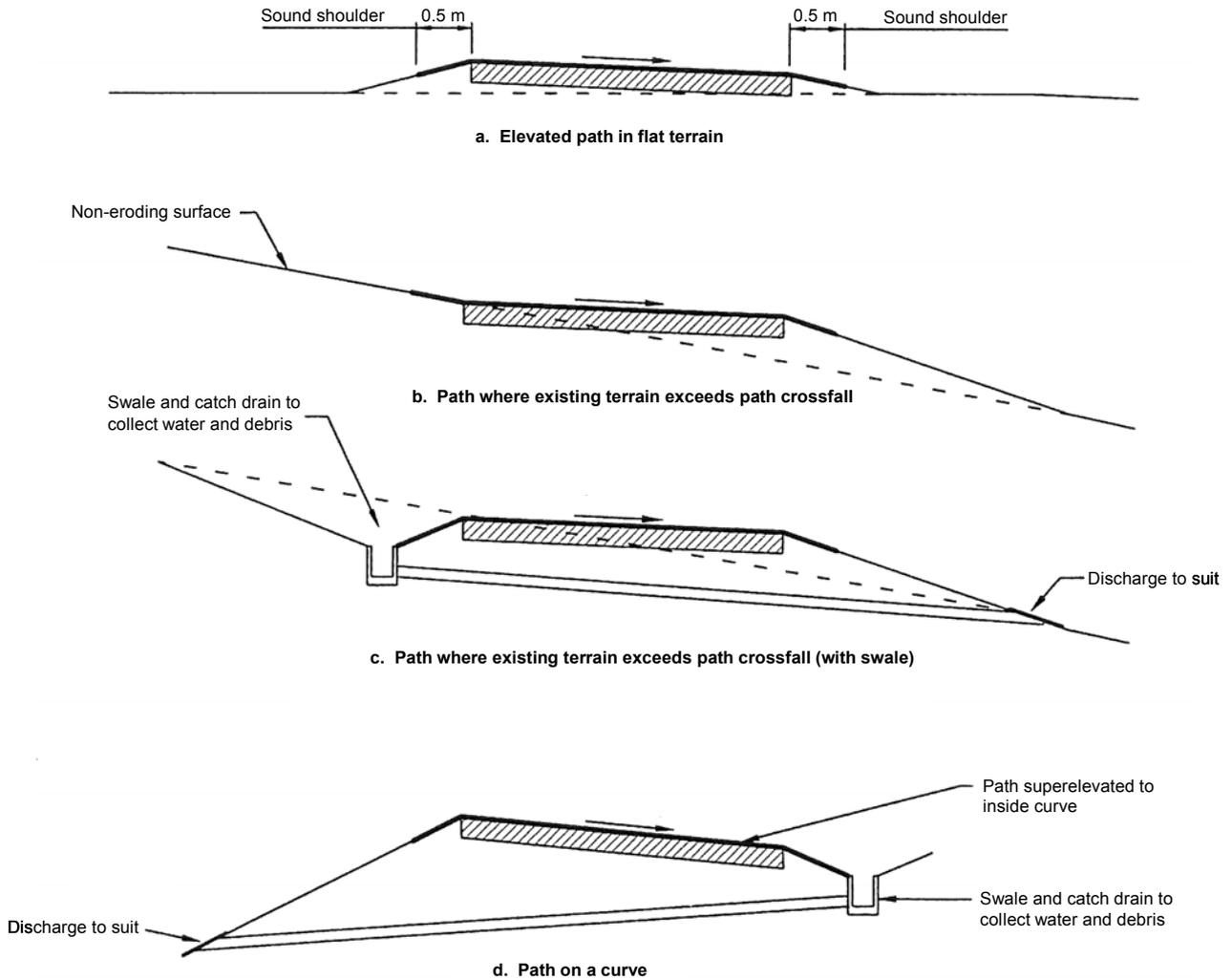
Designers should also:

- check to ensure that water follows minimal flow-path distances on the path surface
- consider potential problems of water flowing either from the path or other sources, through landscaped areas, to deposit debris over the path surface
- consider the use of fencing or other treatment details that trap debris so that it accumulates clear of the path edge
- ensure that drains are of an adequate size to avoid them being blocked by roadside litter.

The same principles that are applied in the design of road cross-sections should be used in the design of path cross-sections, namely the need to prevent water from flowing across the path, flooding the path or causing damage to the pavement. Figure 5.14 shows four typical cross-sections that are used on regional paths and that illustrate these principles:

- Example a shows a path in flat terrain where the pavement is elevated above the natural surface and water is shed into the flat areas beside the path where it can flow to an outlet.
- Example b shows a case where a path is located on a cross-slope with the pavement cut into the high side so that the surface is coincident with the natural surface. This approach is not generally satisfactory as water and possibly debris would be shed across the path and water could seep into and cause damage to a flexible pavement on the high side. Consequently, this option should only be used where the upper 'non-eroding surface' has a porous, free-draining sub-surface such that run-off (regardless of the extent of debris) does not encroach onto the path; otherwise Example c should be used.
- Example c illustrates the provision of an open drain on the high side of the path to cut off water and carry it to a discharge point, possibly via pits and lateral pipes. In this case water from the path is shed to the low side.
- Example d again shows a path on a cross-slope but with the path on a curve and superelevated toward the high side. In this case the open drain collects water from the path and the high side of the path.

Figure 5.14: Drainage and crossfall requirements



Note: For guidance on swales and catch drains, refer to Guide to Road Design Part 5B: Drainage: Open Channels, Culverts and Floodways (Austroads 2013b).

5.7 Sight Distance

For safe travel pedestrians and cyclists must be able to see other approaching path users. Locations where the available sight distance is needed to be assessed are at structures, such as:

- at intersections of paths
- across the inside of horizontal curves
- at the top and bottom of stairways
- under overhead obstructions
- culvert entries and exits
- in sag curves (e.g. where a path passes under a road) and over vertical crest curves.

The available sight distance needs to enable path users to stop or take evasive action if necessary in order to avoid another cyclist, pedestrian, or an obstacle in their path.

5.7.1 Bicycle Path Stopping Sight Distance

The stopping sight distances that should be provided to enable a cyclist to stop for various combinations of bicycle design speeds and gradients can be determined using Equation 1. Equation 1 is based on a perception/reaction time of 2.5 seconds, an eye height of the cyclist is assumed to be 1.4 m and the object height is assumed to be zero to recognise that impediments to bicycle travel exist at pavement level (e.g. potholes or stones). The coefficient of friction varies and typically is 0.32 for dry conditions and 0.16 for wet conditions (AASHTO 2012).

$$S = \frac{V^2}{254 \times (f \pm G)} + \frac{V}{1.4} \quad 1$$

where

- S = stopping sight distance (m)
- V = speed (km/h)
- f = coefficient of friction (typically 0.16 for a bicycle in wet conditions)
- G = grade of path (+ for uphill and – for downhill)

Paths should be designed and constructed to provide the greatest sight distance possible at any given location.

The stopping sight distance to be used in the geometric design of paths should be at least equal to that determined from Equation 1, and should be used:

- for intersection design
- in setting out the alignment of paths
- in relation to the positioning of terminals and handrails
- at entries to underpasses
- to locate landscaping in the field
- otherwise as required to ensure the safety of path users.

All two-way bicycle paths should be designed to provide a sight distance between opposing cyclists (i.e. as shown across a horizontal curve in Figure 5.15) at least equivalent to twice the stopping sight distance determined from Equation 1. This is to ensure that cyclists who are overtaking can avoid a head-on collision.

Path sight distances can be drastically reduced by the growth of vegetation and hence the location and maintenance of vegetation is critical to safe path operation.

Figure 5.15 illustrates the relationship between stopping sight distance, radius of the curve and the lateral clearance to enable clear visibility of obstructions such as extensive vegetation or an earth embankment. Isolated features including trees do not necessarily constitute a significant obstruction if cyclists can see most of the curve beyond them.

While the graph is provided for use by designers, it is suggested that it, or a simple tabular representation, should be supplied to works staff to be used in construction and routine maintenance operations.

Where a path has a change in grade, a vertical curve should be incorporated to provide a smooth transition between the grades. Crest vertical curves must be of sufficient length to give the cyclist the stopping sight distance as determined from Equation 2 (AASHTO 2012). Where practicable, sag curves should be the same length as equivalent crest curves to ensure comfort and an aesthetically pleasing path alignment.

$$\text{For } S > L, L = 2S - \frac{200 \times (\sqrt{h_1} + \sqrt{h_2})^2}{A} \quad 2$$

$$\text{For } S < L, L = \frac{A \times S^2}{100 \times (\sqrt{2} h_1 + \sqrt{2} h_2)^2}$$

where

- L = minimum length of vertical curve (m)
- A = algebraic grade difference (%)
- S = stopping sight distance (m)
- h_1 = eye height (m) (1.4 m typical for a cyclist)
- h_2 = object height (m)

5.8 Changes in Level

Changes in level, such as at kerbs, have to be designed to allow pedestrians and cyclists to move safely and efficiently along the road or path network. Factors relating to changes in level for pedestrians and treatments are summarised in Table 5.8.

Wherever practicable, a high level of service should be provided for pedestrians with respect to convenience and safety. As a general principle the dominant flow should claim priority and maintain a level surface. In situations where the volume of pedestrians and vehicles is high and the speed environment is relatively low it may be appropriate to allow pedestrians to have priority and cross the road without a change in level (i.e. not have to use ramps). This will not only reduce trip hazards for pedestrians but will also reduce vehicular speeds at the conflict points. However, where this type of treatment is installed it will require the use of formal crossings (e.g. pedestrian crossing with regulatory signs, pedestrian signalised crossing), to establish priority for pedestrians.

In locations where there is a low volume of vehicles on the side street and very few heavy vehicles, a continuous pedestrian path treatment could be used to provide priority to pedestrians. This treatment extends the pedestrian path across the road pavement on the same grade and without any colour or texture change. Further information on this type of treatment can be found in Roads and Maritime Services (2013).

Where a path crosses a property access driveway, the path should have a continuous grade across the driveway and preferably, the same crossfall as the path. Where property access cannot be achieved without altering the level or crossfall of the path, such as at a constrained site, the longitudinal grade on the path should provide a smooth change in level with relatively small changes in grade or if this is not able to be achieved ramps, similar to kerb ramps leading onto the driveway section of the path should be provided.

Table 5.8: Considerations relating to changes in level

Facility	Considerations
Kerbing and kerb ramps	<ul style="list-style-type: none"> • Level differences between a roadway and an adjacent pedestrian path pose difficulties for pedestrians, particularly those with mobility or vision impairments. • Provide kerb ramps with a smooth change in the level between the pedestrian path and road pavement to allow safe and easy access for pedestrians including people in personal mobility devices and those with a mobility impairment. • Align kerb ramps in the direction of travel to guide pedestrians who are blind or have vision impairment directly across the road and not out into the intersection. • A typical kerb ramp is illustrated in <i>AGRD Part 4</i> (Austroads 2017a). • A minimum pedestrian path width of 1330 mm should be provided beyond the top of the ramp. • A gradient of maximum of 1:8 quoted in AS 1428.1:2009, should be considered as an absolute maximum ramp gradient and only be used in extenuating circumstances. Providing a flatter kerb ramp grade, e.g. 1:10 with tactile ground surface indicators (TGSIs) may provide a smoother transition between the road pavement and the path. Designers should also consult with disability groups on the design of the kerb ramp. • A vertical lip should not be provided at the edge of the drainage channel as it inhibits the free movement of wheelchairs. • Design surface drainage to avoid low points and the accumulation of water where pedestrian crosswalks are to be located. For example, on-road drainage inlets should be placed immediately upstream of ramps to minimise the water that passes through the channel at ramp crossings. • Refer also to AS 1428.1:2009 for guidance regarding the design of kerb ramps.
Steps, stairs and ramps	<ul style="list-style-type: none"> • An abrupt change in level can be a problem for pedestrians particularly for those who have vision impairments and need to be warned of the presence of a kerb, a flight of stairs or a ramp. • Ramps should be provided where possible as an alternative or in addition to steps or stairs that are a barrier to people with disabilities and necessary for people in wheelchairs or with prams. On the other hand some people with impaired mobility cannot use ramps and need shallow steps (AS 1428.2:1992). • Rest areas (i.e. flat sections) should be provided at each change in direction and at intermediate points along ramps to break up long flights. AS 1428.2:1992 suggests that the spacing of rest areas range from 9 m for ramp grades of 1:14 to 15 m for grades of 1:20. This is a most important consideration in the design of overpasses and underpasses. • Provide handrails to assist pedestrians, including those in wheelchairs <ul style="list-style-type: none"> – on both sides of a set of stairs, or steps, or a ramp – wherever people may need support (e.g. continuously around rest areas and changes of direction). • Generally, two rails at different levels will be required to meet the need of both wheelchair users and other groups. • Ensure inter-visibility between the end of stairs or ramps and intersecting pedestrian paths (e.g. sight distance not obscured by a wall) and an area at the foot of the stairs to minimise the risk of collision. • Provide in all areas used by pedestrians (i.e. above stairs or ramps) a vertical clearance (i.e. headroom) no less than 2.5 m unless significant constraints exist. • Ramp surfaces and treads of stairs should be stable, even and slip resistant. • Tactile ground surface indicators (TGSIs) should be provided at the top of stairs and foot of stairs to indicate these hazards. • The provision of seating clear of the walking space should be considered on long ramps. Other features such as observation decks should be considered if the path provides tourist/social opportunities. • Recommended maximum crossfall is 1:40 (AS 1428.1:2009).

Facility	Considerations
Gradients	<ul style="list-style-type: none"> • Australian Standard AS 1428.1:2009 lists requirements for the design of sloped pedestrian paths. • Where the gradient is 1:33 level rest areas 1.2 m long should be provided at not greater than 25 m intervals whereas at 1:20 the interval should not exceed 15 m. Between gradients of 1:33 and 1:20 the interval should be interpolated. Landings are not required on gradients less than 1:33. Paths with a gradient steeper than 1:20 are to be considered as ramps for design purposes. • Adjacent ground for all pedestrian paths should be within 25 mm of the level of the pedestrian path. • If the adjacent ground has a steep slope, a kerb between 65 mm and 75 mm high should be provided to protect prams and wheelchairs and to guide those people with impaired vision. Handrails may also be provided. • The provision of seating clear of the walking space should be considered on long gradients. Other features such as observation decks should be considered if the path provides tourist/social opportunities. • Consideration should be given to the provision of an alternative shorter route via a staircase if such an alternative can be identified.
Crossfall	<ul style="list-style-type: none"> • Crossfall on pedestrian paths should be as flat as practicable consistent with achieving an adequately drained surface. Excessive crossfall causes problems for some people. • Crowning of the pedestrian path can benefit people using personal mobility devices as they can travel along the middle of the path, experiencing no crossfall. • AS 1428.1:2009 specifies that any crossfall should not exceed 1:40 (2.5%). A flatter crossfall may be adopted provided that drainage is facilitated to avoid any ponding of water within the path.

5.9 Surface Treatments

Surface treatments should be stable, firm, even, relatively smooth but slip resistant. The choice of surface treatment depends on:

- the grade of the surface and the coefficient of friction required
- whether the surface is also to provide guidance regarding use of the path or priority (i.e. maintaining contrast with the intersecting road surface)
- the physical environment, climate and demands placed on the surface.

It is important for many people that surfaces be flat. This is particularly so for people in wheelchairs, on crutches or who are unsteady on their feet as small ridges and protrusions as small as 6 mm can cause these people to stumble and fall.

Wherever possible pits for utilities or other purposes should not be located in paths as the covers can be hazardous for pedestrians (e.g. misaligned or broken covers form a trip hazard), particularly for physically impaired persons, people on crutches or using other walking aids. Additionally, metal manhole covers can become slippery, particularly when wet.

Another significant disadvantage of locating pit covers in paths is that the path is unable to be used when works are required to maintain the underground service that passes through the pit.

The use of some common paving materials is discussed in Appendix C.

5.10 Surface Tolerances

The surface of a new path pavement should be shaped to match existing features such as pit covers, edgings or driveways, to within 5 mm. It is desirable that the finished surface of a new path does not deviate from a 3 m straight edge by more than 5 mm at any point.

Existing paths often develop surface imperfections over their operational life such as:

- pavement deformation that results in undulating pavements with relatively smooth bumps
- tree roots creating sharp bumps
- service trenches that subside to create grooves or steps.

In addition, the hazards associated with such surface imperfections can be compounded by other features beside the path, such as an edge drop-off or fixed objects (e.g. trees, poles, rocks).

The surface of an existing path should not exceed the tolerances nominated in Table 5.9, however, conditions and requirements vary between agencies and so when assessing a path, the requirements of the relevant local agency should be obtained. The figures in the table are applicable to discontinuities in the surface of concrete and other sealed pavements, at the pavement/gutter interface, at interfaces between the pavement surface and service covers, at failures and at subsidence and the like. However, the values in the table may be used as a guide for the other surface imperfections described previously.

The table requirements may be difficult to achieve where a pavement abuts an unsealed surface. However, agencies should make every effort to limit the height of steps in these locations as the effect on pedestrians and cyclists travelling along or across a step can be severe.

While no dimension is provided in relation to a groove perpendicular to the direction of travel, this circumstance should be treated as two steps if greater than 100 mm wide.

Table 5.9: Suggested surface tolerances – existing surfaces

	Not to exceed (mm)	
	Width of groove ⁽¹⁾	Height of step ⁽²⁾
Parallel to direction of travel	12	10
Perpendicular to direction of travel	–	20

¹ A narrow slot in the surface that could catch a bicycle wheel, such as a gap between two concrete slabs.

² A ridge in the pavement, such as that which might exist between the pavement and a concrete gutter or manhole cover; or that might exist between two sections of pavement when the top level does not extend to the edge of the roadway.

Note: It is suggested that a height of 20 mm, may be excessive for many bicycles. This value should be considered as a maximum intervention level for an existing facility rather than a design or construction tolerance. It is suggested that individual jurisdictions should consider a lower intervention level (e.g. 10 mm for perpendicular to direction of travel) depending on local circumstances and the importance of the path within the bicycle path network. Designs and specifications should require smooth flat surfaces.

5.11 Lighting

The objectives of providing lighting of paths are to:

- enable cyclists and pedestrians to perceive hazards such as unusual or uneven surfaces or obstacles such as steps or street furniture, and to enable them to orientate themselves and find their way about
- enhance personal security by enabling potential threats from other people to be recognised in time to take appropriate action.

These objectives are particularly important for elderly people and people with impaired vision who may be more vulnerable to trip hazards or feel insecure or uncomfortable in poorly lit environments.

Where a path is located adjacent to a carriageway, the road lighting should also cater for the path (Austroads 2015b, AS/NZS 1158.1.1:2005, AS/NZS 1158.1.2:2010). Designers should consider all aspects of the design that may influence the effectiveness of the lighting, such as the presence of overhanging trees and low-profile hedges that may create significant shadowing which, when combined with adjacent headlights (from the roadway), could make the silhouettes of path users extremely difficult to see.

Areas associated with pedestrian paths that may require a relatively high level of lighting are at-grade road crossings, because of the potential for conflict with motor vehicles and pedestrian underpasses that are often perceived to be unsafe in terms of personal security.

Paths away from roads

Where paths are heavily used during periods of darkness (i.e. dawn, dusk and at night) consideration should be given to the provision of path lighting. The decision to provide lighting is a matter for the relevant agency.

A path considered for lighting will usually form part of a principal path network. Key issues to be considered are that:

- Cyclists require greater sight distance in order to avoid conflict with other cyclists or pedestrians and the outcome of such a crash is often severe.
- Bicycle head lamps may enable a cyclist to be seen but some may not illuminate the path surface sufficiently to enable cyclists to avoid hazards (e.g. rough surface, debris, obstacles).

Lighting assists in delineating the alignment of the path.

A level of lighting higher than that provided generally along a path should be considered for locations where conflict occurs with other path users or motor vehicles, or where there is greater concern for personal security, for example:

- path/path intersections on regional paths
- path/road intersections
- road crossings and refuges
- path terminal treatments
- cyclist/pedestrian underpasses
- tight curves.

If it is decided to light a path the lighting should be designed in accordance with relevant standards, which include:

- AS/NZS 1158.1.1:2005: Lighting for Roads and Public Spaces: Vehicular Traffic (Category V) lighting: Performance and Design Requirements
- AS/NZS 1158.1.2:2010: Lighting for Roads and Public Spaces: Vehicular Traffic (Category V) lighting: Guide to Design, Installation, Operation and Maintenance
- AS/NZS 1158.3.1:2005: Lighting for Roads and Public Spaces: Pedestrian Area (Category P) Lighting: Performance and Design Requirements.

Designers should also refer to the relevant jurisdiction for the local lighting requirements.

5.12 Underground Services

The location and design of paths should be coordinated with the many other features and infrastructure that need to be accommodated within road related areas and which are covered in the *Guide to Road Design Part 6B: Roadside Environment* (Austroads 2015b).

Above ground utility services that have to be located near paths should be placed so that they do not constitute a hazard for pedestrians and cyclists using the path. However, aside from the permanent fixtures located near the path it is important to ensure that underground services do adversely influence the design of the path or the future operation of the path. For example, future operation could be significantly impeded if:

- Utility pits are located within the path as maintenance staff and vehicles would be required to work on the path.
- The path is ripped up to access services.
- Maintenance vehicles associated with the utility provider drive or park along the path.

6. Intersections of Paths with Paths

6.1 General

In general, the intersections of paths with paths should be constructed and controlled in accordance with the established principles of codes of practice for roads. For instance, at path junctions, the controls and layout should favour the predominant flow on the major through route and meet geometric requirements such as sight distance and gradients. Also, designers must ensure that the construction and controls are consistent with any local requirements.

6.2 Intersection Priority

The designer or path manager should nominate which path is to have priority at intersections between paths. Priority should normally be given to the path that has the highest daily volume of cyclists and pedestrians. Where path volumes are low or similar on both paths the choice should be made on the basis of its function within the network, or by providing priority to the traffic stream that will be most disadvantaged through having to stop and accelerate to speed (e.g. one path may have a steep upgrade on the departure).

A similar approach can be applied to the determination of priority where a bicycle path or shared path intersects with a pedestrian path, which cyclists are not allowed to use, or infrequently use. In considering which path has priority, the path users which are impacted to a greater extent by having to give way should be given priority.

As a general rule, where volumes are low to moderate, cyclists will be disadvantaged more than pedestrians because of the effort required to brake and accelerate up to operating speed and cyclists would benefit in having priority. At higher volumes some pedestrians (e.g. elderly or mobility impaired) may have difficulty in crossing a shared path or bicycle path due to the speed of cyclists in which case priority may be given to the pedestrian path.

To ensure that priority requirements are clear, consideration should be given to the construction of additional controls (see Section 6.3.1) at the intersections of exclusive paths or separated paths with pedestrian paths, where either:

- paths are well used
- the pedestrian path is used regularly by people who have a vision impairment
- sight distance constraints exist.

6.3 Intersection Signs

6.3.1 Control Devices

On the intersections of paths where bicycles are permitted, give-way markings, which are preferred, and/or give-way signs can be used to establish priority. The use of give-way markings avoid the use of a pole which may become a hazard to cyclists. Give way signs should only be used where a particular safety issue is identified or where the intersection has a history of near misses or crashes. Stop signs should never be required.

6.3.2 Wayfinding Signs

Wayfinding signs should be provided at path intersections. Guidance on bicycle wayfinding signs can be found in:

- *Bicycle Wayfinding* (Austroads 2015c)
- *Guide to Traffic Management Part 10: Traffic Control and Communication Devices* (Austroads 2016d).

A further source for information on methods of providing wayfinding information can be found in the Pavement Marking Manual (Department of Planning, Transport and Infrastructure 2015).

Information relating to standard elements of signs can be found in:

- Manual of Traffic Signs and Markings (MOTSAM) Part 1: Traffic Signs (NZ Transport Agency 2010a) and Part 2: Markings (NZ Transport Agency 2010b)
- AS 1742.9:2000, Manual of Uniform Traffic Control Devices Part 9: Bicycle Facilities
- AS 1743:2001, Road Signs: Specifications.

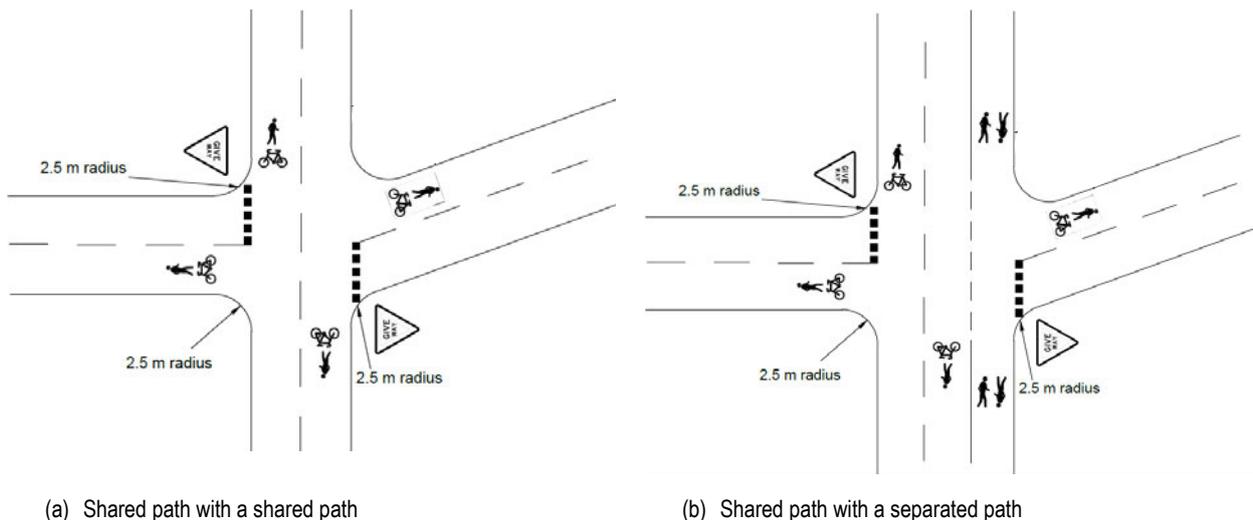
6.4 Treatments for Intersections of Paths with Paths

Factors that should be considered in relation to intersections where bicycles are permitted are that:

- Pavement markings should include centre lines and give-way holding lines.
- Pavement splays in the corners should have a minimum radius of 2.5 m. The path intersection should also assist a cyclist undertaking a turn on a radius of ≥ 5 m to maintain their upright position through the turn.
- T-junctions, at busy locations, should be widened to allow for through cyclists to pass a turning cyclist as the extra space reduces the number and intensity of conflicts. Where hold rails are used in the side path the width should cater for turning cyclist envelopes plus an additional lean allowance.
- The area around path intersections should be kept clear of hazardous obstacles, such as log barriers, to provide cyclists with a recovery zone. However, it should be noted that landscaping is useful in deterring cyclists who may attempt to travel the shortest path between path junctions or at sharp curves, which, if it occurs, inevitably results in maintenance problems. Any landscaping should be soft and of low height.
- Care should also be exercised in the location of intersections on paths adjacent to watercourses so that water holes and steep embankments do not present a hazard to cyclists. The treatment at the sides of paths should provide a forgiving environment in terms of cyclist safety.

The treatment at the intersections of shared paths, establishing priority is shown in Figure 6.1 and Figure 6.2.

Figure 6.1: Intersection of shared paths



Note: Give way signs are optional and should only be used where there is a demonstrated need.

Figure 6.2: Example of a shared path intersection



Source: City of Adelaide (n.d.).

Figure 6.3 and Figure 6.4 show four arrangements where a bicycle path or shared path intersects with a pedestrian path and priority is reinforced through delineation and traffic control devices. Figure 6.3 illustrates cases where cyclists have priority and demonstrates how pedestrian ramps can be provided (Figure 6.3a) or a contrasting surface material (Figure 6.3b) on the pedestrian path can be used to provide an interface between the paths.

Figure 6.3: Intersection of bicycle path and pedestrian path where cyclists have priority

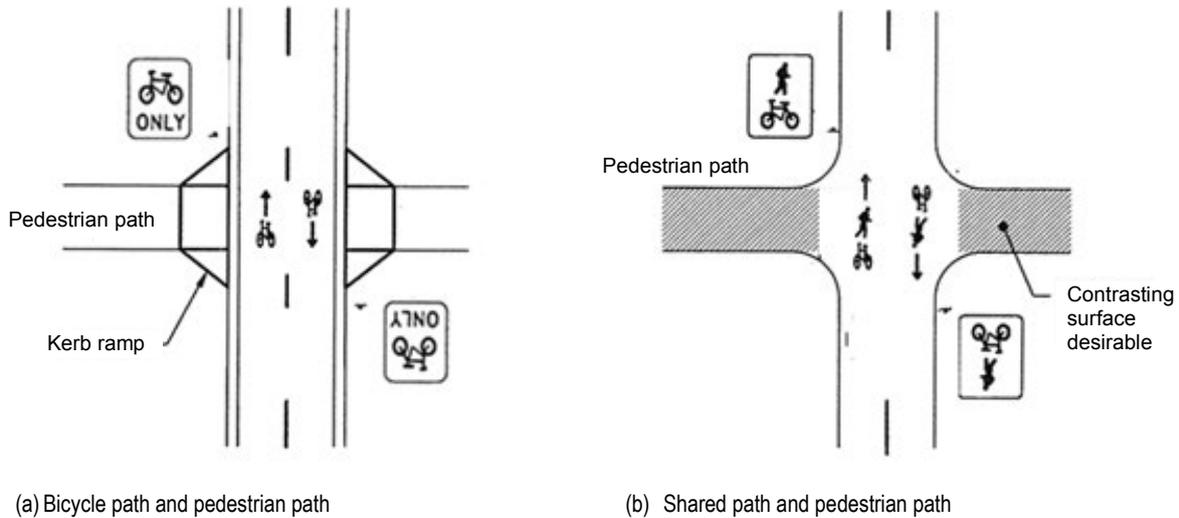
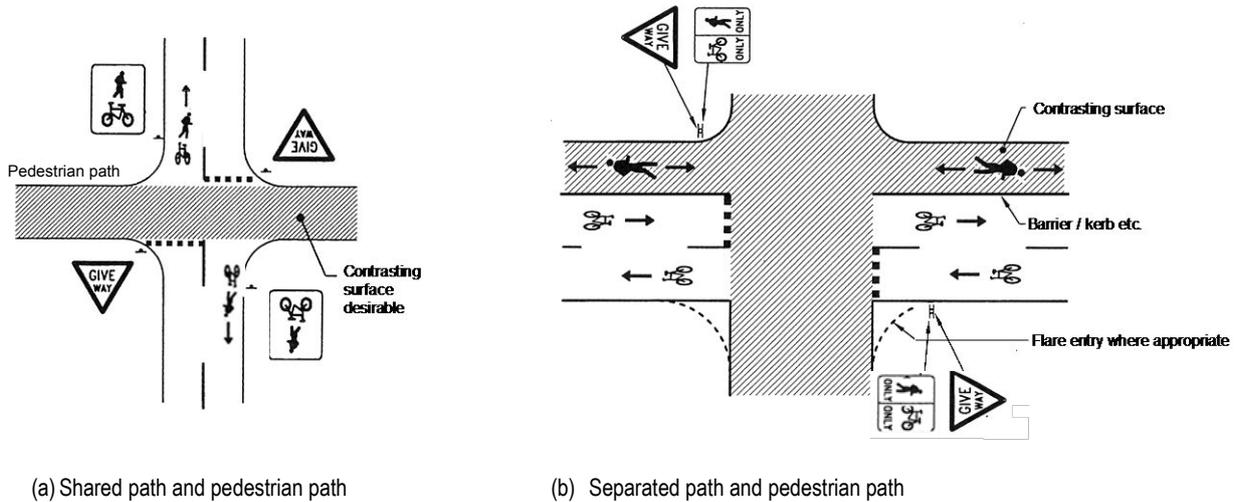


Figure 6.4 shows cases where pedestrians have priority at an intersection with a shared path (Figure 6.4a) and a separated path (Figure 6.4b) and shows the use of give-way signs to control cyclists and contrasting surfaces to emphasise that pedestrians have priority.

Figure 6.4: Intersection of a shared path and separated path where pedestrians have priority

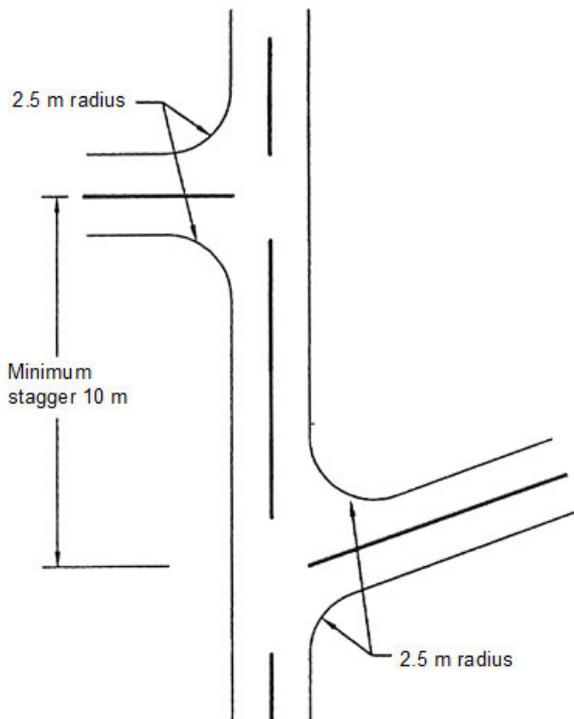


Note: Give way signs are optional and should only be used where there is a demonstrated need.

6.5 Special Treatments for Intersections of Paths with Paths

At locations where there is a proven record of conflict or where there are other specific safety challenges such as short sight distances, the use of cross intersections between intersecting bicycle paths or shared paths may not be appropriate. At these intersections, a staggered T arrangement should be adopted to prevent high crossing speeds as shown in Figure 6.5.

Figure 6.5: Example of a staggered T-intersection



Note: Consider provision of holding rails on side of paths where main path volumes are high.

7. Intersections of Paths with Roads

7.1 General

Off-road paths must be readily accessible in order to be well utilised by the community. Access should always be provided where paths cross local streets and arterial roads. Accessibility should be improved further by providing regular connections to local roads or cul-de-sacs.

Where a path is located on one side of a road, kerb ramps should be provided opposite every intersecting street to enable access for local users. The path design should aim to provide an attractive appearance that enhances the streetscape. All connections and crossings should be designed and constructed so as to encourage safe and correct use by pedestrians and cyclists.

It is important that cyclists travelling along off-road paths are provided with sufficient visual and/or physical cues, such as warning signs or pavement markings, to advise them that they are approaching a road crossing. Cyclists will then be able to assess the situation and slow to an appropriate speed or stop if necessary.

Cycling at a consistent speed is significantly easier than cycling with frequent changes in speed. Therefore, cyclists prefer to keep moving and maintaining their momentum, unless there is a good reason for them to stop.

Treatments that allow cyclists to regulate their own speed and that are fairly direct are preferred because they do not unduly inconvenience cyclists. Therefore, treatments discussed in Section 7.5.4 which aim to slow cyclists down should only be used where there is a proven safety issue (e.g. history of ride-out incidents, near misses or crashes), and where the device itself does not pose a greater risk than the dangers it is designed to ameliorate.

The intersection of paths with roads and crossing of roads by paths is generally covered in the *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings* (Austroads 2013a) and *Parts 4, 4A, 4B and 4C of the Guide to Road Design* (Austroads 2017a, 2017b, 2015d and 2015e respectively).

7.2 Intersection Signs

7.2.1 Traffic Control Devices

The use of traffic control devices such as give-way signs and give-way holding lines will depend on the priority of the path with respect to the road. Section 7.3 provides guidance on the use of traffic control devices under various situations.

7.2.2 Wayfinding Signs

Wayfinding signs should be provided at the intersection of paths with roads. For guidance on bicycle wayfinding signs, refer to *Guide to Traffic Management Part 10: Traffic Control and Communication Devices* (Austroads 2016d) and *Bicycle Wayfinding* (Austroads 2015c). For standard elements of bicycle wayfinding signs, refer to AS 1742.9:2000 and AS 1743:2001 or in New Zealand the Land Transport Rule: Traffic Control Devices 2004 (Land Transport New Zealand 2005).

7.3 Treatments for Intersections of Paths with Roads

Where a path intersects or crosses a road mid-block, in general, the intersection should allow pedestrians and cyclists to freely access the roadway. In most instances it is unnecessary to use restrictive devices to slow cyclists down before they cross a road. If the slowing of cyclists is needed treatments such as path curves in advance of the intersection could be implemented.

Where a path connects to a path on a road, the preferred treatment is just a connection without the use of other devices (Figure 7.1). Where there is a safety issue identified, it may be necessary to add give-way holding lines and give-way signs at the path termination to emphasise priority. If this proves to be insufficient to overcome the safety issue, it may be necessary to add special termination treatments designed to slow cyclists (Section 7.5).

Figure 7.1: Example of a simple path connection at an on-road path



Source: Tony Arnold (personal communication 2016).

7.3.1 Road Crossings where the Path has Priority over the Road

It may be appropriate to provide a path with priority across a road where the path carries higher traffic volumes than the road it crosses and where either:

- the path crosses a low-speed street, or
- the path runs adjacent to a road that has priority over a minor intersecting street.

Designers should refer to *AGRD Part 4* (Austroads 2017a) and *Guide to Traffic Management Part 8: Local Area Traffic Management* (Austroads 2016c) for more information on appropriate treatments such as wombat crossings.

Examples of these types of crossings are shown in Figure 7.2 and Figure 7.3.

Figure 7.2: Example of an intersection where a separated pedestrian path crossing and a separated bicycle path crossing has priority across a local street



Source: Tony Arnold (personal communication 2016).

Figure 7.3: Example of an intersection where a path crossing has priority over a side street



Source: Tony Arnold (personal communication 2016).

7.3.2 Road Crossings in a Shared Environment Intersection

Where a path crosses a minor side street or other low-speed, low-volume street, it may be appropriate to provide a shared environment intersection. Shared environment intersections are recommended where the traffic volume of pedestrians, cyclists and motor vehicles are all fairly similar and traffic speed, including bicycle speeds, are low. See the *AGRD Part 4* (Austroads 2017a) and *Guide to Traffic Management Part 8: Local Area Traffic Management* (Austroads 2016c) for more information on appropriate treatments.

7.4 Ancillary Devices for Intersections of Paths with Roads

7.4.1 Push Buttons at Signalised Intersections

A push button may be required where a path meets a road at a signalised intersection and where the users of the path are required to activate a dedicated signal phase.

Push buttons should be located to the left of the path, where practical, in a location that is easily accessible for path users who are waiting to cross in alignment with the kerb ramp. For shared paths, where pedestrian and bicycle lanterns operate together, only one push button is required. For separated paths, where pedestrian and bicycle lanterns operate independently, a push button is required for each phase, pedestrian and bicycle.

Push buttons should be placed on existing traffic signal pedestals, to reduce the number of poles on and near the path. Where traffic signal pedestals are not available or appropriately positioned, a separate post should be installed such that the height of the push button is between 1.0 and 1.2 m. This height provides reasonable access for a range of users including pedestrians, wheelchair users and cyclists.

7.4.2 Holding Rails

A holding rail is a U-shaped rail that is similar to a U-rail but placed in close proximity to both the edge of a path on the approach to an intersection with a road or another path. Its purpose is to provide a support for cyclists to hold onto whilst they await an acceptable gap in the conflicting traffic stream. Holding rails may also be provided in central refuges and medians. An example of a holding rail is shown in Figure 7.4.

Holding rails should only be provided where there is a likelihood that cyclists will have to stop at intersections with roadways. For example, they should not be provided at the intersections of paths with other paths or at the intersection of a path with a local street where it is unlikely cyclists will have to stop and wait. In some jurisdictions holding rails also serve as a support for pedestrians who have a mobility impairment and use the rails to rest upon while waiting to cross roads.

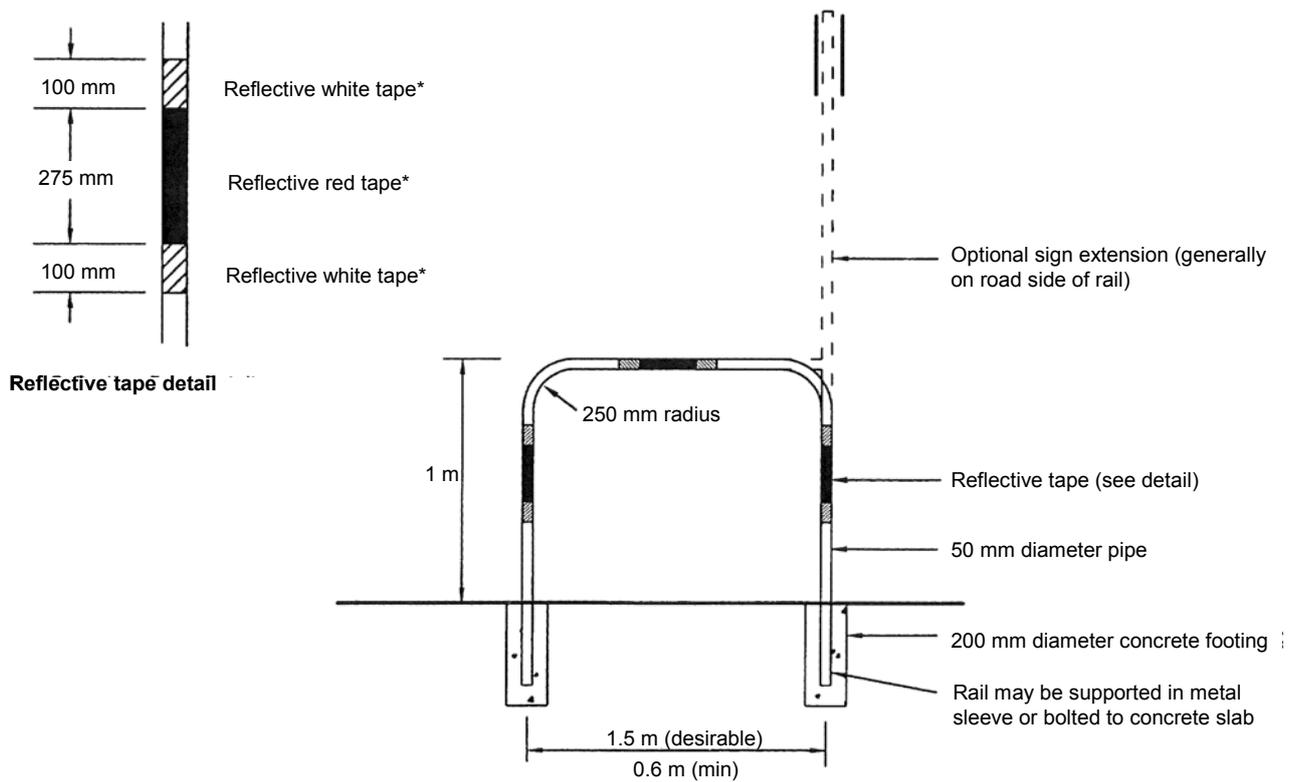
Holding rails must be placed within easy reach of cyclists, on the left side of the path, to ensure that they:

- enable cyclists to stop without having to dismount or move their feet off the pedals (which can require cyclists to unclip or disengage from pedal retention devices such as toe clips)
- encourage cyclists to stop when appropriate
- assist the cyclists as they move off, reducing the time spent travelling through an intersection and aiding balance, thus improving safety
- in addition to other clues, provide a useful warning of the existence of an intersection.

Holding rails should be placed so that the cyclists using them can easily see approaching traffic and safely cross or enter the intersecting carriageway. If possible, holding rails should be located about 600 mm from the kerb line or edge of the intersecting roadway, and 300 mm from paths.

A sign-post extension on a holding rail has benefit in that it helps to minimise the number of posts near terminals. The sign should be located with a sufficient clearance to the intersecting road and high enough that it is not hazardous for cyclists.

Figure 7.4: Example of holding rail



To avoid the unnecessary proliferation of holding rails, they should not be installed at the traffic islands or approaches to signalised intersections unless specifically sought by users. Furthermore, holding rails should not be placed centrally on paths due to the narrow section tubing used for holding rails making them less conspicuous. In addition, holding rails should not be installed where cyclists are required to dismount.

7.5 Special Treatments for Intersections of Paths with Roads

7.5.1 General

A path terminal treatment may be required where a shared path or bicycle path intersects with a road, e.g. when a path crosses a road from a road related area or parkland.

Path terminal treatments are provided to restrict illegal access by drivers of motor vehicles to road reserves and parkland to prevent damage to path structures (such as lightweight bridges) that have been designed only for bicycle and pedestrian use.

These devices can be hazardous to cyclists and as such they generally should not be installed unless:

- unauthorised motor vehicle access may result in damage to path structures
- there is clear evidence of unauthorised and undesirable motor vehicle access
- the device is effective at excluding such vehicles and not readily circumvented.

Where installed, terminal treatments should be designed and installed in such a way that they serve their intended purpose and do not cause an unacceptable hazard to cyclists. Cyclists must be able to:

- negotiate path entrances with ease
- concentrate on other traffic, pedestrians, pavements and ramps
- not be distracted by overly restrictive barriers.

It should be noted that not every jurisdiction permits the use of physical barriers to slow or advise cyclists of an approaching road. Physical barriers may be a hazard to other road users and any treatment should have a risk assessment undertaken.

7.5.2 Terminal Design Principles

The design of terminal treatments should meet certain criteria as outlined below. If local authorities choose to use or develop terminal devices that are not illustrated or described in this Part, the designs should consider the requirements outlined below.

Clearance

The design should:

- provide an opening width between 1.4 m and 1.6 m where restriction of motor vehicle access is warranted
Terminal devices should have sufficient width to accommodate the anticipated path traffic.
- be located with at least 1.4 m clearance to adjacent fixtures and so that cyclists can pass conveniently.

Access

The terminal treatment should:

- seek to enhance the safety of cyclists accounting for factors such as gradients, the proximity of roads and the approach alignment of the path
- be accessible to a range of path users including pedestrians and people with disabilities
In relation to bicycles, they should accommodate the common bicycle types as well as tandem bicycles, bicycles with trailers, and other human-powered vehicles.
- be constructed so that small passenger cars cannot pass easily through or under horizontal rail sections where a primary objective of the terminal is to restrict access for motor vehicles
It should be noted that it is generally impractical to restrict motorcycles and to do so may result in a hazard for cyclists.
- not be easily circumvented by unauthorised vehicles, such that either the device is rendered ineffective, or that alternative paths of access are created in adjacent reserve areas resulting in higher maintenance demands
- accommodate emergency or maintenance vehicle access where this is not available elsewhere in the vicinity of the terminal (in the event that the path will be relied upon by such vehicles). Note that wherever terminal device elements are removable the connections (or sockets) should be flush at the connecting surface and not present a hazard to path users.

Geometry

The terminal treatment should:

- be located with consideration for other design features in the immediate section of the path e.g. in general it would be inappropriate to locate terminals at or near curves, within a distance of less than 5 m of kerb ramps or within a manoeuvring zone of cyclists
- not be located too close to an intersection (e.g. 5–10 m) to enable storage and final braking to occur beyond the device where cyclists may wait for other path users to pass through the terminal device
- have clearances at the terminal device and parallel roads that are sufficient in the event of cyclists failing to properly negotiate the device
- if consisting of a frame be
 - at least 1.0 m high above the riding surface
 - shaped so that on the approach side of the frame, the minimum radius of the frame is 250 mm
 - constructed of individual frame elements that are rounded, without sharp edges, and having a minimum diameter of 100 mm
- if consisting of isolated vertical poles (e.g. bollards)
 - be at least 1.0 m high above the riding surface
 - have a minimum diameter of 300 mm.

Safety

The terminal treatment should:

- not present a hazardous feature for any pedestrian group (e.g. visually impaired pedestrians)
- include adequate protection where the sides grade away from the path at a steep angle or where obstructions exist
- have regard for other (conflicting) paths, other paths of access and for sight lines
Terminals should be located in such a way that existing paths are not obstructed in any way. Similarly sight lines should not be restricted due to the terminal device or to users (as a result of the terminal device).
- not be located at mid-block locations where speeds are likely to exceed 20 km/h.

Delineation

In order to operate safely under all light conditions it is important that terminal treatments and devices should:

- be painted in a contrasting colour (white or yellow) and be fitted with quality reflective tape on horizontal and vertical elements to ensure they are visible from all directions
Barriers etc., on both sides of paths should be painted and delineated in this manner. Similarly, reflective tape should be fully wrapped around the elements to which it is attached to ensure that it is clearly visible from all directions.
- be illuminated in accordance with AS/NZS 1158 (Set):2010, or with the lighting requirements of this Part, as appropriate
- where necessary include signs or pavement markings, generally on the path approach to the device, warning of the presence of devices
- be preceded by tactile linemarking, or a tactile path surface and a painted unbroken line, where cyclists need to deviate from their line of approach. Similarly, as a further means of warning to approaching cyclists, it is desirable for the device to be visible to one cyclist whilst following immediately behind another.

There are numerous reports of collisions of cyclists on group rides with isolated vertical poles (e.g. bollards) located within paths. Therefore, it may be appropriate to consider the use of poles that are not less than 1.8 m high where narrow poles (minimum 100 mm diameter) are used, to increase the likelihood of observation of poles above the form of a leading cyclist.

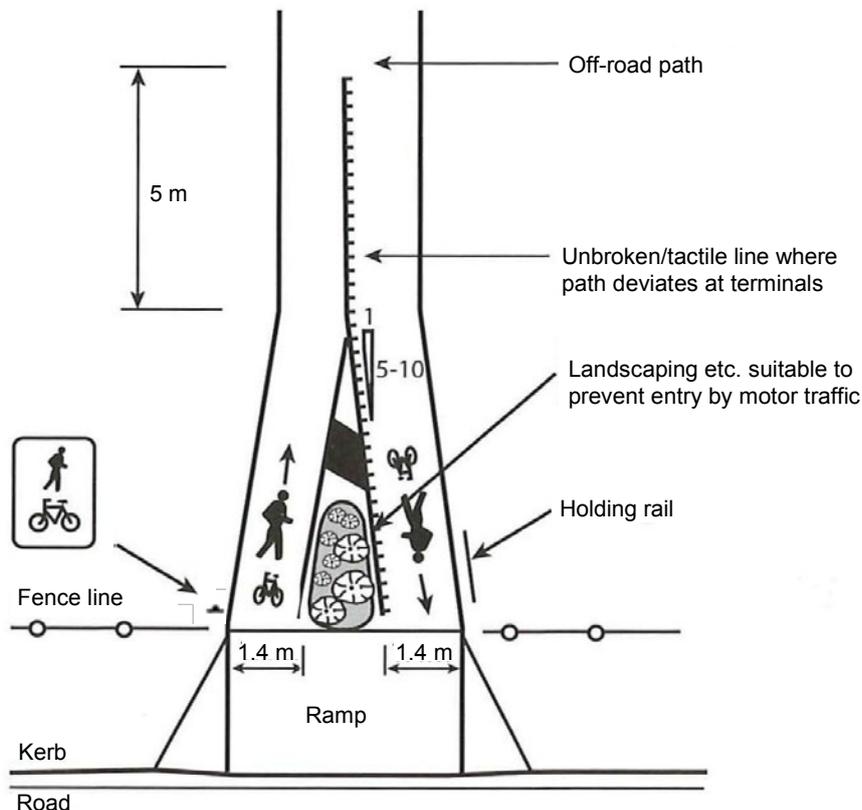
7.5.3 Terminal Treatments for Excluding Vehicles

Separate entry and exit treatment

The preferred terminal treatment to restrict access and warn cyclists to slow down is shown in Figure 7.5. This treatment is the bicycle path equivalent of providing a median island at a road intersection with similar benefits with respect to warning cyclists and channelising traffic movements. It provides sufficient guidance to cyclists that they are approaching a road and does not place an obstacle (such as a bollard) in the path of cyclists.

In order to restrict unauthorised access it is critical that the fence extends to the edge of the path. If access is required for authorised vehicles removable posts may be placed within the fence line.

Figure 7.5: Separate entry and exit terminal



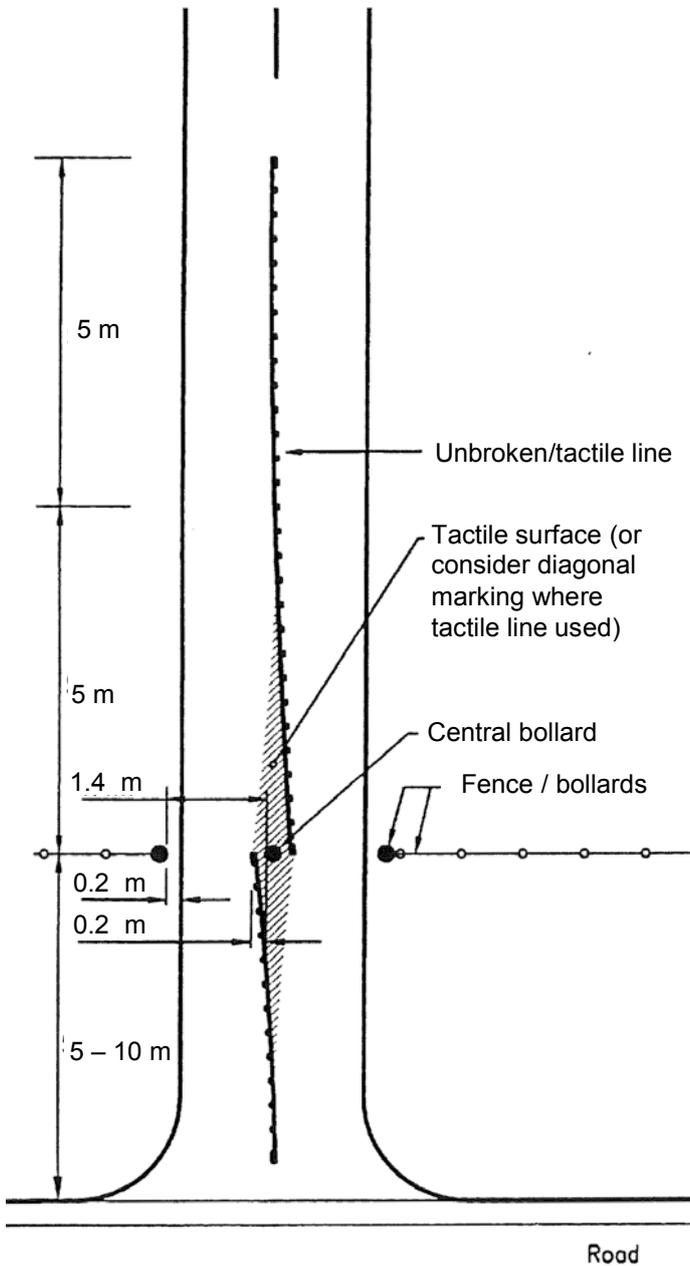
Source: Based on VicRoads (2005).

Bollard terminal treatments

A common method of restricting access to paths is to install a bollard in the centre of the path. This type of treatment can create an unacceptable risk to cyclists and should only be used where provision of the preferred treatments is not practicable. While opinions vary, there is considerable concern (and growing evidence in the form of injury compensation claims by cyclists) that the construction of these devices in the centre of paths is hazardous to cyclists.

If bollards are to be used on paths they must be used in conjunction with a feature on the sides of the path to provide openings of no more than 1.6 m wide. They should also be conspicuous to cyclists and include linemarking to direct cyclists away from the bollard. Figure 7.6 illustrates the layout of a bollard treatment while Figure 7.7 shows an installation without lighting, and Figure 7.8 shows an installation with lighting.

Figure 7.6: Preferred layout for the use of a central bollard



Source: VicRoads (2005).

Figure 7.7: Example of a bollard treatment



Source: Roads and Traffic Authority (2005).

Figure 7.8: Example of a bollard treatment with lighting



Note: The light should and fitting should be located outside of the clear height requirements, refer to Section 5.5.1.

Source: Queensland Department of Transport and Main Roads (n.d.).

U-rail terminal treatments

For paths that are 4 m wide or more, consideration could be given to the installation of a U-rail instead of a bollard. This arrangement shown in Figure 7.9 includes a hazard marker that provides a larger surface area and hence greater conspicuity for the treatment.

Figure 7.9: Example of U-rail and hazard board treatment



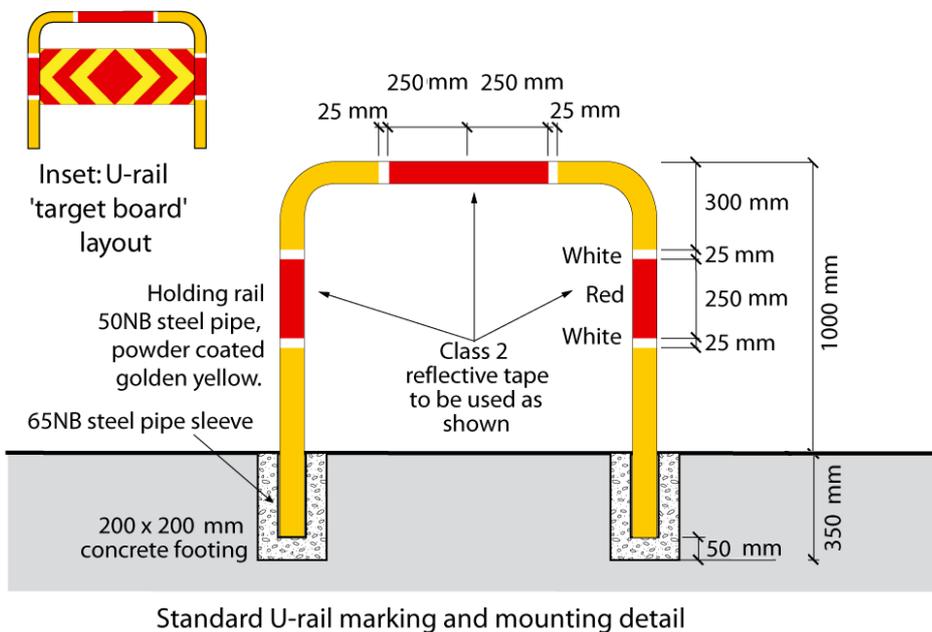
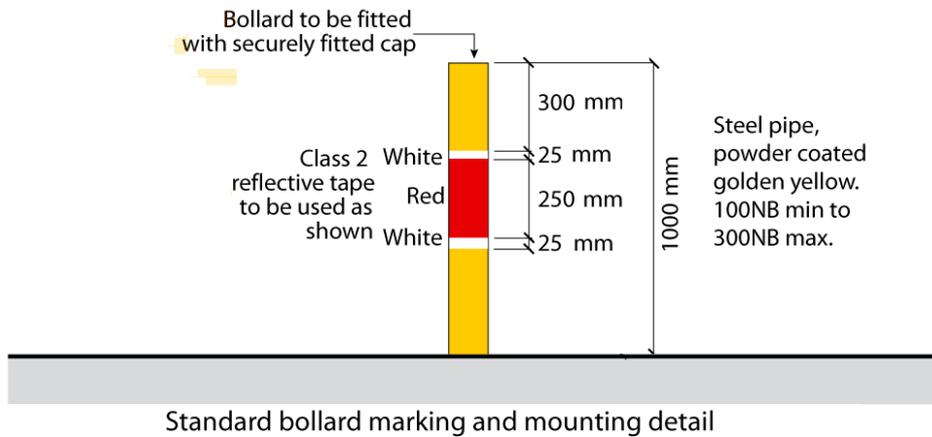
Source: Roads and Traffic Authority (2005).

Details of bollards and U-rails

Many instances exist where bollards are located in the centre of paths and no feature exists at the sides of the paths that would prevent access by motor vehicles and as such the devices serve no particular purpose. Where agencies are determined to maintain or construct central fixtures in the centre of paths the need must be justified in every instance; they should be effective in meeting their purpose, and should be provided with a high level of delineation. In particular, the locating of bollards and other fixtures centrally on paths is considered to be inappropriate at or near curves, or at intersections in the manoeuvring area of cyclists.

An example of the details of a bollard and U-rail used in New South Wales is shown in Figure 7.10.

Figure 7.10: Details of a bollard and U-rail



Notes:

- 1 Length of U-rail can be varied to suit path width. A minimum of 600mm and a maximum of 1500mm should be adopted. Detail shown above has used 1200mm.
- 2 Bollards and U-rails can be fixed to path by using either a bolt system or pipe sleeve and concrete as shown. If a pipe sleeve is used, a metal wedge is to be used to secure the U-rail in the sleeve.
- 3 Where a U-rail is mounted at right angles to a path a 'target board' shall be fitted. If the U-rail is mounted longitudinally along the path a target board is not used. See inset for 'target board' detail.

Source: Roads and Traffic Authority (2005).

7.5.4 Terminal Treatments for High-conflict Locations

Where there is a history of conflict (i.e. ride-out incidents, near misses or crashes), it may be necessary to install terminal treatments that are designed to enforce a reduction in cycling speed at the approach to a roadway. This should only be considered where it has been clearly demonstrated that other treatments have not worked and the device itself does not pose a greater risk than the dangers it is designed to ameliorate.

Where this is the case, designers should ensure that:

- the device is no more restrictive than is necessary and allows easy access for wheeled devices such as wheelchairs, motorised mobility scooters, standard bicycles, cargo bicycles, tandem bicycles etc.
- the device is light in colour and fitted with retro-reflective material to increase its conspicuity at night
- street lighting is adequate
- the fencing has no sharp protrusions.

Some road agencies do not favour these devices as they may:

- distract cyclists from concentrating on the task of processing more important information relating to surrounding traffic conditions
- create unnecessary conflict points and hazards for path users.

Staggered fence treatment

A staggered fence treatment should only be used where there is a very good reason to slow cyclists down (e.g. history of ride-out incidents, near misses or crashes). This type of treatment involves the installation of two U-rails or two sections of mesh fence as shown in Figure 7.11. It is important that the treatment has adequate lighting and is constructed of materials that are inherently conspicuous (i.e. all posts and mesh colours should contrast with the surrounding environment as viewed by the approaching cyclists) as total reliance on fitted delineation devices poses a risk to safety if the device is vandalised or poorly maintained.

The staggered fence should be designed so that the:

- left barrier fence is closest to approaching path users
- left barrier fence does not overlap the right barrier (reduces required deviation)
- distance between the two barrier fences is at least 3 m to provide an adequate clearance and turning path for larger bicycles such as cargo bicycles.

The materials that are suitable for mesh fence treatments are generally not retroreflective and hence the treatment should be delineated, for example, with a hazard board on each fence section facing approaching cyclists as shown in Figure 7.11.

Figure 7.11: Example of a staggered fence treatment



Source: G. Veith (n.d.).

Offset path treatment

An alternative to the staggered fence treatment, which is based on a similar principle, is to provide an offset path treatment as shown in Figure 7.12. This treatment has similar issues as those relating to the staggered fence treatment.

Figure 7.12: Example of an offset path treatment



Source: VicRoads (2005).

8. Paths at Structures

8.1 General

The design of structures is very important to pedestrians and cyclists. Existing road bridges are often narrower than the road on the approaches thus creating a squeeze point for pedestrians and cyclists. Because of the high relative cost of new bridges there can be a tendency for designers to be as economical as possible in the widths provided for the various users. It is important, however, that road managers look for ways to better cater for pedestrians and cyclists at all existing structures and that designers and planners ensure that adequate provision is made for them in the design of all new structures.

The primary requirements for using bridges and underpasses are that:

- adequate path width and horizontal clearances to objects (walls, safety barriers, kerbs, fences, poles, street furniture etc.) is provided
- adequate vertical clearance is provided, particularly in underpasses
- good sight lines are provided into and through structures
- the surface is smooth and not slippery under any conditions; a particular issue can arise with expansion joints that can provide a rough ride and be slippery when wet and designers should seek better methods and materials to address this issue.

8.2 Road Bridges

Where a bicycle or pedestrian facility is provided on the approach to a road bridge it is important that a similar facility be continued across (or under) the structure. This should always be possible in the case of new structures. In the case of existing structures it will not always be possible but in brownfield locations consideration should be given to implementing measures that will improve the facility e.g. reduce the width of motor traffic lanes to make space available for pedestrians and cyclists; utilise pedestrian paths as shared paths.

The characteristics of pedestrians and cyclists at a site may require that an on-road bicycle lane is provided for experienced cyclists and a shared path is provided for other cyclists and pedestrians.

For information relating to on-road facilities designers should refer to *Guide to Road Design Part 3: Geometric Design* (Austroads 2016b).

8.2.1 Use of Pedestrian Paths on Narrow Bridges

If the width between kerbs on a two-lane two-way bridge is less than 7.4 m and pedestrian paths exist on both sides of the bridge then ramps should be provided on both sides of the bridge so that cyclists can also use the pedestrian path to avoid the squeeze point. Where a pedestrian path exists on only one side of the bridge it may be possible to utilise the path for one direction and provide a wide kerbside lane in the opposite direction.

8.2.2 Shared Path Structures

Where a shared path is to be provided on only one side of a road, safe access to the path should be provided via appropriate at-grade crossings or by providing paths beneath any bridges near the abutments as illustrated in Figure 8.1. An example of a similar crossing is shown in Figure 8.2.

Figure 8.1: Illustration of a shared path crossing under a bridge abutment

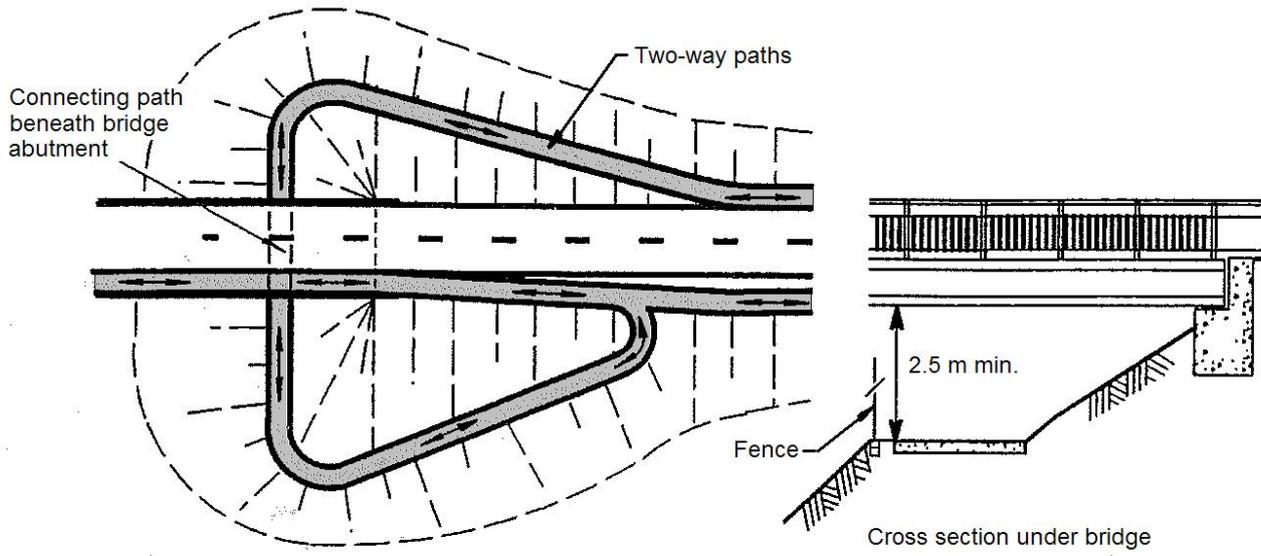


Figure 8.2: Shared path under a bridge abutment



Source: Gary Veith (personal communication 2009).

It is desirable that the width of shared path where it is located on one side of a bridge only accord with Section 5.1.4. If a width of less than 2.0 m is available then it may be necessary to erect warning signs advising cyclists not to overtake or pass on the pedestrian path.

If a path for cycling is provided on a road structure the path on the approaches should be at least 1.2 m from the edge of the traffic lane and concrete kerb installed along the length of the structure and on the immediate approach. Pedestrian fencing having a height of 1.4 m (Figure 5.12), preferably set back at least 450 mm from the line of kerb, should be considered for installation on the pedestrian path of the bridge to separate the cyclists from the motor vehicles in the adjacent traffic lane. The same treatment should be installed where for network reasons two-way shared paths, (which are of adequate width and used by young cyclists), are installed on structures along very busy roads. However, such fences should not be installed where they are located on the inside of horizontal curves and would impede the required stopping sight distance for motorists.

Where it is considered that cyclists and pedestrians would be at an unacceptable level of risk due to the speed of traffic, alignment of the road and any other contributing factors, consideration should be given to the installation of a safety barrier to shield path users.

Further information on the design of bridges is contained in *Guide to Bridge Technology* (Austroads 2009–2012).

8.3 Underpasses

8.3.1 General

Grade separated crossings such as bicycle bridges, underpasses and overpasses may be provided to achieve a safe crossing of roads (Figure 8.3), rivers or railways. General guidance on the use of grade separations for use by pedestrians and cyclists is provided in the *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings* (Austroads 2013a).

Although often provided as part of a shared path network grade separations may be provided as a safe alternative adjacent to narrow road bridges or through the fill behind a bridge abutment. In difficult terrain a structure, such as a box culvert, may be used to continue a shared path along the bank of a river.

When using culverts as part of a path network, the following principles in the design and operation of the culvert and the approaches should be applied (based on de Groot 2007):

- Culvert length – keep the length of the culvert as short as possible to minimise the distance a path user is in the closed space.
- Visible entry – approaching path users are able to observe the path enters a culvert well before entering the culvert.
- Vegetation – at the entry and exit, vegetation is managed to ensure that it does not create any hiding places.
- Approach embankments – are not too steep, e.g. 1:1 embankment slope, to reduce the perception of being closed in, also assists with casual surveillance of the section of path.
- Culvert dimensions – a height to width ratio of 1:1.5 is preferable to reduce the perception of entering a narrow space.
- Drainage – the floor of the culvert drains quickly and is shaped to reduce the build-up of debris.
- Maintenance – the culvert size facilitate the maintenance operations to enable the culvert to be readily cleaned.

These principles also support the crime prevention through environmental design principles, which assist in creating comfortable spaces for people to use.

Figure 8.3: Example of a pedestrian/bicycle path underpass



Source: Queensland Department of Transport and Main Roads (n.d.).

8.3.2 Use of Existing Culverts

The desirable vertical clearance within an underpass is 2.5 m. However, this height is problematic in that a standard height of 2.4 m has been used in many existing drainage culverts constructed with crown units and is adequate. In relation to severely constrained sites, culverts with a vertical clearance of only 2.0 m have been successfully utilised to accommodate paths for cycling under roads and this is considered to be acceptable when utilising existing structures.

The relative advantages and disadvantages of using a culvert with limited clearance rather than an at-grade crossing should be evaluated. If it is decided to use a culvert of limited height, signs should be erected to warn cyclists of the reduced headroom. Other steps should also be considered including some form of external (to the culvert) roof transition (from a height of 2.5 m to the height of the culvert roof) to negate the chance of a cyclist colliding with the abrupt low roof face of a culvert. Where a square corner cannot be avoided on the culvert ceiling at the entrance to the culvert some form of cushioning should be provided on the headwall to minimise injury to cyclists who may impact their head against it.

A drainage culvert should not cater for cyclist or pedestrian use unless it satisfies the recommendations in Section 5.6 for drainage, whilst providing adequate vertical clearance. Appropriate warning signs should be installed advising of alternative crossing points for use during higher water flows. A connecting path between the recreational path and the road is always provided to facilitate access to the path and is generally suitable for use as a bypass during high water flows. It is essential that good sight distance is provided to the culvert entrances so that cyclists have adequate warning and can see any debris, silt, etc. that may have built up around and in the culvert during and after these conditions.

If an underpass is used the alignment of the path on the approach should be designed such that users can see through the culvert. Vandal-proof lighting should also be provided in underpasses for shared paths.

Underpasses of roads should be constructed with minimal cover between the top of the underpass and the road. Whilst this may necessitate the relocation of services it has the advantage that shorter approach ramps can be used requiring less overall space. Also better opportunities for the provision of adequate sight lines may be possible in order to enhance personal security.

The gradients on approach ramps to shared path overpasses and underpasses should be in accordance with the requirements of AS 1428.1:2009, which are summarised in Section 5.4 and Table 5.8. Where the facility is an exclusive bicycle path a steeper gradient is permissible in accordance with Figure 5.6.

On existing structures that incorporate right angle landings in the alignment of the approach ramps, or where adequate sight distance cannot be provided, warning signs advising cyclists and other users of the hazards should be erected.

8.4 Bicycle Wheeling Ramps

Where it is not possible to locate a path for cycling so that an acceptable gradient is achieved a bicycle wheeling ramp (Figure 8.4) may be provided to accommodate a significant change in level over a short distance.

Figure 8.4: Example of a bicycle wheeling ramp



Source: ARRB Group (2009).

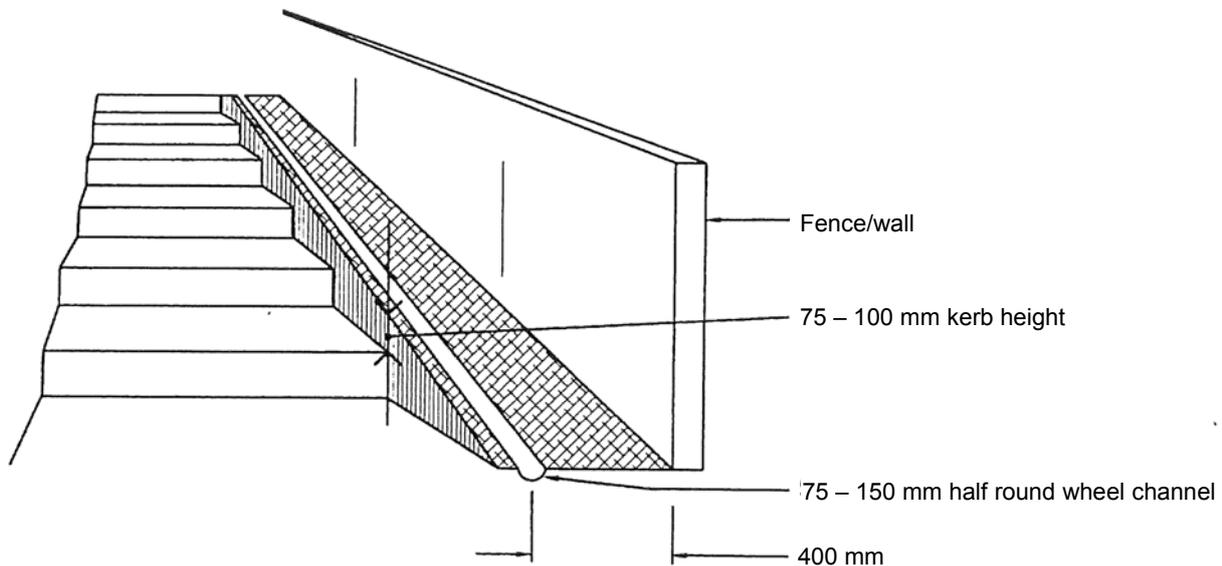
Wheeling ramps should be used as a last resort and should not necessarily be regarded as a treatment that serves the needs of cyclists well. They can be as unsatisfactory to cyclists (i.e. carrying children) as for pedestrians (due to inconvenience). They are generally regarded as inappropriate where used in association with new path facilities if alternative path access is possible.

Existing stairs can often be readily modified to provide for cyclists by the addition of a ramp formed by concrete infill or steel plate. Ramps may be either on the sides or within a median of the stairs.

Also:

- Wheeling ramps should be provided on both sides of stairways where significant bicycle volumes exist.
- The gradient of ramps should not exceed about 25°.
- Narrow channels (75 mm to 150 mm wide) or channels that are rounded at the base should be used to improve the ease of wheeling for cyclists. A channel designed to accommodate what is on average the widest bicycle tyre (i.e. that of a mountain bicycle) would be ideal.
- The channel should be constructed approximately 0.4 m from a fence or wall, or so as to avoid the catching of pedals or handle bars.
- Handrails should be constructed as close as practical to the fence or wall, when erected adjacent to a wheeling ramp.
- Wheeling ramps should be constructed with a smooth transition onto and off of the ramp.
- It may be desirable to construct the ramp with a kerb (Figure 8.5) to limit the possibility of pedestrians inadvertently stepping onto the ramp section.
- It would be prudent to construct the ramp so as to minimise the possibility that it may be cycled on.

Figure 8.5: Bicycle wheeling ramp key dimensions



9. Construction and Maintenance Considerations for Paths

9.1 General

If paths are not adequately constructed and maintained, pedestrians and cyclists are not likely to use them, or may deviate to avoid surface irregularities thus creating a hazardous situation. Smooth, debris free surfaces are a fundamental requirement for providing safe paths.

On a path used by cyclists, the cyclist may reach speeds up to 50 km/h on downhill grades, a rough surface or pothole can cause a cyclist to fall, leave the path and crash or come into conflict with other path users. Most bicycles have no suspension or shock absorbers and many bicycles have relatively thin tyres inflated to high pressures. Consequently, when a cyclist hits a pothole at speed it is most uncomfortable, difficult to maintain control and potentially hazardous for the cyclist.

In order to gain an appreciation of the problems faced by pedestrians and cyclists it is suggested that maintenance supervisors should walk or ride over the path. This enables a more detailed examination of the surface to be made and defects detected.

A substantial capital investment is often made in providing paths and agencies should also have an effective management regime to define responsibilities and to ensure that these facilities are adequately maintained.

Reference should also be made to Appendix C regarding construction and maintenance considerations.

9.2 Bicycle Safety Audits

Appendix D presents the concept of a bicycle safety audit as part of a quality system. Bicycle safety audits are as important as safety audits that relate to other road users and should also comply with guidelines presented in the *Guide to Road Safety Part 6: Road Safety Audit* (Austroads 2009).

Bicycle safety audits should be applied to both on-road and off-road facilities, existing and proposed facilities, and all stages of the development of proposals from feasibility studies to pre-opening of the facility. An example of a bicycle safety checklist is provided in Appendix D. Such lists should be used in conjunction with Austroads lists that relate to road design, transportation and traffic in general.

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Appendix A Application of Envelopes and Clearances to Determine the Widths of Paths

Various common path operational scenarios are shown in Figure A 1, Figure A 2 and Figure A 3. These form the basis of the widths provided for paths in Section 5 of the guide. Designers should review the likely operational characteristics of paths during the design process to determine the appropriate path width.

A.1 Bicycle Paths

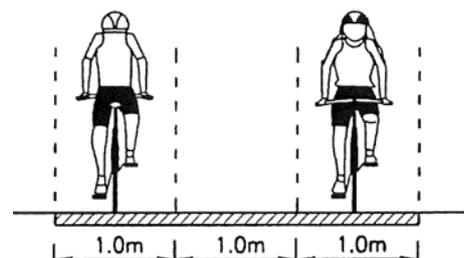
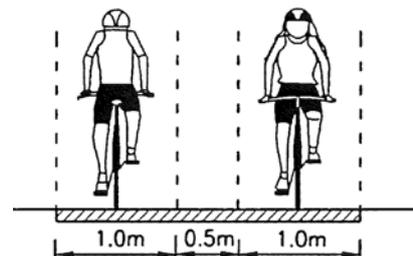
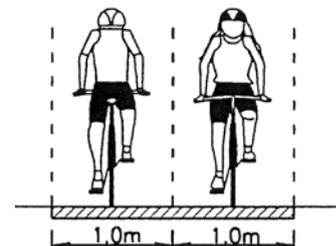
For a bicycle path (Figure A 1):

- 3.0 m is the desirable width for a path where high speeds are possible.
- 2.5 m is the acceptable minimum path width for paths with a predominant purpose of commuting, during periods of peak use.
- 2.0 m is the absolute minimum path width where paths experience very low use at all times and on all days or where significant constraints exist limiting the construction of a wider path, and may be acceptable for a commuting path where the path user flows are tidal in nature.

Whilst unlikely, it is technically possible that situations exist where wider paths may be justified i.e. where there are high speeds, and where high ‘concurrent’ bicycle volumes exist for both directions, such that passing within the lane in each direction is necessary.

Figure A 1: Bicycle path operation

Scenario	Overall width of path	Predominant path purpose
A	2.0 m	Typical circumstances of use Local access <ul style="list-style-type: none"> • Constrained conditions • ‘Tidal’ flow • Low use
B	2.5 m	Commuting and local access <ul style="list-style-type: none"> • Regular use • 20 km/h
C	3.0 m	Commuting <ul style="list-style-type: none"> • Frequent and concurrent use in both directions • 30 km/h+



A.2 Shared Paths

For a shared path (Figure A 2):

- Regional paths should be 4.0 m wide to permit the cyclist groups/couples to pass pedestrian couples or other cyclist groups, or to permit cyclists travelling in opposite directions to pass pedestrians with convenience and safety. However, it should be noted that in some jurisdictions cyclists may be prohibited from riding side-by-side on shared paths.
- 2.5 m and 3.0 m are the absolute minimum widths for paths having a predominant purpose of commuting and recreation respectively, during periods of peak use.
- 2.0 m is an acceptable path width where the path has a very low use at all times and on all days, where significant constraints exist limiting the construction of a wider path.
- 3.0 m is the minimum path width for a path where high speeds occur.

A.3 Separated Paths

Figure A 3 illustrates the operation of a one-way separated path.

The width for this path is:

- 1.5 m desirable width (overall path width of 3.0 m) and is appropriate for paths used by experienced cyclists, and where there are relatively high cyclist speeds.
- 1.2 m absolute minimum width (overall path width ≥ 2.4 m) and should only be used for local access paths (where higher speed cyclists are a small proportion of all users), where cyclist speeds are relatively low, and where the path abuts an adjoining pedestrian path not less than 1.2 m wide.
- 2.0 m is the width of the bicycle path (overall width of 3.5 m) required where passing within the cyclists' path section occurs or where it is desirable that passing manoeuvres by cyclists occur outside of the pedestrian path section of the facility.

A barrier separating the bicycle and pedestrian path sections is not usually required for separated one-way paths. However, physical separation should be considered in situations such as where path conditions are congested or where there are unsafe conditions due to path users.

In the event that a barrier is used to separate the bicycle and pedestrian path sections, then a wider pedestrian path section may be required to allow passing manoeuvres on that section of the path, amongst other reasons (e.g. pedestrian volumes).

Figure A 2: Shared path operation

Scenario Overall width of path

Predominant path purpose

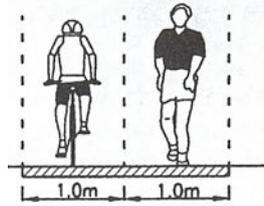
Typical circumstances of use

A

2.0 m

Local access

- constrained conditions
- 'tidal' flow
- low use

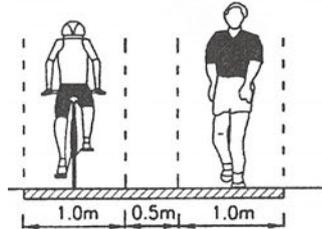


B

2.5 m

Commuting and local access

- Regular use
- 20 km/h

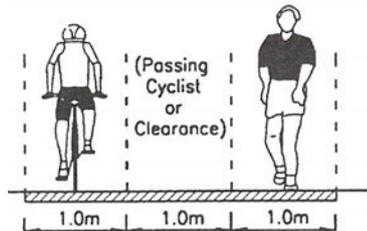


C

3.0 m

Commuting

- Frequent and concurrent use in both directions
- 30 km/h+

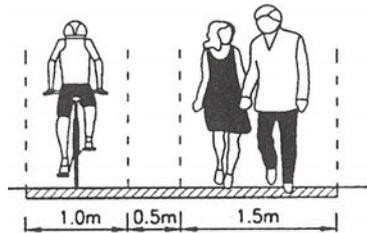


D

3.0 m

Recreation

- Regular use
- 20 km/h

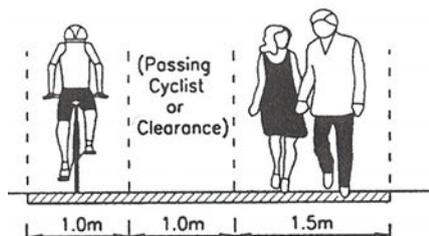


E

3.5 m

Commuting and recreation (concurrent)

- Frequent and concurrent use in both directions
- 30 km/h+

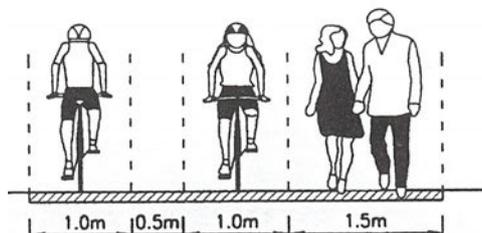


F

4.0 m

Major recreation

- High and concurrent use in both directions
- 20 km/h



G

4.0 m

Major recreation

- Regular group rides
- High and concurrent use in both directions
- Generally low speed due to congestion

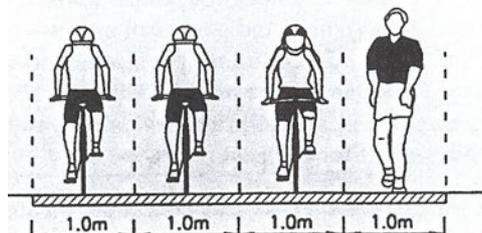
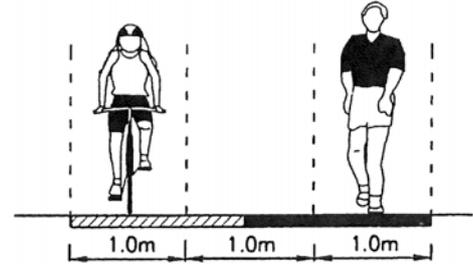
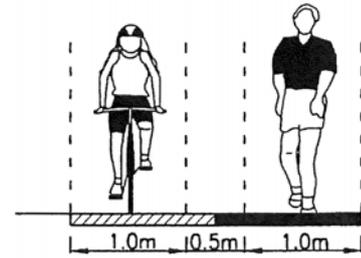


Figure A 3: Separated one-way path operation

Scenario	Overall width of path	Predominant path purpose
A	2.5 m	<p>Typical circumstances of use</p> <p>Commuting and local access</p> <ul style="list-style-type: none"> • Constrained conditions • 20 km/h
B	3.0 m	<p>Commuting</p> <ul style="list-style-type: none"> • Frequent and concurrent use in both path sections • 30 km/h+



Appendix B Speed Limiting Treatments

The use of speed limiting treatments on paths, either a bicycle path or a shared path, should follow the same principles as used when speed reducing treatments are placed on roads. The devices must provide a clear unambiguous direction to the path user, must not add a hazard and must be supported by necessary regulatory signage and linemarking.

Table B 1 sets out speed limiting treatments for bicycle path and shared path terminations.

Table B 1: Suggested path speed limiting treatments

Treatment	Use	Comments
Speed humps	Appropriate	Can destabilise riders and increase hazards if poorly sited or inadequately marked. Warning signs and linemarking similar to road humps.
Path narrowing	Appropriate	Minimum one-way width of 1.4 m. Warning signage and linemarking required.
Path deflection	Appropriate	Maximum deflection angle 10° for high-speed path and 20° for low-speed path.
Warning signs	Appropriate	Used to warn of an approaching hazard and to advise of a need to reduce speed. Used in conjunction with other methods.
Alternative paving	Appropriate	Use different materials and colours.
Path terminal deflection rails	Not appropriate	Can destabilise cyclists and increase hazards if used as a speed limiting treatment. Used only to prevent unauthorised vehicle entry when other methods have not succeeded.
Holding rails	Not appropriate	Only used at intersections to provide a temporary support for a cyclist.
Bollards	Not appropriate	Not considered an appropriate speed control treatment.

Source: Adapted from Roads and Traffic Authority (2005) and Queensland Department of Transport and Main Roads (2015a).

Appendix C Path Construction and Maintenance

C.1 General Requirements

Careful location, design and construction of paths for cycling can reduce future maintenance requirements. Careful attention to drainage, the location of vegetation and the type of vegetation planted can assist in minimising maintenance. A large amount of maintenance can be prevented if debris is not washed onto paths, and if appropriate plant species are selected so they do not cause pavement damage and trimming of overhead branches is not required.

The path alignment and cross-section should be designed to minimise the amount of debris, which can wash onto the path surface. Paths adjacent to watercourses should be located so that the likelihood of inundation and the resulting slippery surface is reduced.

Bushes that will not grow tall enough to obstruct sight distance should be planted on the inside of curves. Trees should be chosen and planted away from the edge of paths so as to minimise the likelihood of roots causing deformation and cracking of the path surface.

Paths for bicycles should be included in asset management programs in a similar manner to roads, to ensure a safe and useable riding surface and also to avoid the increasing cost of maintenance or reconstruction as a result of the asset degradation.

It is essential for effective maintenance operations that all aspects of the design allow for ease of access for all necessary maintenance plant (i.e. truck, backhoe, and mowers), not only to the path but abutting reservations that do not have alternate access. As the construction may not be performed by the agency performing the maintenance, consultation should be undertaken throughout the design process in order to determine maintenance requirements.

C.2 Path Maintenance Requirements

Regular maintenance activities on paths should include:

- filling of cracks (Figure C 1)
- trimming or removal of grass so that it does not intrude into the path (Figure C 2)
- sweeping of paths to remove debris such as broken glass and fine gravel (including that arising from construction and maintenance activities such as crack sealing)
- re-painting of pavement markings
- cleaning of signs
- trimming of trees and shrubs to maintain safe clearances and sight distances.

Figure C 1: Maintenance operations on asphalt path



Figure C 2: Asphalt path requiring maintenance



C.3 Pavements

C.3.1 Pavements for Bicycle Paths

The pavement of paths for cycling must be designed and constructed to a standard that ensures a satisfactory level of service for cyclists throughout the life of the facility.

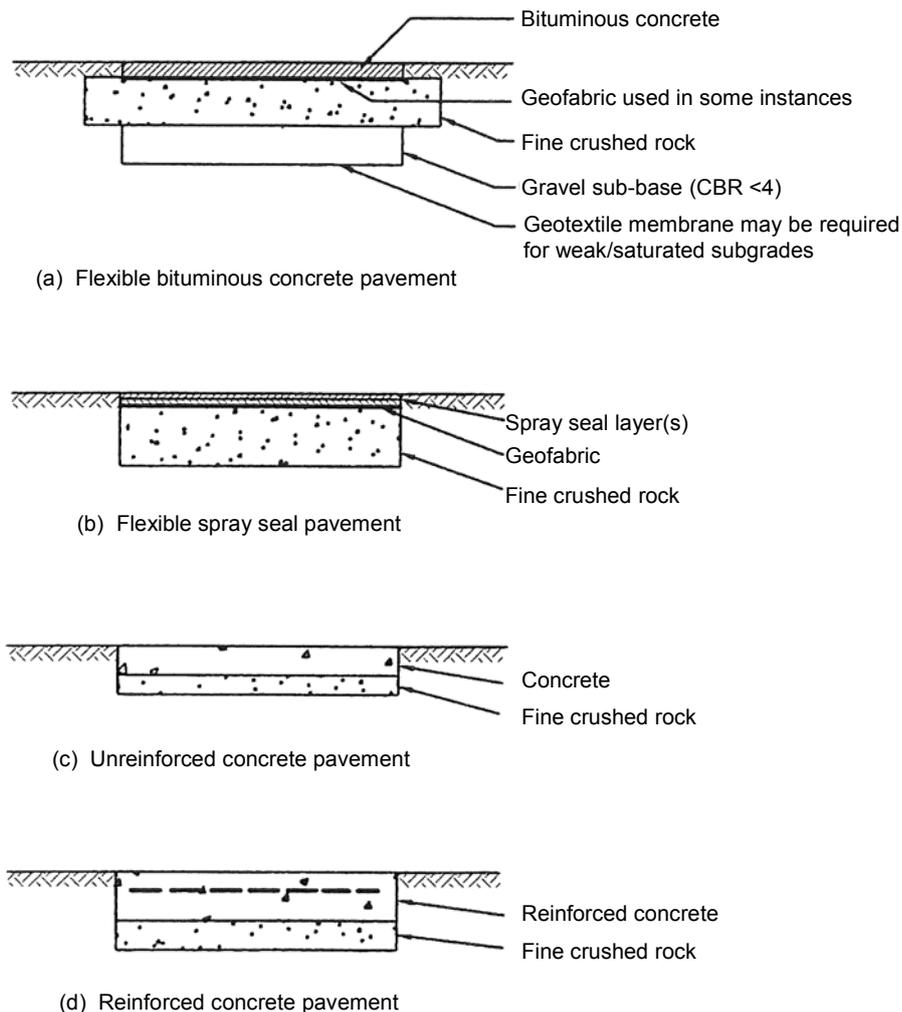
The maintenance activities discussed previously require the use of a truck and other substantial machinery. If paths are not designed to carry the live loads imparted by this equipment then pavements will suffer structural damage, which will affect use of the facility, and be expensive to repair. All paths should therefore be designed to withstand at least a fully laden small truck.

Most paths should have a hard weatherproof surface. Primarily they can be constructed as a flexible pavement of crushed rock surfaced with asphalt or a bituminous seal, or as a rigid concrete pavement.

It is important that the sub-grades of both flexible and rigid pavements are compacted to a satisfactory standard and soft areas are treated. It may be necessary in some cases to assess sub-grade conditions along the line of the proposed path.

Typical cross-sections of flexible and rigid pavements are shown in Figure C 3. Individual road agencies will have a preference for particular types of pavement based on experience using local materials that should result in economical pavements. Appropriate pavement design advice should be sought in every instance.

Figure C 3: Typical pavements for paths



Where paths are located on river banks and likely to become inundated they should be constructed of concrete to provide greater resistance to scour by flood water.

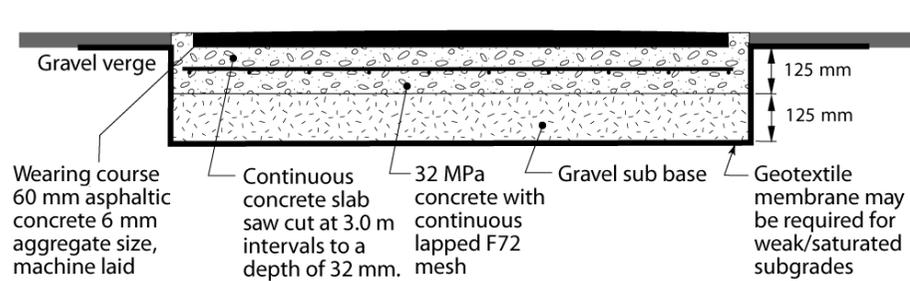
Coloured pavement surfaces are used in some instances (refer to the *Guide to Traffic Management Part 10: Traffic Control and Communication Devices* (Austroads 2016d)).

Some road agencies have detailed specifications for the construction of bicycle path and shared path pavements. Figure C 4 shows examples of different pavement types and transverse joint types for concrete pavements.

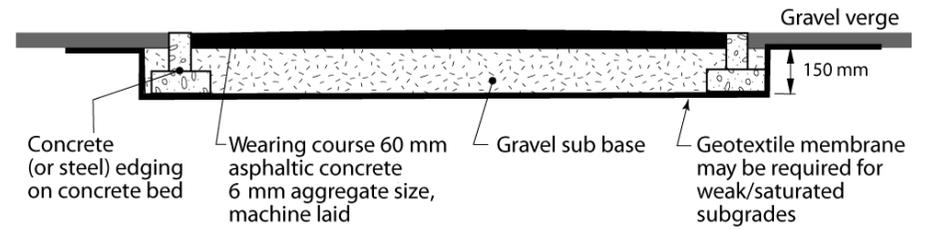
Skid resistance

The surface of a path needs to provide a skid resistant surface to minimise the occurrence of cyclists and pedestrians slipping or uncontrolled skidding on the path. As a guide information on the performance of various types of path surfaces is available in *Development of a performance based specification for a major bicycle facility* (Cairney & King 2003).

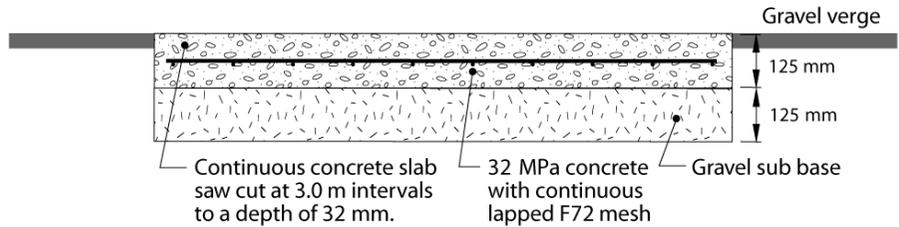
Figure C 4: Examples of bicycle path pavements



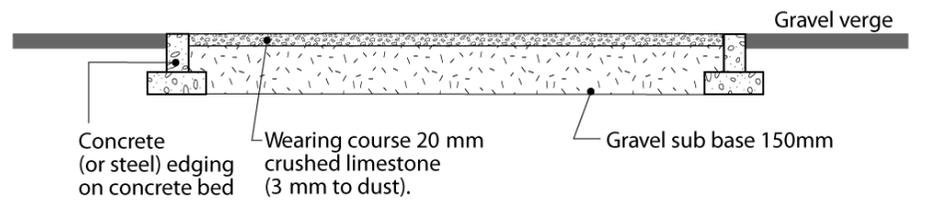
(a) Reinforced concrete path with asphalt surface and gravel sub base



(b) Asphaltic concrete path with concrete or steel edging and gravel sub base

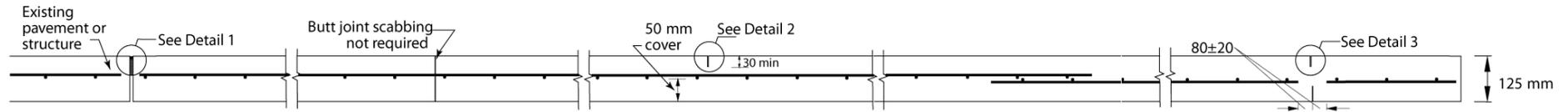


(c) Reinforced concrete path with gravel sub base



(d) Unsealed path with concrete or steel edging

Path cross sections



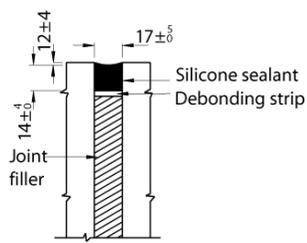
Isolation joint (without beam)
Used where new path joins to existing path or other structure.

Construction joint
Used when path is poured in two or more sections. This joint should be applied at 1.3 m (min) spacing to adjacent hinge-tied & sawn joint. Alternative option: break the mesh and place tiebars across the joint. Y2 ties 1000 long at 600 centres.

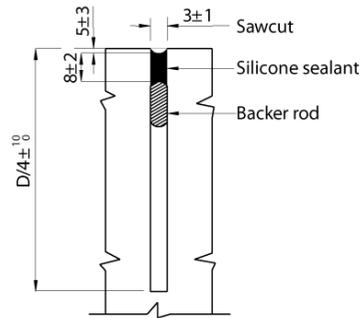
Hinge tied & sawn joint
The most commonly used path joint. Apply these joints at 3.0 m spacings.

Reinforcing lapped splice
Mesh must be placed so that the two outermost wires on the top sheet overlap the two outermost wires on the bottom sheet.

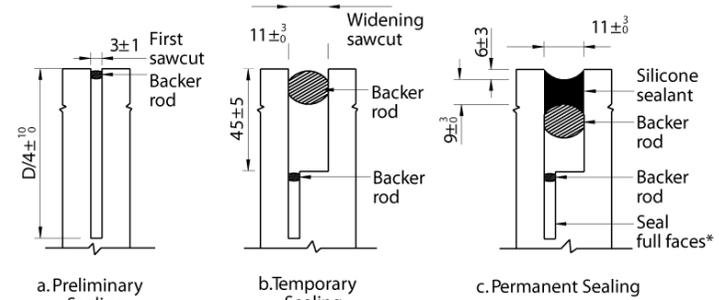
Sawn contraction joint provided at the second joint away from terminal anchors and junctions with existing flexible pavements.



Detail 1



Detail 2



Detail 3

* Sealants must extend down the vertical edge of the slab at all joints (for the depth of the sawcut) to prevent the ingress of incompressibles.

Jointing notes

- 1 Slab lengths may be varied $\pm 10\%$ as required to suit local conditions.
2. Transverse joints are to be aligned square to the longitudinal edge with a tolerance of $\pm 5^\circ$
3. Where dowels are used on joints these are to be galvanised and fixed.
Dowels must be supported in such a way that no steel crosses the joint except for the dowel.
4. Saw cuts should be made within 12 hrs of concrete placement or as soon as the concrete is strong enough to support the sawing equipment.

Concrete path transverse jointing types (longitudinal section)

Source: Adapted from Roads and Traffic Authority (2005).

C.3.2 Bituminous Surface Pavements

Flexible pavements have in the past been favoured in some jurisdictions because they are usually cheaper to construct than concrete and have in general provided superior riding qualities.

Asphalt mixes should be similar to those used for lightly trafficked streets. For a path a 5 mm aggregate size is commonly used. The asphalt aggregate size should not exceed 10 mm nominal size and when a sprayed seal is used, the aggregate size should not exceed 7 mm as larger aggregates may result in an unacceptably rough surface.

More information on asphalt surfaces is contained in *A Guide to Asphalt for Lightly Trafficked Streets*, (Australian Asphalt Pavement Association 1990) available at <<http://www.aapa.asn.au/technology-and-publications/advisory-notes>>.

Due to the high pressure in many bicycle tyres it is desirable that sprayed sealed surfaces have a stone size less than 14 mm in order to provide a comfortable ride for cyclists.

C.3.3 Concrete Pavements

The use of concrete paths can be beneficial on the basis of whole-of-life costs, but only where appropriate construction methods are employed. In general, concrete paths have a longer life and are relatively unaffected by:

- inundation and should therefore be preferred for paths close to watercourses
- the deleterious effects of vegetation either at cracks or along the path edges
- low levels of maintenance
- the absence of motor traffic (important to the condition of bituminous pavements)
- poor sub-grade conditions in some instances
- occasional heavy traffic (in the case of reinforced paths).

Concrete paths should be of sufficient strength to resist cracking and differential vertical movement. A skid-resistant surface finish should be provided by transverse brooming of the wet concrete. Similar attention should be given to the smoothness of path sections both at joints and in between.

The development of concrete path construction techniques and products has resulted in significant improvements in rider comfort. It is critical that such techniques (Cement and Concrete Association of Australia 2004) are employed. They include:

- preformed or saw-cut contraction joints
As a consequence bull floating, trowelling and broom finishing can be extended right up to the joints resulting in a considerably improved riding surface. In particular, wet formed contraction joints made using a grooving tool, should be avoided. The sealing of contraction joints may be important to minimise the ingress of dirt and to limit weed growth amongst other benefits.
- the use of extended bull floats (up to 4 m wide) to avoid long wave corrugations that affect cyclists travelling at speed
- narrower and fewer joints.

It is sometimes perceived that the contrast between the colour of lines and concrete surfaces is insufficient. Conversely, concrete paths are thought to offer a higher standard of delineation for cycling in dark conditions. As for other path surface types, it is important that pavement markings are maintained on concrete paths to a high standard.

C.3.4 Unsealed Paths

Consideration may be given to the provision of a stabilised unsealed surface as the first stage of development where:

- it is necessary to reduce construction costs
- the path is unlikely to flood to the extent that excessive damage to an unsealed path or excessive maintenance costs will result
- the volume of cyclists initially using the path is expected to be low
- flat gradients exist (e.g. less than 3%)
- costs need to be reduced
- the environmental amenity of an area will be reduced by a sealed path.

The second stage would be the provision of an asphalt, or bituminous surface, or possibly a concrete surface.

Care should be taken in the selection of the (unsealed) surface material to ensure that the riding surface is smooth and well bound, as cyclists will not be attracted to a path that has a poor surface. Well graded river gravels are most suitable. Materials that result in loose surfacing should not be used under any circumstances. Good drainage is also an important factor in the success of gravel paths.

C.3.5 Timber Surfaces

Gaps between longitudinal planks in timber decks can trap bicycle wheels and cause serious injuries to cyclists. Consideration should therefore be given to remedial treatment of existing timber bridges such as through an asphalt overlay of the outer 1.0 m sections of deck to provide a smooth, safe ride for cyclists. At the very least warning signs should be provided on the approaches to bridges that have longitudinal gaps in the deck.

On new timber bridges the planks should be placed perpendicular to the direction of travel of cyclists. In constructing and maintaining bridges it is important to ensure that the deck joints at abutments and piers provide a smooth and hence safe passage for cyclists.

Drainage should not be a problem when one considers the number of gaps in the decks of timber bridges. However, individual planks have the potential to warp and collect small, localised pools of water. Timber surfaces can be slippery in wet or shady conditions. Where these circumstances are common the application of a non-slip finish is also desirable, regardless of the alignment of planks.

Further information on pavement materials is contained in Commentary 3.

[\[see Commentary 3\]](#)

C.4 Life Cycle Costing

When selecting a pavement for a path, consideration should be given to the costs, the initial capital cost, annual maintenance costs and renewal costs so that the constructing agency is able to determine a pavement with the knowledge of the financial, initial and future requirements for the path. An example of a life cycle costing for path surfaces is shown in Table C 1.

Table C 1: Example of life cycle costs

Material	Construction cost ⁽¹⁾ (\$)	Annual maintenance cost ⁽²⁾ (\$)	Life cycle cost (\$)
Decomposed granite	105 000	27 000	391 000
Asphalt	120 000	3000	152 000
Concrete	195 000	1500	210 000
Boardwalk	1 200 000	2000	1 221 000

1 Assumes a 20 year period.

2 Assumes regular rain and flooding, requiring 30% replacement of surface annually.

Note:

The construction costs and annual maintenance costs are indicative only for the nominated section of path and have been provided to show the development of the life cycle costs. For other paths, these costs should be determined using jurisdiction information.

Source: Adapted from Road and Traffic Authority (2005).

C.5 Provision at Works

C.5.1 General

When construction and maintenance work is carried out involving trenching or other construction work across roads and paths, access for cyclists and pedestrians should be maintained to a satisfactory quality to avoid the use of alternative routes which may be hazardous or inconvenient.

Construction and maintenance works should be undertaken in such a way that these activities do not place cyclists and pedestrians at risk during the works period. This is particularly important, for instance, where a sealed shoulder is closed for maintenance on freeways or other high speed roads where cyclists may be permitted.

C.5.2 Signing and Delineation at Work Sites on or Adjacent to Paths

The signing and delineation of construction and maintenance works on roads and paths should be performed in accordance with AS 1742.3:2009 and any relevant local codes of practice and regulations. In general, provision for works on paths should be made in accordance with the principles of these standards.

A principal objective of providing for cyclists and pedestrians adjacent to works site, the surface should be maintained in a clean and smooth state.

Figure C 5, Figure C 6 and Figure C 7 highlight the desired level of provision required in the vicinity of works, depending on the circumstances. The actual provisions to be made are dependent on the conditions that exist, including:

- presence of a traffic controller
- existing level of bicycle use, and also of pedestrian use in the case of shared path diversions
- available opportunities to provide for cyclists
- road or path alignment
- traffic speeds and volumes
- duration of work
- surface material and condition
- environmental impacts.

Provision for cyclists on roads should be made in the following circumstances:

- where bicycle lanes exist
- arterial roads
- collector roads, with an AADT in excess of 3000 vehicles per day
- strategic and other significant bicycle routes.

Safety barriers should be provided where required by AS 1742.3:2009, and are generally appropriate where cyclists or pedestrians are detoured onto roads. Temporary (lower) speed limits may also be appropriate in this circumstance.

Figure C 5 provides guidance where adequate provision for cyclists is not possible on a road, access along a path in the area of the roadside verge may be appropriate. Provided adequate separation from the work area can be maintained, it is generally acceptable to initiate and terminate the roadside verge bicycle access within the road lane transition zones either side of the work area.

For paths, reference should be made to Section 2 and Section 3 for guidance relating to paths located away from road reserves where temporary roadside verge access is required. The controls highlighted in these sections are applicable to temporary paths.

Containment fences should be provided in accordance with the requirements of AS 1742.3:2009, and otherwise as required by the *Guide to Road Design Part 6B: Roadside Environment* (Austroads 2015b). These may be appropriate to separate pedestrians and cyclists where a pedestrian path is to be used for access by cyclists, and where:

- significant pedestrian or bicycle volumes exist
- safety issues may arise due to the unexpected use of a pedestrian path by cyclists.

Examples of provisions for paths located adjacent to roads and in reserves are shown in Figure C 6 and Figure C 7.

Temporary paths should be sealed. Whilst dependent on circumstances, such as bicycle volumes, safety and the extent of inconvenience to cyclists, this may be unnecessary where:

- the works are carried out over a short period (e.g. less than two or three weeks duration)
- the temporary path surface is firm, smooth and free of thorns
- the works are carried out during dry weather conditions
- path traffic is minimal.

However, it is very desirable that temporary paths are sealed and delineated where works are carried out over longer periods. Separated paths should be suitably delineated regardless of the period of construction.

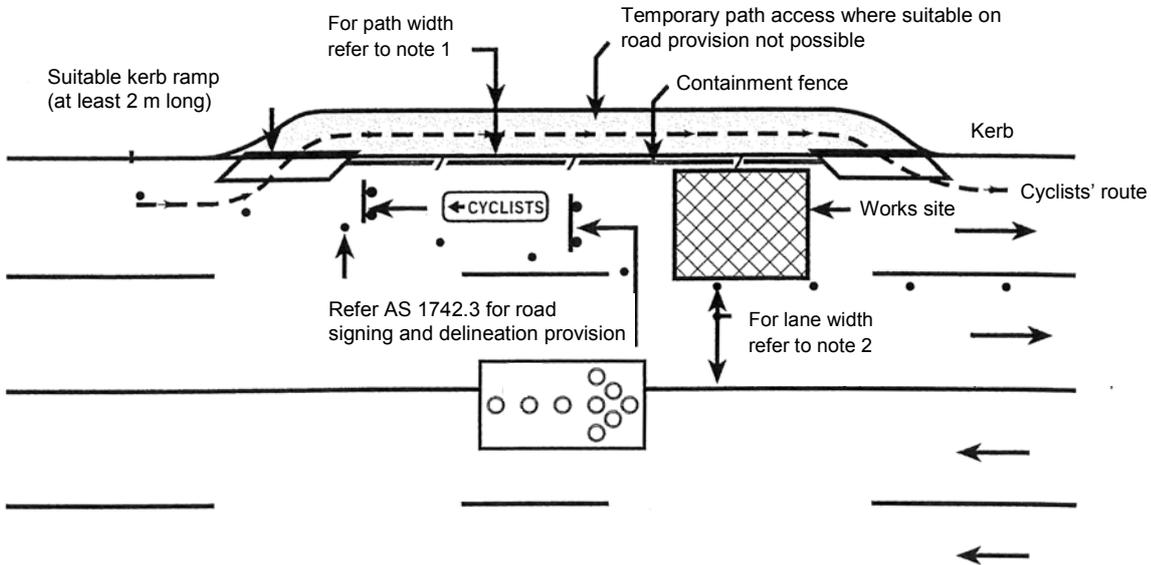
Where works on paths are carried out for a period exceeding one day, the works should be made sufficiently visible for night-time path travel, so that path users are able to observe conditions under low ambient light conditions including temporary access paths, and take appropriate action. In addition, as a general principle, lighting on temporary access paths should not be less than the existing level on the original path.

Specific consideration may need to be given to the intersections of paths and roads. The measures taken to protect traffic should be balanced with consideration to all of the potential users and movements at such locations.

Where containment fences are used, to avoid catching the pedals of cyclists the fence should be set back from paths by at least 0.3 m and fine weave mesh should be used to prevent bicycle handlebars or pedals from catching on the fence.

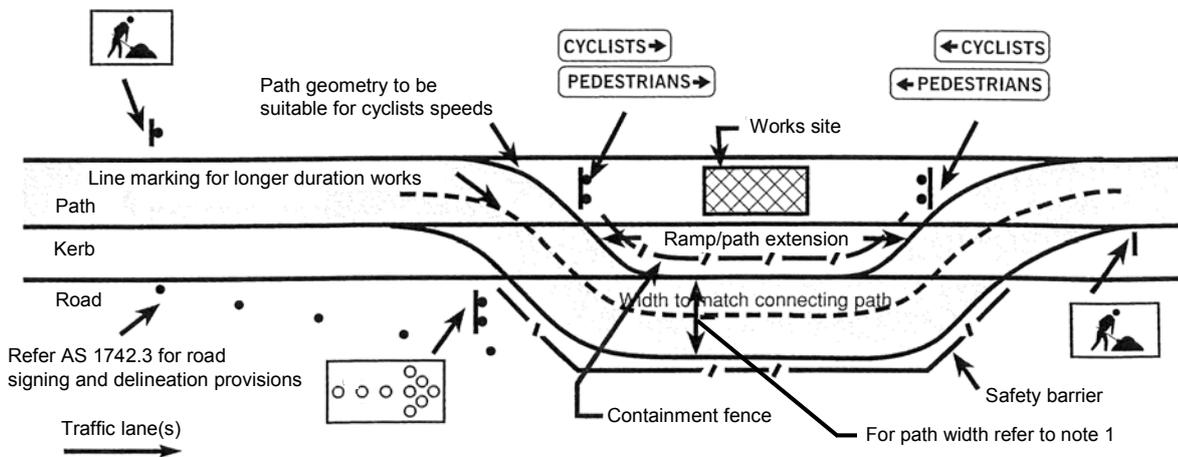
Surface tolerances for bicycle riding surfaces are provided in Section 5.10. Where steel road plates are used to cover excavated or damaged pavement surfaces, appropriate steps should be taken to ensure that any steps and grooves are within the permissible tolerances.

Figure C 5: Works on roads – exclusive bicycle path diversion



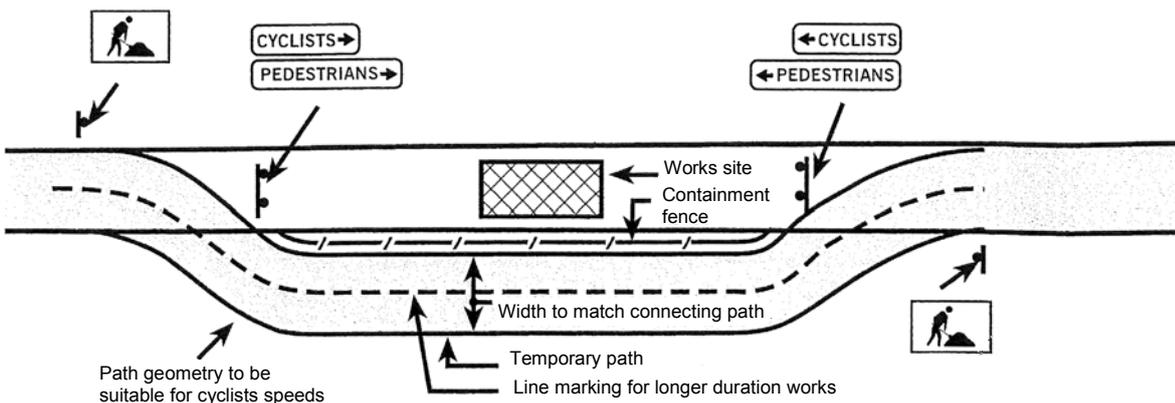
- 1 For path width refer to Section 5.1.3.
- 2 For lane width refer to AGRD Part 3 (Austroads 2016b).

Figure C 6: Works on paths adjacent roads – shared path diversion



- 1 For path width refer to Section 5.1.4.

Figure C 7: Works on paths – shared path diversion



Appendix D Bicycle Safety Audit Checklist

D.1 Introduction

The implementation of a system of auditing of the infrastructure, which includes cycling facilities, either integrated with a similar process for roads, or otherwise, is recognised as the most appropriate means of undertaking these assessments.

In accordance with the Austroads road safety audit process (Austroads 2009a), it is appropriate that audits of bicycle routes and other facilities are conducted at various stages from planning through to construction, and in relation to existing infrastructure.

The lists of items in the sections below represent the possible contents of a checklist to assist the identification of relevant safety issues or concerns associated with bicycle facilities. It is unlikely that they include all of the issues that are of relevance or concern to cyclists, particularly given the wide variation in construction and design practice, and the conditions that exist.

It is therefore essential that personnel conducting audits of bicycle facilities are experienced in and knowledgeable about the provision of bicycle facilities.

Individual items provided in the lists may be applicable during several audit stages or may only relate to existing infrastructure.

Where existing infrastructure is to be audited, it is important that to some degree the audit is performed on a bicycle and on foot. The type of bicycle used should be representative of the most common type in the region of the audit, but should not have a suspension system or tyres wider than 32 mm.

Similarly, it is important that safety audit personnel ride at speeds typical of most users – which may be in excess of 25 km/h. Riding at slower speeds may not reveal potential problems such as geometric limitations or pavement surface defects.

Section D.2 is generally applicable to roads, paths and intersections. The requirements that relate mainly to either paths or roads are provided in Section D.9 and Section D.10 respectively.

In so far as roads are concerned, it is assumed that general road safety auditing processes exist, and hence the lists below represent additional considerations for bicycles.

D.2 General Requirements for Roads and Paths

- Are the designated crossing points and routes appropriate and acceptable to meet the required cyclist volumes?
- Are the characteristic bicycle use patterns accommodated (i.e. categories of cyclists, volumes, times of travel)?
- Do the proposals account for surrounding bicycle network deficiencies and opportunities?
- Do consistent and suitable provisions exist for the respective categories of cyclists anticipated along the route, or can they be achieved; for instance, is a path required for children and inexperienced cyclists?
- Are grade separated or controlled crossings required?
- Are traffic calming or local area traffic management measures required? (refer to the *Guide to Traffic Management Part 8: Local Area Traffic Management*) (Austroads 2016c).
- Are the requirements of local codes of practice met?

D.3 Alignment and Cross-section

- Does the cross-section of the lane/path facility safely accommodate the anticipated cyclists?
- Are stopping sight distances adequate for all traffic, accounting for paths, roads, driveways, railways etc.?
- Are sight lines applicable to the operation of cyclists obscured by obstacles such as signs, trees, pedestrian fences and parked cars?
- Is the horizontal and vertical alignment suitable? If not, are warning signs installed?
- Are there any sections of riding surface which may cause confusion for users, e.g.
 - Is alignment of the riding surface clearly defined, particularly at unexpected bends or for dark conditions?
 - Have disused pavement sections been removed or treated?
- Is sufficient route information or guidance provided?
- Does the design avoid or minimise the need for cyclists to slow or stop?
- Do hazardous conditions (e.g. concealed intersecting paths, curves) exist at the bottom of steep gradients?

D.4 Signs, Delineation and Lighting

- Are all necessary pavement markings provided?
- Are there any redundant pavement markings? Have redundant pavement markings been properly removed?
- Are all necessary regulatory, warning and direction signs provided and located appropriately? Are they conspicuous and clear in their intent? Are they at a safe distance/height with respect to the riding surface?
- Are signs in good condition and of an appropriate standard?
- Are there any redundant signs?
- Are fixed objects close to or on the path (trees, fences, holding rails, etc.) treated to ensure visibility at night (e.g. painted white and fitted with reflectors or reflective tape)?
- Are pavement markings clearly visible and effective for all likely conditions (e.g. day, night, rain, fog, rising or setting sun, oncoming headlights, light coloured pavement surface, poor lighting)?
- Are user movements obvious or delineated through intersections?
- Is public lighting of facilities required? Is the lighting design satisfactory, particularly at tunnels, underpasses and areas of high pedestrian activity? Is it operating satisfactorily?
- Are raised pavement markers recessed flush with the surface or located outside of the paths of travel of cyclists, or outside of bicycle lanes?
- Are thermoplastic markings chamfered?

D.5 Riding Surface

- Is the riding surface suitable for cycling?
- Are the riding surface and edges smooth and free of defects (e.g. grooves, ruts or steps) which could affect the stability of cyclists or cause wheel damage?
- Is the pavement design/construction of a satisfactory standard?
- Can utility service covers, grates, drainage pits etc. be safely negotiated by cyclists?

- Are smooth and flat gutters/channels provided at stormwater drainage pit inlets?
- Is the riding surface free of loose materials (e.g. sand, gravel, broken glass, concrete spills)?
- Is there suitable protection to prevent sand or other debris from depositing on the riding surface?
- Does the riding surface have adequate skid resistance, particularly at curves, intersections, bridge expansion joints and railway crossings?
- Is the riding surface generally free of areas where ponding or flow of water may occur?
- Is special protection required to prevent cyclists from running off the riding surface?

D.6 Vegetation, Maintenance and Construction

- Is suitable access for cycling available during maintenance and construction activities? (Appendix C).
- Are all locations free of construction or maintenance equipment?
- In the absence of an appropriate and regular maintenance program
 - Is there a possibility of the encroachment of grasses into bituminous riding surfaces (e.g. kikuyu) or similar circumstances that could result in poor edge conditions or pavement degradation?
 - Do thorn-bearing grasses (e.g. caltrop) exist, or are they likely to be introduced adjacent to the riding surface?
 - Are channels, kerb slots or similar treatments over which cyclists ride, located under deciduous trees etc. or otherwise likely to experience a build-up of debris due to poor drainage conditions?
- Will crack sealing processes or the application of spray seals result in the presence of loose/granular material/sand on the riding surface?
- Does landscaping allow adequate clearances, sight distance etc. and will these be maintained given mature plant growth?
- Could personal security of path users be adversely affected due to the position of bushes and other landscape features?
- Is landscaping required as a wind break?
- Will the positioning of trees and the species used contribute to the degradation of the pavement (e.g. through undermining or moisture variation)?

D.7 Traffic Signals

- Are separate pedestrian and/or bicycle phases provided where necessary?
- Do traffic signals operate correctly? Are signal displays located appropriately for all users?
- Does the design of the signals prevent conflicting motor vehicle movements during crossing phases for pedestrians and cyclists?
- Where a permanent demand for individual phases does not exist, have suitable detection facilities been provided for cyclists? Are these operating satisfactorily?
- Are inductive detector loops provided for bicycle users, are they located appropriately, of a suitable design and do they operate correctly for bicycles in the various stopping positions?
- If push-button actuators have been provided, are they located to allow convenient and legal operation from the normal stopping position (e.g. on the left of the riding surface or kerb ramp, behind the stop line)? Do they operate correctly?
- Are phasing and phase times acceptable? Are suitable warning signs or guidance for cyclists erected where intersection crossing times are insufficient?

D.8 Physical Objects

- Are fences, safety barrier or other objects located within 1.0 m of the path(s) of cyclists
 - free of sharp edges, exposed elements or corners so as to minimise the risk of injury to cyclists in the event of the feature/object being struck by a bicycle?
 - designed to minimise the potential for bicycle handle bars or pedals to become caught in the feature should an errant bicycle collide with it?
- If there are any obstructions located adjacent to the paths of cyclists, are they adequately delineated?
- Are clearances to the operating space of cyclists acceptable?

D.9 Paths

This section should be read in conjunction with Section D.2.

D.9.1 General

- Are automatic reticulation systems timed to avoid periods of significant path use? Do sprinklers spray away from the path (rather than across it)?
- Do irrigation hoses need to be placed across path surfaces?
- Are provisions for car parking in the vicinity of the path satisfactory in relation to the operation and safety of path users?
- Are there any potential problems of conflict between the various path users (e.g. pedestrians and cyclists)?
- Is the path subject to flooding? If so, are warning signs provided and located appropriately?

D.9.2 Alignment and Cross-section

- Where paths are located adjacent to roads, is there sufficient separation and/or protection from the carriageway?
- Are adequate overtaking opportunities provided?
- Is the path width, at structures or otherwise, adequate for the likely usage levels of pedestrians and cyclists?
- Is the geometric alignment and gradient satisfactory?
- Is the design speed appropriate?
- Is path crossfall suitable for the anticipated path users?
- Is the crossfall steep enough to adequately drain the path and prevent ponding on the surface, while being flat enough to be comfortable for pedestrians?

D.9.3 Intersections

- If justified, is path priority assigned to path users at road crossings?
- At intersections with busy roads, are appropriate facilities provided, e.g. traffic signals, underpass, overpass or median refuge, to allow path users to safely cross? Are the intersection controls satisfactory?
- Is the location of road/path or path/path intersections satisfactory and obvious with respect to horizontal and vertical alignment?
- Is the presence of intersections obvious to road/path users?
- Is a refuge required at road crossings? Would it adversely affect (e.g. squeeze) cyclists travelling along the road?

- In relation to path entry controls
 - Are terminal devices required? If so, does the device design meet the requirements of this Part?
 - If central holding rails or bollards exist, is there a legitimate reason why they are needed, and if so is there sufficient pavement width either side?
- Are kerb ramps adequate and suitable for all users (width, slope, flush surface)? Are turning radii adequate?
- Are holding rails provided? Are they positioned so as to not unduly interfere with access for cyclists and other users (consider tandem bicycles, bicycles with trailers etc.)?
- Are the controls associated with path/path intersections satisfactory?

D.10 Roads

Whilst this Part relates to paths it is often the case that road and path treatments interface therefore this section contains some information relating to roads that may impact on path users.

D.10.1 General

- Are bicycle lanes required?
- Are bicycle lane widths or the left traffic lane widths adequate to accommodate cyclists?
- Can sufficient space be obtained? Are there any squeeze points for cyclists?
- Does the construction of the lane facility conform to this Part and other relevant standards?
- Are special provisions required along curving roads?
- Are road markings for cyclists suitable and adequate, and do they meet relevant standards?
- On controlled access roads, is a path for experienced riders required within the reservation?
- Are local area traffic management treatments appropriate for bicycles?
- Are drainage pit covers flush with the surface or are there level differences that could be hazardous to cyclists and pedestrians?
- Is the positioning of bicycle pavement symbols potentially hazardous to motorcyclists?
- Are sealed shoulders at least as smooth as traffic lanes?

D.10.2 Intersections

- Are the intersection treatments appropriate?
- Are there any common cyclist movements (legal or otherwise) that differ from typical traffic movements? Are these likely to be anticipated by other traffic? Can these movements be made safely and if not what remedial measures are required?
- Are 'head start' storage areas required due to conflicting manoeuvres of bicycles and other traffic, or due to high cyclist volumes?
- Are special provisions for cyclists required at roundabouts?
- Are there continuity lines marked where appropriate?
- Are grated drainage pits that are potentially hazardous to cyclists and pedestrians located within the road/path intersection or within the turning path of cyclists (i.e. radii in the corners of the intersection)?
- Are grated pits on paths or in close proximity to paths properly designed so that they cannot trap bicycle wheels?

Commentary 1

C1.1 Planning and Need for a Path

C1.1.1 Planning

Cycling and walking have significant roles in transport systems throughout Australia and New Zealand and are expected to make an important contribution to the well-being and transportation of people in future.

The *Australian National Cycling Strategy 2011–2016* (Austroads 2010b) recognises that more and more people are cycling in Australia and whilst there have been many initiatives undertaken there is a need to provide greater progress. To support and encourage this progress the Strategy has the following priorities and objectives, in part:

- **Cycling promotion:** promote cycling both as a viable and safe mode of transport and an enjoyable recreational activity.
- **Infrastructure and Facilities:** create a comprehensive network of safe and attractive routes to cycle and end-of-trip facilities.
- **Integrated Planning:** consider and address cycling needs in all relevant transport and land use planning activities.
- **Safety:** enable people to cycle safely.
- **Monitoring and Evaluation:** improve monitoring and evaluation of cycling programs and develop decision-making processes for investment in cycling.
- **Guidance and Best Practice:** develop nationally consistent technical guidance for stakeholders to use and share best practice across jurisdictions.

The type of on-road bicycle facility should also align with the functional road hierarchy. An example of the alignment of a bicycle facility and road function, for urban roads, has been developed by Queensland Department of Transport and Main Roads (2015b) and is shown in Table C1 1.

Table C1 1: Example of an urban road bicycle facility selection depending on road function

Road function	Vehicle operating speed (km/h)		Cycle tracks appropriate?	Explanation
Local access road with or without parking	Up to 30 km/h		No	Mixed traffic is appropriate. Cycle track with limited vehicle access may be appropriate (refer 3.2.1).
			Maybe	Bicycle lanes/cycle tracks may be appropriate on primary bicycle route.
Collector/distributor road	Up to 50 km/h	No kerbside parking		Bicycle lanes with no kerbside parking are most appropriate.
		With kerbside parking	Yes	Bicycle lanes <u>not</u> preferred due to door zone conflicts (refer 3.3.1).
Arterial road	More than 50 km/h		Yes	Bicycle lanes <u>not</u> preferred due to high speed difference.
Urban motorway	More than 70 km/h		No	High quality parallel off-road bicycle path with grade separated, signalised or priority crossings at intersections is appropriate.

Source: Queensland Department of Transport and Main Roads (2015b).

The national strategy in New Zealand is *Getting there – on foot, by bicycle: A strategy to advance walking and cycling in New Zealand transport* (Ministry of Transport 2005). This strategy aims to ensure that supportive walking and cycling environments are provided in New Zealand communities, that safety is improved for pedestrians and cyclists, and that people walk and cycle more as part of their day-to-day transport mix. The development of walking and cycling is integral to achieving the five key objectives of this strategy:

- improving access and mobility
- protecting and promoting public health
- ensuring environmental sustainability
- assisting economic development
- assisting safety and personal security.

When planning or designing a path in a road, rail, river or coastal reservation it is important that designers have a broad view of the transport network and identify connections to other paths and facilities that should be provided as part of the design or accommodated in plans for the future.

It is important also to recognise the broad range of performance and skill that exists among pedestrians and cyclists due to factors such as age, experience, physical ability, cognitive skill and vision, and the need to provide paths to satisfy the needs of various users and demands.

Bicycle paths and facilities are generally designed for a normal bicycle. However, it is important to understand that there are other forms of human-powered vehicles that have a broad range of performance characteristics that may have to be considered. For example, tandem bicycles are generally the least manoeuvrable human-powered vehicle, which may have implications for path terminal design.

Planners and designers should establish early in the process whether the path is likely to carry a significant number of human powered vehicles other than bicycles so that paths and facilities are designed to safely accommodate the appropriate design vehicle. Commentary 2 provides operational characteristics for examples of human-powered vehicles and this information may assist designers in providing for them where necessary.

[\[see Commentary 2\]](#)

Designers should be aware of local pedestrian or cycling planning and design guides. These guides generally provide the policy and network planning context in which pedestrian facilities are provided within a jurisdiction. With respect to pedestrians examples of these guides include:

- How to Prepare a Pedestrian Access and Mobility Plan: An easy three stage guide (Roads and Traffic Authority 2002)
- Easy Steps: a toolkit for planning, designing and promoting safe walking (Queensland Transport 2005)
- Pedestrian Planning and Design Guide (NZ Transport Agency 2009).

Traffic management aspects and road user considerations in relation to pedestrian and cycling paths are provided in Austroads (2013a) and Austroads (2014a).

C1.2 Need for a Path

C1.2.1 General

The provision of coherent networks of pedestrian and bicycle paths is important because they

- encourage exercise which improves public health and reduces the strain on health services and hospital systems
- can assist in causing a shift from car to other forms of transport (walking, cycling and public transport) thereby reducing air pollution, greenhouse emissions and other forms of environmental pollution, as well as assisting in the management of traffic congestion
- benefit businesses through healthier employees who enjoy a better quality of life.

Designers have a role in achieving these important outcomes by ensuring that paths and associated facilities are appropriately located and designed.

Traffic management aspects and road user considerations in relation to pedestrian and cycling paths are provided in Austroads (2017c) and Austroads (2013a).

C1.2.2 Pedestrian Paths

The most common type of pedestrian path is used by pedestrians and young cyclists (depending on local road rules). The general principles relating to provision of pedestrian paths include:

- In general, all roads should have some type of walking facility out of the vehicle path. An exception may be categories of road that have a very low volume and low operating speed such as minor access roads.
- Pedestrian path installation warrants based solely on pedestrian volumes are not practical, except in the central business districts of cities and at event locations.

The need for pedestrian paths should also be related to the pedestrian network functional requirements. For example, the presence of pedestrians on many rural roads is a rare event and the provision of paths is not economically justified. In this situation the provision of shoulders will provide space for a pedestrian who happens to use the road.

On all roads that have a moderate to high speed and significant pedestrian activity should be provided with pedestrian paths because of the high risk of serious injury should a pedestrian be struck by a vehicle.

A higher road functional classification in urban areas generally means higher traffic speeds and volumes, and hence a need to provide for pedestrian mobility and safety. However, some roads classified as local streets also function as traffic routes and have similar needs.

Collector and arterial roads in the vicinity of schools should be provided with pedestrian paths and desirably off-road cycle paths, shared or segregated pedestrian paths, to increase safety for children travelling to and from school. Safe routes to school can also reduce reliance on car travel for school trips and have health and environmental benefits.

Many people with disabilities undertake much of their travel either on foot, in wheelchairs or on personal mobility devices (e.g. scooters) and so the development of a network of adequate pedestrian paths is important for their mobility. The provision of pedestrian paths that meet recommended dimensions, surface requirements, and which are free of obstructions is important to ensure that they do not represent a hazard for people who have difficulty in detecting or manoeuvring around obstacles.

The use of mobility scooters has emerged as an alternative means of transport for people with mobility impairment or other health issues and is likely to grow as the population ages. It is therefore important that paths and associated facilities can accommodate this type of use. The characteristics of these vehicles can be obtained from specifications on suppliers web sites. Dimensions for width, length and turning radii vary depending on model (e.g. length is often in the range 1.2 m to 1.6 m). Designers should source typical dimensions for products used in Australia and New Zealand and ensure that they can be accommodated within path and facility designs. For example mobility scooters should be able to:

- use kerb ramps and cross-channels without the device becoming unstable or the undercarriage impacting the path or road pavement
- turn within intersections and pass through chicanes and other devices in a continuous forward motion
- store safely within refuges without overhanging into the adjacent traffic lane.

Table C1 2 is an example of when pedestrian paths may be required based on the general abutting land use, and illustrates the way in which the principles are applied in New Zealand.

Table C1 2: New Zealand example of when to provide urban and rural pedestrian paths

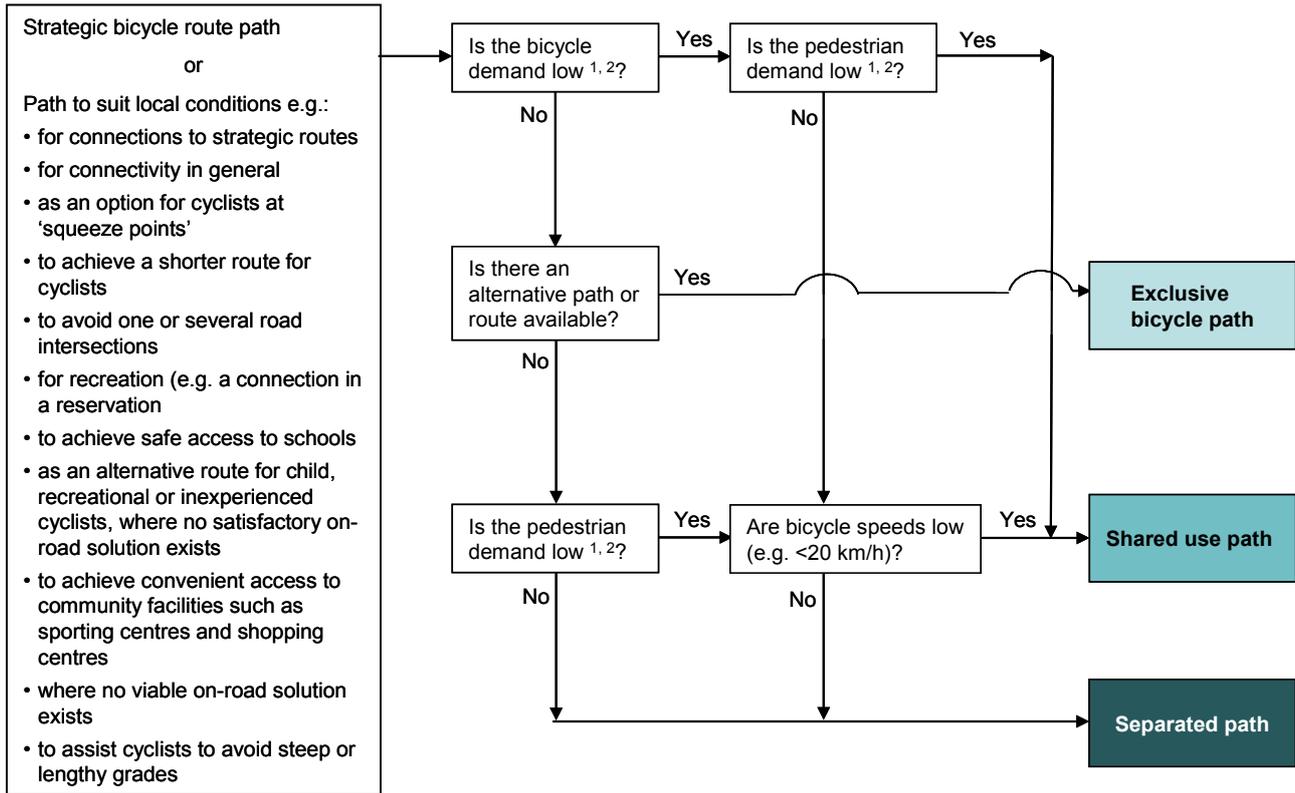
Land use	Pedestrian path provision			
	New roads		Existing roads	
	Preferred	Minimum	Preferred	Minimum
Commercial and industrial	Both sides		Both sides	
Residential (on arterial roads)				
Residential (on collector roads)				
Residential (on local streets)			Both sides	One side
Three to ten dwellings per hectare	Both sides	One side	One side	Shoulders on both sides
Fewer than three dwellings per hectare	One side	Shoulders on both sides		

Source: NZ Transport Agency (2009).

C1.2.3 Paths for Cycling

The flow chart in Figure C1 1 is a basic guide to assist designers to choose an appropriate type of path treatment. The flow chart only considers the primary factors needed to determine the type of treatment required. Prior to this chart being applied a decision will have been taken as to whether an on-road lane or an off-road path, or both, are required. Also, there may be other issues, constraints and practices that will have a bearing on the decision-making process.

Figure C1 1: Guide to the choice of path treatment for cyclists



1 The level of demand can be assessed generally on the basis of the peak periods of a typical day as follows:

- Low volume: Infrequent use of path (say less than 10 users per hour)
- High volume: Regular use in both directions of travel (say more than 50 users per hour).

2 These path volumes are suggested in order to limit the incidence of conflict between users, and are significantly lower than the capacity of the principal path types.

C1.2.4 Operation Characteristics

Where sufficient volumes exist, separate paths should be provided for the exclusive use of cyclists and pedestrians. Separated paths may reduce the potential for conflict and allow the bicycle path section to operate at a reasonable speed.

An indication of the extent of other users normally found on shared paths is shown in Table C1 3.

Table C1 3: Categories of users of shared paths

Category of user	Specific users within category
Pedestrians	Children Elderly People pushing prams & strollers Family groups Dog walkers Joggers
Cyclists	Children Families Adults Individuals & groups Power assisted bicycles
Users with disabilities (vision, hearing mobility, & cognitively impaired users)	Pedestrians Sporting users Manual wheelchair users Electric wheelchair/scooter users
Small-wheeled vehicle users	Children's pedal/motorised/electric cars In-line skaters Skate boarders Foot scooters
Others	Organised events Maintenance workers Horse riders Anglers

If the facility is intended for use by experienced cyclists then it should follow a direct route to a popular destination, be wide and have a horizontal and vertical alignment which allows safe, high speed bicycle travel. Rail reserves and river banks can offer an opportunity to provide a high quality path. Provision of an exclusive bicycle path can often, but not always, mean that a separate parallel facility has to be provided to meet the volume of pedestrians and other potential users.

Because cyclist volumes are often relatively low, the cost of paths significant and many paths provide useful and attractive links for pedestrians, there has been a tendency for shared-use paths to be provided rather than exclusive bicycle paths. Whilst this enables the maximum benefit to be derived from these facilities, conflict does occur between cyclists and other users, particularly pedestrians, and this has become an issue on some busy paths. For this reason a separated path which divides the operating space for each use, or where completely separate facilities are provided, may be appropriate where both cyclist and pedestrian (or other user) volumes are heavy.

In some jurisdictions cyclists are permitted to ride on pedestrian paths whereas in others pedestrian paths must be signed as shared paths before cyclists are able to use them legally. The issue of cycling on pedestrian paths is one that must be addressed by the authorities responsible for traffic regulation.

Although they can be designed for high speeds, many paths are not used by inter-suburb distance cyclists. This is mainly due to cyclists inability to travel constantly at the relatively high speed attainable on the road system, and because paths often do not lead to useful destinations. Indirect paths bring cyclists into conflict with other users, and cause them to have to yield at side streets.

These factors can result in speeds being low and overall travel times being relatively long, and unattractive to cyclists. Thus paths should not be regarded as a substitute for adequately designing roads for travel by bicycle.

In designing an off-carriageway facility for bicycles, the designer should first determine the purpose of the cycling path. The purpose of a path is best assessed through consideration of the potential, likely and desired use of the path amongst the various categories of cyclists. Predominantly, a path for cycling may either lead to specific destinations or offer a pleasant ride. Therefore the detailed designs of commuter and recreational paths can be quite different.

Crashes and even fatalities occur on paths and may be the result of high-density use or as a result of mixed use which results in a large differential in speeds. Careful consideration of separated paths for differing user needs may be required to minimise risk within limited budgets.

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Commentary 2

Although the bicycle is the standard vehicle for the design of facilities, the use of other human-powered vehicles (HPVs) such as tandem bicycles, tricycles and other ‘pedal powered vehicles’ may be popular in some areas and an allowance for these vehicles may be appropriate in the design of some facilities.

There is limited information available on the needs and operating characteristics of these vehicles, and in particular on their performance from the perspective of road and path design, or in relation to traffic management and safety. Therefore, designers should make their own assessment of the required measures that need to be taken to account for the use of these vehicles.

Consideration of the issues in Table C2 1 relating to HPVs and elderly or impaired cyclists may be relevant to the design of bicycle facilities that have significant use by these vehicles and path users.

Table C2 1: Human powered vehicles – facility design considerations

Issue	Details
Sight distance	Consider low cyclist eye height (as low as 0.7 m above riding surface in some instances)
Braking performance	Due to factors such as the low centre of gravity and braking system, performance of a recumbent tricycle can be significantly more effective than a standard bicycle. Conversely, a tandem bicycle may have a lesser performance
Medians or refuge width	The additional length of some HPVs may necessitate special consideration
Turning paths	Refer to Table C2 2
Width of road and path facilities	Use a vehicle design envelope equal to the difference in inner and outer turning path radii, plus 0.3 m (0.4 m for tandem bicycle). If this is greater than the standard bicycle envelope width then increase path space in road or path treatments accordingly
Path terminals	Give due consideration and allowance for lesser turning capabilities and in particular avoid chicanes
Speed	May be relatively high for tandem bicycles. May be lower for elderly cyclists or cyclists who have impairments
Gradients	Path gradients may have to be flatter for elderly cyclists, or cyclists who have impairments
Education	Make relevant advice available (e.g. conspicuity of low HPVs)

Operating dimensions of specific HPVs that may be of assistance to designers are shown in Table C2 2. Photographic examples of HPVs are shown in Figure C2 1, Figure C2 2 and Figure C2 3.

Table C2 2: Examples of HPV dimensions

Examples of human powered vehicles (HPVs)	Overall vehicle width (m)	Inner turning path radius (m)	Outer turning path radius (m)	Length (m)
Recumbent touring tricycle (Greenspeed)	0.9	1.4	2.3	1.95
Tandem recumbent touring tricycle (Greenspeed)	1.0	3.1	4.1	3.5
Tandem bicycle (Cannondale)	0.56	1.85	2.55	2.45
Bicycle with two wheel trailer (Coolstop)	0.82	0.7	1.85	2.67
Bicycle with BOB trailer (i.e. baby on board)	0.56	0.9	1.6	2.8
Bicycle with hitch-bicycle (Thorogood)	0.56	1.7	2.55	1.7

Figure C2 1: Examples of recumbent tricycles



Source: ICE Trikes (personal communication 2017)

Figure C2 2: Example of tandem bicycle



Figure C2 3: Example of bicycle with a hitch-bicycle attached



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Commentary 3

C3.1 Concrete and Asphalt

Hard surfaces, such as concrete and asphalt, are generally the most functionally appropriate. They are preferred where the pedestrian path is on a gradient, especially where it can become wet. Concrete and other light coloured surfaces are preferred in hot climates as they radiate less heat. However, a disadvantage of concrete surfaces can be increased glare for pedestrians who may congregate adjacent to the path (e.g. cafes, general seating, and bus stops).

In order to provide a safer facility for cyclists and pedestrians, expansion/contraction joints should be no wider than 13 mm and the concrete surfaces should be finished to provide a non-slip surface (e.g. wooden floated or sponged finish may be satisfactory). Brushed or broomed finishes can have a disadvantage in that they cause increased abrasions for cyclists in the event of a fall, but may be necessary to enhance traction on steep grades. In some jurisdictions, there is a preference for saw-cut expansion joints.

C3.2 Pavers and Bricks

Glazed surfaces can become very slippery when wet and so pavers and bricks used on pedestrian paths in external areas should not be glazed. Joints should be as flush as possible and should not be wider than 13 mm. Unless they are laid on a firm base, small paving units tend to move independently and form an uneven surface. The provision of a firm, well-compacted base, or preferably a concrete base is essential where this type of paving is to be used for pedestrian paths.

Bluestone pavers are sometimes used as pavers in threshold local area traffic management treatments. They often fail the flatness test noted above and are difficult to negotiate for people in wheelchairs and some others. Bluestone pavers should therefore not be used on pedestrian routes or pedestrian paths. People with sight impairments frequently use differences in pavement colour as a means of guidance. They can find the variation of colour that occurs in surfaces composed of pavers confusing.

C3.3 Loose Surface Materials

Avoid the use of exposed aggregate, gravel, soil, sand, grass and tanbark surfacing on pedestrian routes, other than recreational routes. Even though they can be less expensive, and more aesthetic, some people find them difficult to walk on and they can impose severe difficulties for people in wheelchairs.

Where unsealed surfaces are used adequate crossfall should be provided to ensure that good drainage occurs. Unsealed surfaces may require an increase in crossfall (up to 5%) to prevent puddles of water from developing, though AS 1428.1:2009 specifies that a path crossfall should not exceed 2.5% to cater for people who have a disability.

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Guide to Road Design Part 6A: Paths for Walking and Cycling provides guidance for designers and other practitioners on the design of paths for safe and efficient walking and cycling, both within and outside the road corridor. The guide provides information on considerations that should be given in providing a path, describes the types of paths and covers the requirements of path users, e.g. operating spaces, factors that influence path locations, and geometric design criteria for a path and related facilities such as intersections between paths, and terminal treatments. Detailed guidance is provided on path location, alignment, width, clearances, crossfall, drainage and sight distance requirements.

Guide to Road Design Part 6A

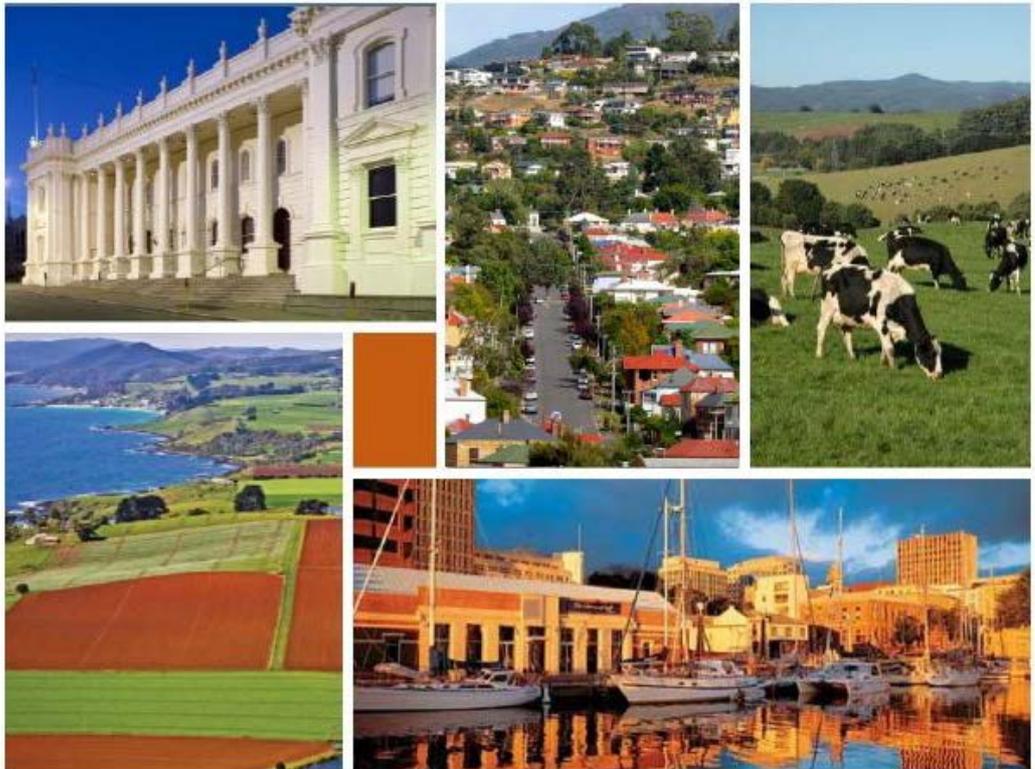


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Tasmanian Planning Scheme



State Planning Provisions

State Planning Provisions - Version Control

Version No:	Effective Date:	Amendment No:	Description
1	2 March 2017		Original version of the SPPs made on 22 February 2017
2	19 April 2018	01-2017	Minor amendments not requiring public exhibition under section 30H(3) of the Act
3	19 February 2020	01-2018	Assessment of draft amendment of the State Planning Provisions to correct errors, remove anomalies and improve clarity of interpretation
4	20 July 2022	01-2021	Minor amendments under section 30NA of the Act

Foreword

The Tasmanian Planning Scheme (TPS) sets out the requirements for use or development of land in accordance with the *Land Use Planning and Approvals Act 1993* (the Act).

The TPS comprises two parts:

the State Planning Provisions (SPPs) which includes the identification and purpose, the administrative requirements and processes, including exemptions from the planning scheme and general provisions that apply to all use and development irrespective of the zone, the zones with standard use and development provisions, and the codes with standard provisions; and

the Local Provisions Schedules (LPSs) that apply to each municipal area and include zone and overlay maps, local area objectives, code lists, particular purpose zones, specific area plans, and any site-specific qualifications.

The SPPs and the relevant LPS together form all of the planning provisions that apply to a municipal area (the local application of the TPS). These will be administered by planning authorities.

The SPPs also set out the requirements for the Local Provisions Schedules.

The provisions in the TPS should be read together with the Act.

The foreword, table of contents, headings and footnotes are not legally part of this planning scheme. They have been included to assist users' understanding of the planning scheme and its relationship with the Act. They are a guide only and do not cover all relevant law relating to the operation of planning schemes or the planning application and assessment process.

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State Planning Provisions - Applied, Adopted and Incorporated Documents

LP1.0 Local Provisions Schedules Requirements

Appendix A – Local Provisions Schedules Structure

Identification and Purpose of this Planning Scheme

1.0 Identification of this Planning Scheme

1.1 Planning Scheme Title

1.1.1 This planning scheme is called the Tasmanian Planning Scheme (TPS).

1.2 Composition of this Planning Scheme

1.2.1 This planning scheme consists of two parts: the State Planning Provisions (SPPs) and a Local Provisions Schedule (LPS) for each municipal area in Tasmania.

1.2.2 The SPPs include administration clauses, general provisions, use and development standards for zones and codes and LPS requirements.

1.2.3 The LPSs include the zone maps, overlay maps, local area objectives, particular purpose zones, specific area plans, site-specific qualifications and code lists for each municipal area in Tasmania.

1.2.4 The foreword, table of contents, headings and footnotes are not legally part of this planning scheme.

2.0 Planning Scheme Purpose

2.1 Purpose

2.1.1 The purpose of this planning scheme is to further the objectives of the Resource Management and Planning System and the planning process set out in Parts 1 and 2 of Schedule 1 of the Act and be consistent with State Policies in force under the *State Policies and Projects Act 1993* by:

- (a) regulating or prohibiting the use or development of land; and
- (b) making provisions for the use, development, protection and conservation of land.

Administration

3.0 Interpretation

3.1 Planning Terms and Definitions

3.1.1 Terms¹ in this planning scheme have their ordinary meaning unless they are defined in:

- (a) the Act; or
- (b) unless the contrary intention appears, are specifically defined in Table 3.1 or in a zone, code or specific area plan.

3.1.2 In this planning scheme, a reference to a Use Table is a reference to the Use Table in a zone or specific area plan.

3.1.3 The titles of use classes are listed and use classes are described in Table 6.2. Wherever used in this planning scheme, the use class titles are capitalised. Where a capitalised use class title is used, it is to be taken to refer to the use class listed and as described in Table 6.2, unless otherwise qualified or indicated.

Table 3.1 Planning Terms and Definitions

Term	Definition
Act	means the <i>Land Use Planning and Approvals Act 1993</i> .
access strip	means the narrow part of an internal lot to provide access to a road.
activity centre	means a place that provides a focus for retail, commercial, services, employment, and social interaction in cities and towns.
activity centre hierarchy	means the activity centre network or hierarchy referred to in a relevant regional land use strategy.
adjacent	means near to, and includes adjoining.
adjoining	means next to, or having a common boundary with.
adult entertainment venue	means the use of land for the purpose of providing forms of sexually explicit entertainment for adults only, and may include provision of food and drink.

¹ The Tasmanian Planning Scheme separately lists Use Classes in Table 6.2.

Term	Definition
adult sex product shop	<p>means use of land to sell or hire sexually explicit material, including but not limited to:</p> <ul style="list-style-type: none"> (a) publications classified as restricted under the <i>Classification (Publications, Films and Computer Games) Enforcement Act 1995</i>; and (b) materials and devices, other than contraceptives and medical treatments, used in conjunction with sexual behaviour.
agricultural land	<p>means all land that is in agricultural use, or has the potential for agricultural use, that has not been zoned or developed for another use or would not be unduly restricted for agricultural use by its size, shape and proximity to adjoining non-agricultural uses.</p>
agricultural use	<p>means use of the land for propagating, cultivating or harvesting plants or for keeping and breeding of animals, excluding domestic animals and pets. It includes the handling, packing or storing of plant and animal produce for dispatch to processors. It includes controlled environment agriculture and plantation forestry.</p>
AHD	<p>means the Australian Height Datum (Tasmania) being the vertical geodetic datum as described in Chapter 8 of the <i>Geocentric Datum of Australia Technical Manual version 2.4</i>.</p>
amenity	<p>means, in relation to a locality, place or building, any quality, condition or factor that makes or contributes to making the locality, place or building harmonious, pleasant or enjoyable.</p>
amusement parlour	<p>means use of land for a building that contains one or more of the following:</p> <ul style="list-style-type: none"> (a) 3 or more coin, card, or token operated amusement machines; (b) one or more coin, card, or token operated amusement machines with more than one screen or console that can be played by 3 or more people simultaneously; (c) 2 or more coin, card, or token operated billiard, snooker, or pool tables; or (d) the conduct of laser games or similar. <p>It does not include gambling machines or premises included in the Hotel Industry Use Class.</p>
animal pound	<p>means use of land for an enclosure for confining stray or homeless animals or animals impounded by a council.</p>
animal saleyard	<p>means use of land to buy and sell farm animals, and hold such animals for purchase or sale.</p>
annual exceedance probability	<p>means the probability of an event with a certain magnitude being exceeded in any one year.</p>

Term	Definition
applicable standard	means as defined in subclause 5.6.2 of this planning scheme.
application	means an application for a permit made under this planning scheme.
aquaculture	means use of land to keep or breed aquatic animals, or cultivate or propagate aquatic plants, and includes the use of tanks or impoundments on land.
art and craft centre	means use of land to manufacture, display, and sell, works of art or craft, such as handicrafts, paintings and sculpture.
arterial road	means a road that predominantly carries through traffic from one region to another, forming principal avenues of travel for traffic movements.
assisted housing	means housing provided by an organisation for higher needs tenants or residents, including those with physical or intellectual disabilities, and may include associated support services.
basement	means a storey either below finished ground level or that projects not more than 1m above finished ground level.
boarding house	means use of land for a dwelling in which lodgers rent one or more rooms, generally for extended periods, and some parts of the dwelling are shared by all lodgers.
boat and caravan storage	means use of land to store boats, caravans, vehicle-towed boat trailers or the like.
building	means as defined in the Act.
building area	means any area shown on a plan to indicate where all buildings will be located on a lot.
building envelope	means the three-dimensional space within which buildings are to occur.
building height	means the vertical distance from existing ground level at any point to the uppermost part of a building directly above that point, excluding protrusions such as aerials, antennae, solar panels, chimneys and vents.
building line	means a line drawn parallel to a frontage along the front facade of a building or through the point of a building closest to the frontage, excluding protrusions.
camping and caravan park	means use of land to allow accommodation in caravans, cabins, motor homes, tents or the like and includes amenities provided for residents and persons away from their normal place of residence.

Term	Definition
clearance and conversion	means as defined in the <i>Forest Practices Act 1985</i> .
cidery	means use of land for the manufacture of cider products and if land is so used, includes the display and sale of cider products, and the preparation and sale of food and drink for consumption on the premises.
cinema	means use of land to display films, videos or other moving images to persons for reward.
coastal protection works	means structures or works aimed at protecting land, property and human life from adverse impacts caused by erosion or inundation in the coastal zone.
coastal zone	means as described in section 5 of the <i>State Coastal Policy Validation Act 2003</i> .
collector road	means a non-arterial road that collects and distributes traffic in an area as well as serving abutting property.
communal residence	means use of land for a building to accommodate persons who are unrelated to one another and who share some parts of the building such as a boarding house, residential college and residential care facility.
consulting room	means use of land for services provided by a health or other therapies practitioner, other than services provided by a medical centre.
controlled environment agriculture	means an agricultural use carried out within some form of built structure, whether temporary or permanent, which mitigates the effect of the natural environment and climate. Such agricultural uses include production techniques that may or may not use imported growth medium such as greenhouses, polythene covered structures, and hydroponic facilities.
council	means as defined in the Act.
crop production	means use of land to propagate, cultivate or harvest plants, including cereals, flowers, fruit, seeds, and vegetables.
day respite centre	means use of land for day time respite care for the sick, aged or persons with disabilities.
declared weed	means as defined in the <i>Weed Management Act 1999</i> .
demolition	means the destruction or removal of any building or works in whole or in part other than by accident.
development	means as defined in the Act.

Term	Definition
development area	means the area of land occupied by development including its yard, outbuildings, vehicle parking, driveways, storage areas, landscaping and wastewater disposal areas.
Director of Housing	means the Director as defined in the <i>Homes Act 1935</i> .
dwelling	means a building, or part of a building, used as a self-contained residence and which includes food preparation facilities, a bath or shower, laundry facilities, a toilet and sink, and any outbuilding and works normally forming part of a dwelling.
effective date	means the date on which the Local Provisions Schedule came into effect in the municipal area.
eligible persons	means as defined in the <i>Homes Act 1935</i> .
employment training centre	means use of land to provide education and training to jobseekers and unemployed persons.
environmental harm	means the same as is described in the <i>Environmental Management and Pollution Control Act 1994</i> .
environmental nuisance	means as defined in the <i>Environmental Management and Pollution Control Act 1994</i> .
existing ground level	when used in respect of a development, means the level of a site at any point existing at the effective date.
finished ground level	when used in respect of a development, means the level of a site at any point after the development has been completed.
forest operations	means as defined in the <i>Forest Management Act 2013</i> .
forest practices	means as defined in the <i>Forest Practices Act 1985</i> .
forest practices plan	means a forest practices plan certified under the <i>Forest Practices Act 1985</i> .
frontage	means a boundary of a lot which abuts a road.
full water supply service	means a potable water supply, from a reticulated network, that meets the minimum flow requirement.
function centre	means use of land, by arrangement, to cater for functions, and in which food and drink may be served. It may include entertainment and dancing.
funeral parlour	means use of land to organise and conduct funerals, memorial services, or the like. It includes the storage and preparation of bodies for burial or cremation.

Term	Definition
gross floor area	means the total floor area of the building measured from the outside of the external walls or the centre of a common wall.
habitable building	means a building of Class 1 – 9 of the <i>Building Code of Australia</i> with the exception of Class 7a buildings.
habitable room	means any room of a habitable building other than a room used, or intended to be used, for a bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, stair, hallway, lobby, clothes drying room, service or utility room, or other space of a specialised nature occupied neither frequently nor for extended periods.
hazardous chemical of a manifest quantity	means a hazardous chemical, as defined in the <i>Work Health and Safety Regulations 2012</i> , if the amount of hazardous chemical stored exceeds the manifest quantity as specified under the <i>Work Health and Safety Regulations 2012</i> . ²
home-based business	means use of part of a dwelling by a resident for non-residential purposes if: <ul style="list-style-type: none"> (a) the person conducting the business normally uses the dwelling as their principal place of residence; (b) it does not involve employment of more than 2 workers on-site who do not reside at the dwelling; (c) any load on a utility is no more than for a domestic use; (d) there is no activity that causes electrical interference to use on other land; (e) there is no storage of hazardous material on site; (f) the display of goods for sale are not visible from any road or public open space adjoining the site; (g) there is, on the site, no advertising of the business other than 1 sign (non-illuminated) not exceeding 0.2m² in area; (h) there is, on the site, no refuelling, servicing, detailing or repair of vehicles not owned by a resident; (i) no more than 2 commercial vehicles are on the site at any one time and no commercial vehicle on the site exceeds 2 tonnes; and (j) all vehicles used by the business are parked on the site.
home-based child care	means use of a dwelling to mind or care for children for a day or part of a day, by one or more persons residing in the dwelling.
hostel	means a supervised place of accommodation, usually supplying board and lodging for students or the like.

² It will be necessary to refer to the relevant Safety Datasheet.

Term	Definition
hours of operation	means the hours that a use is open to the public or conducting activities related to the use, not including routine activities normally associated with opening and closing or office and administrative tasks.
housing support provider	means as defined in the <i>Homes Act 1935</i> .
intensive animal husbandry	means use of land to keep or breed farm animals, including birds, within a concentrated and confined animal growing operation by importing most food from outside the animal enclosures and includes a feedlot, poultry farm or piggery.
internal lot	means a lot: (a) lying predominantly behind another lot; and (b) having access to a road by an access strip, private road or right of way.
irrigation district	means an area of land appointed as an irrigation district under Part 9 of the <i>Water Management Act 1999</i> .
junction	means an intersection between two or more roads at a common level, including the intersections of on and off ramps, and grade-separated roads.
land	means as defined in the Act.
land filling	means any change to the existing ground level of land by placement of any fill material, excluding refuse disposal, whether sourced from the land or elsewhere.
landscaping treatment	means an area of a site containing plants, placed to enhance the streetscape and be complementary to the scale of development on the site, including car parking, storage and buildings.
level 2 activity	means as defined in the <i>Environmental Management and Pollution Control Act 1994</i> .
level crossing	means as defined in section 35 of the <i>Rail Infrastructure Act 2007</i> .
limited water supply service	means a water supply service other than a full water supply service.
liquid fuel depot	means use of land for the storage, wholesale and distribution of liquid fuel.
local shop	means the use of land for the sale of grocery or convenience items if the gross floor area is not more than 200m ² .
lot	means a piece or parcel of land where there is only one title other than a lot within the meaning of the <i>Strata Titles Act 1998</i> .

Term	Definition
major sporting facility	means a sporting facility providing for national standard sporting competition with associated spectator facilities.
managing authority	means a managing authority under section 12G of <i>Crown Lands Act 1976</i> or section 29 of the <i>National Parks and Reserves Management Act 2002</i> .
marina	means use of land to moor boats, or store boats above or adjacent to the water. It includes boat recovery facilities, facilities to repair, fuel, and maintain boats and boat accessories, and may include boat sales.
marine farming shore facility	means use of land to provide on shore support infrastructure and facilities for off-shore aquaculture but does not include the processing of fish or other marine organisms.
market	means use of land to sell goods, including but not limited to foodstuffs, from stalls.
medical centre	means use of land to provide health services (including preventative care, diagnosis, medical and surgical treatment, and counselling) to out-patients only.
mezzanine	means an intermediate floor within a room.
minimum flow requirement	means the minimum flow rate as defined in a price and service plan that is in effect and made in accordance with the <i>Water and Sewerage Industry Act 2008</i> .
mining lease	means as defined in the <i>Mineral Resources Development Act 1995</i> .
minor utilities	means use of land for utilities for local distribution or reticulation of services and associated infrastructure such as a footpath, cycle path, stormwater channel, water and sewer pipes, retention basin, telecommunication lines, gas pipelines or electricity substations and power lines up to but not exceeding 110kV.
motel	means use of land to provide accommodation in serviced rooms for persons away from their normal place of residence, if provision is made for parking of guests' vehicles near to their rooms.
motor repairs	means use of land for the business of repairing or servicing motor vehicles, motors and includes the fitting of motor accessories.
motor vehicle, boat or caravan sales	means use of land to sell or hire motor vehicles, boats, or caravans. It includes the minor repair or servicing of motor vehicles, boats, or caravans, and the sale or fitting of accessories for motor vehicles, boats or caravans.
multiple dwellings	means 2 or more dwellings on a site.
museum	means use of land to display archaeological, biological, cultural, geographical, geological, historical, scientific, or other similar works or artefacts.

Term	Definition
native vegetation	means plants that are indigenous to Tasmania including trees, shrubs, herbs and grasses that have not been planted for domestic or commercial purposes.
neighbourhood centre	means the use of land for a facility providing community and social services for the surrounding area.
office	means use of land for administration, clerical, technical, professional, business or other similar activities.
outbuilding	means a non-habitable detached building of Class 10a of the <i>Building Code of Australia</i> and includes a garage, carport or shed.
outdoor recreation facility	means use of land for outdoor leisure, recreation, or sport.
overnight camping area	means the use of land which is open to public use for holiday and recreational purposes, involving primarily the setting up and use of tents for overnight accommodation.
panel beating	means use of land for the business of repairing or replacing damaged motor vehicle bodies and panels, and carrying out any associated mechanical work or spray painting.
permit	means as defined in the Act.
planning authority	means the council responsible for administering this planning scheme in its municipal area.
plantation forestry	means the use of land for planting, management and harvesting of trees for commercial wood production, but does not include the milling or processing of timber, or the planting or management of areas of a farm for shelter belts, firewood, erosion or salinity control or other environmental management purposes, or other activity directly associated with and subservient to another form of agricultural use.
potable water supply	means a water supply that meets the requirements of the <i>Public Health Act 1997</i> , including any delegated legislation or guidelines.
primary frontage	means: <ul style="list-style-type: none"> (a) if there is only a single frontage, the frontage; or (b) if there are 2 or more frontages, the frontage with the shortest dimensions measured parallel to the road irrespective of minor deviations and corner truncations.

Term	Definition
primary produce sales	means use of land to sell unprocessed primary produce grown on the land or adjacent land.
prime agricultural land	means agricultural land classified as class 1, 2 or 3 land using the class definitions and methodology from the <i>Land Capability Handbook, Guidelines for Classification of Agricultural Land in Tasmania, 2nd edition, 1999</i> .
private garden	means land adjacent to a dwelling that has been modified with landscaping or vegetation, including ornamental or edible plants, or the like.
private open space	means an outdoor area of the land or dwelling for the exclusive use of the occupants of the land or dwelling, excluding areas proposed or approved for vehicle access or vehicle parking.
proclaimed wharf area	means as defined in the Act.
protrusion	means a protrusion from a building such as awnings, steps, porches, eaves, fascias, gutters, masonry chimneys, flues, pipes, domestic fuel or water tanks, and heating or cooling equipment or other services.
public art gallery	means use of land to display works of art including ceramics, furniture, glass, paintings, sculptures and textiles, which land is maintained at the public expense, under public control and open to the public generally.
public holiday	means a statutory holiday as defined in the <i>Statutory Holidays Act 2000</i> .
public land	means land owned or managed by the Crown, a State authority or a council.
public open space	means land for public recreation or public gardens or for similar purposes.
public stormwater system	means as defined in the <i>Urban Drainage Act 2013</i> .
rail authority	means the agency, authority or business enterprise which has responsibility for rail infrastructure in Tasmania.
railway	means as defined in the <i>Rail Infrastructure Act 2007</i> .
refuse disposal	means use of land to dispose of refuse.
regional land use strategy	means as defined in the Act.
regulated entity	means as defined in the <i>Water and Sewerage Industry Act 2008</i> .

Term	Definition
remand centre	means use of land for an institution to which accused persons are sent for detention while awaiting appearance before a court.
reserve management plan	means a management plan prepared under the <i>National Parks and Reserves Management Act 2002</i> , the <i>Wellington Park Act 1993</i> or the <i>Living Marine Resources Act 1995</i> , or any management plan approved under the <i>Crown Lands Act 1976</i> .
residential care facility	means use of land for accommodation and personal or nursing care. It includes recreational, health or laundry facilities and services for residents of the facility.
residential support service	means a centre, where services are provided by government or other community organisations, in the provision of residential accommodation.
respite centre	means use of land for respite care for the sick, aged or persons with disabilities.
retirement village	means use of land to provide permanent accommodation for retired people or the aged and includes communal recreational or medical facilities for residents of the village.
road	means land over which the general public has permanent right of passage, including the whole width between abutting property boundaries, all footpaths and the like, and all bridges over which such a road passes.
road authority	means for State highways or subsidiary roads, within the meaning of the <i>Roads and Jetties Act 1935</i> , and bridges declared under section 23 of the <i>Local Government (Highways) Act 1982</i> , the Minister administering those Acts and in relation to all other roads, the council having the control of such roads pursuant to the <i>Local Government (Highways) Act 1982</i> .
scrap yard	means use of land where disused vehicles, materials and machinery or parts are collected and either sold or prepared for being used again, and includes the use or onselling of scrap materials.
sealed plan	means as defined in the <i>Local Government (Building and Miscellaneous Provisions) Act 1993</i> .
secondary residence	means an additional residence which is self-contained and: <ul style="list-style-type: none"> (a) has a gross floor area not more than 60m²; (b) is appurtenant to a single dwelling; (c) shares with the single dwelling access and parking, and water, sewerage, gas, electricity and telecommunications connections and meters; and (d) may include laundry facilities.
self storage	means use of land to store goods in individual enclosed compartments.

Term	Definition
sensitive use	means a residential use or a use involving the presence of people for extended periods except in the course of their employment such as a caravan park, childcare centre, dwelling, hospital or school.
service station	means use of land to sell motor vehicle fuel from bowsers, and vehicle lubricants and if such use is made of the land, includes: (a) selling or installing motor vehicle accessories or parts; (b) selling of food, drinks and other convenience items; (c) hiring of trailers; and (d) servicing or washing motor vehicles.
setback	means the distance from any lot boundary to a building on the lot.
shipping container storage	means use of land to store shipping containers and if such use is made of the land, includes the cleaning, repair, servicing, painting or fumigation of the shipping containers.
sign	means a device, structure, depiction, or the like, that is intended to give information, advertise or attract attention to a place, product, service or event.
single dwelling	means a dwelling on a lot on which no other dwelling, other than a secondary residence, is situated.
site	means the lot or lots on which a use or development is located or proposed to be located.
site area per dwelling	means the area of a site, excluding any access strip, divided by the number of dwellings on that site.
site coverage	means the proportion of a site, excluding any access strip, covered by roofed buildings.
skyline	means a line along the top of a hill or mountain that forms an outline against the sky.
solar energy installation	means a solar panel, evacuated tube solar collectors, or the like.
solid fuel depot	means use of land to sell solid fuel, such as briquettes, coal, and firewood.
standard	means, in any zone, code or specific area plan, the objective for a particular planning issue and the means for satisfying that objective through either an acceptable solution or performance criterion presented as the tests to meet the objective.

Term	Definition
State authority	means as defined in the Act.
State-reserved land	<p>means:</p> <ul style="list-style-type: none"> (a) land owned by the Crown or a State authority and reserved for any purpose under the <i>Nature Conservation Act 2002</i>, or the <i>Crown Lands Act 1976</i>; or (b) fee simple land reserved for any purpose under the <i>Nature Conservation Act 2002</i> where the Director of Parks and Wildlife is the managing authority.
State waters	means as defined in section 5 of the <i>Living Marine Resources Management Act 1995</i> .
storey	means that part of a building between floor levels, excluding a mezzanine level. If there is no floor above, it is the part between the floor level and the ceiling.
strata lot	means a lot as defined in the <i>Strata Titles Act 1998</i> .
strata scheme	means as defined in the <i>Strata Titles Act 1998</i> .
streetscape	<p>means the visual quality of a street depicted by road width, street planting, characteristics and features, public utilities constructed within the road reserve, the setback of buildings and structures from the property boundaries, the quality, scale, bulk and design of buildings and structures fronting the road reserve.</p> <p>For the purposes of determining streetscape for a particular site, the above matters are relevant when viewed from either side of the same street within 100m of each side boundary of the site, unless for a local heritage precinct or local historic landscape precinct listed in the relevant Local Provisions Schedule, where the extent of the streetscape may be determined by the relevant precinct provisions.</p>
subdivide	<p>means to divide the surface of a lot by creating estates or interests giving separate rights of occupation otherwise than by:</p> <ul style="list-style-type: none"> (a) a lease of a building or of the land belonging to and contiguous to a building between the occupiers of that building; (b) a lease of airspace around or above a building; (c) a lease of a term not exceeding 10 years or for a term not capable of exceeding 10 years; (d) the creation of a lot on a strata scheme or a staged development scheme under the <i>Strata Titles Act 1998</i>; or (e) an order adhering existing parcels of land.
subdivision	means the act of subdividing or the lot subject to an act of subdividing.
suitably qualified person	means a person who can adequately demonstrate relevant tertiary qualifications (or equivalent) and experience in a recognised field of knowledge, expertise or practice with direct relevance to the matter under consideration.

Term	Definition
take away food premises	means use of land to prepare and sell food and drink primarily for immediate consumption off the premises.
temporary housing	means residential use or development for a period of not more than 12 months commencing from the date on which an occupancy permit or temporary occupancy permit is issued in accordance with Part 17 of the <i>Building Act 2016</i> .
threatened native vegetation community	means as defined under the <i>Nature Conservation Act 2002</i> .
tolerable risk	means the lowest level of likely risk from the relevant hazard: (a) to secure the benefits of a use or development in a relevant hazard area; and (b) which can be managed through: (i) routine regulatory measures; or (ii) by specific hazard management measures for the intended life of each use or development.
turf growing	means use of land for growing grass which is cut into sods or rolls containing the roots and some soil for direct transplanting.
use	means as defined in the Act.
vehicle crossing	means a driveway for vehicular traffic to enter or leave a road carriageway from land adjoining a road.
vehicular access	means land over which a vehicle enters or leaves a road from land adjoining a road.
veterinary centre	means land used to: (a) diagnose animal diseases or disorders; (b) surgically or medically treat animals; or (c) prevent animal diseases or disorders, and includes keeping animals on the premises for those purposes.
visitor centre	means land used for the principal purpose of providing information to tourists and may include incidental retail sales and supplementary services to tourism.
wall height	means the vertical distance from existing ground level immediately below the wall to the uppermost part of the wall excluding any roof element.
waste transfer station	means use of land to receive and temporarily store waste before it is removed elsewhere.
watercourse	means a defined channel with a natural or modified bed and banks that carries surface water flows.

Term	Definition
wetland	means a depression in the land, or an area of poor drainage, that holds water derived from ground water and surface water runoff and supports plants adapted to partial or full inundation and includes an artificial wetland.
winery	means use of land for the manufacture of vineyard products and if land is so used, includes the display and sale of vineyard products, and the preparation and sale of food and drink for consumption on the premises.
works	means as defined in the Act.

4.0 Exemptions

- 4.0.1 Use or development listed in Tables 4.1 – 4.6 is exempt from requiring a permit provided it meets the corresponding requirements.
- 4.0.2 Use or development which, under the provisions of the Act, including sections 12(1) - (4), a planning scheme is not to prevent, does not require a permit.
- 4.0.3 Excluding the exemption for emergency works at 4.3.1, in the coastal zone, no development listed in Tables 4.2 - 4.6 is exempt from this planning scheme if it is to be undertaken on actively mobile landforms as referred to in clause 1.4 of the Tasmanian *State Coastal Policy 1996*. Any development on actively mobile landforms in the coastal zone must comply with the requirements of the Coastal Erosion Hazard Code.

Table 4.1 Exempt uses

	Use	Requirements
4.1.1	bee keeping	The use of land for bee keeping.
4.1.2	occasional use	If for infrequent or irregular sporting, social or cultural events.
4.1.3	home-based child care	If: <ul style="list-style-type: none"> (a) the person conducting the home-based child care normally uses the dwelling as their principal place of residence; (b) it does not involve employment of persons other than a resident; and (c) there are no more than 6 non-resident children for child care per day.
4.1.4	home occupation	If: <ul style="list-style-type: none"> (a) not more than 40m² of gross floor area of the dwelling is used for non-residential purposes; (b) the person conducting the home occupation normally uses the dwelling as their principal place of residence; (c) it does not involve employment of persons other than a resident; (d) any load on a utility is no more than for a domestic use; (e) there is no activity that causes electrical interference to other land; (f) it does not involve display of goods for sale that are visible from any road or public open space adjoining the site; (g) it involves no more than 1 advertising sign (that must be non-illuminated) and not more than 0.2m² in area; (h) it does not involve refuelling, servicing, detailing or repair of vehicles not owned by the resident on the site; (i) no more than 1 commercial vehicle is on the site at any one time and no commercial vehicle on the site exceeds 2 tonnes; and

	Use	Requirements
		(j) any vehicle used solely for non-residential purposes must be parked on the site.
4.1.5	markets	If on public land.
4.1.6	Visitor Accommodation in a dwelling (including a secondary residence)	If: (a) the dwelling is used by the owner or occupier as their main place of residence, and only let while the owner or occupier is on vacation; or (b) the dwelling is used by the owner or occupier as their main place of residence, and visitors are accommodated in not more than 4 bedrooms.

Table 4.2 Exempt infrastructure use or development

	Use or development	Requirements
4.2.1	dam construction works	Works that are directly associated with construction of a dam approved under the <i>Water Management Act 1999</i> , including the construction of vehicular access, vegetation removal and bulk soil excavations, are exempt if contained on the same site as the dam.
4.2.2	stormwater infrastructure	Provision, removal, maintenance and repair of pipes, open drains and pump stations for the reticulation or removal of stormwater by, or on behalf of, the Crown, a council or a State authority unless the Landslip Hazard Code applies and requires a permit for the use or development.
4.2.3	irrigation pipes	If for the laying or installation of irrigation pipes in the Rural Zone or Agriculture Zone that are directly associated with an agricultural use, provided no pipes are located within a wetland, unless the Landslip Hazard Code applies and requires a permit for the use or development.
4.2.4	road works	Maintenance and repair of roads and upgrading by or on behalf of the road authority which may extend up to 3m outside the road reserve including: (a) widening or narrowing of existing carriageways; (b) making, placing or upgrading kerbs, gutters, footpaths, shoulders, roadsides, traffic control devices, line markings, street lighting, safety barriers, signs, fencing and landscaping, unless the Local Historic Heritage Code applies and requires a permit for the use or development; or (c) repair of bridges, or replacement of bridges of similar size in the same or adjacent location.
4.2.5	vehicle crossings, junctions and level crossings	If: (a) development of a vehicle crossing, junction or level crossing: (i) by the road or rail authority; or (ii) in accordance with the written consent of the relevant

	Use	Requirements
		road or rail authority; or (b) use of a vehicle crossing, junction or level crossing by a road or railway authority.
	Use or development	Requirements
4.2.6	minor communications infrastructure	<p>If:</p> <ul style="list-style-type: none"> (a) development of low impact facilities as defined in Parts 2 and 3 of the <i>Telecommunications (Low-Impact Facilities) Determination 2018</i>; (b) works involved in the inspection of land to identify suitability for telecommunications infrastructure; (c) development of a facility that has been granted a facility installation permit by the Australian Communications and Media Authority; (d) works involved in the maintenance of telecommunication infrastructure; (e) works meeting the transitional arrangements as defined in Part 2 of Schedule 3 of the <i>Telecommunications Act 1997</i>; (f) feeder and distribution optical fibre cables not exceeding 18mm in diameter and with attached messenger wires on existing poles; (g) the connection of a line forming part of a telecommunications network to a building, caravan or mobile home including drop cabling of optic fibre networks; or (h) works involved in the installation, for purposes in connection with the installation of the National Broadband Network, of a: <ul style="list-style-type: none"> (i) galvanised steel service pole, no more than 6.6m in height above existing ground level, and 0.2m in diameter; or (ii) timber service pole, no more than 10.2m in height above existing ground level, and 0.42m in diameter, <p>unless the Safeguarding of Airports Code applies and requires a permit for the use or development.</p>
4.2.7	minor infrastructure	Provision, maintenance and modification of footpaths, cycle paths, playground equipment, seating, shelters, bus stops and bus shelters, street lighting, telephone booths, public toilets, post boxes, cycle racks, fire hydrants, drinking fountains, waste or recycling bins, public art, and the like by, or on behalf of, the Crown, a council or a State authority.
4.2.8	navigation aids	Provision, maintenance and modification of any sort of marker which aids in navigation of nautical or aviation craft such as lighthouses, buoys, fog signals, landing lights, beacons, and the like, unless the Safeguarding of Airports Code applies and requires a permit for the use or development.
4.2.9	electric car rechargers	Provision and maintenance if in a car park.

Table 4.3 Exempt building and works

	Use or development	Requirements
4.3.1	emergency works	Urgent works to protect property, public safety or the environment in an emergency situation, that are required or authorised by or on behalf of the Crown, a council or a State authority.
4.3.2	internal building and works	All internal building and works. ¹
4.3.3	maintenance and repair	If for maintenance and repair of buildings. ²
4.3.4	minor alterations	If for minor alterations of buildings, such as re-cladding, re-roofing and replacing windows and doors without enlargement or extension, unless the Local Historic Heritage Code applies and requires a permit for the use or development.
4.3.5	temporary buildings or works	If: <ul style="list-style-type: none"> (a) to facilitate development for which a permit has been granted or for which no permit is required or for an occasional use that is exempt under this clause; (b) not occupied for Residential use; and (c) removed within 14 days of completion of development or occasional use.
4.3.6	unroofed decks	If: <ul style="list-style-type: none"> (a) not attached to or abutting a habitable building; and (b) the floor level is less than 1m above existing ground level, unless the Local Historic Heritage Code applies and requires a permit for the use or development.
4.3.7	outbuildings	Construction or placement of an outbuilding if: <ul style="list-style-type: none"> (a) it is not between a frontage and the building line, or if on a lot with no buildings, the setback from the frontage is not less than the relevant Acceptable Solution requirement; and (b) the area of the new outbuilding that is roofed is not more than: <ul style="list-style-type: none"> (i) 10m² if: <ul style="list-style-type: none"> a. there is not more than one other outbuilding on the lot; b. the total area of all outbuildings on the lot that are roofed will not be more than 20m²; c. no side of the new outbuilding is longer than 3.2m; and d. the building height of the new outbuilding is not more than 2.4m; or

¹ Internal building and works entered on the Tasmanian Heritage Register may still require heritage approval under the *Historic Cultural Heritage Act 1995*.

² Section 12(1)(b) of the Act also applies.

		<p>(ii) 18m² if:</p> <ul style="list-style-type: none"> a. there is no other outbuilding on the lot; b. the roof span of the new outbuilding is not more than 3m; c. the building height of the new outbuilding is not more than 2.4m; d. the new outbuilding is not less than 0.9m from an existing building on the lot; e. the new outbuilding has a setback of not less than 0.9m from any boundary; and f. the change in existing ground level as a result of cut or fill is not more than 0.5m, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.3.8	outbuildings in Rural Living Zone, Rural Zone or Agriculture Zone	<p>Outbuildings located in the Rural Living Zone, Rural Zone or Agriculture Zone if:</p> <ul style="list-style-type: none"> (a) an outbuilding exempt under clause 4.3.7; or (b) the outbuilding is associated with an existing dwelling and the: <ul style="list-style-type: none"> (i) total gross floor area of all outbuildings on the lot is not more 108m²; (ii) setback is no less than the relevant Acceptable Solution requirement, or located no closer to a property boundary than an existing dwelling or any outbuilding on the site whichever is the lesser; and (iii) building height is not more than 6m and wall height is not more than 4m, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.3.9	agricultural buildings and works in the Rural Zone or Agriculture Zone	<p>Located in the Rural Zone or Agriculture Zone, if:</p> <ul style="list-style-type: none"> (a) buildings or works, excluding a dwelling or land filling, are directly associated with, and a subservient part of, an agricultural use; (b) on prime agricultural land only if not for plantation forestry and: <ul style="list-style-type: none"> (i) it is directly associated with an agricultural use dependent on the soils as a growth medium; or (ii) it is conducted in a manner which does not alter, disturb or damage the existing soil profile or preclude it from future use as a growth medium; (c) individual buildings are not more than 200m² in gross floor area; (d) building height does not exceed 12m; and (e) buildings have a setback of not less than 5m from all property boundaries, <p>unless the Local Historic Heritage Code, or the Scenic Protection Code, applies and requires a permit for the use or development.</p>
4.3.10	demolition of exempt	<p>Demolition of buildings for which the construction would be exempt under Tables 4.2 – 4.6, unless the Local Historic Heritage</p>

	buildings	Code applies and requires a permit for the use or development.
4.3.11	garden structures	<p>Garden structures, such as a pergola, garden arch, trellis or frame, if:</p> <ul style="list-style-type: none"> (a) the total area is no greater than 20m²; (b) the height is no more than 3m above ground level; and (c) it is uncovered or covered by an open-weave permeable material that allows water through, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>

Table 4.4 Vegetation exemptions

	Use or development	Requirements
4.4.1	vegetation removal for safety or in accordance with other Acts	<p>If for:</p> <ul style="list-style-type: none"> (a) clearance and conversion of a threatened native vegetation community, or the disturbance of a vegetation community, in accordance with a forest practices plan certified under the <i>Forest Practices Act 1985</i>, unless for the construction of a building or the carrying out of any associated development; (b) harvesting of timber or the clearing of trees, or the clearance and conversion of a threatened native vegetation community, on any land to enable the construction and maintenance of electricity infrastructure in accordance with the <i>Forest Practices Regulations 2017</i>; (c) fire hazard management in accordance with a bushfire hazard management plan approved as part of a use or development; (d) fire hazard reduction required in accordance with the <i>Fire Service Act 1979</i> or an abatement notice issued under the <i>Local Government Act 1993</i>; (e) fire hazard management works necessary to protect existing assets and ensure public safety in accordance with a plan for fire hazard management endorsed by the Tasmania Fire Service, Sustainable Timbers Tasmania, the Parks and Wildlife Service, or council; (f) clearance within 2m of lawfully constructed buildings or infrastructure including roads, tracks, footpaths, cycle paths, drains, sewers, power lines, pipelines and telecommunications facilities, for maintenance, repair and protection; (g) safety reasons where the work is required for the removal of dead wood, or treatment of disease, or required to remove an unacceptable risk to public or private safety, or where the vegetation is causing or threatening to cause damage to a substantial structure or building; or (h) within 1.5m of a lot boundary for the purpose of erecting or maintaining a boundary fence, or within 3m of a lot boundary in the Rural Zone and Agriculture Zone.
4.4.2	landscaping and vegetation management	Landscaping and vegetation management within a private garden, public garden or park, or within State-reserved land or a council reserve, if:

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		<p>(a) the vegetation is not protected by legislation, a permit condition, an agreement made under section 71 of the Act, or a covenant; or</p> <p>(b) the vegetation is not specifically listed and described as part of a Local Heritage Place or a significant tree in the relevant Local Provisions Schedule,</p> <p>unless the management is incidental to the general maintenance.</p>
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	Use or development	Requirements
4.4.3	vegetation rehabilitation works	<p>The planting, clearing or modification of vegetation for:</p> <ul style="list-style-type: none"> (a) soil conservation or rehabilitation works including Landcare activities and the like, provided that ground cover is maintained and erosion is managed; (b) the removal or destruction of declared weeds or environmental weeds listed under a strategy or management plan approved by a council; (c) water quality protection or stream bank stabilisation works approved by the relevant State authority or a council; (d) the implementation of a vegetation management agreement or a natural resource, catchment, coastal, reserve or property management plan or the like, provided the agreement or plan has been endorsed or approved by the relevant State authority or a council; or (e) the implementation of a mining and rehabilitation plan approved under the terms of a permit, an Environment Protection Notice, or rehabilitation works approved under the <i>Mineral Resources Development Act 1995</i>.

Table 4.5 Renewable energy exemptions

	Use or development	Requirements
4.5.1	ground mounted solar energy installations	If covering an area of not more than 18m ² , unless the Local Historic Heritage Code applies and requires a permit for the use or development.
4.5.2	roof mounted solar energy installations	Unless the Local Historic Heritage Code applies and requires a permit for the use or development.
4.5.3	wind turbines	<p>If:</p> <ul style="list-style-type: none"> (a) one wind turbine per lot; (b) no part of the structure is closer to a frontage than any other existing building, excluding a fence, on the lot; (c) no part of the structure is within 15m of a side or rear boundary; (d) the height of the structure excluding blades above existing ground level is no higher than: <ul style="list-style-type: none"> (i) 20m in the Light Industrial Zone, General Industrial Zone, Rural Zone, Agriculture Zone, Port and Marine Zone or Utilities Zone; or (ii) 12m in any other zone; and (e) if adjoining a sensitive use, no part of the structure is closer to a boundary of a sensitive use on another lot than: <ul style="list-style-type: none"> (i) 60m if the wind turbine has an energy generation potential of 10kW or less; or (ii) 250m if the wind turbine has an energy generation potential of more than 10kW, <p>unless the Electricity Transmission Infrastructure Protection Code, Local Historic Heritage Code, Attenuation Code, Landslip Hazard Code, or Safeguarding of Airports Code applies and requires a permit for the use or development.</p>

Table 4.6 Miscellaneous exemptions

	Use or development	Requirements
4.6.1	signs	If listed in, and meeting the requirements of, clause C1.4 in the Signs Code.
4.6.2	use or development in a road reserve or on public land	If: <ul style="list-style-type: none"> (a) for outdoor dining facilities, signboards, roadside vendors and stalls on a road that is managed by a relevant council; or (b) a community garden on public land used for growing vegetables, fruit or ornamentals.
4.6.3	fences within 4.5m of a frontage	Fences (including free-standing walls) within 4.5m of a frontage, if located in: <ul style="list-style-type: none"> (a) the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone, General Business Zone, Central Business Zone, Commercial Zone or any particular purpose zone, and if not more than a height of: <ul style="list-style-type: none"> (i) 1.2m above existing ground level if the fence is solid; or (ii) 1.8m above existing ground level, if the fence has openings above the height of 1.2m which provide a uniform transparency of at least 30% (excluding any posts or uprights); (b) the Utilities Zone and adjoining a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone and if not more than a height of: <ul style="list-style-type: none"> (i) 1.2m above existing ground level if the fence is solid; or (ii) 1.8m above existing ground level, if the fence has openings above the height of 1.2m which provide a uniform transparency of at least 30% (excluding any posts or uprights); or (c) any other zone, or if located in the Utilities Zone and not adjoining a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone and if not more than a height of: <ul style="list-style-type: none"> (i) 1.8m above existing ground level if adjoining public land; or (ii) 2.1m above existing ground level if not adjoining public land, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>

	Use or development	Requirements
4.6.4	fences not within 4.5m of a frontage	<p>Fences not within 4.5m of a frontage, if located in:</p> <p>(a) the Urban Mixed Use Zone, Local Business Zone, General Business Zone, Central Business Zone, or Commercial Zone and:</p> <p>(i) it is not more than a height of 1.8m above existing ground level if adjoining public land; or</p> <p>(ii) it is not more than a height of 2.1m above existing ground level if not adjoining public land;</p> <p>and it does not contain barbed wire if on a common boundary with a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone; or</p> <p>(b) any other zone and it is</p> <p>(i) not more than a height of 1.8m above existing ground level if adjoining public land; or</p> <p>(ii) not more than a height of 2.1m above existing ground level if not adjoining public land,</p> <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.5	fences for security purposes	<p>Fences for security purposes, if it is located:</p> <p>(a) within the Light Industrial Zone, General Industrial Zone, Port and Marine Zone or Utilities Zone or at an airport and is not more than a height of 2.8m above existing ground level; or</p> <p>(b) within the Light Industrial Zone or Utilities Zone and a common boundary fence with a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone and:</p> <p>(i) is not more than a height of 2.1m above existing ground level; and</p> <p>(ii) does not contain barbed wire,</p> <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.6	fences in the Rural Zone or Agriculture Zone	<p>Fences within the Rural Zone or Agriculture Zone, unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.7	temporary fencing	<p>If for public safety, construction works or occasional sporting, social or cultural events.</p>
4.6.8	retaining walls	<p>Retaining walls, excluding any land filling, if:</p> <p>(a) it has a setback of not less than 1.5m from any boundary; and</p> <p>(b) it retains a difference in ground level of less than 1m, unless the Local Historic Heritage Code or the Landslip Hazard Code applies, and requires a permit for the use or development.</p>

4.6.9	land filling	Land filling to a depth of not more than 1m above existing ground level from that existing at the effective date, unless the: <ul style="list-style-type: none">(a) Natural Assets Code;(b) Coastal Erosion Hazard Code;(c) Coastal Inundation Hazard Code;(d) Flood-Prone Areas Hazard Code; or(e) Landslip Hazard Code, applies and requires a permit for the use or development.
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	Use or development	Requirements
4.6.10	antennas, masts, flagpoles, and satellite dishes	<p>If for:</p> <ul style="list-style-type: none"> (a) minor communications infrastructure exempt under clause 4.2.6; or (b) all other antennas, masts, flagpoles and satellite dishes, unless : <ul style="list-style-type: none"> (i) the Electricity Transmission Infrastructure Protection Code, Local Historic Heritage Code, or Safeguarding of Airports Code applies and requires a permit for the use or development; or (ii) for facilities as defined under the Telecommunications Code.
4.6.11	heat pumps and air-conditioners	<p>If:</p> <ul style="list-style-type: none"> (a) attached, or located, to the side or rear of building; (b) not within 10m of a boundary of a property containing a sensitive use if for a non-residential use located in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone; or (c) not within 10m of the boundary of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone if located in a Urban Mixed Use Zone, Local Business Zone, General Business Zone, Central Business Zone, Commercial Zone, Light Industrial, Major Tourism Zone, Utilities Zone, Community Purpose Zone, Recreation Zone or Open Space Zone, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.12	hot water cylinders	<p>If attached, or located, to the side or rear of a building, unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.13	rain-water tanks	<p>If:</p> <ul style="list-style-type: none"> (a) attached, or located, to the side or rear of a building; (b) not more than 45kL in capacity; (c) not on a stand with a height of more than 1.2m above existing ground level; and (d) has a setback not less than the Acceptable Solution for the relevant zone, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.14	rain-water tanks in Rural Living Zone, Rural Zone, Agriculture Zone or Landscape Conservation Zone	<p>If:</p> <ul style="list-style-type: none"> (a) attached, or located, to the side or rear of a building; and (b) has a setback not less than the Acceptable Solution for the relevant zone, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>

	Use or development	Requirements
4.6.15	fuel tanks in the Light Industrial Zone, General Industrial Zone, Rural Zone, Agriculture Zone or Port and Marine Zone	<p>If:</p> <ul style="list-style-type: none"> (a) it is located in the Light Industrial Zone, General Industrial Zone, Rural Zone, Agriculture Zone or Port and Marine Zone; and (b) it has a setback not less than the Acceptable Solution for the relevant zone, <p>unless:</p> <ul style="list-style-type: none"> (iii) the Local Historic Heritage Code applies and requires a permit for the use or development; or (iv) for the storage of a hazardous chemical of a manifest quantity and the Coastal Erosion Hazard Code, Coastal Inundation Hazard Code, Flood-Prone Areas Hazard Code, Bushfire-Prone Areas Code or Landslip Hazard Code, applies and requires a permit for the use or development.
4.6.16	fuel tanks in other zones	<p>If:</p> <ul style="list-style-type: none"> (a) in a zone excluding the Light Industrial Zone, General Industrial Zone, Rural Zone, Agriculture Zone or Port and Marine Zone; (b) attached, or located, to the side or rear of a building; (c) not more than 1kL in capacity; (d) not on a stand with a height of more than 1.2m above existing ground level; and (e) has a setback not less than the Acceptable Solution for the relevant zone, <p>unless the Local Historic Heritage Code applies and requires a permit for the use or development.</p>
4.6.17	anemometers	All anemometers.
4.6.18	strata division	Division by strata titles of lawfully constructed or approved buildings for a use that has been granted a permit under this planning scheme or previously lawfully approved.

5.0 Planning Scheme Operation

5.1 General Provisions

- 5.1.1 Clause 7.0 of this planning scheme sets out provisions, for certain types of use or development that are not specific to any zone, specific area plan, or area to which a code applies.
- 5.1.2 Where there is an inconsistency between a provision in a zone, specific area plan or code and a general provision in clause 7.0 of this planning scheme, the general provision in clause 7.0 prevails.

5.2 Operation of Zones

- 5.2.1 The primary controls for the use or development of land are set out in the zones.
- 5.2.2 The zones include use and development standards specific to each zone.
- 5.2.3 Maps included in the Local Provisions Schedules show how land is zoned.
- 5.2.4 The requirements for zones, including particular purpose zones, in the Local Provisions Schedules are set out in clause LP1.0 and Appendix A.
- 5.2.5 Each Local Provisions Schedule is permitted to include a particular purpose zone that is particular to an area of land.
- 5.2.6 After the effective date, a particular purpose zone is not permitted to override the:
- (a) administration provisions in clauses 3.0 - 6.0;
 - (b) general provisions in clause 7.0; or
 - (c) provisions in a code, unless specifically provided for in that code.

5.3 Operation of Specific Area Plans

- 5.3.1 Each Local Provisions Schedule is permitted to include a specific area plan that is in addition to, modifies, or is in substitution for, a provision in a zone Use Table or a use or development standard in a zone or code.
- 5.3.2 The requirements and structure for specific area plans in the Local Provisions Schedules are set out in clause LP1.0 and Appendix A.
- 5.3.3 After the effective date, a specific area plan is not permitted to override the administration provisions in clauses 3.0 – 6.0 or general provisions in clause 7.0.

5.4 Operation of Site-specific Qualifications

- 5.4.1 Each LPS is permitted to include a site-specific qualification that is in addition to, modifies, or is in substitution for, a zone Use Table or a use or development standard in a zone or a code.
- 5.4.2 The requirements and structure for a site-specific qualification in the LPS are set out in clause LP1.0 and Appendix A.

- 5.4.3 After the effective date, a site-specific qualification is permitted to override a general provision in clause 7.0, or any provision in a zone, code, or specific area plan.
- 5.4.4 A site-specific qualification is not permitted to override the administration provisions in clauses 3.0 – 6.0.

5.5 Operation of Codes

- 5.5.1 The codes identify areas of land or planning issues which require compliance with additional provisions.
- 5.5.2 Codes set out provisions for:
- (a) particular types of use or development that may apply to land in one or more zones; and
 - (b) matters that affect land that are not appropriately described by zone boundaries.
- 5.5.3 Where there is an inconsistency between a provision in a code and a provision in a zone, the code provision prevails.
- 5.5.4 An inconsistency between a provision of a code and a provision of a zone does not exist if a code requires compliance with standards additional to those that apply within a zone.
- 5.5.5 The requirements and structure for code overlay maps and lists in the Local Provisions Schedules are set out in clause LP1.0 and Appendix A.

5.6 Compliance with Applicable Standards

- 5.6.1 A use or development must comply with each applicable standard in the State Planning Provisions and the Local Provisions Schedules.
- 5.6.2 A standard is an applicable standard if:
- (a) the proposed use or development will be on a site within:
 - (i) a zone;
 - (ii) an area to which a specific area plan relates; or
 - (iii) an area to which a site-specific qualification applies; or
 - (b) the proposed use or development is a use or development to which a relevant code applies; and
 - (c) the standard deals with a matter that could affect, or could be affected by, the proposed use or development.
- 5.6.3 Compliance for the purposes of sub-clause 5.6.1 of this planning scheme consists of complying with the Acceptable Solution or satisfying the Performance Criterion for that standard.
- 5.6.4 The planning authority may consider the relevant objective in an applicable standard to determine whether a use or development satisfies the Performance Criterion for that standard.

6.0 Assessment of an Application for Use or Development

6.1 Application Requirements

6.1.1 An application must be made for any use or development for which a permit is required under this planning scheme.

6.1.2 An application must include:

- (a) a signed application form;
- (b) any written permission and declaration of notification required under s.52 of the Act and, if any document is signed by the delegate, a copy of the delegation;
- (c) details of the location of the proposed use or development;
- (d) a copy of the current certificate of title for all land to which the permit sought is to relate, including the title plan; and
- (e) a full description of the proposed use or development.

6.1.3 In addition to the information that is required by clause 6.1.2, a planning authority may, in order to enable it to consider an application, require such further or additional information as the planning authority considers necessary to satisfy it that the proposed use or development will comply with any relevant standards and purpose statements in the zone, codes or a specific area plan, applicable to the use or development including:

- (a) any schedule of easements if listed in the folio of the title and appear on the plan, where applicable;
- (b) a site analysis and site plan at a scale acceptable to the planning authority showing, where applicable:
 - (i) the existing and proposed use(s) on the site;
 - (ii) the boundaries and dimensions of the site;
 - (iii) topography including contours showing AHD levels and major site features;
 - (iv) natural drainage lines, watercourses and wetlands on or adjacent to the site;
 - (v) soil type;
 - (vi) vegetation types and distribution including any known threatened species, and trees and vegetation to be removed;
 - (vii) the location and capacity and connection point of any existing services and proposed services;
 - (viii) the location of easements on the site or connected to the site;
 - (ix) existing pedestrian and vehicle access to the site;
 - (x) the location of existing and proposed buildings on the site;
 - (xi) the location of existing adjoining properties, adjacent buildings and their uses;

- (xii) any natural hazards that may affect use or development on the site;
 - (xiii) proposed roads, driveways, parking areas and footpaths within the site;
 - (xiv) any proposed open space, common space, or facilities on the site; and
 - (xv) proposed subdivision lot boundaries;
- (c) where it is proposed to erect buildings, a detailed layout plan of the proposed buildings with dimensions at a scale of 1:100 or 1:200 as required by the planning authority showing, where applicable:
- (i) the internal layout of each building on the site;
 - (ii) the private open space for each dwelling;
 - (iii) external storage spaces;
 - (iv) parking space location and layout;
 - (v) major elevations of every building to be erected;
 - (vi) the relationship of the elevations to existing ground level, showing any proposed cut or fill;
 - (vii) shadow diagrams of the proposed buildings and adjacent structures demonstrating the extent of shading of adjacent private open spaces and external windows of buildings on adjacent sites; and
 - (viii) materials and colours to be used on roofs and external walls.

6.2 Categorising Use or Development

- 6.2.1 Each proposed use or development must be categorised into one of the Use Classes in Table 6.2.
- 6.2.2 A use or development that is directly associated with and a subservient part of another use on the same site must be categorised into the same Use Class as that other use.
- 6.2.3 If a use or development fits a description of more than one Use Class, the Use Class most specifically describing the use applies.
- 6.2.4 If a use or development does not readily fit any Use Class, it must be categorised into the most similar Use Class.
- 6.2.5 If more than one use or development is proposed, each use that is not directly associated with and subservient to another use on the same site must be individually categorised into a Use Class.
- 6.2.6 Notwithstanding sub-clause 6.2.1 of this planning scheme, development which is for subdivision, a sign, land filling, retaining walls or coastal protection works does not need to be categorised into one of the Use Classes.

Table 6.2 Use Classes

Use Class	Description
Bulky Goods Sales	use of land for the sale of heavy or bulky goods which require a large area for handling, storage and display. Examples include garden and landscaping materials suppliers, rural suppliers, timber yards, trade suppliers, showrooms for furniture, electrical goods and floor coverings, and motor vehicle, boat or caravan sales.
Business and Professional Services	use of land for administration, clerical, technical, professional or similar activities. Examples include a bank, call centre, consulting room, funeral parlour, medical centre, office, post office, real estate agency, residential support services, travel agency and veterinary centre.
Community Meeting and Entertainment	use of land for social, religious and cultural activities, entertainment and meetings. Examples include an art and craft centre, place of worship, cinema, civic centre, function centre, library, museum, public art gallery, public hall and theatre, community centre and neighbourhood centre.
Crematoria and Cemeteries	use of land for the burial or cremation of human or animal remains, and if land is so used, the use includes a funeral chapel.
Custodial Facility	use of land, other than psychiatric facilities, for detaining or reforming persons committed by the courts or for the purpose of court proceedings or police investigations. Examples include a prison, remand centre and any other type of detention facility.
Domestic Animal Breeding, Boarding or Training	use of land for breeding, boarding or training domestic animals. Examples include an animal pound, cattery and kennel.
Educational and Occasional Care	use of land for educational or short-term care purposes. Examples include a childcare centre, day respite centre, employment training centre, kindergarten, primary school, secondary school and tertiary institution.
Emergency Services	use of land for police, fire, ambulance and other emergency services including storage and deployment of emergency vehicles and equipment. Examples include ambulance station, fire station and police station.
Equipment and Machinery Sales and Hire	use of land for displaying, selling, hiring or leasing plant, equipment or machinery, associated with, but not limited to, cargo-handling, construction, earth-moving, farming, industry and mining.
Extractive Industry	use of land for extracting or removing material from the ground, other than Resource Development, and includes the treatment or processing of those materials by crushing, grinding, milling or screening on, or adjoining the land from which it is extracted. Examples include mining, quarrying, and sand mining.

Use Class	Description
Food Services	use of land for selling food or drink, which may be prepared on the premises, for consumption on or off the premises. Examples include a cafe, restaurant and take away food premises.
General Retail and Hire	use of land for selling goods or services, or hiring goods. Examples include an adult sex product shop, amusement parlour, beauty salon, betting agency, bottle shop, cellar door sales, commercial art gallery, department store, hairdresser, market, primary produce sales, local shop, shop, shop front dry cleaner and supermarket.
Hospital Services	use of land to provide health care (including preventative care, diagnosis, medical and surgical treatment, rehabilitation, psychiatric care and counselling) to persons admitted as inpatients. If the land is so used, the use includes the care or treatment of outpatients.
Hotel Industry	use of land to sell liquor for consumption on or off the premises. If the land is so used, the use may include accommodation, food for consumption on the premises, entertainment, dancing, amusement machines and gambling. Examples include a hotel, bar, nightclub, adult entertainment venue and tavern.
Manufacturing and Processing	use of land for manufacturing, assembling or processing products other than Resource Processing. Examples include boat building, brick making, cement works, furniture making, glass manufacturing, metal and wood fabrication, mineral processing and textile manufacturing.
Motor Racing Facility	use of land (other than public roads) to race, rally, scramble or test vehicles, including go-karts, motor boats, and motorcycles, and includes other competitive motor sports.
Natural and Cultural Values Management	use of land to protect, conserve or manage ecological systems, habitat, species, cultural sites or landscapes and may include track work and maintenance, park management outbuildings and offices, park entry signs, visitor information signs, information and interpretation booths.
Passive Recreation	use of land for informal leisure and recreation activities principally conducted in the open. Examples include public parks, gardens and playgrounds, and foreshore and riparian reserves.
Pleasure Boat Facility	use of land to provide facilities for boats operated primarily for pleasure or recreation, including boats operated commercially for pleasure or recreation. Examples include a marina, boat ramp and jetty.

Use Class	Description
Port and Shipping	<p>use of land for:</p> <p>(a) berthing, navigation aid, servicing and maintenance of marine vessels which may include loading, unloading and storage of cargo or other goods, and transition of passengers and crew; or</p> <p>(b) maintenance dredging.</p> <p>Examples include berthing and shipping facilities, shipping container storage, hardstand loading and unloading areas, passenger terminals, roll-on roll-off facilities and associated platforms, stevedore and receipt offices, and a wharf.</p>
Recycling and Waste Disposal	<p>use of land to collect, dismantle, store, dispose of, recycle or sell used or scrap material. Examples include a recycling depot, refuse disposal site, scrap yard, vehicle wrecking yard and waste transfer station.</p>
Research and Development	<p>use of land for electronic technology, biotechnology, or any other research and development purposes, other than as part of an educational use.</p>
Residential	<p>use of land for self-contained or shared accommodation. Examples include a secondary residence, boarding house, communal residence, home-based business, home-based child care, residential care facility, residential college, respite centre, assisted housing, retirement village and single or multiple dwellings.</p>
Resource Development	<p>use of land for propagating, cultivating or harvesting plants or for keeping and breeding of livestock or fishstock. If the land is so used, the use may include the handling, packing or storing of produce for dispatch to processors. Examples include agricultural use, aquaculture, controlled environment agriculture, crop production, horse stud, intensive animal husbandry, plantation forestry, forest operations, turf growing and marine farming shore facility.</p>
Resource Processing	<p>use of land for treating, processing or packing plant or animal resources. Examples include an abattoir, animal saleyard, cheese factory, fish processing, milk processing, winery, brewery, cidery, distillery, and sawmilling.</p>
Service Industry	<p>use of land for cleaning, washing, servicing or repairing articles, machinery, household appliances or vehicles. Examples include a car wash, commercial laundry, electrical repairs, motor repairs and panel beating.</p>
Sports and Recreation	<p>use of land for organised or competitive recreation or sporting purposes including associated clubrooms. Examples include a bowling alley, fitness centre, firing range, golf course or driving range, gymnasium, outdoor recreation facility, children’s play centre, swimming pool, race course, sports ground, and major sporting facility.</p>

Use Class	Description
Storage	use of land for storage or wholesale of goods, and may incorporate distribution. Examples include boat and caravan storage, self storage, contractors yard, freezing and cool storage, liquid fuel depot, solid fuel depot, vehicle storage, warehouse and woodyard.
Tourist Operation	use of land specifically to attract tourists, other than for accommodation. Examples include a theme park, visitor centre or interpretation centre, wildlife park and zoo.
Transport Depot and Distribution	use of land for distributing goods or passengers, or to park or garage vehicles associated with those activities, other than Port and Shipping. Examples include an airport, bus terminal, council depot, heliport, mail centre, railway station, road or rail freight terminal and taxi depot.
Utilities	<p>use of land for utilities and infrastructure including:</p> <ul style="list-style-type: none"> (a) telecommunications; (b) electricity generation; (c) transmitting or distributing gas, oil, or electricity; (d) transport networks; (e) collecting, treating, transmitting, storing or distributing water; or (f) collecting, treating, or disposing of storm or floodwater, sewage, or sullage. <p>Examples include an electrical sub-station or powerline, gas, water or sewerage main, optic fibre main or distribution hub, pumping station, railway line, retention basin, road, sewage treatment plant, storm or flood water drain, water storage dam and weir.</p>
Vehicle Fuel Sales and Service	use of land primarily for the sale of motor vehicle fuel and lubricants, and if the land is so used, the use may include the routine maintenance of vehicles. An example is a service station.
Vehicle Parking	use of land for the parking of motor vehicles. Examples include single and multi-storey car parks.
Visitor Accommodation	use of land for providing short or medium-term accommodation for persons away from their normal place of residence on a commercial basis or otherwise available to the general public at no cost. Examples include a backpackers hostel, camping and caravan park, holiday cabin, motel, overnight camping area, residential hotel and serviced apartment complex.

6.3 Qualification of Use

6.3.1 A Use Class may be subject to qualification in a Use Table which provides for conditions or limitations on the Use Class.

6.4 Requirement for a Permit

6.4.1 Except as provided in sub-clauses 6.5 and 6.6 of this planning scheme, use or development of land must not be commenced or carried out:

- (a) without a permit granted and in effect in accordance with the Act and the provisions of this planning scheme; or
- (b) in a manner contrary to the conditions and restrictions of a permit.

6.4.2 A change from an individual use to another individual use, whether within the same Use Class or not, requires a permit unless the planning scheme specifies otherwise.

6.5 Exempt Use or Development

6.5.1 A permit is not required to commence or carry out a use or development if it is exempt from requiring a permit under clause 4.0 of this planning scheme.

6.6 No Permit Required Use or Development

6.6.1 A permit is not required to commence or carry out a use or development if:

- (a) the use is within a Use Class specified in the applicable Use Table as being a use for which no permit is required;
- (b) the use or development complies with each applicable standard and does not rely on any Performance Criteria to comply with each applicable standard;
- (c) the use or development is not Discretionary under any other provision of this planning scheme;
- (d) the use or development is not Prohibited under any other provision of this planning scheme; and
- (e) a permit for such use and development is not required by a code.

6.6.2 A permit is not required to commence or carry out a use or development if it is No Permit Required under any other provision of this planning scheme.

6.7 Permitted Use or Development

6.7.1 A use or development must be granted a permit if:

- (a) the use is within a Use Class specified in the applicable Use Table as being a use which is Permitted;
- (b) the use or development complies with each applicable standard and does not rely on any Performance Criteria to comply with each applicable standard;
- (c) the use or development is not Discretionary under any other provision of this planning scheme; and
- (d) the use or development is not Prohibited under any other provision of this planning scheme.

6.7.2 A development that is not required to be categorised under sub-clause 6.2.6 of this planning scheme and must be granted a permit if:

- (a) there are applicable standards that apply to the development;
- (b) the development complies with each applicable standard and does not rely on any Performance Criteria to comply with each applicable standard; and
- (c) the development is not Discretionary or Prohibited under any other provision of this planning scheme.

6.8 Discretionary Use or Development

6.8.1 The planning authority has a discretion to refuse or permit a use or development if:

- (a) the use is within a Use Class specified in the applicable Use Table as being a use which is Discretionary;
- (b) the use or development relies on a Performance Criterion to demonstrate compliance with an applicable standard; or
- (c) it is Discretionary under any other provision of this planning scheme.

6.8.2 The planning authority has a discretion under clause 7.10 to refuse or permit a development that is not required to be categorised under sub-clause 6.2.6 of this planning scheme if:

- (a) there are no applicable standards that apply to the development; or
- (b) the use or development relies on any Performance Criteria to demonstrate compliance with an applicable standard; and
- (c) the development is not Prohibited under any other provision of this planning scheme.

6.9 Prohibited Use or Development

6.9.1 A use or development is Prohibited and must not be granted a permit if:

- (a) the use is not specified as being No Permit Required, Permitted or Discretionary within a Use Class in the applicable Use Table;
- (b) the use or development does not comply with an Acceptable Solution for an applicable standard and there is no corresponding Performance Criterion; or
- (c) it is Prohibited under any other provision of this planning scheme.

6.10 Determining Applications

6.10.1 In determining an application for any permit for use or development the planning authority must, in addition to the matters required by section 51(2) of the Act, take into consideration:

- (a) all applicable standards and requirements in this planning scheme; and
- (b) any representations received pursuant to and in conformity with section 57(5) of the Act, but in the case of the exercise of discretion, only insofar as each such matter is relevant to the particular discretion being exercised.

6.10.2 In determining an application for a permit for a Discretionary use the planning authority must, in addition to the matters referred to in sub-clause 6.10.1 of this planning scheme, have regard to:

- (a) the purpose of the applicable zone;
- (b) any relevant local area objective for the applicable zone;
- (c) the purpose of any applicable code;
- (d) the purpose of any applicable specific area plan;
- (e) any relevant local area objective for any applicable specific area plan; and
- (f) the requirements of any site-specific qualification,

but in the case of the exercise of discretion, only insofar as each such matter is relevant to the particular discretion being exercised.

6.11 Conditions and Restrictions on a Permit

6.11.1 When deciding whether to include conditions in a permit, the planning authority may consider the matters contained in sub-clauses 6.10.1 and 6.10.2 of this planning scheme.

6.11.2 Conditions and restrictions imposed by the planning authority on a permit may include:

- (a) requirements that specific acts be done to the satisfaction of the planning authority;
- (b) staging of a use or development, including timetables for commencing and completing stages;
- (c) the order in which parts of the use or development can be commenced;
- (d) limitations on the life of the permit;
- (e) requirements to modify the development in accordance with predetermined triggers, criteria or events;
- (f) construction or traffic management; and
- (g) erosion, and stormwater volume and quality controls.

6.11.3 Conditions or restrictions imposed by the planning authority on a permit for use or development in relation to the management of contaminated land subject to the *Macquarie Point Development Corporation Act 2012*:

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- (a) must not be inconsistent with, or impose any additional requirements to, a certificate from an accredited environmental auditor given under section 39F of the *Macquarie Point Development Corporation Act 2012*; and
- (b) may include a requirement for a certificate of an accredited environmental auditor to be granted.

General Provisions

7.0 General Provisions

7.1 Changes to an Existing Non-conforming Use

- 7.1.1 Notwithstanding clause 6.9.1 of this planning scheme, the planning authority may at its discretion, approve an application:
- (a) to bring an existing use of land that does not conform to the planning scheme into conformity, or greater conformity, with the planning scheme;
 - (b) to extend or transfer an existing non-conforming use and any associated development, from one part of a site to another part of that site; or
 - (c) for a minor development to an existing non-conforming use.
- 7.1.2 An application must only be approved under sub-clause 7.1.1 of this planning scheme where there is:
- (a) no unreasonable detrimental impact on adjoining uses or the amenity of the surrounding area; and
 - (b) no substantial intensification of the use.
- 7.1.3 In exercising its discretion under sub-clauses 7.1.1 and 7.1.2 of this planning scheme, the planning authority must have regard to the purpose and provisions of the zone, any relevant local area objectives and any applicable codes.

7.2 Development for Existing Discretionary Uses

- 7.2.1 Notwithstanding clause 6.8.1 of this planning scheme, proposals for development (excluding subdivision), associated with a Use Class specified in an applicable Use Table, as a Discretionary use, must be considered as if that Use Class had Permitted status in that Use Table, where the proposal for development does not establish a new use, or substantially intensify the existing use.

7.3 Adjustment of a Boundary

- 7.3.1 An application for a boundary adjustment is Permitted and a permit must be granted if:
- (a) no additional lots are created;
 - (b) there is only minor change to the relative size, shape and orientation of the existing lots;
 - (c) no setback from an existing building will be reduced below the relevant Acceptable Solution setback requirement;
 - (d) no frontage is reduced below the relevant Acceptable Solution minimum frontage requirement;
 - (e) no lot is reduced below the relevant Acceptable Solution minimum lot size unless already below the minimum lot size; and
 - (f) no lot boundary that aligns with a zone boundary will be changed.

7.4 Change of Use of a Place listed on the Tasmanian Heritage Register or a Local Heritage Place

- 7.4.1 An application for a use of a place listed on the Tasmanian Heritage Register or as a Local Heritage Place subject to the Local Historic Heritage Code that would otherwise be Prohibited is Discretionary.
- 7.4.2 The planning authority may approve such an application if it would facilitate the restoration, conservation and future maintenance of:
- (a) the local historic heritage significance of the local heritage place; or
 - (b) the historic cultural heritage significance of the place as described in the Tasmanian Heritage Register.
- 7.4.3 In determining an application the planning authority must have regard to:
- (a) any statement of historic cultural heritage significance for the place, as described in the Tasmanian Heritage Register;
 - (b) any statement of local historic heritage significance and historic heritage values, as described in the Local Historic Heritage Code;
 - (c) any heritage impact statement prepared by a suitably qualified person setting out the effect of the proposed use and any associated development on:
 - (i) the local historic heritage significance of the local heritage place or local heritage precinct; and
 - (ii) the historic cultural heritage significance of the place as described in the Tasmanian Heritage Register;
 - (d) any conservation plan prepared by a suitably qualified person in accordance with *The Conservation Plan: A guide to the preparation of conservation plans for places of European cultural significance 7th edition, 2013*;
 - (e) the degree to which the restoration, conservation and future maintenance of the heritage significance of the place is dependent upon the establishment of the proposed use;
 - (f) the likely impact of the proposed use on the amenity, or operation, of surrounding uses;
 - (g) any Heritage Agreement that may be in place, in accordance with the provisions contained in the *Historic Cultural Heritage Act 1995*;
 - (h) the purpose and provisions of the applicable zone; and
 - (i) the purpose and provisions of any applicable code.

7.5 Change of Use

- 7.5.1 A permit is not required for a change of use from an existing lawful use to another use in the same Use Class if:
- (a) the use is not otherwise Prohibited or Discretionary under any provision of the planning scheme;
 - (b) the use complies with all applicable standards and does not rely on any Performance Criteria to do so; and
 - (c) there is no:

- (i) increase in the gross floor area of the use;
- (ii) increase in the requirement for parking spaces under the Parking and Sustainable Transport Code;
- (iii) change in the arrangements for site access, parking, or for the loading and servicing of vehicles on the site;
- (iv) change in arrangements for the use of external areas of the site for display, operational activity or storage;
- (v) increase in emissions or change in the nature of emissions;
- (vi) increase in the required capacity of utility services; and
- (vii) increase in the existing hours of operation if outside the hours of 8.00am to 6.00pm Monday to Sunday inclusive.

7.6 Access and Provision of Infrastructure Across Land in Another Zone

7.6.1 If an application for use or development includes access or provision of infrastructure across land that is in a different zone to that in which the main part of the use or development is located, and the access or infrastructure is prohibited by the provisions of the different zone, the planning authority may at its discretion approve an application for access or provision of infrastructure over the land in the other zone, having regard to:

- (a) whether there is no practical and reasonable alternative for providing the access or infrastructure to the site;
- (b) the purpose and provisions of the zone and any applicable code for the land over which the access or provision of infrastructure is to occur; and
- (c) the potential for land use conflict with the use or development permissible under the planning scheme for any adjoining properties and for the land over which the access or provision of infrastructure is to occur.

7.7 Buildings Projecting onto Land in a Different Zone

7.7.1 If an application for use or development includes a building that projects over land in a different zone, the status of the use for the projecting portion of the building is to be determined in accordance with the provisions of the zone in which the main part of the building is located.

7.8 Port and Shipping in Proclaimed Wharf Areas

7.8.1 Notwithstanding any other provision in this planning scheme, an application for a use or development for Port and Shipping within a proclaimed wharf area must be considered as No Permit Required.

7.9 Demolition

7.9.1 Unless approved as part of another development or Prohibited by another provision in this planning scheme, or the Local Historic Heritage Code applies, an application for demolition is Permitted and a permit must be granted subject to any conditions and restrictions specified in clause 6.11.2 of this planning scheme.

7.10 Development Not Required to be Categorised into a Use Class

- 7.10.1 An application for development that is not required to be categorised into one of the Use Classes under sub-clause 6.2.6 of this planning scheme and to which 6.8.2 applies, excluding adjustment of a boundary under sub-clause 7.3.1, may be approved at the discretion of the planning authority.
- 7.10.2 An application must only be approved under sub-clause 7.10.1 if there is no unreasonable detrimental impact on adjoining uses or the amenity of the surrounding area.
- 7.10.3 In exercising its discretion under sub-clauses 7.10.1 and 7.10.2 of this planning scheme, the planning authority must have regard to:
- (a) the purpose of the applicable zone;
 - (b) the purpose of any applicable code;
 - (c) any relevant local area objectives; and
 - (d) the purpose of any applicable specific area plan.

7.11 Use or Development Seaward of the Municipal District

- 7.11.1 Use or development of a type referred to in section 7(a) to (d) of the Act that is unzoned in the zoning maps in the relevant Local Provisions Schedules must be considered in accordance with:
- (a) the provisions of the zone that is closest to the site; or
 - (b) in the case of a use or development that extends from land that is zoned, the provisions of the zone from which the use or development extends.

7.12 Sheds on Vacant Sites

- 7.12.1 An application for a shed on a vacant site in the Low Density Residential Zone, Rural Living Zone and Landscape Conservation Zone is Permitted and a permit must be granted if:
- (a) there is not more than 1 shed on the lot;
 - (b) the frontage, side and rear setbacks are not less than the Acceptable Solution setbacks for the relevant zone;
 - (c) it is located on the site so that a future dwelling can be built between the shed and the frontage setback;
 - (d) the building height is not greater than 6m and the height of any wall is not greater than 4m;
 - (e) the gross floor area is not greater than 54 m²; and
 - (f) it complies with the Acceptable Solution of each applicable standard of any code that applies to the land.

7.13 Temporary Housing

- 7.13.1 Unless No Permit Required under any other provision of this planning scheme, use and development for temporary housing of eligible persons within an existing building is Permitted, and a permit must be granted, if:
- (a) on land within:

- (i) the General Residential Zone, Inner Residential Zone, Urban Mixed Use Zone, Central Business Zone, General Business Zone, Local Business Zone, Community Purpose Zone, Recreation Zone, or Open Space Zone; or
- (ii) the Commercial Zone in the Hobart Local Provisions Schedule;
- (b) funded or operated by, or on behalf of, the Director of Housing or a housing support provider;
- (c) the development is limited to minor building works or structures necessary for the use of the existing building for temporary housing; and
- (d) the following does not apply:
 - (i) Bushfire-Prone Areas Code;
 - (ii) Flood-Prone Areas Hazard Code;
 - (iii) Coastal Inundation Hazard Code;
 - (iv) Landslip Hazard Code;
 - (v) Potentially Contaminated Land Code; or
 - (vi) Local Historic Heritage Code.

7.13.2 Unless No Permit Required under any other provisions of this planning scheme, use and development for temporary housing of eligible persons within demountable, relocatable, or other forms of non-permanent buildings is Permitted, and a permit must be granted, if:

- (a) on land within:
 - (i) a General Residential Zone, Inner Residential Zone, Urban Mixed Use Zone, Central Business Zone, General Business Zone, Local Business Zone, Community Purpose Zone, Recreation Zone, or Open Space Zone under an interim planning scheme, or
 - (ii) the Commercial Zone in the Hobart Local Provisions Schedule;
- (b) funded or operated by, or on behalf of, the Director of Housing or a housing support provider;
- (c) located on the same site, or a site adjoining, an existing residential facility that is funded or operated by, or on behalf of, the Director of Housing or a housing support provider;
- (d) the building height is not more than 8m above existing ground level; and
- (e) the buildings have a setback from an adjoining property of not less than half the wall height of the building if the adjoining property is within a General Residential Zone, Low Density Residential Zone, or Inner Residential Zone, excluding:
 - (i) an adjoining property to which sub-clause 7.13.2)(c) applies; and
 - (ii) the portion of the wall that is not more than 3m above existing ground level; and
- (f) the following does not apply:
 - (i) Bushfire-Prone Areas Code;
 - (ii) Flood-Prone Areas Hazard Code;
 - (iii) Coastal Inundation Hazard Code;
 - (iv) Landslip Hazard Code;
 - (v) Potentially Contaminated Land Code;
 - (vi) Local Historic Heritage Code; or

- (vii) buildings are located on land within an inner protection area, or registered electricity easement, as defined in an Electricity Transmission Infrastructure Protection Code.
- 7.13.3 Unless sub-clause 7.13.1 or 7.13.2 applies, use or development for temporary housing of eligible persons within an existing building, or in a demountable, relocatable or other non-permanent building that would otherwise be Prohibited under any other provisions of this planning scheme, is Discretionary, if funded or operated by, or on behalf of, the Director of Housing or a housing support provider.
- 7.13.4 In determining an application under sub-clause 7.13.3, a planning authority must have regard to:
 - (a) the proximity of the temporary housing to existing residential facilities and social support services that are funded or operated by, or on behalf of, the Director of Housing or a housing support provider;
 - (b) the availability of public transport and capacity of road infrastructure and utility services to the site;
 - (c) the purpose and provisions of the applicable zone and any applicable codes; and
 - (d) the potential for land use conflict with other use or development on adjoining properties and any measures available to manage or mitigate such conflict.
- 7.13.5 Temporary housing must only be located in a bushfire-prone area, as defined under the Bushfire-Prone Areas Code, if accompanied by an emergency management strategy, endorsed by the Tasmania Fire Service or accredited person, as defined under the Bushfire-Prone Areas Code, that provides for mitigation measures to achieve and maintain a level of tolerable risk that is specifically developed to address the characteristics, nature and scale of the use considering:
 - (a) the nature of the bushfire-prone vegetation, as defined under the Bushfire-Prone Areas Code, including the type, fuel load, structure and flammability;
 - (b) the ability of occupants of the temporary housing to:
 - (i) protect themselves and defend property from bushfire attack;
 - (ii) evacuate in an emergency;
 - (iii) understand and respond to instructions in the event of a bushfire; and
 - (c) any bushfire protection measures, as defined under the Bushfire-Prone Areas Code, available to reduce risk to emergency service personnel.
- 7.13.6 A permit granted under sub-clauses 7.13.1 or 7.13.2 must be subject to a condition to require that not more than 6 months after the date on which the permit lapses, all traces of any works, buildings, plant or materials introduced and used for the purposes temporary housing must be removed from the site to the satisfaction of the planning authority, unless:
 - (a) a new permit for temporary housing has been granted; or
 - (b) such works, buildings, plant or materials are to be used for a use or development for which a permit has been granted, or are exempt from requiring a permit.
- 7.13.7 Additional permits for temporary housing issued under sub-clauses 7.13.1 or 7.13.2 must not cause the approval of temporary housing for a period longer than 3 years commencing from the date on which the initial occupancy permit, or temporary occupancy permit, is issued in accordance with Part 17 of the Building Act 2016.
- 7.13.8 No other provisions in this planning scheme apply to a use or development in accordance with sub-clauses 7.13.1 or 7.13.2.

8.0 General Residential Zone

8.1 Zone Purpose

The purpose of the General Residential Zone is:

- 8.1.1 To provide for residential use or development that accommodates a range of dwelling types where full infrastructure services are available or can be provided.
- 8.1.2 To provide for the efficient utilisation of available social, transport and other service infrastructure.
- 8.1.3 To provide for non-residential use that:
 - (a) primarily serves the local community; and
 - (b) does not cause an unreasonable loss of amenity through scale, intensity, noise, activity outside of business hours, traffic generation and movement, or other off site impacts.
- 8.1.4 To provide for Visitor Accommodation that is compatible with residential character.

8.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a single dwelling.
Utilities	If for minor utilities.
Permitted	
Residential	If not listed as No Permit Required.
Visitor Accommodation	
Discretionary	
Business and Professional Services	If for a consulting room, medical centre, veterinary centre, child health clinic, or for the provision of residential support services.
Community Meeting and Entertainment	If for a place of worship, art and craft centre, public hall, community centre or neighbourhood centre.
Educational and Occasional Care	If not for a tertiary institution.
Emergency Services	

Use Class	Qualification
Food Services	If not for a take away food premises with a drive through facility.
General Retail and Hire	If for a local shop.
Sports and Recreation	If for a fitness centre, gymnasium, public swimming pool or sports ground.
Utilities	If not listed as No Permit Required.
Prohibited	
All other uses	

8.3 Use Standards

8.3.1 Discretionary uses

Objective:	That Discretionary uses do not cause an unreasonable loss of amenity to adjacent sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Hours of operation of a use listed as Discretionary, excluding Emergency Services, must be within the hours of 8.00am to 6.00pm.	P1 Hours of operation of a use listed as Discretionary, excluding Emergency Services, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the timing, duration or extent of vehicle movements; and (b) noise, lighting or other emissions.	
A2 External lighting for a use listed as Discretionary: (a) must not operate within the hours of 7.00pm to 7.00am, excluding any security lighting; and (b) security lighting must be baffled to ensure direct light does not extend into the adjoining property.	P2 External lighting for a use listed as Discretionary, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the number of proposed light sources and their intensity; (b) the location of the proposed light sources; (c) the topography of the site; and (d) any existing light sources.	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must be within the hours of:</p> <p>(a) 7:00am to 7:00pm Monday to Friday;</p> <p>(b) 9:00am to 12 noon Saturday; and</p> <p>(c) nil on Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any existing or proposed noise mitigation measures between the vehicle movement areas and sensitive use;</p> <p>(f) potential conflicts with other traffic; and</p> <p>(g) existing levels of amenity.</p>
<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>A use listed as Discretionary must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the intensity and scale of the use;</p> <p>(b) the emissions generated by the use;</p> <p>(c) the type and intensity of traffic generated by the use;</p> <p>(d) the impact on the character of the area; and</p> <p>(e) the need for the use in that location.</p>

8.3.2 Visitor Accommodation

Objective:	<p>That Visitor Accommodation:</p> <ul style="list-style-type: none"> (a) is compatible with the character and use of the area; (b) does not cause an unreasonable loss of residential amenity; and (c) does not impact the safety and efficiency of local roads or rights of way.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Visitor Accommodation must:</p> <ul style="list-style-type: none"> (a) accommodate guests in existing habitable buildings; and (b) have a gross floor area of not more than 200m² per lot. 	<p>P1</p> <p>Visitor Accommodation must be compatible with the character and use of the area and not cause an unreasonable loss of residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the privacy of adjoining properties; (b) any likely increase in noise to adjoining properties; (c) the scale of the use and its compatibility with the surrounding character and uses within the area; (d) retaining the primary residential function of an area; (e) the impact on the safety and efficiency of the local road network; and (f) any impact on the owners and users rights of way.
<p>A2</p> <p>Visitor Accommodation is not for a strata lot that is part of a strata scheme where another strata lot within that strata scheme is used for a residential use.</p>	<p>P2</p> <p>Visitor Accommodation within a strata scheme must not cause an unreasonable loss of residential amenity to long term residents occupying other strata lots within the strata scheme, having regard to:</p> <ul style="list-style-type: none"> (a) the privacy of residents; (b) any likely increase in noise; (c) the residential function of the strata scheme; (d) the location and layout of the strata lots; (e) the extent and nature of any other non-residential uses; and (f) any impact on shared access and common property.

8.4 Development Standards for Dwellings

8.4.1 Residential density for multiple dwellings

Objective:	That the density of multiple dwellings:	
	<ul style="list-style-type: none"> (a) makes efficient use of land for housing; and (b) optimises the use of infrastructure and community services. 	
Acceptable Solutions		Performance Criteria
A1	Multiple dwellings must have a site area per dwelling of not less than 325m ² .	<p>P1</p> <p>Multiple dwellings must only have a site area per dwelling that is less than 325m², if the development will not exceed the capacity of infrastructure services and:</p> <ul style="list-style-type: none"> (a) is compatible with the density of existing development on established properties in the area; or (b) provides for a significant social or community benefit and is: <ul style="list-style-type: none"> (i) wholly or partly within 400m walking distance of a public transport stop; or (ii) wholly or partly within 400m walking distance of an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone, General Business Zone, Central Business Zone or Commercial Zone.

8.4.2 Setbacks and building envelope for all dwellings

Objective:	The siting and scale of dwellings:	
	<ul style="list-style-type: none"> (a) provides reasonably consistent separation between dwellings and their frontage within a street; (b) provides consistency in the apparent scale, bulk, massing and proportion of dwellings; (c) provides separation between dwellings on adjoining properties to allow reasonable opportunity for daylight and sunlight to enter habitable rooms and private open space; and (d) provides reasonable access to sunlight for existing solar energy installations. 	
Acceptable Solutions		Performance Criteria
A1	Unless within a building area on a sealed plan, a dwelling, excluding garages, carports and protrusions that extend not more than 0.9m into the frontage	<p>P1</p> <p>A dwelling must have a setback from a frontage that is compatible with the streetscape, having regard to any topographical constraints.</p>

<p>setback, must have a setback from a frontage that is:</p> <ul style="list-style-type: none"> (a) if the frontage is a primary frontage, not less than 4.5m, or, if the setback from the primary frontage is less than 4.5m, not less than the setback, from the primary frontage, of any existing dwelling on the site; (b) if the frontage is not a primary frontage, not less than 3m, or, if the setback from the frontage is less than 3m, not less than the setback, from a frontage that is not a primary frontage, of any existing dwelling on the site; (c) if for a vacant site and there are existing dwellings on adjoining properties on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining sites on the same street; or (d) if located above a non-residential use at ground floor level, not less than the setback from the frontage of the ground floor level. 	
<p>A2</p> <p>A garage or carport for a dwelling must have a setback from a primary frontage of not less than:</p> <ul style="list-style-type: none"> (a) 5.5m, or alternatively 1m behind the building line; (b) the same as the building line, if a portion of the dwelling gross floor area is located above the garage or carport; or (c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage. 	<p>P2</p> <p>A garage or carport for a dwelling must have a setback from a primary frontage that is compatible with the setbacks of existing garages or carports in the street, having regard to any topographical constraints.</p>
<p>A3</p> <p>A dwelling, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally beyond the building envelope, must:</p> <ul style="list-style-type: none"> (a) be contained within a building envelope (refer to Figures 8.1, 8.2 and 8.3) determined by: <ul style="list-style-type: none"> (i) a distance equal to the frontage setback or, for an internal lot, a distance of 4.5m from the rear boundary of a property with an adjoining frontage; and (ii) projecting a line at an angle of 45 degrees 	<p>P3</p> <p>The siting and scale of a dwelling must:</p> <ul style="list-style-type: none"> (a) not cause an unreasonable loss of amenity to adjoining properties, having regard to: <ul style="list-style-type: none"> (i) reduction in sunlight to a habitable room (other than a bedroom) of a dwelling on an adjoining property; (ii) overshadowing the private open space of a dwelling on an adjoining property; (iii) overshadowing of an adjoining vacant property; and

<p>from the horizontal at a height of 3m above existing ground level at the side and rear boundaries to a building height of not more than 8.5m above existing ground level; and</p> <p>(b) only have a setback of less than 1.5m from a side or rear boundary if the dwelling:</p> <ul style="list-style-type: none"> (i) does not extend beyond an existing building built on or within 0.2m of the boundary of the adjoining property; or (ii) does not exceed a total length of 9m or one third the length of the side boundary (whichever is the lesser). 	<ul style="list-style-type: none"> (iv) visual impacts caused by the apparent scale, bulk or proportions of the dwelling when viewed from an adjoining property; (b) provide separation between dwellings on adjoining properties that is consistent with that existing on established properties in the area; and (c) not cause an unreasonable reduction in sunlight to an existing solar energy installation on: <ul style="list-style-type: none"> (i) an adjoining property; or (ii) another dwelling on the same site.
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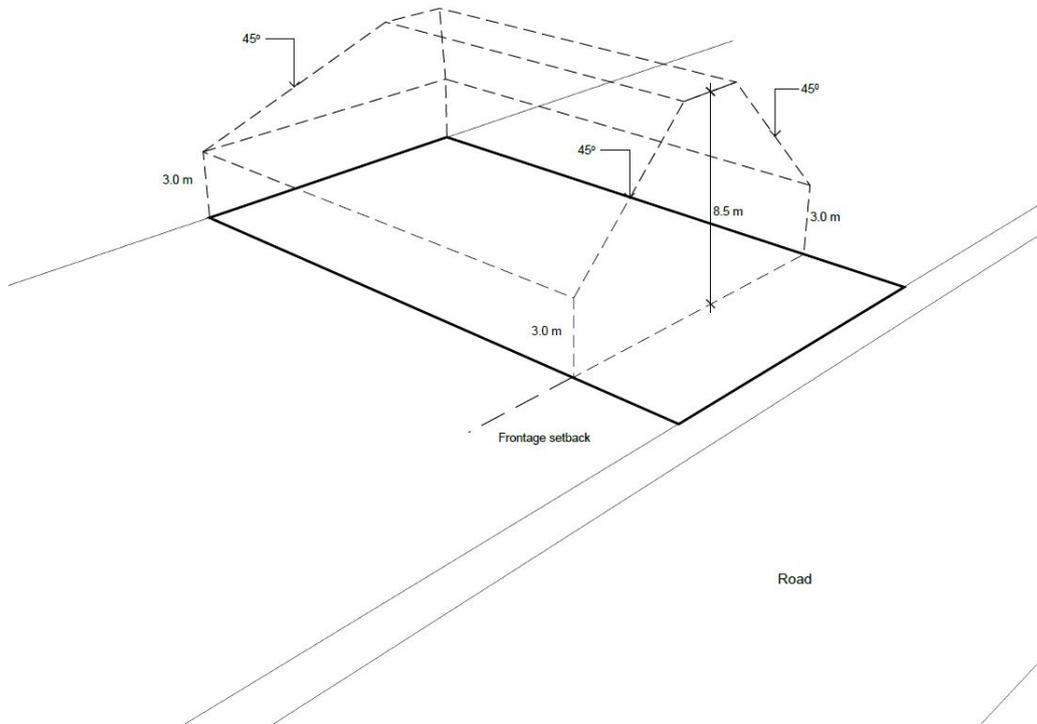


Figure 8.1 Building envelope as required by clause 8.4.2 A3(a) and clause 8.5.1 A2(a)

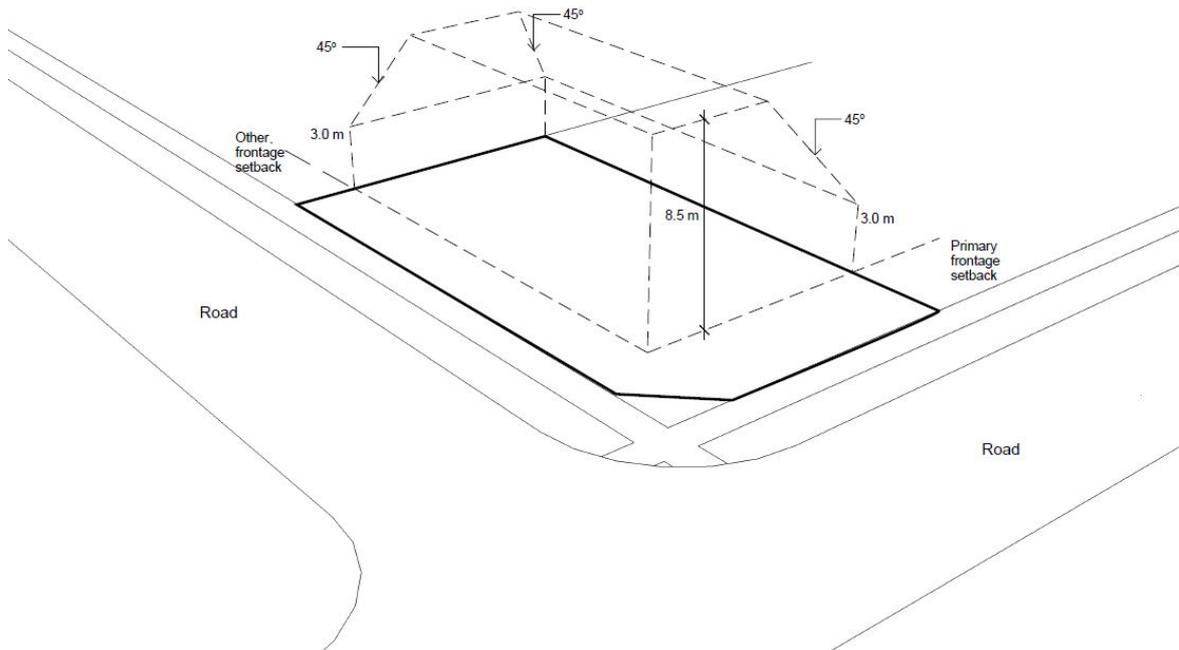


Figure 8.2 Building envelope for corner lots as required by clause 8.4.2 A3(a) and clause 8.5.1 A2(a)

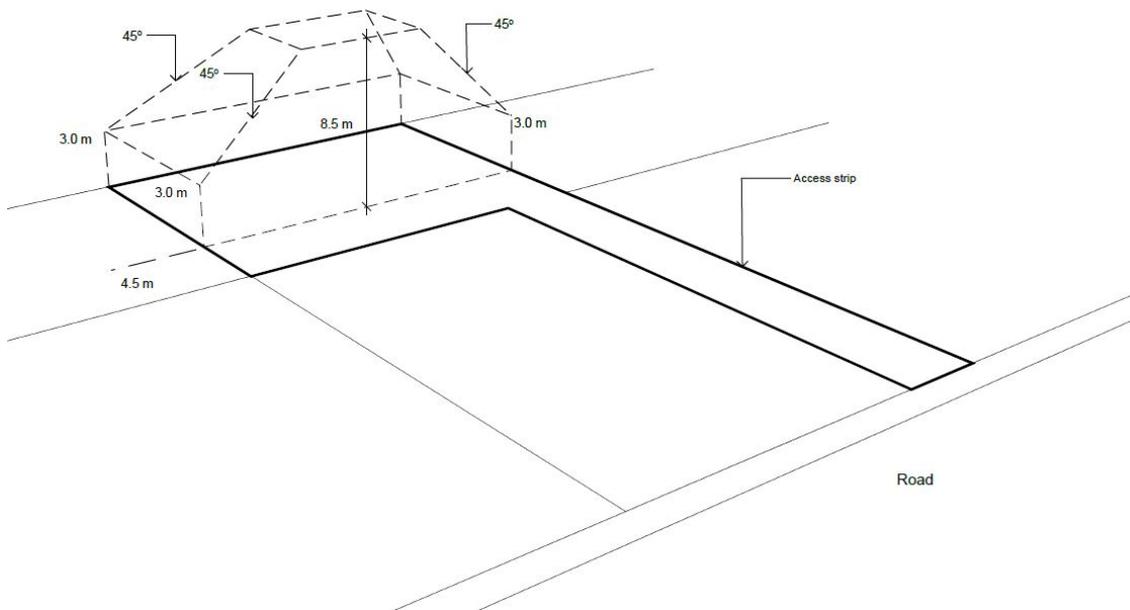


Figure 8.3 Building envelope for internal lots as required by clause 8.4.2 A3(a) and clause 8.5.1 A2(a)

8.4.3 Site coverage and private open space for all dwellings

Objective:	<p>That dwellings are compatible with the amenity and character of the area and provide:</p> <ul style="list-style-type: none"> (a) for outdoor recreation and the operational needs of the residents; (b) opportunities for the planting of gardens and landscaping; and (c) private open space that is conveniently located and has access to sunlight.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Dwellings must have:</p> <ul style="list-style-type: none"> (a) a site coverage of not more than 50% (excluding eaves up to 0.6m wide); and (b) for multiple dwellings, a total area of private open space of not less than 60m² associated with each dwelling, unless the dwelling has a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer). 	<p>P1</p> <p>Dwellings must have:</p> <ul style="list-style-type: none"> (a) site coverage consistent with that existing on established properties in the area; (b) private open space that is of a size and with dimensions that are appropriate for the size of the dwelling and is able to accommodate: <ul style="list-style-type: none"> (i) outdoor recreational space consistent with the projected requirements of the occupants and, for multiple dwellings, take into account any common open space provided for this purpose within the development; and (ii) operational needs, such as clothes drying and storage; and (c) reasonable space for the planting of gardens and landscaping.
<p>A2</p> <p>A dwelling must have private open space that:</p> <ul style="list-style-type: none"> (a) is in one location and is not less than: <ul style="list-style-type: none"> (i) 24m²; or (ii) 12m², if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer); (b) has a minimum horizontal dimension of not less than: <ul style="list-style-type: none"> (i) 4m; or (ii) 2m, if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer); (c) is located between the dwelling and the frontage only if the frontage is orientated 	<p>P2</p> <p>A dwelling must have private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children’s play and is:</p> <ul style="list-style-type: none"> (a) conveniently located in relation to a living area of the dwelling; and (b) orientated to take advantage of sunlight.

between 30 degrees west of true north and 30 degrees east of true north; and (d) has a gradient not steeper than 1 in 10.	
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8.4.4 Sunlight to private open space of multiple dwellings

Objective:	That the separation between multiple dwellings provides reasonable opportunity for sunlight to private open space for dwellings on the same site.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A multiple dwelling, that is to the north of the private open space of another dwelling on the same site, required to satisfy A2 or P2 of clause 8.4.3, must satisfy (a) or (b), unless excluded by (c):</p> <p>(a) the multiple dwelling is contained within a line projecting (see Figure 8.4):</p> <ul style="list-style-type: none"> (i) at a distance of 3m from the northern edge of the private open space; and (ii) vertically to a height of 3m above existing ground level and then at an angle of 45 degrees from the horizontal; <p>(b) the multiple dwelling does not cause 50% of the private open space to receive less than 3 hours of sunlight between 9.00am and 3.00pm on 21st June; and</p> <p>(c) this Acceptable Solution excludes that part of a multiple dwelling consisting of:</p> <ul style="list-style-type: none"> (i) an outbuilding with a building height not more than 2.4m; or (ii) protrusions that extend not more than 0.9m horizontally from the multiple dwelling. 	<p>P1</p> <p>A multiple dwelling must be designed and sited to not cause an unreasonable loss of amenity by overshadowing the private open space, of another dwelling on the same site, which is required to satisfy A2 or P2 of clause 8.4.3 of this planning scheme.</p>

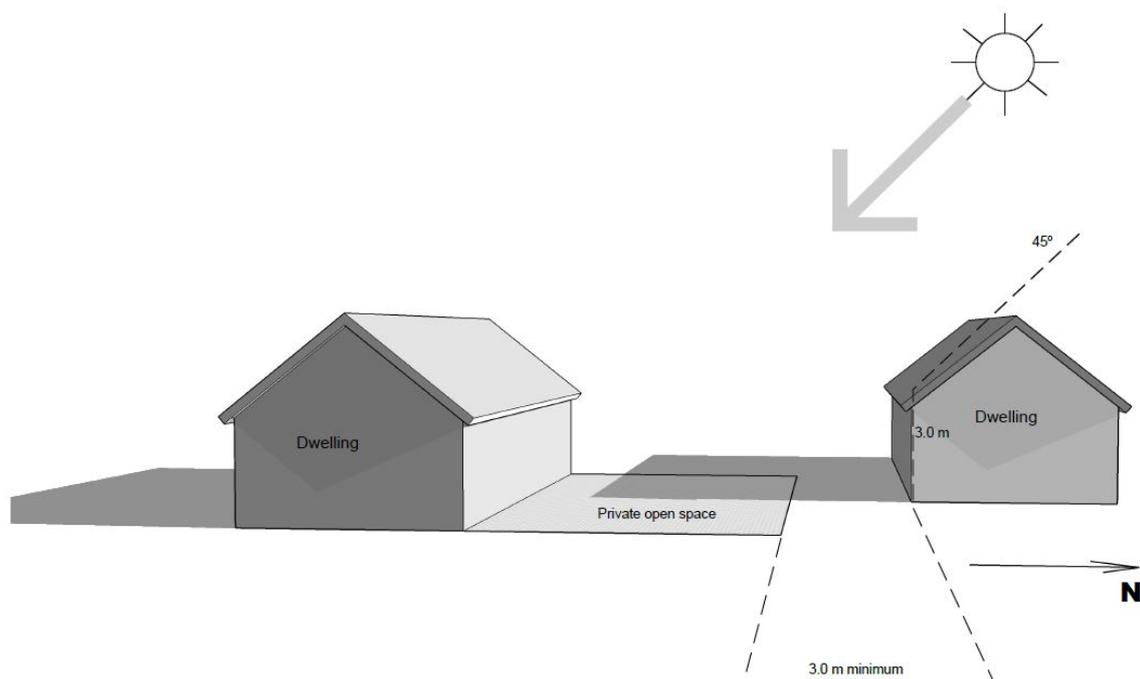


Figure 8.4 Separation from the private open space of another dwelling on the same site as required by clause 8.4.4 A1(a)

8.4.5 Width of openings for garages and carports for all dwellings

Objective:	To reduce the potential for garage or carport openings to dominate the primary frontage.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A garage or carport for a dwelling within 12m of a primary frontage, whether the garage or carport is free-standing or part of the dwelling, must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p>	<p>P1</p> <p>A garage or carport for a dwelling must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p>

8.4.6 Privacy for all dwellings

Objective:	To provide a reasonable opportunity for privacy for dwellings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A balcony, deck, roof terrace, parking space, or carport for a dwelling (whether freestanding or part of the dwelling), that has a finished surface or floor level more than 1m above existing ground level must have a permanently fixed screen to a height of not less than 1.7m above the finished surface or floor level, with a uniform transparency of not more than 25%, along the sides facing a:</p> <p>(a) side boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 3m from the side boundary;</p> <p>(b) rear boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 4m from the rear boundary; and</p> <p>(c) dwelling on the same site, unless the balcony, deck, roof terrace, parking space, or carport is not less than 6m:</p> <p>(i) from a window or glazed door, to a habitable room of the other dwelling on the same site; or</p> <p>(ii) from a balcony, deck, roof terrace or the private open space of the other dwelling on the same site.</p>	<p>P1</p> <p>A balcony, deck, roof terrace, parking space or carport for a dwelling (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1m above existing ground level, must be screened, or otherwise designed, to minimise overlooking of:</p> <p>(a) a dwelling on an adjoining property or its private open space; or</p> <p>(b) another dwelling on the same site or its private open space.</p>

<p>A2</p> <p>A window or glazed door to a habitable room of a dwelling, that has a floor level more than 1m above existing ground level, must satisfy (a), unless it satisfies (b):</p> <p>(a) the window or glazed door:</p> <ul style="list-style-type: none"> (i) is to have a setback of not less than 3m from a side boundary; (ii) is to have a setback of not less than 4m from a rear boundary; (iii) if the dwelling is a multiple dwelling, is to be not less than 6m from a window or glazed door, to a habitable room, of another dwelling on the same site; and (iv) if the dwelling is a multiple dwelling, is to be not less than 6m from the private open space of another dwelling on the same site. <p>(b) the window or glazed door:</p> <ul style="list-style-type: none"> (i) is to be offset, in the horizontal plane, not less than 1.5m from the edge of a window or glazed door, to a habitable room of another dwelling; (ii) is to have a sill height of not less than 1.7m above the floor level or have fixed obscure glazing extending to a height of not less than 1.7m above the floor level; or (iii) is to have a permanently fixed external screen for the full length of the window or glazed door, to a height of not less than 1.7m above floor level, with a uniform transparency of not more than 25%. 	<p>P2</p> <p>A window or glazed door to a habitable room of a dwelling that has a floor level more than 1m above existing ground level, must be screened, or otherwise located or designed, to minimise direct views to:</p> <ul style="list-style-type: none"> (a) a window or glazed door, to a habitable room of another dwelling; and (b) the private open space of another dwelling.
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<p>A3</p> <p>A shared driveway or parking space (excluding a parking space allocated to that dwelling) must be separated from a window, or glazed door, to a habitable room of a multiple dwelling by a horizontal distance of not less than:</p> <p>(a) 2.5m; or</p> <p>(b) 1m if:</p> <p style="margin-left: 20px;">(i) it is separated by a screen of not less than 1.7m in height; or</p> <p style="margin-left: 20px;">(ii) the window, or glazed door, to a habitable room has a sill height of not less than 1.7m above the shared driveway or parking space, or has fixed obscure glazing extending to a height of not less than 1.7m above the floor level.</p>	<p>P3</p> <p>A shared driveway or parking space (excluding a parking space allocated to that dwelling), must be screened, or otherwise located or designed, to minimise unreasonable impact of vehicle noise or vehicle light intrusion to a habitable room of a multiple dwelling.</p>
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8.4.7 Frontage fences for all dwellings

<p>Objective:</p>	<p>The height and transparency of frontage fences:</p> <p>(a) provides adequate privacy and security for residents;</p> <p>(b) allows the potential for mutual passive surveillance between the road and the dwelling; and</p> <p>(c) is reasonably consistent with that on adjoining properties.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.¹</p>	<p>P1</p> <p>A fence (including a free-standing wall) for a dwelling within 4.5m of a frontage must:</p> <p>(a) provide for security and privacy while allowing for passive surveillance of the road; and</p> <p>(b) be compatible with the height and transparency of fences in the street, having regard to:</p> <p style="margin-left: 20px;">(i) the topography of the site; and</p> <p style="margin-left: 20px;">(ii) traffic volumes on the adjoining road.</p>

¹ An exemption applies for fences in this zone – see Table 4.6

8.4.8 Waste storage for multiple dwellings

Objective:	To provide for the storage of waste and recycling bins for multiple dwellings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A multiple dwelling must have a storage area, for waste and recycling bins, that is not less than 1.5m² per dwelling and is within one of the following locations:</p> <p>(a) an area for the exclusive use of each dwelling, excluding the area in front of the dwelling; or</p> <p>(b) a common storage area with an impervious surface that:</p> <p style="margin-left: 20px;">(i) has a setback of not less than 4.5m from a frontage;</p> <p style="margin-left: 20px;">(ii) is not less than 5.5m from any dwelling; and</p> <p style="margin-left: 20px;">(iii) is screened from the frontage and any dwelling by a wall to a height not less than 1.2m above the finished surface level of the storage area.</p>	<p>P1</p> <p>A multiple dwelling must have storage for waste and recycling bins that is:</p> <p>(a) capable of storing the number of bins required for the site;</p> <p>(b) screened from the frontage and any dwellings; and</p> <p>(c) if the storage area is a common storage area, separated from any dwellings to minimise impacts caused by odours and noise.</p>

8.5 Development Standards for Non-dwellings

8.5.1 Non-dwelling development

Objective:	<p>That all non-dwelling development:</p> <p>(a) is compatible with the character, siting, apparent scale, bulk, massing and proportion of residential development; and</p> <p>(b) does not cause an unreasonable loss of amenity on adjoining residential properties.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A building that is not a dwelling, excluding for Food Services, local shop, garage or carport, and protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage that is:</p> <p>(a) if the frontage is a primary frontage, not less than 4.5m, or if the setback from the primary frontage is less than 4.5m, not less than the setback, from the primary frontage, of any</p>	<p>P1</p> <p>A building that is not a dwelling, excluding for Food Services and local shop, must have a setback from a frontage that is compatible with the streetscape, having regard to any topographical constraints.</p>

<p>existing dwelling on the site;</p> <p>(b) if the frontage is not a primary frontage, not less than 3.0m, or if the setback from the primary frontage is less than 3.0m, not less than the setback, from the primary frontage, of any existing dwelling on the site; or</p> <p>(c) if for a vacant site and there are existing dwellings on adjoining properties on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining properties on the same street.</p>	
<p>A2</p> <p>A building that is not a dwelling, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally beyond the building envelope, must:</p> <p>(a) be contained within a building envelope (refer to Figures 8.1, 8.2 and 8.3) determined by:</p> <p>(i) a distance equal to the frontage setback or, for an internal lot, a distance of 4.5m from the rear boundary of a property with an adjoining frontage; and</p> <p>(ii) projecting a line at an angle of 45 degrees from the horizontal at a height of 3m above existing ground level at the side or rear boundaries to a building height of not more than 8.5m above existing ground level; and</p> <p>(b) only have a setback less than 1.5m from a side or rear boundary if the building:</p> <p>(i) does not extend beyond an existing building built on or within 0.2m of the boundary of the adjoining property; or</p> <p>(ii) does not exceed a total length of 9m or one-third of the length of the side or rear boundary (whichever is lesser).</p>	<p>P2</p> <p>The siting and scale of a building that is not a dwelling must:</p> <p>(a) not cause an unreasonable loss of amenity, having regard to:</p> <p>(i) reduction in sunlight to a habitable room, excluding a bedroom, of a dwelling on an adjoining property;</p> <p>(ii) overshadowing the private open space of a dwelling on an adjoining property;</p> <p>(iii) overshadowing of an adjoining vacant property; and</p> <p>(iv) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from an adjoining property; and</p> <p>(b) provide separation between buildings on adjoining properties that is consistent with that existing on established properties in the area.</p>
<p>A3</p> <p>A building that is not a dwelling, must have:</p> <p>(a) a site coverage of not more than 50%</p>	<p>P3</p> <p>A building that is not a dwelling, must have:</p> <p>(a) site coverage consistent with that existing on</p>

<p>(excluding eaves up to 0.6m); and</p> <p>(b) a site area of which not less than 35% is free from impervious surfaces.</p>	<p>established properties in the area; and</p> <p>(b) reasonable space for the planting of gardens and landscaping.</p>
<p>A4</p> <p>No Acceptable Solution.²</p>	<p>P4</p> <p>A fence (including a free-standing wall) for a building that is not a dwelling within 4.5m of a frontage must:</p> <p>(a) provide for security and privacy while allowing for passive surveillance of the road; and</p> <p>(b) be compatible with the height and transparency of fences in the street, having regard to:</p> <p>(i) the topography of the site; and</p> <p>(ii) traffic volumes on the adjoining road.</p>
<p>A5</p> <p>Outdoor storage areas, for a building that is not a dwelling, including waste storage, must not:</p> <p>(a) be visible from any road or public open space adjoining the site; and</p> <p>(b) encroach upon parking areas, driveways or landscaped areas.</p>	<p>P5</p> <p>Outdoor storage areas, for a building that is not a dwelling, must be located or screened to minimise their impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <p>(a) the nature of the use;</p> <p>(b) the type of goods, materials or waste to be stored;</p> <p>(c) the topography of the site; and</p> <p>(d) any screening proposed.</p>
<p>A6</p> <p>Air extraction, pumping, refrigeration systems or compressors, for a building that is not a dwelling, must have a setback from the boundary of a property containing a sensitive use not less than 10m.³</p>	<p>P6</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors, for a building that is not a dwelling, within 10m of the boundary of a property containing a sensitive use must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity, having regard to:</p> <p>(a) the characteristics and frequency of any emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of the</p>

² An exemption applies for fences in this zone – see Table 4.6.

³ An exemption applies for heat pumps and air conditioners in this zone – see Table 4.6.

	<p>sensitive use; and</p> <p>(d) any mitigation measures proposed.</p>
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8.5.2 Non-residential garages and carports

Objective:	To maintain frontage setbacks compatible with the streetscape and reduce the potential for garage and carport openings to dominate the primary frontage.						
<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Acceptable Solutions</td> <td style="width: 50%;">Performance Criteria</td> </tr> <tr> <td> <p>A1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage of not less than:</p> <p>(a) 5.5m, or alternatively 1m behind the building line;</p> <p>(b) the same as the building line, if a portion of the building gross floor area is located above the garage or carport; or</p> <p>(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.</p> </td> <td> <p>P1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage that is compatible with the setbacks of garages or carports in the street, having regard to any topographical constraints.</p> </td> </tr> <tr> <td> <p>A2</p> <p>A garage or carport not forming part of a dwelling, within 12m of a primary frontage (whether the garage or carport is free-standing) must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p> </td> <td> <p>P2</p> <p>A garage or carport not forming part of a dwelling, must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p> </td> </tr> </table>		Acceptable Solutions	Performance Criteria	<p>A1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage of not less than:</p> <p>(a) 5.5m, or alternatively 1m behind the building line;</p> <p>(b) the same as the building line, if a portion of the building gross floor area is located above the garage or carport; or</p> <p>(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.</p>	<p>P1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage that is compatible with the setbacks of garages or carports in the street, having regard to any topographical constraints.</p>	<p>A2</p> <p>A garage or carport not forming part of a dwelling, within 12m of a primary frontage (whether the garage or carport is free-standing) must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p>	<p>P2</p> <p>A garage or carport not forming part of a dwelling, must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p>
Acceptable Solutions	Performance Criteria						
<p>A1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage of not less than:</p> <p>(a) 5.5m, or alternatively 1m behind the building line;</p> <p>(b) the same as the building line, if a portion of the building gross floor area is located above the garage or carport; or</p> <p>(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.</p>	<p>P1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage that is compatible with the setbacks of garages or carports in the street, having regard to any topographical constraints.</p>						
<p>A2</p> <p>A garage or carport not forming part of a dwelling, within 12m of a primary frontage (whether the garage or carport is free-standing) must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p>	<p>P2</p> <p>A garage or carport not forming part of a dwelling, must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p>						

8.6 Development Standards for Subdivision

8.6.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; (b) is provided with appropriate access to a road; (c) contains areas which are suitable for development appropriate to the zone purpose, located to avoid natural hazards; and (d) is orientated to provide solar access for future dwellings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 450m² and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 10m x 15m with a gradient not steeper than 1 in 5, clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 8.4.2 A1, A2 and A3, and 8.5.1 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 8.4.2 A1, A2 and A3, and 8.5.1 A1 and A2; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lots; (b) the intended location of buildings on the lots; (c) the topography of the site; (d) the presence of any natural hazards; (e) adequate provision of private open space; and (f) the pattern of development existing on established properties in the area.

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 12m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (c) the topography of the site; (d) the functionality and useability of the frontage; (e) the ability to manoeuvre vehicles on the site; and (f) the pattern of development existing on established properties in the area, <p>and is not less than 3.6m wide.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; (d) the anticipated nature of vehicles likely to access the site; and (e) the ability for emergency services to access the site.

<p>A4</p> <p>Any lot in a subdivision with a new road, must have the long axis of the lot between 30 degrees west of true north and 30 degrees east of true north.</p>	<p>P4</p> <p>Subdivision must provide for solar orientation of lots adequate to provide solar access for future dwellings, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and orientation of the lots; (b) the topography of the site; (c) the extent of overshadowing from adjoining properties; (d) any development on the site; (e) the location of roads and access to lots; and (f) the existing pattern of subdivision in the area.
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8.6.2 Roads

<p>Objective:</p>	<p>That the arrangement of new roads within a subdivision provides for:</p> <ul style="list-style-type: none"> (a) safe, convenient and efficient connections to assist accessibility and mobility of the community; (b) the adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety and convenience for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any road network plan adopted by the council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian and cycling paths, to common boundaries with adjoining land, to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) minimising the travel distance between key destinations such as shops and services and public transport routes; (f) access to public transport;

	<p>(g) the efficient and safe movement of pedestrians, cyclists and public transport;</p> <p>(h) the need to provide bicycle infrastructure on new arterial and collector roads in accordance with the <i>Guide to Road Design Part 6A: Paths for Walking and Cycling 2016</i>;</p> <p>(i) the topography of the site; and</p> <p>(j) the future subdivision potential of any balance lots on adjoining or adjacent land.</p>
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8.6.3 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
	Acceptable Solutions	Performance Criteria
	<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <ul style="list-style-type: none"> (a) flow rates; (b) the quality of potable water; (c) any existing or proposed infrastructure to provide the water service and its location; (d) the topography of the site; and (e) any advice from a regulated entity.
	<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>
	<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot;

	<ul style="list-style-type: none">(b) topography of the site;(c) soil conditions;(d) any existing buildings on the site;(e) any area of the site covered by impervious surfaces; and(f) any watercourse on the land.
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9.0 Inner Residential Zone

9.1 Zone Purpose

The purpose of the Inner Residential Zone is:

- 9.1.1 To provide for a variety of residential use or development that accommodates a range of dwelling types at higher densities.
- 9.1.2 To provide for the efficient utilisation of available social, transport and other service infrastructure.
- 9.1.3 To provide for non-residential use that:
 - (a) primarily serves the local community; and
 - (b) does not cause an unreasonable loss of amenity, through scale, intensity, noise, activity outside of business hours, traffic generation and movement, or other off site impacts.
- 9.1.4 To provide for Visitor Accommodation that is compatible with residential character.

9.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a single dwelling.
Utilities	If for minor utilities.
Permitted	
Residential	If not listed as No Permit Required.
Visitor Accommodation	
Discretionary	
Business and Professional Services	If for a consulting room, medical centre, veterinary centre, child health clinic, or for the provision of residential support services.
Community Meeting and Entertainment	If for a place of worship, art and craft centre, public hall, community centre or neighbourhood centre.
Educational and Occasional Care	If not for a tertiary institution.
Emergency Services	
Food Services	If not for a take away food premises with a drive through facility.

Use Class	Qualification
General Retail and Hire	
Sports and Recreation	If for a fitness centre, gymnasium, public swimming pool or sports ground.
Utilities	If not listed as No Permit Required.
Prohibited	
All other uses	

9.3 Use Standards

9.3.1 Discretionary uses

Objective:	That Discretionary uses do not cause an unreasonable loss of amenity to adjacent sensitive uses.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use listed as Discretionary, excluding Emergency Services, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00am to 7.00pm Monday to Friday; and (b) 8.00am to 6.00pm Saturday and Sunday. 	<p>P1</p> <p>Hours of operation of a use listed as Discretionary, excluding Emergency Services, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the timing, duration or extent of vehicle movements; and (b) noise, lighting or other emissions. 	
<p>A2</p> <p>External lighting for a use listed as Discretionary:</p> <ul style="list-style-type: none"> (a) must not operate within the hours of 8.00pm to 6.00am, excluding any security lighting; and (b) security lighting must be baffled so that direct light does not extend into the adjoining property. 	<p>P2</p> <p>External lighting for a use listed as Discretionary, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the number of proposed light sources and their intensity; (b) the location of the proposed light sources; (c) the topography of the site; and (d) any existing light sources. 	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must be within the hours of:</p> <p>(a) 7:00am to 8:00pm Monday to Friday;</p> <p>(b) 9:00am to 12 noon Saturday; and</p> <p>(c) nil on Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the extent and timing of traffic generation;</p> <p>(b) the dispatch of goods and materials; and</p> <p>(c) existing levels of amenity.</p>
<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>A use listed as Discretionary must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the intensity and scale of the use;</p> <p>(b) the emissions generated by the use;</p> <p>(c) the type and intensity of traffic generated by the use;</p> <p>(d) the impact on the character of the area; and</p> <p>(e) the need for the use in that location.</p>

9.3.2 Visitor Accommodation

<p>Objective:</p>	<p>That Visitor Accommodation:</p> <p>(a) is compatible with the character and use of the area;</p> <p>(b) does not cause an unreasonable loss of residential amenity; and</p> <p>(c) does not impact the safety and efficiency of local roads or rights of way.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Visitor Accommodation must:</p> <p>(a) accommodate guests in existing habitable buildings; and</p> <p>(b) have a gross floor area of not more than 200m² per lot.</p>	<p>P1</p> <p>Visitor Accommodation must be compatible with the character and use of the area and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) the privacy of adjoining properties;</p> <p>(b) any likely increase in noise to adjoining properties;</p> <p>(c) the scale of the use and its compatibility with the surrounding character and uses within the area;</p> <p>(d) retaining the primary residential function of an</p>

	<p>area;</p> <p>(e) the impact on the safety and efficiency of the local road network; and</p> <p>(f) any impact on the owners and users rights of way.</p>
<p>A2</p> <p>Visitor Accommodation is not for a strata lot that is part of a strata scheme where another strata lot within that strata scheme is used for a residential use.</p>	<p>P2</p> <p>Visitor Accommodation within a strata scheme must not cause an unreasonable loss of residential amenity to long term residents occupying other strata lots within the strata scheme, having regard to:</p> <p>(a) the privacy of residents;</p> <p>(b) any likely increase in noise;</p> <p>(c) the residential function of the strata scheme;</p> <p>(d) the location and layout of the strata lots;</p> <p>(e) the extent and nature of any other non-residential uses; and</p> <p>(f) any impact on shared access and common property.</p>

9.4 Development Standards for Dwellings

9.4.1 Residential density for multiple dwellings

Objective:	That the density of multiple dwellings: <ul style="list-style-type: none"> (a) makes efficient use of land for housing; and (b) optimises the use of infrastructure and community services.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Multiple dwellings must have a site area per dwelling of not less than 200m².</p>	<p>P1</p> <p>Multiple dwellings must only have a site area per dwelling less than 200m² if:</p> <ul style="list-style-type: none"> (a) the development contributes to a range of dwelling types and sizes appropriate to the surrounding area; or (b) the development provides for a specific accommodation need with significant social or community benefit.

9.4.2 Setbacks and building envelope for all dwellings

Objective:	<p>That the siting and scale of dwellings:</p> <ul style="list-style-type: none"> (a) provides reasonably consistent separation between dwellings and their frontage within a street; (b) provides consistency in the apparent scale, bulk, massing and proportion of dwellings; and (c) provides separation between dwellings on adjoining properties to allow a reasonable opportunity for daylight and sunlight to enter habitable rooms and private open space.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Unless within a building area on a sealed plan, a dwelling, excluding garages, carports and protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage that is:</p> <ul style="list-style-type: none"> (a) if the frontage is a primary frontage, not less than 3m, or, if the setback from the primary frontage is less than 3m, not less than the setback, from the primary frontage, of any existing dwelling on the site; (b) if the frontage is not a primary frontage, not less than 2m, or, if the setback from the frontage is less than 2m, not less than the setback, from a frontage that is not a primary frontage, of any existing dwelling on the site; (c) if for a vacant site and there are existing dwellings on adjoining properties on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining sites on the same street; or (d) if located above a non-residential use at ground floor level, not less than the setback from the frontage of the ground floor level. 	<p>P1</p> <p>A dwelling must have a setback from a frontage that is compatible with the streetscape having regard to any topographical constraints.</p>
<p>A2</p> <p>A garage or carport for a dwelling must have a setback from a primary frontage of not less than:</p> <ul style="list-style-type: none"> (a) 4m, or alternatively 1m behind the building line; (b) the same as the building line, if a portion of the dwelling gross floor area is located above the garage or carport; or 	<p>P2</p> <p>A garage or carport for a dwelling must have a setback from a primary frontage that is compatible with the setbacks of existing garages or carports in the street, having regard to any topographical constraints.</p>

<p>(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.</p>	
<p>A3</p> <p>A dwelling, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally beyond the building envelope, must:</p> <p>(a) be contained within a building envelope (refer to Figures 9.1, 9.2 and 9.3) determined by:</p> <ul style="list-style-type: none"> (i) a distance equal to the frontage setback or, for an internal lot, a distance of 3m from the rear boundary of a property with an adjoining frontage; and (ii) projecting a line at an angle of 45 degrees from the horizontal at a height of 3m above existing ground level at the side and rear boundaries to a building height of not more than 9.5m above existing ground level; and <p>(b) only have a setback within 1.5m of a side or rear boundary if the dwelling:</p> <ul style="list-style-type: none"> (i) does not extend beyond an existing building built on or within 0.2m of the boundary of the adjoining property; or (ii) does not exceed a total length of 9m or one-third the length of the side boundary (whichever is the lesser). 	<p>P3</p> <p>The siting and scale of a dwelling must:</p> <p>(a) not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (i) reduction in sunlight to a habitable room (other than a bedroom) of a dwelling on an adjoining property; (ii) overshadowing the private open space of a dwelling on an adjoining property; (iii) overshadowing of an adjoining vacant property; and (iv) visual impacts caused by the apparent scale, bulk or proportions of the dwelling when viewed from an adjoining property; and <p>(b) provide separation between dwellings on adjoining properties that is consistent with that existing on established properties in the area.</p>

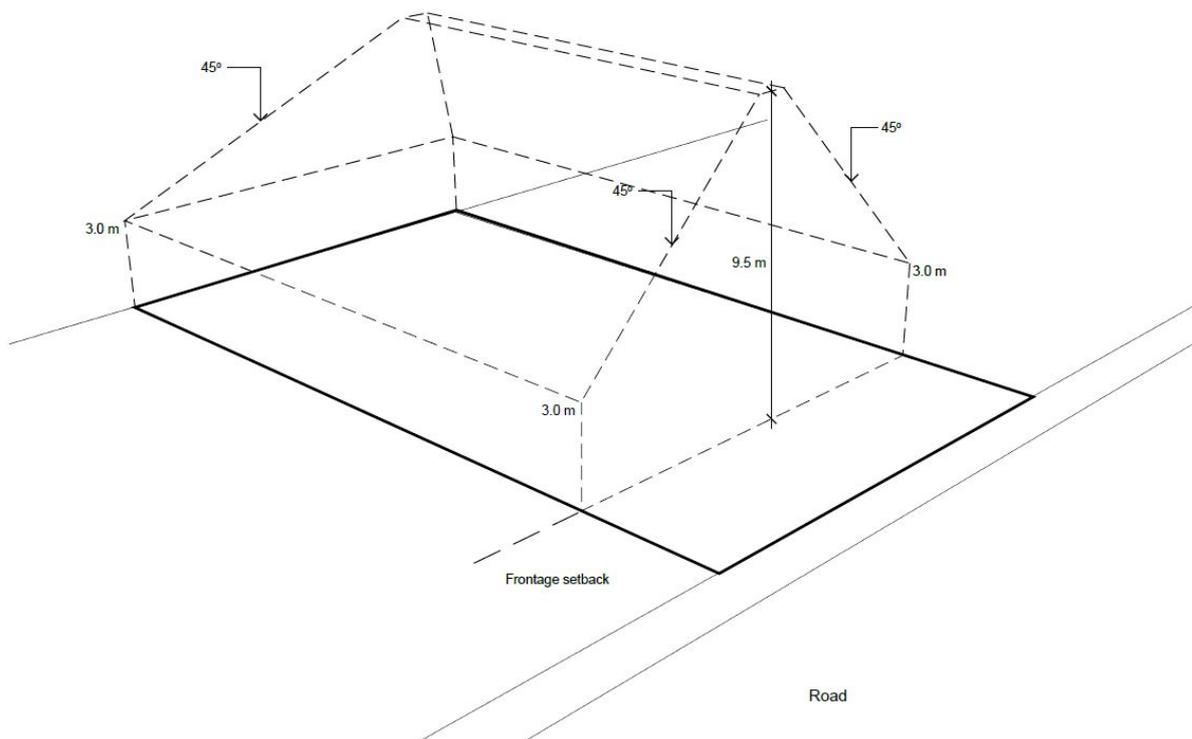


Figure 9.1 Building envelope as required by clause 9.4.2 A3(a) and clause 9.5.1 A2(a)

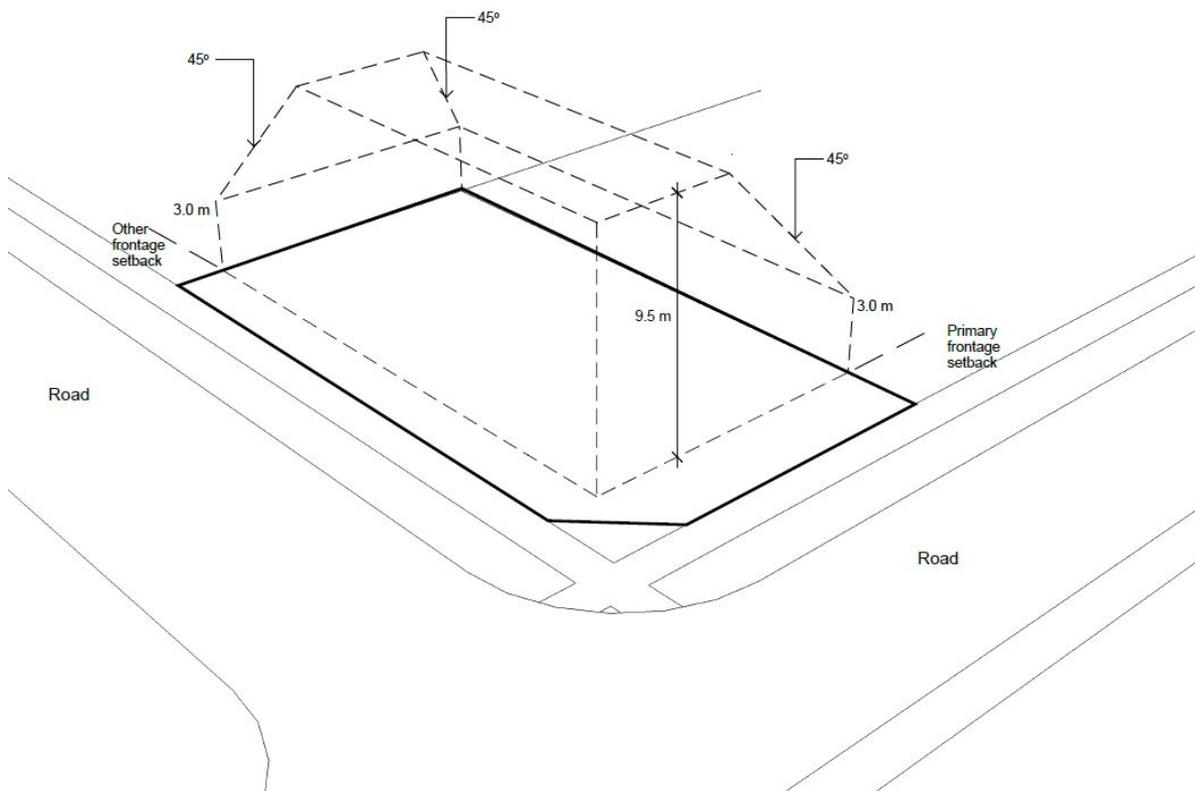


Figure 9.2 Building envelope for corner lots as required by clause 9.4.2 A3(a) and clause 9.5.1 A2(a)

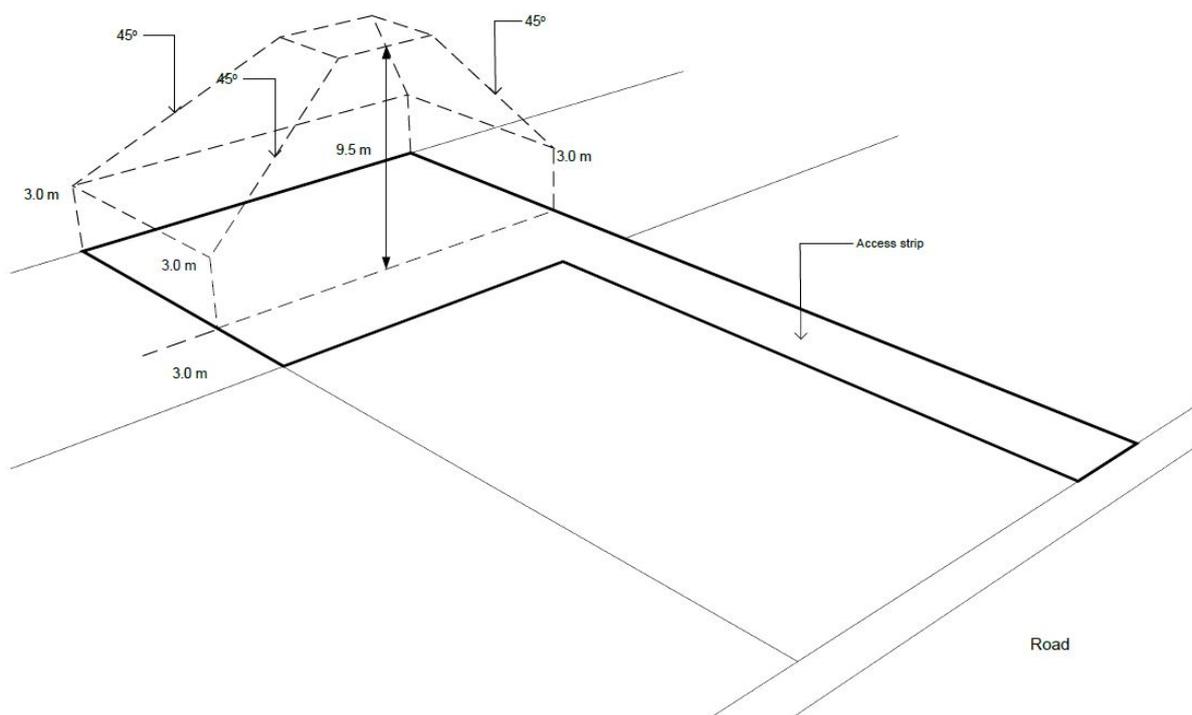


Figure 9.3 Building envelope for internal lots as required by clause 9.4.2 A3(a) and clause 9.5.1 A2(a)

9.4.3 Site coverage and private open space for all dwellings

Objective:	<p>That dwellings are compatible with the amenity and character of the area and provide:</p> <ul style="list-style-type: none"> (a) for outdoor recreation and the operational needs of the residents; (b) opportunities for the planting of gardens and landscaping; and (c) private open space that is conveniently located and has access to sunlight.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Dwellings must have:</p> <ul style="list-style-type: none"> (a) a site coverage of not more than 65% (excluding eaves up to 0.6m wide); and (b) for multiple dwellings, a total area of private open space of not less than 40m² associated with each dwelling, unless the dwelling has a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer). 	<p>P1</p> <p>Dwellings must have:</p> <ul style="list-style-type: none"> (a) site coverage consistent with that existing on established properties in the area; (b) private open space that is of a size and with dimensions appropriate for the size of the dwelling and is able to accommodate: <ul style="list-style-type: none"> (i) outdoor recreational space consistent with the projected requirements of the occupants and, for multiple dwellings, take into account any common open space provided for this purpose within the development; and (ii) operational needs, such as clothes drying and storage; and (c) reasonable space for the planting of gardens and landscaping.
<p>A2</p> <p>A dwelling must have private open space that:</p> <ul style="list-style-type: none"> (a) is in one location and is not less than: <ul style="list-style-type: none"> (i) 24m²; or (ii) 12m², if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer); (b) has a minimum horizontal dimension of: <ul style="list-style-type: none"> (i) 4m; or (ii) 2m, if the dwelling is a multiple dwelling with a finished floor level that is entirely more than 1.8m above the finished ground level (excluding a garage, carport or entry foyer); 	<p>P2</p> <p>A dwelling must have private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and is:</p> <ul style="list-style-type: none"> (a) conveniently located in relation to a living area of the dwelling; and (b) orientated to take advantage of sunlight.

<p>(c) is located between the dwelling and the frontage only if the frontage is orientated between 30 degrees west of true north and 30 degrees east of true north; and</p> <p>(d) has a gradient not steeper than 1 in 10.</p>	
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9.4.4 Sunlight to private open space of multiple dwellings

<p>Objective:</p>	<p>That the separation between multiple dwellings provides reasonable opportunity for sunlight to enter private open space for dwellings on the same site.</p>	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>A multiple dwelling that is to the north of the private open space of another dwelling on the same site, required to satisfy A2 or P2 of clause 9.4.3, must satisfy (a) or (b), unless excluded by (c):</p> <p>(a) the multiple dwelling is contained within a line projecting (see Figure 9.4):</p> <ul style="list-style-type: none"> (i) at a distance of 3m from the northern edge of the private open space; and (ii) vertically to a height of 3m above existing ground level and then at an angle of 45 degrees from the horizontal. <p>(b) the multiple dwelling does not cause 50% of the private open space to receive less than 3 hours of sunlight within the hours of 9.00am to 3.00pm on 21st June.</p> <p>(c) this Acceptable Solution excludes that part of a multiple dwelling consisting of:</p> <ul style="list-style-type: none"> (i) an outbuilding with a building height not more than 2.4m; or (ii) protrusions that extend not more than 0.9m horizontally from the multiple dwelling. 		<p>P1</p> <p>A multiple dwelling must be designed and sited to not cause an unreasonable loss of amenity by overshadowing the private open space, of another dwelling on the same site, which is required to satisfy A2 or P2 of clause 9.4.3 of this planning scheme.</p>

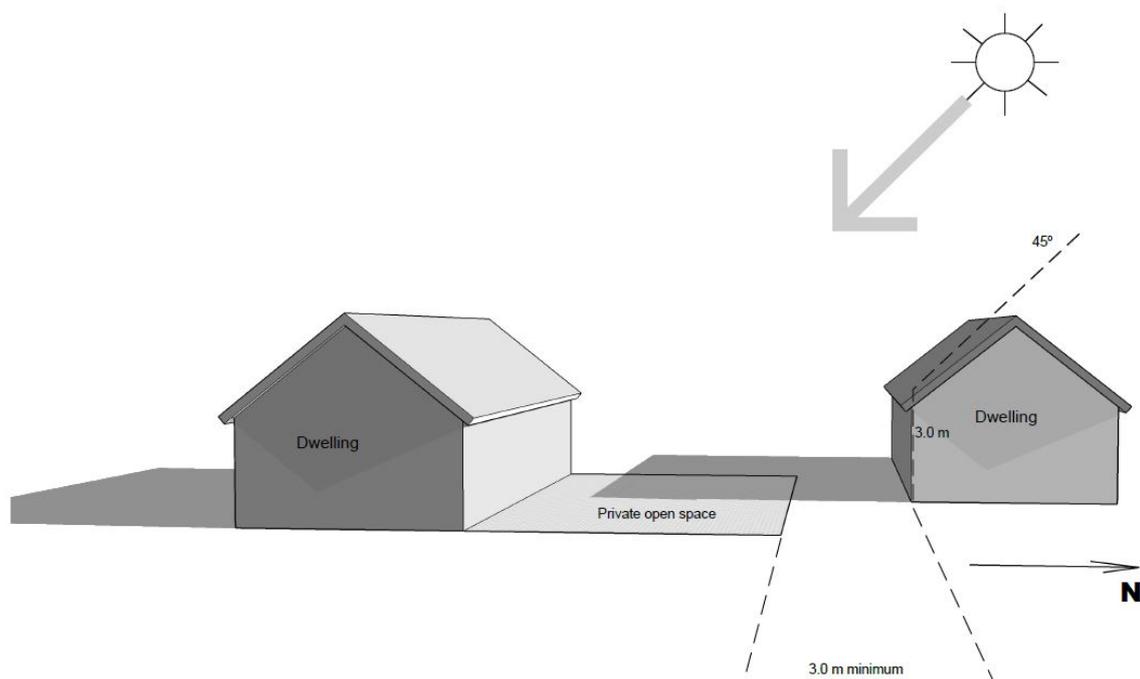


Figure 9.4 Separation from the private open space of another dwelling on the same site as required by clause 9.4.4 A1(a)

9.4.5 Width of openings for garages and carports for all dwellings

Objective:	To reduce the potential for garage or carport openings to dominate the primary frontage.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A garage or carport for a dwelling within 12m of a primary frontage, whether the garage or carport is free-standing or part of the dwelling, must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p>	<p>P1</p> <p>A garage or carport for a dwelling must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p>

9.4.6 Privacy for all dwellings

Objective:	To provide a reasonable opportunity for privacy for dwellings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A balcony, deck, roof terrace, parking space, or carport for a dwelling (whether freestanding or part of the dwelling), that has a finished surface or floor level more than 1m above existing ground level must have a permanently fixed screen to a height of not less than 1.7m above the finished surface or floor level, with a uniform transparency of not more than 25%, along the sides facing a:</p> <ul style="list-style-type: none"> (a) side boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 3m from the side boundary; (b) rear boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of not less than 4m from the rear boundary; and (c) dwelling on the same site, unless the balcony, deck, roof terrace, parking space, or carport is not less than 6m: <ul style="list-style-type: none"> (i) from a window or glazed door, to a habitable room of the other dwelling on the same site; or (ii) from a balcony, deck, roof terrace or the private open space, of the other dwelling on the same site. 	<p>P1</p> <p>A balcony, deck, roof terrace, parking space or carport for a dwelling (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1m above existing ground level, must be screened, or otherwise designed, to minimise overlooking of:</p> <ul style="list-style-type: none"> (a) a dwelling on an adjoining property or its private open space; or (b) another dwelling on the same site or its private open space.

<p>A2</p> <p>A window or glazed door, to a habitable room of a dwelling that has a floor level more than 1m above existing ground level, must satisfy (a), unless it satisfies (b):</p> <p>(a) The window or glazed door:</p> <ul style="list-style-type: none"> (i) is to have a setback of not less than 3m from a side boundary; (ii) is to have a setback of not less than 4m from a rear boundary; (iii) if the dwelling is a multiple dwelling, is to be not less than 6m from a window or glazed door, to a habitable room, of another dwelling on the same site; and (iv) if the dwelling is a multiple dwelling, is to be not less than 6m from the private open space of another dwelling on the same site. <p>(b) The window or glazed door:</p> <ul style="list-style-type: none"> (i) is to be offset, in the horizontal plane, not less than 1.5m from the edge of a window or glazed door, to a habitable room of another dwelling; (ii) is to have a sill height of not less than 1.7m above the floor level or have fixed obscure glazing extending to a height of at least 1.7m above the floor level; or (iii) is to have a permanently fixed external screen for the full length of the window or glazed door, to a height of not less than 1.7m above floor level, with a uniform transparency of not more than 25%. 	<p>P2</p> <p>A window or glazed door, to a habitable room of dwelling, that has a floor level more than 1m above existing ground level, must be screened, or otherwise located or designed, to minimise direct views to:</p> <ul style="list-style-type: none"> (a) window or glazed door, to a habitable room of another dwelling; and (b) the private open space of another dwelling.
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<p>A3</p> <p>A shared driveway or parking space (excluding a parking space allocated to that dwelling) must be separated from a window, or glazed door, to a habitable room of a multiple dwelling by a horizontal distance of not less than:</p> <p>(a) 2.5m; or</p> <p>(b) 1m if:</p> <p>(i) it is separated by a screen of not less than 1.7m in height; or</p> <p>(ii) the window, or glazed door, to a habitable room has a sill height of not less than 1.7m above the shared driveway or parking space, or has fixed obscure glazing extending to a height of not less than 1.7m above the floor level.</p>	<p>P3</p> <p>A shared driveway or parking space (excluding a parking space allocated to that dwelling), must be screened, or otherwise located or designed, to minimise unreasonable impact of vehicle noise or vehicle light intrusion to a habitable room of a multiple dwelling.</p>
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9.4.7 Frontage fences for all dwellings

<p>Objective:</p>	<p>That the height and transparency of frontage fences:</p> <p>(a) provides adequate privacy and security for residents;</p> <p>(b) allows the potential for mutual passive surveillance between the road and the dwelling; and</p> <p>(c) are reasonably consistent with that on adjoining properties.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.¹</p>	<p>P1</p> <p>A fence (including a free-standing wall) within 4.5m of a frontage for a dwelling must:</p> <p>(a) provide for security and privacy, while allowing for passive surveillance of the road; and</p> <p>(b) be compatible with the height and transparency of fences in the street, having regard to:</p> <p>(i) the topography of the site; and</p> <p>(ii) traffic volumes on the adjoining road.</p>

¹ An exemption applies for fences in this zone – see Table 4.6.

9.4.8 Waste storage for multiple dwellings

Objective:	To provide for the storage of waste and recycling bins for multiple dwellings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A multiple dwelling must have a storage area, for waste and recycling bins, that is an area of not less than 1.5m² per dwelling and is within one of the following locations:</p> <p>(a) in an area for the exclusive use of each dwelling, excluding the area in front of the dwelling; or</p> <p>(b) in a common storage area with an impervious surface that:</p> <p style="margin-left: 20px;">(i) has a setback of not less than 4.5m from a frontage;</p> <p style="margin-left: 20px;">(ii) is not less than 5.5m from any dwelling; and</p> <p style="margin-left: 20px;">(iii) is screened from the frontage and any dwelling by a wall to a height of not less than 1.2m above the finished surface level of the storage area.</p>	<p>P1</p> <p>A multiple dwelling must have storage for waste and recycling bins that is:</p> <p>(a) capable of storing the number of bins required for the site;</p> <p>(b) screened from the frontage and any dwellings; and</p> <p>(c) if the storage area is a common storage area, separated from any dwellings to minimise impacts caused by odours and noise.</p>

9.5 Development Standards for Non-dwellings

9.5.1 Non-dwelling development

Objective:	<p>That all non-dwelling development:</p> <p>(a) is compatible with the character, siting, apparent form, scale, bulk, massing and proportion of residential development; and</p> <p>(b) does not cause an unreasonable loss of amenity on adjoining residential properties.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A building that is not a dwelling, excluding for General Retail and Hire, Food Services, garages, carports and protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage that is:</p> <p>(a) if the frontage is a primary frontage, not less than 3m, or if the setback from the primary</p>	<p>P1</p> <p>A building that is not a dwelling, excluding for General Retail and Hire, or Food Services, must have a setback from a frontage that is compatible with the streetscape, having regard to any topographical constraints.</p>

<p>frontage is less than 3.0m, not less than the setback, from the primary frontage, of any existing dwelling on the site;</p> <p>(b) if the frontage is not a primary frontage, not less than 2m, or if the setback from the primary frontage is less than 2.0m, not less than the setback, from the primary frontage, of any existing dwelling on the site; or</p> <p>(c) if for a vacant site and there are existing dwellings on adjoining properties on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining properties on the same street.</p>	
<p>A2</p> <p>A building that is not a dwelling, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally beyond the building envelope, must:</p> <p>(a) be contained within a building envelope (refer to Figures 9.1, 9.2 and 9.3) determined by:</p> <p>(i) a distance equal to the frontage setback of 3m, or, for an internal lot, a distance of 4.5m from the rear boundary of a property with an adjoining frontage; and</p> <p>(ii) projecting a line at an angle of 45 degrees from the horizontal at a height of 3m above existing ground level at the side or rear boundaries to a building height of not more than 9.5m above existing ground level; and</p> <p>(b) only have a setback within 1.5m of a side or rear boundary if the building:</p> <p>(i) does not extend beyond an existing building built on or within 0.2m of the boundary of the adjoining property; or</p> <p>(ii) does not exceed a total length of 9m or one-third of the length of the side or rear boundary (whichever is lesser).</p>	<p>P2</p> <p>The siting and scale of a building must:</p> <p>(a) not cause an unreasonable loss of amenity having regard to:</p> <p>(i) reduction in sunlight to a habitable room (other than a bedroom) of a dwelling on an adjoining property;</p> <p>(ii) overshadowing the private open space of a dwelling on an adjoining property;</p> <p>(iii) overshadowing of an adjoining vacant property; and</p> <p>(iv) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from an adjoining property; and</p> <p>(b) provide separation between buildings on adjoining properties that is consistent with that existing on established properties in the area.</p>

<p>A3</p> <p>A building that is not a dwelling, must have:</p> <ul style="list-style-type: none"> (a) a site coverage of not more than 65% (excluding eaves up to 0.6m); and (b) a site area of which not less than 15% is free from impervious surfaces. 	<p>P3</p> <p>A building that is not a dwelling must have:</p> <ul style="list-style-type: none"> (a) site coverage consistent with that on established properties in the area; and (b) a reasonable space for the planting of gardens and landscaping.
<p>A4</p> <p>No Acceptable Solution.²</p>	<p>P4</p> <p>A fence (including a free-standing wall) for a building that is not a dwelling within 4.5m of a frontage must:</p> <ul style="list-style-type: none"> (a) provide for security and privacy, while allowing for passive surveillance of the road; and (b) be compatible with the height and transparency of fences in the street, having regard to: <ul style="list-style-type: none"> (i) the topography of the site; and (ii) traffic volumes on the adjoining road.
<p>A5</p> <p>Outdoor storage areas, for a building that is not a dwelling including waste storage must not:</p> <ul style="list-style-type: none"> (a) be visible from any road or public open space adjoining the site; and (b) encroach upon parking areas, driveways or landscaped areas. 	<p>P5</p> <p>Outdoor storage areas, for a building that is not a dwelling, must be located or screened to minimise their impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) the type of goods, materials or waste to be stored; (c) the topography of the site; and (d) any screening proposed.
<p>A6</p> <p>Air extraction, pumping, refrigeration systems or compressors, for a building that is not a dwelling, must have a setback not less than 10m from a property containing a sensitive use.³</p>	<p>P6</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors, for a building that is not a dwelling, within 10m of the boundary of a property containing a sensitive use must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of any emissions generated;

² An exemption applies for fences in this zone – see Table 4.6.

³ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

	<p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of the sensitive use; and</p> <p>(d) any mitigation measures proposed.</p>
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9.5.2 Non-residential garages and carports

Objective:	To maintain frontage setbacks compatible with the streetscape and reduce the potential for garage and carport openings to dominate the primary frontage.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage of not less than:</p> <p>(a) 4m, or alternatively 1m behind the building line;</p> <p>(b) the same as the building line, if a portion of the building gross floor area is located above the garage or carport; or</p> <p>(c) 1m, if the existing ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10m from the frontage.</p>	<p>P1</p> <p>A garage or carport not forming part of a dwelling, must have a setback from a primary frontage that is compatible with the setbacks of existing garages or carports in the street, having regard to any topographical constraints.</p>
<p>A2</p> <p>A garage or carport not forming part of a dwelling within 12m of a primary frontage (whether the garage or carport is free-standing) must have a total width of openings facing the primary frontage of not more than 6m or half the width of the frontage (whichever is the lesser).</p>	<p>P2</p> <p>A garage or carport not forming part of a dwelling must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.</p>

9.6 Development Standards for Subdivision

9.6.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; (b) is provided with appropriate access to a road; and (c) contains areas which are suitable for development appropriate to the zone purpose, located to avoid natural hazards.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 200m² and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 10m x 12m with a gradient not steeper than 1 in 5, clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 9.4.2 A1, A2 and A3, and 9.5.1 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 9.4.2 A1, A2 and A3, and 9.5.1 A1 and A2; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lots; (b) the intended location of buildings on the lots; (c) the topography of the site; (d) the presence of any natural hazards; (e) adequate provision of private open space; and (f) the pattern of development existing on established properties in the area.

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (c) the topography of the site; (d) the functionality and useability of the frontage; (e) the ability to manoeuvre vehicles on the site; and (f) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; (d) the anticipated nature of vehicles likely to access the site; and (e) the ability for emergency services to access the site.

9.6.2 Roads

<p>Objective:</p>	<p>That the arrangement of new roads within a subdivision provides for:</p> <ul style="list-style-type: none"> (a) safe, convenient and efficient connections to assist accessibility and mobility of the community; (b) the adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by the council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian paths to common boundaries with adjoining land, to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) minimising the travel distance between key destinations such as shops and services and public transport routes; (f) access to public transport; (g) the efficient and safe movement of pedestrians, cyclists and public transport; (h) the need to provide for bicycle infrastructure on new arterial and collector roads in accordance with <i>Guide to Road Design Part 6A: Paths for Walking and Cycling 2016</i>; (i) the topography of the site; and (j) the future subdivision potential of any balance lots on adjoining or adjacent land.

9.6.3 Services

Objective:	That the subdivision of land provides services for future use and development of the land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <ul style="list-style-type: none"> (a) flow rates; (b) the quality of potable water; (c) any existing or proposed infrastructure to provide the water service and its location; (d) the topography of the site; and (e) any advice from a regulated entity.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>No Performance Criterion.</p>

10.0 Low Density Residential Zone

10.1 Zone Purpose

The purpose of the Low Density Residential Zone is:

- 10.1.1 To provide for residential use and development in residential areas where there are infrastructure or environmental constraints that limit the density, location or form of development.
- 10.1.2 To provide for non-residential use that does not cause an unreasonable loss of amenity, through scale, intensity, noise, traffic generation and movement, or other off site impacts.
- 10.1.3 To provide for Visitor Accommodation that is compatible with residential character.

10.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a single dwelling.
Utilities	If for minor utilities.
Permitted	
Visitor Accommodation	
Residential	If for a home-based business.
Discretionary	
Business and Professional Services	If for a consulting room, medical centre, veterinary centre, child health clinic or for the provision of residential support services.
Community Meeting and Entertainment	If for a place of worship, art and craft centre or public hall.
Educational and Occasional Care	If not for a tertiary institution.
Emergency Services	
Food Services	If not for a take away food premises with a drive through facility.
General Retail and Hire	If for a local shop.
Residential	If not listed as No Permit Required or Permitted.

Use Class	Qualification
Sports and Recreation	If for a fitness centre, gymnasium, public swimming pool or sports ground.
Utilities	If not listed as No Permit Required.
Prohibited	
All other uses	

10.3 Use Standards

10.3.1 Discretionary uses

Objective:	That Discretionary uses do not cause an unreasonable loss of amenity to adjacent sensitive uses.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation for a use listed as Discretionary, excluding Emergency Services or Residential use, must be within:</p> <ul style="list-style-type: none"> (a) 8.00am to 6.00pm Monday to Friday; (b) 9.00am to 12.00 noon Saturday; and (c) nil on Sunday and public holidays. 	<p>P1</p> <p>Hours of operation for a use listed as Discretionary, excluding Emergency Services or Residential use, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the timing, duration or extent of vehicle movements; and (b) noise or other emissions. 	
<p>A2</p> <p>External lighting for a use listed as Discretionary, excluding Residential use:</p> <ul style="list-style-type: none"> (a) must be within the hours of 7.00pm to 7.00am, excluding any security lighting; and (b) security lighting must be baffled so that direct light does not extend into the adjoining property. 	<p>P2</p> <p>External lighting for a use listed as Discretionary, excluding Residential use, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the number of proposed light sources and their intensity; (b) the location of the proposed light sources; (c) the topography of the site; and (d) any existing light sources. 	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services or Residential use, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7:00am to 5:00pm Monday to Friday; (b) 9:00am to 12 noon Saturday; and (c) nil on Sunday and public holidays. 	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services or Residential use, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the time and duration of commercial vehicle movements; (b) the number and frequency of commercial vehicle movements; (c) the size of commercial vehicles involved; (d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise; (e) any existing or proposed noise mitigation measures between the vehicle movement areas and sensitive use; (f) potential conflicts with other traffic; and (g) existing levels of amenity.
<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>A use listed as Discretionary must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the intensity and scale of the use; (b) the emissions generated by the use; (c) the type and intensity of traffic generated by the use; (d) the impact on the character of the area; and (e) the need for the use in that location.

10.3.2 Visitor Accommodation

Objective:	That Visitor Accommodation: (a) is compatible with the character and use of the area; (b) does not cause an unreasonable loss of residential amenity; and (c) does not impact the safety and efficiency of local roads or rights of way.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Visitor Accommodation must:</p> <p>(a) accommodate guests in existing habitable buildings; and</p> <p>(d) have a gross floor area of not more than 200m² per lot.</p>	<p>P1</p> <p>Visitor Accommodation must be compatible with the character and use of the area and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) the privacy of adjoining properties;</p> <p>(b) any likely increase in noise to adjoining properties;</p> <p>(c) the scale of the use and its compatibility with the surrounding character and uses within the area;</p> <p>(d) retaining the primary residential function of an area;</p> <p>(e) the impact on the safety and efficiency of the local road network; and</p> <p>(f) any impact on the owners and users rights of way.</p>	
<p>A1</p> <p>Visitor Accommodation is not for a strata lot that is part of a strata scheme where another strata lot within that strata scheme is used for a residential use.</p>	<p>P2</p> <p>Visitor Accommodation within a strata scheme must not cause an unreasonable loss of residential amenity to long term residents occupying other strata lots within the strata scheme, having regard to:</p> <p>(a) the privacy of residents;</p> <p>(b) any likely increase in noise;</p> <p>(c) the residential function of the strata scheme;</p> <p>(d) the location and layout of the strata lots;</p> <p>(e) the extent and nature of any other non-residential uses; and</p> <p>(f) any impact on shared access and common property.</p>	

10.4 Development Standards for Dwellings

10.4.1 Residential density for multiple dwellings

Objective:	<p>That the density of multiple dwellings:</p> <ul style="list-style-type: none"> (a) is appropriate for the low density nature of the zone; and (b) is consistent with the availability of infrastructure services and any constraints to development.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Multiple dwellings must have a site area per dwelling of not less than:</p> <ul style="list-style-type: none"> (a) 1500m² if it has a connection or is capable of being connected to a full water supply service, a reticulated sewerage system and the public stormwater system; or (b) 2500m² otherwise. 	<p>P1.1</p> <p>For a site that has a connection or is capable of being connected to a full water supply service, a reticulated sewerage system and the public stormwater system, multiple dwellings must only have a site area per dwelling that is less than 1500m² if the number of dwellings:</p> <ul style="list-style-type: none"> (a) is not out of character with the pattern of development existing on established properties in the area; (b) does not exceed the capacity of the current or intended infrastructure services in the area; and (c) the site area per dwelling is not less than 1200m², <p>having regard to any constraints to development.</p> <p>P1.2</p> <p>For a site that is not capable of being connected to a full water supply service, a reticulated sewerage system and the public stormwater system, multiple dwellings must only have a site area per dwelling that is less than 2500m² if the number of dwellings:</p> <ul style="list-style-type: none"> (a) is not out of character with the pattern of development existing on established properties in the area; (b) can be provided with adequate on-site wastewater disposal and water supply; and (c) the site area per dwelling is not less than 2000m²; and (d) a regulated entity has provided written advice stating that the site is unable to be connected to a full water supply service or a reticulated sewerage system, <p>having regard to any constraints to development.</p>

10.4.2 Building height

Objective:	That the height of dwellings is compatible with the streetscape and do not cause an unreasonable loss of amenity for adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A dwelling must have a building height not more than 8.5m.</p>	<p>P1</p> <p>The height of dwellings must be compatible with the streetscape and not cause an unreasonable loss of amenity to adjoining properties having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site and adjacent properties; (c) the bulk and form of existing and proposed buildings; (d) sunlight to habitable rooms and private open space of dwellings; and (e) any overshadowing of adjoining properties.

10.4.3 Setback

Objective:	That the siting of dwellings is compatible with the streetscape and does not cause an unreasonable loss of amenity for adjoining properties.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Dwellings, excluding protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage not less than 8m.</p>	<p>P1</p> <p>The siting of a dwelling must be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of surrounding buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public open space adjacent to the site; and (e) the safety of road users. 	
<p>A2</p> <p>Dwellings, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally from the building, must have a setback from side and rear boundaries of not less than 5m.</p>	<p>P2</p> <p>The siting of a dwelling must not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings and private open space areas on the site; (f) sunlight to private open space and windows of habitable rooms on adjoining properties; and (g) the character of development existing on established properties in the area. 	

10.4.4 Site coverage

Objective:	That site coverage: (a) is consistent with the character of existing development in the area; (b) provides sufficient area for private open space and landscaping; and (c) assists with the management of stormwater runoff.	
Acceptable Solutions		Performance Criteria
A1 Dwellings must have a site coverage of not more than 30%.	P1 The site coverage of dwellings must be consistent with that existing on established properties in the area, having regard to: (a) the topography of the site; (b) the capacity of the site to absorb runoff; (c) the size and shape of the site; (d) the existing buildings and any constraints imposed by existing development; (e) the provision for landscaping and private open space; (f) the need to remove vegetation; and (g) the site coverage of adjacent properties.	

10.4.5 Frontage fences for all dwellings

Objective:	That the height and transparency of frontage fences: (a) provides adequate privacy and security for residents; (b) allows the potential for mutual passive surveillance between the road and the dwelling; and (c) is reasonably consistent with fences in the street.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution. ¹	P1 A fence (including a free-standing wall) for a dwelling within 4.5m of a frontage must: (a) provide for security and privacy, while allowing for passive surveillance of the road; and	

¹ An exemption applies for fences in this zone – see Table 4.6.

	<p>(b) be consistent with the height and transparency of fences in the street, having regard to:</p> <ul style="list-style-type: none"> (i) the topography of the site; and (ii) traffic volumes on the adjoining road.
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10.5 Development Standards for Non-dwellings

10.5.1 Non-dwelling development

Objective:	That all non-dwelling development: <ul style="list-style-type: none"> (a) is compatible with the streetscape; (b) is compatible with the form and scale of existing residential development; and (c) does not cause an unreasonable loss of amenity to adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A building that is not a dwelling must have a building height not more than 8.5m.</p>	<p>P1</p> <p>The height of a building that is not a dwelling must be compatible with the streetscape and not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height of buildings on the site and adjacent properties; (c) the bulk and form of existing and proposed buildings; (d) sunlight to habitable rooms of dwellings and private open space; and (e) any overshadowing of adjoining properties.
<p>A2</p> <p>A building that is not a dwelling, excluding protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage not less than 8m.</p>	<p>P2</p> <p>The siting of a building that is not a dwelling must be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of surrounding buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public open space adjacent to the site; and (e) the safety of road users.

<p>A3</p> <p>A building that is not a dwelling excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally from the building, must have a setback from side and rear boundaries of not less than 5m.</p>	<p>P3</p> <p>The siting of a building that is not a dwelling, must not cause unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the existing buildings and private open space areas on the site; (f) sunlight to private open space and windows of habitable rooms on adjoining properties; and (g) the character of development existing on established properties in the area.
<p>A4</p> <p>A building that is not a dwelling must have a site coverage of not more than 30%.</p>	<p>P4</p> <p>The site coverage of a building that is not a dwelling must be consistent with that existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the capacity of the site to absorb runoff; (c) the size and shape of the site; (d) the existing buildings and any constraints imposed by existing development; (e) the provision for landscaping and private open space; (f) the need to remove vegetation; and (g) the site coverage of adjacent properties.
<p>A5</p> <p>No Acceptable Solution.²</p>	<p>P5</p> <p>A fence (including a free-standing wall) for a building that is not a dwelling within 4.5m of a frontage must:</p> <ul style="list-style-type: none"> (a) provide for security and privacy, while allowing for passive surveillance of the road; and (b) be consistent with the height and transparency of fences in the street, having regard to:

² An exemption applies for fences in this zone – see Table 4.6.

	<ul style="list-style-type: none"> (i) the topography of the site; and (ii) traffic volumes on the adjoining road.
<p>A6</p> <p>Outdoor storage areas, for a building that is not a dwelling, including waste storage, must not:</p> <ul style="list-style-type: none"> (a) be visible from any road or public open space adjoining the site; and (b) encroach upon parking areas, driveways or landscaped areas. 	<p>P6</p> <p>Outdoor storage areas, for a building that is not a dwelling, must be located or screened to minimise its impact on views into the site from any roads or public open space adjoining the site, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) the type of goods, materials or waste to be stored; (c) the topography of the site; and (d) any screening proposed.
<p>A7</p> <p>Air extraction, pumping, refrigeration systems or compressors, for a building that is not a dwelling, must have a setback from the boundary of a property containing a sensitive use of not less than 10m.³</p>	<p>P7</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors, for a building that is not a dwelling, within 10m of a the boundary of a property containing a sensitive use must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of any emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of the sensitive use; and (d) any mitigation measures proposed.

³ An exemption applies for heat pumps and air conditioners in this zone – see Table 4.6.

10.6 Development Standards for Subdivision

10.6.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; (b) is provided with appropriate access to a road; and (c) contains areas which are suitable for residential development.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area of not less than 1500m² and:</p> <p style="margin-left: 20px;">(i) be able to contain a minimum area of 10m x 15m with a gradient not steeper than 1 in 5, clear of:</p> <p style="margin-left: 40px;">a. all setbacks required by clause 10.4.3 A1 and A2; and</p> <p style="margin-left: 40px;">b. easements or other title restrictions that limit or restrict development; and</p> <p style="margin-left: 20px;">(ii) existing buildings are consistent with the setback required by clause 10.4.3 A1 and A2;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant requirements for development of buildings on the lots;</p> <p>(b) the intended location of buildings on the lots;</p> <p>(c) the topography of the site;</p> <p>(d) adequate provision of private open space;</p> <p>(e) the pattern of development existing on established properties in the area; and</p> <p>(f) any constraints to development,</p> <p>and must have an area not less than 1200m².</p>

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 20m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (c) the topography of the site; (d) the functionality and useability of the frontage; (e) the ability to manoeuvre vehicles on the site; and (f) the pattern of development existing on established properties in the area, <p>and is not less than 3.6m wide.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; (d) the anticipated nature of vehicles likely to access the site; and (e) the ability for emergency services to access the site.

10.6.2 Roads

Objective:	<p>That the arrangement of new roads within a subdivision provides:</p> <ul style="list-style-type: none"> (a) the provision of safe, convenient and efficient connections to assist accessibility and mobility of the community; (b) the adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian paths, to common boundaries with adjoining land, to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) minimising the travel distance between key destinations such as shops and services and public transport routes; (f) access to public transport; (g) the efficient and safe movement of pedestrians, cyclists and public transport; (h) the need to provide for bicycle infrastructure on new arterial and collector roads in accordance with the <i>Guide to Road Design Part 6A: Paths for Walking and Cycling 2016</i>; (i) the topography of the site; and (j) the future subdivision potential of any balance lots on adjoining or adjacent land.

10.6.3 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <p>(a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or</p> <p>(b) be connected to a limited water supply service if the frontage of the lot is within 30m of a limited water supply service,</p> <p>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <p>(a) the size of the lot;</p> <p>(b) topography of the site;</p> <p>(c) soil conditions;</p> <p>(d) any existing buildings on the site;</p> <p>(e) any area of the site covered by impervious surfaces; and</p> <p>(f) any watercourse on the land.</p>	

11.0 Rural Living Zone

11.1 Zone Purpose

The purpose of the Rural Living Zone is:

- 11.1.1 To provide for residential use or development in a rural setting where:
- (a) services are limited; or
 - (b) existing natural and landscape values are to be retained.
- 11.1.2 To provide for compatible agricultural use and development that does not adversely impact on residential amenity.
- 11.1.3 To provide for other use or development that does not cause an unreasonable loss of amenity, through noise, scale, intensity, traffic generation and movement, or other off site impacts.
- 11.1.4 To provide for Visitor Accommodation that is compatible with residential character.

11.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a single dwelling.
Resource Development	If for grazing.
Utilities	If for minor utilities.
Permitted	
Residential	If for a home-based business.
Visitor Accommodation	
Discretionary	
Business and Professional Services	If for a veterinary centre.
Community Meeting and Entertainment	If for a place of worship, art and craft centre or public hall.
Domestic Animal Breeding, Boarding or Training	

Use Class	Qualification
Education and Occasional Care	If for: (a) a childcare centre or primary school; or (b) an existing respite centre.
Emergency Services	
Food Services	If for a gross floor area of not more than 200m ² .
General Retail and Hire	If for: (a) primary produce sales; (b) sales related to Resource Development; or (c) a local shop.
Manufacturing and Processing	If for alterations or extensions to existing Manufacturing and Processing.
Resource Development	If: (a) not for intensive animal husbandry or plantation forestry; or (b) not listed as No Permit Required.
Resource Processing	If not for an abattoir, animal saleyards or sawmilling.
Sports and Recreation	If for an outdoor recreation facility.
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Prohibited	
All other uses	

11.3 Use Standards

11.3.1 Discretionary uses

Objective:	That Discretionary uses do not cause an unreasonable loss of amenity to adjacent sensitive uses.	
Acceptable Solutions	Performance Criteria	
A1 Hours of operation for a use listed as Discretionary, excluding Emergency Services or Resource Development, must be within the hours of: (a) 8.00am to 6.00pm Monday to Friday; (b) 9.00am to 12.00 noon Saturday; and (c) nil on Sunday and public holidays.	P1 Hours of operation for a use listed as Discretionary, excluding Emergency Services or Resource Development, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to: (a) the timing, duration or extent of vehicle movements; and	

	(b) noise, lighting or other emissions.
<p>A2</p> <p>External lighting for a use listed as Discretionary:</p> <p>(a) must be within the hours of 7.00pm to 7.00am, excluding any security lighting; and</p> <p>(b) security lighting must be baffled so that direct light does not extend into the adjoining property.</p>	<p>P2</p> <p>External lighting for a use listed as Discretionary, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the number of proposed light sources and their intensity;</p> <p>(b) the location of the proposed light sources;</p> <p>(c) the topography of the site; and</p> <p>(d) any existing light sources.</p>
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must be within the hours of:</p> <p>(a) 7.00am to 5.00pm Monday to Friday;</p> <p>(b) 9.00am to 12 noon Saturday; and</p> <p>(c) nil on Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use listed as Discretionary, excluding Emergency Services, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the extent and timing of traffic generation;</p> <p>(b) the dispatch of goods and materials; and</p> <p>(c) the existing levels of amenity.</p>

11.3.2 Visitor Accommodation

Objective:	That Visitor Accommodation: <ul style="list-style-type: none"> (a) is compatible with the character and use of the area; (b) does not cause an unreasonable loss of residential amenity; and (c) does not impact the safety and efficiency of local roads or rights of way.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Visitor Accommodation must:</p> <p>(a) accommodate guests in existing habitable buildings; and</p> <p>(b) have a gross floor area of not more than 200m² per lot.</p>	<p>P1</p> <p>Visitor Accommodation must be compatible with the character and use of the area and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) the privacy of adjoining properties;</p> <p>(b) any likely increase in noise to adjoining properties;</p> <p>(c) the scale of the use and its compatibility with the surrounding character and uses within the</p>

	<p>area;</p> <p>(d) retaining the primary residential function of an area;</p> <p>(e) the impact on the safety and efficiency of the local road network; and</p> <p>(f) any impact on the owners and users rights of way.</p>
<p>A1</p> <p>Visitor Accommodation is not for a strata lot that is part of a strata scheme where another strata lot within that strata scheme is used for a residential use.</p>	<p>P2</p> <p>Visitor Accommodation within a strata scheme must not cause an unreasonable loss of residential amenity to long term residents occupying other strata lots within the strata scheme, having regard to:</p> <p>(a) the privacy of residents;</p> <p>(b) any likely increase in noise;</p> <p>(c) the residential function of the strata scheme;</p> <p>(d) the location and layout of the strata lots;</p> <p>(e) the extent and nature of any other non-residential uses; and</p> <p>(f) any impact on shared access and common property.</p>

11.4 Development Standards for Buildings and Works

11.4.1 Site coverage

Objective:	That the site coverage: <ul style="list-style-type: none"> (a) is compatible with the character of existing development in the area; and (b) assists with the management of stormwater runoff.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>The site coverage must be not more than 400m².</p>	<p>P1</p> <p>The site coverage must be consistent with that existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the capacity of the site to absorb runoff; (c) the size and shape of the site; (d) the existing buildings and any constraints imposed by existing development;

	<ul style="list-style-type: none"> (e) the need to remove vegetation; and (f) the character of development existing on established properties in the area.
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11.4.2 Building height, setback and siting

Objective:	<p>That height, setback and siting of buildings:</p> <ul style="list-style-type: none"> (a) is compatible with the character of the area; (b) does not cause an unreasonable loss of amenity; (c) minimises the impact on the natural values of the area; and (d) minimises the impact on adjacent uses.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 8.5m.</p>	<p>P1</p> <p>Building height must be compatible with the character of the area and not cause an unreasonable loss of amenity to adjoining properties having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjoining properties; (c) the bulk and form of proposed buildings; (d) sunlight to habitable rooms and private open space in adjoining properties; and (e) any overshadowing of adjoining properties or public places.
<p>A2</p> <p>Buildings must have a setback from a frontage of not less than 20m.</p>	<p>P2</p> <p>Buildings must be sited to be compatible with the character of the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of adjacent buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public places; and (e) the retention of vegetation.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries of not less than 10m.</p>	<p>P3</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site;

	<ul style="list-style-type: none"> (b) the size, shape and orientation of the site; (c) the setbacks of surrounding buildings; (d) the height bulk and form of existing and proposed buildings; (e) the character of the development existing on established properties in the area; and (f) any overshadowing of adjoining properties or public places.
<p>A4</p> <p>Buildings for a sensitive use must be separated from an Agriculture Zone or Rural Zone a distance of:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) if the setback of an existing building is within 200m, not less than the existing building. 	<p>P4</p> <p>Buildings for a sensitive use must be sited so as to not conflict or interfere with uses in the Agriculture Zone or Rural Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the separation of any existing buildings for sensitive uses on adjoining properties; (c) the existing and potential use of adjoining properties; (d) any proposed attenuation measures; and (e) any buffers created by natural or other features.

11.5 Development Standards for Subdivision

11.5.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; (b) is provided with appropriate access to a road; and (c) contains areas which are suitable for residential development.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area not less than specified in Table 11.1 and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 15m x 20m clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 11.4.2 A2 and A3; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 11.4.2 A2 and A3; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of existing buildings on the lots; (b) the intended location of buildings on the lots; (c) the topography of the site; (d) any natural or landscape values; (e) adequate provision of private open space; and (f) the pattern of development existing on established properties in the area, <p>and must be no more than 20% smaller than the applicable lot size required by clause 11.5.1 A1.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 40m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (c) the topography of the site; (d) the functionality and useability of the frontage;

	<p>(e) the ability to manoeuvre vehicles on the site; and</p> <p>(f) the pattern of development existing on established properties in the area, and is not less than 3.6m wide.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the length of the access;</p> <p>(c) the distance between the lot or building area and the carriageway;</p> <p>(d) the nature of the road and the traffic;</p> <p>(e) the anticipated nature of vehicles likely to access the site; and</p> <p>(f) the ability for emergency services to access the site.</p>

Table 11.1 Rural Living Zone minimum lot sizes

Rural Living Zone A	1ha
Rural Living Zone B	2ha
Rural Living Zone C	5ha
Rural Living Zone D	10ha

11.5.2 Roads

<p>Objective:</p>	<p>That the arrangement of new roads with a subdivision provides:</p> <ul style="list-style-type: none"> (a) safe, convenient and efficient connections to assist accessibility and mobility of the community; (b) adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by the council; (b) the existing and proposed road hierarchy; (c) maximising connectivity with the surrounding road network; (d) appropriate access to public transport; and (e) access for pedestrians and cyclists.

11.5.3 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service if the frontage of the lot is within 30m of a limited water supply service, <p>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a reticulated sewerage system; or (b) be connected to a reticulated sewerage system if the frontage of each lot is within 30m of a reticulated sewerage system and can be connected by gravity feed. 	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	

12.0 Village Zone

12.1 Zone Purpose

The purpose of the Village Zone is:

- 12.1.1 To provide for small rural centres with a mix of residential, community services and commercial activities.
- 12.1.2 To provide amenity for residents appropriate to the mixed use characteristics of the zone.

12.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a single dwelling or home-based business.
Utilities	If for minor utilities.
Permitted	
Business and Professional Services	
Community Meeting and Entertainment	
Educational and Occasional Care	
Emergency Services	
Food Services	
General Retail and Hire	
Residential	If not listed as No Permit Required.
Service Industry	If not for motor repairs or panel beating.
Sports and Recreation	
Storage	If not for liquid fuel depot or solid fuel depot.
Visitor Accommodation	

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Use Class	Qualification
Discretionary	
Bulky Goods Sales	
Crematoria and Cemeteries	If for a cemetery.
Custodial Facility	If for a remand centre.
Domestic Animal Breeding, Boarding or Training	
Equipment and Machinery Sales and Hire	
Hotel Industry	
Manufacturing and Processing	If for: (a) a craft industry or an artist's studio; or (b) alterations or extensions to existing Manufacturing and Processing.
Pleasure Boat Facility	
Research and Development	
Resource Processing	If not for an abattoir, animal saleyards or sawmilling.
Service Industry	If not listed as Permitted.
Tourist Operation	
Transport Depot and Distribution	
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Vehicle Parking	
Prohibited	
All other uses	

12.3 Use Standards

12.3.1 All non-residential uses

Objective:	That non-residential use: (a) is compatible with the mixed use characteristics of a village; and (b) does not cause unreasonable loss of amenity to adjacent sensitive uses.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Friday; (b) 8.00am to 6.00pm Saturday; and (c) 9.00am to 5.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and (b) noise, lighting or other emissions.</p>
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must:</p> <p>(a) be baffled so that it does not cause emission of light onto adjoining residential properties; and (b) not include permanent fixed floodlighting if the site adjoins a General Residential Zone, Low Density Residential Zone or Rural Living Zone.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, used on the site must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <p>(a) the number of proposed light sources and their intensity; (b) the location of the proposed light sources; (c) the topography of the site; (d) the degree of screening between the light source and the sensitive use; and (e) existing light sources.</p>

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00am to 7.00pm Monday to Friday; and (b) 8.00am to 6.00pm Saturday, Sunday and public holidays. 	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the extent and timing of traffic generation; (b) the dispatch of goods and materials; (c) the size of commercial vehicles involved; (d) noise reducing structures between vehicle movement areas and dwellings; and (e) existing levels of amenity.
<p>A4</p> <p>The gross floor area of a non-residential use, excluding Visitor Accommodation, must be not more than 250m².</p>	<p>P4</p> <p>A non-residential use, excluding Visitor Accommodation, must be at a scale and intensity consistent with the character of the area, having regard to:</p> <ul style="list-style-type: none"> (a) the nature and scale of the use; (b) the number of employees; (c) the hours of operation; (d) the emissions generated by the use; (e) the type and intensity of traffic generated by the use; (f) the impact on the character of the surrounding area; and (g) the impact on the amenity of any adjoining residential properties.

12.3.2 Visitor Accommodation

Objective:	<p>That Visitor Accommodation:</p> <ul style="list-style-type: none"> (a) is compatible with the character and use of the area; (b) does not cause an unreasonable loss of residential amenity; and (c) does not impact the safety and efficiency of local roads or rights of way. 	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Visitor Accommodation must:</p> <ul style="list-style-type: none"> (a) accommodate guests in existing habitable buildings; and (b) have a gross floor area of not more than 200m² per lot. 		<p>P1</p> <p>Visitor Accommodation must be compatible with the character and use of the area and not cause an unreasonable loss of residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the privacy of adjoining properties; (b) any likely increase in noise to adjoining properties; (c) the scale of the use and its compatibility with the surrounding character and uses within the area; (d) retaining the primary residential function of an area; (e) the impact on the safety and efficiency of the local road network; and (f) any impact on the owners and users rights of way.
<p>A2</p> <p>Visitor Accommodation is not for a strata lot that is part of a strata scheme where another strata lot within that strata scheme is used for a residential use.</p>		<p>P2</p> <p>Visitor Accommodation within a strata scheme must not cause an unreasonable loss of residential amenity to long term residents occupying other strata lots within the strata scheme, having regard to:</p> <ul style="list-style-type: none"> (a) the privacy of residents (b) any likely increase in noise; (c) the residential function of the strata scheme; (d) the location and layout of the strata lots; (e) the extent and nature of any other non-residential uses; and (f) any impact on shared access and common property.

12.4 Development Standards for Buildings and Works

12.4.1 Residential density and servicing for multiple dwellings

Objective:	That the density of multiple dwellings: (a) makes efficient use of land for housing; and (b) optimises the use of infrastructure and community services.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Multiple dwellings must:</p> <ul style="list-style-type: none"> (a) have a site area per dwelling of not less than 600m²; and (b) have a connection to a reticulated sewerage, stormwater and full water supply service. 	<p>P1.1</p> <p>For a site that has a connection to or is capable of being connected to, a reticulated sewerage, stormwater and full water supply service, multiple dwellings must only have a site area per dwelling that is less than 600m² if the number of dwellings:</p> <ul style="list-style-type: none"> (a) have a site area per dwelling that does not exceed the capacity of the reticulated infrastructure services; and (b) are consistent with the density existing on established properties in the area; or (c) the development provides a specific accommodation need with significant social or community benefit. <p>P1.2</p> <p>For a site that is not capable of being connected to a reticulated sewerage, stormwater and full water supply service, multiple dwellings must have a site area that:</p> <ul style="list-style-type: none"> (a) is sufficient for on-site wastewater and stormwater disposal and water supply; and (b) a regulated entity has provided written advice stating that the site is unable to be connected to a full water supply service or a reticulated sewerage system.

12.4.2 Building height

Objective:	That building height is compatible with the streetscape and does not cause an unreasonable loss of amenity for adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 8.5m.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjoining properties; (c) the bulk and form of proposed buildings; (d) sunlight to habitable rooms and private open space in adjoining properties; and (e) any overshadowing of adjoining properties or public places.

12.4.3 Setback

Objective:	That building setback is compatible with the streetscape and does not result in an unreasonable impact on amenity of adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings must have a setback from a frontage of:</p> <ul style="list-style-type: none"> (a) not less than 4.5m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties. 	<p>P1</p> <p>Buildings must be sited to be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setbacks of buildings on adjoining properties; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance of proposed buildings when viewed from roads and public places adjoining the site; and (e) the safety of road users.

<p>A2</p> <p>Buildings must have a setback from side and rear boundaries of not less than:</p> <p>(a) 3m; or</p> <p>(b) half the wall height of the building, whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited so that there is no unreasonable loss of amenity to adjoining properties, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the size, shape and orientation of the site;</p> <p>(c) the setbacks of surrounding buildings;</p> <p>(d) the height, bulk and form of existing and proposed buildings;</p> <p>(e) the existing buildings and private open space areas on the site;</p> <p>(f) sunlight to private open space and windows of habitable rooms on adjoining properties; and</p> <p>(g) the character of development existing on established properties in the area.</p>
<p>A3</p> <p>Air extraction, pumping, refrigeration systems, compressors or generators, excluding Residential, Visitor Accommodation, Natural and Cultural Values Management, Passive Recreation and Utilities, must have a setback from a property containing a sensitive use of not less than 10m.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators, excluding Residential, Visitor Accommodation, Natural and Cultural Values Management, Passive Recreation and Utilities, within 10m of a property containing a sensitive use must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity, having regard to:</p> <p>(a) the characteristics and frequency of any emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of the sensitive use; and</p> <p>(d) any mitigation measures proposed.</p>

¹ An exemption for air conditioners and heat pumps applies in this zone – see Table 4.6.

12.4.4 Site coverage

Objective:	That site coverage: (a) is compatible with the character of the development existing in the area; and (b) provides sufficient area for private open space and landscaping.
Acceptable Solutions	
Performance Criteria	
A1 Site coverage must be not more than 50%.	P1 Site coverage must be consistent with that existing on established properties in the area, having regard to: (a) the topography of the site; (b) the size and shape of the site; (c) the existing buildings and any constraints imposed by existing development; (d) the provision for landscaping and private open space; and (e) the character of development existing on established properties in the area.

12.4.5 Fencing

Objective:	That the height and transparency of frontage fences: (a) allows the potential for mutual passive surveillance between the road and the dwelling; and (b) provides reasonably consistent height and transparency.
Acceptable Solutions	
Performance Criteria	
A1 No Acceptable Solution. ²	P1 A fence (including a free-standing wall) within 4.5m of a frontage must: (a) provide for security and privacy, while allowing for passive surveillance of the road; and (b) be consistent with the height and transparency of fences in the street, having regard to: (i) topography of the site; and (ii) traffic volumes on the adjoining road.

² An exemption applies for fences in this zone – see Table 4.6.

12.4.6 Outdoor storage areas

Objective:	That outdoor storage areas for non-residential use do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas for non-residential uses, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas for non-residential uses, excluding any goods for sale, must be located, treated or screened to not cause an unreasonable loss of the visual amenity of the area, having regard to: <ul style="list-style-type: none"> (a) the nature of the use; (b) the type of goods, materials or waste to be stored; (c) the topography of the site; and (d) any screening proposed.

12.5 Development Standards for Subdivision

12.5.1 Lot design

Objective	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road. 	
Acceptable Solutions		Performance Criteria
A1	Each lot, or a lot proposed in a plan of subdivision, must: <ul style="list-style-type: none"> (a) have an area of not less than 600m² and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 10m x 15m, with a gradient of not more than 1 in 5, clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 12.4.3 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 12.4.3 A1 and A2; (b) be required for public use by the Crown, a 	P1 Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have sufficient useable area and dimensions suitable for its intended use, having regard to: <ul style="list-style-type: none"> (a) the relevant requirements for development of existing buildings on the lots; (b) the intended location of buildings on the lots; (c) the topography of the site; (d) the presence of any natural hazards; (e) adequate provision of private open space; and (f) the pattern of development existing on established properties in the area.

<p>council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 10m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area, <p>and is not less than 3.6m wide.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; and (d) the pattern of development existing on established properties in the area.

12.5.2 Roads

Objective:	That the arrangement of new roads within a subdivision provides: <ul style="list-style-type: none"> (a) safe, convenient and efficient connections to assist accessibility and mobility of the community; (b) adequate accommodation of vehicular, pedestrian, cycling and public transport traffic; and (c) the efficient ultimate subdivision of the entirety of the land and of surrounding land. 				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Acceptable Solutions</th> <th style="width: 50%;">Performance Criteria</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <p>A1</p> <p>The subdivision includes no new roads.</p> </td> <td style="vertical-align: top;"> <p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian paths to common boundaries with adjoining land to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) access to public transport; (f) the topography of the site; and (g) the future subdivision potential of any balance lots on adjoining or adjacent land. </td> </tr> </tbody> </table>		Acceptable Solutions	Performance Criteria	<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian paths to common boundaries with adjoining land to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) access to public transport; (f) the topography of the site; and (g) the future subdivision potential of any balance lots on adjoining or adjacent land.
Acceptable Solutions	Performance Criteria				
<p>A1</p> <p>The subdivision includes no new roads.</p>	<p>P1</p> <p>The arrangement and construction of roads within a subdivision must provide an appropriate level of access, connectivity, safety, convenience and legibility for vehicles, pedestrians and cyclists, having regard to:</p> <ul style="list-style-type: none"> (a) any relevant road network plan adopted by council; (b) the existing and proposed road hierarchy; (c) the need for connecting roads and pedestrian paths to common boundaries with adjoining land to facilitate future subdivision potential; (d) maximising connectivity with the surrounding road, pedestrian, cycling and public transport networks; (e) access to public transport; (f) the topography of the site; and (g) the future subdivision potential of any balance lots on adjoining or adjacent land. 				

12.5.3 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Acceptable Solutions</th> <th style="width: 50%;">Performance Criteria</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if </td> <td style="vertical-align: top;"> <p>P1</p> <p>No Performance Criterion.</p> </td> </tr> </tbody> </table>		Acceptable Solutions	Performance Criteria	<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if 	<p>P1</p> <p>No Performance Criterion.</p>
Acceptable Solutions	Performance Criteria				
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if 	<p>P1</p> <p>No Performance Criterion.</p>				

<p>the frontage of the lot is within 30m of a full water supply service; or</p> <p>(b) be connected to a limited water supply service if the frontage of the lot is within 30m of a connection to a limited water supply service, unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land.

13.0 Urban Mixed Use Zone

13.1 Zone Purpose

The purpose of the Urban Mixed Use Zone is:

- 13.1.1 To provide for a mix of residential, retail, community services and commercial activities in urban locations.
- 13.1.2 To provide for a diverse range of use or development that are of a type and scale that support and do not compromise or distort the role of surrounding activity centres in the activity centre hierarchy.

13.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for home-based business.
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	
Business and Professional Services	
Community Meeting and Entertainment	
Food Services	
General Retail and Hire	
Hotel Industry	
Research and Development	
Residential	If: <ul style="list-style-type: none"> (a) located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises; and (b) not listed as No Permit Required.

Use Class	Qualification
Service Industry	If not for motor repairs or panel beating.
Tourist Operation	
Visitor Accommodation	If: (a) not a camping and caravan park or overnight camping area; and (b) located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises.
Discretionary	
Custodial Facility	If for a remand centre.
Educational and Occasional Care	
Emergency Services	
Hospital Services	
Manufacturing and Processing	If for alterations or extensions to existing Manufacturing and Processing.
Residential	If not listed as No Permit Required or Permitted.
Resource Processing	If for food or beverage production.
Sports and Recreation	
Storage	
Transport Depot and Distribution	If for public transport facilities.
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Vehicle Parking	
Visitor Accommodation	If: (a) not a camping and caravan park or overnight camping area; and (b) not listed as Permitted.
Prohibited	
All other uses	

13.3 Use Standards

13.3.1 All uses

Objective:	That uses do not cause unreasonable loss of amenity to residential zones.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00am to 9.00pm Monday to Saturday; and (b) 8.00am to 9.00pm Sunday and public holidays. 	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the timing, duration or extent of vehicle movements; and (b) noise, lighting or other emissions. 	
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must:</p> <ul style="list-style-type: none"> (a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and (b) if for security lighting, be baffled to ensure direct light does not extend into the adjoining property in those zones. 	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the level of illumination and duration of lighting; and (b) the distance to habitable rooms of an adjacent dwelling. 	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the residential area; and</p> <p>(f) potential conflicts with other traffic.</p>
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13.3.2 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise or distort the activity centre hierarchy.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must not compromise or distort the activity centre hierarchy, having regard to:</p> <p>(a) the characteristics of the site;</p> <p>(b) the size and scale of the proposed use;</p> <p>(c) the function of the activity centre and the surrounding activity centres; and</p> <p>(d) the extent that the proposed use impacts on the other activity centres.</p>

13.3.3 Retail impact

Objective:	That retail uses do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions	Performance Criteria	
A1 The gross floor area for Bulky Goods Sales and General Retail and Hire must be not more than 300m ² per tenancy.	P1 Bulky Goods Sales and General Retail and Hire must not compromise or distort the activity centre hierarchy, having regard to: (a) the degree to which the proposed use improves and broadens the commercial or retail choice with the area; (b) the extent that the proposed use impacts on other activity centres of a higher order; and (c) any relevant local area objectives contained within the relevant Local Provisions Schedule.	

13.4 Development Standards for Building and Works

13.4.1 Building height

Objective:	That building height: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of amenity to adjoining residential zones.	
Acceptable Solutions	Performance Criteria	
A1 Building height must be not more than 10m.	P1 Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to: (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the apparent height when viewed from adjoining road and public places; and (e) any overshadowing of public places.	

<p>A2</p> <p>Building height:</p> <p>(a) within 10m of a General Residential Zone must not be more than 8.5m; or</p> <p>(b) within 10m of an Inner Residential Zone must not be more than 9.5m.</p>	<p>P2</p> <p>Building height within 10m of a General Residential Zone or Inner Residential Zone, must be consistent with building height on adjoining properties and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy; and</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>
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13.4.2 Setback

<p>Objective:</p>	<p>That building setback:</p> <p>(a) is compatible with the streetscape; and</p> <p>(b) does not cause an unreasonable loss of amenity to adjoining residential zones.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Buildings must have a setback from a frontage of:</p> <p>(a) not less than 3m;</p> <p>(b) not less than existing buildings on the site; or</p> <p>(c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.</p>	<p>P1</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the setback of buildings on adjacent properties;</p> <p>(c) the height, bulk and form of existing and proposed buildings; and</p> <p>(d) the safety of road users.</p>
<p>A2</p> <p>Buildings must have a setback from an adjoining property within a General Residential Zone or Inner Residential Zone of not less than:</p> <p>(a) 3m; or</p> <p>(b) half the wall height of the building, whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited so there is no unreasonable loss of residential amenity to adjoining properties within a General Residential Zone or Inner Residential Zone, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>

<p>A3</p> <p>Air extraction, pumping, refrigeration systems or compressors must be separated a distance of not less than 10m from a General Residential Zone or Inner Residential Zone.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors within 10m of a General Residential Zone or Inner Residential Zone must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to the adjoining residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of the sensitive use; and (d) any proposed mitigation measures.
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13.4.3 Design

<p>Objective:</p>	<p>That building design and façades promote and maintain high levels of pedestrian interaction, amenity, and safety and are compatible with the streetscape.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New buildings must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, must be screened from the street and other public places; (b) roof-top mechanical plant and service infrastructure, including lift structures, must be contained within the roof; (c) not include security shutters or grilles over windows or doors on a façade facing a frontage or other public places; and (d) provide external lighting to illuminate external vehicle parking areas and pathways. 	<p>P1</p> <p>New buildings must be designed to be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) minimising the visual impact of mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, when viewed from the street or other public places; (b) minimising the visual impact of security shutters or grilles and roof-top service infrastructure, including lift structures; and (c) providing suitable lighting to vehicle parking areas and pathways for the safety and security of users.

¹ An exemption for air conditioners and heat pumps applies in this zone – see Table 4.6.

<p>A2</p> <p>New buildings or alterations to an existing façade must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) provide a pedestrian entrance to the building that is visible from the road or publicly accessible areas of the site; (b) excluding for Residential, if for a ground floor level façade facing a frontage: <ul style="list-style-type: none"> (i) have not less than 40% of the total surface area consisting of windows or doorways; or (ii) not reduce the surface area of windows or doorways of an existing building, if the surface area is already less than 40%; (c) excluding for Residential, if for a ground floor level façade facing a frontage, must: <ul style="list-style-type: none"> (i) not include a single length of blank wall greater than 30% of the length of façade on that frontage; or (ii) not increase the length of an existing blank wall, if already greater than 30% of the length of the façade on that frontage; and (d) excluding for Residential, provide awnings over a public footpath if existing on the site or on adjoining properties. 	<p>P2</p> <p>New buildings or alterations to an existing façade must be designed to be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) how the main pedestrian access to the building will address the street or other public places; (b) excluding for Residential, windows on the façade facing the frontage for visual interest and passive surveillance of public spaces; (c) excluding for Residential, providing architectural detail or public art on large expanses of blank walls on the façade facing the frontage and other public spaces so as to contribute positively to the streetscape and public spaces; (d) installing security shutters or grilles over windows or doors on a façade facing the frontage or other public spaces only if essential for the security of the premises and any other alternatives are not practical; and (e) excluding for Residential, the need for provision of awnings over a public footpath.
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13.4.4 Fencing

Objective:	That fencing: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.
Acceptable Solutions	Performance Criteria
A1 No Acceptable Solution. ²	P1 A fence (including a free-standing wall) within 4.5m of a frontage must be compatible with the streetscape, having regard to: (a) the height, design, location and extent of the fence; (b) the degree of transparency; and (c) the proposed materials and construction.
A2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must: (a) have a height above existing ground level of not more than 2.1m; and (b) not contain barbed wire. ²	P2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must not cause an unreasonable loss of residential amenity, having regard to: (a) the height, design, location and extent of the fence; and (b) the proposed materials and construction.

13.4.5 Outdoor storage areas

Objective:	That outdoor storage areas for non-residential use do not detract from the appearance of the site or surrounding area.
Acceptable Solutions	Performance Criteria
A1 Outdoor storage areas, excluding for Residential use or for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding for Residential use or for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

² An exemption applies for fences in this zone – see Table 4.6.

13.4.6 Dwellings

Objective:	To provide adequate and useable private open space and storage for the needs of residents.	
Acceptable Solutions	Performance Criteria	
A1 A dwelling must have private open space that is not less than: (a) 24m ² with a minimum horizontal dimension of not less than 4m; or (b) 8m ² with a minimum horizontal dimension not less than 1.5m, if the dwelling is located wholly above ground floor level.	P1 A dwelling must be provided with sufficient private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining and entertainment.	
A2 Each dwelling must be provided with a dedicated and secure storage space of no less than 6m ³ .	P2 Each dwelling must be provided with adequate storage space.	

13.5 Development Standards for Subdivision

13.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.	
Acceptable Solutions	Performance Criteria	
A1 Each lot, or a lot proposed in a plan of subdivision, must: (a) have an area of not less than 300m ² and: (i) be able to contain a minimum area of 10m x 15m clear of: a. all setbacks required by clause 13.4.2 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 13.4.2 A1 and A2; (b) be required for public use by the Crown, a council or a State authority;	P1 Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to: (a) the relevant requirements for development of buildings on the lot; (b) existing buildings and the likely location of intended buildings on the lot; (c) the topography of the site; (d) the presence of any natural hazards; and (e) the pattern of development existing on established properties in the area.	

<p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; and (d) the pattern of development existing on established properties in the area.

13.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <ul style="list-style-type: none"> (a) flow rates; (b) the quality of potable water; (c) any existing or proposed infrastructure to provide the water service and its location; (d) the topography of the site; and (e) any advice from a regulated entity. 	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land. 	

14.0 Local Business Zone

14.1 Zone Purpose

The purpose of the Local Business Zone is:

- 14.1.1 To provide for business, retail, administrative, professional, community and entertainment functions which meet the needs of a local area.
- 14.1.2 To ensure that the type and scale of use and development does not compromise or distort the activity centre hierarchy.
- 14.1.3 To encourage activity at pedestrian levels with active frontages and shop windows offering interest and engagement to shoppers.
- 14.1.4 To encourage Residential and Visitor Accommodation use if it supports the viability of the activity centre and an active street frontage is maintained.

14.2 Use Table

Use Class	Qualification
No Permit Required	
Business and Professional Services	
Food Services	
General Retail and Hire	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for home-based business.
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	
Community Meeting and Entertainment	
Educational and Occasional Care	
Emergency Services	
Hotel Industry	

Use Class	Qualification
Pleasure Boat Facility	If for a boat ramp.
Research and Development	
Residential	If: (a) located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises; and (b) not listed as No Permit Required.
Visitor Accommodation	If located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises.
Discretionary	
Equipment and Machinery Sales and Hire	
Manufacturing and Processing	
Residential	If not listed as No Permit Required or Permitted.
Resource Processing	If for food or beverage production.
Service Industry	
Sports and Recreation	
Storage	
Tourist Operation	
Transport Depot and Distribution	If for: (a) a public transport facility; or (b) distribution of goods to or from land within the zone.
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Vehicle Parking	
Visitor Accommodation	If not listed as Permitted.
Prohibited	
All other uses	

14.3 Use Standards

14.3.1 All uses

Objective:	That uses do not cause unreasonable loss of amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must:</p> <p>(a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property in those zones.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>	
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding for Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p>	

<p>holidays.</p>	<ul style="list-style-type: none"> (b) the number and frequency of commercial vehicle movements; (c) the size of commercial vehicles involved; (d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise; (e) any noise mitigation measures between the vehicle movement areas and the residential zone; and (f) potential conflicts with other traffic.
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14.3.2 Discretionary uses

<p>Objective:</p>	<p>That uses listed as Discretionary do not:</p> <ul style="list-style-type: none"> (a) cause unreasonable loss of amenity to adjoining residential zones; and (b) compromise or distort the activity centre hierarchy.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must:</p> <ul style="list-style-type: none"> (a) not cause an unreasonable loss of amenity to properties in adjoining residential zones; and (b) be of an intensity that respects the character of the area.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>A use listed as Discretionary must not compromise or distort the activity centre hierarchy, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics of the site; (b) the need to encourage activity at pedestrian levels; (c) the size and scale of the proposed use; (d) the functions of the activity centre and the surrounding activity centres; and (e) the extent that the proposed use impacts on other activity centres.

14.3.3 Retail impact

Objective:	That retail uses do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions		Performance Criteria
A1	The gross floor area for Bulky Goods Sales and General Retail and Hire uses must be not more than 250m ² per tenancy.	P1 Bulky Goods Sales and General Retail and Hire uses must not compromise or distort the activity centre hierarchy, having regard to: <ul style="list-style-type: none"> (a) the degree to which the proposed use improves and broadens the commercial or retail choice with the area; (b) the extent that the proposed use impacts on other activity centres; and (c) any relevant local area objectives contained within the relevant Local Provisions Schedule.

14.4 Development Standards for Buildings and Works

14.4.1 Building height

Objective:	That building height: <ul style="list-style-type: none"> (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of amenity to adjoining residential zones. 	
Acceptable Solutions		Performance Criteria
A1	Building height must be not more than 9m.	P1 Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to: <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the apparent height when viewed from the adjoining road and public places; and (e) any overshadowing of adjoining properties and public places.

14.4.2 Setbacks

<p>Objective:</p>	<p>That building setback:</p> <ul style="list-style-type: none"> (a) is compatible with the streetscape; (b) does not cause an unreasonable loss of amenity to adjoining residential zones; and (c) minimises opportunities for crime and anti-social behaviour through setback of buildings. 	
<p>Acceptable Solutions</p>		<p>Performance Criteria</p>
<p>A1</p> <p>Buildings must be:</p> <ul style="list-style-type: none"> (a) built to the frontage at ground level; or (b) have a setback of not more or less than the maximum and minimum setbacks of the buildings on adjoining properties. 	<p>P1</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape and minimises opportunities for crime and anti-social behaviour, having regard to:</p> <ul style="list-style-type: none"> (a) providing small variations in building alignment to break up long building façades; (b) providing variations in building alignment to provide a forecourt space for public use, such as outdoor dining or landscaping; (c) the avoidance of concealment spaces; (d) the ability to achieve passive surveillance; and (e) the availability of lighting. 	
<p>A2</p> <p>Buildings must have a setback from an adjoining property within a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, of not less than:</p> <ul style="list-style-type: none"> (a) 4m; or (b) half the wall height of the building, <p>whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties within a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy to the adjoining properties; or (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property. 	

<p>A3</p> <p>Air extraction, pumping, refrigeration systems or compressors must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone or Low Density Residential Zone.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors within 10m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to the adjoining residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of the sensitive use; and (d) any proposed mitigation measures.
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14.4.3 Design

<p>Objective:</p>	<p>That building façades promote and maintain high levels of pedestrian interaction, amenity, and safety, and are compatible with the streetscape.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New buildings must be designed to satisfy all the following:</p> <ul style="list-style-type: none"> (a) mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, must be screened from the street and other public places; (b) roof-top mechanical plant and service infrastructure, including lift structures, must be contained within the roof; (c) not include security shutters or grilles over windows or doors on a façade facing the frontage or other public places; and (d) provide external lighting to illuminate external vehicle parking areas and pathways. 	<p>P1</p> <p>New buildings must be designed to be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) minimising the visual impact of mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, when viewed from the street or other public places; (b) minimising the visual impact of security shutters or grilles and roof-top service infrastructure, including lift structures; and (c) providing suitable lighting to vehicle parking areas and pathways for the safety and security of users.
<p>A2</p> <p>New buildings or alterations to an existing façade must be designed to satisfy all of the following:</p>	<p>P2</p> <p>New buildings or alterations to an existing façade must be designed to be compatible with the</p>

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

<p>(a) provide a pedestrian entrance to the building that is visible from the road or publicly accessible areas of the site;</p> <p>(b) if for a ground floor level façade facing a frontage:</p> <p style="margin-left: 20px;">(i) have not less than 40% of the total surface area consisting of windows or doorways; or</p> <p style="margin-left: 20px;">(ii) not reduce the surface area of windows or doorways of an existing building, if the surface area is already less than 40%;</p> <p>(c) if for a ground floor level façade facing a frontage must:</p> <p style="margin-left: 20px;">(i) not include a single length of blank wall greater than 30% of the length of façade on that frontage; or</p> <p style="margin-left: 20px;">(ii) not increase the length of an existing blank wall, if already greater than 30% of the length of the façade on that frontage; and</p> <p>(d) provide awnings over a public footpath if existing on the site or on adjoining properties.</p>	<p>streetscape, having regard to:</p> <p>(a) how the main pedestrian access to the building addresses the street or other public places;</p> <p>(b) windows on the façade facing the frontage for visual interest and passive surveillance of public spaces;</p> <p>(c) providing architectural detail or public art on large expanses of blank walls on the façade facing the frontage and other public spaces so as to contribute positively to the streetscape and public spaces;</p> <p>(d) installing security shutters or grilles over windows or doors on a façade facing the frontage or other public spaces only if essential for the security of the premises and any other alternatives are not practical; and</p> <p>(e) the need for provision of awnings over a public footpath.</p>
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14.4.4 Fencing

<p>Objective:</p>	<p>That fencing:</p> <p style="margin-left: 20px;">(a) is compatible with the streetscape; and</p> <p style="margin-left: 20px;">(b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>No Acceptable Solution.²</p>	<p>P1</p> <p>A fence (including a free-standing wall) within 4.5m of a frontage must contribute positively to the streetscape, having regard to:</p> <p style="margin-left: 20px;">(a) its height, design, location and extent;</p> <p style="margin-left: 20px;">(b) its degree of transparency; and</p> <p style="margin-left: 20px;">(c) the proposed materials and construction.</p>

² An exemption applies for fences in this zone – see Table 4.6.

<p>A2</p> <p>Common boundary fences with a property in a General Residential Zone, Inner Residential Zone or Low Density Zone, if not within 4.5m of a frontage, must:</p> <p>(a) have a height above existing ground level of not more than 2.1m; and</p> <p>(b) not contain barbed wire.²</p>	<p>P2</p> <p>Common boundary fences with a property in a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, if not within 4.5m of a frontage, must not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) their height, design, location and extent; and</p> <p>(b) the proposed materials and construction.</p>
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14.4.5 Outdoor storage areas

<p>Objective:</p>	<p>That outdoor storage areas for non-residential use do not detract from the appearance of the site or surrounding area.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.</p>	<p>P1</p> <p>Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.</p>

14.4.6 Dwellings

<p>Objective:</p>	<p>To provide adequate and useable private open space and storage for the needs of residents.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>A dwelling must have private open space that has an area not less than:</p> <p>(a) 24m² with a minimum horizontal dimension of not less than 4m; or</p> <p>(b) 8m² with a minimum horizontal dimension not less than 1.5m, if the dwelling is located wholly above ground floor level.</p>	<p>P1</p> <p>A dwelling must be provided with sufficient private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining and entertainment.</p>
<p>A2</p> <p>Each dwelling must be provided with a dedicated and secure storage space of not less than 6m³.</p>	<p>P2</p> <p>Each dwelling must be provided with adequate storage space.</p>

14.5 Development Standards for Subdivision

14.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area of not less than 200m² and:</p> <p>(i) be able to contain a minimum area of 10m x 12m clear of:</p> <p>a. all setbacks required by clause 14.4.2 A1 and A2; and</p> <p>b. easements or other title restrictions that limit or restrict development; and</p> <p>(ii) existing buildings are consistent with the setback required by clause 14.4.2 A1 and A2;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant requirements for development of buildings on the lot;</p> <p>(b) existing buildings and the location of intended buildings on the lot;</p> <p>(c) the topography of the site;</p> <p>(d) the presence of any natural hazards; and</p> <p>(e) the pattern of development existing on established properties in the area.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <p>(a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access;</p> <p>(b) the topography of the site;</p> <p>(c) the functionality and useability of the frontage;</p> <p>(d) the anticipated nature of vehicles likely to access the site;</p> <p>(e) the ability to manoeuvre vehicles on the site;</p>	

	<p>(f) the ability for emergency services to access the site; and</p> <p>(g) the pattern of development existing on established properties in the area.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the distance between the lot or building area and the carriageway;</p> <p>(c) the nature of the road and the traffic; and</p> <p>(d) the pattern of development existing on established properties in the area.</p>

14.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <p>(a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or</p> <p>(b) be connected to a limited water supply service if the frontage of the lot, is within 30m of a connection to a limited water supply service,</p> <p>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land.

15.0 General Business Zone

15.1 Zone Purpose

The purpose of the General Business Zone is:

- 15.1.1 To provide for business, retail, administrative, professional, community, and entertainment functions within Tasmania’s main suburban and rural centres.
- 15.1.2 To ensure that the type and scale of use and development does not compromise or distort the activity centre hierarchy.
- 15.1.3 To encourage activity at pedestrian levels with active frontages and shop windows offering interest and engagement to shoppers.
- 15.1.4 To encourage Residential and Visitor Accommodation use if it supports the viability of the activity centre and an active street frontage is maintained.

15.2 Use Table

Use Class	Qualification
No Permit Required	
Business and Professional Services	
Food Services	
General Retail and Hire	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for a home-based business.
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	
Community Meeting and Entertainment	
Educational and Occasional Care	
Emergency Services	
Hotel Industry	
Pleasure Boat Facility	If for a boat ramp.

Use Class	Qualification
Research and Development	
Residential	If: (a) located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises; and (b) not listed as No Permit Required.
Visitor Accommodation	If: (a) located above ground floor level (excluding pedestrian or vehicular access) or to the rear of a premises; and (b) not a camping and caravan park or overnight camping area.
Discretionary	
Custodial Facility	If for a remand centre.
Equipment and Machinery Sales and Hire	
Hospital Services	
Manufacturing and Processing	
Residential	If not listed as No Permit Required or Permitted.
Resource Processing	If for food or beverage production.
Service Industry	
Sports and Recreation	
Storage	
Tourist Operation	
Transport Depot and Distribution	If for: (a) a public transport facility; or (b) distribution of goods to or from land within the zone.
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Vehicle Parking	
Visitor Accommodation	If not listed as Permitted
Prohibited	
All other uses	

15.3 Use Standards

15.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of amenity to residential zones.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00am to 9.00pm Monday to Saturday; and (b) 8.00am to 9.00pm Sunday and public holidays. 	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones having regard to:</p> <ul style="list-style-type: none"> (a) the timing, duration or extent of vehicle movements; and (b) noise, lighting or other emissions.
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must:</p> <ul style="list-style-type: none"> (a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and (b) if for security lighting, must be baffled so that direct light does not extend into the adjoining property in those zones. 	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the level of illumination and duration of lighting; and (b) the distance to habitable rooms of an adjacent dwelling.
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00am to 9.00pm Monday to Saturday; and (b) 8.00am to 9.00pm Sunday and public holidays. 	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the time and duration of commercial vehicle movements; (b) the number and frequency of commercial vehicle movements;

	<ul style="list-style-type: none"> (c) the size of commercial vehicles involved; (d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise; (e) any noise mitigation measures between the vehicle movement areas and the residential zone; and (f) potential conflicts with other traffic.
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15.3.2 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must:</p> <ul style="list-style-type: none"> (a) not cause an unreasonable loss of amenity to properties in adjoining residential zones; and (b) be of an intensity that respects the character of the area. 	
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>A use listed as Discretionary must not compromise or distort the activity centre hierarchy, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics of the site; (b) the need to encourage activity at pedestrian levels; (c) the size and scale of the proposed use; (d) the functions of the activity centre and the surrounding activity centres; and (e) the extent that the proposed use impacts on other activity centres. 	

15.3.3 Retail impact

Objective:	That retail uses do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions		Performance Criteria
A1	The gross floor area for Bulky Goods Sales and General Retail and Hire uses must be not more than 3500m ² per tenancy.	<p>P1</p> <p>Bulky Goods Sales and General Retail and Hire uses must not compromise or distort the activity centre hierarchy, having regard to:</p> <ul style="list-style-type: none"> (a) the extent that the proposed use improves and broadens the commercial or retail choice with the area; (b) the extent that the proposed use impacts on other activity centres; and (c) any relevant local area objectives contained within the relevant Local Provisions Schedule.

15.4 Development Standards for Buildings and Works

15.4.1 Building height

Objective:	That building height: <ul style="list-style-type: none"> (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of amenity to adjoining residential zones. 	
Acceptable Solutions		Performance Criteria
A1	Building height must be not more than 12m.	<p>P1</p> <p>Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of existing buildings; (d) the apparent height when viewed from the adjoining road and public places; and (e) any overshadowing of public places.

<p>A2</p> <p>Building height:</p> <p>(a) within 10m of a General Residential Zone must not be more than 8.5m; or</p> <p>(b) within 10m of an Inner Residential Zone must not be more than 9.5m.</p>	<p>P2</p> <p>Building height within 10m of a General Residential Zone or Inner Residential Zone must be consistent with building height on the adjoining properties and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy to adjoining properties; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>
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15.4.2 Setbacks

<p>Objective:</p>	<p>That building setback:</p> <p>(a) is compatible with the streetscape;</p> <p>(b) does not cause an unreasonable loss of residential amenity to adjoining residential zones; and</p> <p>(c) minimises opportunities for crime and anti-social behaviour through setback of buildings.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Buildings must be:</p> <p>(a) built to the frontage at ground level; or</p> <p>(b) have a setback of not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.</p>	<p>P1</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape and minimises opportunities for crime and anti-social behaviour, having regard to:</p> <p>(a) providing small variations in building alignment to break up long façades;</p> <p>(b) providing variations in building alignment appropriate to provide a forecourt or space for public use, such as outdoor dining or landscaping;</p> <p>(c) the avoidance of concealment spaces;</p> <p>(d) the ability to achieve passive surveillance; and</p> <p>(e) the availability of lighting.</p>

<p>A2</p> <p>Building must have a setback from an adjoining property within a General Residential Zone or Inner Residential Zone of not less than:</p> <p>(a) 5m; or</p> <p>(b) half the wall height of the building,</p> <p>whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of residential amenity to adjoining properties within a General Residential Zone or Inner Residential Zone, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy to the adjoining property; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>
<p>A3</p> <p>Air extraction, pumping, refrigeration systems or compressors must be separated a distance of not less than 10m from a General Residential Zone or Inner Residential Zone.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors within 10m of a General Residential Zone or Inner Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to the adjoining residential zones, having regard to:</p> <p>(a) the characteristics and frequency of emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of the sensitive use; and</p> <p>(d) any proposed mitigation measures.</p>

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6

15.4.3 Design

Objective:	That building façades promote and maintain high levels of pedestrian interaction, amenity, and safety and are compatible with the streetscape.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New buildings must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, must be screened from the street and other public places; (b) roof-top mechanical plant and service infrastructure, including lift structures, must be contained within the roof; (c) not include security shutters or grilles over windows or doors on a façade facing the frontage or other public places; and (d) provide external lighting to illuminate external vehicle parking areas and pathways. 	<p>P1</p> <p>New buildings must be designed to be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) minimising the visual impact of mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, when viewed from the street or other public places; (b) minimising the visual impact of security shutters or grilles and roof-top service infrastructure, including lift structures; and (c) providing suitable lighting to vehicle parking areas and pathways for the safety and security of users.
<p>A2</p> <p>New buildings or alterations to an existing façade must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) provide a pedestrian entrance to the building that is visible from the road or publicly accessible areas of the site; (b) if for a ground floor level façade facing a frontage: <ul style="list-style-type: none"> (i) have not less than 40% of the total surface area consisting of windows or doorways; or (ii) not reduce the surface area of windows or doorways of an existing building, if the surface area is already less than 40%; (c) if for a ground floor level façade facing a frontage must: <ul style="list-style-type: none"> (i) not include a single length of blank wall greater than 30% of the length of façade on that frontage; or (ii) not increase the length of an existing 	<p>P2</p> <p>New buildings or alterations to an existing façade must be designed to be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) how the main pedestrian access to the building addresses the street or other public places; (b) windows on the façade facing the frontage for visual interest and passive surveillance of public spaces; (c) architectural detail or public art on large expanses of blank walls on the façade facing the frontage and other public spaces so as to contribute positively to the streetscape and public spaces; (d) installing security shutters or grilles over windows or doors on a façade facing the frontage or other public spaces only if essential for the security of the premises and any other alternatives are not practical; and (e) the need for provision of awnings over a public footpath.

<p>blank wall, if already greater than 30% of the length of the façade on that frontage; and</p> <p>(d) provide awnings over a public footpath if existing on the site or on adjoining properties.</p>	
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15.4.4 Fencing

Objective:	That fencing : (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution. ²	P1 A fence (including a free-standing wall) within 4.5m of a frontage must contribute positively to the streetscape, having regard to: (a) its height, design, location and extent; (b) its degree of transparency; and (c) the proposed materials and construction.	
A2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must: (a) have a height above existing ground level of not more than 2.1m; and (b) not contain barbed wire. ²	P2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must not cause an unreasonable loss of residential amenity, having regard to: (a) their height, design, location and extent; and (b) the proposed materials and construction.	

15.4.5 Outdoor storage areas

Objective:	That outdoor storage areas for non-residential use do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1 Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened	

² An exemption applies for fences in this zone – see Table 4.6.

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public open space adjoining the site.	to not cause an unreasonable loss of visual amenity.
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15.4.6 Dwellings

Objective:	To provide adequate and useable private open space and storage for the needs of residents.	
Acceptable Solutions		Performance Criteria
A1	A dwelling must have private open space that is not less than: (a) 24m ² with a minimum horizontal dimension of not less than 4m; or (b) 8m ² with a minimum dimension of not less than 1.5m, if the dwelling is located wholly above ground floor level.	P1 A dwelling must be provided with sufficient private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining and entertainment.
A2	Each dwelling must be provided with a dedicated and secure storage space of no less than 6m ³ .	P2 Each dwelling must be provided with adequate storage space.

15.5 Development Standards for Subdivision

15.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate frontage to a road.	
Acceptable Solutions		Performance Criteria
A1	Each lot, or a lot proposed in a plan of subdivision, must: (a) have an area of not less than 100m ² and existing buildings are consistent with the setback required by clause 15.4.2 A1 and A2; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone.	P1 Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to: (a) the relevant requirements for development of buildings on the lot; (b) existing buildings and the location of intended buildings on the lot; (c) the topography of the site; and (d) the pattern of development existing on established properties in the area.
A2	Each lot, or a lot proposed in a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.	P2 Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:

	<ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage ; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

15.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <ul style="list-style-type: none"> (a) flow rates; (b) the quality of potable water; (c) any existing or proposed infrastructure to provide the water service and its location; (d) the topography of the site; and (e) any advice from a regulated entity.

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have connection to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land.

16.0 Central Business Zone

16.1 Zone Purpose

The purpose of the Central Business Zone is:

- 16.1.1 To provide for the concentration of the higher order business, retail, administrative, professional, community, and entertainment functions within Tasmania's primary centres.
- 16.1.2 To provide for a type and scale of use and development supports and does not compromise or distort the activity centre hierarchy.
- 16.1.3 To encourage activity at pedestrian levels with active frontages and shop windows offering interest and engagement to shoppers.
- 16.1.4 To encourage Residential and Visitor Accommodation use above ground floor level if it supports the viability of the activity centre and an active street frontage is maintained.

16.2 Use Table

Use Class	Qualification
No Permit Required	
Business and Professional Services	
Food Services	
General Retail and Hire	
Natural and Cultural Values Management	
Passive Recreation	
Residential	If for home-based business.
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	
Community Meeting and Entertainment	
Educational and Occasional Care	
Emergency Services	
Hotel Industry	

Use Class	Qualification
Research and Development	
Residential	If: (a) located above ground floor level (excluding pedestrian or vehicular access); and (b) not listed as No Permit Required.
Sports and Recreation	If located above ground floor level (excluding pedestrian or vehicular access).
Tourist Operation	
Visitor Accommodation	If: (a) located above ground floor level (excluding pedestrian or vehicular access); and (b) not a camping and caravan park or overnight camping area.
Discretionary	
Custodial Facility	If for a remand centre.
Equipment and Machinery Sales and Hire	
Hospital Services	
Manufacturing and Processing	If for alterations or extensions to existing Manufacturing and Processing.
Residential	If not listed as No Permit Required or Permitted.
Resource Processing	If for food or beverage production.
Service Industry	If for alterations or extensions to an existing Service Industry.
Sports and Recreation	If not listed as Permitted.
Storage	If not for a liquid, solid or gas fuel depot.
Transport Depot and Distribution	If for a public transport facility.
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Vehicle Parking	
Visitor Accommodation	If: (a) not a camping and caravan park or overnight camping area; or (b) not listed as Permitted.

Use Class	Qualification
Prohibited	
All other uses	

16.3 Use Standards

16.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must:</p> <p>(a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property in those zones.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>	
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must be within the hours of:</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone or Inner Residential Zone, must not cause an unreasonable loss of amenity to the</p>	

<p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the residential zone; and</p> <p>(f) potential conflicts with other traffic.</p>
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16.3.2 Discretionary uses

Objective:	That uses listed as Discretionary: (a) encourage activity at pedestrian levels with active frontages; and (b) do not compromise or distort the activity centre hierarchy.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must:</p> <p>(a) not cause an unreasonable loss of amenity to properties in adjoining residential zones; and</p> <p>(b) be of an intensity that respects the character of the area.</p>
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>A use listed as Discretionary must not compromise or distort the activity centre hierarchy, having regard to:</p> <p>(a) the characteristics of the site;</p> <p>(b) the need to encourage activity at pedestrian levels;</p> <p>(c) the size and scale of the proposed use;</p> <p>(d) the functions of the activity centre and the surrounding activity centres; and</p> <p>(e) the extent that the proposed use impacts on other activity centres.</p>

16.4 Development Standards for Buildings and Works

16.4.1 Building height

Objective:	That building height: <ul style="list-style-type: none"> (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of amenity to adjoining residential zones.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 20m.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the apparent height when viewed from the adjoining road and public places; and (e) any overshadowing of public places.
<p>A2</p> <p>Building height:</p> <ul style="list-style-type: none"> (a) within 10m of the General Residential Zone must not be more than 8.5m; or (b) within 10m of an Inner Residential Zone must not be more than 9.5m. 	<p>P2</p> <p>Building height within 10m of the General Residential Zone or Inner Residential Zone must be consistent with building height on adjoining properties and not cause an unreasonable loss of residential amenity having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy; or (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from adjoining properties.

16.4.2 Setbacks

<p>Objective:</p>	<p>That building setback:</p> <ul style="list-style-type: none"> (a) is compatible with the streetscape; (b) does not cause an unreasonable loss of amenity to adjoining residential zones; and (c) minimises opportunities for crime and anti-social behaviour through setback of buildings.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Buildings must be:</p> <ul style="list-style-type: none"> (a) built to the frontage at ground level; or (b) have a setback of not more or less than the maximum and minimum setbacks of the buildings on adjoining properties. 	<p>P1</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape and minimises opportunities for crime or anti-social behaviour, having regard to:</p> <ul style="list-style-type: none"> (a) providing small variations in building alignment to break up long building façades; (b) providing variations in building alignment appropriate to provide a forecourt space for public use, such as outdoor dining or landscaping; (c) the avoidance of concealment spaces; (d) the ability to achieve passive surveillance; and (e) the availability of lighting.
<p>A2</p> <p>Buildings must have a setback from an adjoining property within a General Residential Zone or Inner Residential Zone of not less than:</p> <ul style="list-style-type: none"> (a) 6m; or (b) half the wall height of the building, <p>whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties within a General Residential Zone or Inner Residential Zone, having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy to the adjoining property; or (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.

<p>A3</p> <p>Air extraction, pumping, refrigeration systems or compressors must be separated a distance of not less than 10m from a General Residential Zone or Inner Residential Zone.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors within 10m of a General Residential Zone or Inner Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to the adjoining residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of the sensitive use; and (d) any proposed mitigation measures.
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16.4.3 Design

<p>Objective:</p>	<p>That building façades promote and maintain high levels of pedestrian interaction, amenity, and safety and are compatible with the streetscape.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New buildings must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, must be screened from the street and other public places; (b) roof-top mechanical plant and service infrastructure, including lift structures, must be contained within the roof; (c) not include security shutters or grilles over windows or doors on a façade facing the frontage or other public places; and (d) provide external lighting to illuminate external vehicle parking areas and pathways. 	<p>P1</p> <p>New buildings must be designed to be compatible with the streetscape having regard to:</p> <ul style="list-style-type: none"> (a) minimising the visual impact of mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, when viewed from the street or other public places; (b) minimising the visual impact of security grilles and shutters and roof-top service infrastructure, including lift structures; and (c) providing suitable lighting to vehicle parking areas and pathways for the safety and security of users.

¹ An exemption applies to air conditioners and heat pumps in this zone – see Table 4.6.

<p>A2</p> <p>New buildings or alterations to an existing façade must be designed to satisfy all of the following:</p> <ul style="list-style-type: none"> (a) provide a pedestrian entrance to the building that is visible from the road or publicly accessible areas of the site; (b) if for a ground floor level façade facing a frontage: <ul style="list-style-type: none"> (i) have not less than 40% of the total surface area consisting of windows or doorways; or (ii) not reduce the surface area of windows or doorways of an existing building, if the surface area is already less than 40%; (c) if for a ground floor level façade facing a frontage must: <ul style="list-style-type: none"> (i) not include a single length of blank wall greater than 30% of the length of façade on that frontage; or (ii) not increase the length of an existing blank wall, if already greater than 30% of the length of the façade on that frontage; and (d) provide awnings over a public footpath if existing on the site or on adjoining properties. 	<p>P2</p> <p>New buildings or alterations to an existing façade must be designed to be compatible with the streetscape having regard to:</p> <ul style="list-style-type: none"> (a) how the main pedestrian access to the building addresses the street or other public places; (b) windows on the façade facing the frontage for visual interest and passive surveillance of public spaces; (c) providing architectural detail or public art on large expanses of blank walls on the façade facing the frontage and other public spaces so as to contribute positively to the streetscape and public spaces; (d) installing security shutters or grilles over windows or doors on a façade facing the frontage or other public spaces only if it is essential for the security of the premises and any other alternatives are not practical; and (e) providing awnings over a public footpath.
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16.4.4 Fencing

Objective:	That fencing: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.
Acceptable Solutions	
Performance Criteria	
A1 No Acceptable Solution. ²	P1 A fence (including a free-standing wall) within 4.5m of a frontage must be compatible with the streetscape, having regard to: (a) its height, design, location and extent; (b) its degree of transparency; and (c) the proposed materials and construction.
A2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must: (a) have a height above existing ground level of not more than 2.1m; and (b) not contain barbed wire. ²	P2 Common boundary fences with a property in a General Residential Zone or Inner Residential Zone, if not within 4.5m of a frontage, must not cause an unreasonable loss of residential amenity, having regard to: (a) their height, design, location and extent; and (b) the proposed materials and construction.

16.4.5 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the appearance of the site or locality.
Acceptable Solutions	
Performance Criteria	
A1 Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

² An exemption applies for fences in this zone – see Table 4.6.

16.4.6 Dwellings

Objective:	To provide adequate and useable private open space and storage for the needs of residents.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A dwelling must have private open space that is not less than:</p> <p>(a) 24m² with a minimum horizontal dimension of not less than 4m; or</p> <p>(b) 8m² with a minimum horizontal dimension of not less than 1.5m, if the dwelling is located wholly above ground floor level.</p>	<p>P1</p> <p>A dwelling must be provided with sufficient private open space that includes an area capable of serving as an extension of the dwelling for outdoor relaxation, dining and entertainment.</p>
<p>A2</p> <p>Each dwelling must be provided with a dedicated and secure storage space of not less than 6m³.</p>	<p>P2</p> <p>Each dwelling must be provided with adequate storage space.</p>

16.5 Development Standards for Subdivision

16.5.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area of not less than 45m² and existing buildings are consistent with the setback required by clause 16.4.2 A1 and A2;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant requirements for development of buildings on the lot;</p> <p>(b) existing buildings and the location of intended buildings on the lot;</p> <p>(c) the topography of the site; and</p> <p>(d) the pattern of development existing on established properties in the area.</p>

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage or access; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

16.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <ul style="list-style-type: none"> (a) flow rates; (b) the quality of potable water; (c) any existing or proposed infrastructure to provide the water service and its location; (d) the topography of the site; and (e) any advice from a regulated entity.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>No Performance Criterion.</p>

17.0 Commercial Zone

17.1 Zone Purpose

The purpose of the Commercial Zone is:

17.1.1 To provide for retailing, service industries, storage and warehousing that require:

- (a) large floor or outdoor areas for the sale of goods or operational requirements; and
- (b) high levels of vehicle access and parking for customers.

17.1.2 To provide for a mix of use and development that supports and does not compromise or distort the role of other activity centres in the activity centre hierarchy.

17.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	
Emergency Services	
Equipment and Machinery Sales and Hire	
Service Industry	
Storage	
Discretionary	
Business and Professional Services	
Community Meeting and Entertainment	
Educational and Occasional Care	
Food Services	

Use Class	Qualification
General Retail and Hire	
Hotel Industry	If for alterations or extensions to an existing Hotel Industry.
Manufacturing and Processing	
Research and Development	
Resource Processing	If for food or beverage production.
Sports and Recreation	
Transport Depot and Distribution	
Tourist Operation	
Utilities	
Vehicle Fuel Sales and Service	
Vehicle Parking	
Visitor Accommodation	If for alterations or extensions to existing Visitor Accommodation.
Prohibited	
All other uses	

17.3 Use Standards

17.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of residential amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	

<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management or Passive Recreation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must:</p> <p>(a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property in those zones.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management or Passive Recreation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the adjoining residential area; and</p> <p>(f) potential conflicts with other traffic.</p>

17.3.2 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions	Performance Criteria	
A1 No Acceptable Solution.	P1 A use listed as Discretionary must not compromise or distort the activity centre hierarchy, having regard to: (a) the characteristics of the site; (b) the size and scale of the proposed use; (c) the functions of the activity centre and the surrounding activity centres; and (d) the extent that the proposed use impacts on other activity centres.	

17.3.3 Retail impact

Objective:	That Bulky Goods Sales do not compromise or distort the activity centre hierarchy.	
Acceptable Solutions	Performance Criteria	
A1 The gross floor area for Bulky Goods Sales must be not less than 250m ² per tenancy, unless the use relies on more than 50% of the site area for outdoor display of goods for sale.	P1 Bulky Goods Sales must not compromise or distort the activity centre hierarchy, having regard to: (a) the extent that the proposed use improves and broadens the commercial or retail choice within the area; (b) the extent that the proposed use impacts on surrounding activity centres; and (c) any relevant local area objectives contained within the relevant Local Provisions Schedule.	

17.4 Development Standards for Buildings and Works

17.4.1 Building height

Objective:	That building height: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of amenity to adjoining residential zones.
Acceptable Solutions	
Performance Criteria	
A1 Building height must be not more than 12m.	P1 Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to: (a) the topography of the site; (b) the height, bulk and form of existing building on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the apparent height when viewed from the adjoining road and public places; and (e) any overshadowing of public places.
A2 Building height: (a) within 10m of a General Residential Zone, Low Density Residential Zone or Rural Living Zone must be not more than 8.5m; or (b) within 10m of an Inner Residential Zone must be not more than 9.5m.	P2 Building height within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone must be consistent with building height on adjoining properties and not cause an unreasonable loss of residential amenity, having regard to: (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy; and (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.

17.4.2 Setbacks

Objective:	<p>That building setback:</p> <p>(a) is compatible with the streetscape; and</p> <p>(b) does not cause an unreasonable loss of amenity to adjoining residential zones.</p>	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Buildings must have a setback from a frontage of:</p> <p>(a) not less than 5.5m;</p> <p>(b) not less than existing buildings on the site; or</p> <p>(c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.</p>	<p>P1</p> <p>Buildings must have a setback from a frontage that provides adequate space for vehicle access, parking and landscaping, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the setback of buildings on adjacent properties; and</p> <p>(c) the safety of road users.</p>	
<p>A2</p> <p>Buildings must have setback from an adjoining property within a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone of not less than:</p> <p>(a) 4m; or</p> <p>(b) half the wall height of the building, whichever is the greater.</p>	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of residential amenity to adjoining properties within a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy to the adjoining property; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>	
<p>A3</p> <p>Air extraction, pumping, refrigeration systems or compressors must be separated a distance of not less than 10m from the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone.¹</p>	<p>P3</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems or compressors within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to the adjoining residential zones, having regard to:</p> <p>(a) the characteristics and frequency of emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of the</p>	

¹ An exemption for air conditioners and heat pumps applies in this zone – see clause 4.6.

	<p>sensitive use; and</p> <p>(d) any proposed mitigation measures.</p>
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17.4.3 Design

Objective:	That building design is compatible with the streetscape.	
Acceptable Solutions		Performance Criteria
A1	<p>Buildings must be designed to satisfy all the following:</p> <p>(a) provide a pedestrian entrance to the building that is visible from the road or publicly accessible areas of the site;</p> <p>(b) mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, must be screened from the street and other public places;</p> <p>(c) roof-top mechanical plant and service infrastructure, excluding lift structures, must be contained within the roof or screened from public spaces and adjoining properties;</p> <p>(d) not include security shutters or grilles over windows or doors on a façade facing the frontage or other public places;</p> <p>(e) provide awnings over a public footpath if existing on the site or on adjoining properties; and</p> <p>(f) provide external lighting to illuminate external vehicle parking areas and pathways.</p>	<p>P1</p> <p>Buildings must be designed to be compatible with the streetscape, having regard to:</p> <p>(a) how the main pedestrian access to the building addresses the street or other public places;</p> <p>(b) minimising the visual impact of mechanical plant and other service infrastructure, such as heat pumps, air conditioning units, switchboards, hot water units and the like, when viewed from the street or other public places;</p> <p>(c) minimising the visual impact of roof-top service infrastructure, excluding lift structures;</p> <p>(d) installing security shutters or grilles over windows or doors on a façade facing the frontage or other public spaces only if essential for the security of the premises and other alternatives are not practical;</p> <p>(e) the need for provision of awnings over a public footpath; and</p> <p>(f) providing suitable lighting to vehicle parking areas and pathways for the safety and security of users.</p>

17.4.4 Fencing

Objective:	That fencing: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.	
Acceptable Solutions		Performance Criteria
A1	P1	
No Acceptable Solution. ²	A fence (including a free-standing wall) within 4.5m of a frontage must be compatible with the streetscape, having regard to: (a) its height, design, location and extent; (b) its degree of transparency; and (c) the proposed materials and construction.	
A2	P2	
Common boundary fences with a property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, if not within 4.5m of a frontage, must: (a) have a height above existing ground level of not more than 2.1m; and (b) not contain barbed wire. ²	Common boundary fences with a property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, if not within 4.5m of a frontage, must not cause an unreasonable loss of residential amenity, having regard to: (a) their height, design, location and extent; and (b) the proposed materials and construction.	

17.4.5 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	P1	
Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.	

² An exemption applies for fences in this zone – see Table 4.6.

17.4.6 Landscaping

Objective:	That landscaping enhances the amenity and appearance of the streetscape where buildings are setback from the frontage.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>If a building is set back from a road, landscaping treatment must be provided along the frontage of the site:</p> <ul style="list-style-type: none"> (a) to a depth of not less than 5.5m; or (b) not less than the frontage of an existing building if it is a lesser distance. 	<p>P1</p> <p>If a building is setback from a road, landscaping treatment must be provided along the frontage of the site, having regard to:</p> <ul style="list-style-type: none"> (a) the width of the setback; (b) the width of the frontage; (c) the topography of the site; (d) existing vegetation on the site; (e) the location, type and growth of the proposed vegetation; and (f) the character of the streetscape and surrounding area. 	

17.5 Development Standards for Subdivision

17.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area of not less than 1000m² and:</p> <p style="margin-left: 20px;">(i) be able to contain a minimum area of 15m x 20m clear of:</p> <p style="margin-left: 40px;">a. all setbacks required by clause 17.4.2 A1 and A2; and</p> <p style="margin-left: 40px;">b. easements or other title restrictions that limit or restrict development; and</p> <p style="margin-left: 20px;">(ii) existing buildings are consistent with the setback required by clause 17.4.2 A1 and A2;</p> <p>(b) be required for public use by the Crown, council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant requirements for development of buildings on the lot;</p> <p>(b) existing buildings and the location of intended buildings on the lot;</p> <p>(c) the topography of the site;</p> <p>(d) the presence of any natural hazards; and</p> <p>(e) the pattern of development existing on established properties in the area.</p>
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage of not less than 20m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <p>(a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access;</p> <p>(b) the topography of the site;</p> <p>(c) the functionality and useability of the frontage;</p> <p>(d) the anticipated nature of vehicles likely to access the site;</p> <p>(e) the ability to manoeuvre vehicles on the site;</p> <p>(f) the ability for emergency services to access the</p>

	<p>site; and</p> <p>(g) the pattern of development existing on established properties in the area.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the distance between the lot or building area and the carriageway;</p> <p>(c) the nature of the road and the traffic, including pedestrians; and</p> <p>(d) the pattern of development existing on established properties in the area.</p>

17.5.2 Services

Objective:	The subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a full water supply service.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a limited water supply service, having regard to:</p> <p>(a) flow rates;</p> <p>(b) the quality of potable water;</p> <p>(c) any existing or proposed infrastructure to provide the water service and its location;</p> <p>(d) the topography of the site; and</p> <p>(e) any advice from a regulated entity.</p>	

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have connection to a reticulated sewerage system.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land.

18.0 Light Industrial Zone

18.1 Zone Purpose

The purpose of the Light Industrial Zone is:

- 18.1.1 To provide for manufacturing, processing, repair, storage and distribution of goods and materials where off site impacts are minimal or can be managed to minimise conflict with, or unreasonable loss of amenity to, any other uses.
- 18.1.2 To provide for use or development that supports and does not adversely impact on industrial activity.

18.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Emergency Services	
Equipment and Machinery Sales and Hire	
Manufacturing and Processing	
Port and Shipping	
Research and Development	
Service Industry	
Storage	
Transport Depot and Distribution	
Vehicle Fuel Sales and Service	

Use Class	Qualification
Discretionary	
Bulky Goods Sales	If for: (a) a supplier for Extractive Industry, Resource Development or Resource Processing; (b) a garden and landscaping materials, trade or hardware supplier; or (c) a timber yard.
Community Meeting and Entertainment	
Crematoria and Cemeteries	
Domestic Animal Breeding, Boarding or Training	
Educational and Occasional Care	If for alterations or extensions to existing Educational and Occasional Care.
Food Services	
General Retail and Hire	If for alterations or extensions to existing General Retail and Hire.
Recycling and Waste Disposal	If for a scrap yard or waste transfer station.
Resource Processing	
Sports and Recreation	
Utilities	If not listed as No Permit Required.
Vehicle Parking	
Prohibited	
All other uses	

18.3 Use Standards

18.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	
<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management or Passive Recreation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must:</p> <p>(a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property in those zones.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management or Passive Recreation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone, or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the residential area; and</p> <p>(f) potential conflicts with other traffic.</p>
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18.3.2 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise the use or development of the land for industrial activities with minimal or managed off site impacts.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must not compromise the use or development of the surrounding properties for industrial activities with minimal or managed off site impacts, having regard to:</p> <p>(a) the characteristics of the site;</p> <p>(b) the size and scale of the proposed use; and</p> <p>(c) the function of the industrial area.</p>

18.4 Development Standards for Buildings and Works

18.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to:</p> <p>(a) the bulk and form of the building;</p> <p>(b) separation from existing uses on adjoining properties; and</p> <p>(c) any buffers created by natural or other features.</p>
<p>A2</p> <p>Building height:</p> <p>(a) within 10m of a General Residential Zone, Low Density Residential Zone or Rural Living Zone must be not more than 8.5m; or</p> <p>(b) within 10m of an Inner Residential Zone must be not more than 9.5m.</p>	<p>P2</p> <p>Building height within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must be consistent with building height on adjoining properties in those zones and not cause an unreasonable loss of residential amenity, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining properties.</p>

18.4.2 Setbacks

Objective:	<p>That building setbacks:</p> <ul style="list-style-type: none"> (a) are appropriate for the site; and (b) do not cause an unreasonable loss of residential amenity to adjoining residential zones.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings must have a setback from a frontage of:</p> <ul style="list-style-type: none"> (a) not less than 5.5m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties. 	<p>P1</p> <p>Buildings must have a setback from a frontage that provides adequate space for vehicle access, parking and landscaping, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the setback of buildings on adjacent properties; and (c) the safety of road users.
<p>A2</p> <p>Buildings must have a setback from an adjoining property within a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone of not less than:</p> <ul style="list-style-type: none"> (a) 4m; or (b) half the wall height of the building, whichever is the greater. 	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of residential amenity to adjoining properties within a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy; and (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.

<p>A3 Air extraction, pumping, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone.¹</p>	<p>P3 Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must be designed, located, baffled or insulated to not cause an unreasonable loss of residential amenity to the adjoining residential zones, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of the sensitive use; and (d) any proposed mitigation measures.
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18.4.3 Fencing

<p>Objective:</p>	<p>That fencing does not cause an unreasonable loss of residential amenity to adjoining residential zones.</p>
Acceptable Solutions	Performance Criteria
<p>A1 No Acceptable Solution.²</p>	<p>P1 Common boundary fences with a property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone must not cause an unreasonable loss of residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) their height, design, location and extent; and (b) the proposed materials and construction.

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

² An exemption applies for fences in this zone – see Table 4.6.

18.4.4 Outdoor storage areas

Objective:	Outdoor storage areas do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

18.4.5 Landscaping

Objective:	That landscaping enhances the amenity and appearance of the streetscape where buildings are setback from the frontage.	
Acceptable Solutions		Performance Criteria
A1	If a building is set back from a road, landscaping treatment must be provided along the frontage of the site: (a) to a depth of not less than 5.5m; or (b) not less than the frontage of an existing building if it is a lesser distance.	P1 If a building is setback from a road, landscaping treatment must be provided along the frontage of the site, having regard to: (a) the width of the setback; (b) the width of the frontage; (c) the topography of the site; (d) existing vegetation on the site; (e) the location, type and growth of the proposed vegetation; and (f) any relevant local area objectives contained within the relevant Local Provisions Schedule.

18.5 Development Standards for Subdivision

18.5.1 Lot design

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 1000m² and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 15m x 20m clear of: <ul style="list-style-type: none"> a. all setbacks required by Clause 18.4.2 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by Clause 18.4.2 A1 and A2; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lot; (b) existing buildings and the location of intended buildings on the lot; (c) the topography of the site; (d) the presence of any natural hazards; and (e) the pattern of development existing on established properties in the area.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage of not less than 20m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on

	established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

18.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service if the frontage of the lot is within 30m of a limited water supply service, <p>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	

<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none">(a) the size of the lot;(b) topography of the site;(c) soil conditions;(d) any existing buildings on the site;(e) any area of the site covered by impervious surfaces; and(f) any watercourse on the land.
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19.0 General Industrial Zone

19.1 Zone Purpose

The purpose of the General Industrial Zone is:

- 19.1.1 To provide for manufacturing, processing, repair, storage and distribution of goods and materials where there may be impacts on adjacent uses.
- 19.1.2 To provide for use or development that supports and does not adversely impact on industrial activity.

19.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Emergency Services	
Equipment and Machinery Sales and Hire	
Manufacturing and Processing	
Port and Shipping	
Recycling and Waste Disposal	
Research and Development	
Resource Processing	
Service Industry	
Storage	
Transport Depot and Distribution	
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	

Use Class	Qualification
Discretionary	
Bulky Goods Sales	If for: (a) a supplier for Resource Development, Extractive Industry or Resource Processing; (b) a garden and landscape, trade or hardware supplier; or (c) a timber yard.
Crematoria and Cemeteries	If for a crematorium.
Educational and Occasional Care	If for an employment training centre.
Food Services	
Motor Racing Facility	
Sports and Recreation	
Vehicle Parking	
Prohibited	
All other uses	

19.3 Use Standards

19.3.1 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise the use or development of the land for industrial activities that may have impacts on adjacent uses.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution.	P1 A use listed as Discretionary must not compromise the use or development of surrounding properties for industrial activities that may have impacts on adjacent uses, having regard to: (a) the characteristics of the site; (b) the size and scale of the proposed use; and (c) the functions of the industrial area.	

19.4 Development Standards for Buildings and Works

19.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties.
Acceptable Solutions	Performance Criteria
A1 Building height must be not more than 20m.	P1 Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to: (a) the bulk and form of the building; (b) separation from existing use on adjoining properties; and (c) any buffers created by natural or other features.

19.4.2 Setback

Objective:	That the building setback is appropriate for the site.
Acceptable Solutions	Performance Criteria
A1 Buildings must have setback from a frontage of: (a) not less than 10m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties.	P1 Buildings must have a setback from a frontage that provides adequate space for vehicle access, parking and landscaping, having regard to: (a) the topography of the site; (b) the setback of buildings on adjacent properties; and (c) the safety of road users.

19.4.3 Landscaping

Objective:	That landscaping enhances the amenity and appearance of the streetscape where buildings are setback from the frontage.	
A1	<p>If a building is set back from a road, landscaping treatment must be provided along the frontage of the site:</p> <ul style="list-style-type: none"> (a) to a depth of not less than 6m; or (b) not less than the frontage of an existing building if it is a lesser distance. 	P1
		<p>If a building is setback from a road, landscaping treatment must be provided along the frontage of the site, having regard to:</p> <ul style="list-style-type: none"> (a) the width of the setback; (b) the width of the frontage; (c) the topography of the site; (d) existing vegetation on the site; (e) the location, type and growth of the proposed vegetation; and (f) any relevant local area objectives contained within the relevant Local Provisions Schedule.

19.5 Development Standards for Subdivision

19.5.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road. 	
Acceptable Solutions		Performance Criteria
A1	<p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 2000m² and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 20m x 40m clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 19.4.2 A1; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 19.4.2 A1; (b) be required for public use by the Crown, a council or a State authority; 	P1
		<p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lot; (b) existing buildings and the intended location of new buildings on the lot; (c) the topography of the site; (d) the presence of any natural hazards; and (e) the pattern of development existing on established properties in the area.

<p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage of not less than 20m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

19.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <p>(a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or</p> <p>(b) be connected to a limited water supply service if the frontage of the lot is within 30m of a connection to a limited water supply service, unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site waste-water treatment system adequate for the future use and development of the land.</p>	
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <p>(a) the size of the lot;</p> <p>(b) topography of the site;</p> <p>(c) soil conditions;</p> <p>(d) any existing buildings on the site;</p> <p>(e) any area of the site covered by impervious surfaces; and</p> <p>(f) any watercourse on the land.</p>	

20.0 Rural Zone

20.1 Zone Purpose

The purpose of the Rural Zone is:

20.1.1 To provide for a range of use or development in a rural location:

- (a) where agricultural use is limited or marginal due to topographical, environmental or other site or regional characteristics;
- (b) that requires a rural location for operational reasons;
- (c) is compatible with agricultural use if occurring on agricultural land;
- (d) minimises adverse impacts on surrounding uses.

20.1.2 To minimise conversion of agricultural land for non-agricultural use.

20.1.3 To ensure that use or development is of a scale and intensity that is appropriate for a rural location and does not compromise the function of surrounding settlements.

20.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Resource Development	
Utilities	If for minor utilities.
Permitted	
Business and Professional Services	If for: (a) a veterinary centre; or (b) an agribusiness consultant or agricultural consultant.
Domestic Animal Breeding, Boarding or Training	
Educational and Occasional Care	If associated with Resource Development or Resource Processing.
Emergency Services	

Use Class	Qualification
Extractive Industry	
Food Services	If associated with Resource Development or Resource Processing.
General Retail and Hire	If associated with Resource Development or Resource Processing.
Manufacturing and Processing	If for the processing of materials from Extractive Industry.
Pleasure Boat Facility	If for a boat ramp.
Research and Development	If associated with Resource Development or Resource Processing.
Residential	If for: (a) a home-based business in an existing dwelling; or (b) alterations or extensions to an existing dwelling.
Resource Processing	
Storage	If for: (a) a contractors yard; (b) freezing and cooling storage; (c) grain storage; (d) a liquid, solid or gas fuel depot; or (e) a woodyard.
Utilities	If not listed as No Permit Required.
Visitor Accommodation	If for guests accommodated within an existing building.
Discretionary	
Bulky Goods Sales	If for: (a) a supplier for Extractive Industry, Resource Development or Resource Processing; (b) a garden and landscaping materials supplier; (c) a timber yard; or (d) rural supplies.
Business and Professional Services	If not listed as Permitted.
Community Meeting and Entertainment	
Crematoria and Cemeteries	

Use Class	Qualification
Custodial Facility	
Educational and Occasional Care	If not listed as Permitted.
Food Services	If not listed as Permitted.
General Retail and Hire	If not listed as Permitted.
Manufacturing and Processing	If not listed as Permitted.
Motor Racing Facility	
Pleasure Boat Facility	If not listed as Permitted.
Recycling and Waste Disposal	
Research and Development	If not listed as Permitted.
Residential	If for a single dwelling and not restricted by an existing agreement under section 71 of the Act.
Service Industry	If associated with Extractive Industry, Resource Development or Resource Processing.
Sports and Recreation	
Storage	If not listed as Permitted.
Tourist Operation	
Transport Depot and Distribution	
Visitor Accommodation	If not listed as Permitted.
Prohibited	
All other uses	

20.3 Use Standards

20.3.1 Discretionary use

Objective:	That the location, scale and intensity of a use listed as Discretionary: <ul style="list-style-type: none"> (a) is required for operational reasons; (b) does not unreasonably confine or restrain the operation of uses on adjoining properties; (c) is compatible with agricultural use and sited to minimise conversion of agricultural land; and (d) is appropriate for a rural location and does not compromise the function of surrounding settlements.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A use listed as Discretionary, excluding Residential, is for an alteration or extension to an existing use, if:</p> <ul style="list-style-type: none"> (a) the gross floor area does not increase by more than 30% from that existing at the effective date; and (b) the development area does not increase by more than 30% from that existing at the effective date. 	<p>P1</p> <p>A use listed as Discretionary, excluding Residential, must require a rural location for operational reasons, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, scale and intensity of the use; (b) the importance or significance of the proposed use for the local community; (c) whether the use supports an existing agricultural use; (d) whether the use requires close proximity to infrastructure or natural resources; and (e) whether the use requires separation from other uses to minimise impacts.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>A use listed as Discretionary must not confine or restrain existing use on adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the proposed use; (b) the nature, scale and intensity of the use; (c) the likelihood and nature of any adverse impacts on adjoining uses; (d) whether the proposed use is required to support a use for security or operational reasons; and (e) any off site impacts from adjoining uses.
<p>A3</p> <p>No Acceptable Solution.</p>	<p>P3</p> <p>A use listed as Discretionary, located on agricultural land, must minimise conversion of agricultural land to non-agricultural use and be compatible with</p>

	<p>agricultural use, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, scale and intensity of the use; (b) the local or regional significance of the agricultural land; and (c) whether agricultural use on adjoining properties will be confined or restrained.
<p>A4 No Acceptable Solution.</p>	<p>P4 A use listed as Discretionary, excluding Residential, must be appropriate for a rural location, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, scale and intensity of the proposed use; (b) whether the use will compromise or distort the activity centre hierarchy; (c) whether the use could reasonably be located on land zoned for that purpose; (d) the capacity of the local road network to accommodate the traffic generated by the use; and (e) whether the use requires a rural location to minimise impacts from the use, such as noise, dust and lighting.

20.4 Development Standards for Buildings and Works

20.4.1 Building height

Objective:	To provide for a building height that: <ul style="list-style-type: none"> (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1 Building height must be not more than 12m.</p>	<p>P1 Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the proposed height of the building; (b) the bulk and form of the building; (c) the separation from existing uses on adjoining properties; and (d) any buffers created by natural or other features.

20.4.2 Setbacks

Objective:	That the siting of buildings minimises potential conflict with use on adjoining sites.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Buildings must have a setback from all boundaries of:</p> <ul style="list-style-type: none"> (a) not less than 5m; or (b) if the setback of an existing building is within 5m, not less than the existing building. 	<p>P1</p> <p>Buildings must be sited to provide adequate vehicle access and not cause an unreasonable impact on existing use on adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the bulk and form of the building; (b) the nature of existing use on the adjoining properties; (c) separation from existing use on the adjoining properties; and (d) any buffers created by natural or other features. 	
<p>A2</p> <p>Buildings for a sensitive use must be separated from an Agriculture Zone a distance of:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) if an existing building for a sensitive use on the site is within 200m of that boundary, not less than the existing building. 	<p>P2</p> <p>Buildings for a sensitive use must be sited so as not to conflict or interfere with an agricultural use within the Agriculture Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the prevailing setbacks of any existing buildings for sensitive uses on adjoining properties; (c) the location of existing buildings on the site; (d) the existing and potential use of adjoining properties; (e) any proposed attenuation measures; and (f) any buffers created by natural or other features. 	

20.4.3 Access for new dwellings

Objective:	That new dwellings have appropriate vehicular access to a road maintained by a road authority.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>New dwellings must be located on lots that have frontage with access to a road maintained by a road authority.</p>	<p>P1</p> <p>New dwellings must have legal access, by right of carriageway, to a road maintained by a road authority that is appropriate, having regard to:</p> <ul style="list-style-type: none"> (a) the number of users of the access; (b) the length of the access; (c) the suitability of the access for use by the occupants of the dwelling; (d) the suitability of the access for emergency services vehicles; (e) the topography of the site; (f) the construction and maintenance of the access; (g) the construction, maintenance and usage of the road; and (h) any advice from a road authority. 	

20.5 Development Standards for Subdivision

20.5.1 Lot design

Objective:	To provide for subdivision that: (a) relates to public use, irrigation or Utilities; or (b) facilitates use and development for allowable uses in the zone.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities or irrigation infrastructure; (c) be for the consolidation of a lot with another lot provided each lot is within the same zone; or (d) be not less than 40ha with a frontage of no less than 25m and existing buildings are consistent with the setback and separation distance required by clause 20.4.2 A1 and A2. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have sufficient useable area and dimensions suitable for the intended purpose, excluding Residential or Visitor Accommodation, that: <ul style="list-style-type: none"> (i) requires the rural location for operational reasons; (ii) minimises the conversion of agricultural land for a non-agricultural use; (iii) minimises adverse impacts on non-sensitive uses on adjoining properties; and (iv) is appropriate for a rural location; or (b) be for the excision of an existing dwelling or Visitor Accommodation that satisfies all of the following: <ul style="list-style-type: none"> (i) the balance lot provides for the sustainable operation of a Resource Development use, having regard to: <ul style="list-style-type: none"> a. not materially diminishing the agricultural productivity of the land; b. the capacity of the balance lot for productive agricultural use; and c. any topographical constraints to agricultural use; (ii) an agreement under section 71 of the Act is entered into and registered on the title preventing future Residential use if there is no dwelling on the balance lot;

	<ul style="list-style-type: none"> (iii) the existing dwelling or Visitor Accommodation must meet the setbacks required by subclause 20.4.2 A2 or P2 in relation to setbacks to new boundaries; (iv) it is demonstrated that the new lot will not unreasonably confine or restrain the operation of any adjoining site used for agricultural use; and <p>(c) be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (i) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (ii) the topography of the site; (iii) the functionality and useability of the frontage; (iv) the anticipated nature of vehicles likely to access the site; (v) the ability to manoeuvre vehicles on the site; (vi) the ability for emergency services to access the site; and (vii) the pattern of development existing on established properties in the area.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, is provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

21.0 Agriculture Zone

21.1 Zone Purpose

The purpose of the Agriculture Zone is:

- 21.1.1 To provide for the use or development of land for agricultural use.
- 21.1.2 To protect land for the use or development of agricultural use by minimising:
- (a) conflict with or interference from non-agricultural uses;
 - (b) non-agricultural use or development that precludes the return of the land to agricultural use; and
 - (c) use of land for non-agricultural use in irrigation districts.
- 21.1.3 To provide for use or development that supports the use of the land for agricultural use.

21.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Resource Development	If: (a) on land other than prime agricultural land; or (b) an agricultural use, excluding plantation forestry, on prime agricultural land if it is dependent on the soil as the growth medium or conducted in a manner which does not alter, disturb or damage the existing soil profile or preclude it from future use as a growth medium.
Utilities	If for minor utilities.
Permitted	
Food Services	If associated with Resource Development or Resource Processing.
General Retail and Hire	If associated with Resource Development or Resource Processing.
Pleasure Boat Facility	If for a boat ramp.
Residential	If for:

Use Class	Qualification
	(a) a home-based business in an existing dwelling; or (b) alterations or extensions to an existing dwelling.
Discretionary	
Bulky Goods Sales	If: (a) a supplier for Extractive Industry, Resource Development or Resource Processing; (b) a garden and landscape supplier; or (c) a timber yard.
Domestic Animal Breeding, Boarding or Training	
Educational and Occasional Care	
Emergency Services	
Extractive Industry	
Food Services	If not listed as Permitted.
General Retail and Hire	If not listed as Permitted.
Manufacturing and Processing	If for: (a) the manufacturing of agricultural equipment; or (b) the processing of materials from Extractive Industry.
Research and Development	
Residential	If: (a) not restricted by an existing agreement under section 71 of the Act; and (b) not listed as Permitted.
Resource Development	If not listed as No Permit Required.
Resource Processing	
Storage	If for: (a) a contractors yard; (b) freezing and cooling storage; (c) grain storage; (d) a liquid, solid or gas fuel depot; or (e) a woodyard.

Use Class	Qualification
Tourist Operation	
Transport Depot and Distribution	If for the transport and distribution of agricultural produce and equipment.
Utilities	If not listed as No Permit Required.
Visitor Accommodation	
Prohibited	
All other uses	

21.3 Use Standards

21.3.1 Discretionary uses

Objective:	That uses listed as Discretionary: (a) support agricultural use; and (b) protect land for agricultural use by minimising the conversion of land to non-agricultural use.	
Acceptable Solutions		Performance Criteria
<p>A1 No Acceptable Solution.</p>		<p>P1 A use listed as Discretionary, excluding Residential or Resource Development, must be required to locate on the site, for operational or security reasons or the need to contain or minimise impacts arising from the operation such as noise, dust, hours of operation or traffic movements, having regard to:</p> <ul style="list-style-type: none"> (a) access to a specific naturally occurring resource on the site or on land in the vicinity of the site; (b) access to infrastructure only available on the site or on land in the vicinity of the site; (c) access to a product or material related to an agricultural use; (d) service or support for an agricultural use on the site or on land in the vicinity of the site; (e) the diversification or value adding of an agricultural use on the site or in the vicinity of the site; and (f) provision of essential Emergency Services or

	Utilities.
<p>A2 No Acceptable Solution.</p>	<p>P2 A use listed as Discretionary, excluding Residential, must minimise the conversion of agricultural land to non-agricultural use, having regard to:</p> <ul style="list-style-type: none"> (a) the area of land being converted to non-agricultural use; (b) whether the use precludes the land from being returned to an agricultural use; (c) whether the use confines or restrains existing or potential agricultural use on the site or adjoining sites.
<p>A3 No Acceptable Solution.</p>	<p>P3 A use listed as Discretionary, excluding Residential, located on prime agricultural land must:</p> <ul style="list-style-type: none"> (a) be for Extractive Industry, Resource Development or Utilities, provided that: <ul style="list-style-type: none"> (i) the area of land converted to the use is minimised; (ii) adverse impacts on the surrounding agricultural use are minimised; and (iii) the site is reasonably required for operational efficiency; or (b) be for a use that demonstrates a significant benefit to the region, having regard to the social, environmental and economic costs and benefits of the proposed use.

<p>A4 No Acceptable Solution.</p>	<p>P4 A Residential use listed as Discretionary must:</p> <ul style="list-style-type: none">(a) be required as part of an agricultural use, having regard to:<ul style="list-style-type: none">(i) the scale of the agricultural use;(ii) the complexity of the agricultural use;(iii) the operational requirements of the agricultural use;(iv) the requirement for the occupier of the dwelling to attend to the agricultural use; and(v) proximity of the dwelling to the agricultural use; or(b) be located on a site that:<ul style="list-style-type: none">(i) is not capable of supporting an agricultural use;(ii) is not capable of being included with other agricultural land (regardless of ownership) for agricultural use; and(iii) does not confine or restrain agricultural use on adjoining properties.
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21.4 Development Standards for Buildings and Works

21.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 12m.</p>	<p>P1</p> <p>Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the proposed height of the building; (b) the topography of the site; (c) the bulk and form of the building; (d) separation from existing use on adjoining properties; (e) the nature of the existing uses on adjoining properties; and (f) any buffers created by natural or other features.

21.4.2 Setbacks

Objective:	That the siting of buildings minimises potential conflict with use on adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings must have a setback from all boundaries of:</p> <ul style="list-style-type: none"> (a) not less than 5m; or (b) if the setback of an existing building is within 5m, not less than the existing building. 	<p>P1</p> <p>Buildings must be sited to provide adequate vehicle access and not cause an unreasonable impact on existing use on adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the bulk and form of the building; (b) the nature of existing use on the adjoining properties; (c) separation from existing use on the adjoining properties; and (d) any buffers created by natural or other features.

<p>A2</p> <p>Buildings for a sensitive use must have a setback from all boundaries of:</p> <p>(a) not less than 200m; or</p> <p>(b) if the setback of an existing building for a sensitive use on the site is within 200m of that boundary, not less than the existing building.</p>	<p>P2</p> <p>Buildings for a sensitive use must be sited so as not to conflict or interfere with an agricultural use, having regard to:</p> <p>(a) the size, shape and topography of the site;</p> <p>(b) the prevailing setbacks of any existing buildings for sensitive uses on adjoining properties;</p> <p>(c) the location of existing buildings on the site;</p> <p>(d) the existing and potential use of adjoining properties;</p> <p>(e) any proposed attenuation measures; and</p> <p>(f) any buffers created by natural or other features.</p>
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21.4.3 Access for new dwellings

<p>Objective:</p>	<p>That new dwellings have appropriate vehicular access to a road maintained by a road authority.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New dwellings must be located on lots that have frontage with access to a road maintained by a road authority.</p>	<p>P1</p> <p>New dwellings must have legal access, by right of carriageway, to a road maintained by a road authority, that is appropriate having regard to:</p> <p>(a) the number of users of the access;</p> <p>(b) the length of the access;</p> <p>(c) the suitability of the access for use by the occupants of the dwelling;</p> <p>(d) the suitability of the access for emergency services vehicles;</p> <p>(e) the topography of the site;</p> <p>(f) the construction and maintenance of the access;</p> <p>(g) the construction, maintenance and usage of the road; and</p> <p>(h) any advice from the road authority.</p>

21.5 Development Standards for Subdivision

21.5.1 Lot design

Objective:	<p>To provide for subdivision that:</p> <ul style="list-style-type: none"> (a) relates to public use, irrigation infrastructure or Utilities; and (b) protects the long term productive capacity of agricultural land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities or irrigation infrastructure; or (c) be for the consolidation of a lot with another lot provided both lots are within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) provide for the operation of an agricultural use, having regard to: <ul style="list-style-type: none"> (i) not materially diminishing the agricultural productivity of the land; (ii) the capacity of the new lots for productive agricultural use; (iii) any topographical constraints to agricultural use; and (iv) current irrigation practices and the potential for irrigation; (b) be for the reorganisation of lot boundaries that satisfies all of the following: <ul style="list-style-type: none"> (i) provides for the operation of an agricultural use, having regard to: <ul style="list-style-type: none"> a. not materially diminishing the agricultural productivity of the land; b. the capacity of the new lots for productive agricultural use; c. any topographical constraints to agricultural use; and d. current irrigation practices and the potential for irrigation; (ii) all new lots must be not less than 1ha in area; (iii) existing buildings are consistent with the setback required by clause 21.4.2 A1 and A2; (iv) all new lots must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use; and (v) it does not create any additional lots; or

	<p>(c) be for the excision of a use or development existing at the effective date that satisfies all of the following:</p> <ul style="list-style-type: none"> (i) the balance lot provides for the operation of an agricultural use, having regard to: <ul style="list-style-type: none"> a. not materially diminishing the agricultural productivity of the land; b. the capacity of the balance lot for productive agricultural use; c. any topographical constraints to agricultural use; and d. current irrigation practices and the potential for irrigation; (ii) an agreement under section 71 of the Act is entered into and registered on the title preventing future Residential use if there is no dwelling on the balance lot; (iii) any existing buildings for a sensitive use must meet the setbacks required by clause 21.4.2 A2 or P2 in relation to setbacks to new boundaries; and (iv) all new lots must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use.
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, is capable of being provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic, including pedestrians; and (d) the pattern of development existing on established properties in the area.

22.0 Landscape Conservation Zone

22.1 Zone Purpose

The purpose of the Landscape Conservation Zone is:

- 22.1.1 To provide for the protection, conservation and management of landscape values.
- 22.1.2 To provide for compatible use or development that does not adversely impact on the protection, conservation and management of the landscape values.

22.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Residential	If for a: <ul style="list-style-type: none"> (a) home-based business; or (b) single dwelling located within a building area, if shown on a sealed plan.
Utilities	If for minor utilities.
Discretionary	
Community Meeting and Entertainment	If for a place of worship, art and craft centre or public hall.
Domestic Animal Breeding, Boarding or Training	
Emergency Services	
Food Services	If for a gross floor area of not more than 200m ² .
General Retail and Hire	If associated with a Tourist Operation.
Residential	If for a single dwelling.
Resource Development	If not for intensive animal husbandry or plantation forestry.

Use Class	Qualification
Sports and Recreation	If for an outdoor recreation facility.
Tourist Operation	
Utilities	If not listed as Permitted.
Visitor Accommodation	
Prohibited	
All other uses	

22.3 Use Standards

22.3.1 Community Meeting and Entertainment, Food Services, and General Retail and Hire uses.

Objective:	That Community Meeting and Entertainment, Food Services, and General Retail and Hire uses operate at a scale and in a manner that does not cause an unreasonable impact on landscape values.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Hours of operation for Community Meeting and Entertainment, Food Services, and General Retail and Hire must be within the hours of 8.00am to 6.00pm.</p>		<p>P1</p> <p>Hours of operation for Community Meeting and Entertainment, Food Services, and General Retail and Hire must not cause an unreasonable impact on the landscape values having regard to:</p> <p>(a) the duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>

22.3.2 Visitor Accommodation

Objective:	That Visitor Accommodation is of a scale that is: (a) compatible with the landscape values of the site and surrounding area; and (b) does not impact the safety and efficiency of local roads or private rights of way.
Acceptable Solutions	
Performance Criteria	
A1	P1
Visitor Accommodation: (a) guests are accommodated in existing buildings; and (b) has a gross floor area of no more than 300m ² .	Visitor Accommodation must: (a) be of a scale that respects the character of use in the area; (b) not cause an unreasonable impact on the landscape values of the site; and (c) not adversely impact the safety and efficiency of the local road network or unreasonably disadvantage owners and users of rights of carriageway.

22.3.3 Discretionary use

Objective:	That the location, scale and extent of a use listed as Discretionary is compatible with landscape values.
Acceptable Solutions	
Performance Criteria	
A1	P1
No Acceptable Solution.	Use listed as Discretionary must be compatible with landscape values, having regard to: (a) the nature, scale and extent of the use; (b) the characteristics and type of the use; (c) the landscape values of the site; (d) the landscape value of the surrounding area; and (e) measures to minimise or mitigate impacts.

22.4 Development Standards for Buildings and Works

22.4.1 Site coverage

Objective:	That the site coverage is compatible with the protection, conservation and management of the landscape values of the site and surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Site coverage must be not more than 400m ² .	P1 Site coverage must be compatible with the landscape values of the site and surrounding area, having regard to: <ul style="list-style-type: none"> (a) the topography of the site; (b) the capacity of the site to absorb run-off; (c) the size and shape of the site; (d) the existing buildings and any constraints imposed by existing development; (e) the need to remove vegetation; (f) the location of development in relation to cleared areas; and (g) the location of development in relation to natural hazards.

22.4.2 Building height, siting and exterior finishes

Objective:	That building height, siting and exterior finishes: <ul style="list-style-type: none"> (a) protects the amenity of adjoining properties; (b) minimises the impact on the landscape values of the area; and (c) minimises the impact on adjoining agricultural uses. 	
Acceptable Solutions		Performance Criteria
A1	Building height must be not more than 6m.	P1 Building height must be compatible with the landscape values of the site, having regard to: <ul style="list-style-type: none"> (a) the height, bulk and form of proposed buildings; (b) the height, bulk and form of existing buildings; (c) the topography of the site; (d) the visual impact of the buildings when viewed from roads and public places; and (e) the landscape values of the surrounding area.

<p>A2</p> <p>Buildings must have a setback from a frontage not less than 10m.</p>	<p>P2</p> <p>Building setback from a frontage must be compatible with the landscape values of the surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the frontage setbacks of adjacent buildings; (c) the height, bulk and form of existing and proposed buildings; (d) the appearance when viewed from roads and public places; (e) the safety of road users; and (f) the retention of vegetation.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries not less than 20m.</p>	<p>P3</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity, or impact on landscape values of the site, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape and orientation of the site; (c) the side and rear setbacks of adjacent buildings; (d) the height, bulk and form of existing and proposed buildings; (e) the need to remove vegetation as part of the development; (f) the appearance when viewed from roads and public places; and (g) the landscape values of the surrounding area.
<p>A4</p> <p>Buildings for a sensitive use must be separated from the boundary of an adjoining Rural Zone or Agriculture Zone a distance of:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) if the setback of an existing building for a sensitive use on the site is within 200m of that boundary, not less than the existing building. 	<p>P4</p> <p>Buildings for a sensitive use must be sited to not conflict or interfere with uses in the Rural Zone or Agriculture Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the separation from those zones of any existing buildings for sensitive uses on adjoining properties; (c) the existing and potential use of land in the adjoining zones; (d) any buffers created by natural or other features; and (e) any proposed attenuation measures.

<p>A5</p> <p>Exterior building finishes must have a light reflectance value not more than 40%, in dark natural tones of grey, green or brown.</p>	<p>P5</p> <p>Exterior building finishes must not cause an unreasonable loss of amenity to occupiers of adjoining properties or detract from the landscape values of the site or surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the appearance of the building when viewed from roads or public places in the surrounding area; (b) any screening vegetation; and (c) the nature of the exterior finishes.
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22.4.3 Access to a road

<p>Objective:</p>	<p>That new dwellings have appropriate vehicular access to a road maintained by a road authority.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>New dwellings must be located on lots that have frontage with access to a road maintained by a road authority.</p>	<p>P1</p> <p>New dwellings must have legal access, by right of carriageway, to a road maintained by a road authority that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of users of the access; (b) the length of the access; (c) the suitability of the access for use by the occupants of the dwelling; (d) the suitability of the access for emergency services vehicles; (e) the topography of the site; (f) the construction and maintenance of the access; and (g) the construction, maintenance and usage of the road.

22.4.4 Landscape protection

Objective:	That the landscape values of the site and surrounding area are protected or managed to minimise adverse impacts.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Building and works must be located within a building area, if shown on a sealed plan.</p>	<p>P1</p> <p>Building and works must be located to minimise native vegetation removal and the impact on landscape values, having regard to:</p> <ul style="list-style-type: none"> (a) the extent of the area from which vegetation has been removed; (b) the extent of native vegetation to be removed; (c) any remedial or mitigation measures or revegetation requirements; (d) provision for native habitat for native fauna; (e) the management and treatment of the balance of the site or native vegetation areas; (f) the type, size, and design of development; and (g) the landscape values of the site and surrounding area. 	
<p>A2</p> <p>Buildings and works must:</p> <ul style="list-style-type: none"> (a) be located within a building area, if shown on a sealed plan; or (b) be an alteration or extension to an existing building providing it is not more than the existing building height; and (c) not include cut and fill greater than 1m; and (d) be not less than 10m in elevation below a skyline or ridgeline. 	<p>P2.1</p> <p>Buildings and works must be located to minimise impacts on landscape values, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size and shape of the site; (c) the proposed building height, size and bulk; (d) any constraints imposed by existing development; (e) visual impact when viewed from roads and public places; and (f) any screening vegetation. <p>P2.2</p> <p>If the building and works are less than 10m in elevation below a skyline or ridgeline, there are no other suitable building areas.</p>	

22.5 Development Standards for Subdivision

22.5.1 Lot design

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; (b) contain areas which are suitable for development, located to protect and conserve landscape values; and (c) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a proposed lot in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) have an area of not less than 50ha and: <ul style="list-style-type: none"> (i) be able to contain a minimum area of 25m x 25m, where native vegetation cover has been removed, with a gradient not steeper than 1 in 5, clear of: <ul style="list-style-type: none"> a. all setbacks required by clause 22.4.2 A2, A3 and A4; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 22.4.2 A2, A3 and A4; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a proposed lot in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant Acceptable Solutions for development of buildings on the lots; (b) existing buildings and the location of intended buildings on the lot; (c) the ability to retain vegetation and protect landscape values on each lot; (d) the topography of the site; and (e) the pattern of development existing on established properties in the area, <p>and must have an area not less than 20ha.</p>
<p>A2</p> <p>Each lot, or a proposed lot in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities must have a frontage of not less than 40m.</p>	<p>P2</p> <p>Each lot, or a proposed lot in a plan of subdivision, must be provided with a frontage, or legal connection to a road by a right of carriageway that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage;

	<ul style="list-style-type: none"> (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area, and is not less than 3.6m wide.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the anticipated nature of vehicles likely to access the site.
<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be capable of accommodating an on-site wastewater management system adequate for the intended use and development of the land, which minimises any environmental impacts.</p>

23.0 Environmental Management Zone

23.1 Zone Purpose

The purpose of the Environmental Management Zone is:

- 23.1.1 To provide for the protection, conservation and management of land with significant ecological, scientific, cultural or scenic value.
- 23.1.2 To allow for compatible use or development where it is consistent with:
- (a) the protection, conservation and management of the values of the land; and
 - (b) applicable reserved land management objectives and objectives of reserve management plans.

23.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Community Meeting and Entertainment	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Educational and Occasional Care	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Emergency Services	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Food Services	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
General Retail and Hire	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .

Use Class	Qualification
Pleasure Boat Facility.	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Research and Development	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Residential	If: (a) for reserve management staff accommodation; and (b) an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Resource Development	If: (a) for grazing; and (b) an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Sports and Recreation	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Tourist Operation	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Utilities	If: (a) for minor utilities; and (b) an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Visitor Accommodation	If an authority under the <i>National Parks and Reserve Management Regulations 2019</i> is granted by the Managing Authority, or approved by the Director-General of Lands under the <i>Crown Lands Act 1976</i> .
Discretionary	
Community Meeting and Entertainment	If not listed as Permitted.

Tasmanian Planning Scheme – State Planning Provisions

Use Class	Qualification
Educational and Occasional Care	If not listed as Permitted.
Emergency Services	If not listed as Permitted.
Extractive Industry	
Food Services	If not listed as Permitted.
General Retail and Hire	If not listed as Permitted.
Pleasure Boat Facility	If not listed as Permitted.
Research and Development	If not listed as Permitted.
Resource Development	If not listed as Permitted.
Resource Processing	
Sports and Recreation	If not listed as Permitted.
Tourist Operation	If not listed as Permitted.
Utilities	If not listed as Permitted.
Vehicle Parking	
Visitor Accommodation	If not listed as Permitted.
Prohibited	
All other uses	

23.3 Use Standards

23.3.1 Discretionary Uses

Objective:	That uses listed as Discretionary recognise and reflect the relevant values of the reserved land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must be consistent with the values of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the significance of the ecological, scientific, cultural or scenic values; (b) the protection, conservation, and management of the values; (c) the specific requirements of the use to operate; (d) the location, intensity and scale of the use; (e) the characteristics and type of the use; (f) traffic and parking generation; (g) any emissions and waste produced by the use; (h) the measures to minimise or mitigate impacts; (i) the storage and handling of goods, materials and waste; and (j) the proximity of any sensitive uses.

23.4 Development Standards for Buildings and Works

23.4.1 Development area

Objective:	That the development area is: (a) compatible with the values of the site and surrounding area; and (b) minimises disturbance of the site.	
Acceptable Solutions		Performance Criteria
A1	The development area must: (a) be not more than 500m ² ; (b) be in accordance with an authority under the <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority or the <i>Nature Conservation Act 2002</i> ; or (c) be in accordance with an approval of the Director-General of Lands under the <i>Crown Lands Act 1976</i> .	P1 The development area must not cause an unreasonable impact on the values of the site and surrounding area, having regard to: (a) the design, siting, scale and type of development; (b) the operation of the use; (c) the impact of the development on the values of the site and surrounding area; (d) the need for the development to be located on the site; (e) how any significant values are managed; and (f) any protection, conservation, remediation or mitigation works.

23.4.2 Building height, setback and siting

Objective:	That the design and siting of buildings responds appropriately to the values of the site and surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Building height must: (a) be not more than 6m; (b) be in accordance with an authority under the <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority or <i>Nature Conservation Act 2002</i> ; or (c) be in accordance with an approval of the Director-General of Lands under the <i>Crown Lands Act 1976</i> .	P1 Building height must be compatible with the values of the site and surrounding area, having regard to: (a) the bulk and form of proposed buildings; (b) the height, bulk and form of existing buildings; (c) the topography of the site; (d) the appearance when viewed from roads and public places; and (e) the character of the surrounding area.

<p>A2</p> <p>Buildings must have a setback from all boundaries:</p> <ul style="list-style-type: none"> (a) not less than 10m; (b) not less than the existing building for an extension; (c) in accordance with an authority under the <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority and/or <i>Nature Conservation Act 2002</i>; or (d) be in accordance with an approval of the Director-General of Lands under the <i>Crown Lands Act 1976</i>. 	<p>P2</p> <p>Buildings must be sited to be compatible with the values of the site and surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the bulk and form of proposed buildings; (b) the height, bulk and form of existing buildings; (c) the topography of the site; (d) the appearance when viewed from roads and public places; (e) the retention of vegetation; (f) the safety of road users; and (g) the character of the surrounding area.
<p>A3</p> <p>Buildings for a sensitive use must be separated from an adjoining Rural Zone or Agriculture Zone:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) where an existing building for a sensitive use on the site is within 200m of that boundary, not less than the existing building. 	<p>P3</p> <p>Buildings for a sensitive use must be sited to not conflict or interfere with an agricultural use in the Rural Zone or Agriculture Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the prevailing setbacks of any existing buildings for sensitive uses on adjoining properties; (c) the existing and potential use of land in the adjoining zone; and (d) any proposed attenuation measures.

23.4.3 Exterior finish

<p>Objective:</p>	<p>That exterior finishes are not prominent and blend with the character of the site and surrounding area.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Exterior building finishes must:</p> <ul style="list-style-type: none"> (a) be coloured using colours with a light reflectance value not more than 40% in dark natural tones of grey, green or brown; (b) be in accordance with an authority under <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority or the <i>Nature Conservation Act 2002</i>; or (c) be in accordance with an approval of the Director-General of Lands under the <i>Crown Lands Act 1976</i>. 	<p>P1</p> <p>Exterior building finishes must be compatible with the character of the site and surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the existing vegetation; (c) the dominant colours of the vegetation and surrounding area; (d) the nature of the development; (e) the nature of the exterior finishes; (f) the appearance when viewed from roads and public places; and (g) the character of the surrounding area.

23.4.4 Vegetation management

Objective:	That the site contributes to the values of the surrounding area by restricting vegetation removal.	
Acceptable Solutions		Performance Criteria
A1	<p>Building and works must:</p> <p>(a) be located on land where the native vegetation cover has been lawfully removed; or</p> <p>(b) be in accordance with an authority under <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority or the <i>Nature Conservation Act 2002</i>.</p>	<p>P1</p> <p>Building and works must be located to minimise native vegetation removal and the impact on values of the site and surrounding area, having regard to:</p> <p>(a) the extent of native vegetation to be removed;</p> <p>(b) any proposed remedial, mitigation or revegetation measures;</p> <p>(c) provision for native habitat for native fauna;</p> <p>(d) the management and treatment of the balance of the site or native vegetation areas; and</p> <p>(e) the type, size and design of development.</p>

23.5 Development Standards for Subdivision

23.5.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road. 	
Acceptable Solutions		Performance Criteria
A1	<p>Each lot, or a lot proposed in a plan of subdivision, must be:</p> <p>(a) required for public use by the Crown, a council, or a State authority;</p> <p>(b) required for the provision of Utilities;</p> <p>(c) for the consolidation of a lot with another lot, provided each lot is within the same zone;</p> <p>(d) in accordance with an authority under the <i>National Parks and Reserve Management Regulations 2019</i> granted by the Managing Authority or <i>Nature Conservation Act 2002</i>; or</p> <p>(e) in accordance with an approval of the Director-</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant Acceptable Solutions for development of buildings on the lots;</p> <p>(b) existing buildings and the location of intended buildings on the lot;</p> <p>(c) the ability to retain vegetation and protect the values of the land on each lot;</p> <p>(d) the topography of the site;</p> <p>(e) the presence of any natural hazards;</p> <p>(f) the need for the subdivision; and</p>

<p>General of Lands under the <i>Crown Lands Act 1976</i>.</p>	<p>(g) any advice of the managing authority.</p>
<p>A2 No Acceptable Solution.</p>	<p>P2 Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the anticipated nature of vehicles likely to access the site; (c) the topography of the site; (d) the pattern of development in the area; and (e) the ability for emergency services to access the site, <p>and must have a frontage of not less than 3.6 m.</p>
<p>A3 Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3 Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot, or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; (e) any vegetation removal; and (f) the protection of values on the site.

23.5.2 Services

<p>Objective:</p>	<p>That each lot provides for appropriate wastewater disposal.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1 No Acceptable Solution.</p>	<p>P1 Each lot, or a lot proposed in a plan of subdivision, must be capable of accommodating an on-site wastewater management system adequate for the intended use and development of the land, which minimises any environmental impacts.</p>

24.0 Major Tourism Zone

24.1 Zone Purpose

The purpose of the Major Tourism Zone is:

- 24.1.1 To provide for large scale tourist facilities which include a range of use and development.
- 24.1.2 To provide for compatible use and development that complements or enhances the tourist facilities on the site.
- 24.1.3 To provide for development that does not unreasonably impact on surrounding areas.
- 24.1.4 To ensure that any commercial uses support the tourist purpose of the site and do not compromise or distort the role of existing activity centres.

24.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Community Meeting and Entertainment	
Food Services	If not a take away food premises.
Hotel Industry	
Sports and Recreation	
Tourist Operation	
Visitor Accommodation	

Use Class	Qualification
Discretionary	
Business and Professional Services	
Educational and Occasional Care	
Emergency Services	
Food Services	If not listed as Permitted.
General Retail and Hire	
Pleasure Boat Facility	
Research and Development	
Residential	
Resource Processing	If for food or beverage production.
Transport Depot and Distribution	
Utilities	If not listed as No Permit Required.
Prohibited	
All other uses	

24.3 Use Standards

24.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Residential, Utilities or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	

<p>A2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must:</p> <p>(a) not operate within the hours of 11.00pm to 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property.</p>	<p>P2</p> <p>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting;</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Residential or Visitor Accommodation, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the residential area; and</p> <p>(f) potential conflicts with other traffic.</p>

24.3.2 Discretionary uses

Objective:	That uses listed as Discretionary complement the tourism use of the site and do not compromise or distort the role of existing activity centres.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must:</p> <ul style="list-style-type: none"> (a) complement or support the tourism related uses on the site; (b) not compromise the operational efficiency of any Permitted use operating within the zone; (c) not be the dominant use on the site; (d) excluding for Emergency Services, Residential or Utilities, cater primarily for demand from customers or visitors from outside the local area; and (e) not compromise the role of existing activity centres, having regard to: <ul style="list-style-type: none"> (i) the size and scale of the proposed use; (ii) the functions of the surrounding activity centres; and (iii) the extent that the proposed use impacts on surrounding activity centres. 	

24.4 Development Standards for Buildings and Works

24.4.1 Building height

Objective:	To provide for a building height that does not cause an unreasonable impact on adjoining properties and the visual character of the area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must:</p> <ul style="list-style-type: none"> (a) not cause an unreasonable loss of amenity from overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings on adjoining properties, having regard to: <ul style="list-style-type: none"> (i) the height, bulk and form of the building; (ii) separation from existing buildings on adjoining properties; and (iii) any buffers created by natural or other features; and (b) minimise the impact on the visual character of the area, having regard to: <ul style="list-style-type: none"> (i) the topography of the site; (ii) any existing vegetation; and (iii) visibility from adjoining roads and public open spaces.
<p>A2</p> <p>Building height:</p> <ul style="list-style-type: none"> (a) within 10m of a General Residential Zone, Low Density Residential Zone or Rural Living Zone must be not more than 8.5m; or (b) within 10m of an Inner Residential Zone must be not more than 9.5m. 	<p>P2</p> <p>Building height, within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential or Rural Living Zone, must be consistent with buildings existing on established properties in the adjoining zone and not cause an unreasonable loss of residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy to adjoining properties; and (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.

24.4.2 Setbacks

Objective:	<p>That the building setback:</p> <ul style="list-style-type: none"> (a) is compatible with the character of the surrounding area; (b) does not cause an unreasonable loss of amenity to adjoining residential areas; and (c) minimises potential conflicts with adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings must have a setback from a frontage of:</p> <ul style="list-style-type: none"> (a) not less than 10m; (b) not less than existing buildings on the site; or (c) not more or less than the maximum and minimum setbacks of the buildings on adjoining lots. 	<p>P1</p> <p>Buildings must have a setback from a frontage that is compatible with the character of the surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the setbacks of buildings existing on established adjacent properties; and (b) provision of adequate vehicle access, parking and landscaping.
<p>A2</p> <p>Buildings must have a setback from an adjoining property within a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone of not less than:</p> <ul style="list-style-type: none"> (a) 5m; or (b) half the wall height of the building, whichever is the greater. 	<p>P2</p> <p>Buildings must be sited to not cause an unreasonable loss of residential amenity to adjoining properties within a General Residential Zone, Inner Residential Zone, Low Density Residential or Rural Living Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the size, shape and orientation of the site; (c) the setback of existing buildings on the site and adjoining properties; (d) the bulk and form of proposed buildings; (e) overlooking and reduction of privacy of dwellings on adjoining properties; (f) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings on adjoining properties; and (g) any existing screening or the ability to implement screening.

<p>A3</p> <p>Buildings for a sensitive use must be separated from a Rural Zone or Agriculture Zone a distance of:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) if an existing building for a sensitive use is within 200m, not less than the existing building. 	<p>P3</p> <p>Buildings for a sensitive use must be sited to not conflict or interfere with an agricultural use in the Rural Zone or Agriculture Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the pattern of separation of any existing buildings for sensitive uses on adjoining properties; (c) the location of existing buildings for sensitive uses on the site; (d) the existing and potential use of adjoining properties in those zones; and (e) any proposed or existing attenuation measures.
<p>A4</p> <p>Air extraction, pumping, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from the General Residential Zone, Inner Residential Zone, Low Density Residential Zone and Rural Living Zone.¹</p>	<p>P4</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of an adjoining General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to sensitive uses in the adjoining zone, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of adjoining sensitive uses; and (d) any proposed or existing mitigation measures.

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

24.5 Development Standards for Subdivision

24.5.1 Lot design

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or lot proposed on a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities; or (c) be for the consolidation of a lot with another lot provided both lots are within the same zone. 	<p>P1</p> <p>Each lot, or lot proposed on a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lot; (b) the existing buildings and the location of intended buildings; and (c) the accessibility for vehicles providing for supplies, waste removal and emergency services.
<p>A2</p> <p>Each lot, or lot proposed on a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or lot proposed on a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.

<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the pattern of development existing on established properties in the area.
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24.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service if the frontage of the lot is within 30m of a connection to a limited water supply service, unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service. 	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	

<p>A3</p> <p>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or lot proposed on a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none">(a) the size of the lot;(b) topography of the site;(c) soil conditions;(d) any existing buildings on the site;(e) any area of the site covered by impervious surfaces; and(f) any watercourse on the land.
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25.0 Port and Marine Zone

25.1 Zone Purpose

The purpose of the Port and Marine Zone is:

- 25.1.1 To provide for major port and marine activity related to shipping and other associated transport facilities and supply and storage.
- 25.1.2 To provide for use or development that supports and does not adversely impact on port and marine activities.

25.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Port and Shipping	
Utilities	If for minor utilities.
Permitted	
Bulky Goods Sales	If for boat sales, shipping supplies or other maritime purposes.
Business and Professional Services	If for marine, port, shipping and transport purposes.
Educational and Occasional Care	If for training in marine, port, shipping and transport purposes.
Emergency Services	
Equipment and Machinery Sales and Hire	If for marine, port, shipping and transport equipment.
General Retail and Hire	If for chandlers and other shipping and transport related goods.
Manufacturing and Processing	If associated with maritime purposes.
Passive Recreation	
Pleasure Boat Facility	
Research and Development	If associated with Port and Shipping or marine and transport purposes.

Use Class	Qualification
Service Industry	If for marine, port, shipping and transport purposes.
Storage	If for marine, port, shipping and transport purposes.
Transport Depot and Distribution	
Utilities	If not listed as No Permit Required.
Vehicle Fuel Sales and Service	
Discretionary	
Food Services	
Resource Processing	If for: (a) marine, port, shipping and transport purposes; or (b) aquaculture or fish processing.
Sports and Recreation	If for marine or aquatic based activities.
Storage	If not listed as Permitted.
Tourist Operation	
Vehicle Parking	
Visitor Accommodation	
Prohibited	
All other uses	

25.3 Use Standards

25.3.1 There are no Use Standards in this zone.

25.4 Development Standards for Buildings and Works

25.4.1 Building height

Objective:	To provide for a building height that: <ul style="list-style-type: none"> (a) is necessary for the operation of the use; and (b) does not cause unreasonable loss of amenity on adjoining properties.
Acceptable Solutions	Performance Criteria
A1 Building height, excluding for Port and Shipping, and structures such as towers, poles, gantries, cranes or similar, must be not more than 20m.	P1 Building height, excluding for Port and Shipping, and structures such as towers, poles, gantries, cranes or similar, must: <ul style="list-style-type: none"> (a) be necessary for the operation of the use; and (b) not cause unreasonable loss of amenity to adjoining properties, having regard to: <ul style="list-style-type: none"> (i) the bulk and form of the building; (ii) separation from existing use on adjoining sites; and (iii) any buffers created by natural or other features.

25.5 Development Standards for Subdivision

25.5.1 Lot design

Objective:	That each lot: <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
A1 Each lot, or a lot proposed in a plan of subdivision, must: <ul style="list-style-type: none"> (a) be required for Port and Shipping; (b) have an area of not less than 1000m² and be able to contain a minimum area of 15m x 20m clear of all of easements or other title restrictions that limit or restrict development; (c) be required for public use by the Crown, a council or a State authority; (d) be required for the provision of Utilities; or (e) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	P1 Each lot, or a lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to: <ul style="list-style-type: none"> (a) the existing buildings and the location of intended buildings on the lot; (b) the topography of the site; (c) the presence of any natural hazards; and (d) the pattern of development existing on established properties in the area.

<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must have a frontage of not less than 6m.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the anticipated nature of vehicles likely to access the site.

25.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service 	<p>P1</p> <p>No Performance Criterion.</p>	

<p>if the frontage of the lot is within 30m of a connection to a limited water supply service, unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	
<p>A2 Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2 Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>
<p>A3 Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3 Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land.

26.0 Utilities Zone

26.1 Zone Purpose

The purpose of the Utilities Zone is:

26.1.1 To provide land for major utilities installations and corridors.

26.1.2 To provide for other compatible uses where they do not adversely impact on the utility.

26.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Recycling and Waste Disposal	
Transport Depot and Distribution	
Utilities	If not listed as No Permit Required.
Vehicle Parking	
Discretionary	
Emergency Services	
Sports and Recreation	
Storage	
Tourist Operation	
Prohibited	
All other uses	

26.3 Use Standards

26.3.1 All uses

Objective:	That uses do not cause an unreasonable loss of residential amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must not cause an unreasonable loss of amenity to the residential zones having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	
<p>A2</p> <p>External lighting for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must:</p> <p>(a) not operate within the hours of 11.00pm and 6.00am, excluding any security lighting; and</p> <p>(b) if for security lighting, be baffled so that direct light does not extend into the adjoining property.</p>	<p>P2</p> <p>External lighting for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) the distance to habitable rooms of an adjacent dwelling.</p>	

<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must be within the hours of:</p> <p>(a) 7.00am to 9.00pm Monday to Saturday; and</p> <p>(b) 8.00am to 9.00pm Sunday and public holidays.</p>	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services or Utilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring required by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and sensitive use; and</p> <p>(f) potential conflicts with other traffic.</p>
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26.3.2 Discretionary uses

Objective:	That uses listed as Discretionary do not compromise the use of land for Utilities.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed as Discretionary must not compromise or restrict the operations of an existing or proposed utility, having regard to:</p> <p>(a) the compatibility of the utility and the proposed use;</p> <p>(b) the location of the proposed use in relation to the utility, or any proposed utility;</p> <p>(c) existing land uses on the site; and</p> <p>(d) any proposed or existing buffers or mitigation measures.</p>

26.4 Development Standards for Buildings and Works

26.4.1 Building height

Objective:	To provide for a building height that: (a) is necessary for the operation of the use; and (b) minimises adverse impacts on adjoining properties and the visual character of the area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than:</p> <ul style="list-style-type: none"> (a) 10m; or (b) 15m if for a structure, such as a tower, pole or similar. 	<p>P1</p> <p>Building height must:</p> <ul style="list-style-type: none"> (a) be necessary for the operation of the use and not cause unreasonable impact on adjoining properties, having regard to: <ul style="list-style-type: none"> (i) the bulk and form of the building; (ii) separation from existing buildings on adjoining properties; and (iii) any buffers created by natural or other features; and (b) not unreasonably impact on the visual character of the area, having regard to: <ul style="list-style-type: none"> (i) the topography of the site; (ii) any existing vegetation; and (iii) visibility from adjoining roads and public open space.
<p>A2</p> <p>Building height, excluding a structure such as a tower, pole or similar:</p> <ul style="list-style-type: none"> (a) within 10m of an adjoining property in a General Residential Zone, Low Density Residential Zone or Rural Living Zone, must be not more than 8.5m; or (b) within 10m of an adjoining property in an Inner Residential Zone, must be not more than 9.5m. 	<p>P2</p> <p>Building height, within 10m of an adjoining property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone, excluding a structure such as a tower, pole or similar, must not cause an unreasonable loss of residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) compatibility with buildings on established properties in the adjoining zone; (b) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (c) overlooking and reduction of privacy to adjoining properties; and (d) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.

26.4.2 Setbacks

Objective:	That building setbacks are: (a) compatible with the character of the surrounding area; and (b) does not cause an unreasonable loss of amenity to adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings, excluding a structure such as a tower, pole or similar, must have a setback from all boundaries of not less than:</p> <p>(a) 5m; or</p> <p>(b) an existing building on the lot.</p>	<p>P1</p> <p>Buildings, excluding a structure such as a tower, pole or similar, must be sited to not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the size, shape and orientation of the site;</p> <p>(c) the setback of existing buildings on the site and on adjoining properties;</p> <p>(d) the bulk and form of proposed buildings;</p> <p>(e) overlooking and reduction of privacy of dwellings on adjoining properties;</p> <p>(f) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings on adjoining properties; and</p> <p>(g) any existing screening or the ability to implement screening.</p>
<p>A2</p> <p>Air extraction, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone, Low Density Residential Zone and Rural Living Zone¹.</p>	<p>P2</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Rural Living Zone must be designed, located, baffled or insulated so as to not cause an unreasonable loss of residential amenity to the adjoining residential zones, having regard to:</p> <p>(a) the characteristics and frequency of emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site and location of adjoining sensitive uses; and</p> <p>(d) any proposed or existing mitigation measures.</p>

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

26.4.3 Fencing

Objective:	That fencing: (a) does not detract from the appearance of the site or surrounding area; and (b) provides for passive surveillance.	
Acceptable Solutions		Performance Criteria
A1	A fence (including a free-standing wall) within 4.5m of a frontage and where adjoining a property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone must have a height above existing ground level of not more than: (a) 1.2m if the fence is solid; or (b) 2.1m, if any part of the fence that is within 4.5m of a frontage has openings above a height of 1.2m which provide a uniform transparency of not less than 30%.	P1 A fence (including a free-standing wall) within 4.5m of a frontage and where adjoining a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone must be compatible with the streetscape, having regard to: (a) the height, design, location and extent of the fence; (b) the degree of transparency; and (c) the proposed materials and construction.
A2	Common boundary fences with a property in a General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone must: (a) have a height above existing ground level of not more than 2.1m; and (b) not use barbed wire.	P2 Common boundary fences with a property in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone or Village Zone must not cause an unreasonable loss of residential amenity, having regard to: (a) the height, design, location and extent of the fence; and (b) the proposed materials and construction.

26.4.4 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas, excluding any goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding any goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

26.5 Development Standards for Subdivision

26.5.1 Subdivision

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate frontage to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities; or (c) be for the consolidation of a lot with another lot provided both lots are within the same zone. 	<p>P1</p> <p>Each lot, or lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lot; (b) location of existing buildings on the lot; (c) likely location of buildings on the lot; and (d) accessibility for vehicles.
<p>A2</p> <p>Each lot, or lot proposed in a plan of subdivision, must have a frontage, or legal connection to a road by a right of carriageway, of not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.

<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the distance between the lot or building area and the carriageway; (c) the nature of the road and the traffic; and (d) the pattern of development existing on established properties in the area.
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26.5.2 Services

Objective:	That the subdivision of land provides adequate services to meet the projected needs of future development.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P1</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	
<p>A2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of providing an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none"> (a) the size of the lot; (b) topography of the site; (c) soil conditions; (d) any existing buildings on the site; (e) any area of the site covered by impervious surfaces; and (f) any watercourse on the land. 	

27.0 Community Purpose Zone

27.1 Zone Purpose

The purpose of the Community Purpose Zone is:

27.1.1 To provide for key community facilities and services including health, educational, government, cultural and social facilities.

27.1.2 To encourage multi-purpose, flexible and adaptable social infrastructure.

27.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities.
Permitted	
Business and Professional Services	If for: (a) medical centre; (b) a community-based organisation; (c) government offices; or (d) funeral parlour.
Community Meeting and Entertainment	
Crematoria and Cemeteries	If for a cemetery.
Educational and Occasional Care	
Emergency Services	
Hospital Services	
Residential	If for: (a) a residential care facility, respite centre, retirement village or assisted housing; or (b) accommodation for staff or students of a use on the site.

Use Class	Qualification
Tourist Operation	If for a visitor centre.
Discretionary	
Business and Professional Services	If not listed as Permitted.
Custodial Facility	If for alterations or extensions to an existing Custodial Facility.
Food Services	
General Retail and Hire	If for a market.
Recycling and Waste Depot	If for alterations or extension to an existing Recycling and Waste Depot.
Sports and Recreation	
Tourist Operation	If not listed as Permitted.
Utilities	If not listed as No Permit Required.
Vehicle Parking	
Prohibited	
All other uses	

27.3 Use Standards

27.3.1 Non-residential use

Objective:	That non-residential use does not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation of a use, excluding Emergency Services, Hospital Services, Natural and Cultural Values Management, Passive Recreation or Utilities, within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be within the hours of:</p> <p>(a) 8.00am to 8.00pm Monday to Friday;</p> <p>(b) 9.00am to 6.00pm Saturday; and</p>	<p>P1</p> <p>Hours of operation of a use, excluding Emergency Services, Hospital Services, Natural and Cultural Values Management, Passive Recreation or Utilities, within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to an adjacent residential use having regard to:</p> <p>(a) the timing, duration or extent of vehicle</p>	

<p>(c) 10.00am to 5.00pm Sunday and public holidays.</p>	<p>movements; and (b) noise, lighting or other emissions.</p>
<p>A2 External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation and Utilities and flood lighting of Sports and Recreation facilities, on a site within 50m of a General Residential Zone, Inner Residential Zone, or Low Density Residential Zone, must:</p> <p>(a) not operate between 9:00pm and 6:00am, excluding any security lighting; and</p> <p>(b) if for security lighting, must be baffled so that direct light does not extend into the adjoining property.</p>	<p>P2 External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation and Utilities and flood lighting of Sports and Recreation facilities, within 50m of a General Residential Zone, Inner Residential Zone, and Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zones, having regard to:</p> <p>(a) the level of illumination and duration of lighting; and</p> <p>(b) distance to habitable rooms of an adjacent dwelling.</p>
<p>A3 Flood lighting of Sports and Recreation facilities on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not operate between 9.00pm and 6.00am.</p>	<p>P3 Flood lighting of Sports and Recreation facilities on a site within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zone, having regard to:</p> <p>(a) the necessity of floodlighting for the Sports and Recreation use;</p> <p>(b) the frequency of the Sports and Recreation event;</p> <p>(c) whether the event is of a special nature;</p> <p>(d) the duration of the event; and</p> <p>(e) any lighting required to set up and pack up for the event.</p>

<p>A4</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services or Hospital Services, within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be within the hours of:</p> <p>(a) 7.00am to 6.00pm Monday to Friday; and</p> <p>(b) 9.00am to 5.00pm Saturday, Sunday and public holidays.</p>	<p>P4</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services or Hospital Services, within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zone having regard to:</p> <p>(a) the time and duration of commercial vehicle movements;</p> <p>(b) the number and frequency of commercial vehicle movements;</p> <p>(c) the size of commercial vehicles involved;</p> <p>(d) manoeuvring by the commercial vehicles, including the amount of reversing and associated warning noise;</p> <p>(e) any noise mitigation measures between the vehicle movement areas and the residential zone; and</p> <p>(f) the existing levels of amenity.</p>
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27.4 Development Standards for Buildings and Works

27.4.1 Building height

<p>Objective:</p>	<p>That building height:</p> <p>(a) is compatible with the streetscape; and</p> <p>(b) does not cause an unreasonable loss of amenity to adjoining residential properties.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must be compatible with the streetscape and character of development existing on established properties in the area, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the height, bulk and form of existing buildings on the site and adjacent properties;</p> <p>(c) the bulk and form of proposed buildings;</p> <p>(d) the apparent height when viewed from the road and public places;</p> <p>(e) any overshadowing of adjoining properties or public places; and</p> <p>(f) the need to locate the building on the site.</p>

27.4.2 Setback

Objective:	That building setback: (a) is compatible with the streetscape; and (b) does not cause an unreasonable loss of residential amenity to adjoining residential zones.	
Acceptable Solutions		Performance Criteria
A1 Buildings must have a setback from a frontage of: (a) not less than 5m; or (b) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties, whichever is the lesser.	P1 Buildings must have a setback from a frontage that is compatible with the streetscape, having regard to: (a) the topography of the site; (b) the setbacks of buildings on adjacent properties; (c) the height, bulk and form of existing and proposed buildings; and (d) the safety of road users.	
A2 Buildings must have a setback from side and rear boundaries adjoining a General Residential Zone, Inner Residential Zone or Low Density Residential Zone not less than: (a) 3m; or (b) half the wall height of the building, whichever is the greater.	P2 Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties within a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, having regard to: (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy to adjoining properties; or (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.	

<p>A3 Air extraction, pumping, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone, or Low Density Residential Zone¹.</p>	<p>P3 Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of a General Residential Zone, Inner Residential Zone, or Low Density Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of emissions generated; (b) the nature of the proposed use; (c) the topography of the site and location of adjoining sensitive uses; and (d) any proposed mitigation measures.
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27.4.3 Fencing

<p>Objective:</p>	<p>That fencing:</p> <ul style="list-style-type: none"> (a) is compatible with the streetscape; and (b) provides for passive surveillance.
Acceptable Solutions	Performance Criteria
<p>A1 No Acceptable Solution.²</p>	<p>P1 A fence (including a free-standing wall) within 4.5m of a frontage must:</p> <ul style="list-style-type: none"> (a) provide for security and privacy while allowing for passive surveillance of the road; and (b) be compatible with the streetscape, having regard to: <ul style="list-style-type: none"> (i) its height, design, location and extent; (ii) the topography of the site; and (iii) traffic volumes on the adjoining road.

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

² An exemption applies to fences in this zone – see Table 4.6.

27.4.4 Outdoor storage areas

Objective:	That outdoor storage areas for do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

27.5 Development Standards for Subdivision

27.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.	
Acceptable Solutions		Performance Criteria
A1	Each lot, or lot proposed in a plan of subdivision, must: (a) have an area of not less than 600m ² and: (i) be able to contain a minimum area of 10m x 15m, with a gradient not steeper than 1 in 5, clear of: a. all setbacks required by clause 27.4.2 A1 and A2; and b. easements or other title restrictions that limit or restrict development; and (ii) existing buildings are consistent with the setback required by clause 27.4.2 A1 and A2; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; or (d) be for the consolidation of a lot with another lot provided each lot is within the same zone.	P1 Each lot, or lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to: (a) the relevant requirements for development of buildings on the lots; (b) existing buildings and the location of intended buildings on the lots; (c) the topography of the site; (d) the presence of any natural hazards; (e) adequate provision of private open space; and (f) the pattern of development existing on established properties in the area.

<p>A2</p> <p>Each lot, or lot proposed in a plan of subdivision, must have a frontage or legal connection to a road by a right of carriageway of not less than 10m.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the pattern of development existing on established properties in the area.

27.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <p>(a) be connected to a full water supply service if the frontage of the lot is within 30m of a full water supply service: or</p> <p>(b) be connected to a limited water supply service if the frontage of the lot is within 30m of a limited water supply service,</p> <p>unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service.</p>	<p>P1</p> <p>No Performance Criterion.</p>	
<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>	
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <p>(a) the size of the lot;</p> <p>(b) topography of the site;</p> <p>(c) soil conditions;</p> <p>(d) any existing buildings on the site;</p> <p>(e) any area of the site covered by impervious surfaces; and</p> <p>(f) any watercourse on the land.</p>	

28.0 Recreation Zone

28.1 Zone Purpose

The purpose of the Recreation Zone is:

- 28.1.1 To provide for active and organised recreational use and development ranging from small community facilities to major sporting facilities.
- 28.1.2 To provide for complementary uses that do not impact adversely on the recreational use of the land.
- 28.1.3 To ensure that new major sporting facilities do not cause unreasonable impacts on adjacent sensitive uses.

28.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Sports and Recreation	If not for a major sporting facility.
Utilities	If for minor utilities.
Permitted	
Sports and Recreation	Except if No Permit Required.
Discretionary	
Community Meeting and Entertainment	
Crematoria and Cemeteries	If for alterations or extensions to an existing crematorium or cemetery.
Domestic Animal Breeding, Boarding or Training	If for animal training.
Educational and Occasional Care	
Emergency Services	
Food Services	

Use Class	Qualification
General Retail and Hire	If for: (a) clothing, equipment or souvenirs for a Sports and Recreation use; or (b) a market.
Motor Racing Facility	
Pleasure Boat Facility	
Tourist Operation	
Utilities	If not listed as No Permit Required.
Vehicle Parking	
Visitor Accommodation	If for a camping and caravan park or overnight camping area.
Prohibited	
All other uses	

28.3 Use Standards

28.3.1 Sports and Recreation and Discretionary uses

Objective:	That uses do not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions	Performance Criteria	
<p>A1 Hours of operation for Sports and Recreation and uses listed as Discretionary, excluding Emergency Services or Visitor Accommodation, must be within the hours of:</p> <p>(a) 8.00am to 10.00pm if within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone; or</p> <p>(b) 6.00am to midnight otherwise.</p>	<p>P1 Hours of operation for Sports and Recreation and uses listed as Discretionary, excluding Emergency Services or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements;</p> <p>(b) noise, lighting or other emissions;</p> <p>(c) the nature and intensity of the proposed use;</p> <p>(d) the characteristics and frequency of any emissions generated;</p> <p>(e) the existing levels of amenity; and</p> <p>(f) set up, testing and removal of event related equipment.</p>	

<p>A2</p> <p>Flood lighting of Sports and Recreation facilities within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not operate between 11.00pm and 7.00am.</p>	<p>P2</p> <p>Flood lighting of Sports and Recreation facilities within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zone, having regard to:</p> <ul style="list-style-type: none"> (a) the necessity of floodlighting for the Sports and Recreation use; (b) the frequency of the Sports and Recreation event; (c) whether the event is of a special nature; (d) the duration of the event; (e) any lighting required to set up and pack up for the event.
<p>A3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for Sports and Recreation and uses listed as Discretionary, excluding Emergency Services, within 50m of a General Residential Zone, Inner Residential Zone, or Low Density Residential Zone, must be within the hours of:</p> <ul style="list-style-type: none"> (a) 7.00 am to 6.00 pm Monday to Friday; and (b) 8.00 am to 5.00 pm Saturday, Sunday or public holidays. 	<p>P3</p> <p>Commercial vehicle movements and the unloading and loading of commercial vehicles for Sports and Recreation and uses listed as Discretionary, excluding Emergency Services, within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of amenity to the residential zone, having regard to:</p> <ul style="list-style-type: none"> (a) the time and duration of commercial vehicle movements; (b) the number and frequency of commercial vehicle movements; (c) the size of commercial vehicles involved; (d) manoeuvring by the commercial vehicles, including the amount of reversing (including associated warning noise); (e) any noise mitigation measures between the vehicle movement areas and the residential zone; and (f) the existing levels of amenity.

28.3.2 Sports and Recreation - major sporting facilities

Objective:	That major sporting facilities do not cause an unreasonable loss of amenity to residential zones.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Extensions to an existing major sporting facility within 100m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not increase spectator capacity.</p>	<p>P1</p> <p>A major sporting facility within 100m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must not cause an unreasonable loss of residential amenity having regard to:</p> <ul style="list-style-type: none"> (a) the surrounding uses, their character and amenity; (b) impacts associated with existing facilities; (c) frequency and scale of events; (d) traffic, parking and the availability of public transport; (e) likely noise generation; (f) the arrival and departure of crowds; and (g) any proposed mitigation measures. 	

28.4 Development Standards for Buildings and Works

28.4.1 Building height, setback and siting

Objective:	<p>That building height, bulk, form and siting:</p> <ul style="list-style-type: none"> (a) does not cause unreasonable loss of amenity to adjacent properties; and (b) minimises opportunities for crime and anti-social behaviour through setback of buildings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must not cause unreasonable loss of amenity to adjacent properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the requirements of the proposed use; (e) sunlight to private open space and windows of habitable rooms of dwellings on adjoining properties; (f) the privacy of the private open space and windows of habitable rooms of dwellings on adjoining properties; (g) any overshadowing of adjacent public places; and (h) if an existing major sporting facility, the impact of the proposed height on existing development in the surrounding area.
<p>A2</p> <p>Buildings must have a setback from a frontage of:</p> <ul style="list-style-type: none"> (a) not less than 5m; or (b) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties, <p>whichever is the lesser.</p>	<p>P2</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape and minimises opportunities for crime and anti-social behavior, having regard to:</p> <ul style="list-style-type: none"> (a) providing for small variations in building alignment to break up long building façades; (b) providing for variations in building alignment to provide for a forecourt or space for public use, such as outdoor dining or landscaping; (c) the avoidance of concealment spaces; (d) the ability to achieve passive surveillance; and (e) the availability of lighting.

<p>A3</p> <p>Buildings must have a setback from side and rear boundaries adjoining a General Residential Zone, Inner Residential Zone or Low Density Residential Zone not less than:</p> <p>(a) 3m; or</p> <p>(b) half the wall height of the building, whichever is the greater.</p>	<p>P3</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties in a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, having regard to:</p> <p>(a) overshadowing and reduction in sunlight to habitable rooms of dwellings and private open space of dwellings;</p> <p>(b) overlooking and reduction of privacy to adjoining properties; or</p> <p>(c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.</p>
<p>A4</p> <p>Air extraction, pumping, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone or Low Density Residential Zone¹.</p>	<p>P4</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to sensitive uses, having regard to:</p> <p>(a) the characteristics and frequency of any emissions generated;</p> <p>(b) the nature of the proposed use;</p> <p>(c) the topography of the site; and</p> <p>(d) any mitigation measures proposed.</p>

28.4.2 Outdoor storage areas

<p>Objective:</p>	<p>That outdoor storage areas do not detract from the appearance of the site or surrounding area.</p>
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.</p>	<p>P1</p> <p>Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.</p>

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

28.5 Development Standards for Subdivision

28.5.1 Lot design

Objective:	<p>That each lot:</p> <ul style="list-style-type: none"> (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or lot proposed in a plan of subdivision, must:</p> <ul style="list-style-type: none"> (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities; or (c) be for the consolidation of a lot with another lot, provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the relevant requirements for development of buildings on the lots; (b) existing buildings and the location of intended buildings on the lot; (c) the topography of the site; (d) the presence of any natural hazards; and (e) the pattern of development existing on established properties in the area.
<p>A2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 3.6m.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.

<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the pattern of development existing on established properties in the area.
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28.5.2 Services

Objective:	That the subdivision of land provides services for the future use and development of the land.	
	Acceptable Solutions	Performance Criteria
	<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must:</p> <ul style="list-style-type: none"> (a) be connected to a full water supply if the frontage of the lot is within 30m of a full water supply service; or (b) be connected to a limited water supply service if the frontage of the lot is within 30m of a connection to a limited water supply service, unless a regulated entity advises that the lot is unable to be connected to the relevant water supply service. 	<p>P1</p> <p>No Performance Criterion.</p>
	<p>A2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must have a connection to a reticulated sewerage system.</p>	<p>P2</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.</p>

<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of connecting to a public stormwater system.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding those for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site stormwater management system adequate for the future use and development of the land, having regard to:</p> <ul style="list-style-type: none">(a) the size of the lot;(b) topography of the site;(c) soil conditions;(d) any existing buildings on the site;(e) any area of the site covered by impervious surfaces; and(f) any watercourse on the land.
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29.0 Open Space Zone

29.1 Zone Purpose

The purpose of the Open Space Zone is:

- 29.1.1 To provide land for open space purposes including for passive recreation and natural or landscape amenity.
- 29.1.2 To provide for use and development that supports the use of the land for open space purposes or for other compatible uses.

29.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Utilities	If for minor utilities and underground utilities.
Permitted	
No Permitted uses.	
Discretionary	
Community Meeting and Entertainment	
Crematoria and Cemeteries	If for a cemetery.
Emergency Services	
Food Services	
General Retail and Hire	
Pleasure Boat Facility	
Resource Development	If for: (a) marine farming shore facility or other facility that relies upon a coastal location to fulfil its purpose; or (b) grazing.

Use Class	Qualification
Sports and Recreation	
Tourist Operation	
Transport Depot and Distribution	If associated with wharves, water taxis, or commuter or passenger ferry terminals.
Utilities	If not listed as No Permit Required.
Vehicle Parking	
Visitor Accommodation	If for camping and caravan park or overnight camping areas.
Prohibited	
All other uses	

29.3 Use Standards

29.3.1 Discretionary uses

Objective:	That a use listed as Discretionary, does not cause an unreasonable loss of amenity to adjacent sensitive uses.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Hours of operation for a use listed as Discretionary, excluding Emergency Services or Visitor Accommodation, must be within the hours of:</p> <p>(a) 8.00am to 10.00pm if within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone; or</p> <p>(b) 6.00am to midnight, otherwise.</p>	<p>P1</p> <p>Hours of operation for a use listed as Discretionary, excluding Emergency Services or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses having regard to:</p> <p>(a) the timing, duration or extent of vehicle movements; and</p> <p>(b) noise, lighting or other emissions.</p>	

<p>A2</p> <p>Flood lighting of Sports and Recreation facilities within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone must not operate between 11.00pm and 7.00am.</p>	<p>P2</p> <p>Flood lighting of Sports and Recreation facilities within 50m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone must not cause an unreasonable loss of amenity to the residential zone, having regard to:</p> <ul style="list-style-type: none"> (a) the necessity of floodlighting for the Sports and Recreation use; (b) the frequency of the Sports and Recreation event; (c) whether the event is of a special nature; (d) the duration of the event; and (e) any lighting required to set up and pack up for the event.
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29.4 Development Standards for Buildings and Works

29.4.1 Building height, setback and siting

<p>Objective:</p>	<p>That building bulk, height, form and siting:</p> <ul style="list-style-type: none"> (a) is compatible with the streetscape; (b) does not cause unreasonable loss of amenity to adjacent properties; (c) respects the natural and landscape values of the site; and (d) minimises opportunities for crime and anti-social behaviour through setback of buildings.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Building height must be not more than 10m.</p>	<p>P1</p> <p>Building height must not cause an unreasonable loss of amenity to adjacent properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the height, bulk and form of existing buildings on the site and adjacent properties; (c) the bulk and form of proposed buildings; (d) the requirements of the proposed use; (e) sunlight to private open space and windows of habitable rooms of dwellings on adjoining properties; (f) the privacy of the private open space and windows of habitable rooms of dwellings on adjoining properties; and (g) any overshadowing of adjacent public places.

<p>A2</p> <p>Buildings must have a setback from a frontage of:</p> <ul style="list-style-type: none"> (a) not less than 5m; or (b) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties, <p>whichever is the lesser.</p>	<p>P2</p> <p>Buildings must have a setback from a frontage that is compatible with the streetscape and minimises opportunities for crime and anti-social behaviour, having regard to:</p> <ul style="list-style-type: none"> (a) providing small variations in building alignment to break up long building façades; (b) providing variations in building alignment to provide a forecourt or space for public use, such as outdoor dining or landscaping; (c) the avoidance of concealment spaces; (d) the ability to achieve passive surveillance; and (e) the availability of lighting.
<p>A3</p> <p>Buildings must have a setback from side and rear boundaries adjoining a General Residential Zone, Inner Residential Zone or Low Density Residential Zone not less than:</p> <ul style="list-style-type: none"> (a) 3m; or (b) half the wall height of the building, <p>whichever is the greater.</p>	<p>P3</p> <p>Buildings must be sited to not cause an unreasonable loss of amenity to adjoining properties in a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, having regard to:</p> <ul style="list-style-type: none"> (a) overshadowing and reduction in sunlight to habitable rooms and private open space of dwellings; (b) overlooking and reduction of privacy of adjoining properties; or (c) visual impacts caused by the apparent scale, bulk or proportions of the building when viewed from the adjoining property.
<p>A4</p> <p>Air extraction, pumping, refrigeration systems, compressors or generators must be separated a distance of not less than 10m from a General Residential Zone, Inner Residential Zone or Low Density Residential Zone¹.</p>	<p>P4</p> <p>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators within 10m of a General Residential Zone, Inner Residential Zone or Low Density Residential Zone, must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity to sensitive uses, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics and frequency of any emissions generated; (b) the nature of the proposed use; (c) the topography of the site; and (d) any mitigation measures proposed.

¹ An exemption applies for air conditioners and heat pumps in this zone – see Table 4.6.

29.4.2 Outdoor storage areas

Objective:	That outdoor storage areas do not detract from the appearance of the site or surrounding area.	
Acceptable Solutions		Performance Criteria
A1	Outdoor storage areas, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site.	P1 Outdoor storage areas, excluding for the display of goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity.

29.5 Development Standards for Subdivision

29.5.1 Lot design

Objective:	That each lot: (a) has an area and dimensions appropriate for use and development in the zone; and (b) is provided with appropriate access to a road.	
Acceptable Solutions		Performance Criteria
A1	Each lot, or lot proposed in a plan of subdivision, must: (a) be required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities; or (c) be for the consolidation of a lot with another lot, provided each lot is within the same zone.	P1 Each lot, or lot proposed in a plan of subdivision, must have sufficient useable area and dimensions suitable for its intended use, having regard to: (a) the relevant requirements for development of buildings on the lots; (b) existing buildings and the location of intended buildings on the lot; (c) the topography of the site; (d) the presence of any natural hazards; and (e) the pattern of development existing on established properties in the area.

<p>A2</p> <p>Each lot, or lot proposed in a plan of subdivision, excluding a riparian or littoral reserve or Utilities, must have a frontage not less than 15m.</p>	<p>P2</p> <p>Each lot, or lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway suitable for its intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (b) the topography of the site; (c) the functionality and useability of the frontage; (d) the anticipated nature of vehicles likely to access the site; (e) the ability to manoeuvre vehicles on the site; (f) the ability for emergency services to access the site; and (g) the pattern of development existing on established properties in the area.
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority.</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway; (d) the nature of the road and the traffic; and (e) the pattern of development existing on established properties in the area.

30.0 Future Urban Zone

30.1 Zone Purpose

The purpose of the Future Urban Zone is:

- 30.1.1 To identify land intended for future urban use and development.
- 30.1.2 To ensure that development does not compromise the potential for future urban use and development of the land.
- 30.1.3 To support the planned rezoning of land for urban use and development in sequence with the planned expansion of infrastructure.

30.2 Use Table

Use Class	Qualification
No Permit Required	
Natural and Cultural Values Management	
Passive Recreation	
Permitted	
Residential	If for a single dwelling or home-based business.
Resource Development	If for agricultural use, excluding controlled environment agriculture.
Utilities	If for minor utilities.
Discretionary	
Utilities	If not listed as Permitted.
Prohibited	
All other uses	

30.3 Use Standards

30.3.1 There are no use standards in this zone.

30.4 Development Standards for Buildings and Works

30.4.1 Buildings and works

Objective:	That buildings and works do not prejudice the efficient future utilisation of land for urban development.	
	Acceptable Solutions	Performance Criteria
	<p>A1 Buildings and works must:</p> <ul style="list-style-type: none"> (a) be for an addition to an existing dwelling, a secondary residence or a home-based business; (b) be for a single dwelling and on a lot not more than 1000m² in size; or (c) be of a temporary nature able to be readily removed prior to the development of the land for urban purposes. 	<p>P1 Buildings and works must not preclude or hinder the effective and efficient future subdivision and development of the land to urban densities, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) any existing access arrangements; (c) location of any services; and (d) the purpose, location and extent of any building and works.

30.4.2 Building height, setback and siting

Objective:	That height, setback and siting of buildings:	
	<ul style="list-style-type: none"> (a) is compatible with the future urban development of the area; (b) does not cause an unreasonable loss of amenity; and (c) minimises potential conflict with agricultural uses in an adjoining Agriculture Zone. 	
	Acceptable Solutions	Performance Criteria
	<p>A1 Building height must be not more than 8.5m.</p>	<p>P1 Building height must be compatible with the future urban development of the area and not cause an unreasonable loss of amenity to adjoining properties having regard to:</p> <ul style="list-style-type: none"> (a) the height of the proposed building; (b) the topography of the site; (c) the height, bulk and form of existing buildings on the site and adjoining properties; (d) the bulk and form of proposed buildings; (e) sunlight to habitable rooms and private open space in adjoining buildings; and (f) any overshadowing of adjoining properties or

<p>A2</p> <p>Buildings must have a setback from all boundaries of:</p> <ul style="list-style-type: none"> (a) not less than 5m; or (b) where the setback of an existing building is within 5m, not less than the setbacks of the existing building. 	<p>public places.</p> <p>P2</p> <p>Buildings must be sited to be compatible with the future urban development of the area and not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) the height of the proposed building; (b) the topography of the site; (c) the size, shape and orientation of the site; (d) the setbacks of adjacent buildings; (e) the height, bulk and form of existing and proposed buildings; (f) the appearance when viewed from roads and public places; (g) the character of the development existing on established properties in the area; and (h) any overshadowing of adjoining properties or public places.
<p>A3</p> <p>Buildings for a sensitive use must be separated from a Rural Zone or Agriculture Zone a distance of:</p> <ul style="list-style-type: none"> (a) not less than 200m; or (b) where the setback of an existing building is within 200m, not less than the existing building. 	<p>P3</p> <p>Buildings for a sensitive use must be sited so as to not conflict or interfere with an agricultural use in the Rural Zone or Agriculture Zone, having regard to:</p> <ul style="list-style-type: none"> (a) the size, shape and topography of the site; (b) the separation of any existing buildings for sensitive uses on adjoining properties; (c) the existing and potential use of adjoining properties; and (d) any proposed attenuation measures.

30.5 Development Standards for Subdivision

30.5.1 Lot design

Objective:	That subdivision of land not in accordance with a specific area plan does not prejudice the efficient future utilisation of land for urban development.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be:</p> <ul style="list-style-type: none"> (a) required for public use by the Crown, a council or a State authority; (b) be required for the provision of Utilities; or (c) be for the consolidation of a lot with another lot provided each lot is within the same zone. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be for the excision of an existing dwelling provided that the lot design and layout does not preclude or hinder the effective and efficient future subdivision and development of the land to urban densities, having regard to:</p> <ul style="list-style-type: none"> (a) any existing access arrangements; and (b) the location of any services. 	

C1.0 Signs Code

C1.1 Code Purpose

The purpose of the Signs Code is:

- C1.1.1 To provide for appropriate advertising and display of information for business and community activity.
- C1.1.2 To provide for well-designed signs that are compatible with the visual amenity of the surrounding area.
- C1.1.3 To ensure that signage does not disrupt or compromise safety and efficiency of vehicular or pedestrian movement.

C1.2 Application of this Code

- C1.2.1 Unless otherwise stated in a particular purpose zone, this code applies to all development for signs, unless the following clauses apply:
 - (a) C1.4.2; or
 - (b) C1.4.3.
- C1.2.2 This code does not apply to use.

C1.3 Definition of Terms

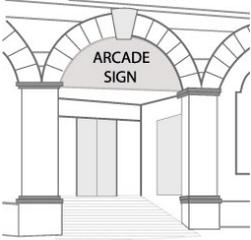
C1.3.1 In this code, unless the contrary intention appears:

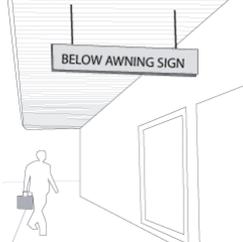
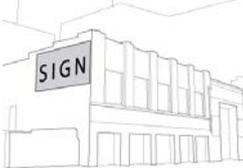
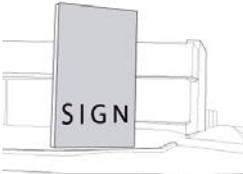
Term	Definition
advertisement	means words, lettering, model, symbol, device, representation, banner, bunting, decorative flag or lights used for the purposes of advertising, announcement or display.
dwelt time	means the length of time a message or image is displayed on a sign with the capacity to change the displayed message, using digital or other method.
illuminated sign	means a sign that uses a light source or sources to display or highlight the content. This includes internally illuminated signs such as neon signs, light boxes and LED (light emitting diode) screens or panels and signs lit by an external source such as a light bulb or floodlight.
third party sign	means a sign that does not relate to the goods or services available on the premises or land to which is it attached.

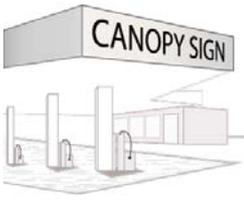
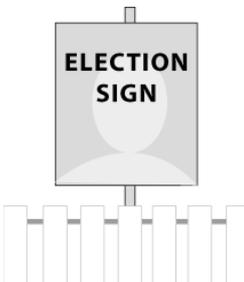
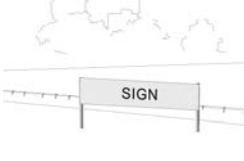
C1.3.2 Sign type definitions

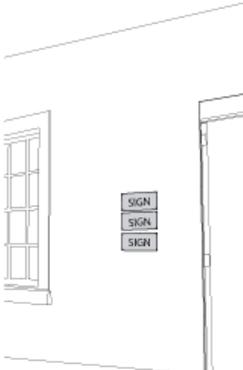
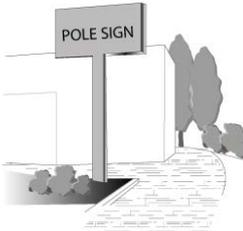
- C1.3.2.1 Each sign must be categorised into one of the defined sign types described below in Table C1.3. If a sign does not readily fit a defined sign type, it must be categorised into the most similar sign type.
- C1.3.2.2 In Table C1.3, the text definitions are to be used to categorise the sign type, and the figures are illustrative only.

Table C1.3 Sign Type Definitions

Sign Type	Definition
above awning sign	 <p>means a sign attached to and supported above an awning, veranda or similar.</p>
arcade sign	 <p>means a sign suspended from or attached to the ceiling of an outside public pedestrian area (but excluding other sign types) that is visible from outside of the building or site.</p>
awning fascia sign	 <p>means a sign attached to the face of an awning.</p>
banner sign - horizontal	 <p>means a sign constructed of light weight non-rigid material, such as cloth, canvas or similar fabric, and where the horizontal dimension is greater than the vertical dimension.</p>
banner sign - vertical	 <p>means a sign constructed of a light-weight, non-rigid material such as cloth, canvas or similar fabric and where the vertical dimension is greater than the horizontal dimension.</p>

<p>below awning sign</p>		<p>means a sign attached to and suspended below an awning, verandah, ceiling or similar.</p>
<p>billboard</p>		<p>means a structure either freestanding or attached to a building designed to accommodate standard billboards, the message of which may be changeable and variable.</p>
<p>blade sign</p>		<p>means a sign that projects vertically from the ground by a single form in which the supports/structure of the sign are concealed within.</p>
<p>building fascia sign</p>		<p>means a sign attached to the fascia of a building.</p>
<p>building site sign</p>		<p>means an impermanent sign which identifies architects, engineers, builders or contractors involved with construction on the premises, the name of the building or development, the intended purpose of the building or development or the expected completion date.</p>
<p>bunting (flag and decorative elements)</p>		<p>means a sign made up of small flags attached to a pole or rope.</p>
<p>business directory</p>		<p>means a sign for a building with multiple tenancies which, identifies the name of the business and its location within the same building and does not contain any product or other advertising content.</p>

<p>cabinet sign</p>		<p>means a lockable compartment with a transparent face for the display of notices and advertising attached to a wall of a building or structure for the display of information within, such as, menus outside a restaurant.</p>
<p>canopy sign</p>		<p>means a sign attached to the perimeter of a canopy on a building for the purpose of shielding from the elements such as, signs on the fascia of a canopy over a service station.</p>
<p>community information sign</p>		<p>means a sign erected by a statutory authority for the purpose of providing community information.</p>
<p>election sign</p>		<p>means an impermanent sign identifying candidates or promoting a political party for local, state or federal government elections.</p>
<p>flag</p>		<p>means a piece of cloth or similar material, typically rectangular or square and attached by one edge to a pole or rope.</p>
<p>ground base sign</p>		<p>means a freestanding sign permanently attached to the ground on its own supportive structure, but not including a pole/pylon sign or a blade sign.</p>
<p>hanging sign</p>		<p>means a sign suspended from a bracket which projects perpendicularly from the wall of a building.</p>

<p>horizontal projecting wall sign</p>	 <p>A line drawing of a building facade with a rectangular sign projecting horizontally from the wall above a window. The sign is labeled 'SIGN'.</p>	<p>means a sign that projects from the street façade of a building and where the horizontal dimension is greater than the vertical dimension.</p>
<p>interpretive sign</p>	 <p>A line drawing of a building with a signpost in front. The signpost has a horizontal sign pointing towards the building and a smaller vertical sign below it. Both are labeled 'SIGN'.</p>	<p>means a sign designed to communicate information about the nature, origin and purpose of historical, natural or cultural resources, objects, sites and phenomena.</p>
<p>name plate</p>	 <p>A line drawing of a building facade with a window and a doorway. Three small rectangular signs are mounted vertically on the wall between the window and the doorway. Each sign is labeled 'SIGN'.</p>	<p>means a single sign identifying one of the occupants of a property used for professional rooms, and attached to the building.</p>
<p>painted wall sign</p>	 <p>A line drawing of a building facade with a window and a doorway. A rectangular sign is painted directly onto the wall below the window and to the left of the doorway. The sign is labeled 'SIGN'.</p>	<p>means a sign painted on the wall of a building other than the transom of a doorway or building fascia.</p>
<p>pole / pylon sign</p>	 <p>A 3D-style illustration of a sign supported by a vertical pole. The sign is rectangular and labeled 'POLE SIGN'. It is situated on a paved area with some landscaping in the background.</p>	<p>means a sign supported by one or more vertical supports, independent of any building or other structure.</p>

<p>portable sign</p>	 <p>means a sign not permanently attached to the ground or to a building or other structure, and is removed on a daily basis.¹</p>
<p>real estate sign</p>	 <p>means a sign erected for the purposes of advertising a parcel of land or building for sale, lease or let.</p>
<p>regulatory sign</p>	<p>means a sign that provides notice of laws, regulations and warnings.</p>
<p>roof sign</p>	 <p>means a sign erected directly on a roof or above a parapet of a building.</p>
<p>sky sign</p>	 <p>means a sign erected directly on the top of the building structure and where the base of the sign is higher than the highest point of the building.</p>
<p>sports ground sign</p>	 <p>means a sign erected within a sports ground.</p>
<p>statutory sign</p>	<p>means a sign that is required to be installed in buildings and is regulated by the Building Code of Australia.</p>
<p>sun blind sign</p>	 <p>means a sign on a canvas or other cloth or metal awning, erectable or fixed, projecting from the face of a building over a door or window.</p>

¹ Portable signs on public land may be controlled by licence under a council's By-Laws.

<p>temporary sign</p>	<p>means an impermanent sign announcing an event of a religious, educational, cultural, social or recreational character erected for a specific period of time.</p>
<p>transom sign</p>	 <p>means a single faced sign erected above the entrance door or display window of a building.</p>
<p>vertical projecting wall sign</p>	 <p>means a sign that projects from the street façade of a building and where the vertical dimension is greater than the horizontal dimension.</p>
<p>wall mural</p>	 <p>means a graphic design that covers the wall of a building and does not convey a defined advertising message.</p>
<p>wall sign</p>	 <p>means a sign attached to the wall of a building.</p>
<p>window sign</p>	 <p>means a sign attached to the inside or outside of a window including windows painted or covered in an opaque finish, for the display of advertisements relating to the goods or services available inside the premises.</p>

C1.4 Development Exempt from this Code

- C1.4.1 A sign listed in Table C1.4 is exempt from this code, provided it complies with the relevant requirements.
- C1.4.2 A sign within a building or site that cannot be, or is not intended to be, seen from outside of the building or site is exempt from requiring a permit.
- C1.4.3 Changes to the graphics of a sign that was lawfully displayed on or after the effective date, including text, graphic design and colour, is exempt provided that:
- (a) the sign has not changed in dimension, proportion or location; and
 - (b) if an illuminated sign, the method of illumination has not changed.

Table C1.4 Exempt Signs

Sign Type	Requirements
awning fascia sign	<p>Must:</p> <ul style="list-style-type: none"> (a) have a maximum vertical dimension of 250mm and not project above or below the fascia of the awning to which it is attached; (b) not be closer than 450mm from a vertical projection of the kerb alignment of any road; (c) have a minimum height above ground level of 2.4m; (d) not be an illuminated sign or third party sign; and (e) not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.
business directory	<p>Must:</p> <ul style="list-style-type: none"> (a) not be placed on the exterior of a building but may be placed within a recessed entrance or doorway and must not project beyond the face of the building; (b) have a maximum vertical dimension of 2m; (c) have a maximum horizontal dimension of 600mm; (d) not be an illuminated sign or third party sign; and (e) not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.
building site sign	Must only be displayed during construction works.
bunting (flag and decorative elements)	Must not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.

Sign Type	Requirements
community information sign	No requirements.
election sign	Must: <ul style="list-style-type: none"> (a) not encroach on any road or other public land; (b) have a maximum area of 1.5m²; (c) not be erected more than 8 weeks before the polling date; and (d) be removed within 7 days after the polling date.
flag	Must: <ul style="list-style-type: none"> (a) be limited to 2 flags per site; (b) have a minimum clearance above ground level of 2.4m; and (c) have a maximum area of 2m² for each flag.
interpretive sign	Must have a maximum area of 2m ² .
name plate	Must: <ul style="list-style-type: none"> (a) be located at the entrance to the building; (b) have a maximum area of 0.5m²; (c) not be an illuminated sign or third party sign; and (d) not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.
portable sign	No requirements.
real estate sign	Must: <ul style="list-style-type: none"> (a) be erected only on the land for which the property is for let, lease or for sale; and (b) be removed within 7 days of the property being sold, leased or let.
regulatory sign	No requirements.
sports ground sign	Must not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.
statutory sign	No requirements.

Sign Type	Requirements
temporary sign	<p>Must:</p> <ul style="list-style-type: none"> (a) have permission from the landowner to erect the sign; (b) have a maximum area of 2.0m²; (c) be displayed for no longer than 30 days before the event; (d) be removed within 7 days of the events completion; (e) not be located within a road; (f) not be attached to a local heritage place listed in the Local Historic Heritage Code; (g) not be attached to trees or other similar vegetation; and (h) be displayed for a maximum of four months.
tourism information sign	<p>Must have written approval from the relevant road authority.</p>
window sign	<p>Must:</p> <ul style="list-style-type: none"> (a) not occupy an area of more than 10% of each window area; (b) be on or behind a ground floor level window; (c) not be an illuminated sign or third party sign; and (d) not be located on a site that is a local heritage place, in a local heritage precinct or local heritage landscape precinct listed under the Local Historic Heritage Code.

C1.5 Use Standards

C1.5.1 There are no Use Standards in this code.

C1.6 Development Standards for Buildings and Works

C1.6.1 Design and siting of signs

Objective:	That: <ul style="list-style-type: none"> (a) signage is well designed and sited; and (b) signs do not contribute to visual clutter or cause an unreasonable loss of visual amenity to the surrounding area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A sign must:</p> <ul style="list-style-type: none"> (a) be located within the applicable zone for the relevant sign type set out in Table C1.6; and (b) meet the sign standards for the relevant sign type set out in Table C1.6, <p>excluding for the following sign types, for which there is no Acceptable Solution:</p> <ul style="list-style-type: none"> (i) roof sign; (ii) sky sign; and (iii) billboard. 	<p>P1.1</p> <p>A sign must:</p> <ul style="list-style-type: none"> (a) be located within an applicable zone for the relevant sign type as set out in Table C1.6; and (b) be compatible with the streetscape or landscape, having regard to: <ul style="list-style-type: none"> (i) the size and dimensions of the sign; (ii) the size and scale of the building upon which the sign is proposed; (iii) the amenity of surrounding properties; (iv) the repetition of messages or information; (v) the number and density of signs on the site and on adjacent properties; and (vi) the impact on the safe and efficient movement of vehicles and pedestrians. <p>P1.2</p> <p>If a roof sign, sky sign or billboard, the sign must:</p> <ul style="list-style-type: none"> (a) be located within the applicable zone for the relevant sign type set out in Table C1.6; (b) meet the sign standards for the relevant sign type in Table C1.6; and (c) not contribute to visual clutter or cause unreasonable loss of amenity to the surrounding area, having regard to: <ul style="list-style-type: none"> (i) the size and dimensions of the sign;

	<ul style="list-style-type: none"> (ii) the size and scale of the building upon which the sign is proposed; (iii) the amenity of surrounding properties; (iv) the repetition of messages or information; (v) the number and density of signs on the site and on adjacent properties; and (vi) the impact on the safe and efficient movement of vehicles and pedestrians.
<p>A2</p> <p>A sign must be not less than 2m from the boundary of any lot in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Rural Living Zone or Landscape Conservation Zone.</p>	<p>P2</p> <p>A sign must not cause an unreasonable loss of amenity to adjoining residential properties, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site and the surrounding area; (b) the relative location of buildings, habitable rooms of dwellings and private open space; (c) any overshadowing; and (d) the nature and type of the sign.
<p>A3</p> <p>The number of signs for each business or tenancy on a road frontage of a building must be no more than:</p> <ul style="list-style-type: none"> (a) 1 of each sign type, unless otherwise stated in Table C1.6; (b) 1 window sign for each window; (c) 3 if the street frontage is less than 20m in length; and (d) 6 if the street frontage is 20m or more, <p>excluding the following sign types, for which there is no limit:</p> <ul style="list-style-type: none"> (i) name plate; and (ii) temporary sign. 	<p>P3</p> <p>The number of signs for each business or tenancy on a street frontage must:</p> <ul style="list-style-type: none"> (a) not unreasonably increase in the existing level of visual clutter in the streetscape, and where possible, reduce any existing visual clutter in the streetscape by replacing existing signs with fewer, more effective signs; and (b) not involve the repetition of messages or information.

C1.6.2 Illuminated signs

<p>Objective:</p>	<p>That:</p> <ul style="list-style-type: none"> (a) illuminated signs are compatible with the streetscape; (b) the cumulative impact of illuminated signs on the character of the area is managed, including the need to avoid visual disorder or clutter of signs; and (c) any potential negative impacts of illuminated signs on road safety and pedestrian movement are minimised.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>An illuminated sign must not cause an unreasonable loss of amenity to adjacent properties or have an unreasonable effect on the safety, appearance or efficiency of a road, and must be compatible with the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the sign; (b) the size of the sign; (c) the intensity of the lighting; (d) the hours of operation of the sign; (e) the purpose of the sign; (f) the sensitivity of the area in terms of view corridors, the natural environment and adjacent residential amenity; (g) the intended purpose of the changing message of the sign; (h) the percentage of the sign that is illuminated with changing messages; (i) proposed dwell time; and (j) whether the sign is visible from the road and if so the proximity to and impact on an electronic traffic control device.
<p>A2</p> <p>An illuminated sign visible from public places in adjacent roads must not create the effect of flashing, animation or movement, unless it is providing direction or safety information.</p>	<p>P2</p> <p>No Performance Criterion.</p>

C1.6.3 Third party sign

Objective:	<p>To:</p> <ul style="list-style-type: none"> (a) provide for third party signs that are compatible with the streetscape and the character of the area in which it is proposed to be located; (b) manage the cumulative impact of third party signs on the character of an area; and (c) minimise any potential impact of third party signs on road safety.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A third party sign must be compatible with the natural and built environment of the surrounding area, having regard to:</p> <ul style="list-style-type: none"> (a) the content of the sign; (b) the necessity for the advertisement to be in the location; (c) opportunities for alternative locations or other methods to achieve the intended purpose (e.g. eligibility for Tasmanian Visitor Information System (TVIS) signs); and (d) the likely impact on the operation and safety of a railway, road, footpath, or navigable water ; and (e) any advice from a State authority.

C1.6.4 Signs on local heritage places and in local heritage precincts and local historic landscape precincts

Objective:	That the size, design and siting of signs is compatible with and does not have an unacceptable impact on the local historic heritage significance of a local heritage place, a local heritage precinct or a local historic landscape precinct as listed in the Local Historic Heritage Code.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A sign located on a site that is a local heritage place, in a local heritage precinct or local historic landscape precinct listed under the Local Historic Heritage Code, must:</p> <ul style="list-style-type: none"> (a) be not more than 0.2m²; (b) not be an illuminated sign; and (c) there must be not more than 1 sign per site. 	<p>P1</p> <p>A sign located on a site that is a local heritage place, in a local heritage precinct or local historic landscape precinct listed under the Local Historic Heritage Code must be located in a manner that does not have an unacceptable impact on the local historic heritage significance of the place or precinct, having regard to:</p> <ul style="list-style-type: none"> (a) placement to allow the architectural details of the building to remain prominent; (b) the size and design not substantially diminishing the local historic heritage significance of the place or precinct; (c) where relevant, placement in a location on the building that would traditionally have been used as an advertising area; (d) any domination or obscuring of any historic signs forming an integral part of a building's architectural detailing or local historic heritage significance; (e) using fixtures that do not and are not likely to damage building fabric; (f) not projecting above a parapet or roof line if such a projection impacts on the local historic heritage significance of the building; and (g) not using internal illumination in a sign on a local heritage place unless it is demonstrated that such illumination will not detract from the local historic heritage significance of the place or precinct.

Table C1.6 Sign Standards

Sign Type	Applicable Zones	Sign Standards
above awning sign	General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine particular purpose	Must: (a) have a maximum vertical dimension of 500mm; and (b) not project beyond the width of the awning or have a maximum horizontal dimension of 2.7m, whichever is the lesser.
arcade sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine Utilities Community Purpose Recreation particular purpose	Must: (a) have a maximum area of 1m ² ; (b) have a maximum vertical dimension of 500mm; (c) have a minimum clearance above ground level of 2.4m; and (d) be limited to 1 arcade sign at each main public entrance or arcade.
awning fascia sign	All zones	Must: (a) have a maximum vertical dimension of 250mm and not project above, or below, the fascia of the awning to which it is attached; (b) not be closer than 450mm from a vertical projection of the kerb alignment of any road; and (c) have a minimum height above ground level of 2.4m.

Sign Type	Applicable Zones	Sign Standards
banner - horizontal sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose Recreation Open Space particular purpose	Must: <ul style="list-style-type: none"> (a) have a maximum vertical dimension of 1m; (b) have a maximum horizontal dimension of 6m; (c) have a minimum clearance above ground level of 5.5m; and (d) have a maximum area of 4m² if attached to a building façade.
banner - vertical sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose Recreation Open Space particular purpose	Must: <ul style="list-style-type: none"> (a) be no higher than 4.2m above the ground; (b) have a minimum clearance above ground level of 2.4m; and (c) have a maximum number of 2 banners per site frontage.

Sign Type	Applicable Zones	Sign Standards
below awning sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) have a maximum vertical dimension of 500mm; (b) have a maximum width of 300mm; (c) not be closer than 450mm from a vertical projection of the kerb line of any road; (d) not project beyond the width of the awning or exceed 2.5m in horizontal dimension whichever is the shorter; and (e) have a minimum clearance above ground level of 2.4m.
billboard	Rural Living Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Agriculture Major Tourism Port and Marine Community Purpose Recreation Open Space particular purpose	<p>Must:</p> <ul style="list-style-type: none"> (a) have a maximum vertical dimension of 3m; (b) have a maximum horizontal dimension of 6m; and (c) not extend vertically or horizontally from the surface to which it is attached.
blade sign	Urban Mixed Use General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine Community Purpose Recreation particular purpose	<p>Must:</p> <ul style="list-style-type: none"> (a) have a maximum vertical dimension of 3.6m; and (b) have a maximum horizontal dimension of 1.2m.

Sign Type	Applicable Zones	Sign Standards
building fascia sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose particular purpose	Must: <ul style="list-style-type: none"> (a) not project above, or below, the fascia of the building; (b) not exceed two thirds the depth of the fascia and must not exceed 1m in vertical dimension; and (c) not project more than 200mm from the vertical face of the fascia.
business directory	All zones	Must: <ul style="list-style-type: none"> (a) have a maximum of 1 sign for each building; (b) have a maximum vertical dimension of 2m; and (c) have a maximum horizontal dimension of 600mm.
cabinet sign	All zones	Must: <ul style="list-style-type: none"> (a) not project more than 40mm from the wall if erected on a wall or structure; (b) not extend vertically or horizontally beyond the wall to which it is attached; and (c) have a maximum area of 2m².
canopy sign	Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine particular purpose	Must: <ul style="list-style-type: none"> (a) have a minimum clearance above ground level of 2.4m; and (b) not be closer than 450mm from a vertical projection of the kerb line of any road.

Sign Type	Applicable Zones	Sign Standards
ground base sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) be limited to 1 ground base sign for each 20m of frontage or part thereof; (b) not be higher than 2.4m above the ground; and (c) have a supportive structure that does not project above the sign face, unless it forms a feature or is incorporated in the sign design.
hanging sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) be limited to 1 hanging sign on each tenancy having frontage; (b) have a maximum vertical dimension of 800mm; (c) have a maximum distance of 200mm from the wall; (d) have a minimum clearance above ground level of 2.4m; (e) not be erected within 2.4m of any existing projecting sign; and (f) not be erected within 1.2m of any side boundary.
horizontal projecting wall sign	Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine particular purpose	<p>Must:</p> <ul style="list-style-type: none"> (a) have a maximum horizontal dimension of 2.7m; (b) have a maximum vertical dimension of 500mm; (c) have a maximum width of 300mm; (d) not be closer than 450mm of a vertical projection of the kerb alignment of the road; (e) have a maximum height above ground level of 3m; and (f) have a minimum clearance above ground level of 2.4m.
name plate	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) be fixed directly to the building; (b) have a maximum area of 0.5m²; and (c) be no higher than 1.8m above the level of the pedestrian access to the building.

Sign Type	Applicable Zones	Sign Standards
<p>painting wall sign</p>	<p>Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose particular purpose</p>	<p>Must:</p> <ul style="list-style-type: none"> (a) be limited to 1 painting wall sign for each site; (b) not exceed 12m²; and (c) not occupy more than 25% of the wall area.
<p>pole / pylon sign</p>	<p>Local Business General Business Central Business Commercial Light Industrial General Industrial Major Tourism Port and Marine Community Purpose Recreation Open Space particular purpose</p>	<p>Must:</p> <ul style="list-style-type: none"> (a) project not more than 1.2m beyond the boundary with the footpath or road reservation; (b) have no more than two faces; (c) have a maximum area of 5m² for each face; (d) have a maximum height above ground level of 5m; and (e) have a clearance from ground level to the sign not less than 2.4m.
<p>roof sign</p>	<p>General Business Central Business Light Industrial General Industrial Port and Marine</p>	<p>Must:</p> <ul style="list-style-type: none"> (a) be not higher than 750mm measured from the top of the roof or parapet; (b) have a maximum vertical dimension of 750mm; (c) have a horizontal dimension of 4.5m; and (d) have no more than two faces.
<p>sky sign</p>	<p>General Business Central Business Light Industrial General Industrial Port and Marine</p>	<p>Must:</p> <ul style="list-style-type: none"> (a) be not higher than 1.8m measured from the top of the roof or parapet; (b) have a maximum vertical dimension of 1.8m; (c) have a horizontal dimension of 4.5m; and (d) have no more than two faces.

Sign Type	Applicable Zones	Sign Standards
sun blind sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) not be closer than 450mm of a vertical projection of the kerb alignment of the road; and (b) have a minimum clearance above ground level of 2.4m.
temporary sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) be displayed for no longer than 30 days before the event; (b) be removed within 14 days of the events completion; (c) not disrupt the safe movement of pedestrians or vehicles; (d) not cause damage to the building fabric of a local heritage place listed under the Local Historic Heritage Code; (e) not be attached to trees or other similar vegetation; and (f) be displayed for a maximum of 4 months.
transom sign	All zones	<p>Must:</p> <ul style="list-style-type: none"> (a) not extend more than 200mm beyond the wall or building alignment; (b) not extend beyond or below the level of the head of the doorway or window above which it is attached; (c) have a maximum vertical dimension of 500mm; and (d) have a maximum height above ground level of 3.6m.

Sign Type	Applicable Zones	Sign Standards
vertical projecting wall sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Community Purpose Recreation particular purpose	Must: <ul style="list-style-type: none"> (a) have a maximum projection of 1.2m from the wall; (b) have no part of the sign above the eaves or the parapet of the façade, and not be higher than 6m above the ground; (c) have a minimum distance of 1.2m from any side boundary; (d) have a maximum vertical dimension of 2.4m; (e) have a maximum width of 300mm; and (f) have a minimum clearance above ground level of 3.6m.
wall sign	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose particular purpose	Must: <ul style="list-style-type: none"> (a) must not extend beyond the wall or above the top of the wall to which it is attached; (b) have a maximum area of 4.5m²; and (c) must not occupy more than 25% of the wall area.

Sign Type	Applicable Zones	Sign Standards
wall mural	Village Urban Mixed Use Local Business General Business Central Business Commercial Light Industrial General Industrial Rural Environmental Management Major Tourism Port and Marine Utilities Community Purpose Recreation Open Space particular purpose	Must not extend beyond the wall or above the top of the wall to which it is attached.
window sign	All zones	Must not occupy more than 25% of each window area.

C2.0 Parking and Sustainable Transport Code

C2.1 Code Purpose

The purpose of the Parking and Sustainable Transport Code is:

- C2.1.1 To ensure that an appropriate level of parking facilities is provided to service use and development.
- C2.1.2 To ensure that cycling, walking and public transport are encouraged as a means of transport in urban areas.
- C2.1.3 To ensure that access for pedestrians, vehicles and cyclists is safe and adequate.
- C2.1.4 To ensure that parking does not cause an unreasonable loss of amenity to the surrounding area.
- C2.1.5 To ensure that parking spaces and accesses meet appropriate standards.
- C2.1.6 To provide for parking precincts and pedestrian priority streets.

C2.2 Application of this Code

C2.2.1 Unless stated otherwise in a particular purpose zone, or sub-clause C2.2.2, C2.2.3 or C2.2.4, this code applies to all use and development.

C2.2.2 Clause C2.5.3 only applies to use and development in the following Use Classes:

- (a) Business and Professional Services;
- (b) Community Meeting and Entertainment;
- (c) Custodial Facility;
- (d) Crematoria and Cemeteries;
- (e) Educational and Occasional Care;
- (f) Food Services;
- (g) General Retail and Hire;
- (h) Hospital Services;
- (i) Hotel Industry;
- (j) Pleasure Boat Facility;
- (k) Residential if for a communal residence, multiple dwellings or hostel use;
- (l) Sports and Recreation; and
- (m) Tourist Operation.

C2.2.3 Clause C2.5.4 only applies to use and development in the following Use Classes:

- (a) Bulky Goods Sales;
- (b) General Retail and Hire;
- (c) Manufacturing and Processing; and
- (d) Storage.

C2.2.4 Clause C2.5.5 only applies to use and development in the following Use Classes:

- (a) Business and Professional Services;
- (b) Community Meeting and Entertainment;
- (c) Educational and Occasional Care;
- (d) Emergency Services;
- (e) Food Services;
- (f) General Retail and Hire;
- (g) Sports and Recreation; and
- (h) Utilities, if not for minor utilities.

C2.3 Definition of Terms

C2.3.1 In this code, unless the contrary intention appears:

Term	Definition
floor area	means the gross floor area, excluding the area of stairs, loading bays, access ways, or parking areas, of any area occupied by machinery required for air conditioning, heating, power supply, or lifts.
no requirement	means the use or development is not required to provide any on-site parking.
parking precinct plan	means a plan relating to on-site parking of cars within a defined area of land, shown on an overlay map in the relevant Local Provisions Schedule.
pedestrian priority street	means a road shown on an overlay map in the relevant Local Provisions Schedule, as having active street frontages where pedestrian movement and activity take priority over siting of vehicle parking and access.

C2.4 Use or Development Exempt from this Code

C2.4.1 There are no exemptions to this code.

C2.5 Use Standards

C2.5.1 Car parking numbers

Objective:	That an appropriate level of car parking spaces are provided to meet the needs of the use.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>The number of on-site car parking spaces must be no less than the number specified in Table C2.1, excluding if:</p> <ul style="list-style-type: none"> (a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan; (b) the site is contained within a parking precinct plan and subject to Clause C2.7; (c) the site is subject to Clause C2.5.5; or (d) it relates to an intensification of an existing use or development or a change of use where: <ul style="list-style-type: none"> (i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is greater than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case no additional on-site car parking is required; or (ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 is less than the number of car parking spaces specified in Table C2.1 for the proposed use or development, in which case on-site car parking must be calculated as follows: $N = A + (C - B)$ <p>N = Number of on-site car parking spaces required</p> <p>A = Number of existing on site car parking spaces</p> <p>B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1</p> <p>C = Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1.</p> 	<p>P1.1</p> <p>The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to:</p> <ul style="list-style-type: none"> (a) the availability of off-street public car parking spaces within reasonable walking distance of the site; (b) the ability of multiple users to share spaces because of: <ul style="list-style-type: none"> (i) variations in car parking demand over time; or (ii) efficiencies gained by consolidation of car parking spaces; (c) the availability and frequency of public transport within reasonable walking distance of the site; (d) the availability and frequency of other transport alternatives; (e) any site constraints such as existing buildings, slope, drainage, vegetation and landscaping; (f) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity; (g) the effect on streetscape; and (h) any assessment by a suitably qualified person of the actual car parking demand determined having regard to the scale and nature of the use and development. <p>P1.2</p> <p>The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to:</p> <ul style="list-style-type: none"> (a) the nature and intensity of the use and car parking required; (b) the size of the dwelling and the number of bedrooms; and (c) the pattern of parking in the surrounding area. 	

C2.5.2 Bicycle parking numbers

Objective:	That an appropriate level of bicycle parking spaces are provided to meet the needs of the use.	
Acceptable Solutions		Performance Criteria
A1	<p>Bicycle parking spaces must:</p> <ul style="list-style-type: none"> (a) be provided on the site or within 50m of the site; and (b) be no less than the number specified in Table C2.1. 	<p>P1</p> <p>Bicycle parking spaces must be provided to meet the reasonable needs of the use, having regard to:</p> <ul style="list-style-type: none"> (a) the likely number of users of the site and their opportunities and likely need to travel by bicycle; and (b) the availability and accessibility of existing and any planned parking facilities for bicycles in the surrounding area.

C2.5.3 Motorcycle parking numbers

Objective:	That the appropriate level of motorcycle parking is provided to meet the needs of the use.	
Acceptable Solutions		Performance Criteria
A1	<p>The number of on-site motorcycle parking spaces for all uses must:</p> <ul style="list-style-type: none"> (a) be no less than the number specified in Table C2.4; and (b) if an existing use or development is extended or intensified, the number of on-site motorcycle parking spaces must be based on the proposed extension or intensification, provided the existing number of motorcycle parking spaces is maintained. 	<p>P1</p> <p>Motorcycle parking spaces for all uses must be provided to meet the reasonable needs of the use, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the proposed use and development; (b) the topography of the site; (c) the location of existing buildings on the site; (d) any constraints imposed by existing development; and (e) the availability and accessibility of motorcycle parking spaces on the street or in the surrounding area.

C2.5.4 Loading Bays

Objective:	That adequate access for goods delivery and collection is provided, and to avoid unreasonable loss of amenity and adverse impacts on traffic flows.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A loading bay must be provided for uses with a floor area of more than 1000m² in a single occupancy.</p>	<p>P1</p> <p>Adequate space for loading and unloading of vehicles must be provided, having regard to:</p> <ul style="list-style-type: none"> (a) the type of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the location of the site; (e) the nature of traffic in the surrounding area; (f) the area and dimensions of the site; and (g) the topography of the site; (h) the location of existing buildings on the site; and (i) any constraints imposed by existing development.

C2.5.5 Number of car parking spaces within the General Residential Zone and Inner Residential Zone

<p>Objective:</p>	<p>To:</p> <ul style="list-style-type: none"> (a) facilitate the reuse of existing non-residential buildings within the General Residential Zone and Inner Residential Zone; and (b) to not cause an unreasonable impact on residential amenity by the car parking generated by that reuse.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Within existing non-residential buildings in the General Residential Zone and Inner Residential Zone, on-site car parking is not required for:</p> <ul style="list-style-type: none"> (a) Food Services uses up to 100m² floor area or 30 seats, whichever is the greater; and (b) General Retail and Hire uses up to 100m² floor area, <p>provided the use complies with the hours of operation specified in the relevant Acceptable Solution for the relevant zone.</p>	<p>P1</p> <p>Within existing non-residential buildings in the General Residential Zone and Inner Residential Zone, the number of on-site car parking spaces must be sufficient to meet the reasonable needs of users and must not cause an unreasonable impact on residential amenity, having regard to:</p> <ul style="list-style-type: none"> (a) car parking demand generated by the proposed use during its proposed hours of operation; (b) the availability of on-street and public car parking in the surrounding area; (c) the availability and frequency of public transport within a 400m walking distance of the site; (d) the availability and likely use of other modes of transport; (e) the availability and suitability of alternative arrangements for car parking provision; (f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces; (g) any car parking deficiency or surplus associated with the existing use of the land; (h) any relevant parking plan for the area adopted by council; (i) any existing on-street car parking restrictions; and (j) the proportion of residential properties without off-street parking within a 100m radius of the subject site.

C2.6 Development Standards for Buildings and Works

C2.6.1 Construction of parking areas

Objective:	That parking areas are constructed to an appropriate standard.	
Acceptable Solutions		Performance Criteria
A1	<p>All parking, access ways, manoeuvring and circulation spaces must:</p> <ul style="list-style-type: none"> (a) be constructed with a durable all weather pavement; (b) be drained to the public stormwater system, or contain stormwater on the site; and (c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement. 	<p>P1</p> <p>All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the use; (b) the topography of the land; (c) the drainage system available; (d) the likelihood of transporting sediment or debris from the site onto a road or public place; (e) the likelihood of generating dust; and (f) the nature of the proposed surfacing.

C2.6.2 Design and layout of parking areas

Objective:	That parking areas are designed and laid out to provide convenient, safe and efficient parking.	
Acceptable Solutions		Performance Criteria
A1.1	<p>Parking, access ways, manoeuvring and circulation spaces must either:</p> <ul style="list-style-type: none"> (a) comply with the following: <ul style="list-style-type: none"> (i) have a gradient in accordance with <i>Australian Standard AS 2890 - Parking facilities, Parts 1-6</i>; (ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces; (iii) have an access width not less than the requirements in Table C2.2; (iv) have car parking space dimensions which satisfy the requirements in Table C2.3; (v) have a combined access and manoeuvring 	<p>P1</p> <p>All parking, access ways, manoeuvring and circulation spaces must be designed and readily identifiable to provide convenient, safe and efficient parking, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics of the site; (b) the proposed slope, dimensions and layout; (c) useability in all weather conditions; (d) vehicle and pedestrian traffic safety; (e) the nature and use of the development; (f) the expected number and type of vehicles; (g) the likely use of the parking areas by persons with a disability; (h) the nature of traffic in the surrounding area;

<p>width adjacent to parking spaces not less than the requirements in Table C2.3 where there are 3 or more car parking spaces;</p> <p>(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and</p> <p>(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or</p> <p>(b) comply with <i>Australian Standard AS 2890- Parking facilities, Parts 1-6.</i></p> <p>A1.2</p> <p>Parking spaces provided for use by persons with a disability must satisfy the following:</p> <p>(a) be located as close as practicable to the main entry point to the building;</p> <p>(b) be incorporated into the overall car park design; and</p> <p>(c) be designed and constructed in accordance with <i>Australian/New Zealand Standard AS/NZS 2890.6:2009 Parking facilities, Off-street parking for people with disabilities.</i>¹</p>	<p>(i) the proposed means of parking delineation; and</p> <p>(j) the provisions of <i>Australian Standard AS 2890.1:2004 - Parking facilities, Part 1: Off-street car parking</i> and <i>AS 2890.2 -2002 Parking facilities, Part 2: Off-street commercial vehicle facilities.</i></p>
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¹ Requirements for the number of accessible car parking spaces are specified in part D3 of the National Construction Code 2016.

C2.6.3 Number of accesses for vehicles

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) access to land is provided which is safe and efficient for users of the land and all road network users, including but not limited to drivers, passengers, pedestrians and cyclists by minimising the number of vehicle accesses; (b) accesses do not cause an unreasonable loss of amenity of adjoining uses; and (c) the number of accesses minimise impacts on the streetscape.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>The number of accesses provided for each frontage must:</p> <ul style="list-style-type: none"> (a) be no more than 1; or (b) no more than the existing number of accesses, whichever is the greater. 	<p>P1</p> <p>The number of accesses for each frontage must be minimised, having regard to:</p> <ul style="list-style-type: none"> (a) any loss of on-street parking; and (b) pedestrian safety and amenity; (c) traffic safety; (d) residential amenity on adjoining land; and (e) the impact on the streetscape.
<p>A2</p> <p>Within the Central Business Zone or in a pedestrian priority street no new access is provided unless an existing access is removed.</p>	<p>P2</p> <p>Within the Central Business Zone or in a pedestrian priority street, any new accesses must:</p> <ul style="list-style-type: none"> (a) not have an adverse impact on: <ul style="list-style-type: none"> (i) pedestrian safety and amenity; or (ii) traffic safety; and (b) be compatible with the streetscape.

C2.6.4 Lighting of parking areas within the General Business Zone and Central Business Zone

<p>Objective:</p>	<p>That parking and vehicle circulation roads and pedestrian paths within the General Business Zone and Central Business Zone, which are used outside daylight hours, are provided with lighting to a standard which:</p> <ul style="list-style-type: none"> (a) enables easy and efficient use; (b) promotes the safety of users; (c) minimises opportunities for crime or anti-social behaviour; and (d) prevents unreasonable light overspill impacts.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>In car parks within the General Business Zone and Central Business Zone, parking and vehicle circulation roads and pedestrian paths serving 5 or more car parking spaces, which are used outside daylight hours, must be provided with lighting in accordance with Clause 3.1 “Basis of Design” and Clause 3.6 “Car Parks” in <i>Australian Standard/New Zealand Standard AS/NZS 1158.3.1:2005 Lighting for roads and public spaces Part 3.1: Pedestrian area (Category P) lighting – Performance and design requirements</i>.</p>	<p>P1</p> <p>In car parks within the General Business Zone and Central Business Zone, parking and vehicle circulation roadways and pedestrian paths, which are used outside daylight hours must be provided with lighting, having regard to:</p> <ul style="list-style-type: none"> (a) enabling easy and efficient use of the area; (b) minimising potential for conflicts involving pedestrians, cyclists and vehicles; (c) minimising opportunities for crime or anti-social behaviour though the creation of concealment spaces; (d) any unreasonable impact on the amenity of adjoining properties through light overspill; and (e) the hours of operation of the use.

C2.6.5 Pedestrian access

Objective:	That pedestrian access within parking areas is provided in a safe and convenient manner.
Acceptable Solutions	Performance Criteria
<p>A1.1</p> <p>Uses that require 10 or more car parking spaces must:</p> <p>(a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:</p> <p>(i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or</p> <p>(ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and</p> <p>(b) be signed and line marked at points where pedestrians cross access ways or parking aisles.</p> <p>A1.2</p> <p>In parking areas containing accessible car parking spaces for use by persons with a disability, a footpath having a width not less than 1.5m and a gradient not steeper than 1 in 14 is required from those spaces to the main entry point to the building.</p>	<p>P1</p> <p>Safe and convenient pedestrian access must be provided within parking areas, having regard to:</p> <p>(a) the characteristics of the site;</p> <p>(b) the nature of the use;</p> <p>(c) the number of parking spaces;</p> <p>(d) the frequency of vehicle movements;</p> <p>(e) the needs of persons with a disability;</p> <p>(f) the location and number of footpath crossings;</p> <p>(g) vehicle and pedestrian traffic safety;</p> <p>(h) the location of any access ways or parking aisles; and</p> <p>(i) any protective devices proposed for pedestrian safety.</p>

C2.6.6 Loading bays

Objective:	That the area and dimensions of loading bays are adequate to provide safe and efficient delivery and collection of goods.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>The area and dimensions of loading bays and access way areas must be designed in accordance with <i>Australian Standard AS 2890.2–2002, Parking facilities, Part 2: Off-street commercial vehicle facilities</i>, for the type of vehicles likely to use the site.</p>	<p>P1</p> <p>Loading bays must have an area and dimensions suitable for the use, having regard to:</p> <ul style="list-style-type: none"> (a) the types of vehicles likely to use the site; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the area and dimensions of the site; (e) the topography of the site; (f) the location of existing buildings on the site; and (g) any constraints imposed by existing development. 	
<p>A2</p> <p>The type of commercial vehicles likely to use the site must be able to enter, park and exit the site in a forward direction in accordance with <i>Australian Standard AS 2890.2 – 2002, Parking Facilities, Part 2: Parking facilities - Off-street commercial vehicle facilities</i>.</p>	<p>P2</p> <p>Access for commercial vehicles to and from the site must be safe, having regard to:</p> <ul style="list-style-type: none"> (a) the types of vehicles associated with the use; (b) the nature of the use; (c) the frequency of loading and unloading; (d) the area and dimensions of the site; (e) the location of the site and nature of traffic in the area of the site; (f) the effectiveness or efficiency of the surrounding road network; and (g) site constraints such as existing buildings, slope, drainage, vegetation, parking and landscaping. 	

C2.6.7 Bicycle parking and storage facilities within the General Business Zone and Central Business Zone

Objective:	That parking for bicycles are safe, secure and convenient, within the General Business Zone and Central Business Zone.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Bicycle parking for uses that require 5 or more bicycle spaces in Table C2.1 must:</p> <ul style="list-style-type: none"> (a) be accessible from a road, cycle path, bicycle lane, shared path or access way; (b) be located within 50m from an entrance; (c) be visible from the main entrance or otherwise signed; and (d) be available and adequately lit during the times they will be used, in accordance with Table 2.3 of <i>Australian/New Zealand Standard AS/NZS 1158.3.1: 2005 Lighting for roads and public spaces - Pedestrian area (Category P) lighting - Performance and design requirements.</i> 	<p>P1</p> <p>Bicycle parking must be provided in a safe, secure and convenient location, having regard to:</p> <ul style="list-style-type: none"> (a) the accessibility to the site; (b) the characteristics of the site; (c) the nature of the proposed use; (d) the number of employees; (e) the users of the site and the likelihood of travel by bicycle; (f) the location and visibility of proposed parking for bicycles; (g) whether there are other parking areas on the site; and (h) the opportunity for sharing bicycle parking on nearby sites. 	
<p>A2</p> <p>Bicycle parking spaces must:</p> <ul style="list-style-type: none"> (a) have dimensions not less than: <ul style="list-style-type: none"> (i) 1.7m in length; (ii) 1.2m in height; and (iii) 0.7m in width at the handlebars; (b) have unobstructed access with a width of not less than 2m and a gradient not steeper than 5% from a road, cycle path, bicycle lane, shared path or access way; and (c) include a rail or hoop to lock a bicycle that satisfies <i>Australian Standard AS 2890.3-2015 Parking facilities - Part 3: Bicycle parking.</i> 	<p>P2</p> <p>Bicycle parking spaces and access must be convenient, safe, secure and efficient to use, having regard to:</p> <ul style="list-style-type: none"> (a) the characteristics of the site; (b) the space available; (c) the safety of cyclists; and (d) the provisions of <i>Australian Standard AS 2890.3-2015 Parking facilities - Part 3: Bicycle parking.</i> 	

C2.6.8 Siting of parking and turning areas

Objective:	That the siting of vehicle parking and access facilities in an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone, General Business Zone or Central Business Zone does not cause an unreasonable visual impact on streetscape character or loss of amenity to adjoining properties.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Within an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone or General Business Zone, parking spaces and vehicle turning areas, including garages or covered parking areas must be located behind the building line of buildings, excluding if a parking area is already provided in front of the building line.</p>	<p>P1</p> <p>Within an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone or General Business Zone, parking spaces and vehicle turning areas, including garages or covered parking areas, may be located in front of the building line where this is the only practical solution and does not cause an unreasonable loss of amenity to adjoining properties, having regard to:</p> <ul style="list-style-type: none"> (a) topographical or other site constraints; (b) availability of space behind the building line; (c) availability of space for vehicle access to the side or rear of the property; (d) the gradient between the front and the rear of existing or proposed buildings; (e) the length of access or shared access required to service the car parking; (f) the location of the access driveway at least 2.5m from a window of a habitable room of a dwelling; (g) the visual impact of the vehicle parking and access on the site; (h) the streetscape character and amenity; (i) the nature of the zone in which the site is located and its preferred uses; and (j) opportunities for passive surveillance of the road.

<p>A2</p> <p>Within the Central Business Zone, on-site parking at ground level adjacent to a frontage must:</p> <ul style="list-style-type: none">(a) have no new vehicle accesses, unless an existing access is removed;(b) retain an active street frontage; and(c) not result in parked cars being visible from public places in the adjacent roads.	<p>P2</p> <p>Within the Central Business Zone, on-site parking at ground level adjacent to a frontage must be designed to screen the views of cars from public places in the adjacent roads, without blank walls facing onto a road, having regard to:</p> <ul style="list-style-type: none">(a) the streetscape;(b) any unreasonable loss of amenity of the occupants of adjoining properties; and(c) maintaining opportunities for active uses on a street frontage in a pedestrian priority street.
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C2.7 Parking Precinct Plan

C2.7.1 Parking precinct plan

Objective:	To minimise the amount of on-site car parking spaces within an area defined by a parking precinct plan, and that parking does not detract from the streetscape of the area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Within a parking precinct plan, on-site car parking must:</p> <ul style="list-style-type: none"> (a) not be provided; or (b) not be increased above existing parking numbers. 	<p>P1</p> <p>Within a parking precinct plan, on-site car parking must be necessary for the operation of the use and not detract from the streetscape, having regard to:</p> <ul style="list-style-type: none"> (a) the availability of off-street public parking spaces within reasonable walking distance; (b) the ability of multiple users to share spaces because of: <ul style="list-style-type: none"> (i) variations in parking demand over time; or (ii) efficiencies gained by consolidation of parking spaces; (c) the availability and frequency of public transport within reasonable walking distance of the site; (d) the availability and frequency of other transport alternatives; (e) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity; (f) the streetscape; (g) the topography of the site; (h) the location of existing buildings on the site; (i) any constraints imposed by existing development; and (j) any assessment by a suitably qualified person of the actual parking demand, determined having regard to the scale and nature of the use and development, and <p>not exceed the number specified in Table C2.1.</p>

Table C2.1 Parking Space Requirements

Use		Parking Space Requirements	
		Car	Bicycle
Bulky Goods Sales	Motor vehicle, boat or caravan sales	1 space per 100m ² of display, storage and workshop floor area	1 space per 500m ² of floor area
	Retail plant nursery	15 spaces or 0.5 spaces per 100m ² of site area, whichever is greater	No requirement
	Bulky Goods Sales, excluding as otherwise specified in this Table	1 space per 50m ² of floor area	1 space per 500m ² of floor area
Business and Professional Services	Bank, real estate agency, travel agent	1 space per 50m ² of floor area	1 space per 500m ² of floor area
	Office	1 space per 40m ² of floor area	1 space per 500m ² of floor area
	Doctors' surgery, clinic, consulting room	4 spaces per practitioner	2 spaces for each 8 practitioners
	Veterinary centre	4 spaces per practitioner	No requirement
	Funeral parlour	1 space per employee + 1 visitor space + 1 space per 4 chapel seats	1 space per 50 chapel seats
	Business and Professional Services, excluding as otherwise specified in this Table	1 space per 30m ² of floor area	1 space per 500m ² of floor area
Community Meeting and Entertainment	Art and craft centre	1 space per 30m ² of floor area	1 space per 50m ² floor area or 1 space per 40 seats whichever is greater
	Exhibition centre, library, museum or public art gallery	1 space per 20m ² of floor area	4 spaces plus 2 spaces for each 1500m ² of floor area
	Cinema, place of worship, civic centre, function centre, public hall, theatre	1 space per 15m ² of floor area, or 1 space per 3 seats, whichever is greater	1 space per 50m ² floor area or 1 space per 40 seats whichever is greater
	Community Meeting and Entertainment, excluding as otherwise specified in this Table	1 space per 15m ² of floor area or 1 space per 4 seats, whichever is greater	1 space per 50m ² floor area or 1 space per 40 seats whichever is greater
Custodial Facility		1 space per 2 employees + 1 space per 5 inmates	No requirement
Crematoria and Cemeteries		1 space per employee + 1 visitor space + 1 space per 4 chapel seats	1 space per 50 chapel seats
Domestic Animal Breeding, Boarding or Training		1 space per employee + 2 visitor spaces	No requirement

Use		Parking Space Requirements	
		Car	Bicycle
Educational and Occasional Care		1 space per employee + 1 space per 6 tertiary education students	1 space per 5 employees and tertiary education students
Emergency Services	Fire/ambulance	1 space per employee	No requirement
	Emergency Services, excluding as otherwise specified in this Table	No requirement	No requirement
Equipment and Machinery Sales and Hire		1 space per 50m ² of floor area	No requirement
Extractive Industry		1 space per 2 employees	No requirement
Food Services	Restaurant	1 space per 15m ² of floor area (including any outdoor dining areas) + 6 queuing spaces for drive through (if applicable), unless subject to Clause C2.5.5	1 space per 75m ² floor area
	Take away food premises	1 space per 15m ² of floor area (including any outdoor dining areas) + 6 queuing spaces for drive through (if applicable), unless subject to Clause C2.5.5	1 space per 75m ² floor area
	Food Services, excluding as otherwise specified in this Table	15 for each 100m ² of floor area or 1 space per 3 seats, whichever is greater, unless subject to Clause C2.5.5	1 space per 75m ² floor area
General Retail and Hire	Drive-in bottle shop, if associated with a Hotel Industry	6 spaces	No requirement
	General Retail and Hire, excluding as otherwise specified in this table	1 space per 30m ² of floor area, unless subject to Clause C2.5.5	1 space per 100m ² of floor area
Hospital Services		1 space per 4 beds + 1 space per doctor + 1 space per 2 other employees	1 space per 10 beds
Hotel Industry		1 space per 20m ² of floor area available to the public + 1 space per bedroom	1 space per 100m ² of floor area available to the public
Manufacturing and Processing		1 space per 200m ² of floor area or 2 spaces per 3 employees, whichever is greater	1 space per 5 employees
Motor Racing Facility		No requirement	No requirement
Natural and Cultural Values Management		No requirement	No requirement
Passive Recreation		No requirement	No requirement
Pleasure Boat Facility	Marina	0.6 spaces for each wet berth and 0.2 spaces for each dry storage berth and 0.5 spaces per marina employee	No requirement
	Boathouse	0.5 space for each boathouse	No requirement

Use		Parking Space Requirements	
		Car	Bicycle
	Pleasure Boat Facility, excluding as otherwise specified in this Table	No requirement	No requirement
Port and Shipping		No requirement	No requirement
Recycling and Waste Disposal		1 space per 500m ² of site area + 1 space per employee	No requirement
Research and Development		1 space per 100m ² of floor area or 2 spaces per 3 employees, whichever is greater	No requirement
Residential	If a 1 bedroom or studio dwelling in the General Residential Zone (including all rooms capable of being used as a bedroom)	1 space per dwelling	No requirement
	If a 2 or more bedroom dwelling in the General Residential Zone (including all rooms capable of being used as a bedroom)	2 spaces per dwelling	No requirement
	Visitor parking for multiple dwellings in the General Residential Zone	1 dedicated space per 4 dwellings (rounded up to the nearest whole number); or if on an internal lot or located at the head of a cul-de-sac, 1 dedicated space per 3 dwellings (rounded up to the nearest whole number)	No requirement
	Other Residential use in the General Residential Zone	1 space per bedroom or 2 spaces per 3 bedrooms + 1 visitor space for every 10 bedrooms (rounded up to the nearest whole number)	No requirement for residential care facility, assisted housing and retirement village. All other uses require 1 space per 5 bedrooms in other forms of accommodation.
	Any Residential use in any other zone	1 space per bedroom or 2 spaces per 3 bedrooms + 1 visitor space for every 5 multiple dwellings or every 10 bedrooms for a non-dwelling residential use (rounded up to the nearest whole number)	No requirement for single dwellings, multiple dwellings, residential care facility, assisted housing and retirement village. All other uses require 1 space per 5 bedrooms in other forms of accommodation.

Use		Parking Space Requirements	
		Car	Bicycle
Resource Development	Aquaculture	2 spaces per 3 employees	No requirement
	Resource development, excluding as otherwise specified in this Table	No requirement	No requirement
Resource Processing		2 spaces per 3 employees	1 space per 5 employees
Service Industry		1 space per 80m ² of floor area or 2 spaces per 3 employees, whichever is greater	1 space per 5 employees
Sports and Recreation	Bowling green	6 spaces per bowling rink	No requirement
	Fitness centre	4.5 spaces per 100m ² of floor area	No requirement
	Golf course	4 spaces per golf hole	No requirement
	Swimming pool (other than in conjunction with a single dwelling)	5 spaces for each 100m ² of site area	1 space per 100m ² of site area
	Tennis court or Squash court (other than in conjunction with a single dwelling)	3 spaces for each tennis or squash court + 1 space per 5 spectator places	No requirement
	Major Sporting Facility	1 space per 5 seats	No requirement
Sports and Recreation, excluding as otherwise specified in this Table		50 spaces per facility	No requirement
Storage		1 space per 200m ² of the site area or 1 space per 2 employees, whichever is greater	No requirement
Tourist Operation		1 space per 200m ² of floor area or 1 space for each 500m ² of the site area, whichever is greater	1 space per 1000m ² of floor area or 1 space per 500m ² of site area, whichever is the greater
Transport Depot and Distribution		3.5 spaces for each 100m ² of gross floor area	1 space per 5 employees
Utilities		No requirement	No requirement
Vehicle Fuel Sales and Service		4 spaces per service bay	1 space per 5 employees
Vehicle Parking		No requirement	No requirement
Visitor Accommodation		1 space per self-contained accommodation unit, allocated tent or caravan space, or 1 space per 4 beds, whichever is the greater	No requirement

Notes to Table C2.1:

- (1) The number of parking spaces required is to be calculated based on the proposed use or development.
- (2) Parking spaces must be individually accessible, excluding tandem parking spaces which may be used to serve a dwelling.
- (3) Excluding visitor parking for multiple dwellings in the General Residential Zone, fractions of a space are to be rounded to the nearest whole number, so that a full number of spaces is provided for any fraction of

a quota of floor area or number of employees.

- (4) Where a proposal contains multiple Use Classes, the car parking requirements must be calculated as the sum of the requirements for each individual use component.
- (5) Reference to an employee is equivalent to 1 full-time employee.

Table C2.2 Internal Access Way Widths for Vehicles

Number of parking spaces served	Internal access way widths	Passing bay dimensions for two-way traffic in addition to the access way width
1 to 5	A width not less than 3m.	2m wide by 5m long, plus entry and exit tapers, every 30m, unless on land within the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone or Open Space Zone.
6 to 20	(a) A width not less than 4.5m for the first 7m from the road carriageway and 3m thereafter, and (b) At changes of direction or intersections have: (i) an internal radius of not less than 4m, or (ii) a width more than 4.2m.	2m wide by 5m long, plus entry and exit tapers, every 30m.
21 and over	A width not less than 5.5m.	Not applicable

Table C2.3 Dimensions of Car Parking Spaces and Combined Access and Manoeuvring Space Adjacent to Parking Spaces

Angle of car spaces to manoeuvring space	Combined access and manoeuvring width	Car park widths	Car park length
Parallel	3.6m	2.3m	6.7m
45 degrees	3.5m	2.6m	5.4m
60 degrees	4.9m	2.6m	5.4m
90 degrees	6.4m	2.6m	5.4m
90 degrees	5.8m	2.8m	5.4m
90 degrees	5.2m	3m	5.4m
90 degrees	4.8m	3.2m	5.4m

Notes to Table C2.3:

- (1) If entry to the car space is from a road, the combined access and manoeuvring width may include the road.

Table C2.4 Motorcycle Parking Space Requirements

Number of car parking spaces required for a use	Number of motorcycle parking spaces required for a use
0-20	No requirement
21-40	1 space
41 or more	1 space for every additional 20 car parking spaces required

C3.0 Road and Railway Assets Code

C3.1 Code Purpose

The purpose of the Road and Railway Assets Code is:

- C3.1.1 To protect the safety and efficiency of the road and railway networks; and
- C3.1.2 To reduce conflicts between sensitive uses and major roads and the rail network.

C3.2 Application of this Code

C3.2.1 This code applies to a use or development that:

- (a) will increase the amount of vehicular traffic or the number of movements of vehicles longer than 5.5m using an existing vehicle crossing or private level crossing;
- (b) will require a new vehicle crossing, junction or level crossing; or
- (c) involves a subdivision or habitable building within a road or railway attenuation area if for a sensitive use.

C3.3 Definition of Terms

C3.3.1 In this code, unless the contrary intention appears:

Term	Definition
annual average daily traffic	means the number of vehicles per day averaged over all days in a calendar year.
category 1 road	means a category 1 road as defined in the <i>State Road Hierarchy</i> .
future major road	means land within which a major road is intended to be built shown as a future major road on an overlay map in the relevant Local Provisions Schedule.
future railway	means land on which an extension to the rail network is intended to be built shown as a future railway on an overlay map in the relevant Local Provisions Schedule.
limited access road	means a road declared to be a limited access road under s.52A of the <i>Roads and Jetties Act 1935</i> .
major road	means a category 1, 2 or 3 road as defined in the <i>State Road Hierarchy</i> , and any other road described in an other major roads list in the relevant Local Provisions Schedule.
private level crossing	means a level crossing across the rail network by a private road or vehicular right of way which does not service any public use.

Term	Definition
rail network	means as defined in the <i>Rail Infrastructure Act 2007</i> and corridors declared under the <i>Strategic Infrastructure Corridors (Strategic and Recreational Use) Act 2016</i> .
road or railway attenuation area	means a road or railway attenuation area shown on an overlay map in the relevant Local Provisions Schedule or, if not shown, an area within 50m of the boundary of: <ul style="list-style-type: none"> (a) a major road with a speed limit above 60km/h; (b) the rail network; (c) a future major road; or (d) a future railway.
traffic impact assessment	means a study or a statement prepared in accordance with the <i>Guide to Traffic Management Part 12: Traffic Impacts of Development 2009</i> by a person with qualifications and a level of experience appropriate to the significance of the traffic impact.
vehicular traffic	means traffic composed of motor vehicles as motor vehicle is defined in section 3 of the <i>Vehicle and Traffic Act 1999</i> .

C3.4 Use or Development Exempt from this Code

C3.4.1 There are no exemptions from this code.

C3.5 Use Standards

C3.5.1 Traffic generation at a vehicle crossing, level crossing or new junction

Objective:	To minimise any adverse effects on the safety and efficiency of the road or rail network from vehicular traffic generated from the site at an existing or new vehicle crossing or level crossing or new junction.	
Acceptable Solutions		Performance Criteria
<p>A1.1</p> <p>For a category 1 road or a limited access road, vehicular traffic to and from the site will not require:</p> <ul style="list-style-type: none"> (a) a new junction; (b) a new vehicle crossing; or (c) a new level crossing. <p>A1.2</p> <p>For a road, excluding a category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority.</p> <p>A1.3</p> <p>For the rail network, written consent for a new private level crossing to serve the use and development has been issued by the rail authority.</p> <p>A1.4</p> <p>Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than:</p> <ul style="list-style-type: none"> (a) the amounts in Table C3.1; or (b) allowed by a licence issued under Part IVA of the <i>Roads and Jetties Act 1935</i> in respect to a limited access road. <p>A1.5</p> <p>Vehicular traffic must be able to enter and leave a major road in a forward direction.</p>		<p>P1</p> <p>Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:</p> <ul style="list-style-type: none"> (a) any increase in traffic caused by the use; (b) the nature of the traffic generated by the use; (c) the nature of the road; (d) the speed limit and traffic flow of the road; (e) any alternative access to a road; (f) the need for the use; (g) any traffic impact assessment; and (h) any advice received from the rail or road authority.

Table C3.1 Acceptable increase in annual average daily traffic to and from the site (total of ingress and egress)

Location of vehicular traffic	Amount of acceptable increase in annual average daily traffic to and from the site (total of ingress and egress)	
	Vehicles up to 5.5m long	Vehicles longer than 5.5m long
Vehicle crossing on major roads and private level crossings	10% or 10 vehicle movements per day, whichever is the greater	10%
Vehicle crossings on other roads	20% or 40 vehicle movements per day, whichever is the greater	20% or 5 vehicle movements per day, whichever is the greater

C3.6 Development Standards for Buildings or Works

C3.6.1 Habitable buildings for sensitive uses within a road or railway attenuation area

Objective:	To minimise the effects of noise, vibration, light and air emissions on sensitive uses within a road or railway attenuation area, from existing and future major roads and the rail network.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Unless within a building area on a sealed plan approved under this planning scheme, habitable buildings for a sensitive use within a road or railway attenuation area, must be:</p> <p>(a) within a row of existing habitable buildings for sensitive uses and no closer to the existing or future major road or rail network than the adjoining habitable building;</p> <p>(b) an extension which extends no closer to the existing or future major road or rail network than:</p> <p>(i) the existing habitable building; or</p> <p>(ii) an adjoining habitable building for a sensitive use; or</p> <p>(c) located or designed so that external noise levels are not more than the level in Table C3.2 measured in accordance with Part D of the <i>Noise Measurement Procedures Manual, 2nd edition, July 2008</i>.</p>	<p>P1</p> <p>Habitable buildings for sensitive uses within a road or railway attenuation area, must be sited, designed or screened to minimise adverse effects of noise, vibration, light and air emissions from the existing or future major road or rail network, having regard to:</p> <p>(a) the topography of the site;</p> <p>(b) the proposed setback;</p> <p>(c) any buffers created by natural or other features;</p> <p>(d) the location of existing or proposed buildings on the site;</p> <p>(e) the frequency of use of the rail network;</p> <p>(f) the speed limit and traffic volume of the road;</p> <p>(g) any noise, vibration, light and air emissions from the rail network or road;</p> <p>(h) the nature of the road;</p> <p>(i) the nature of the development;</p> <p>(j) the need for the development;</p>	

	<ul style="list-style-type: none"> (k) any traffic impact assessment; (l) any mitigating measures proposed; (m) any recommendations from a suitably qualified person for mitigation of noise; and (n) any advice received from the rail or road authority.
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Table C3.2 Acceptable noise levels within a road or railway attenuation area

Roads	Railways
The arithmetic average of the A-weighted L10 sound pressure levels for each of the one-hour periods between 6:00am and midnight on any day [L10 (18-hour)] of 63 dB(A).	A 24-hour Leq and Lmax noise level of 65 dB(A) and 87dB(A) Lmax assessed as a single event maximum sound pressure level.

C3.7 Development Standards for Subdivision

C3.7.1 Subdivision for sensitive uses within a road or railway attenuation area

Objective:	To minimise the effects of noise, vibration, light and air emissions on lots for sensitive uses within a road or railway attenuation area, from existing and future major roads and the rail network.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>A lot, or a lot proposed in a plan of subdivision, intended for a sensitive use must have a building area for the sensitive use that is not within a road or railway attenuation area.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, intended for sensitive uses within a road or railway attenuation area, must be sited, designed or screened to minimise the effects of noise, vibration, light and air emissions from the existing or future major road or rail network, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) any buffers created by natural or other features; (c) the location of existing or proposed buildings on the site; (d) the frequency of use of the rail network; (e) the speed limit and traffic volume of the road; (f) any noise, vibration, light and air emissions from the rail network or road; (g) the nature of the road; (h) the nature of the intended uses; (i) the layout of the subdivision; (j) the need for the subdivision; (k) any traffic impact assessment; (l) any mitigating measures proposed; (m) any recommendations from a suitably qualified person for mitigation of noise; and (n) any advice received from the rail or road authority. 	

C4.0 Electricity Transmission Infrastructure Protection Code

C4.1 Code Purpose

The purpose of the Electricity Transmission Infrastructure Protection Code is:

- C4.1.1 To protect use and development against hazards associated with proximity to electricity transmission infrastructure.
- C4.1.2 To ensure that use and development near existing and future electricity transmission infrastructure does not adversely affect the safe and reliable operation of that infrastructure.
- C4.1.3 To maintain future opportunities for electricity transmission infrastructure.

C4.2 Application of this Code

C4.2.1 This code applies to use or development of land within the following areas:

- (a) electricity transmission corridor, and if for:
 - (i) buildings or works;
 - (ii) a sensitive use contained within a building;
 - (iii) use listed in Table C4.1; or
 - (iv) subdivision; and
- (b) communications station buffer area, and if for:
 - (i) buildings or works; or
 - (ii) subdivision; and
- (c) substation facility buffer area, and if for:
 - (i) a sensitive use contained within a building;
 - (ii) a use listed in Table C4.1;
 - (iii) buildings or works within 5m of a substation facility; or
 - (iv) subdivision.

C4.3 Definition of Terms

C4.3.1 In this code, unless the contrary intention appears:

Term	Definition
communications station	means an antenna and any supporting tower or pole that is: (a) used for carrying communications associated with the electricity entity; and (b) located on land within a communications station buffer area.
communications station buffer area	means land shown on an overlay map in the relevant Local Provisions Schedule, as within a communications station buffer area.
electricity entity	means as defined in the <i>Electricity Supply Industry Act 1995</i> that is licenced to carry on operations in the electricity supply industry under that Act, with respect to transmission of electricity.
electricity transmission corridor	means land shown on an overlay map in the relevant Local Provisions Schedule, as within an electricity transmission corridor, and may include an inner protection area or a registered electricity easement.
electricity transmission infrastructure	means infrastructure for or associated with the transmission of electricity. It includes overhead lines, underground electricity and communication cables, substations, communications station, buildings, structures and access tracks for or associated with the transmission of electricity, and the like.
inner protection area	means land shown on an overlay map in the relevant Local Provisions Schedule, as within an inner protection area.
registered electricity easement	means: (a) an easement registered under the <i>Land Titles Act 1980</i> that relates to electricity transmission infrastructure; or (b) a registered wayleave as defined in the <i>Electricity Wayleaves and Easement Act 2000</i> .
substation facility	means land shown on an overlay map in the relevant Local Provisions Schedule, as containing a substation facility.
substation facility buffer area	means land shown on an overlay map in the relevant Local Provisions Schedule, as within a substation facility buffer area.

C4.4 Use or Development Exempt from this Code

C4.4.1 The following use or development is exempt from this code:

- (a) buildings or works, or a sensitive use within an electricity transmission corridor, but not within an inner protection area or registered electricity easement for:
 - (i) alterations or extensions to an existing building provided it does not increase the site coverage by more than 150m² from that existing at the effective date;
 - (ii) a non-habitable building provided the site coverage is not more than 150m² from that existing at the effective date; or
 - (iii) minor utilities;
- (b) buildings or works within a communications station buffer area if:
 - (i) the building height is not more than 9.5m; and
 - (ii) is located not less than:
 - a. 5m from a security fence associated with a communications station; or
 - b. 5m from the boundary of a lot containing a communications station;
- (c) use or development for Utilities within a communications station buffer area;
- (d) use or development of electricity transmission infrastructure;
- (e) use or development within a building area on a sealed plan approved under this planning scheme; and
- (f) consolidation of lots.

C4.5 Use Standards

C4.5.1 Sensitive use within a substation facility buffer area

Objective:	That a sensitive use contained within a building and located within a substation facility buffer area is located and designed to not cause an unreasonable loss of amenity due to substation noise.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>A sensitive use, excluding any non-habitable rooms, contained within a building and located within a substation facility buffer area must:</p> <ul style="list-style-type: none"> (a) be for an existing sensitive use, provided the distance between the building and the substation facility is not reduced; or (b) not be exposed to substation noise emission higher than: <ul style="list-style-type: none"> (i) 55 dB(A) (LAeq) within the hours of 8:00am to 6:00pm; (ii) 5 dB(A) above the background (LA90) level or 40 dB(A) (LAeq), whichever is the lower, within the hours of 6:00pm to 8:00am; and (iii) 65 dB(A) (LAmax). <p>Noise levels are to be averaged over a 15 minute interval.</p>		<p>P1</p> <p>A sensitive use, excluding any non-habitable rooms, contained within a building and located within a substation facility buffer area must be appropriately located or designed to not cause unreasonable loss of amenity due to substation noise emission, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the sensitive use; (b) proximity to the substation facility; (c) noise levels generated by the substation facility; (d) any existing buffers to noise impacts; (e) any mitigation measures proposed; (f) any written advice from a suitably qualified person; and (g) any advice from the electricity entity.

C4.5.2 Dust or other airborne particulates within an electricity transmission corridor

Objective:	That dust or other airborne particulates do not adversely affect the safe and reliable operation of overhead electricity transmission infrastructure within an electricity transmission corridor.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A use listed in Table C4.1 and located within an electricity transmission corridor must not generate dust or other airborne particulates that will cause an unreasonable impact on the operation of overhead electricity transmission infrastructure, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the proposed use and the materials that will be stored and handled on the site; (b) the conductivity or corrosiveness of any dust or other airborne particulates and its potential to affect the operation of the electricity transmission infrastructure; (c) proximity to the electricity transmission infrastructure; (d) any mitigation measures proposed; and (e) any advice from the electricity entity. 	

C4.5.3 Dust or other airborne particulates within a substation facility buffer area

Objective:	That dust or other airborne particulates do not cause an unreasonable impact on the safe and reliable operation of electricity transmission infrastructure within a substation facility buffer area.	
Acceptable Solutions		Performance Criteria
A1	P1	
No Acceptable Solution.	<p>A use listed in Table C4.1 and located within a substation facility buffer area must not generate dust or other airborne particulates that will cause an unreasonable impact on the operation of a substation facility, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the proposed use and the materials that will be stored and handled on the site; (b) the conductivity or corrosiveness of any dust or other airborne particulates and its potential to affect the operation of the substation facility; (c) proximity to the substation facility; (d) any mitigation measures proposed; and (e) any advice from the electricity entity. 	

Table C4.1 Uses with the Potential to Create Dust or Other Airborne Particulates

Use Class	Qualification
Bulky Goods Sales	If not located within a building and: <ul style="list-style-type: none"> (a) for garden and landscaping materials suppliers; (b) for a supplier for Extractive Industry, Resource Development or Resource Processing; or (c) for a timber yard.
Crematoria and Cemeteries	If for a crematorium.
Extractive Industry	If not located within a building.
Manufacturing and Processing	If not located within a building.
Recycling and Waste Disposal	If not located within a building.
Resource Processing	If not located within a building.
Service Industry	If not located within a building.

Use Class	Qualification
Storage	If not located within a building and: (a) for a liquid, solid or gas fuel depot; or (b) for a woodyard.

C4.6 Development Standards for Buildings or Works

C4.6.1 Buildings or works within an electricity transmission corridor

Objective:	That buildings or works within an electricity transmission corridor are located at appropriate distances from transmission lines or cables to: (a) ensure operational efficiencies, access to, and security of, existing or future electricity transmission infrastructure; and (b) protect against a safety hazard associated with proximity to existing or future electricity transmission infrastructure.	
Acceptable Solutions		Performance Criteria
A1 Buildings or works within an electricity transmission corridor must not be within: (a) an inner protection area; or (b) a registered electricity easement.	P1 Buildings or works within an electricity transmission corridor must not cause an unreasonable impact on the safety, security, operation of, or access to, existing or future electricity transmission infrastructure, having regard to: (a) the nature, height and materials of the buildings and works; (b) the extent of encroachment of the buildings and works into the electricity transmission corridor; (c) the location of the buildings and works within the electricity transmission corridor; and (d) any advice from the electricity entity.	

C4.6.2 Buildings or works within a substation facility buffer area

Objective:	That buildings or works within a substation facility buffer area are appropriately located to minimise risk to the security, operation, safety and access to existing and future electricity transmission infrastructure.	
Acceptable Solutions		Performance Criteria
A1	Buildings or works within a substation facility buffer area must be located not less than 5m from a substation facility.	<p>P1</p> <p>Buildings or works within a substation facility buffer area and located less than 5m from a substation facility, must minimise any impact on the safety, security, operation or access to the substation facility, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, height, and materials of the buildings and works; (b) the location of the buildings and works; (c) any proposed mitigation measures; and (d) any advice from the electricity entity.

C4.6.3 Buildings or works within a communications station buffer area

Objective:	That buildings or works do not adversely impact upon the safety, security, operation of, and access to, a communications station.	
Acceptable Solutions		Performance Criteria
A1	<p>Buildings or works within a communications station buffer area must:</p> <ul style="list-style-type: none"> (a) be located: <ul style="list-style-type: none"> (i) not less than 5m from any security fence associated with a communications station; or (ii) not less than 5m from a lot boundary of a lot containing a communications station; and (b) building height must be not more than the height of the communications station's antennae. 	<p>P1</p> <p>Buildings or works within a communications station buffer area must not cause an unreasonable impact on the safety, security, operation of, or access to, the communication station, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, height and materials of the buildings and works; (b) the location of the buildings and works; and (c) any advice from the electricity entity.

C4.7 Development Standards for Subdivision

C4.7.1 Subdivision

Objective:	To provide for subdivision: (a) that allows for development to be suitably located to avoid hazards from electricity transmission infrastructure and enable appropriate levels of amenity; and (b) so that future development does not compromise safety, security, access to, and operation of, existing and future electricity transmission infrastructure.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A lot, or a lot proposed in a plan of subdivision, within an electricity transmission corridor, must:</p> <p>(a) be for the creation of separate lots for existing buildings where the buildings are located wholly outside an inner protection area or a registered electricity easement;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the creation of a lot that contains a building area not less than 10m x 15m entirely located outside an inner protection area or registered electricity easement.</p>	<p>P1</p> <p>A lot, or a lot proposed in a plan of subdivision, within the electricity transmission corridor must not cause an unreasonable impact on the safety, security, operation of, or access to, existing or future electricity transmission infrastructure, having regard to:</p> <p>(a) the intended use of the proposed lots;</p> <p>(b) the location of any proposed building areas; and</p> <p>(c) any advice from the electricity entity.</p>

<p>A2</p> <p>A lot, or a lot proposed in a plan of subdivision, within a substation facility buffer area, must be:</p> <ul style="list-style-type: none"> (a) for the creation of separate lots for existing buildings; (b) be for the creation of a lot that contains a building area not less than 10m x 15m entirely located outside the substation facility buffer area; or (c) be for the creation of a lot with a building area not less than 10m x 15m and satisfies the following: <ul style="list-style-type: none"> (i) is not less than 5m from the substation facility; and (ii) if the subdivision creates an opportunity for a sensitive use, is not exposed to substation noise emissions that exceed the following: <ul style="list-style-type: none"> a. 55 dB(A) (LAeq) within the hours of 8.00am to 6.00pm; b. 5 dB(A) above the background (LA90) level or 40 dB(A) (LAeq), whichever is the lower, within the hours of 6.00pm to 8.00am; and c. 65 dB(A) (LAmax). <p>Noise levels are to be averaged over a 15 minute interval.</p>	<p>P2</p> <p>A lot, or a lot proposed in a plan of subdivision, within a substation facility buffer area, must not cause an unreasonable impact on the operation of the substation facility, having regard to:</p> <ul style="list-style-type: none"> (a) provision of access to and security of the substation facility; (b) safety hazards associated with proximity to the substation facility; (c) if the subdivision creates an opportunity for a sensitive use: <ul style="list-style-type: none"> (i) the nature of the sensitive use; (ii) proximity to the substation facility; (iii) noise levels generated by the substation facility; (iv) any existing buffers to noise impacts; (v) any mitigation measures proposed; and (vi) any advice from a suitably qualified person regarding the likelihood of a sensitive use on the lot experiencing an environmental nuisance as a result of noise emissions from the substation facility; and (d) any advice from the electricity entity.
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<p>A3</p> <p>A lot, or a lot proposed in a plan of subdivision, within a communications station buffer area, must:</p> <ul style="list-style-type: none"> (a) be for the creation of separate lots for existing buildings; (b) be required for public use by the Crown, a council, a State; (c) be required for the provision of Utilities; or (d) identify a building area with dimensions of not less than 10m x 15m that is located no less than either: <ul style="list-style-type: none"> (i) 5m from any security fence associated with a communications station; or (ii) 5m from a boundary of a lot that accommodates a communications station. 	<p>P3</p> <p>A lot, or a lot proposed in a plan of subdivision, within a communications station buffer area, must identify a building area that will not compromise access to, security of, or the operation of a communications station, having regard to:</p> <ul style="list-style-type: none"> (a) the intended use of the proposed lots; (b) the location of any proposed building areas; and (c) any advice from the electricity entity.
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C5.0 Telecommunications Code

C5.1 Code Purpose

The purpose of the Telecommunications Code is:

- C5.1.1 To provide for telecommunication networks as a service for the community.
- C5.1.2 To ensure that facilities are co-located where practicable.
- C5.1.3 To ensure that facilities use mitigation measures to avoid an unreasonable loss of visual amenity.

C5.2 Application of this Code

- C5.2.1 Unless otherwise stated in a particular purpose zone, this code applies to all development for telecommunication facilities.
- C5.2.2 This code does not apply to use.

C5.3 Definition of Terms

C5.3.1 In this code, unless the contrary intention appears:

Term	Definition
facilities	means, any part of the infrastructure of a telecommunications network and includes any line, equipment, apparatus, tower, mast, antenna, tunnel, duct, hole, pit, pole or other structure used, or for use, in or in connection with a telecommunications network.
line	means a wire, cable, optical fibre, tube, conduit, waveguide or other physical medium used, or for use, as a continuous artificial guide for, or in connection with, carrying communications by means of guided electromagnetic energy.
telecommunications networks	means a system, or series of systems, that carries, or is capable of carrying, communications by means of guided and/or unguided electromagnetic energy.
tower	means a tower, pole, mast or similar structure used to supply a carriage service by means of telecommunication.

C5.4 Use or Development Exempt from this Code

- C5.4.1 There are no exemptions from this code.

C5.5 Use Standards

- C5.5.1 There are no Use Standards in this code.

C5.6 Development Standards for Buildings and Works

C5.6.1 Visual amenity

Objective:	That facilities do not cause an unreasonable loss of visual amenity.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>Facilities located within existing utility corridors or on sites with existing facilities, must not cause an unreasonable loss of visual amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the siting and design of facilities; (b) best practice methods to: <ul style="list-style-type: none"> (i) reduce the visual impact of facilities; or (ii) conceal facilities within the surrounding natural or built environment; (c) the need to minimise clearing of vegetation; and (d) functional and safety requirements to establish, operate and maintain facilities. <p>P1.2</p> <p>Facilities not located within existing utility corridors or on sites with existing facilities, must not cause an unreasonable loss of visual amenity, having regard to:</p> <ul style="list-style-type: none"> (a) the need to locate the facility outside existing utility corridors or on a site with an existing facility; (b) the siting and design of facilities; (c) best practice methods to: <ul style="list-style-type: none"> (i) reduce the visual impact of facilities; or (ii) conceal facilities within the surrounding natural or built environment; (d) the need to minimise clearing of vegetation; and (e) functional and safety requirements to establish, operate and maintain the facilities.

<p>A2</p> <p>Building height of freestanding towers must be not more than:</p> <p>(a) 30m in the Rural Living Zone, General Business Zone, Central Business Zone, Commercial Zone, General Industrial Zone, Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Major Tourism Zone, Port and Marine Zone, or Utilities Zone;</p> <p>(b) 20m in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone, Light Industrial Zone, Community Purpose Zone, Recreation Zone, Open Space Zone, Future Urban Zone and a particular purpose zone.</p>	<p>P2</p> <p>The height of freestanding towers must not cause an unreasonable visual impact on vistas to significant public buildings, streetscapes and land reserved for, or designated in this planning scheme for, natural or scenic values, having regard to:</p> <p>(a) the topography and predominant height of existing buildings or vegetation in the surrounding area;</p> <p>(b) best practice methods to reduce visual impact;</p> <p>(c) functional and safety requirements to establish, operate and maintain the facility;</p> <p>(d) the siting and design of the facility; and</p> <p>(e) the necessity or critical role of the facility within the telecommunications network.</p>
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C6.0 Local Historic Heritage Code

C6.1 Code Purpose

The purpose of the Local Historic Heritage Code is:

C6.1.1 To recognise and protect:

- (a) the local historic heritage significance of local places, precincts, landscapes and areas of archaeological potential; and
- (b) significant trees.

C6.1.2 This code does not apply to Aboriginal heritage values.

C6.2 Application of this Code

C6.2.1 This code applies to:

(a) development on land within any of the following, as defined in this code:

- (i) a local heritage place;
- (ii) a local heritage precinct;
- (iii) a local historic landscape precinct; and
- (iv) for excavation only, a place or precinct of archaeological potential; and

(b) the lopping, pruning, removal or destruction of a significant tree as defined in this code.

C6.2.2 If a site is listed as a local heritage place and also within a local heritage precinct or local historic landscape precinct, it is only necessary to demonstrate compliance with the standards for the local heritage place unless demolition, buildings and works are proposed for an area of the site outside the identified specific extent of the local heritage place.

C6.2.3 This code does not apply to a registered place entered on the Tasmanian Heritage Register, unless for the lopping, pruning, removal or destruction of a significant tree as defined in this code.

C6.2.4 This code does not apply to use¹.

C6.3 Definition of Terms

C6.3.1 In this code, unless the contrary intention appears:

Term	Definition
archaeological evidence	means the remains of former structures and surfaces, construction debris, demolition debris, fabric, fittings and finishes, modified landforms, burials, subsurface features and deposits, artefacts, discarded waste or by-products, residues, or pollen.
archaeological impact assessment	means a report prepared by a suitably qualified person that describes the impact of proposed works upon archaeological sensitivity as referred to in a

¹ Clause 7.4, change of use of a local heritage place may apply.

Term	Definition
	statement of archaeological potential.
local historic heritage significance	<p>means significance in relation to a local heritage place or a local heritage precinct or local historic landscape precinct, and its historic heritage values as identified in the relevant list, in the relevant Local Provisions Schedule, because of:</p> <p>(a) its role in, representation of, or potential for contributing to the understanding of:</p> <ul style="list-style-type: none"> (i) local history; (ii) creative or technical achievements; (iii) a class of building or place; or (iv) aesthetic characteristics; or <p>(b) its association with:</p> <ul style="list-style-type: none"> (i) a particular community or cultural group for social or spiritual reasons; or (ii) the life or works of a person, or group of persons, of importance to the locality or region, <p>as identified in the relevant list in the relevant Local Provisions Schedule, or in a report prepared by a suitably qualified person, if not identified in the relevant list.</p>
local historic landscape precinct	<p>means an area that has been identified as having particular local historic heritage significance because of the collective heritage value of individual elements and features, both natural and constructed, as a group, for their landscape value and is:</p> <p>(a) shown on an overlay map in the relevant Local Provisions Schedule; and</p> <p>(b) listed and identified in the local historic landscape precincts list in the relevant Local Provisions Schedule.</p>
local heritage place	<p>means a place that is listed, and the specific extent identified, in the local heritage places list in the relevant Local Provisions Schedule.</p>
local heritage precinct	<p>means an area that has been identified as having particular local historic heritage significance because of the collective heritage value of individual places as a group for their streetscape or townscape values, and is:</p> <p>(a) shown on an overlay map in the relevant Local Provisions Schedule; and</p> <p>(b) listed and identified in the local heritage precincts list in the relevant Local Provisions Schedule.</p>
place or precinct of archaeological potential	<p>means a place that is a site, precinct or parcel of land that has been identified as having the potential to contain archaeological evidence that provides information about the past and is:</p> <p>(a) shown on an overlay map in the relevant Local Provisions Schedule; and</p> <p>(b) listed and identified in the places or precincts of archaeological potential list in the relevant Local Provisions Schedule.</p>
registered place	<p>means a place as defined in the <i>Historic Cultural Heritage Act 1995</i> and entered on the Tasmanian Heritage Register.</p>

Term	Definition
setting	means the surroundings or environment of a local heritage place.

significant tree	means a tree that is listed and identified in the significant trees list in the relevant Local Provisions Schedule.
statement of archaeological potential	means a statement prepared by a suitably qualified person that includes: <ul style="list-style-type: none"> (a) a written and illustrated site history; (b) plans depicting the main historical phases of site development and land use; (c) a disturbance history; and (d) a written statement of archaeological significance and potential, accompanied by an archaeological sensitivity plan depicting the likely surviving extent of important archaeological evidence which takes into consideration key phases of site development and land use and the impact of disturbance.
tree protection zone	means the space surrounding individual trees based on trunk (stem) diameter (DBH), measured at 1.4m up from ground level. The radius of the tree protection zone is calculated by multiplying the tree's DBH by 12. For example, a tree with 0.4m DBH requires a tree protection zone of 4.8m. The method provides a tree protection zone that addresses both tree stability and growth requirements. Tree protection zone distances are measured as a radius from the centre of the trunk at ground level. ²

C6.4 Development Exempt from this Code

C6.4.1 Development described in Table C6.4.1 is exempt from this code provided it meets the corresponding qualifications.

Table C6.4.1 Exempt Development

Exempt Development	Qualifications
Development within a local heritage place	<ul style="list-style-type: none"> (a) temporary structural stabilisation works as certified by a structural engineer; (b) permanent structural stabilisation works considered by a suitably qualified person to maintain the local historic heritage significance of the place; (c) building works, alterations and modifications required for compliance with fire regulation under the <i>Building Code of Australia</i>, which are not visible externally upon completion from any road or public open space adjoining the site; or (d) the pruning of a tree to improve its health or appearance provided its normal

² Tree Protection Zone is based on the method outlined in *Australian Standard AS4970-2009: Protection of trees on development sites*.

Exempt Development	Qualifications
	growth habit is not retarded.
Development within a local heritage place, local heritage precinct or local historic landscape precinct	<ul style="list-style-type: none"> (a) a maximum of 1 mast for telecommunications and a single flagpole, provided each is not more than 6m in height and is not attached to any building specifically part of a local heritage place listed in the relevant Local Provisions Schedule; (b) the construction or demolition of: <ul style="list-style-type: none"> (i) side and rear boundary fences: <ul style="list-style-type: none"> a. not adjoining a road or public reserve; and b. not more than a total height of 2.1m above existing ground level, except where they are within a garden or grounds that is specifically part of a local heritage place listed in the relevant Local Provisions Schedule; or (ii) fencing of agricultural land or for protection of wetlands and watercourses; (c) the planting, clearing or modification of vegetation on pasture or cropping land, other than for plantation forestry on prime agricultural land; (d) electricity, optic fibre and telecommunications cables, water, sewerage and drainage connections and gas lines to individual buildings; (e) maintenance and repairs that do not involve removal, replacement or concealment of any external building fabric; (f) repainting or re-rendering of an exterior surface that has been previously painted or rendered, in a colour similar to the existing; (g) solar collector panels and photovoltaic cells aligned with the plane of a roof and located on a roof plane not visible from any road or public open space adjoining the site; (h) one satellite dish not more than 2m in diameter, and if on a local heritage place not visible from any road or public open space adjoining the site; or (i) minor upgrade by, or on behalf, of a State authority or a council, of infrastructure such as roads, rail lines, footpaths, cycle paths, drains, sewers, power lines and pipelines including: <ul style="list-style-type: none"> (i) minor widening or narrowing of existing carriageways or making, placing or upgrading kerbs, gutters, footpaths, roadsides or traffic control devices; and (ii) road markings, street lighting and landscaping, except where any of those elements are specifically part of a local heritage place listed in the relevant Local Provisions Schedule.
Development involving a place or precinct of archaeological potential	<ul style="list-style-type: none"> (a) development not involving ground disturbance; (b) works involving excavation within an area that has been assessed under a previous development application and the archaeological potential was realised when that permit was acted upon or the site was found not to be of archaeological sensitivity in that process;

Exempt Development	Qualifications
	(c) minor excavations where a suitably qualified person has prepared an archaeological impact assessment and determined that there is no chance of disturbance to significant archaeological values; (d) removal of non-significant deposits by a suitably qualified person to test, confirm or refine an archaeological assessment and temporarily expose underlying deposits without disturbing them; (e) excavation of land to a depth of not more than 1m on a site provided it is within an existing building that is not listed as a local heritage place; or (f) excavation of land to a depth of not more than 0.3m and not more than 20m ² in area on a site provided it is for the purposes of minor building works and structures.
Involving development to significant trees	The pruning of a tree to improve its health or appearance provided its normal growth habit is not retarded.
signs	All signs, excluding any associated excavation works on a place or precinct of archaeological potential not exempt from this code ³ .

C6.5 Use Standards

C6.5.1 There are no Use Standards in this code.

C6.6 Development Standards for Local Heritage Places

C6.6.1 Demolition

Objective:	That the demolition or removal of buildings do not cause an unacceptable impact on the local historic heritage significance of local heritage places.	
Acceptable Solutions	Performance Criteria	
A1 No Acceptable Solution.	P1 Demolition or removal of buildings on a local heritage place must not cause an unacceptable impact on the local historic heritage significance of the place, having regard to: (a) the physical condition of the local heritage place; (b) the extent and rate of deterioration of the building or structure; (c) the safety of the building or structure; (d) the streetscape or setting in which the building or	

³ Standards for signs located on land in a local heritage place, local heritage precinct or local historic landscape precinct are contained in the Signs Code.

	<p>structure is located;</p> <p>(e) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person;</p> <p>(f) any options to reduce or mitigate deterioration;</p> <p>(g) whether demolition is a reasonable option to secure the long-term future of a building or structure; and</p> <p>(h) any economic considerations.</p>
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C6.6.2 Site coverage

Objective:	That site coverage is compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
A1	No Acceptable Solution.	<p>P1</p> <p>The site coverage must be compatible with the local historic heritage significance of a local heritage place, having regard to:</p> <p>(a) the topography of the site; and</p> <p>(b) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person.</p>

C6.6.3 Height and bulk of buildings

Objective:	That the height and bulk of buildings are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
A1	No Acceptable Solution.	<p>P1</p> <p>The height and bulk of buildings must be compatible with the local historic heritage significance of a local</p>

	<p>heritage place, having regard to:</p> <ul style="list-style-type: none">(a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person;(b) the character and appearance of the existing building or place;(c) the height and bulk of other buildings in the surrounding area; and(d) the setting of the local heritage place.
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C6.6.4 Siting of buildings and structures

Objective:	That the siting of buildings is compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>The front, side and rear setbacks of a building must be compatible with the local historic heritage significance of the place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the topography of the site; (c) the size, shape, and orientation of the lot; and (d) the setbacks of other buildings in the surrounding area. 	

C6.6.5 Fences

Objective:	That fences are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>New fences and gates on local heritage places must be designed and constructed to match existing original fences on the site.</p>	<p>P1</p> <p>New fences and gates must be compatible with the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the architectural style of the buildings on the site; (c) the dominant fencing style in the setting; (d) the original or previous fences on the site; and 	

	(e) the proposed height and location of the fence.
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C6.6.6 Roof form and materials

Objective:	That roof form and materials are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
A1	Replacement roofs on local heritage places which will be visible from any road or public open space adjoining the site, must be of a form and material to match the existing roof being replaced.	<p>P1</p> <p>Roof form and materials must be compatible with the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the design, period of construction and materials of the building on the site that the roof directly relates to; (c) the dominant roofing style and materials in the setting; and (d) the streetscape.

C6.6.7 Building alterations, excluding roof form and materials

Objective:	That building alterations, excluding roof form and materials, are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
A1	No Acceptable Solution.	<p>P1</p> <p>Building alterations, excluding roof form and materials, of an existing building that is a local heritage place must be compatible with and not detract from the local historic heritage significance of the place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the design, period of construction and materials

	<p>of the building on the site that the building alterations most directly relate to;</p> <p>(c) the dominant external building materials in the setting; and</p> <p>(d) the streetscape.</p>
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C6.6.8 Outbuildings and structures

Objective:	That the siting of outbuildings and structures are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Outbuildings and structures on local heritage places must:</p> <ul style="list-style-type: none"> (a) not be located in the front setback; (b) not be visible from any road or public open space adjoining the site; (c) not have a side that is longer than 3m; (d) have a gross floor area less than 9m²; (e) have a combined total area of all outbuildings on the site of not more than 20m²; (f) have a maximum height less than 2.4m above existing ground level; (g) not have a maximum change of level as a result of cut or fill of more than 1m; and (h) not encroach on any service easement or be located within 1m of any underground service. 	<p>P1</p> <p>Outbuildings and structures must be compatible with the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the bulk, form and size of buildings on the site; (c) the bulk, form and size of the proposed outbuilding or structure; (d) the external materials, finishes and decoration of the outbuilding or structure; and (e) the visibility of the outbuilding or structure from any road or public open space adjoining the site. 	

C6.6.9 Driveways and parking for non-residential purposes

Objective:	That driveways and parking for non-residential purposes are compatible with the local historic heritage significance of local heritage places.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Driveways and parking areas for non-residential purposes on local heritage places must be located behind the building line of buildings located or proposed on a site.</p>	<p>P1</p> <p>Driveways and parking areas for non-residential purposes must be compatible with the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the loss of any building fabric; (c) the removal of gardens or vegetated areas; (d) parking availability in the surrounding area; (e) vehicle and pedestrian traffic safety; and (f) the streetscape. 	

C6.6.10 Removal, destruction or lopping of trees, or removal of vegetation, that is specifically part of a local heritage place

Objective:	That the removal, destruction or lopping of trees or the removal of vegetation that is specifically part of a local heritage place does not impact on the local historic heritage significance of the place.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>The removal, destruction or lopping of trees or the removal of vegetation which is specifically part of a local heritage place listed in the relevant Local Provisions Schedule, must not cause an unreasonable impact on the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the historic heritage values of the local heritage place as identified in the relevant Local Provisions Schedule, or if there are no historic heritage values identified in the relevant Local Provisions Schedule, the historic heritage values as identified in a report prepared by a suitably qualified person; (b) the age and condition of the tree or vegetation; (c) the size and form of the tree or vegetation; (d) the importance of the tree or vegetation to the local historic heritage significance of a local heritage place; and (e) any advice by a suitably qualified person. 	

C6.7 Development Standards for Local Heritage Precincts and Local Historic Landscape Precincts

C6.7.1 Demolition within a local heritage precinct

Objective:	That demolition within a local heritage precinct does not have an unacceptable impact on the local historic heritage significance of the precinct.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Within a local heritage precinct, demolition of a building, works or fabric, including trees, fences, walls and outbuildings must:</p> <ul style="list-style-type: none"> (a) not be on a local heritage place; (b) not be visible from any road or public open space; and (c) not involve a value, feature or characteristic specifically part of a precinct listed in the relevant Local Provisions Schedule. 	<p>P1</p> <p>Within a local heritage precinct, demolition of a building, works or fabric, including trees, fences, walls and outbuildings, must not cause an unacceptable impact on the local historic heritage significance of the local heritage precinct as identified in the relevant Local Provisions Schedule, having regard to:</p> <ul style="list-style-type: none"> (a) the physical condition of the building, works, structure or trees; (b) the extent and rate of deterioration of the building, works, structure or trees; (c) the safety of the building, works, structure or trees; (d) the streetscape in which the building, works, structure or trees is located; (e) the special or unique contribution that the building, works, structure or trees makes to the streetscape or townscape values of the local heritage precinct identified in the relevant Local Provisions Schedule; (f) any options to reduce or mitigate deterioration; (g) whether demolition is a reasonable option to secure the long-term future of a building, works or structure; and (h) any economic considerations.

C6.7.2 Demolition within a local historic landscape precinct

Objective:	That demolition within a local historic landscape precinct does not have an unacceptable impact on the local historic heritage significance of the precinct.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Within a local historic landscape precinct, demolition of a building, works, fabric or landscape elements including trees, fences, walls and outbuildings must:</p> <ul style="list-style-type: none"> (a) not be on a local heritage place; (b) not be visible from any road or public open space; and (c) not involve a value, feature or characteristic specifically part of a precinct listed in the relevant Local Provisions Schedule. 	<p>P1</p> <p>Within a local historic landscape precinct, demolition of a building, works, fabric or landscape elements including trees, fences, walls and outbuildings, must not cause an unacceptable impact on the local historic heritage significance of the local historic landscape precinct as identified in the relevant Local Provisions Schedule, having regard to:</p> <ul style="list-style-type: none"> (a) the physical condition of the building, works, structure or trees; (b) the extent and rate of deterioration of the building, works, structure or trees; (c) the safety of the building, works, structure or trees; (d) the special or unique contribution that the building, works, structure or trees makes to the landscape values of the local historic landscape precinct identified in the relevant Local Provisions Schedule; (e) any options to reduce or mitigate deterioration; (f) whether demolition is a reasonable option to secure the long-term future of a building, works or structure; and (g) any economic considerations.

C6.7.3 Buildings and works, excluding demolition

Objective:	That development within a local heritage precinct or a local historic landscape precinct is sympathetic to the character of that particular precinct.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Within a local heritage precinct or local historic landscape precinct, building and works, excluding demolition, must:</p> <ul style="list-style-type: none"> (a) not be on a local heritage place; (b) not be visible from any road or public open space; and (c) not involve a value, feature or characteristic specifically part of a local heritage precinct or local historic landscape precinct listed in the relevant Local Provisions Schedule. 	<p>P1.1</p> <p>Within a local heritage precinct, design and siting of buildings and works, excluding demolition, must be compatible with the local heritage precinct, except if a local heritage place of an architectural style different from that characterising the precinct, having regard to:</p> <ul style="list-style-type: none"> (a) the streetscape or townscape values identified in the local historic heritage significance of the local heritage precinct, as identified in the relevant Local Provisions Schedule; (b) the character and appearance of the surrounding area; (c) the height and bulk of other buildings in the surrounding area; (d) the setbacks of other buildings in the surrounding area; and (e) any relevant design criteria or conservation policies for the local heritage precinct, as identified in the relevant Local Provisions Schedule. <p>P1.2</p> <p>Within a local heritage precinct, extensions to existing buildings must be compatible with the local heritage precinct, having regard to:</p> <ul style="list-style-type: none"> (a) the streetscape or townscape values identified in the local historic heritage significance of the local heritage precinct, as identified in the relevant Local Provisions Schedule; (b) the character and appearance of the surrounding area; (c) the height and bulk of other buildings in the surrounding area; (d) the setbacks of other buildings in the surrounding area; and (e) any relevant design criteria or conservation policies for the local heritage precinct, as identified in the relevant Local Provisions

	<p>Schedule.</p> <p>P1.3</p> <p>Within a local historic landscape precinct, design and siting of buildings and works, excluding demolition, must be compatible with the local historic landscape precinct, having regard to:</p> <ul style="list-style-type: none"> (a) the landscape values identified in the statement of local historic heritage significance for the local historic landscape precinct, as identified in the relevant Local Provisions Schedule; and (b) any relevant design criteria or conservation policies for the local historic landscape precinct, as identified in the relevant Local Provisions Schedule.
<p>A2</p> <p>Within a local heritage precinct, new front fences and gates must be designed and constructed to match the existing original fences on the site.</p>	<p>P2</p> <p>Within a local heritage precinct, new front fences and gates must be compatible with the local heritage precinct, having regard to:</p> <ul style="list-style-type: none"> (a) the streetscape or townscape values identified in the local historic heritage significance of the local heritage precinct, as identified in the relevant Local Provisions Schedule; (b) height, form, style and materials of the proposed fence; and (c) the style, characteristics and setbacks of fences and gates in the surrounding area.

C6.8 Development Standards for Places or Precincts of Archaeological Potential

C6.8.1 Building and Works

Objective:	That building and works on a place or precinct of archaeological potential is implemented in a manner that seeks to retain or protect, preserve or otherwise appropriately manage archaeological evidence.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution.	P1 Building and works on places or precincts of archaeological potential must not cause an unacceptable impact on archaeological evidence, having regard to: <ul style="list-style-type: none"> (a) the nature of the archaeological evidence, either known or potential; (b) measures proposed to investigate the archaeological evidence to confirm statements of potential; (c) strategies to avoid, minimise or control impacts arising from building, works and demolition; (d) measures proposed to preserve significant archaeological evidence in situ; and (e) any advice contained in a statement of archaeological potential. 	

C6.9 Significant Trees

C6.9.1 Significant Trees

Objective:	That significant trees are not unnecessarily destroyed and are managed in a way that maintains their health, structural stability and appearance.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution.	P1 Works involving construction, soil disturbance or soil compaction within the tree protection zone of a significant tree must not impact the health and appearance of the tree, and be supported by a written statement to that effect prepared by a suitably qualified person.	

<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Works requiring the removal of a listed tree or which may impact on the health, structural stability or appearance of a listed tree must demonstrate:</p> <ul style="list-style-type: none">(a) that there are no feasible alternatives which could be implemented to avoid impacting on the tree and the proposed methodology of the works incorporates measures to minimise and mitigate any damage to the tree; and(b) there are environmental, economic or safety reasons of greater value to the community than the cultural significance of the tree; or(c) the tree is determined to be dead or dying based on a written statement to that effect prepared by a suitably qualified person.
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C6.10 Development Standards for Subdivision

C6.10.1 Lot design on a Local Heritage Place

Objective:	That subdivision does not cause an unacceptable impact on the local historic heritage significance of local heritage places.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Subdivision must not cause an unacceptable impact on the local historic heritage significance of a local heritage place, having regard to:</p> <ul style="list-style-type: none"> (a) the local historic heritage significance of the local heritage place identified in the relevant Local Provisions Schedule; (b) the historic development pattern of the area; (c) the separation of buildings or structures from their original setting; (d) the lot sizes, dimensions, frontage, access and orientation; (e) the suitability of the proposed lots for their intended uses; and (f) the removal of vegetation, trees or garden settings.

C6.10.2 Lot design for a Local Heritage Precinct or a Local Historic Landscape Precinct

Objective:	That: (a) subdivision within a local heritage precinct is consistent with historic patterns of development; and (b) subdivision within a local historic landscape precinct is compatible with the character of the precinct.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution.	P1 Subdivision must be compatible with the local historic heritage significance of a local heritage precinct or a local historic landscape precinct, as identified in the relevant Local Provisions Schedule, having regard to: (a) any relevant design criteria or conservation policy for a local heritage precinct or local historic landscape precinct, as identified in the relevant Local Provisions Schedule; and (b) the historic pattern of subdivision of the precinct.	

C6.10.3 Subdivision works for places or precincts of archaeological potential

Objective:	That works associated with subdivision, including infrastructure, do not increase the likelihood of adverse impact on a place or precinct of archaeological potential.	
Acceptable Solutions		Performance Criteria
A1 No Acceptable Solution.	P1 Works associated with subdivision must not increase the likelihood of adverse impact on archaeological evidence on places or precincts of archaeological potential, having regard to: (a) the nature, extent and significance of the archaeological evidence existing on the land; (b) any significant impact upon archaeological evidence or potential; (c) any increased likelihood of future development that is incompatible with a place or precinct of archaeological potential; (d) the statement of archaeological potential for the place or precinct identified in the relevant Local Provisions Schedule; and (e) any advice contained in a statement of archaeological potential.	

C7.0 Natural Assets Code

C7.1 Code Purpose

The purpose of the Natural Assets Code is:

- C7.1.1 To minimise impacts on water quality, natural assets including native riparian vegetation, river condition and the natural ecological function of watercourses, wetlands and lakes.
- C7.1.2 To minimise impacts on coastal and foreshore assets, native littoral vegetation, natural coastal processes and the natural ecological function of the coast.
- C7.1.3 To protect vulnerable coastal areas to enable natural processes to continue to occur, including the landward transgression of sand dunes, wetlands, saltmarshes and other sensitive coastal habitats due to sea-level rise.
- C7.1.4 To minimise impacts on identified priority vegetation.
- C7.1.5 To manage impacts on threatened fauna species by minimising clearance of significant habitat.

C7.2 Application of this Code

C7.2.1 This code applies to development on land within the following areas:

- (a) a waterway and coastal protection area;
- (b) a future coastal refugia area; and
- (c) a priority vegetation area only if within the following zones:
 - (i) Rural Living Zone;
 - (ii) Rural Zone;
 - (iii) Landscape Conservation Zone;
 - (iv) Environmental Management Zone;
 - (v) Major Tourism Zone;
 - (vi) Utilities Zone;
 - (vii) Community Purpose Zone;
 - (viii) Recreation Zone;
 - (ix) Open Space Zone;
 - (x) Future Urban Zone;
 - (xi) Particular Purpose Zone; or
 - (xii) General Residential Zone or Low Density Residential Zone, only if an application for subdivision.

C7.2.2 This code does not apply to use.

C7.3 Definition of Terms

C7.3.1 In this code, unless the contrary intention appears:

Term	Definition
coastal values	means the values of coastal areas derived from their coastal habitat and vegetation, physical elements, landscape values, recreational values and economic values and the processes and functions that underpin them.
future coastal refugia	means land where coastal processes are likely to occur naturally and can continue to occur, including the landward transgression of sand dunes, wetlands, saltmarshes, and other sensitive coastal habitats due to sea-level rise.
future coastal refugia area	means land shown on an overlay map in the relevant Local Provisions Schedule, as within a future coastal refugia area.
littoral vegetation	means vegetation adjacent to a sea, lake or river that is close to the shore. It includes the intertidal zone to high water mark and can include wetlands.
natural streambank and streambed condition	means the natural rate of erosion or accretion of the bank and bed of a watercourse and natural hydrological processes, as determined using <i>The Tasmanian River Condition Index Book 2 Hydrology User's Manual and Book 3 Physical Form Field Manual</i> .
natural assets	means biodiversity, environmental flows, natural streambank and streambed condition, riparian vegetation, littoral vegetation, water quality, wetlands, river condition and waterway and/or coastal values.
priority vegetation	means native vegetation where any of the following apply: (a) it forms an integral part of a threatened native vegetation community as prescribed under Schedule 3A of the <i>Nature Conservation Act 2002</i> ; (b) is a threatened flora species; (c) it forms a significant habitat for a threatened fauna species; or (d) it has been identified as native vegetation of local importance.
priority vegetation area	means land shown on an overlay map in the relevant Local Provisions Schedule, as within a priority vegetation area.
residual impacts	means those environmental effects predicted to remain after the initial effects of development have been avoided or minimised through design.

Term	Definition
riparian vegetation	means vegetation found within or adjacent to watercourses, wetlands, lakes and recharge basins.
river condition	means condition of a waterway as determined using the <i>Tasmanian River Condition Index</i> .
significant habitat	<p>means the habitat within the known or core range of a threatened fauna species, where any of the following applies:</p> <p>(a) is known to be of high priority for the maintenance of breeding populations throughout the species' range; or</p> <p>(b) the conversion of it to non-priority vegetation is considered to result in a long-term negative impact on breeding populations of the threatened fauna species.</p>
threatened fauna species	means listed under the <i>Threatened Species Protection Act 1995</i> or listed as threatened or migratory under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
threatened flora species	means listed under the <i>Threatened Species Protection Act 1995</i> or as threatened under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
waterway and coastal protection area	<p>means land:</p> <p>(a) shown on an overlay map in the relevant Local Provisions Schedule as within a waterway and coastal protection area; or</p> <p>(b) within the relevant distance from a watercourse, wetland, lake or the coast shown in the Table C7.3 below, but does not include a piped watercourse or piped drainage line.</p> <p>If an inconsistency for the width exists between Table C7.3 and the area shown on the overlay map, the greater distance prevails, excluding the width measured from the high water mark of tidal waters where the distance shown on the overlay map in the relevant Local Provisions Schedule prevails.</p> <p>The depiction of a watercourse, or a section of a watercourse on an overlay map in the relevant Local Provisions Schedule, is definitive regardless of the actual area of the catchment.</p>
waterway values	means the values of watercourses and wetlands derived from their aquatic habitat and riparian vegetation, physical elements, landscape function, recreational function and economic function.

Table C7.3 Spatial Extent of Waterway and Coastal Protection Areas

Spatial Extent of Waterway and Coastal Protection Areas	Width
<p>Class 1: Watercourses named on the 1:100,000 topographical series maps, lakes, artificial water storages (other than farm dams), and the high water mark of tidal waters.</p>	40m
<p>Class 2: Watercourses from the point where their catchment exceeds 100ha.</p>	30m
<p>Class 3: Watercourses carrying running water for most of the year between the points where their catchment is from 50ha to 100ha.</p>	20m
<p>Class 4: All other watercourses carrying running water for part or all of the year for most years.</p>	10m
<p>Ramsar Wetlands: Wetlands listed under the Convention on Wetlands of International Importance, (the Ramsar Convention).</p>	100m
<p>Other Wetlands: Wetlands not listed under the Ramsar Convention.</p>	50m
<p>(a) For the purpose of spatially defining 'width' in Table C7.3:</p> <ul style="list-style-type: none"> (i) width is measured from the top of bank or high water mark of tidal waters, watercourses or freshwater lakes; and (ii) in the case of watercourses or wetlands, the waterway and coastal protection area includes the waterway or wetland itself, being between the top of the banks on either side. <p>(b) Any watercourse, including the tidal waters of any river, creek or stream, within or adjoining the following zones is deemed to be a Class 4 watercourse:</p> <ul style="list-style-type: none"> (i) Inner Residential Zone; (ii) General Residential Zone; (iii) Low Density Residential Zone; (iv) Urban Mixed Use Zone; (v) Local Business Zone; (vi) General Business Zone; (vii) Central Business Zone; (viii) Commercial Zone; (ix) Light Industrial Zone; (x) Major Tourism Zone; (xi) Port and Marine Zone; (xii) Particular Purpose Zone; or (xiii) Future Urban Zone. 	

C7.4 Use or Development Exempt from this Code

C7.4.1 The following use or development is exempt from this code:

- (a) works by or on behalf of the Crown, State authority, or council to remedy an unacceptable risk to public or private safety or to mitigate or prevent environmental harm;
- (b) development assessed as a Level 2 Activity;
- (c) clearance of native vegetation within a priority vegetation area,
 - (i) on existing pasture or crop production land; or
 - (ii) if the vegetation is within a private garden, public garden or park, national park, or within State-reserved land or a council reserve,provided the native vegetation is not protected by legislation, a permit condition, an agreement made under section 71 of the Act, or a covenant;
- (d) forest practices or forest operations in accordance with a forest practices plan certified under the *Forest Practices Act 1985*, unless for the construction of a building or the carrying out of any associated development;
- (e) works by or on behalf of the Crown, State authority, or council for the protection of a water supply, watercourse, lake, wetland, or tidal waters or coastal assets as part of an endorsed or approved management plan;
- (f) coastal protection works by or on behalf of the Crown, State authority, or council that have been designed by a suitably qualified person; and
- (g) consolidation of lots.

C7.5 Use Standards

C7.5.1 There are no Use Standards in this code.

C7.6 Development Standards for Buildings and Works

C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area

Objective:	That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets.	
Acceptable Solutions	Performance Criteria	
<p>A1</p> <p>Buildings and works within a waterway and coastal protection area must:</p> <ul style="list-style-type: none"> (a) be within a building area on a sealed plan approved under this planning scheme; (b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or (c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date. 	<p>P1.1</p> <p>Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to:</p> <ul style="list-style-type: none"> (a) impacts caused by erosion, siltation, sedimentation and runoff; (b) impacts on riparian or littoral vegetation; (c) maintaining natural streambank and streambed condition, where it exists; (d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation; (e) the need to avoid significantly impeding natural flow and drainage; (f) the need to maintain fish passage, where known to exist; (g) the need to avoid land filling of wetlands; (h) the need to group new facilities with existing facilities, where reasonably practical; (i) minimising cut and fill; (j) building design that responds to the particular size, shape, contours or slope of the land; (k) minimising impacts on coastal processes, including sand movement and wave action; (l) minimising the need for future works for the protection of natural assets, infrastructure and property; (m) the environmental best practice guidelines in the 	

	<p><i>Wetlands and Waterways Works Manual</i>; and</p> <p>(n) the guidelines in the <i>Tasmanian Coastal Works Manual</i>.</p> <p>P1.2</p> <p>Buildings and works within the spatial extent of tidal waters must be for a use that relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of essential utility or marine infrastructure; or (f) provisions of open space or for marine-related educational, research, or recreational facilities.
<p>A2</p> <p>Buildings and works within a future coastal refugia area must be located within a building area on a sealed plan approved under this planning scheme.</p>	<p>P2.1</p> <p>Buildings and works within a future coastal refugia area must allow for natural coastal processes to continue to occur and avoid or minimise adverse impacts on natural assets, having regard to:</p> <ul style="list-style-type: none"> (a) allowing for the landward transgression of sand dunes and the landward colonisation of wetlands, saltmarshes and other coastal habitats from adjacent areas; (b) avoiding the creation of barriers or drainage networks that would prevent future tidal inundation; (c) allowing the coastal processes of sand deposition or erosion to continue to occur; (d) the need to group new facilities with existing facilities, where reasonably practical; (e) the impacts on native vegetation; (f) minimising cut and fill; (g) building design that responds to the particular size, shape, contours or slope of the land; (h) the impacts of sea-level rise on natural coastal

	<p>processes and coastal habitat;</p> <ul style="list-style-type: none"> (i) the environmental best practice guidelines in the <i>Wetlands and Waterways Works Manual</i>; and (j) the guidelines in the <i>Tasmanian Coastal Works Manual</i>. <p>P2.2</p> <p>Buildings and works within a future coastal refugia area must be for a use that relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of essential utility or marine infrastructure; and (f) provision of open space or for marine-related educational, research, or recreational facilities.
<p>A3</p> <p>Development within a waterway and coastal protection area or a future coastal refugia area must not involve a new stormwater point discharge into a watercourse, wetland or lake.</p>	<p>P3</p> <p>Development within a waterway and coastal protection area or a future coastal refugia area involving a new stormwater point discharge into a watercourse, wetland or lake must avoid or minimise adverse impacts on natural assets, having regard to:</p> <ul style="list-style-type: none"> (a) the need to minimise impacts on water quality; and (b) the need to mitigate and manage any impacts likely to arise from erosion, sedimentation or runoff.
<p>A4</p> <p>Dredging or reclamation must not occur within a waterway and coastal protection area or a future coastal refugia area.</p>	<p>P4.1</p> <p>Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must minimise adverse impacts on natural coastal processes and natural assets, having regard to:</p> <ul style="list-style-type: none"> (a) impacts caused by erosion, siltation,

	<p>sedimentation and runoff;</p> <p>(b) impacts on riparian or littoral vegetation;</p> <p>(c) the need to avoid land filling of wetlands;</p> <p>(d) impacts on sand movement and wave action; and</p> <p>(e) the potential for increased risk to inundation of adjacent land.</p> <p>P4.2</p> <p>Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must be necessary:</p> <p>(a) to continue an existing use or development on adjacent land; or</p> <p>(b) for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <p>(i) the need to access a specific resource in a coastal location;</p> <p>(ii) the need to operate a marine farming shore facility;</p> <p>(iii) the need to access infrastructure available in a coastal location;</p> <p>(iv) the need to service a marine or coastal related activity;</p> <p>(v) provision of essential utility or marine infrastructure; and</p> <p>(vi) provision of open space or for marine-related educational, research, or recreational facilities.</p>
<p>A5</p> <p>Coastal protection works or watercourse erosion or inundation protection works must not occur within a waterway and coastal protection area or a future coastal refugia area.</p>	<p>P5</p> <p>Coastal protection works or watercourse erosion or inundation protection works within a waterway and coastal protection area or a future coastal refugia area must be designed by a suitably qualified person and minimise adverse impacts on natural coastal processes, having regard to:</p> <p>(a) impacts on sand movement and wave action; and</p> <p>(b) the potential for increased risk of inundation to adjacent land.</p>

C7.6.2 Clearance within a priority vegetation area

<p>Objective:</p>	<p>That clearance of native vegetation within a priority vegetation area:</p> <ul style="list-style-type: none"> (a) does not result in unreasonable loss of priority vegetation; (b) is appropriately managed to adequately protect identified priority vegetation; and (c) minimises and appropriately manages impacts from construction and development activities..
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Clearance of native vegetation within a priority vegetation area must be within a building area on a sealed plan approved under this planning scheme.</p>	<p>P1.1</p> <p>Clearance of native vegetation within a priority vegetation area must be for:</p> <ul style="list-style-type: none"> (a) an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person; (b) buildings and works associated with the construction of a single dwelling or an associated outbuilding; (c) subdivision in the General Residential Zone or Low Density Residential Zone; (d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design; (e) clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or (f) the clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site. <p>P1.2</p> <p>Clearance of native vegetation within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to:</p> <ul style="list-style-type: none"> (a) the design and location of buildings and works and any constraints such as topography or land hazards;

	<ul style="list-style-type: none"> (b) any particular requirements for the buildings and works; (c) minimising impacts resulting from bushfire hazard management measures through siting and fire-resistant design of habitable buildings; (d) any mitigation measures implemented to minimise the residual impacts on priority vegetation; (e) any on-site biodiversity offsets; and (f) any existing cleared areas on the site.
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C7.7 Development Standards for Subdivision

C7.7.1 Subdivision within a waterway and coastal protection area or a future coastal refugia area

Objective:	That: <ul style="list-style-type: none"> (a) works associated with subdivision within a waterway and coastal protection area or a future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets; and (b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on natural assets. 	
Acceptable Solutions		Performance Criteria
A1 Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must: <ul style="list-style-type: none"> (a) be for the creation of separate lots for existing buildings; (b) be required for public use by the Crown, a council, or a State authority; (c) be required for the provision of Utilities; (d) be for the consolidation of a lot; or (e) not include any works (excluding boundary fencing), building area, services, bushfire hazard management area or vehicular access within a waterway and coastal protection area or future coastal refugia area. 		P1 Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must minimise adverse impacts on natural assets, having regard to: <ul style="list-style-type: none"> (a) the need to locate building areas and any associated bushfire hazard management area to be outside a waterway and coastal protection area or a future coastal refugia area; and (b) future development likely to be facilitated by the subdivision.

C7.7.2 Subdivision within a priority vegetation area

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) works associated with subdivision will not have an unnecessary or unacceptable impact on priority vegetation; and (b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on priority vegetation.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must:</p> <ul style="list-style-type: none"> (a) be for the purposes of creating separate lots for existing buildings; (b) be required for public use by the Crown, a council, or a State authority; (c) be required for the provision of Utilities; (d) be for the consolidation of a lot; or (e) not include any works (excluding boundary fencing), building area, bushfire hazard management area, services or vehicular access within a priority vegetation area. 	<p>P1.1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must be for:</p> <ul style="list-style-type: none"> (a) subdivision for an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person; (b) subdivision for the construction of a single dwelling or an associated outbuilding; (c) subdivision in the General Residential Zone or Low Density Residential Zone; (d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design; (e) subdivision involving clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or (f) subdivision involving clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site. <p>P1.2</p> <p>Works association with subdivision within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to:</p> <ul style="list-style-type: none"> (a) the design and location of any works, future development likely to be facilitated by the subdivision, and any constraints such as topography or land hazards;

	<ul style="list-style-type: none">(b) any particular requirements for the works and future development likely to be facilitated by the subdivision;(c) the need to minimise impacts resulting from bushfire hazard management measures through siting and fire-resistant design of any future habitable buildings;(d) any mitigation measures implemented to minimise the residual impacts on priority vegetation;(e) any on-site biodiversity offsets; and(f) any existing cleared areas on the site.
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C8.0 Scenic Protection Code

C8.1 Code Purpose

The purpose of the Scenic Protection Code is:

- C8.1.1 To recognise and protect landscapes that are identified as important for their scenic values.

C8.2 Application of this Code

- C8.2.1 This code applies to development on land within a scenic protection area or scenic road corridor and only if within the following zones:

- (a) Rural Living Zone;
- (b) Rural Zone;
- (c) Agriculture Zone;
- (d) Landscape Conservation Zone;
- (e) Environmental Management Zone; or
- (f) Open Space Zone.

- C8.2.2 This code does not apply to use.

C8.3 Definition of Terms

C8.3.1 In this code, unless the contrary intention appears:

Term	Definition
management objectives	means the management objectives for the scenic protection area or scenic road corridor as detailed in the scenic protection areas list in the relevant Local Provisions Schedule.
scenic protection area	means an area shown on an overlay map in the relevant Local Provisions Schedule, as within a scenic protection area, and is listed and described in the scenic protection areas list in the relevant Local Provisions Schedule.
scenic road corridor	<p>means:</p> <ul style="list-style-type: none"> (a) an area shown on an overlay map in the relevant Local Provisions Schedule, as within a scenic road corridor; or (b) the area of land that is within: <ul style="list-style-type: none"> (i) 100m of the frontage to a road shown on an overlay map in the relevant Local Provisions Schedule as a scenic road; or (ii) where there is no frontage, 120m of the edge of the carriageway of a road shown on an overlay map in the relevant Local Provisions Schedule as a scenic road, <p>and is listed and described in the scenic road corridors list in the relevant Local Provisions Schedule.</p>
scenic value	means the specific characteristics or features of the landscape that collectively contribute to a scenic protection area or a scenic road corridor, as described in the scenic protection areas list or the scenic road corridors list in the relevant Local Provisions Schedule.

C8.4 Use or Development Exempt from this Code

C8.4.1 The following development is exempt from this code:

- (a) planting or destruction of vegetation on existing pasture or crop production land, unless for the destruction of the following:
 - (i) exotic trees, other than part of an agricultural crop, more than 10m in height within a scenic road corridor; or
 - (ii) hedgerows adjoining a scenic road within a scenic road corridor,
- (b) agricultural buildings and works, including structures for controlled environment agriculture, irrigation and netting, on land within an Agriculture Zone or Rural Zone, excluding the destruction of vegetation identified in C8.4.1(a);
- (c) alterations or extensions to an existing building if:
 - (i) the gross floor area is increased by not more than 25% from that existing at the effective date;
 - (ii) there is no increase in the building height; and
 - (iii) external finishes are the same or similar to the existing building;
- (d) subdivision not involving any works;
- (e) development subject to the Telecommunications Code; and
- (f) any development or works associated with road construction within a scenic road corridor.

C8.5 Use Standards

C8.5.1 There are no Use Standards in this code.

C8.6 Development Standards for Buildings and Works

C8.6.1 Development within a scenic protection area

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) destruction of vegetation does not cause an unreasonable reduction of the scenic value of a scenic protection area; and (b) buildings and works do not cause an unreasonable reduction of the scenic value of a scenic protection area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings or works, including destruction of vegetation, within a scenic protection area must:</p> <ul style="list-style-type: none"> (a) be on land not less than 50m in elevation below a skyline; and (b) not total more than 500m² in extent. 	<p>P1.1</p> <p>Destruction of vegetation within a scenic protection area must not cause an unreasonable impact on the scenic value of a scenic protection area, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the vegetation to be removed; (b) the area of vegetation to be removed; (c) the topography of the site; (d) any visual impact on a skyline; (e) the nature of the reduction of the scenic value; and (f) the purpose of any management objectives identified in the relevant Local Provisions Schedule. <p>P1.2</p> <p>Buildings or works within a scenic protection area must not cause an unreasonable reduction of the scenic value of a scenic protection area, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the location of, and materials used in construction of, driveways or access tracks; (c) proposed reflectance and colour of external finishes; (d) design and proposed location of the buildings or works; (e) the extent of any cut or fill required; (f) any visual impact on a skyline; (g) any existing or proposed screening; and (h) the purpose of any management objectives identified in the relevant Local Provisions Schedule.

C8.6.2 Development within a scenic road corridor

<p>Objective:</p>	<p>That:</p> <ul style="list-style-type: none"> (a) destruction of native vegetation or exotic vegetation does not cause an unreasonable loss of scenic value of scenic road corridors; and (b) buildings and works do not cause an unreasonable loss of the scenic value of scenic road corridors.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <p>Destruction of exotic trees with a height more than 10m, native vegetation, or hedgerows within a scenic road corridor must not be visible from the scenic road.</p>	<p>P1</p> <p>Destruction of exotic trees with a height more than 10m, native vegetation, or hedgerows within a scenic road corridor must not cause an unreasonable reduction of the scenic value of the road corridor, having regard to:</p> <ul style="list-style-type: none"> (a) the nature, extent and location of the exotic trees, native vegetation and hedgerows; and (b) the purpose of any management objectives identified in the relevant Local Provisions Schedule.
<p>A2</p> <p>Buildings or works within a scenic road corridor must not be visible from the scenic road.</p>	<p>P2</p> <p>Buildings or works within a scenic road corridor must not cause an unreasonable reduction of the scenic value of the road corridor, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) proposed reflectance and colour of external finishes; (c) design and proposed location of the buildings or works; (d) the extent of any cut or fill required; (e) any existing or proposed screening; (f) the impact on views from the road; and (g) the purpose of any management objectives identified in the relevant Local Provisions Schedule.

C9.0 Attenuation Code

C9.1 Code Purpose

The purpose of the Attenuation Code is:

- C9.1.1 To minimise adverse impacts on the health, safety and amenity of sensitive use from activities which have the potential to cause emissions.
- C9.1.2 To minimise the likelihood for sensitive use to conflict with, interfere with, or constrain, activities which have the potential to cause emissions.

C9.2 Application of this Code

- C9.2.1 This code applies to:
- (a) activities listed in Tables C9.1 and C9.2;
 - (b) sensitive uses; and
 - (c) subdivision if it creates a lot where a sensitive use could be established, within an attenuation area.
- C9.2.2 The code does not apply to attenuation areas between the activities listed in Tables C9.1 and C9.2 where those activities occur within the Light Industrial Zone, General Industrial Zone, Port and Marine Zone, and Utilities Zone.
- C9.2.3 The code does not apply to sensitive uses occurring within the Light Industrial Zone, General Industrial Zone, Port and Marine Zone, and Utilities Zone.
- C9.2.4 The code does not apply to a plant nursery or controlled environment agriculture activities occurring within the Rural Zone and Agriculture Zone.

C9.3 Definition of Terms

C9.3.1 In this code, unless the contrary intention appears:

Term	Definition
aerated lagoon	means a lagoon with mechanical aerators sufficient to transfer the oxygen required for biological treatment of sewage and to maintain solids in suspension to undergo aerobic decomposition.
aerobic lagoon	means a lagoon where the water column is characterised by aerobic conditions, being where oxygen is freely available for biological purposes.
anaerobic lagoon	means a lagoon where the water column is characterised by anaerobic conditions, being where oxygen is totally depleted and oxidised nitrogen is absent.

Term	Definition
attenuation area	<p>means land that is:</p> <p>(a) within the boundary of an attenuation area shown on an overlay map in the relevant Local Provisions Schedule; or</p> <p>(b) within the relevant attenuation distance from an activity listed in Table C9.1 or C9.2, which is an existing activity or an activity for which a planning permit is in force.</p> <p>If an inconsistency exists between the relevant attenuation distance in Tables C9.1 or C9.2, and an attenuation area shown on an overlay map in the relevant Local Provisions Schedule, the distance shown on the overlay map applies.</p>
attenuation distance	<p>means the distance listed in Tables C9.1 and C9.2 for the relevant activity measured as the shortest distance from the boundary of the site on which the activity is located.</p>
facultative lagoon	<p>means a lagoon similar to an aerobic lagoon, but with lower energy input, sufficient to transfer the oxygen required to biological treatment of sewage but not to maintain solids in suspension which settle onto the lagoon floor and undergo anaerobic decomposition.</p>
level 1 activity	<p>means as defined in the <i>Environmental Management and Pollution Control Act 1994</i>.</p>

C9.4 Use or Development Exempt from this Code

C9.4.1 The following use or development is exempt from this code:

- (a) use or development assessed as a level 2 activity; and
- (b) additions or alterations to an existing building used for sensitive use, provided that the gross floor area does not increase by more than 50% or 100m², whichever is the greater, from that existing at the effective date.

C9.5 Use Standards

C9.5.1 Activities with potential to cause emissions

Objective:	That an activity with potential to cause emissions is located so that it does not cause an unreasonable impact on an existing sensitive use.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>The attenuation area of an activity listed in Tables C9.1 or C9.2 must not include:</p> <ul style="list-style-type: none"> (a) a site used for a sensitive use which is existing; (b) a site that has a planning permit for a sensitive use; or (c) land within the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Rural Living Zone A, Rural Living Zone B, Village Zone or Urban Mixed Use Zone. 	<p>P1</p> <p>An activity listed in Tables C9.1 or C9.2 must not cause:</p> <ul style="list-style-type: none"> (a) an unreasonable loss of amenity or unreasonable impacts on health and safety of a sensitive use which is existing, or has a planning permit; or (b) unreasonable impacts on land within the relevant attenuation area that is in the General Residential Zone, Inner Residential Zone, Low Density Residential Zone, Rural Living Zone A, Rural Living Zone B, Village Zone or Urban Mixed Use Zone, having regard to: <ul style="list-style-type: none"> (i) operational characteristics of the activity; (ii) scale and intensity of the activity; (iii) degree of hazard or pollution that may be emitted from the activity; (iv) hours of operation of the activity; (v) nature of likely emissions such as noise, odour, gases, dust, particulates, radiation, vibrations or waste; (vi) existing emissions such as noise, odour, gases, dust, particulates, radiation, vibrations or waste; and (vii) measures to eliminate, mitigate or manage emissions from the activity.

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C9.5.2 Sensitive use within an attenuation area

Objective:	That sensitive use located within an attenuation area does not interfere with or constrain the operation of an existing activity listed in Tables C9.1 or C9.2.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Sensitive use within an attenuation area, must not interfere with or constrain an existing activity listed in Tables C9.1 or C9.2, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the activity with potential to cause emissions including: <ul style="list-style-type: none"> (i) operational characteristics of the activity; (ii) scale and intensity of the activity; and (iii) degree of hazard or pollution that may be emitted from the activity; (b) the nature of the sensitive use; (c) the extent of encroachment by the sensitive use into the attenuation area; (d) measures in the design, layout and construction of the development for the sensitive use to eliminate, mitigate or manage effects of emissions of the activity; (e) any advice from the Director, Environment Protection Authority; and (f) any advice from the Director of Mines.

C9.6 Development Standards for Subdivision

C9.6.1 Lot design

Objective:	<p>To provide for subdivision so that a lot intended for a sensitive use:</p> <ul style="list-style-type: none"> (a) is located to avoid an activity with potential to cause emissions and enable appropriate levels of amenity; and (b) does not conflict with, interfere with or constrain an existing activity with potential to cause emissions.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an attenuation area must:</p> <ul style="list-style-type: none"> (a) be for the creation of separate lots for existing buildings; (b) be for the creation of a lot where a building for a sensitive use can be located entirely outside the attenuation area; or (c) not be for the creation of a lot intended for a sensitive use. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an attenuation area must not result in the potential for a sensitive use to be impacted by emissions, having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the activity with the potential to cause emissions, including: <ul style="list-style-type: none"> (i) operational characteristics of the activity; (ii) scale and intensity of the activity; and (iii) degree of emissions from the activity; and (b) the intended use of the lot.

Table C9.1 Attenuation Distances

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Abattoir or slaughterhouse (primary) The conduct of meat processing within the meaning of the <i>Primary Produce Safety Act 2011</i> , excluding rendering or fat extraction works – emissions such as odour, noise, dust and light pollution		500m	1,000m
Abrasive blasting The cleaning of materials by the abrasive action of any metal shot or mineral particulate propelled in a gaseous or liquid medium.	Blasting in cabinets less than 5 cubic metres in volume or totally enclosed automatic blast cleaning units – emissions such as noise and dust.	100m	–
	All other types of operation – emissions such as noise and dust.	300m	–
Agricultural produce processing works The conduct of works for the processing of vegetables, seed, grain, or any other agricultural crop by deep fat frying or roasting or boiling or drying through application of heat – emissions such as odour and noise.		100m	300m
Animal saleyard Yards for the holding of live animals pending sale, shipment or slaughter–emissions such as odour, noise and dust.		500m	–
Aquaculture operation	Marine or estuarine operations - emissions such as odour and noise.	300m	–
	Land operations - emissions such as odour and noise.	100m	–
Bakery Excluding a bakery primarily selling produce directly to the public - emissions such as noise.		200m	–
Beverage production (non-alcoholic) Beverage production plants with the capacity to produce more than 2000L per day - emissions such as odour and noise.		300m	–

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Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Biosolids application to land Class 2 biosolids as classified in accordance with the requirement of Sections 4 and 5 of the <i>Tasmanian Biosolids Reuse Guidelines 1999</i> – emissions such as odour, noise and disease vectors.		100m	100m
Brewery or distillery The conduct of works for the production of beer by infusion, boiling or fermentation, or spirits by distillation with the capacity to produce more than 2000L per day - emissions such as odour and noise.		200m	500m
Cement works The conduct of works as described in Schedule 2 clause 2(a) of the <i>Environmental Management and Pollution Control Act 1994</i> - emissions such as noise and dust.		–	2,000m
Ceramic works The conduct of works for the production of any products such as bricks, tiles, pipes, pottery goods, refractories or glass that are manufactured or are capable of being manufactured in furnaces or kilns fired by fuel – emissions such as noise and dust.		200m	500m
Chemical works	The manufacture (through chemical reaction) of any inorganic chemical, including sulphuric acid, inorganic fertilisers, sodium silicate, lime or other calcium compound - emissions such as odour, noise and gases.	300m	1,000m
	The manufacture (through chemical reaction) or processing of any organic chemicals or chemical product or petrochemical - emissions such as odour, noise and gases.	500m	1,500m
Cidery	Bottling facilities only – emissions such as odour and noise.	300m	–
	Cider production facilities– emissions such as odour and noise.	500m	–

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Composting works Excluding backyard composting for domestic use, on-farm composting for use on agricultural land having the same owner as the land on which the compost is produced, and works in respect of silage for use on agricultural land.	Vegetation only - emissions such as odour and noise.	250m	500m
	Human or animal wastes - emissions such as odour and noise.	500m	1,000m
Concrete batching plants The conduct of works for the production of concrete by the mixing of cement, sand, rock, aggregate or other similar materials, excluding the manufacture of concrete products - emissions such as noise and dust.		200m	–
Concrete or stone product manufacture The conduct of works to manufacture concrete or stone products, excluding concrete batching plants - emissions such as odour, noise and dust.		300m	–
Crematoria Emissions such as odour and gases.		300m	–
Dog kennels Commercial operations only – emissions such as odour and noise.		300m	–
Effluent irrigation scheme Irrigation of land by treated sewage effluent.	Spray irrigation	200m	–
	Flood irrigation	50m	–
	Drip irrigation	20m	–
	Storage lagoon/holding dams	250m	–
	Effluent transfer/irrigation pumps	50m	–
Feedlot Intensive animal husbandry (excluding piggeries, poultry farms, horse stables, and any such operation carried out at an abattoir, slaughterhouse or saleyard or for the purpose only of drought or other emergency feeding) – emissions such as odour, noise and dust.		3,000m	–
Fibreglass manufacture Manufacture of fibre-reinforced plastic products - emissions such as odour and noise.		300m	–

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Fish processing The conduct of works for scaling, gilling, gutting, filleting, smoking, drying or otherwise processing fish for sale, other than by freezing, chilling or packing, excluding the processing of fish only in the course of a business selling fish directly to the public - emissions such as odour and noise.		250m	500m
Flour mill Grain or seed milling works, excluding non-commercial processing for on farm use - emissions such as noise and dust.		300m	–
Frost fan Emissions such as noise.		2,000m	–
Fuel burning Excluding fuel burning associated with a domestic or on-farm use.	Waste incinerator: Wood waste - emissions such as odour, particles and gases.	100m	300m
	Waste incinerator: Plastic or rubber waste - emissions such as odour, particles and gases.	500m	1,000m
	Waste incinerator: Chemical, biomedical or organic waste - emissions such as odour, particles and gases.	500m	1,000m
	All other types of operation - emissions such as odour, particles and gases.	100m	300m
Gas pressure reduction facility A facility for altering the pressure between a gas transmission pipeline and a gas distribution system - emissions such as odour, noise and gases.		300m	–
Horse stables Commercial operations only – emissions such as odour, noise and dust.		500m	–
Joinery Production of wooden furniture and household items such as doors, kitchen fittings, flooring and mouldings - emissions such as noise and dust		200m	–
Liquid waste spray application to land Spray application of liquid fruit or vegetable wastes, excluding spray application of treated sewage effluent	Primary treated	500m	–
	Secondary treated	200m	–

Activity	Attenuation Distance		
	Level 1 Activity	Level 2 Activity	
<p>Liquid waste treatment Lagoons for the treatment of wastewater, such as treatment of wastewater for wineries and cider production, excluding sewage treatment plants¹ and organic waste treatment – emissions such as odour.</p>	300m	–	
<p>Marinas Excluding maritime construction and maintenance works - emissions such as noise.</p>	200m	–	
<p>Maritime construction and maintenance works The conduct of works for the construction, maintenance or repair of ships, vessels or floating platforms or structures, being works with the capacity to construct or repair ships, vessels or floating platforms or structures.</p>	Organotin compounds used or removed from ships, vessels, or floating platforms or structures – emissions such as odour, noise, dust and gases.	500m	–
	All other types of operation – emissions such as odour, noise, dust and gases.	300m	–
<p>Materials handling Processing of chemicals, rubber, rock, ores and minerals by crushing, grinding, milling or separating into different sizes by sieving, air elutriation or in any other manner – emissions such as noise and dust.</p>	Crushing or grinding.	750m	750m
	Other methods.	500m	500m
<p>Metal fabrication The fabrication of sheet metal, structural metal and other iron and steel products, excluding metallurgical works, and ferrous and non-ferrous metal melting - emissions such as noise and particles.</p>	500m	–	
<p>Metal melting (ferrous and non-ferrous) The melting of ferrous or non-ferrous metal in a furnace – emissions such as odour and noise.</p>	300m	1,000m	
<p>Metallurgical works The conduct of metallurgical works as described in Schedule 2, clause 2(d) of the <i>Environmental Management and Pollution Control Act 1994</i> - emissions such as odour, noise, dust and gases.</p>	–	2,000m	
<p>Milk processing works The conduct of works at which milk is evaporated or otherwise processed for the manufacture of milk powder, cheese, butter, ice cream or other similar dairy products – emissions such as odour and noise.</p>	100m	500m	

¹ For sewage treatment plants, refer to Table C9.2.

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Milking shed (dairy) Milk shed operations on dairy farms – emissions such as odour, noise and dust.		300m	–
Mine The extraction of any minerals, excluding a quarry or extractive pit - emissions such as noise, dust, ground vibration and shock waves.	Open cut.	1,000m	2,000m
	Underground.	1,000m	1,000m
Motor bodyworks Panel beating, spray painting, and the like – emissions such as odour and noise.		100m	–
Motor racing or performance trials The conduct of facilities designed for motor vehicles or motor-driven boat racing competitions, or speed or performance trials – emissions such as odour, noise and dust.		3,000m	–
Oil and gas extraction and production Land or offshore, excluding gas extraction from landfill sites – emissions such as odour, noise and gases.		2,000m	–
Oil refinery The conduct of oil refinery works as described in Schedule 2, clause 1(c) of the <i>Environmental Management and Pollution Control Act 1994</i> .	Refining of recycled oil – emissions such as odour, noise and gases.	–	500m
	All other refining – emissions such as odour, noise and gases.	–	2,000m
Organic waste treatment The treatment of organic waste such as animal manures, and solid waste from fruit or vegetable processing, excluding sewage treatment plants ² and liquid waste treatment – emissions such as odour, gases and disease vectors.		500m	–
Piggery Intensive animal husbandry.	Less than 50 pigs – emissions such as odour and noise.	500m	–
	50 or more pigs – emissions such as odour and noise.	2,000m	–
Plant nurseries and controlled environment agriculture Excluding operations primarily selling directly to the public.	With manure or refuse use – emissions such as odour.	300m	–
	All other types of operation use – emissions such as odour.	100m	–

² For sewage treatment plants, refer to Table C9.2.

Activity	Attenuation Distance		
	Level 1 Activity	Level 2 Activity	
Poultry farm Intensive animal husbandry – emissions such as odour, dust and noise.	500m	–	
Pre-mix bitumen plant Works in which crushed or ground rock aggregates are mixed with bituminous or asphaltic materials for the purpose of producing road-building mixtures– emissions such as odour and noise.	500m	1,000m	
Pulp and paper works The conduct of pulp and paper works as described in Schedule 2, clause 2(f) of the <i>Environmental Management and Pollution Control Act 1994</i> .	Process involving combustion of sulphur or sulphur-containing materials - emissions such as odour, noise, particles and gases.	–	5,000m
	All other processes - emissions such as odour, noise, particles and gases.	–	1,000m
Quarry or extractive pit Extraction of rock, gravel, sand or clay, excluding a mine – emissions such as noise, dust, ground vibration and shock waves.	No blasting, crushing or vibratory screening – emissions such as noise, dust, ground vibration and shock waves.	300m	300m
	Vibratory screening – emissions such as noise, dust, ground vibration and shock waves.	500m	500m
	Crushing or grinding – emissions such as noise, dust, ground vibration and shock waves.	750m	750m
	Blasting – emissions such as noise, dust, ground vibration and shock waves.	1,000m	1,000m
Rendering or fat extraction works The conduct of works at which animal, fish or grease trap wastes or other matter is processed or is capable of being processed by rendering or extraction or by some other means to produce tallow or fat or their derivatives or proteinaceous matter.	Processing of fish – emissions such as odour and noise.	500m	1,000m
	Processing of other matter – emissions such as odour and noise.	1,000m	1,500m

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Scrap metal recovery The conduct of works at which scrap metals are treated in any type of fuel burning equipment or electrically heated furnaces or are disintegrated by mechanical means for recovery of metal, excluding commercial printing establishments at which type metal is melted or re-melted in thermostatically controlled pots for the purpose of type casting – emissions such as noise, dust and light pollution.		500m	–
Shooting range The conduct of facilities for outdoor shooting competitions, practice or instruction - emissions such as noise.		2,000m	–
Smallgoods manufacture	Smoking, drying and curing - emissions such as odour, noise and smoke particles.	250m	–
	All other types of operation - emissions such as odour, noise and smoke particles.	100m	–
Storage	Petroleum products and crude oil with fixed roofs - emissions such as odour and noise.	500m	–
	Petroleum products and crude oil with floating roofs - emissions such as odour and noise.	200m	–
	Wet salted or unprocessed hides - emissions such as odour and noise.	300m	–
	Chemicals - emissions such as odour and noise.	500m	–
Surface coating The conduct of works for: <ul style="list-style-type: none"> (a) metal finishing, in which metal surfaces are prepared or finished by means of electroplating, electrolyse plating, anodising (chromating, phosphating and colouring), chemical etching or milling, or printed circuit board manufacture; (b) hot dip galvanising; or (c) spray painting and powder coating, excluding motor bodyworks. - emissions such as gases, odour, noise and dust.		300m	–

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
<p>Textile bleaching and dyeing</p> <p>The works involving bleaching, dyeing or printing of yarns, threads, fabrics or other textiles - emissions such as odour, noise and gases.</p>	Textile bleaching and dyeing factory.	500m	1,000m
<p>Waste depot</p> <p>The conduct of depots for the reception, storage, treatment or disposal of waste, excluding:</p> <p>(a) temporary storage at the place at which the waste is produced while awaiting transport to another place;</p> <p>(b) storage, treatment or disposal of clean fill;</p> <p>(c) storage, treatment or disposal of domestic waste at residential premises; or</p> <p>(d) a waste transfer station.</p>	Waste depot non-putrescible waste only - emissions such as odour, noise, dust and disease vectors.	150m	300m
	Waste depot putrescible waste - emissions such as odour, noise, dust and disease vectors.	300m	750m
<p>Waste transfer station</p> <p>Emissions such as odour, noise, dust, light pollution and disease vectors.</p>		150m	–
<p>Wind energy facility</p> <p>Output per wind turbine generator of less than 250kW.</p>	single turbine generator <10kW - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	60m	–
	single turbine generator >10kW - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	250m	–
	wind farm with 2-4 turbine generators - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	350m	–
	wind farm with 5 or more turbine generators - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	500m	500m

Activity		Attenuation Distance	
		Level 1 Activity	Level 2 Activity
Wind energy facility Output per wind turbine generator 250kW or greater.	single turbine generator - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	500m	–
	wind farm with 2-4 turbine generators- emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	750m	750m
	wind farm with 5 or more turbine generators - emissions such as noise, electromagnetic radiation, shadow flicker and blade glint.	1,000m	1,000m
Winery	Bottling facilities only – emissions such as odour and noise.	300m	–
	Wine making – emissions such as odour and noise.	500m	–
Woodchip mill	Less than 1000 tonnes per year production capacity - emissions such as noise and particles.	250m	–
	1000 tonnes to 20 000 tonnes per year production capacity - emissions such as noise and particles.	–	500m
	More than 20 000 tonnes per year production capacity - emissions such as noise and particles.	–	1,000m
Wood preservation works The conduct of wood preservation works as described in Schedule 2, clause 1(d) of the <i>Environmental Management and Pollution Control Act 1994</i> - emissions such as odour and noise.		–	300m
Wood processing works The conduct of works (other than works at a builders supply yard, home improvement centre or firewood depot) at which timber is sawn, cut, compressed, milled, machined or kiln-dried.	Sawmill - emissions such as noise and particles.	250m	500m
	All other types of operation (excluding joinery, firewood merchant or woodchip mill) - emissions such as noise and particles.	250m	1,000m

Activity	Attenuation Distance	
	Level 1 Activity	Level 2 Activity
Wool scouring, tannery or fellmongery The conduct of works for the scouring of wool or the commercial preservation or treatment or drying of animal skins or hides - emissions such as odour and noise.	250m	500m
Wrecking yard (automotive) Emissions such as noise and dust.	200m	–

Table C9.2 Attenuation Distances for Sewage Treatment Plant Processes

Activity (type of sewage treatment plant process)	Attenuation distance according to sewage treatment plant designed capacity (average dry weather flow) in kL/day or person equivalent (pe)				
	<275kL/day or <1000pe	<1375kL/day or <5000pe	<5500kL/day or <20000pe	<13750kL/day or <50000pe	>13750kL/day or >50000pe
Mechanical/biological treatment (includes aerated lagoons)	100m	200m	300m	400m	>400m
Aerobic lagoons	150m	350m	700m	1,000m	>1,000m
Facultative lagoons	300m	550m	700m	1,000m	>1,000m
Anaerobic lagoons	400m	700m	1,400m	2,200m	>2,200m

C10.0 Coastal Erosion Hazard Code

C10.1 Code Purpose

The purpose of the Coastal Erosion Hazard Code is:

C10.1.1 To ensure that use or development subject to risk from coastal erosion is appropriately located and managed, so that:

- (a) people, property and infrastructure are not exposed to an unacceptable level of risk;
- (b) future costs associated with options for adaptation, protection, retreat or abandonment of property and infrastructure are minimised;
- (c) it does not increase the risk from coastal erosion to other land or public infrastructure; and
- (d) works to protect land from coastal erosion are undertaken in a way that provides appropriate protection without increasing risks to other land.

C10.1.2 To provide for appropriate use or development that relies upon a coastal location to fulfil its purpose.

C10.2 Application of this Code

C10.2.1 This code applies to:

- (a) use and development of land within a coastal erosion hazard area; or
- (b) development identified in a report, that is lodged with an application, or required in response to a request under section 54 of the Act, as located on an actively mobile landform within the coastal zone.

C10.2.2 The planning authority may only make a request under clause C10.2.1(b) where it reasonably believes, based on information in its possession, that the land is located on an actively mobile landform within the coastal zone.

C10.2.3 For the purposes of C10.5.1, Residential and Visitor Accommodation are not Use Classes that are reliant on a coastal location.

C10.3 Definition of Terms

C10.3.1 In this code, unless the contrary intention appears:

Term	Definition
coastal erosion	means: (a) erosion of the coastline by water, wind and general weather conditions; or (b) coastal recession, which is the long-term movement of the coastline due to sea level rise.
coastal erosion hazard area	means land: (a) shown on an overlay map in the relevant Local Provisions Schedule, as within a coastal erosion hazard area, which is classified into one of three coastal erosion hazard bands; (b) shown on an overlay map in the relevant Local Provisions

Term	Definition
	<p>Schedule as within a coastal erosion investigation area; or</p> <p>(c) identified in a report for the purposes of C10.2.1(b).</p>
coastal erosion hazard bands	<p>means the classification of land within a coastal erosion hazard area into one of the following coastal erosion hazard bands:</p> <p>(a) low;</p> <p>(b) medium; or</p> <p>(c) high.</p>
coastal erosion hazard report	<p>means a report prepared by geotechnical practitioner and must include:</p> <p>(a) details of, and be signed by, the person who prepared or verified the report;</p> <p>(b) confirmation that the person has the appropriate qualifications and expertise;</p> <p>(c) confirmation that the report has been prepared in accordance with any methodology specified by a State authority;</p> <p>(d) a report of a geotechnical site investigation undertaken consistent with <i>Australian Standard AS 1726-2017 Geotechnical site investigations</i>; and</p> <p>(e) conclusions based on consideration of the proposed use and development:</p> <p>(i) as to whether the use or development is likely to cause or contribute to the occurrence of coastal erosion on the site or on adjacent land;</p> <p>(ii) as to whether the use or development can achieve and maintain a tolerable risk for the intended life of the use or development, having regard to:</p> <p>a. the nature, intensity and duration of the use;</p> <p>b. the type, form and duration of any development;</p> <p>c. the likely change in the risk across the intended life of the use or development;</p> <p>d. the ability to adapt to a change in the level of risk;</p> <p>e. the ability to maintain access to utilities and services;</p> <p>f. the need for specific coastal erosion reduction or protection measures on the site;</p> <p>g. the need for coastal erosion reduction or protection measures beyond the boundary of the site; and</p> <p>h. any coastal erosion management plan in place for the site or adjacent land;</p> <p>(iii) any advice relating to the ongoing management of the use or development;</p> <p>(iv) as to whether the use or development is located on an actively mobile landform within the coastal zone; and</p> <p>(v) relating to any matter specifically required by Performance Criteria in this code.</p>
coastal erosion investigation area	<p>means land shown on an overlay map in the relevant Local Provisions</p>

Term	Definition
	Schedule as within a coastal erosion investigation area.
coastal erosion investigation area report	<p>means a report prepared by a suitably qualified person for a site that:</p> <ul style="list-style-type: none"> (a) categorises the site in the relevant coastal erosion hazard band in accordance with the methodology in the <i>Coastal Erosion Investigation Area – Site Assessment</i>, and (b) considers any matter specifically required by Performance Criteria in this Code.
coastal erosion management plan	means a management plan for a coastal erosion hazard area endorsed by the relevant council.
critical use	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Emergency Services; or (b) Hospital Services.
geotechnical practitioner	<p>means:</p> <ul style="list-style-type: none"> (a) a person holding a building services license issued under the <i>Occupational Licensing Act 2005</i> in the class of engineer-civil; (b) a geotechnical engineer acting within their area of competence; or (c) an engineering geologist acting within their area of competence.
hazardous use	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Crematoria and Cemeteries; (b) Extractive Industry, if the use involves the storage of a hazardous chemical of a manifest quantity; (c) Hospital Services, if the use involves the storage of a hazardous chemical of a manifest quantity; (d) Manufacturing and Processing, if the use involves the storage of a hazardous chemical of a manifest quantity; (e) Recycling and Waste Disposal; (f) Research and Development, if the use involves the storage of a hazardous chemical of a manifest quantity; (g) Storage, if the use involves the storage of a hazardous chemical of a manifest quantity; (h) Transport Depot and Distribution, if the use involves the storage of a hazardous chemical of a manifest quantity; (i) Utilities, if the use involves the storage of a hazardous chemical of a manifest quantity; or (j) Vehicle Fuel Sales and Service.

Term	Definition
non-urban zone	<p>means land shown on a zone map in the relevant Local Provisions Schedule, as within the following zones:</p> <ul style="list-style-type: none"> (a) Rural Living Zone; (b) Rural Zone; (c) Agriculture Zone; (d) Landscape Conservation Zone; (e) Environmental Management Zone; (f) Utilities Zone; (g) Open Space Zone; and (h) Future Urban Zone.
urban zone	<p>means land shown on a zone map in the relevant Local Provisions Schedule, as within the following zones:</p> <ul style="list-style-type: none"> (a) General Residential Zone; (b) Inner Residential Zone; (c) Low Density Residential Zone; (d) Village Zone; (e) Urban Mixed Use Zone; (f) Local Business Zone; (g) General Business Zone; (h) Central Business Zone; (i) Commercial Zone; (j) Light Industrial Zone; (k) General Industrial Zone; (l) Major Tourism Zone; (m) Port and Marine Zone; (n) Community Purpose Zone; (o) Recreation Zone; and (p) any particular purpose zone.
vulnerable use	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Custodial Facility; (b) Educational and Occasional Care; (c) Residential, if for a respite centre, residential care facility, retirement village or assisted housing; or (d) Visitor Accommodation, if the use accommodates more than 12 guests.

C10.4 Use or Development Exempt from this Code

C10.4.1 Excluding where development occurs on an actively mobile landform in the coastal zone, the following use or development is exempt from this code:

- (a) use or development that requires authorisation under the *Building Act 2016*, excluding:
 - (i) a critical use, hazardous use, or vulnerable use;
 - (ii) if located within a high coastal erosion hazard band; or
 - (iii) coastal protection works;
- (b) intensification of an existing use, if not for a critical, hazardous, or vulnerable use;
- (c) alterations or extensions to an existing building located within a high coastal erosion hazard band, if:
 - (i) the site coverage is not increased by more than 20m² from that existing at the effective date; and
 - (ii) not for a critical, hazardous, or vulnerable use;
- (d) use or development of land for:
 - (i) Natural and Cultural Values Management;
 - (ii) Passive Recreation;
 - (iii) Port and Shipping in a proclaimed wharf area;
 - (iv) Resource Development, excluding use or development in the high coastal erosion hazard band that requires authorisation under the *Building Act 2016*; or
 - (v) minor utilities;
- (e) planting or disturbance of vegetation on existing pasture or crop production land; or
- (f) consolidation of lots.

C10.5 Use Standards

C10.5.1 Use within a high coastal erosion hazard band

Objective:	That use within a high coastal erosion hazard band: (a) is reliant on a coastal location; and (b) can achieve and maintain a tolerable risk from coastal erosion.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>A use within a high coastal erosion hazard band must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of an essential utility or marine infrastructure; (f) provision of open space or for marine-related educational, research or recreational facilities; (g) any advice from a State authority, regulated entity or a council; and (h) the advice obtained in a coastal erosion hazard report. <p>P1.2</p> <p>A coastal erosion hazard report also demonstrates that:</p> <ul style="list-style-type: none"> (a) any increase in the level of risk from coastal erosion does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.

C10.5.2 Uses located within a non-urban zone and within a low or medium coastal erosion hazard band

Objective:	That a use located within a non-urban zone and within a low or medium coastal erosion hazard band can achieve and maintain a tolerable risk from coastal erosion.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A tolerable risk for a use located within a non-urban zone and within a low or medium coastal erosion hazard band can be achieved and maintained, having regard to:</p> <ul style="list-style-type: none"> (a) any increase in the risk from coastal erosion; (b) any requirement for specific hazard reduction or protection measures; (c) the need to minimise any: <ul style="list-style-type: none"> (i) increase in risk to public infrastructure; and (ii) reliance on coastal protection works; (d) any advice from a State authority, regulated entity or a council; and (e) the advice contained in a coastal erosion hazard report. 	

C10.5.3 Critical use, hazardous use or vulnerable use

Objective:	That critical, hazardous and vulnerable uses located within a coastal erosion hazard band can achieve and maintain a tolerable risk from coastal erosion.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>If located within a non-urban zone or a high coastal erosion hazard band, the use must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore facility; (c) the need to access infrastructure available in a coastal location; (d) the need to service a marine or coastal related activity; (e) provision of an essential utility or marine infrastructure; (f) provision of open space or for marine-related educational, research, or recreational facilities; and (g) the advice contained in a coastal erosion hazard report. <p>P1.2</p> <p>A coastal erosion hazard report also demonstrates that:</p> <ul style="list-style-type: none"> (a) an increase in the level of risk from coastal erosion does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.

<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>In addition to the requirements in clause C10.5.3 P1.2, a critical use within a coastal erosion hazard area must achieve and maintain a tolerable risk from coastal erosion in 2100, having regard to:</p> <ul style="list-style-type: none"> (a) the ability of the use to function and maintain service during the coastal erosion event and recovery period; (b) any interruption to the operation of the critical use in locations external to the immediate impact of the coastal erosion event; (c) the creation of risk to the health or safety of people from damage or disruption to: <ul style="list-style-type: none"> (i) a water supply service; or (ii) the drainage and treatment of waste water; (d) the advice contained in a coastal erosion hazard report; and (e) any advice from a State authority, regulated entity or a council.
<p>A3</p> <p>No Acceptable Solution.</p>	<p>P3</p> <p>In addition to the requirements in clause C10.5.3 P1.2, the impact of coastal erosion on a hazardous use within a coastal erosion hazard band must have a tolerable risk in 2100, having regard to:</p> <ul style="list-style-type: none"> (a) the health and safety of people; (b) any impact on property; (c) any impact on the environment; (d) the advice contained in a coastal erosion hazard report; and (e) any advice from a State authority, regulated entity or a council.

Acceptable Solutions	Performance Criteria
<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>In addition to the requirements in clause C10.5.3 P1.2, vulnerable use within a coastal erosion hazard area, must be protected from coastal erosion, having regard to:</p> <ul style="list-style-type: none"> (a) any protection measures, existing or proposed; (b) the ability and capability of people in a coastal erosion event who may live, work or visit the site, to: <ul style="list-style-type: none"> (i) protect themselves; (ii) evacuate in an emergency; and (iii) understand and respond to instructions in the event of an emergency; (c) any emergency evacuation plan; (d) the level of risk for emergency personnel involved in evacuation and rescue tasks; (e) the advice contained in a coastal erosion hazard report; and (f) any advice from a State authority, regulated entity or a council.

C10.5.4 Uses located within a coastal erosion investigation area

Objective:	That use within a coastal erosion investigation area can achieve and maintain a tolerable risk from coastal erosion.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A coastal erosion investigation area report for a use within a coastal erosion investigation area demonstrates that:</p> <ul style="list-style-type: none"> (a) it is not located within a low, medium or high coastal erosion hazard band; (b) it is located within a high coastal erosion hazard band and it meets the requirements in clause C10.5.1 P1; (c) it is located within a non-urban zone and within a low or medium coastal erosion hazard band

	<p>and it meets the requirements in clause C10.5.2 P1; or</p> <p>(d) if it is for a critical use, hazardous use, or vulnerable use, it is located within a low, medium or high coastal erosion hazard band and it meets the relevant requirements in clause C10.5.3 P1, P2, P3 and P4.</p>
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C10.6 Development Standards for Buildings and Works

C10.6.1 Buildings and works, excluding coastal protection works, within a coastal erosion hazard area

Objective:	That: <ul style="list-style-type: none"> (a) building and works, excluding coastal protection works, within a coastal erosion hazard area, can achieve and maintain a tolerable risk from coastal erosion; and (b) buildings and works do not increase the risk from coastal erosion to adjacent land and public infrastructure.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>Buildings and works, excluding coastal protection works, within a coastal erosion hazard area must have a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) whether any increase in the level of risk from coastal erosion requires any specific hazard reduction or protection measures; (b) any advice from a State authority, regulated entity or a council; and (c) the advice contained in a coastal erosion hazard report. <p>P1.2</p> <p>A coastal erosion hazard report demonstrates that:</p> <ul style="list-style-type: none"> (a) the building and works: <ul style="list-style-type: none"> (i) do not cause or contribute to any coastal erosion on the site, on adjacent land or public infrastructure; and (ii) can achieve and maintain a tolerable risk from a coastal erosion event in 2100 for the intended life of the use without requiring any specific coastal erosion protection works; (b) buildings and works are not located on actively mobile landforms, unless for engineering or

	remediation works to protect land, property and human life.
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C10.6.2 Coastal protection works within a coastal erosion hazard area

Objective:	That coastal protection works located within a coastal erosion hazard area are kept to a minimum, appropriately located, fit for purpose and do not increase the likely risks from coastal erosion to adjacent land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Coastal protection works within a coastal erosion hazard area must be appropriately located, fit for purpose and kept to a minimum, having regard to:</p> <ul style="list-style-type: none"> (a) if within a non-urban zone, the works are for the protection of a use that relies upon a coastal location to fulfil its purpose; (b) the advice contained in a coastal erosion hazard report that: <ul style="list-style-type: none"> (i) there is no increased risk from coastal erosion on the site, on adjacent land or public infrastructure; and (ii) risks from coastal erosion to 2100 can be mitigated; (c) the need for arrangements to be made, including with the applicant, to meet the cost of construction and ongoing maintenance of the coastal protection works; and (d) any advice from a State authority, regulated entity or a council.

C10.6.3 Buildings and works located within a coastal erosion investigation area

Objective:	<p>That:</p> <p>(a) buildings and works, excluding coastal protection works, within a coastal erosion investigation area can achieve and maintain a tolerable risk from coastal erosion; and</p> <p>(b) coastal protection works located within a coastal erosion investigation area are kept to a minimum, appropriately located, fit for purpose and do not increase the likely risks from coastal erosion to adjacent land.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A coastal erosion investigation area report for buildings and works within a coastal erosion investigation area demonstrates that:</p> <p>(a) it is not located within a low, medium or high coastal erosion hazard band;</p> <p>(b) it is located within a low, medium or high coastal erosion hazard band and it meets the requirements in clause C10.6.1 P1; or</p> <p>(c) if for coastal protection works, it meets the requirements in clause C10.6.2 P1.</p>

C10.7 Development Standards for Subdivision

C10.7.1 Subdivision within a coastal erosion hazard area

Objective:	That subdivision within a coastal erosion hazard area does not create opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal erosion.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a coastal erosion hazard area, must:</p> <p>(a) be able to contain a building area, vehicle access, and services, that are wholly located</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a coastal erosion hazard area must not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal</p>

<p>outside a coastal erosion hazard area;</p> <p>(b) be for the creation of separate lots for existing buildings;</p> <p>(c) be required for public use by the Crown, a council or a State authority; or</p> <p>(d) be required for the provision of Utilities, and not be located on an actively mobile landform.</p>	<p>erosion, having regard to:</p> <p>(a) any increase in risk from coastal erosion for adjacent land;</p> <p>(b) the level of risk to use or development arising from an increased reliance on public infrastructure;</p> <p>(c) the need to minimise future remediation works;</p> <p>(d) any loss or substantial compromise, by coastal erosion, of access to the lot on or off site;</p> <p>(e) the need to locate building areas outside the coastal erosion hazard area;</p> <p>(f) any advice from a State authority, regulated entity or a council; and</p> <p>(g) the advice contained in a coastal erosion hazard report,</p> <p>and works must not be located on actively mobile landforms unless for engineering or remediation works to protect land, property and human life.</p>
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C11.0 Coastal Inundation Hazard Code

C11.1 Code Purpose

The purpose of the Coastal Inundation Hazard Code is:

- C11.1.1 To ensure that use or development subject to risk from coastal inundation is appropriately located and managed so that:
- (a) people, property and infrastructure are not exposed to an unacceptable level of risk;
 - (b) future costs associated with options for adaptation, protection, retreat or abandonment of property and infrastructure are minimised;
 - (c) it does not increase the risk from coastal inundation to other land or public infrastructure; and
 - (d) works to protect land from coastal inundation are undertaken in a way that provides appropriate protection without increasing risks to other land.
- C11.1.2 To provide for appropriate use or development that relies upon a coastal location to fulfil its purpose.

C11.2 Application of this Code

- C11.2.1 This code applies to use and development of land within a coastal inundation hazard area.
- C11.2.2 This code applies to land in a coastal inundation investigation area where a suitably qualified person has provided a land survey showing an AHD for the land that falls within one of the coastal inundation hazard band levels shown in the coastal inundation hazard bands AHD levels list in the relevant Local Provisions Schedule and the standards relevant to each band apply.
- C11.2.3 This code does not apply to land in a coastal inundation investigation area where a suitably qualified person has provided a land survey showing an AHD for the land in excess of the low hazard band level relevant for that land, as shown in the coastal inundation hazard bands AHD levels list in the relevant Local Provisions Schedule.
- C11.2.4 For the purposes of C11.5.1 and C11.5.2, Residential or Visitor Accommodation are not Use Classes that are reliant on a coastal location.

C11.3 Definition of Terms

C11.3.1 In this code, unless the contrary intention appears:

Term	Definition
coastal inundation	means the risk of temporary or permanent inundation of land by the sea as a result of: <ul style="list-style-type: none"> (a) storm surge; (b) tides; or (c) sea-level rise.
coastal inundation hazard area	means land: <ul style="list-style-type: none"> (a) shown on an overlay map in the relevant Local Provisions Schedule, as within a coastal inundation hazard area, which is classified into one of

Term	Definition
	<p>three coastal inundation hazard bands; or</p> <p>(b) in a coastal inundation investigation area where a suitably qualified person has provided a land survey showing an AHD for the land that falls within one of the coastal inundation hazard band levels shown in the coastal inundation hazard bands AHD levels list in the relevant Local Provisions Schedule.</p>
<p>coastal inundation hazard bands</p>	<p>means the classification of land within a coastal inundation hazard area into one of the following coastal inundation hazard bands:</p> <p>(a) low;</p> <p>(b) medium; or</p> <p>(c) high.</p>
<p>coastal inundation hazard report</p>	<p>means a report prepared by a suitably qualified person for a site that must include:</p> <p>(a) details of, and be signed by, the person who prepared or verified the report;</p> <p>(b) confirmation that the person has the appropriate qualifications and expertise;</p> <p>(c) confirmation that the report has been prepared in accordance with any methodology specified by a State authority; and</p> <p>(d) conclusions based on consideration of the proposed use and development:</p> <p>(i) as to whether the use or development is likely to cause or contribute to coastal inundation on the site or on adjacent land;</p> <p>(ii) as to whether the use or development can achieve and maintain a tolerable risk for the intended life of the use or development, having regard to:</p> <p>a. the nature, intensity and duration of the use;</p> <p>b. the type, form and duration of any development;</p> <p>c. the likely change in the risk across the intended life of the use or development;</p> <p>d. the ability to adapt to a change in the level of risk;</p> <p>e. the ability to maintain access to utilities and services;</p> <p>f. the need for specific coastal inundation hazard reduction or protection measures on the site;</p> <p>g. the need for coastal inundation reduction or protection measures beyond the boundary of the site;</p> <p>h. any coastal inundation management plan in place for the site or adjacent land;</p> <p>(iii) any advice relating to the ongoing management of the use or development; and</p> <p>(iv) relating to any matter specifically required by Performance Criteria in this code.</p>

coastal inundation investigation area	means land shown on an overlay map in the relevant Local Provisions Schedule as within a coastal inundation investigation area.
coastal inundation management plan	means a management plan for a coastal inundation hazard area endorsed by the relevant council.
critical use	means a use that is within one of the following Use Classes: (a) Emergency Services; or (b) Hospital Services.
hazardous use	means a use that is within one of the following Use Classes: (a) Crematoria and Cemeteries; (b) Extractive Industry, if the use involves the storage of a hazardous chemical of a manifest quantity; (c) Hospital Services, if the use involves the storage of a hazardous chemical of a manifest quantity; (d) Manufacturing and Processing, if the use involves the storage of a hazardous chemical of a manifest quantity; (e) Recycling and Waste Disposal; (f) Research and Development, if the use involves the storage of a hazardous chemical of a manifest quantity; (g) Storage, if the use involves the storage of a hazardous chemical of a manifest quantity; (h) Transport Depot and Distribution, if the use involves the storage of a hazardous chemical of a manifest quantity; (i) Utilities, if the use involves the storage of a hazardous chemical of a manifest quantity; or (j) Vehicle Fuel Sales and Service.
non-urban zone	means land shown on a zone map in the relevant Local Provisions Schedule, as within the following zones: (a) Rural Living Zone; (b) Rural Zone; (c) Agriculture Zone; (d) Landscape Conservation Zone; (e) Environmental Management Zone; (f) Utilities Zone; (g) Open Space Zone; and (h) Future Urban Zone.
urban zone	means land shown on a zone map in the relevant Local Provisions Schedule, as within the following zones: (a) General Residential Zone; (b) Inner Residential Zone; (c) Low Density Residential Zone; (d) Village Zone; (e) Urban Mixed Use Zone; (f) Local Business Zone; (g) General Business Zone;

	<ul style="list-style-type: none"> (h) Central Business Zone; (i) Commercial Zone; (j) Light Industrial Zone; (k) General Industrial Zone; (l) Major Tourism Zone; (m) Port and Marine Zone; (n) Community Purpose Zone; (o) Recreation Zone; and (p) any particular purpose zone.
<p>vulnerable use</p>	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Custodial Facility; (b) Educational and Occasional Care; (c) Residential, if for respite centre, residential care facility, retirement village or assisted housing; or (d) Visitor Accommodation, if the use accommodates more than 12 guests.

C11.4 Use or Development Exempt from this Code

C11.4.1 The following use or development is exempt from this Code:

- (a) development that requires authorisation under the *Building Act 2016*, excluding:
 - (i) a critical use, hazardous use, or vulnerable use;
 - (ii) if located within a high coastal inundation hazard band;
 - (iii) located within a non-urban zone and within a medium coastal inundation hazard band;
or
 - (iv) coastal protection works;
- (b) intensification of an existing use, if not for a critical, hazardous, or vulnerable use;
- (c) alterations or extensions to an existing building located within a high coastal inundation hazard band, if:
 - (i) the site coverage is not increased by more than 20m² from that existing at the effective date; and
 - (ii) not for a critical, hazardous, or vulnerable use;
- (d) use or development of land for:
 - (i) Natural and Cultural Values Management;
 - (ii) Passive Recreation;
 - (iii) Port and Shipping in a proclaimed wharf area;
 - (iv) Resource Development; or
 - (v) minor utilities;
- (e) planting or disturbance of vegetation on existing pasture or crop production land; or
- (f) consolidation of lots.

C11.5 Use Standards

C11.5.1 Uses within a high coastal inundation hazard band

Objective:	That use within a high coastal inundation hazard band: <ul style="list-style-type: none"> (a) is reliant on a coastal location; and (b) can achieve and maintain a tolerable risk from coastal inundation.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>A use within a high coastal inundation hazard band must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore

	<p>facility;</p> <p>(c) the need to access infrastructure available in a coastal location;</p> <p>(d) the need to service a marine or coastal related activity;</p> <p>(e) provision of an essential utility or marine infrastructure;</p> <p>(f) provision of open space or for marine-related educational, research, or recreational facilities;</p> <p>(g) any advice from a State authority, regulated entity or a council; and</p> <p>(h) the advice obtained in a coastal inundation hazard report.</p> <p>P1.2</p> <p>A coastal inundation hazard report also demonstrates that:</p> <p>(a) any increase in the level of risk from coastal inundation does not require any specific hazard reduction or protection measures; or</p> <p>(b) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.</p>
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C11.5.2 Uses located within a non-urban zone and within a medium coastal inundation hazard band

Objective:	To ensure that a use located within a non-urban zone and within a medium coastal inundation hazard band: <ul style="list-style-type: none"> (a) is reliant on a coastal location; and (b) can achieve and maintain a tolerable risk from exposure to coastal inundation.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>A use within a non-urban zone and within a medium coastal inundation hazard band must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to operate a marine farming shore

	<p>facility;</p> <p>(c) the need to access infrastructure available in a coastal location;</p> <p>(d) the need to service a marine or coastal related activity;</p> <p>(e) provision of an essential utility or marine infrastructure;</p> <p>(f) provision of open space or for marine-related educational, research, or recreational facilities;</p> <p>(g) any advice from a State authority, regulated entity or a council; and</p> <p>(h) the advice obtained in a coastal inundation hazard report.</p> <p>P1.2</p> <p>A coastal inundation hazard report also demonstrates that:</p> <p>(a) any increase in the level of risk from coastal inundation does not require any specific hazard reduction or protection measures; or</p> <p>(b) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.</p>
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C11.5.3 Uses located within a non-urban zone and within a low coastal inundation hazard band

Objective:	That a use located within a non-urban zone and within a low coastal inundation hazard band can achieve and maintain a tolerable risk from coastal inundation.	
	Acceptable Solutions	Performance Criteria
	<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A tolerable risk for a use located within a non-urban zone and within a low coastal inundation hazard band can be achieved and maintained, having regard to:</p> <p>(a) any increase in the level of risk from coastal inundation;</p> <p>(b) any requirement for specific hazard reduction or protection measures;</p> <p>(c) the need to minimise any:</p>

	<ul style="list-style-type: none"> (i) increase in risk to public infrastructure; and (ii) reliance on coastal protection works; (d) any advice from a State authority, regulated entity or a council; and (e) the advice contained in a coastal inundation hazard report.
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C11.5.4 Critical use, hazardous use or vulnerable use

Objective:	That critical, hazardous and vulnerable uses located within a coastal inundation hazard area can achieve and maintain a tolerable risk from coastal inundation.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>If located within a non-urban zone or a high coastal inundation hazard band, the use must be for a use which relies upon a coastal location to fulfil its purpose, having regard to:</p> <ul style="list-style-type: none"> (a) the need to access a specific resource in a coastal location; (b) the need to access infrastructure available in a coastal location; (c) the need to operate a marine farming shore facility; (d) the need to service a marine or coastal related activity; (e) provision of an essential utility or marine infrastructure; and (f) provision of open space or for marine-related educational, research, or recreational facilities; (g) the advice contained in a coastal inundation hazard report. <p>P1.2</p> <p>A coastal inundation hazard report also demonstrates that:</p> <ul style="list-style-type: none"> (a) an increase in the level of risk from a coastal inundation does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability

	<p>coastal inundation event in 2100 for the intended life of the use without requiring any specific hazard reduction or protection measures.</p>
<p>A2 No Acceptable Solution.</p>	<p>P2</p> <p>In addition to the requirements in clause C11.5.4 P1.2, a critical use within a coastal inundation hazard area must achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100, having regard to:</p> <ul style="list-style-type: none"> (a) the ability of the use to function and maintain service during the coastal inundation event and recovery period; (b) any interruption to the operation of the critical use in locations external to the immediate impact of the coastal inundation event; (c) the creation of a risk to the health or safety of people from damage or disruption to: <ul style="list-style-type: none"> (i) a water supply service; or (ii) the drainage and treatment of waste water; (d) the advice contained in a coastal inundation hazard report; and (e) any advice from a State authority, regulated entity or a council.
<p>A3 No Acceptable Solution.</p>	<p>P3</p> <p>In addition to the requirements in clause C11.5.4 P1.2, the impact of coastal inundation on a hazardous use within a coastal inundation hazard area must have a tolerable risk in a 1% annual exceedance probability coastal inundation event in 2100, having regard to:</p> <ul style="list-style-type: none"> (a) the health and safety of people; (b) any impact on property; (c) any impact on the environment; (d) the advice contained in a coastal inundation hazard report; and (e) any advice from a State authority, regulated entity or a council.

<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>In addition to the requirements in clause C11.5.4 P1.2, a vulnerable use in a coastal inundation hazard area must be protected from coastal inundation in a 1% annual exceedance probability coastal inundation event in 2100, having regard to:</p> <ul style="list-style-type: none">(a) any protection measures, existing or proposed;(b) the ability and capability of people in a coastal inundation event who may live, work or visit the site, to:<ul style="list-style-type: none">(i) protect themselves;(ii) evacuate in an emergency; and(iii) understand and respond to instructions in the event of an emergency;(c) any emergency evacuation plan;(d) the level of risk for emergency personnel involved in evacuation and rescue tasks;(e) the advice contained in a coastal inundation hazard report; and(f) any advice from a State authority, regulated entity or a council.
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C11.6 Development Standards for Buildings and Works

C11.6.1 Buildings and works, excluding coastal protection works, within a coastal inundation hazard area

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) building and works, excluding coastal protection works, within a coastal inundation hazard area, can achieve and maintain a tolerable risk from coastal inundation; and (b) buildings and works do not increase the risk from coastal inundation to adjacent land and public infrastructure.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>Buildings and works, excluding coastal protection works, within a coastal inundation hazard area must have a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) whether any increase in the level of risk from coastal inundation requires any specific hazard reduction or protection measures; (b) any advice from a State authority, regulated entity or a council; and (c) the advice contained in a coastal inundation hazard report. <p>P1.2</p> <p>A coastal inundation hazard report also demonstrates that the building or works:</p> <ul style="list-style-type: none"> (a) do not cause or contribute to coastal inundation on the site, on adjacent land or public infrastructure; and (b) can achieve and maintain a tolerable risk from a 1% annual exceedance probability coastal inundation event in 2100 for the intended life of the use without requiring any specific coastal inundation protection works.

C11.6.2 Coastal protection works within a coastal inundation hazard area

Objective:	That coastal protection works located within a coastal inundation hazard area are kept to a minimum, appropriately located, fit for purpose and do not increase the likely risks from coastal inundation to adjacent land.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>Coastal protection works within a coastal inundation hazard area must be appropriately located, fit for purpose and kept to a minimum, having regard to:</p> <ul style="list-style-type: none"> (a) if within a non-urban zone, the works are for the protection of a use that relies upon a coastal location to fulfil its purpose; (b) the advice contained in a coastal inundation hazard report that: <ul style="list-style-type: none"> (i) there will not be an increased risk of coastal inundation from a 1% annual exceedance probability coastal inundation event in 2100 on the site, on adjacent land or public infrastructure; and (ii) the risks from coastal inundation in a 1% annual exceedance probability coastal inundation event in 2100 can be mitigated; (c) the need for arrangements to be made, including with the applicant, to meet the cost of construction and ongoing maintenance of the coastal protection works; and (d) any advice from a State authority, regulated entity or a council.

C11.7 Development Standards for Subdivision

C11.7.1 Subdivision within a coastal inundation hazard area

Objective:	That subdivision within a coastal inundation hazard area does not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation.	
Acceptable Solutions		Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a coastal inundation hazard area, must:</p> <ul style="list-style-type: none"> (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a coastal inundation hazard area; (b) be for the creation of separate lots for existing buildings; (c) be required for public use by the Crown, a council or a State authority; or (d) be required for the provision of Utilities. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision within a coastal inundation hazard area must not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation, having regard to:</p> <ul style="list-style-type: none"> (a) any increase in risk from coastal inundation for adjacent land; (b) the level of risk to use or development arising from an increased reliance on public infrastructure; (c) the need to minimise future remediation works; (d) any loss or substantial compromise, by coastal inundation, of access to the lot on or off site; (e) the need to locate building areas outside the coastal inundation hazard area; (f) any advice from a State authority, regulated entity or a council; and (g) the advice contained in a coastal inundation hazard report. 	

C12.0 Flood-Prone Areas Hazard Code

C12.1 Code Purpose

The purpose of the Flood-Prone Areas Hazard Code is:

- C12.1.1 To ensure that use or development subject to risk from flood is appropriately located and managed, so that:
- (a) people, property and infrastructure are not exposed to an unacceptable level of risk;
 - (b) future costs associated with options for adaptation, protection, retreat or abandonment of property and infrastructure are minimised; and
 - (c) it does not increase the risk from flood to other land or public infrastructure.
- C12.1.2 To preclude development on land that will unreasonably affect flood flow or be affected by permanent or periodic flood.

C12.2 Application of this Code

- C12.2.1 This code applies to development of land within a flood-prone hazard area.
- C12.2.2 This code applies to use of land within a flood-prone hazard area if for:
- (a) a change of use that converts a non-habitable building to a habitable building; or
 - (b) a new habitable room within an existing building.
- C12.2.3 This code applies to use in a habitable building, or development of land, identified in a report prepared by a suitably qualified person, that is lodged with an application for a permit, or required in response to a request under section 54 of the Act, as subject to risk from flood or that has the potential to cause increased risk from flood.
- C12.2.4 The planning authority may only make a request under clause C12.2.3 where it reasonably believes, based on information in its possession, that the land is subject to risk from flood or has the potential to cause increased risk from flood.
- C12.2.5 This code does not apply to land subject to the Coastal Inundation Hazard Code.

C12.3 Definition of Terms

C12.3.1 In this code, unless the contrary intention appears:

Term	Definition
critical use	means a use that is within one of the following Use Classes: (a) Emergency Services; or (b) Hospital Services.
flood	means the risk of periodic or permanent flooding of land from a watercourse or other inland water source.
flood-prone hazard area	means land: (a) shown on an overlay map in the relevant Local Provisions Schedule, as within a flood-prone hazard area; or (b) identified in a report for the purposes of C12.2.3.
flood hazard report	means a report prepared by a suitably qualified person for a site, that must include: (a) details of, and be signed by, the person who prepared or verified the report; (b) confirmation that the person has the appropriate qualifications and expertise; (c) confirmation that the report has been prepared in accordance with any methodology specified by a State authority; and (d) conclusions based on consideration of the proposed use or development: (i) as to whether the use or development is likely to cause or contribute to the occurrence of flood on the site or on adjacent land; (ii) as to whether the use or development can achieve and maintain a tolerable risk for the intended life of the use or development, having regard to: a. the nature, intensity and duration of the use; b. the type, form and duration of any development; c. the likely change in the level of risk across the intended life of the use or development; d. the ability to adapt to a change in the level of risk; e. the ability to maintain access to utilities and services; f. the need for flood reduction or protection measures beyond the boundary of the site; g. any flood management plan in place for the site and/or adjacent land; and h. any advice relating to the ongoing management of the use or development; and (iii) any matter specifically required by Performance Criteria in this code.

Term	Definition
flood management plan	means a management plan for a flood-prone hazard area endorsed by the relevant council.
hazardous use	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Crematoria and Cemeteries; (b) Extractive Industry, if the use involves the storage of a hazardous chemical of a manifest quantity; (c) Hospital Services, if the use involves the storage of a hazardous chemical of a manifest quantity; (d) Manufacturing and Processing, if the use involves the storage of a hazardous chemical of a manifest quantity; (e) Recycling and Waste Disposal; (f) Research and Development, if the use involves the storage of a hazardous chemical of a manifest quantity; (g) Storage, if the use involves the storage of a hazardous chemical of a manifest quantity; (h) Transport Depot and Distribution, if the use involves the storage of a hazardous chemical of a manifest quantity; (i) Utilities, if the use involves the storage of a hazardous chemical of a manifest quantity; or (j) Vehicle Fuel Sales and Service.
vulnerable use	<p>means a use that is within one of the following Use Classes:</p> <ul style="list-style-type: none"> (a) Custodial Facility; (b) Educational and Occasional Care; (c) Residential, if for a respite centre, residential care facility, retirement village or assisted housing; or (d) Visitor Accommodation, if the use accommodates more than 12 guests.

C12.4 Use or Development Exempt from this Code

C12.4.1 The following use or development is exempt from this code:

- (a) alterations or extensions to an existing building if:
 - (i) the site coverage is not increased by more than 20m² from that existing at the effective date; and
 - (ii) not for a critical, hazardous, or vulnerable use;
- (b) use or development of land for:
 - (i) Natural and Cultural Values Management;
 - (ii) Passive Recreation;
 - (iii) Port and Shipping in a proclaimed wharf area;
 - (iv) Resource Development, excluding a habitable building;
 - (v) minor utilities;
 - (vi) infrastructure for the generation of hydro-electricity; and
 - (vii) outbuildings;
- (c) planting or disturbance of vegetation on existing pasture or crop production land; and
- (d) consolidation of lots.

C12.5 Use Standards

C12.5.1 Uses within a flood-prone hazard area

Objective:	That a habitable building can achieve and maintain a tolerable risk from flood.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>A change of use that, converts a non-habitable building to a habitable building, or a use involving a new habitable room within an existing building, within a flood-prone hazard area must have a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) the location of the building; (b) the advice in a flood hazard report; and (c) any advice from a State authority, regulated entity or a council. <p>P1.2</p> <p>A flood hazard report also demonstrates that:</p> <ul style="list-style-type: none"> (a) any increase in the level of risk from flood does not require any specific hazard reduction or protection measures; or (b) the use can achieve and maintain a tolerable risk from a 1 % annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures.

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C12.5.2 Critical use, hazardous use or vulnerable use

Objective:	That critical, hazardous and vulnerable uses, located within a flood-prone hazard area can achieve and maintain a tolerable risk from flood.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A critical, hazardous, or vulnerable use within a flood-prone hazard area must achieve a tolerable level of risk from flood, having regard to:</p> <ul style="list-style-type: none"> (a) the type form and duration of the use; and (b) a flood hazard report that demonstrates that: <ul style="list-style-type: none"> (i) any increase in the level of risk from flood does not warrant any specific hazard reduction or protection measures; or (ii) the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures.
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>In addition to the requirements in clause C12.5.2 P1, a critical use within a flood-prone hazard area must achieve and maintain a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) the ability of the use to function and maintain service during the flood event and recovery period; (b) any interruption to the operation of the critical use in locations external to the immediate impact of the flood; (c) the creation of risk to the health or safety of people from damage or disruption to: <ul style="list-style-type: none"> (i) a water supply service; or (ii) the drainage and treatment of waste water; (d) the advice contained in a flood hazard report; and (e) any advice from a State authority, regulated entity or a council.

<p>A3</p> <p>No Acceptable Solution.</p>	<p>P3</p> <p>In addition to the requirements in clause C12.5.2 P1, the impact of flood on a hazardous use within a flood-prone hazard area must achieve and maintain a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) the health and safety of people; (b) any impact on property; (c) any impact on the environment; (d) the advice contained in a flood hazard report; and (e) any advice from a State authority, regulated entity or a council.
<p>A4</p> <p>No Acceptable Solutions.</p>	<p>P4</p> <p>In addition to the requirements in clause C12.5.2 P1, a vulnerable use within a flood-prone hazard area, must be protected from flood, having regard to:</p> <ul style="list-style-type: none"> (a) any protection measures, existing or proposed; (b) the ability and capability of people in a flood event who may live, work or visit the site, to: <ul style="list-style-type: none"> (i) protect themselves; (ii) evacuate in an emergency; and (iii) understand and respond to instructions in the event of an emergency; (c) any emergency evacuation plan; (d) the level of risk for emergency personnel involved in evacuation and rescue tasks; (e) the advice contained in a flood hazard report; and (f) any advice from a State authority, regulated entity or a council.

C12.6 Development Standards for Buildings and Works

C12.6.1 Buildings and works within a flood-prone hazard area

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) building and works within a flood-prone hazard area can achieve and maintain a tolerable risk from flood; and (b) buildings and works do not increase the risk from flood to adjacent land and public infrastructure.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>Buildings and works within a flood-prone hazard area must achieve and maintain a tolerable risk from a flood, having regard to:</p> <ul style="list-style-type: none"> (a) the type, form, scale and intended duration of the development; (b) whether any increase in the level of risk from flood requires any specific hazard reduction or protection measures; (c) any advice from a State authority, regulated entity or a council; and (d) the advice contained in a flood hazard report. <p>P1.2</p> <p>A flood hazard report also demonstrates that the building and works:</p> <ul style="list-style-type: none"> (a) do not cause or contribute to flood on the site, on adjacent land or public infrastructure; and (b) can achieve and maintain a tolerable risk from a 1% annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures.

C12.7 Development Standards for Subdivision

C12.7.1 Subdivision within a flood-prone hazard area

Objective:	That subdivision within a flood-prone hazard area does not create an opportunity for use or development that cannot achieve a tolerable risk from flood.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a flood-prone hazard area, must:</p> <ul style="list-style-type: none"> (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a flood-prone hazard area; (b) be for the creation of separate lots for existing buildings; (c) be required for public use by the Crown, a council or a State authority; or (d) be required for the provision of Utilities. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a flood-prone hazard area, must not create an opportunity for use or development that cannot achieve a tolerable risk from flood, having regard to:</p> <ul style="list-style-type: none"> (a) any increase in risk from flood for adjacent land; (b) the level of risk to use or development arising from an increased reliance on public infrastructure; (c) the need to minimise future remediation works; (d) any loss or substantial compromise by flood of access to the lot, on or off site; (e) the need to locate building areas outside the flood-prone hazard area; (f) any advice from a State authority, regulated entity or a council; and (g) the advice contained in a flood hazard report.

C13.0 Bushfire-Prone Areas Code

C13.1 Code Purpose

The purpose of the Bushfire-Prone Areas Code is:

- C13.1.1 To ensure that use and development is appropriately designed, located, serviced, and constructed, to reduce the risk to human life and property, and the cost to the community, caused by bushfires.

C13.2 Application of this Code

C13.2.1 This code applies to:

- (a) subdivision of land that is located within, or partially within, a bushfire-prone area; and
- (b) a use, on land that is located within, or partially within, a bushfire-prone area, that is a vulnerable use or hazardous use.

C13.3 Definition of Terms

C13.3.1 In this code, unless the contrary intention appears:

Term	Definition
accredited person	means as defined in the Act.
bushfire attack level (BAL)	means the bushfire attack level as defined in <i>Australian Standard AS3959:2018 Construction of buildings in bushfire-prone areas</i> as ‘a means of measuring the severity of a building’s potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire’.
bushfire hazard management plan	means as defined in the Act.
bushfire protection measures	means the measures that might be used to reduce the risk of bushfire attack and the threat to life and property in the event of bushfire.
bushfire-prone area	means: <ul style="list-style-type: none"> (a) land shown on an overlay map in the relevant Local Provisions Schedule, as within a bushfire-prone area; or (b) where there is no overlay map in the relevant Local Provisions Schedule, land that is within 100m of an area of bushfire-prone vegetation equal to or greater than 1ha.
bushfire-prone vegetation	means contiguous vegetation including grasses and shrubs but not including maintained lawns, parks and gardens, nature strips, plant nurseries, golf courses, vineyards, orchards or vegetation on land that is used for horticultural purposes.

Term	Definition
carriageway	means the section of road formation which is used by traffic, and includes all the area of the traffic lane pavement together with the formed shoulders.
contiguous	means separated by less than 20m.
emergency management strategy (hazardous use)	<p>means a strategy that provides for mitigation measures to achieve and maintain a level of tolerable risk that is specifically developed to address the characteristics, nature and scale of the use considering:</p> <ul style="list-style-type: none"> (a) the nature of the bushfire-prone vegetation including the type, fuel load, structure and flammability; and (b) available fire protection measures to: <ul style="list-style-type: none"> (i) prevent the hazardous use from contributing to the spread or intensification of bushfire; (ii) limit the potential for bushfire to be ignited on the site; (iii) prevent exposure of people and the environment to the hazardous chemicals, explosives or emissions as a consequence of bushfire; and (iv) reduce risk to emergency service personnel.
emergency management strategy (vulnerable use)	<p>means a strategy that provides for mitigation measures to achieve and maintain a level of tolerable risk that is specifically developed to address the characteristics, nature and scale of the use considering:</p> <ul style="list-style-type: none"> (a) the nature of the bushfire-prone vegetation including the type, fuel load, structure and flammability; (b) the ability of occupants of the vulnerable use to: <ul style="list-style-type: none"> (i) protect themselves and defend property from bushfire attack; (ii) evacuate in an emergency; and (iii) understand and respond to instructions in the event of a bushfire; and (c) any bushfire protection measures available to reduce risk to emergency service personnel.
fire fighting water point	means the point where a fire appliance is able to connect to a water supply for fire fighting purposes. This includes a coupling in the case of a fire hydrant, offtake or outlet, or the minimum water level in the case of a static water supply.
fire hydrant	means as described in <i>Australian Standard AS2419.1-2005 Fire hydrant installations, Part 1: System design, installation and commissioning</i> .
hardstand	means as described in <i>Australian Standard AS 2419.1-2005 Fire hydrant installations, Part1: System design, installation and commissioning</i> .
hazard management area	means the area, between a habitable building or building area and bushfire-prone vegetation, which provides access to a fire front for fire fighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.
hazardous use	means a use where:

Term	Definition
	(a) hazardous chemicals of a manifest quantity are stored on a site; or (b) explosives are stored on a site and where classified as an explosives location or large explosives location as specified in the <i>Explosives Act 2012</i> .
hose lay	means the distance between two points established by a fire hose laid out on the ground, inclusive of obstructions.
property access	means the carriageway which provides vehicular access from the carriageway of a road onto land, measured along the centre line of the carriageway, from the edge of the road carriageway to the nearest point of the building area.
static water supply	means water stored in a tank, swimming pool, dam, or lake, that is available for fire fighting purposes at all times.
TFS	means Tasmania Fire Service.

Term	Definition
vulnerable use	means a use that is within one or more of the following use classes: <ul style="list-style-type: none"> (a) Custodial Facility; (b) Education and Occasional Care; (c) Hospital Services; (d) Residential if the use is for assisted housing, residential care facility, respite centre or retirement village.
water corporation	means the corporation within the meaning of the <i>Water and Sewerage Corporation Act 2012</i> .

C13.4 Use or Development Exempt from this Code

C13.4.1 The following use or development is exempt from this code:

- (a) any use or development that the TFS or an accredited person, having regard to the objective of all applicable standards in this code, certifies there is an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures; and
- (b) adjustment of a boundary in accordance with clause 7.3 of this planning scheme.

C13.5 Use Standards

C13.5.1 Vulnerable uses

Objective:	That vulnerable uses can only be located on land within a bushfire-prone area where tolerable risks are achieved through mitigation measures that take into account the specific characteristics of both the vulnerable use and the bushfire hazard.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A vulnerable use must only be located in a bushfire-prone area if a tolerable risk from bushfire can be achieved and maintained, having regard to:</p> <ul style="list-style-type: none"> (a) the location, characteristics, nature and scale of the use; (b) whether there is an overriding benefit to the community; (c) whether there is no suitable alternative lower-risk site; (d) the emergency management strategy (vulnerable use) and bushfire hazard management plan; and (e) other advice, if any, from the TFS.
<p>A2</p> <p>An emergency management strategy (vulnerable use) is endorsed by the TFS or accredited person.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>A bushfire hazard management plan that contains appropriate bushfire protection measures that is certified by the TFS or an accredited person.</p>	<p>P3</p> <p>No Performance Criterion.</p>

C13.5.2 Hazardous uses

Objective:	That hazardous uses can only be located on land within a bushfire-prone area where tolerable risks are achieved through mitigation measures that take into account the specific characteristics of both the hazardous use and the bushfire hazard.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1</p> <p>A hazardous use must only be located in a bushfire-prone area if a tolerable risk from bushfire can be achieved and maintained, having regard to:</p> <ul style="list-style-type: none"> (a) the location, characteristics, nature and scale of the use; (b) whether there is an overriding benefit to the community; (c) whether there is no suitable alternative lower-risk site; (d) the emergency management strategy (hazardous use) and bushfire management plan; and (e) other advice, if any, from the TFS.
<p>A2</p> <p>An emergency management strategy (hazardous use) endorsed by the TFS or accredited person.</p>	<p>P2</p> <p>No Performance Criterion.</p>
<p>A3</p> <p>A bushfire hazard management plan that contains appropriate bushfire protection measures that is certified by the TFS or an accredited person.</p>	<p>P3</p> <p>No Performance Criterion.</p>

C13.6 Development Standards for Subdivision

C13.6.1 Provision of hazard management areas

Objective:	<p>That subdivision provides for hazard management areas that:</p> <ul style="list-style-type: none"> (a) facilitate an integrated approach between subdivision and subsequent building on a lot; (b) provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and (c) provide protection for lots at any stage of a staged subdivision.
Acceptable Solutions	Performance Criteria
<p>A1</p> <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or (b) The proposed plan of subdivision: <ul style="list-style-type: none"> (i) shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivision; (ii) shows the building area for each lot; (iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.6 of <i>Australian Standard AS3959:2018 Construction of buildings in bushfire-prone areas</i>; and (iv) is accompanied by a bushfire hazard management plan that addresses all the individual lots and that is certified by the TFS or accredited person, showing hazard management areas equal to, or greater than the separation distances required for BAL 19 in Table 2.6 of <i>Australian Standard AS3959:2018 Construction of buildings in bushfire-prone Areas</i>; and (c) if hazard management areas are to be located on land external to the proposed subdivision 	<p>P1</p> <p>A proposed plan of subdivision shows adequate hazard management areas in relation to the building areas shown on lots within a bushfire-prone area, having regard to:</p> <ul style="list-style-type: none"> (a) the dimensions of hazard management areas; (b) a bushfire risk assessment of each lot at any stage of staged subdivision; (c) the nature of the bushfire-prone vegetation including the type, fuel load, structure and flammability; (d) the topography, including site slope; (e) any other potential forms of fuel and ignition sources; (f) separation distances from the bushfire-prone vegetation not unreasonably restricting subsequent development; (g) an instrument that will facilitate management of fuels located on land external to the subdivision; and (h) any advice from the TFS.

<p>the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan.</p>	
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C13.6.2 Public and fire fighting access

<p>Objective:</p>	<p>That access roads to, and the layout of roads, tracks and trails, in a subdivision:</p> <ul style="list-style-type: none"> (a) allow safe access and egress for residents, fire fighters and emergency service personnel; (b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack, and for hazard management works to be undertaken; (c) are designed and constructed to allow for fire appliances to be manoeuvred; (d) provide access to water supplies for fire appliances; and (e) are designed to allow connectivity, and where needed, offering multiple evacuation points.
<p>Acceptable Solutions</p>	<p>Performance Criteria</p>
<p>A1</p> <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of fire fighting; or (b) A proposed plan of subdivision showing the layout of roads, fire trails and the location of property access to building areas, is included in a bushfire hazard management plan that: <ul style="list-style-type: none"> (i) demonstrates proposed roads will comply with Table C13.1, proposed property accesses will comply with Table C13.2 and proposed fire trails will comply with Table C13.3 and (ii) is certified by the TFS or an accredited person. 	<p>P1</p> <p>A proposed plan of subdivision shows access and egress for residents, fire-fighting vehicles and emergency service personnel to enable protection from bushfires, having regard to:</p> <ul style="list-style-type: none"> (a) appropriate design measures, including: <ul style="list-style-type: none"> (i) two way traffic; (ii) all weather surfaces; (iii) height and width of any vegetation clearances; (iv) load capacity; (v) provision of passing bays; (vi) traffic control devices; (vii) geometry, alignment and slope of roads, tracks and trails; (viii) use of through roads to provide for connectivity; (ix) limits on the length of cul-de- sacs and dead-end roads; (x) provision of turning areas;

	<ul style="list-style-type: none">(xi) provision for parking areas;(xii) perimeter access; and(xiii) fire trails; and <p>(b) the provision of access to:</p> <ul style="list-style-type: none">(i) bushfire-prone vegetation to permit the undertaking of hazard management works; and(ii) fire fighting water supplies; and <p>(c) any advice from the TFS.</p>
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Table C13.1: Standards for Roads

Element		Requirement
A.	Roads.	<p>Unless the development standards in the zone require a higher standard, the following apply:</p> <ul style="list-style-type: none"> (a) two-wheel drive, all-weather construction; (b) load capacity of at least 20 tonnes, including for bridges and culverts; (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; (h) curves have a minimum inner radius of 10m; (i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7m in width; (j) dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and (k) carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with <i>Australian Standard AS1743:2018 Road signs-Specifications</i>.

Table C13.2: Standards for Property Access

Element		Requirement
A.	Property access length is less than 30m; or access is not required for a fire appliance to access a fire fighting water point.	There are no specified design and construction requirements.
B.	Property access length is 30m or greater; or access is required for a fire appliance to a fire fighting water point.	<p>The following design and construction requirements apply to property access:</p> <ul style="list-style-type: none"> (a) all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 0.5m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (h) curves with a minimum inner radius of 10m; (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and (j) terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> (i) a turning circle with a minimum outer radius of 10m; or (ii) a property access encircling the building; or (iii) a hammerhead “T” or “Y” turning head 4m wide and 8m long.
C.	Property access length is 200m or greater.	<p>The following design and construction requirements apply to property access:</p> <ul style="list-style-type: none"> (a) the requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m.
D.	Property access length is greater than 30m, and access is provided to 3 or more properties.	<p>The following design and construction requirements apply to property access:</p> <ul style="list-style-type: none"> (a) complies with requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length must be provided every 100m.

Table C13.3: Standards for Fire Trails

Element		Requirement
A.	All fire trails.	<p>The following design and construction requirements apply:</p> <ul style="list-style-type: none"> (a) all-weather, 4-wheel drive construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (h) curves with a minimum inner radius of 10m; (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed fire trails, and 10 degrees (1:5.5 or 18%) for unsealed fire trails; (j) gates if installed at fire trail entry, have a minimum width of 3.6m, and if locked, keys are provided to TFS; and (k) terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> (i) a turning circle with a minimum outer radius of 10m; or (ii) a hammerhead “T” or “Y” turning head 4m wide and 8m long.
B.	Fire trail length is 200m or greater.	<p>The following design and construction requirements apply:</p> <ul style="list-style-type: none"> (a) the requirements for A above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m.

C13.6.3 Provision of water supply for fire fighting purposes

Objective:	That an adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage to allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>In areas serviced with reticulated water by the water corporation:</p> <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for fire fighting purposes; (b) A proposed plan of subdivision showing the layout of fire hydrants, and building areas, is included in a bushfire hazard management plan approved by the TFS or accredited person as being compliant with Table C13.4; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire. 	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>In areas that are not serviced by reticulated water by the water corporation:</p> <ul style="list-style-type: none"> (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for fire fighting purposes; (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire fighting, will be provided and located compliant with Table C13.5; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire. 	<p>P2</p> <p>No Performance Criterion.</p>

Table C13.4: Reticulated Water Supply for Fire Fighting

Element		Requirement
A.	Distance between building area to be protected and water supply.	<p>The following requirements apply:</p> <ul style="list-style-type: none"> (a) the building area to be protected must be located within 120m of a fire hydrant; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Design criteria for fire hydrants.	<p>The following requirements apply:</p> <ul style="list-style-type: none"> (a) fire hydrant system must be designed and constructed in accordance with <i>TasWater Supplement to Water Supply Code of Australia, WSA 03-2011-3.1 MRWA 2nd edition</i>; and (b) fire hydrants are not installed in parking areas.
C.	Hardstand.	<p>A hardstand area for fire appliances must be provided:</p> <ul style="list-style-type: none"> (a) no more than 3m from the hydrant, measured as a hose lay; (b) no closer than 6m from the building area to be protected; (c) with a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access.

Table C13.5: Static Water Supply for Fire Fighting

Element		Requirement
A.	Distance between building area to be protected and water supply.	<p>The following requirements apply:</p> <ul style="list-style-type: none"> (a) the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Static Water Supplies.	<p>The static water supply:</p> <ul style="list-style-type: none"> (a) may have a remotely located offtake connected to the static water supply; (b) may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times; (c) must be a minimum of 10,000L per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems; (d) must be metal, concrete or lagged by non-combustible materials if above ground; and (e) if a tank can be located so it is shielded in all directions in compliance with Section 3.5 of <i>Australian Standard AS3959:2018 Construction of buildings in bushfire-prone areas</i>, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by: <ul style="list-style-type: none"> (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6mm thickness.

<p>C.</p>	<p>Fittings, pipework and accessories (including stands and tank supports).</p>	<p>Fittings and pipework associated with a fire fighting water point for a static water supply must:</p> <ul style="list-style-type: none"> (a) have a minimum nominal internal diameter of 50mm; (b) be fitted with a valve with a minimum nominal internal diameter of 50mm; (c) be metal or lagged by non-combustible materials if above ground; (d) if buried, have a minimum depth of 300mm; (e) provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment; (f) ensure the coupling is accessible and available for connection at all times; (g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length); (h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and (i) if a remote offtake is installed, ensure the offtake is in a position that is: <ul style="list-style-type: none"> (i) visible; (ii) accessible to allow connection by fire fighting equipment; (iii) at a working height of 450 – 600mm above ground level; and (iv) protected from possible damage, including damage by vehicles.
<p>D.</p>	<p>Signage for static water connections.</p>	<p>The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with:</p> <ul style="list-style-type: none"> (a) water tank signage requirements of <i>Australian Standard AS 2304:2019 Water storage tanks for fire protection systems</i>; or (b) <i>Water Supply Signage Guideline, version 1.0</i>, Tasmania Fire Service, February 2017.
<p>E.</p>	<p>Hardstand.</p>	<p>A hardstand area for fire appliances must be:</p> <ul style="list-style-type: none"> (a) no more than 3m from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access.

C14.0 Potentially Contaminated Land Code

C14.1 Purpose of the Potentially Contaminated Land Code

The purpose of the Potentially Contaminated Land Code is:

C14.1.1 To ensure that use or development of potentially contaminated land does not adversely impact on human health or the environment.

C14.2 Application of this Code

C14.2.1 This code applies to a sensitive use, a use listed in a Use Class in Table C14.1 as one of the specified uses, or development, on land that:

- (a) is shown on an overlay map in the relevant Local Provisions Schedule as within an area of potentially contaminated land;
- (b) the planning authority knows to have been used for a potentially contaminating activity, by reference to:
 - (i) a notice issued in accordance with Part 5A of the *Environmental Management and Pollution Control Act 1994*; or
 - (ii) a previous permit;
- (c) the planning authority reasonably suspects may be contaminated by reference to:
 - (i) a notice issued in accordance with Part 5A of the *Environmental Management and Pollution Control Act 1994*; or
 - (ii) advice from the Director that it is likely that contamination has migrated onto the land; or
- (d) has been identified as having been used, or may have been used, for a potentially contaminating activity, or as land onto which it is likely that contamination from a potentially contaminating activity has migrated:
 - (i) in a report lodged with the application; or
 - (ii) in a report prepared by a site contamination practitioner in response to a request under section 54 of the Act.

C14.2.2 The planning authority may only make a request under clause C14.2.1(d)(ii) where it reasonably believes, based on information in its possession that the land has been used, or may have been used, for one of the potentially contaminating activities listed in Table C14.2, or as land onto which it is likely that contamination from a potentially contaminating activity has migrated.

Table C14.1 Specified Use

Use Class	Specified Use
Passive Recreation	If for public parks, gardens and playgrounds.
Sports and Recreation	If for outdoor recreation facilities.

C14.3 Definition of Terms

C14.3.1 In this code, unless the contrary intention appears:

Term	Definition
background concentration	means as defined in Part 5A of the <i>Environmental Management and Pollution Control Act 1994</i> .
contaminated	means the condition of land or water, where any chemical substance, or waste, has been added as a direct or indirect result of human activity at above background concentration, and represents or potentially represents an adverse impact on human health or the environment.
environmental site assessment	means a report prepared by a site contamination practitioner or a person approved by the Director for the purpose of this code on the nature, extent and levels of existing contamination and the actual or potential risk to human health or the environment, on or off the site, resulting from that contamination, prepared in accordance with the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i> .
Director	means as defined in the <i>Environmental Management and Pollution Control Act 1994</i> .
person approved by the Director for the purpose of this code	means a contaminated land auditor accredited under the following legislation: (a) <i>Contaminated Land Management Act 1997</i> (NSW); (b) <i>Environment Protection Act 1993</i> (SA); (c) <i>Environment Protection Act 1970</i> (Vic); (d) <i>Contaminated Sites Act 2003</i> (WA); or (e) <i>Environment Protection Act 1994</i> (Qld), and approved by the Director to provide certification of land in Tasmania.
potentially contaminating activity	means an activity listed in Table C14.2 as a potentially contaminating activity that is not directly associated with and subservient to Residential.
potentially contaminated land	means land: (a) shown on an overlay map in the relevant Local Provisions Schedule as potentially contaminated land; (b) the planning authority knows to have been used for a potentially contaminating activity in accordance with C14.2.1(b); (c) the planning authority reasonably suspects may be contaminated in accordance with C14.2.1(c); or (d) identified in a report for the purposes of C14.2.1(d).
site history	means the collection of information from historical sources to determine if a site is likely to have been impacted by a potentially contaminating activity.
site contamination practitioner	means a person who is certified under a contaminated land practitioners scheme that is endorsed by the Director.

C14.4 Use or Development Exempt from this Code

C14.4.1 The following use or development is exempt from this code:

- (a) development:
 - (i) to investigate whether a potentially contaminating activity has contaminated the land; or
 - (ii) in accordance with a notice issued in accordance with Part 5A of the *Environmental Management and Pollution Control Act 1994*;
- (b) development that does not involve disturbance of more than 1m² of land;
- (c) any use or development where a site history prepared by a site contamination practitioner or a person approved by the Director for the purpose of this code, has been provided to the planning authority and that site history confirms potentially contaminating activities did not contaminate the site;
- (d) any use or development that the Director, a site contamination practitioner, or a person approved by the Director for the purpose of this code, having regard to the applicable standards in this code, has issued a certificate stating that there is insufficient increase in risk from contamination to warrant any specific remediation and protection measures; or
- (e) any use or development that operates in accordance with an approval granted as a result of an assessment of that use or development by the Board of the Environment Protection Authority.

C14.5 Use Standards

C14.5.1 Suitability for intended use

Objective:	That potentially contaminated land is suitable for a sensitive use or a Use Class listed in Table C14.1 and is one of the specified uses.
Acceptable solutions	Performance Criteria
<p>A1</p> <p>For a sensitive use, or a specified use listed in Table C14.1, the Director, or a person approved by the Director for the purpose of this code:</p> <p>(a) certifies that land is suitable for the intended use; or</p> <p>(b) certifies a plan to manage contamination and associated risk to human health or the environment, so that the land is suitable for the intended use, or</p> <p>if in relation to redevelopment on land subject to the <i>Macquarie Point Development Corporation Act 2012</i>, the intended use must be in accordance with a certificate that has been or will be granted by an accredited environmental auditor.</p>	<p>P1</p> <p>For a sensitive use, or a specified use listed in Table C14.1, the land is suitable for the intended use, having regard to:</p> <p>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated;</p> <p>(b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or</p> <p>(c) an environmental site assessment that includes a plan, to manage contamination and associated risk to human health or the environment that includes:</p> <p>(i) any specific remediation and protection measures required to be implemented before any use commences; and</p> <p>(ii) a statement that the land will be suitable for the intended use.</p>

C14.6 Development Standards for Building and Works

C14.6.1 Excavation works, excluding land subject to the *Macquarie Point Development Corporation Act 2012*

Objective:	That works involving excavation of potentially contaminated land, excluding on land subject to the <i>Macquarie Point Development Corporation Act 2012</i> , do not adversely impact on human health or the environment.	
Acceptable solutions		Performance Criteria
<p>A1</p> <p>Excavation, excluding on land subject to the <i>Macquarie Point Development Corporation Act 2012</i>, must involve less than 250m³ of site disturbance.</p>	<p>P1</p> <p>Excavation, excluding on land subject to the <i>Macquarie Point Development Corporation Act 2012</i>, must not have an adverse impact on human health or the environment, having regard to:</p> <ul style="list-style-type: none"> (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or (c) an environmental site assessment, including a plan to manage contamination and associated risk to human health and the environment, that includes: <ul style="list-style-type: none"> (i) any specific remediation and protection measures required to be implemented before excavation commences; and (ii) a statement that the excavation does not adversely impact on human health or the environment. 	

C14.6.2 Redevelopment on land subject to the *Macquarie Point Development Corporation Act 2012*

Objective:	That redevelopment of land subject to the <i>Macquarie Point Development Corporation Act 2012</i> occurs to a standard that is satisfactory for the purposes of redevelopment of the site, and does not have an adverse impact on human health or the environment, in accordance with section 39F of the <i>Macquarie Point Development Corporation Act 2012</i> .
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Redevelopment of land subject to the <i>Macquarie Point Development Corporation Act 2012</i> must be in accordance with a certificate that has been or will be granted by an accredited environmental auditor.</p>	<p>P1</p> <p>No Performance Criterion.</p>

C14.7 Development Standards for Subdivision

C14.7.1 Subdivision for sensitive use

Objective:	That subdivision of potentially contaminated land that allows for a sensitive use or a Use Class listed in Table C14.1, and is one of the specified uses, does not adversely impact on human health or the environment.
Acceptable solutions	Performance Criteria
<p>A1</p> <p>For subdivision of land, the Director, or a person approved by the Director for the purpose of this code:</p> <p>(a) certifies that the land is suitable for the intended use or development; or</p> <p>(b) certifies a plan to manage contamination and associated risk to human health or the environment, so that the subdivision does not adversely impact on human health or the environment and is suitable for its intended use or development.</p>	<p>P1</p> <p>Subdivision of potentially contaminated land does not adversely impact on human health or the environment and is suitable for its intended use or development, having regard to:</p> <p>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated;</p> <p>(b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or</p> <p>(c) an environmental site assessment, including a plan to manage contamination and associated risk to human health and the environment, that includes:</p> <p>(i) any specific remediation and protection measures required to be implemented before any use or development commences; and</p> <p>(ii) a statement that the land is suitable for the intended use or development.</p>

Table C14.2 Potentially Contaminating Activities

Potentially Contaminating Activity	Potentially Contaminating Activity
Acid / alkali plant and formulation	Mineral processing
Ammunition manufacture and usage (e.g. shooting ranges)	Mine sites involving waste rock or tailings deposits
Asbestos production, handling or disposal	Oil or gas production or refining
Asphalt/bitumen manufacturing	Paint manufacture and formulation
Battery manufacturing or recycling	Pesticide manufacture and formulation
Boat/ship building, marinas, slip ways and associated boat yards	Petroleum product or oil storage
Boiler or kiln usage	Pharmaceutical manufacture and formulation
Chemical manufacture and formulation (e.g. fertilisers, paints, pesticides, photography, plastics, solvents)	Power stations
Commercial engine and machinery repair sites	Printing
Drum conditioning works	Radio-active material usage (e.g. hospitals)
Dry cleaning establishments	Railway yards
Electrical transformers	Scrap yards and recycling facilities
Ethanol production plants	Sewage treatment plants
Explosives industries	Sheep and cattle dips
Fertiliser manufacturing plants	Sites of fires involving hazardous materials, including firefighting foam use
Fill material imported onto a site from a potentially contaminated source	Sites of incidents involving release of hazardous materials
Foundry operations	Spray painting industries
Gas works	Spray storage and mixing sites (e.g. for orchards)
Herbicide manufacture	Tanning and associated trades
Industrial activities involving hazardous chemicals in significant quantities	Textile operations

Potentially Contaminating Activity	Potentially Contaminating Activity
Iron and steel works	Tyre manufacturing and retreading works
Landfill sites, including on-site waste disposal and refuse pits	Wood preservation and storage or cutting of treated timber
Metal smelting, refining or finishing	Wool scouring
Metal treatments (e.g. electroplating) and abrasive blasting	

C15.0 Landslip Hazard Code

C15.1 Code Purpose

The purpose of the Landslip Hazard Code is:

- C15.1.1 To ensure that a tolerable risk can be achieved and maintained for the type, scale and intensity and intended life of use or development on land within a landslip hazard area.

C15.2 Application of this Code

C15.2.1 This code applies to:

- (a) use or development of land within a landslip hazard area; or
- (b) use or development of land identified in a report, that is lodged with an application, or required in response to a request under section 54 of the Act, as having potential to cause or contribute to a landslip.

C15.2.2 The planning authority may only make a request under clause C15.2.1(b) where it reasonably believes, based on information in its possession, that the use or development of land has the potential to cause or contribute to landslip.

C15.3 Definition of Terms

C15.3.1 In this code, unless the contrary intention appears:

Term	Definition
critical use	means a use that is within one of the following Use Classes: (a) Emergency Services; or (b) Hospital Services.
geotechnical practitioner	means: (a) a person holding a building services license issued under the <i>Occupational Licensing Act 2005</i> in the class of engineer-civil; (b) a geotechnical engineer acting within their area of competence; or (c) an engineering geologist acting within their area of competence.

Term	Definition
hazardous use	<p>means a use that is within one or more of the following use classes:</p> <ul style="list-style-type: none"> (a) Crematoria and Cemeteries; (b) Extractive Industries, if the use involves the storage of a hazardous chemical of a manifest quantity; (c) Hospital Services, if the use involves the storage of a hazardous chemical of a manifest quantity; (d) Manufacturing and Processing, if the use involves the storage of a hazardous chemical of a manifest quantity; (e) Recycling and Waste Disposal; (f) Research and Development, if the use involves the storage of a hazardous chemical of a manifest quantity; (g) Storage, if the use involves the storage of a hazardous chemical of a manifest quantity; (h) Transport Depot and Distribution, if the use involves the storage of a hazardous chemical of a manifest quantity; (i) Utilities, if the use involves the storage of a hazardous chemical of a manifest quantity; or (j) Vehicles Fuel Sales and Service.
landslide	means landslip for the purposes of this code.
landslip	means the downslope movement of a mass of rock, debris, or earth.
landslip hazard area	<p>means land:</p> <ul style="list-style-type: none"> (a) shown on an overlay map in the relevant Local Provisions Schedule, as within a landslip hazard area, which is classified into one of four landslip hazard bands; or (b) identified in a report for the purposes of C15.2.1 (b).
landslip hazard bands	<p>means the classification of land within a landslip hazard area into one of the following landslip hazard bands:</p> <ul style="list-style-type: none"> (a) low (b) medium; (c) medium-active; or (d) high
landslip hazard report	<p>means a report prepared using the methodology of the <i>Practice Note Guidelines for Landslide Risk Management 2007</i> by a geotechnical practitioner and must include:</p> <ul style="list-style-type: none"> (a) details of, and be signed by, the person who prepared or verified the report; (b) confirmation that the person has the appropriate qualifications and expertise; (c) confirmation that the report has been prepared in accordance with any methodology specified by a State authority; (d) a report of a geotechnical site investigation undertaken consistent with <i>Australian Standard AS 1726-2017 Geotechnical site investigations</i>; (e) conclusions based on consideration of the proposed use or development: <ul style="list-style-type: none"> (i) as to whether the use or development is likely to cause or

Term	Definition
	<p>contribute to the occurrence of a landslip event on the site or on adjacent land;</p> <p>(ii) as to whether the use or development can achieve and maintain a tolerable risk for the intended life of the development, having regard to:</p> <ol style="list-style-type: none"> a. the nature, intensity and duration of the use; b. the type, form and duration of any development; c. the likely change in the risk across the intended life of the use or development; d. the ability to adapt to a change in the risk; e. the ability to maintain access to utilities and services; f. the need for specific landslip reduction or protection measures on the site; g. the need for landslip reduction or protection measures beyond the boundary of the site; and h. any landslip management plan in place for the site or adjacent land; <p>(iii) any advice relating to the ongoing management of the use or development; and</p> <p>(iv) relating to any matter specifically required by Performance Criteria in this code.</p>
landslip management plan	means a management plan for a landslip hazard area endorsed by the relevant council.
significant works	<p>means any of the following:</p> <ol style="list-style-type: none"> (a) excavation equal to or greater than 1m in depth, including temporary excavations for the installation or maintenance of services or pipes; (b) excavation or land filling of greater than 100m³ whether or not material is sourced on the site or imported; (c) felling or removal of vegetation over a contiguous area greater than 1000m²; (d) the collection, pooling or storage of water in a dam, pond, tank or swimming pool with a volume of more than 45 000L; (e) removal, redirection, or introduction of drainage for surface or groundwater; and (f) discharge of stormwater, sewage, water storage overflow or other wastewater.
vulnerable use	<p>means a use that is within one or more of the following Use Classes:</p> <ol style="list-style-type: none"> (a) Custodial Facility; (b) Education and Occasional Care; (c) Residential, if for respite centre, residential care facility, retirement village or assisted housing; or (d) Visitor Accommodation, if the use is to accommodate more than 12 guests.

C15.4 Use or Development Exempt from this Code

C15.4.1 The following use or development is exempt from this code:

- (a) use of land within a low or medium landslip hazard band, excluding for a critical use, hazardous use or vulnerable use;
- (b) use or development of land for Extractive Industry where a mining lease under the *Mineral Resources Development Act 1995* is in force, excluding a hazardous use;
- (c) use of land for:
 - (i) Natural and Cultural Values Management;
 - (ii) Passive Recreation;
 - (iii) Resource Development; or
 - (iv) Utilities;
- (d) development on land within a low or medium landslip hazard band that requires authorisation under the *Building Act 2016*;
- (e) development, including subdivision, on land within a low landslip hazard band, if it does not involve significant works;
- (f) development for Resource Development on land within the low or medium landslip hazard band, if it does not involve significant works;
- (g) development for minor utilities or linear utilities associated with sewer, water, or stormwater systems, electricity, gas, telecommunications and roads, if it does not involve significant works;
- (h) subdivision of land within the medium-active or high landslip hazard band, if it does not involve any works; and
- (i) subdivision of land within a medium landslip hazard band if:
 - (i) it does not involve significant works; or
 - (ii) it does not create a new road, or extend an existing road.

C15.5 Use Standards

C15.5.1 Use within a landslip hazard area

Objective:	That uses, including critical, hazardous or vulnerable use, can achieve and maintain a tolerable risk from exposure to a landslip for the nature and intended duration of the use.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>No Acceptable Solution.</p>	<p>P1.1</p> <p>A use, including a critical use, hazardous use, or vulnerable use, within a landslip hazard area achieve and maintain a tolerable risk from exposure to landslip, having regard to:</p> <ul style="list-style-type: none"> (a) the type, form and duration of the use; and (b) a landslip hazard report that demonstrates that: <ul style="list-style-type: none"> (i) any increase in the level of risk from landslip does not require any specific hazard reduction or protection measure; or (ii) the use can achieve and maintain a tolerable risk for the intended life of the use. <p>P1.2</p> <p>If landslip reduction or protection measures are required on land beyond the boundary of the site, the consent in writing of the owner of that land must be provided for that land to be managed in accordance with the landslip reduction or protection measures.</p>

<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>In addition to the requirements in clause C15.5.1 P1.1, a critical use within a landslip hazard area must achieve and maintain a tolerable risk from landslip, having regard to:</p> <ul style="list-style-type: none"> (a) the impact on the ability of the use to respond to a landslip event; (b) the impact on ability of the use to function and maintain service during the landslip and recovery period; (c) any interruption to the operation of the critical use in locations external to the immediate impact of the landslip event; (d) the creation of risk to the health or safety of people from damage or disruption to: <ul style="list-style-type: none"> (i) a water supply service; (ii) an energy supply; or (iii) the drainage and treatment of waste water; (e) any advice contained in a landslip hazard report; and (f) any advice from a State authority, regulated entity or a council.
<p>A3</p> <p>No Acceptable Solution.</p>	<p>P3</p> <p>In addition to the requirements in clause C15.5.1 P1.1, a hazardous use within a landslip hazard area must achieve and maintain a tolerable risk, having regard to:</p> <ul style="list-style-type: none"> (a) the health and safety of people; (b) any impact on property; (c) any impact on the environment; (d) the advice contained in a landslip hazard report; and (e) any advice from a State authority, regulated entity or a council.

<p>A4</p> <p>No Acceptable Solution.</p>	<p>P4</p> <p>In addition to the requirements in clause C15.5.1 P1.1, a vulnerable use within a landslip hazard area must be protected from landslip, having regard to:</p> <ul style="list-style-type: none">(a) any protection measures, existing or proposed;(b) the ability and capability of people in a landslip event who may live, work or visit the site, to:<ul style="list-style-type: none">(i) protect themselves;(ii) evacuate in an emergency; and(iii) understand and respond to instructions in the event of an emergency;(c) any emergency evacuation plan;(d) the advice contained in a landslip hazard report; and(e) any advice from a State authority, regulated entity or a council.
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C15.6 Development Standards for Buildings and Works

C15.6.1 Building and works within a landslip hazard area

Objective:	That building and works on land within a landslip hazard area can: (a) minimise the likelihood of triggering a landslip event; and (b) achieve and maintain a tolerable risk from a landslip.
Acceptable Solutions	Performance Criteria
<p>A1 No Acceptable Solution.</p>	<p>P1.1 Building and works within a landslip hazard area must minimise the likelihood of triggering a landslip event and achieve and maintain a tolerable risk from landslip, having regard to:</p> <ul style="list-style-type: none"> (a) the type, form, scale and intended duration of the development; (b) whether any increase in the level of risk from a landslip requires any specific hazard reduction or protection measures; (c) any advice from a State authority, regulated entity or a council; and (d) the advice contained in a landslip hazard report. <p>P1.2 A landslip hazard report also demonstrates that the buildings and works do not cause or contribute to landslip on the site, on adjacent land or public infrastructure.</p> <p>P1.3 If landslip reduction or protection measures are required beyond the boundary of the site the consent in writing of the owner of that land must be provided for that land to be managed in accordance with the specific hazard reduction or protection measures.</p>

C15.7 Development Standards for Subdivision

C15.7.1 Subdivision within a landslip hazard area

Objective:	That subdivision within a landslip hazard area does not create an opportunity for use or development that cannot achieve a tolerable risk from a landslip.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area, must:</p> <ul style="list-style-type: none"> (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a landslip hazard area; (b) be for the creation of separate lots for existing buildings; (c) be required for public use by the Crown, a council or a State authority; or (d) be required for the provision of Utilities. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area must not create an opportunity for use or development that cannot achieve a tolerable risk from landslip, having regard to:</p> <ul style="list-style-type: none"> (a) any increase in risk from a landslip for adjacent land; (b) the level of risk to use or development arising from an increased reliance on public infrastructure; (c) the need to minimise future remediation works; (d) any loss or substantial compromise, by a landslip, of access to the lot on or off site; (e) the need to locate building areas outside the landslip hazard area; (f) any advice from a State authority, regulated entity or a council; and (g) the advice contained in a landslip hazard report.

C16.0 Safeguarding of Airports Code

C16.1 Code Purpose

The purpose of the Safeguarding of Airports Code is:

- C16.1.1 To safeguard the operation of airports from incompatible use or development.
- C16.1.2 To provide for use and development that is compatible with the operation of airports in accordance with the appropriate future airport noise exposure patterns and with safe air navigation for aircraft approaching and departing an airport.

C16.2 Application of this Code

C16.2.1 This code applies to:

- (a) a sensitive use within an airport noise exposure area; and
- (b) development within an airport obstacle limitation area.

C16.3 Definition of Terms

C16.3.1 In this code, unless the contrary intention appears:

Term	Definition
airport master plan	means a final master plan: (a) approved under the <i>Airports Act 1996</i> (Commonwealth); or (b) prepared and adopted for a non-Commonwealth-leased airport.
airport noise exposure area	means land shown on an overlay map in the relevant Local Provisions Schedule to be within an airport noise exposure area.
airport obstacle limitation area	means land in the vicinity of an airport shown on an overlay map in the relevant Local Provisions Schedule on which specific limits expressed by AHD apply for the height of development as are necessary to protect aircraft movement and safety in accordance with the applicable Obstacle Limitation Surfaces and Procedures for Air Navigation Services – Aircraft Operations for that airport.
Commonwealth-leased airport	means the: (a) Hobart International Airport; and (b) Launceston Airport.
Obstacle Limitation Surfaces	means the conceptual surfaces associated with an airport runway which: (a) are defined by reference to the conventional pattern required by aircraft to manoeuvre for take-off and approach for landing when the pilot is flying by sight; and (b) specify a height limitation for vertical obstacles that have the potential to become obstacles to aircraft operations.

Term	Definition
Procedures for Air Navigation Services – Aircraft Operations	means the conceptual surfaces associated with an airport runway which: (a) are defined by reference to the safe minimum altitude to which an aircraft can manoeuvre for circumstances where the aircraft is guided solely by instruments in conditions of poor visibility; and (b) specify a height limitation for vertical obstacles that have the potential to become obstacles to aircraft operations.

C16.4 Use or Development Exempt from this Code

C16.4.1 The following use or development is exempt from this code:

- (a) development that is not more than the AHD height specified for the site of the development in the relevant airport obstacle limitation area.

C16.5 Use Standards

C16.5.1 Sensitive use within an airport noise exposure area

Objective:	<p>That:</p> <ul style="list-style-type: none"> (a) sensitive uses are appropriately located or designed to minimise exposure to excessive aircraft noise; and (b) the operation of airports are not compromised by the amenity expectations of sensitive uses.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>A sensitive use must not be located within an airport noise exposure area.</p>	<p>P1</p> <p>A sensitive use within an airport noise exposure area must be located and designed to minimise exposure to excessive aircraft noise, having regard to:</p> <ul style="list-style-type: none"> (a) the location, orientation and elevation of the site relative to aircraft flight paths; (b) the current and future type and frequency of aircraft operating from the airport; (c) the type of use and the operational requirements for the use; (d) the layout and construction of buildings associated with the use; (e) the need to not compromise the future operation of the airport; (f) the noise attenuation measures required by Section 3 of the <i>Australian Standard AS 2021 – 2015, Acoustics – Aircraft Noise Intrusion – Building Siting and Construction</i>; (g) the requirements of any relevant airport master plan; and (h) any advice from the airport operator or Airservices Australia.

C16.6 Development Standards for Buildings and Works

C16.6.1 Buildings and works within an airport obstacle limitation area

Objective:	That buildings and works do not interfere with safe aircraft operations in the vicinity of an airport and on land within an airport obstacle limitation area.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Buildings and works within an airport obstacle limitation area associated with a Commonwealth-leased airport that exceed the specified height limit shown on the airport obstacle limitation area overlay applicable for the site of the development must have approval from the relevant Commonwealth department under the <i>Airports Act 1996</i> (Commonwealth).</p>	<p>P1</p> <p>No Performance Criterion.</p>
<p>A2</p> <p>No Acceptable Solution.</p>	<p>P2</p> <p>Buildings and works within an airport obstacle limitation area associated with a non-Commonwealth-leased airport that exceed the specified height limit shown on the airport obstacle limitation area overlay applicable for the site of the development must not create an obstruction or hazard for the operation of aircraft, having regard to any advice from:</p> <ul style="list-style-type: none"> (a) Airservices Australia; (b) the Civil Aviation Safety Authority; and (c) the airport operator.

C16.7 Development Standards for Subdivision

C16.7.1 Subdivision

Objective:	<p>To provide for subdivision:</p> <ul style="list-style-type: none"> (a) that allows for sensitive use to be suitably located to avoid exposure to excessive aircraft noise; and (b) so that future development for sensitive use does not compromise the operation of airports.
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must be:</p> <ul style="list-style-type: none"> (a) be for the creation of separate lots for existing buildings; (b) be required for public use by the Crown, a council or a State authority; (c) be required for the provision of Utilities; (d) be for the consolidation of lots; (e) be for the creation of a lot that contains a building area not less than 10m x 15m entirely located outside of the airport noise exposure area; or (f) not be intended for a sensitive use. 	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must not create an opportunity for a sensitive use to be exposed to excessive aircraft noise, having regard to:</p> <ul style="list-style-type: none"> (a) the location, orientation and elevation of the site relative to aircraft flight paths; (b) the current and future type and frequency of aircraft operating from the airport; (c) the type of use and the operational requirements for the use; (d) the layout and construction of buildings associated with the use; (e) the need to not compromise the future operation of the airport; (f) the requirements of any relevant airport master plan; and (g) any advice from the airport operator or Airservices Australia.

LP1.0 Local Provisions Schedule Requirements

LP1.1 Local Provisions Schedule Structure and Numbering

LP1.1.1 The structure to which each Local Provisions Schedule (LPS) is to conform to the requirements set out in Appendix A.

LP1.1.2 Each clause in each LPS must contain the relevant numbering prefix specified in Table LP1.0 and as shown in Appendix A.

Table LP1.0 Local Provisions Schedule Numbering

Municipal Area	Prefix
Break O'Day	BRE
Brighton	BRI
Burnie	BUR
Central Coast	CCO
Central Highlands	CHI
Circular Head	CIR
Clarence	CLA
Derwent Valley	DER
Devonport	DEV
Dorset	DOR
Flinders	FLI
George Town	GEO
Glamorgan-Spring Bay	GSB
Glenorchy	GLE
Hobart	HOB
Huon Valley	HUO
Kentish	KEN
Kingborough	KIN
King Island	KIC
Latrobe	LAT
Launceston	LAU
Meander Valley	MEA
Northern Midlands	NOR
Sorell	SOR
Southern Midlands	SOU
Tasman	TAS
Waratah-Wynyard	WAR
West Coast	WCO
West Tamar	WTA

LP1.2 Zone Maps

- LP1.2.1 Each LPS must contain a map that provides for the spatial application of the zones to land in the municipal area.
- LP1.2.2 The zone map contained within each LPS must differentiate between Rural Living Zone A, Rural Living Zone B, Rural Living Zone C and Rural Living Zone D and any particular purpose zones.

LP1.3 Local Area Objectives

- LP1.3.1 Each LPS may include local area objectives in zones and specific area plans.
- LP1.3.2 Local area objectives must be listed in a table in the LPS in separate sub-clauses for each zone or in the specified sub-clause in a specific area plan.
- LP1.3.3 If a local area objective is included in a LPS it must be shown on an overlay map identifying the area of the local area objective.

LP1.4 Particular Purpose Zones

- LP1.4.1 A particular purpose zone must include:
- (a) Zone Purpose;
 - (b) Use Table;
 - (c) Development Standards for Buildings and Works; and
 - (d) Development Standards for Subdivision.
- LP1.4.2 The provisions of a particular purpose zone must include each of the headings shown in Appendix A, followed by either the substance of the provision, or the words “This sub-clause is not used in this particular purpose zone”, as the case may be.
- LP1.4.3 Any defined terms within a particular purpose zone must be additional to those set out in clause 3.0 and must not change the meaning of a defined term.
- LP1.4.4 A particular purpose zone may include two or more areas, such as precincts, within the area of the zone. A particular purpose zone with two or more areas may include:
- (a) additional subclauses to identify the application of the particular purpose zone to the different areas; and
 - (b) separate local area objectives, use tables, and use and development standards to reflect the different areas within the area of the particular purpose zone.

LP1.5 Specific Area Plans

- LP1.5.1 A specific area plan must include:
- (a) Plan Purpose; and
 - (b) Application,
- as well as at least one other sub-clause, excluding local area objectives, definition of terms or tables.
- LP1.5.2 The provisions of a specific area plan must include each of the headings shown in Appendix A followed by either the substance of the provision, or the words “This sub-clause is not used in this specific area plan”, as the case may be.

LP1.5.3 Any defined terms within a specific area plan must be additional to those set out in clause 3.0 and must not change the meaning of an existing defined term.

LP1.5.4 If a specific area plan is included in a LPS it must be shown on an overlay map identifying the area of the specific area plan.

LP1.5.5 A specific area plan may include two or more areas, such as precincts, within the area of the specific area plan. A specific area plan with two or more areas may include:

- (a) additional subclauses to identify the application of the specific area plan to the different areas; and
- (b) separate local area objectives, use tables, and use and development standards to reflect the different areas within the area of the specific area plan.

LP1.6 Site-specific Qualifications

LP1.6.1 Site-specific qualifications for a particular area of land must be shown on the overlay maps, annotated with the reference number and all information requirements completed in a relevant list in the LPS.

LP1.7 Code Overlay Maps

LP1.7.1 Parking and Sustainable Transport Code

(a) If the planning authority has:

- (i) a pedestrian priority street for; or
- (ii) parking precinct plan within,

its municipal area, the LPS must contain an overlay map showing that plan, or that street, for the purposes of the application of the Parking and Sustainable Transport Code.

LP1.7.2 Road and Railway Assets Code

(a) Where part of the municipal area is reserved or allocated for the purposes of:

- (i) a future major road; or
- (ii) a future railway,

the planning authority must contain in the LPS an overlay map showing the reservation or application for the purposes of the application of the Road and Railway Assets Code.

(b) Each LPS may contain an overlay map showing a road or railway attenuation area for the application of the Road and Railway Assets Code.

LP1.7.3 Electricity Transmission Infrastructure Protection Code

(a) Each LPS must contain an overlay map for the application of the Electricity Transmission Infrastructure Protection Code, produced by TasNetworks, showing:

- (i) a communications station buffer area;
- (ii) an electricity transmission corridor;
- (iii) an inner protection area;
- (iv) a substation facility; and
- (v) a substation facility buffer area,

unless modified by the planning authority for part of the municipal area. If modified, the modified map must be shown.

LP1.7.4 Local Historic Heritage Code

(a) If the planning authority has:

- (i) local heritage landscape precincts;
- (ii) local heritage precincts; or

- (iii) places or precincts of archaeological potential,
within its municipal area, the LPS must include an overlay map showing the place or precinct for the application of the Local Historic Heritage Code.
- (b) Each LPS may contain an overlay map showing local heritage places for the application of the Local Historic Heritage Code.
- (c) Each LPS may contain an overlay map showing significant trees in the relevant Local Provisions Schedule, for the application of the Local Historic Heritage Code.

LP1.7.5 Natural Assets Code

- (a) If a planning authority has areas identified for:
 - (i) future coastal refugia; or
 - (ii) waterway and coastal protection,in its municipal area, the LPS must contain an overlay map showing those areas for the application of the Natural Assets Code.
- (b) Each LPS must contain an overlay map showing priority vegetation areas, produced in accordance with sub-clauses LP1.7.5(c) and (d), for the application of the Natural Assets Code.
- (c) The priority vegetation area must:
 - (i) include threatened native vegetation communities as identified on TASVEG Version 3 mapping, as published on the Department of Primary Industries, Parks, Water and the Environment's website and available on the Land Information System Tasmania;
 - (ii) be derived from threatened flora data from the Natural Values Atlas, as published on the Department of Primary Industries, Parks, Water and the Environment's website and available on the Land Information System Tasmania; and
 - (iii) be derived from threatened fauna data from the Natural Values Atlas, as published on the Department of Primary Industries, Parks, Water and the Environment's website for the identification of significant habitat for threatened fauna species; and
- (d) the planning authority may modify the priority vegetation area derived under clause LP1.7.5(c) based on field verification, analysis or mapping undertaken by, the planning authority or a suitably qualified person on behalf of the planning authority, at a local or regional level, which:
 - (i) addresses any anomalies or inaccuracies in the mapping and data in sub-clause LP1.7.5(c);
 - (ii) provides more recent or detailed local assessment of the mapping and data in sub-clause LP1.7.5(c); or
 - (iii) identifies native vegetation of local importance, including habitat for native fauna of local importance.

LP1.7.6 Scenic Protection Code

- (a) If the planning authority has:
 - (i) a scenic protection area; or
 - (ii) a scenic road corridor,within its municipal area, the LPS must contain an overlay map showing the area or road for the application of the Scenic Protection Code.

LP1.7.7 Attenuation Code

- (a) Each LPS may contain an overlay map showing attenuation areas for the spatial application of the Attenuation Code.

LP1.7.8 Coastal Erosion Hazard Code

- (a) Each LPS must contain an overlay map produced by the Department of Premier and Cabinet, showing:
 - (i) coastal erosion hazard areas; and
 - (ii) coastal erosion investigation areas,for the application of the Coastal Erosion Hazard Code, unless modified by the planning authority for part of the municipal area. If modified, the modified map must be shown.

LP1.7.9 Coastal Inundation Hazard Code

- (a) Each LPS must contain an overlay map produced by the Department of Premier and Cabinet, showing:
 - (i) coastal inundation hazard areas; and
 - (ii) coastal inundation investigation areas,for the application of the Coastal Inundation Hazard Code, unless modified by the planning authority for part of the municipal area. If modified, the modified map must be shown.

LP1.7.10 Flood-Prone Areas Hazard Code

- (a) If a planning authority has flood-prone areas in its municipal area, the LPS must contain an overlay showing the areas for the application of the Flood-Prone Areas Hazard Code.

LP1.7.11 Bushfire-Prone Areas Code

- (a) Each LPS may contain an overlay map showing bushfire-prone areas for the application of the Bushfire-Prone Areas Code.

LP1.7.12 Landslip Hazard Code

- (a) Each LPS must contain an overlay map produced by the Department of Premier and Cabinet, showing landslip hazard areas for the application of the Landslip Hazard Code, unless modified by the planning authority for part of the municipal area. If modified, the modified map must be shown.

LP1.7.13 Potentially Contaminated Land Code

- (a) Each LPS may contain an overlay map showing potentially contaminated land for the purposes of the application of the Potentially Contaminated Land Code.

LP1.7.14 Safeguarding of Airports Code

- (a) If a planning authority has:
 - (i) airport noise exposure areas based on airport noise contours contained in an airport master plan or otherwise adopted for the relevant airport; and
 - (ii) airport obstacle limitation area based on the Obstacle Limitation Surfaces and Procedures for Air Navigation Services – Aircraft Operations for the relevant airport,in its municipal area, the LPS must contain an overlay map showing those areas for the application of the Safeguarding of Airports Code.

LP1.8 Code Lists in Tables

LP1.8.1 Each LPS may contain lists in a table for the application of the Road and Railway Assets Code, Local Historic Heritage Code, Scenic Protection Code and Coastal Inundation Hazard Code. All information requirements are to be completed in the tables.

LP1.8.2 If a planning authority does not list any:

- (a) other major roads;
- (b) local heritage places;
- (c) local heritage precincts;
- (d) local historic landscape precincts;
- (e) places or precincts of archaeological potential;
- (f) significant trees;
- (g) scenic protection areas;
- (h) scenic road corridors; or
- (i) coastal inundation hazard bands AHD levels,

the relevant table must be used with “This table is not used in this Local Provisions Schedule” inserted in the second row of the first column of the table.

Appendix A - Local Provisions Schedule Structure

<municipal area name> Local Provisions Schedule

<prefix>-Local Provisions Schedule Title

<prefix>1.1 This Local Provisions Schedule is called the <municipal area name> Local Provisions Schedule and comprises all the land within the municipal area.

<prefix> Effective Date

<prefix>-1.2 The effective date for this Local Provisions Schedule is <insert date>.

<prefix>-Local Area Objectives

<prefix>-<zone number>.0 <name> Zone Local Area Objectives

Reference Number	Area Description	Local Area Objectives

<prefix>-P<number>.0 Particular Purpose Zone – <name>

<prefix>-P<number>.1 Zone Purpose

The purpose of the Particular Purpose Zone – <name> is:

<prefix>-P<number>.1.1 <insert zone purpose statement>

<prefix>-P<number>.1.2 <insert zone purpose statement>

<prefix>-P<number>.2 Local Area Objectives

Reference Number	Area Description	Local Area Objectives

<prefix>-P<number>.3 Definition of Terms

<prefix>-P<number>.3.1 In this Particular Purpose Zone, unless the contrary intention appears:

Terms	Definition

<prefix>-P<number>.4 Use Table

Use Class	Qualification
No Permit Required	
Permitted	
Discretionary	
Prohibited	
All other uses	

<prefix>-P<number>.5 Use Standards

<prefix>-P<number>.5.1 <Title>

Objective:		
Acceptable Solutions	Performance Criteria	
A1	P1	

<prefix>-P<number>.6 Development Standards for Buildings and Works

<prefix>-P<number>.6.1 <Title>

Objective:		
Acceptable Solutions	Performance Criteria	
A1	P1	

<insert prefix>-P<number>.7 Development Standards for Subdivision

<prefix>-P<number>.7.1 <Title>

Objective:		
Acceptable Solutions	Performance Criteria	
A1	P1	

<insert prefix>-P<number>.8 Tables

<prefix>-S<number>.0 <name> Specific Area Plan

<prefix>-S<number>.1 Plan Purpose

The purpose of the <name> Specific Area Plan is:

<prefix>-S<number>.1.1 <purpose statement>

<prefix>-S<number>.1.2 <purpose statement>

<prefix>-S<number>.2 Application of this Plan

<prefix>-S<number>.2.1 The specific area plan applies to the area of land designated as <insert name> Specific Area Plan on the overlay maps [and in Figure S<number>.1].

<prefix>-S<number>.3 Local Area Objectives

<prefix>-S<number>.3.1 Local Area Objectives

Sub-clause	Area Description	Local Area Objectives

<prefix>-S<number>.4 Definition of Terms

<prefix>-S<number>.4.1 In this Specific Area Plan, unless the contrary intention appears:

Terms	Definition

<prefix>-S<number>.5 Use Table

Use Class	Qualification
No Permit Required	
Permitted	
Discretionary	
Prohibited	
All other uses	

<prefix>-S<number>.6 Use Standards

<prefix>-S<number>.6.1 <Title>

Objective:		
Acceptable Solutions	Performance Criteria	
A1	P1	

<prefix>-S<number>.7 Development Standards for Buildings and Works

<prefix>-S<number>.7.1 <Title>

Objective:		
Acceptable Solutions	Performance Criteria	
A1	P1	

<prefix>-S<number>.8 Development Standards for Subdivision

<prefix>-S<number>.8.1 <Title>

Objective:			
Acceptable Solutions	Performance Criteria		
A1	P1		

<prefix>-S<number>.9 Tables

<prefix>-Site-specific Qualifications

Reference Number	Site reference	Folio of the Register	Description (modification, substitution or addition)	Relevant Clause in State Planning Provisions

<prefix>-Code Lists

<prefix>-Table C3.1 Other Major Roads

Road	From	To

<prefix>-Table C6.1 Local Heritage Places

Reference Number	THR Number	Town/Locality	Street address	Property Name	Folio of the Register	Description, Specific Extent, Statement of Local Historic Heritage Significance and Historic Heritage Values

<prefix>-Table C6.2 Local Heritage Precincts

Reference Number	Town/Locality	Name of Precinct	Description, Statement of Local Historic Heritage Significance, Historic Heritage Values and Design Criteria / Conservation Policy

<prefix>-Table C6.3 Local Historic Landscape Precincts

Reference Number	Town/Locality	Name of Precinct	Description, Statement of Local Historic Heritage Significance, Historic Heritage Values and Design Criteria / Conservation Policy

<prefix>-Table C6.4 Places or Precincts of Archaeological Potential

Reference Number	Town/Locality	Property Name / Address / Name of Precinct	Folio of the Register	Description, Specific Extent and Archaeological Potential

<prefix>-Table C6.5 Significant Trees

Reference Number	Town/ Locality	Property Name and Street Address	Folio of the Register	Description / Specific Extent	Botanical Name	Common Name	No. of trees

<prefix>-Table C8.1 Scenic Protection Areas

Reference Number	Scenic Protection Area Name	Description	Scenic Value	Management Objectives

<prefix>-Table C8.2 Scenic Road Corridors

Reference Number	Scenic Road Corridor Description	Scenic Value	Management Objectives

<prefix>-Table C11.1 Coastal Inundation Hazard Bands AHD Levels

Locality	High Hazard Band (m AHD)	Medium Hazard Band (m AHD)	Low Hazard Band (m AHD)	Defined Flood Level (m AHD)
	Sea Level Rise 2050	1% annual exceedance probability 2050 with freeboard	1% annual exceedance probability 2100 (design flood level) with freeboard	1% annual exceedance probability 2100

<prefix>-Applied, Adopted or Incorporated Documents

Document Title	Publication Details	Relevant Clause in the LPS

State Planning Provisions - Applied, Adopted or Incorporated Documents

Document Title	Publication Details	Relevant Clause in State Planning Provision
<i>Australian/New Zealand Standard AS/NZS1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements</i>		C2.6.4 A1 C2.6.7 A1
<i>Australian Standard AS 1726:2017 Geotechnical site investigations</i>		C10.3.1 C15.3.1
<i>Australian Standard AS1743:2018 Road signs-Specifications</i>		Table C13.1
<i>Australian Standard AS 2021 – 2015, Acoustics – Aircraft Noise Intrusion – Building Siting and Construction</i>		C16.5.1
<i>Australian Standard AS 2304:2019 Water storage tanks for fire protection systems</i>		Table C13.5
<i>Australian Standard, AS 2419.1-2005 Fire hydrant installations, Part 1: System design, installation and commissioning</i>		C13.3.1
<i>Australian Standard AS2890 – Parking facilities, Parts 1-6</i>		C.2.6.2 A1.1
<i>Australian Standard AS2890.1:2004 – Parking facilities, Part 1: Off-street car parking</i>		C.2.6.2 P1
<i>Australian Standard, AS2890.2:2002 - Parking facilities, Part 2: Off-street commercial vehicle facilities</i>		C2.6.2 P1 C2.6.6 A1 C2.6.6 A2
<i>Australian Standard, AS2890.3-2015 Parking facilities Part 3: Bicycle Parking</i>		C2.6.7 A2 C2.6.7 P2
<i>Australian/New Zealand Standard AS/NZS 2890.6:2009, Parking facilities, Off-street parking for people with disabilities</i>		C2.6.2 A1.2
<i>Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas</i>		C13.3.1 C13.6.1 A1 Table C13.5

Document Title	Publication Details	Relevant Clause in State Planning Provision
<i>Building Code of Australia</i>	Australian Building Codes Board	3.1.3
<i>The Conservation Plan: A guide to the preparation of conservation plans for places of European cultural significance, 7th edition, 2013</i>	Kerr, J.S., National Trust of Australia (NSW)	7.4.3
<i>Geocentric Datum of Australia Technical Manual, version 2.4</i>	Intergovernmental Committee on Surveying and Mapping	3.1.3
<i>Guide to Road Design, Part 6A: Paths for Walking and Cycling 2016</i>	Austrroads Inc	8.6.2 P1 9.6.2 P1 10.6.2 P1
<i>Guide to Traffic Management Part 12: Traffic Impacts of Development</i>	Austrroads Inc	C3.3.1
<i>Practice Note Guidelines for Landslide Risk Management 2007</i>	Australian Geomechanics Society Landslide Taskforce, Landslide Practice Note Working Group	C15.3.1
<i>Land Capability Handbook, Guidelines for the Classification of Agricultural Land in Tasmania, 2nd edition, 1999</i>	Grose, C. J., Department of Primary Industries, Water and Environment	3.1.3
<i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i>	National Environment Protection Council, Department of Environment (Commonwealth), Canberra	C14.3.1
<i>Noise Measurement Procedures Manual, 2nd edition, July 2008</i>	Environment Division, Department of Environment, Parks, Heritage and the Arts, Hobart	C3.6.1 A1
<i>State Road Hierarchy</i>	Department of State Growth	C3.3.1
<i>Tasmanian Biosolids Reuse Guidelines 1999</i>	Department of Primary Industries, Water and Environment	Table C9.1
<i>Tasmanian Coastal Works Manual</i>	Page and Thorp, Department of Primary Industries, Parks, Water and Environment 2010	C7.6.1 P1.1 and P1.2
<i>Tasmanian River Condition Index (TRCI) - Book 2 Hydrology User's Manual</i>	Natural Resource Management South 2009	C7.3.1
<i>Tasmanian River Condition Index (TRCI) - Book 3 Physical Form Field Manual</i>	Natural Resource Management South 2009	C7.3.1
<i>TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA 2nd edition</i>	Tasmanian Water and Sewerage Corporation	Table C13.4

Tasmanian Planning Scheme – State Planning Provisions

Document Title	Publication Details	Relevant Clause in State Planning Provision
<i>Water Supply Signage Guideline, version 1.0</i>	Tasmania Fire Service, February 2017	Table C13.5
<i>Wetlands and Waterways Works Manual</i>	Department of Primary Industries Water and Environment 2003	C7.6.1 P1.1 and P2.1

Fewer than 200 serious injuries and deaths on our roads by 2026

Towards Zero Tasmanian Road Safety Strategy 2017-2026



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Minister's foreword



As Minister responsible for safety on Tasmanian roads, I am fully committed to working towards a reality where no one is seriously injured or killed as a result of a crash. We are a long way from this reality but I strongly believe that this *Towards Zero – Tasmanian Road Safety Strategy 2017-2026* (Towards Zero Strategy) will help to make significant progress.

Over the past 15 years we have seen a steady reduction in the number of serious injuries and deaths on our roads. However, the numbers have recently started to plateau and we still see around 300 people being seriously injured or losing their lives on our roads each year. Sadly, I believe Tasmanians have become far too accepting of serious injuries and death on our roads. So, to keep reducing road trauma, we need to strive for better road safety outcomes together.

Our Towards Zero Strategy has set a short-term, ambitious target of reducing the number of annual serious injuries and fatalities on Tasmania's roads to fewer than 200 by the year 2026. To achieve this goal and to keep moving towards our ultimate vision of zero, we need to continue to adopt the 'Safe System' approach to road safety. This approach recognises that people make mistakes and considers how the whole road system can be made more forgiving, so mistakes don't cost lives. We will continue, of course, to do everything in our power to prevent illegal and negligent road user behaviour.

The Strategy outlines a set of new key directions to improve the safety of Tasmania's roads, vehicles, speeds and road users. By considering Tasmania's crash problem, technology advancements and community feedback, I believe we have created a Strategy that is well informed, has considerable community input and is up to the challenge of preventing serious injuries and saving lives. Over the life of this Strategy, a number of Action Plans will be developed and best practice road safety initiatives implemented to deliver these results.

The Strategy and Action Plan targets our highest risk areas and deliberately focuses on those initiatives that will gain the greatest reductions in serious injuries and deaths. The Government will also continue to undertake a broader range of road safety initiatives for vulnerable road users such as tourists, cyclists and pedestrians. These are outlined in our *Road Safety Work Program 2017-2019*. Importantly, during the life of the Strategy, our initiatives will be revised and improved to address emerging issues. Education and enforcement will remain at the core of our Strategy.

I would like to take this opportunity to thank the Road Safety Advisory Council (RSAC) for its key role in engaging the community in the development of this Strategy and in helping us to achieve long-term changes in our attitude towards road safety.

Road safety is everyone's responsibility.

The Government will take the lead in implementing initiatives to improve our roads, vehicles and enforcement efforts to create a more forgiving road system. It will be the support of Tasmanian road users through safer driver behaviour that will ultimately drive real change and help us to achieve our goal. Together we can create a safer road system and work 'towards zero' serious injuries and deaths on Tasmanian roads.

A handwritten signature in black ink, appearing to read 'R. Hidding'.

Hon Rene Hidding MP
Minister for Infrastructure

Message from the Chair of the Tasmanian Road Safety Advisory Council

We don't like using the phrase 'road toll' because it implies that a life is a commodity which we are willing to trade in order to use our roads. To monitor our progress, we use statistics, but referring to those who have been seriously injured or killed as a number removes us from the reality of road trauma. One of those numbers may be somebody you know or love.

Some argue that the price of mobility is unavoidable. We think not.

Tasmania has made significant progress in reducing the number of serious injuries and deaths on our roads under the *Tasmanian Road Safety Strategy 2007-2016*. As a small state with limited funding, we have taken a strategic and targeted approach that focuses on high return initiatives. We have installed best practice infrastructure at various locations, introduced alcohol interlocks, installed electronic speed signs at schools, provided information on how to maintain a safe vehicle and implemented numerous road safety campaigns to benefit cyclists, tourists and motorcyclists.

We need to continue this important work.

The RSAC has taken a lead role in developing the Towards Zero Strategy. Hearing how the community believes road safety can be improved was central to the development of the Strategy, with around 2 500 people participating in a two-staged consultation process. The response was fantastic as it allowed us to hear community and stakeholder concerns first-hand and understand which road safety initiatives you support. Issues such as driver inattention, education, speed limits and safer vehicles were raised, as well as issues surrounding safety for young drivers and vulnerable road users.

Understanding why crashes happen and identifying best-practice countermeasures have also been an important part of developing the Strategy. We engaged the Centre for Automotive Safety Research (CASR) to undertake extensive analysis and research on Tasmania's road environment and provide us with recommendations that, if implemented, will help us to reduce serious injuries and save lives on our roads.

With new challenges upon us, it is necessary that we keep being innovative and strive for best practice.

I believe we can make significant progress if we are successful in getting our next generation of road users to understand and embrace their role within a Safe System.

We all have our part to play in the success of the new Strategy – this includes road designers, vehicle manufacturers, policy makers and most importantly, road users. Every life is precious and, as Chair of the RSAC, I am committed to continuing to engage with the Tasmanian community to improve road safety and save lives.



Jim Cox,
Chair, Road Safety Advisory Council

ROAD SAFETY ADVISORY COUNCIL
TOWARDS ZERO



Snapshot

Thirteen key directions support the Towards Zero Strategy. The Strategy will work towards reducing the annual number of serious injuries and deaths on Tasmanian roads to fewer than 200 by 2026. The long-term goal for road safety in Tasmania is to have a 'Safe System' of zero serious injuries and deaths on our roads and this Strategy will help us on our journey. A Safe System has four essential elements – **safe road users, safe roads and roadsides, safe vehicles and safe speeds**. Each element plays its part in ensuring the safety of people using our roads.

Key directions



Safe Road Users

1. Improve the Graduated Licensing System to reduce serious casualties for 17-25 year olds.
2. Introduce safety initiatives to reduce motorcyclist serious casualties.
3. Encourage safer road user behaviour through education and enforcement.
4. Reduce driver inattention and distraction to reduce serious casualties.



Safe Roads and Roadsides

5. Reduce run-off-road and head-on crashes through improved infrastructure.
6. Reduce the severity of intersection crashes through improved infrastructure treatments.
7. Encourage the latest thinking in safe road design (the Safe System approach).
8. Monitor the latest innovations in Safe System infrastructure treatments and trial in Tasmania.
9. Reduce serious casualties through improved delineation (e.g. line marking).



Safe Vehicles

10. Improve the star rating of Tasmania's vehicle fleet to include vehicles with better safety features.
11. Increase the number of motorcycles with ABS.



Safe Speeds

12. Establish speed limits that are more appropriate to the safety features of individual roads.
13. Increase enforcement through technology to reduce speed related serious casualty crashes.



Our vision

Driving the *Towards Zero – Tasmanian Road Safety Strategy 2017-2026 (Towards Zero Strategy)* is the long-term vision of a Tasmania where **no one is seriously injured or killed as the result of a crash on our roads.**

Achieving this vision will only happen if everyone accepts responsibility for road safety.

We know that our vision will not be easy to achieve and it will not happen overnight. We must continue to take incremental steps, look for innovative solutions, address our crash problem areas and build upon our road safety achievements in order to realise our vision.



Our target

Currently around 300 people are seriously injured and killed on Tasmanian roads each year.

To work towards our long-term vision, the key target for the Towards Zero Strategy is to reduce the number of annual serious injuries and deaths on Tasmanian roads to **fewer than 200 by 2026**.

We will be working towards reducing the number of serious injuries and deaths on our roads by at least 100 over current levels (annual average). This is deliberately ambitious and we will need to embrace our vision, be guided by this Strategy and implement our Action Plans to accomplish this level of safety improvement.

Fortunately, we're not starting from scratch. During this time we hope to benefit from the actions taken under the previous road safety strategy including promotion of safer vehicles, improvements to driver licensing for young drivers and increased safety features as part of our standard road design.

The Towards Zero Strategy will focus our road safety efforts over the next decade on 13 key directions to help us reach our short-term target and move closer to our long-term goal of zero.

Regular Action Plans will identify key initiatives under the Strategy to reach our short-term target. For the first Action Plan (2017-2019), these initiatives have been selected based on what we've heard from community consultation and recommendations from independent road safety experts. Initiatives that will take longer for the benefits to be realised are to be prioritised and implemented early in the life of the Strategy.

We will review progress towards our target at the end of each Action Plan and use the results to inform our future actions.

Not just a number

Using numbers to talk about serious injuries and road deaths is an easy way to distance ourselves from road trauma, but behind each of those numbers is a person. That person may be somebody you know or love or they may be a complete stranger, but to somebody else they are very special. Death is forever and it is hard to forget such tragedies. However, it is the hidden cost of road trauma that we often overlook.

Serious injuries cost individuals and those closest to them their wellbeing and happiness. It also has numerous financial implications, all of which can be for life. Others involved in a road crash are also affected. Whether it be an emergency service worker, paramedic, by-stander or the person who caused the crash, their lives change forever as a result of the experience. Each road statistic has a desperately sad story at its core.

Kirby's story

"I'd had a really busy day. I was driving home and I fell asleep around a corner. I shattered both of my legs. The car then flipped in the air and the impact of this shattered my face."

She is still feeling the effects of her injuries. She wants drivers to listen to their bodies and take a rest break when they need to.



Lisa's story

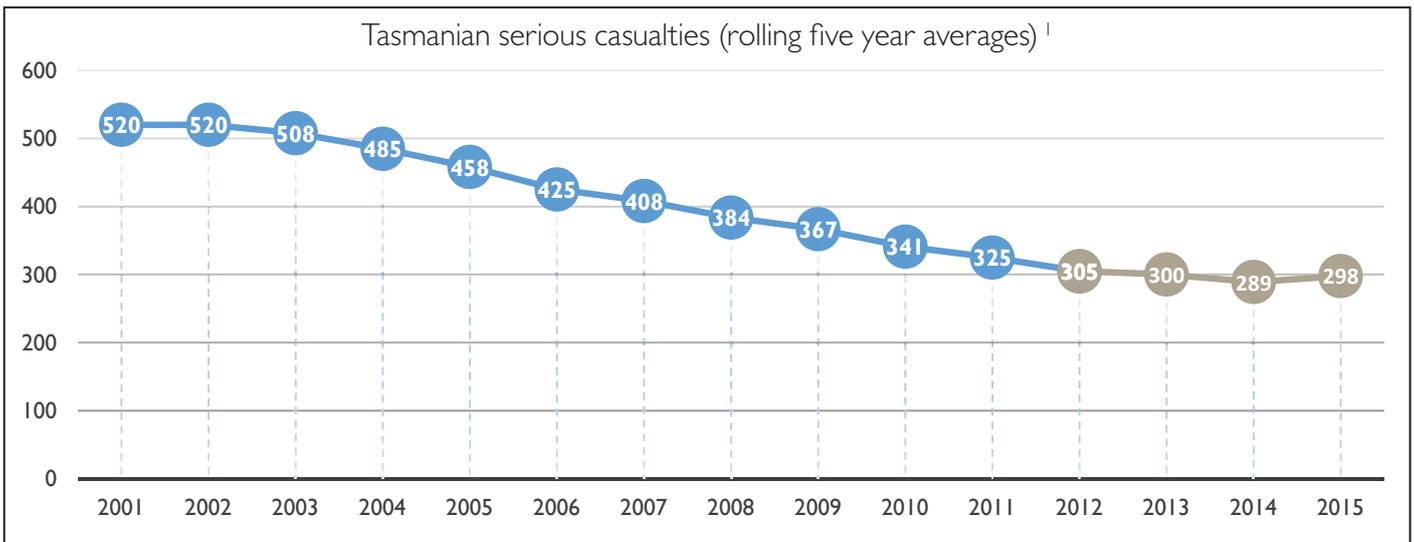
"Aaron was the light of my life. He was such a fun-loving boy. The first thing I remember is the policeman saying to my husband Aaron has passed away. He was on his motorbike, he didn't stand a chance."

Aaron was killed by two speeding cars racing each other. His mother Lisa's message: everyone deserves a good life. Just be respectful of other people.



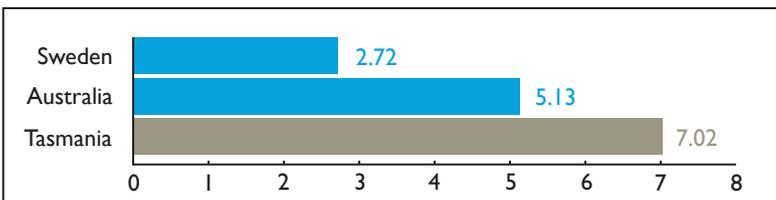
Tasmanian road crashes

Between 2006 and 2015, 3 193 people have been seriously injured or killed from road crashes in Tasmania. Since 2001 there has been a downward trend in the annual number of serious casualties. However, this reduction has clearly plateaued, with around 300 people each year continuing to be seriously injured or killed as a result of crashes on Tasmanian roads.



Tasmanian Serious Casualties² 2001-2015.

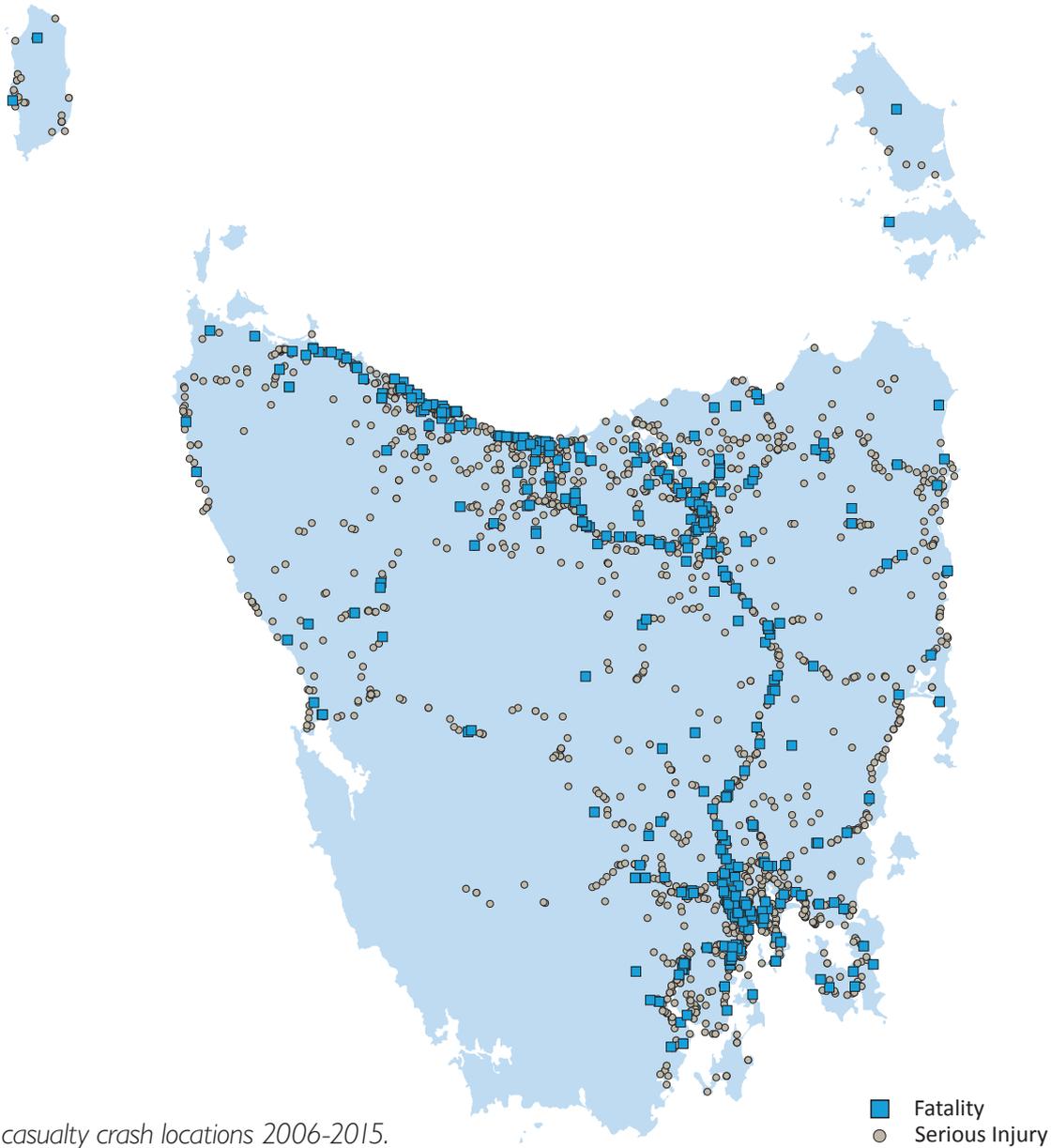
In terms of annual deaths per 100 000 population in 2013, Tasmania's rate of 7.02 was higher than the national average (5.13) – with only the Northern Territory having a higher rate. It was also significantly higher than Sweden – a country renowned for its road safety practices – which had the lowest rate (2.72).



Road deaths per 100 000 population – OECD countries and Australian states/territories, 2013.

The road safety performance achieved nationally and internationally should provide optimism that improved road safety is indeed possible in Tasmania. Sweden's road safety record demonstrates that Towards Zero is a realistic vision.

1. Each data point represents the average of that year and preceding four years (e.g. 2001 data point is average number of serious casualties for 1997-2001 period).
 2. A 'serious casualty' collectively describes fatalities and serious injuries as the result of a crash. A fatality is where a person dies up to 30 days after the crash. A serious injury involves a person being admitted to hospital for 24 hours or more after the crash.



Serious casualty crash locations 2006-2015.

Where do fatal and serious injury crashes occur?

A large proportion of serious casualties occur on our higher speed/high traffic volume roads. These are the higher speed feeder roads to our major population centres and suburban connectors. Many serious casualties are also occurring on our higher speed/lower volume rural roads. Less than a quarter of our serious casualties are occurring on lower speed urban roads despite high traffic volumes.

Areas where there have been clusters of crashes have largely been treated. It is important that we are proactive and implement network-wide safety countermeasures and treatments.

What types of crashes are they?

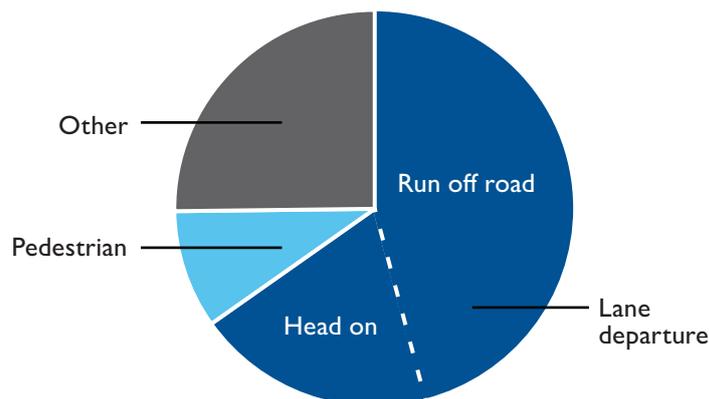
'Lane departure' crashes (run-off-road and head-on crashes) account for over two thirds of serious casualties on Tasmanian roads. Strategies to reduce lane departure crashes have the greatest potential to improve road safety in Tasmania.

The most common 'lane departure' crash type resulting in serious casualties is run-off-road crashes. Run-off-road crashes occur when a vehicle veers off the roadway or across the opposing traffic lane. Run-off-road crashes account for almost one in two serious casualties. The severity of this type of crash can be reduced by protecting roadside hazards with safety barriers or removing hazards where practicable. Improved line marking (delineation), including audible edge lines and road edge widening, can help in preventing this type of crash from occurring.

The other form of 'lane departure' crash is head-on crashes, which occur when vehicles travelling in opposing directions impact one another head/front on. Head-on crashes have increased and represent around one fifth of serious casualties. Physically separating opposing traffic with median or centerline barrier is an effective method to prevent this crash type. Improved delineation can also help in reducing head-on crashes.

Active vehicle technologies such as electronic stability control, lane departure warning, and autonomous braking systems will increasingly play an important role in preventing lane departure crashes or reducing the severity when a crash of this type occurs.

Crash type 2006-2015

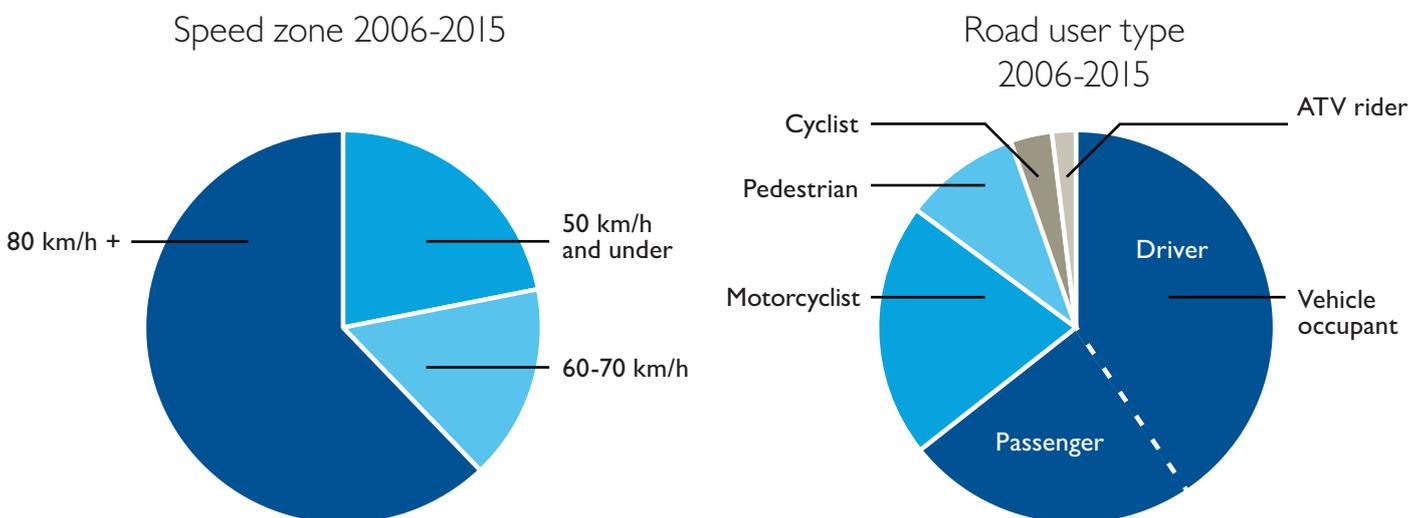


Almost two thirds of serious casualties occur in higher speed zones (80 km/h or above). However, only around a quarter of all crashes occur on these roads (serious casualty crashes, minor crashes and property only). Importantly, this helps demonstrate the lower crash survivability when travelling at higher speeds.

At intersections, the potential for crashes is high as road users are required to make more complex decisions and respond to a changing road environment. Intersection crashes account for around one in 10 serious casualties on Tasmanian roads. Serious casualties from intersection crashes have decreased significantly over the last 10 years, however they still represent around 13 per cent of all serious casualties. Most intersection crashes involve light vehicles, but a significant number of crashes involve pedestrians and a quarter of these crashes involve motorcyclists. Almost a quarter of intersection crashes involve older road users aged over 65. Reductions in intersection crashes have been achieved through a targeted program of infrastructure treatments such as controlling more intersections with traffic signals, converting intersections to roundabouts, and providing protected left and right hand turn bays. Reduced urban speed limits from 60 to 50 km/h has undoubtedly improved safety at these conflict points.

Who is most at risk?

Drivers and passengers continue to be the road user type most often seriously injured or killed on Tasmanian roads. Improved driver safety can be achieved through a better licensing regime, enforcement, active vehicle technologies, and safer, more 'crashworthy' vehicles.



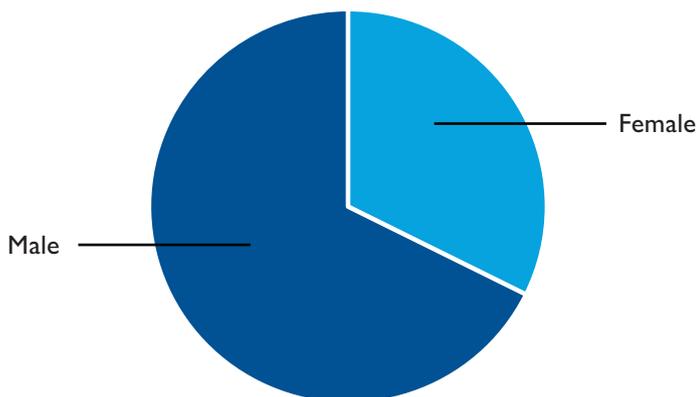
Motorcycle riders represent more than one in five serious casualties on Tasmanian roads yet motorcycles comprise less than one in 20 of the vehicle fleet. Motorcyclist serious casualties have increased over the last 10 years, from 705 (between 1996 and 2005) to 759 (between 2006 and 2015). Motorcyclists are vulnerable road users as there is little protecting them from injury in the event of a crash. Improved rider training and enforcement will help to improve motorcyclist safety. Active vehicle technologies such as Antilock Braking Systems (ABS) and traction control have a role to play in improving safety for these road users. Protective clothing can also reduce the level of crash injury for motorcyclists.

Pedestrians represent less than one in 10 serious casualties. The number of pedestrians seriously injured or killed on Tasmanian roads has reduced dramatically over the last 30 years. This has been achieved through improving pedestrian safety with more intersections controlled by traffic signals, a continued focus at school crossings, and increased 'mid-block' treatments, such as 'pedestrian islands' to provide safe crossing points.

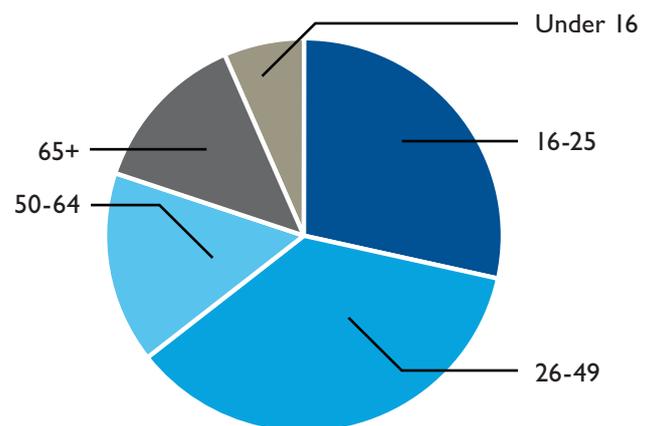
Young road users aged 16-25 years continue to be overrepresented in Tasmania's crash statistics. More than 28 per cent of serious casualties were young road users aged 16-25 years. Improved training for those entering the licensing system, together with licensing restrictions to prevent higher risk behaviours, such as zero blood alcohol concentration, provide opportunities to improve safety for these road users.

Males account for two out of every three serious casualties. A review of the Graduated Licensing System and targeted public education are measures aimed at improving road safety for men.

Gender 2006-2015



Age 2006-2015





What behaviours contribute to serious casualties?

Speed (either excessive speed for the conditions or exceeding the speed limit) is a factor in one in three serious casualties.

Alcohol, inattention, and inexperience continue to be the other leading behavioural factors associated with crashes in Tasmania.

Public and targeted road safety education campaigns clearly have an important role in attracting attention to road safety as an important public health issue. These campaigns promote safe driving and help to make unsafe behaviours, such as drink driving, socially unacceptable in much the same way as anti-cigarette advertising has done to smoking.

Targeted and random enforcement are also fundamental in deterring negligent and illegal road use.

Behaviour is important for road safety. However over two thirds of crashes are not the result of high risk/illegal behaviour but simply the result of unintended mistakes.



Behaviours contributing to serious casualties	Number of serious casualties	Percentage of serious casualties
Inattention	829	26%
Inexperience	826	26%
Excessive speed for the conditions	783	25%
Alcohol	685	21%
Exceeding the speed limit	404	13%

Behaviours that contributed to serious casualties 2006-2015.

The Safe System approach

Safe System thinking requires us all to accept responsibility for road safety – road and traffic engineers, vehicle designers, manufacturers and marketers, police, educators, trauma managers, as well as each of us as individual road users.

The Safe System approach has been effective in improving road safety and reducing road trauma. Safe System thinking is underpinned by the belief that all road related serious injuries and deaths are preventable and therefore no loss of life is acceptable. We acknowledge that the road system needs to keep us moving, but the system must be designed to protect us.

The key principles of the 'Safe System' approach are:

- We will make mistakes.
- Our bodies are fragile.
- We need to create a more forgiving road system.
- Road safety is everybody's responsibility.

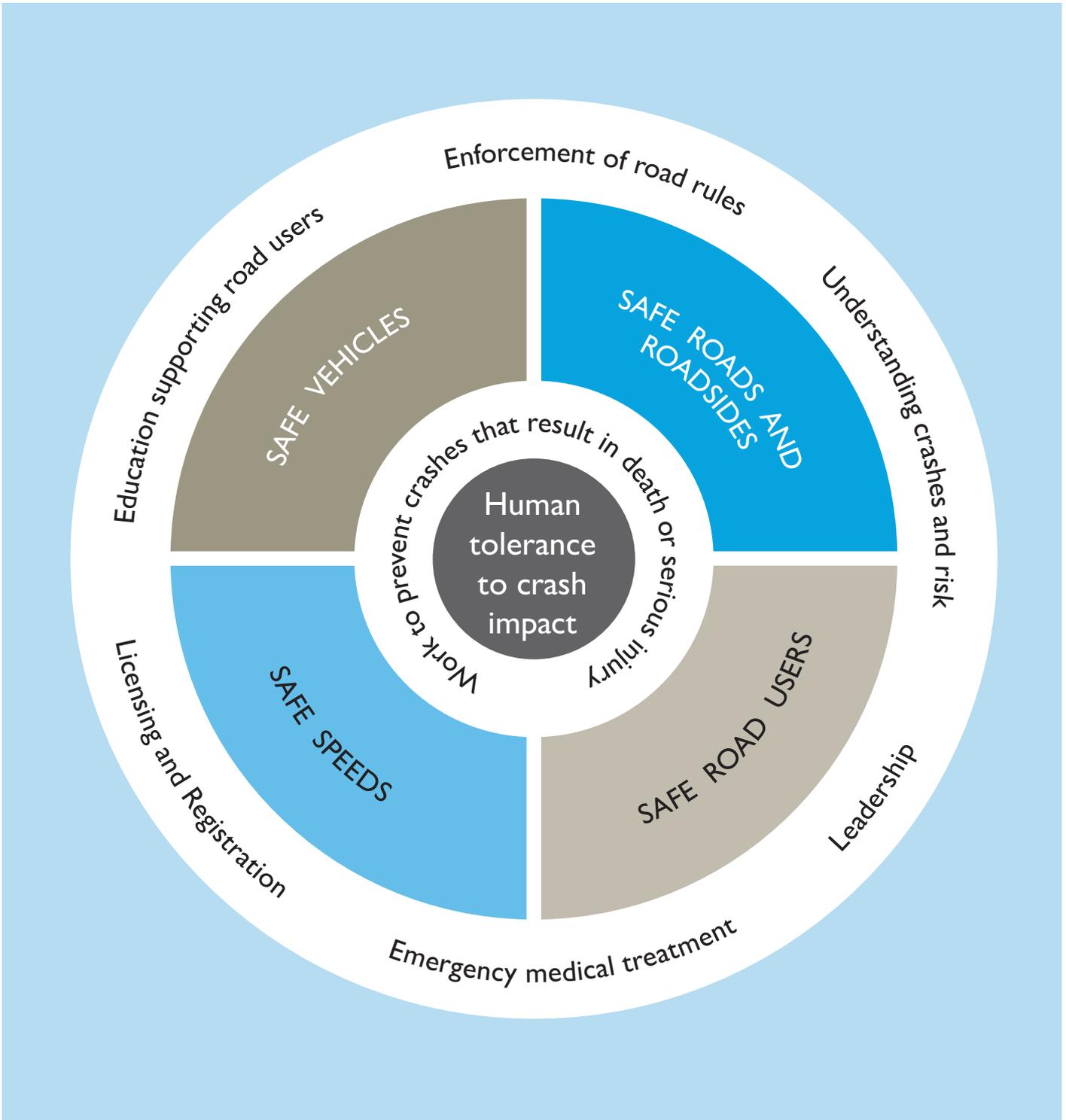
Human frailty is placed at the centre of the system design, so that mistakes don't cost lives.

A Safe System has four essential elements which all interact

- **Safe Road Users** – encouraging safe behaviour through education, enforcement and regulation.
- **Safe Roads and Roadsides** – designing and maintaining roads to reduce the risk and severity of crashes.
- **Safe Speeds** – establishing speed limits that are more appropriate to the safety features of individual roads.
- **Safe Vehicles** – designing vehicles that protect occupants, lessen the likelihood of a crash and simplify the driving task.

In a Safe System, for example, if you are distracted for a split second and veer off the road, audio tactile edge lines may alert you in time to recover. If there is no time to recover, a roadside barrier may prevent you from hitting another vehicle or object. If a collision is imminent, the speed you are travelling and your vehicle safety rating will play a key part in whether you walk away from the scene unharmed or not.

To prevent serious injury and death on our roads, all four elements of the Safe System must work together and continue to be improved. If a crash occurs as a result of a specific weakness of one element, the other three elements either individually or collaboratively should be strong enough to reduce the effects of the crash.



Tasmania's Safe System approach (adapted from New Zealand's Safe System approach).

The way forward

Thirteen key directions will guide our road safety efforts over the next decade. These directions align with the four elements of the Safe System approach. While we will continue to focus on a range of road safety issues, the key directions will help us to reach our short-term target of fewer than 200 serious injuries and deaths annually on our roads by 2026 and our long-term goal of zero. Over the next 10 years we will put in place measures to improve road safety and move closer to having a truly Safe System. We know that saving more lives depends on the community's understanding and acceptance of the Safe System approach and we all need to be committed to this way of thinking to achieve our vision.



Safe Road Users – encouraging safe, compliant behaviour through education, enforcement and regulation.

What we know

When looking at what we can do to improve road safety we tend to focus heavily on the road user and 'correcting' behaviours. Educating people about the road rules and safe driving is at the heart of road safety, but on its own it is not enough. Safe driving behaviour is best achieved when complemented by enforcement activities. Education and enforcement will continue to underpin our road safety efforts. However, we know that no matter how well trained or educated we are, we will make mistakes and crashes will continue to occur.

In terms of our road users, young drivers and motorcyclists are the most at risk of being seriously injured or killed in a crash and we need to make these road users our priority.

Research tells us that introducing further changes to our current Graduated Licensing System (GLS) will achieve important reductions in serious crashes involving young drivers. A GLS is designed to protect drivers in the learning stage by requiring them to gain on-road experience in a supervised environment, undertake assessments before they can drive unsupervised and by placing safety restrictions on them that do not apply to other road users. Restrictions are gradually lifted as a learner progresses through the different stages of the licensing system and they improve their knowledge, driving skills, hazard perception and road craft. An effective GLS does this in a way that reduces the likelihood of young drivers being involved in a serious crash, particularly in the early stages of the provisional driving period when they are most at risk (as shown in the diagram on next page). Currently there are age, speed, and alcohol restrictions on novice drivers in Tasmania. Other jurisdictions have passenger, night-time and vehicle power-to-weight ratio restrictions.

In terms of motorcycles, we know that their numbers on our roads have increased steadily over the last 10 years. Although they only account for 4 per cent of all registered vehicles, motorcycle crashes account for over 22 per cent of serious casualties. Motorcyclists are extremely vulnerable in the road environment as there is very little protecting them from injury when something goes wrong. There is no 'silver bullet' for improving the safety of motorcyclists on our roads but it is an area where we must identify actions to benefit these road users.



Source: Austroads (2008), *The Crash and Offence Experience of Newly Licensed Young Drivers*, Sydney, AP-R331/08.

What we've heard

Road safety education and enforcement activities are strongly supported in the community, as is improving the safety of motorcyclists through increased education and targeted campaigns.

Making changes to the current licensing requirements for learners and provisional drivers (GLS) is also supported. However, there is greater support for improving young driver training than for introducing any further licensing restrictions, such as passenger and night-time driving restrictions.

What we're going to do

Current levels of road safety education and enforcement on our roads will continue. For motorcyclists, we will direct our efforts toward improving training, promoting the benefits of protective clothing and encouraging safe riding practice. More generally, we will also concentrate on promoting safe road user behaviours and raise awareness about the dangers of inattention and distraction.

We need to build on education and enforcement activity to improve safety for road users. Our future drivers need to understand their responsibility for road safety and commit to safe driving practices from a young age. That is why we will be strengthening our GLS. The number of serious casualty savings we can expect from improving the GLS reduces if we only make changes to the training and assessment elements. We need to introduce a number of restrictive elements even though there is mixed support for doing this. It will be important that we continue to work with our community to inform and create a better understanding of the road safety benefits to all from making further improvements to our GLS.

Our key directions for safe road users are:

- improve the Graduated Licensing System to reduce serious casualties for 17-25 year olds
- introduce safety initiatives to reduce motorcyclist serious casualties
- encourage safer road user behaviour through education and enforcement
- reduce driver inattention and distraction to reduce serious casualties.



Young drivers are most at risk of being involved in a crash in the early stages of the provisional period





Safe Roads and Roadsides – designing and maintaining roads to reduce the risk and severity of crashes.

What we know

Tasmania has a network of more than 18 000 kms of roads. Many of these roads are higher speed rural roads that are narrow, winding and hilly. They are missing important safety features such as line marking, sealed shoulders and clear zones on the roadsides.

Significant investment is required to improve the safety standard of Tasmanian roads. We know that the infrastructure required to keep people safe and minimise risk on our roads is costly, but this is justified by the number of serious injuries prevented and lives saved. We can work towards increasing the level of safety by ensuring we are guided by best practice in road design, retrofitting safety features on existing lengths of road, and using evidence to target our most unsafe roads. It is extremely important that we focus our efforts on this aspect of the Safe System, as we know it is best practice infrastructure that provides ongoing benefits and an environment which is forgiving of human error.

In a Safe System, opposing traffic is physically separated by the use of median barrier such as 2+1 and 2+2 road configurations, or separated dual carriageway to eliminate the risk of head-on crashes. Similarly, roadside hazards are protected with barrier to eliminate the risk of run-off-road occurrences resulting in road trauma crashes. Retrofitting these safety treatments in the road network is expensive and cannot be achieved overnight. Increasingly, our high speed 110 km/h network is being enhanced with these safety features. By 2025, the Midland Highway will have median barrier for much of its length and will also have extensive lengths of side barrier. On other parts of the network we only have the resources to use these safety treatments as a targeted measure on the higher risk, higher volume roads. Less costly infrastructure can also deliver positive road safety outcomes by minimising road user risk. This includes sealing road shoulders, removing roadside hazards or protecting them with barriers, improved delineation and audible edge line markings.

What we've heard

Many lower-cost infrastructure treatments like audible edge line markings and sealed road shoulders are strongly supported by the community as ways of reducing head-on and run-off-road crashes. Support for these treatments shows a shared understanding of the risk and seriousness of these crash types and how even simple infrastructure treatments can improve safety.

In terms of reducing side impact crashes, we know that there is little support for safety measures such as eliminating right hand turns or introducing raised 'plateaus' at intersections that will either eliminate or reduce the risk of crashes at these conflict points. However, there is support for roundabouts. Roundabouts are a proven safety measure because they reduce speed, protect opposing traffic and reduce the potential for dangerous side impact crashes so that when crashes do occur at these locations the risk of serious injury and death is significantly reduced. Community feedback also indicates there is some confusion about using roundabouts. Ongoing education about the rules for using them will ensure proper use and continued safety benefit.

What we're going to do

Our two biggest challenges for making our roads and roadsides safer are managing road lane departures and collisions at intersections. We can significantly reduce the likelihood of lane departures occurring by installing continuous lengths of flexible safety barrier on the road network. This is a relatively expensive treatment. Nevertheless it is being adopted as the standard for our 110 km/h network and will also be installed at higher risk locations around the state.

Our key directions for safe roads and roadsides are:

- reduce run-off-road and head-on crashes through improved infrastructure
- reduce the severity of intersection crashes through improved infrastructure treatments
- encourage the latest thinking in safe road design (the Safe System approach)
- monitor the latest innovations in Safe System infrastructure treatments and trial in Tasmania
- reduce serious casualties through improved delineation (e.g. line marking).

Delineation and line markings minimise lane departures. Innovative vehicle technologies also use line markings to avoid crashes. We will improve the quality of delineation and line marking on our road network.

We will work towards eliminating points of conflict and minimising opportunities for side impacts at high risk locations across our road network. We will trial a range of lower-cost Safe System infrastructure on a case-by-case basis and as part of larger demonstration projects.

Where best practice infrastructure improvements cannot be achieved, we will manage speeds to increase the likelihood of survival in the event of a crash. Working with our road designers to improve knowledge of the Safe System and implementing innovative safety solutions will facilitate the construction and management of safer roads.



Flexible safety barriers provide full separation between vehicles travelling in opposing directions.



Safe Vehicles – designing vehicles that protect occupants, lessen the likelihood of a crash and simplify the driving task.

What we know

Tasmania has the oldest vehicle fleet in the country, with an average age of 12 years. Vehicle safety has been improving at a rapid rate over the past decade. The ability for the vehicle structure to protect occupants in a collision (passive safety) has improved dramatically over time and attention has now turned to technologies that are capable of avoiding crashes altogether (active safety). With a relatively old vehicle fleet we know many people are not benefiting from the improved safety features of new vehicles.

It is important to get as many 5 star vehicles as possible into the Tasmanian vehicle fleet to accelerate the introduction of safety features found in modern 5 star cars. Every year that a new vehicle or safety technology is delayed from entering the fleet results in a diminished safety effect in future years. This is because it takes many years for the vehicle fleet to turn over. If a new safety technology is introduced tomorrow, it will take approximately 20 years before it penetrates the entire fleet ³. If everybody drove the safest vehicle available serious casualties could be reduced by 26 per cent ⁴.

We also need to increase the safety features on motorcycles as motorcyclists continue to be over-represented in serious casualty crashes. Research tells us that ABS for motorcycles have significant safety benefits and have been shown to reduce serious casualties by up to 39 per cent ⁵.

What we've heard

Understandably, concerns have been raised about the affordability of initiatives to accelerate the uptake of new vehicles. We have taken this into consideration but we also recognise the significant reductions in serious casualties that can be gained from addressing issues with the safety of vehicles currently on Tasmanian roads. There is also a level of misunderstanding about 'roadworthiness' and 'crashworthiness'. It is important that vehicles are properly maintained and kept 'roadworthy'. However, the performance of a vehicle in a crash will relate to its inbuilt safety features such as air bags and its physical structure and less so to its roadworthy status, such as a failed headlight. Increasingly 'active safety' features like autonomous emergency braking and lane departure warning will help prevent crashes from occurring.

What we're going to do

Through public education we will continue to actively promote the value of buying the safest vehicle that you can afford. We will also continue to support the work of the Australian New Car Assessment Program (ANCAP). The Tasmanian Government needs to be proactive in ensuring that safer vehicles are more widely available. As the largest vehicle fleet managers in Tasmania, the Tasmanian Government must take the lead in purchasing 5 star vehicles. This will increase the availability and affordability of safer vehicles as they are resold into the community.

Actions to encourage the purchase of ABS equipped motorcycles will also be pursued.

3. Mackenzie, J., Wooley, J., Stokes, C., Kloeden, R., Raftery, S. (2016). Analysis and modelling of crashes in Tasmania. (CASRI36). Centre for Automotive Research. Adelaide.

4. Newstead, S., Delaney, A., Watson, L., Cameron, M. (2004). A model for considering the "total safety" of the light passenger vehicle fleet. Monash University Accident Research Centre. Report No. 228.

5. Fildes, B., Newstead, S., Rizzi, M., Fitzharris, M., Budd, L. (2015) Evaluation of The Effectiveness of Anti-Lock Braking Systems on Motorcycle Safety in Australia, Monash University Accident Research Centre Report No. 327.

Our key directions for safe vehicles are:

- improve the star rating of Tasmania's vehicle fleet to include vehicles with better safety features
- increase the number of motorcycles with ABS.



A 5 star rated vehicle provides a greater level of occupant protection in a crash than a lower rated vehicle (Image source: ANCAP).



Safe Speeds – establish speed limits that are more appropriate to the safety features of individual roads.

What we know

The higher the travel speed, the greater the chance of being involved in a crash and the more severe the consequences will be if a crash occurs. Safe travel speed is a fundamental cornerstone of the Safe System approach. Speed limits need to be set at appropriate levels and road users need to travel at speeds that are suitable for the conditions. Some speed limits may currently be set at a higher level than our bodies can tolerate should a crash occur. This can result in serious injury or death. Under a Safe System, speed limits are set at survivable levels that are appropriate for the level of protection provided by safety infrastructure on a particular road or section of road.

It is important that road speed limits reflect the safety features of the road to reduce the risk of road trauma resulting from a crash. Admittedly, lower travel speeds will have a moderate impact on travel times but this is a very small price to pay for the significant reduction in serious injury and death on our roads. Research tells us that even small reductions (10 km/h) in travelling speeds can lead to reductions of 25 per cent in serious casualties across the road network⁶.

What we've heard

It is widely acknowledged that speed is a major factor in road crashes, but we generally associate speeding with 'bad drivers'. We know that the community does not currently support reduced blanket speed limits on our roads. However, there is support for targeted improved speed management on individual roads. This is a step towards a Safe System.

What we're going to do

We will continue to focus on penalising road users that put others at risk by speeding on our roads. We will look to use new, more effective speed camera technologies and ensure all cameras are operated in a manner that maximises safety.

A key focus will be working on changing our collective attitude to driving to the road conditions including the acceptance of the need to moderate speed to the safety features of the road. We have a natural fear of heights but lack the ability to perceive the inherent danger of horizontal travel speeds. As pedestrians, we happily stand centimetres away from vehicles whizzing past at 50 or 60 km/h. As car drivers, we feel perfectly safe as we drive at 100 km/h with oncoming vehicles and trucks flying past us at similar speeds. Should something go wrong in either scenario, serious injury or death is almost certain. We know changing our attitude toward speed will be a challenge and will require a number of actions to change our perception of the risks of using our roads.

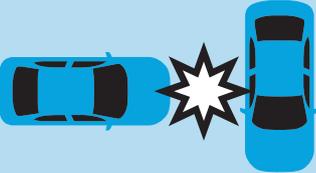
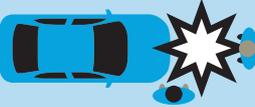
A combination of approaches can help us achieve safer speeds. This could include public education, enforcement, policy changes, and reviewing individual roads to assess whether current speed limits are appropriate for the level of safety features provided. However, it is crucial in moving towards a Safe System that we all have a greater understanding of the speeds the human body can tolerate in a crash situation.

We will work towards sensible speed limits based on infrastructure standards and safety features, and have fewer speed zone changes. We will also encourage compliance with speed limits through the use of new and additional enforcement technologies.

6. Mackenzie, J., Kloden, C., & Hutchinson, T. (2015). Reductions of speed limit from 110 km/h to 100 km/h on certain roads in South Australia: a follow up evaluation (CASR115). Centre for Automotive Research. Adelaide.

Our key directions for safe speeds are:

- establish speed limits that are more appropriate to the safety features of individual roads.
- increase enforcement through technology to reduce speed related serious casualty crashes.

	Crash type	Impact speed
	Head-on	70 km/h
	Side-impact	50 km/h
	Side-impact with fixed object	30 km/h
	Pedestrian	30 km/h

International research shows the maximum survivable impact speeds above which the chances of serious injury and death are more likely.

We must use a combination of safer vehicles with better safety features, safer infrastructure treatments, and more appropriate speed limits to reduce conflict points between road users and protect people from the impact of crashes.

Working Towards Zero

Actions Plans will support the implementation of initiatives under the key directions of the Strategy. The results of community consultation and recommendations from independent road safety experts at the Centre for Automotive Safety Research (CASR) have informed the selection of initiatives under the *Towards Zero Action Plan 2017-2019* (Action Plan 2017-2019).

Three Action Plans will cover the 10 year period of the Strategy and will be for three years, three years and four years respectively.

- a. Action Plan 2017-2019
- b. Action Plan 2020-2022
- c. Action Plan 2023-2026

The Government will be monitoring our progress towards implementing the initiatives outlined in our Action Plans through quarterly reporting by the Road Safety Advisory Council. Towards the end of each three year Action Plan we will use this and our crash data to review progress towards our short-term target.

This information will be essential in determining the initiatives under the Action Plan for the following period.

Glossary of terms

'2+1' configuration	A three-lane road with the provision of alternating lanes and a flexible safety barrier located in the narrow median.*
'2+2' configuration	A four-lane road with a flexible safety barrier located in the narrow median.*
Audio tactile line markings	Raised or specifically textured strips typically installed on the edge line (or in some cases centreline), generating noise and vibrations through vehicles in order to alert drivers that they are leaving their lane, and encouraging them to return to their lane. ‡
Centreline barrier	A device used on multilane roads to keep opposing traffic in prescribed carriageways. ‡
Delineation	Treatments that enhance the selection of the appropriate path and speed, or position, to allow a manoeuvre to be carried out safely and efficiently, e.g. line marking, raised pavement markers, traffic cones and flaps and post-mounted reflectors. ‡
Fatality	Where a person was killed before a report was made by Tasmania Police or died up to 30 days after the crash.
Flexible safety barrier	A road safety barrier system consisting of wire rope cables under high tension that are supported on posts and anchored at the ends. ‡
Motorcycle Antilock Braking System (ABS)	System which prevents the wheels from locking up by automatically modulating the brake pressure when the rider brakes hard. By preventing the wheels from locking, the system aids riders to maintain steering control which may reduce stopping distances in certain situations.†
Safe System	The 'Safe System' approach works to improve road safety and eliminate road trauma. A Safe System has four essential elements which all interact, including safe road users, safe roads and roadsides, safe vehicles and safe speeds. This approach is underpinned by the beliefs that road safety is everybody's responsibility, people will make mistakes and the human body is fragile. Human frailty is placed at the centre of the system design, so that mistakes don't cost lives.
Sealed shoulder	The sealed edge of roads outside of the travelled carriageway (the shoulder) of roads. Sometimes it is delineated by an edge line applied between the sealed shoulder and the travelled section of a carriageway. The treatment is almost invariably associated with unkerbed roads, and is often applicable to rural roads.‡
Serious casualties	Include fatalities and serious injuries.
Serious injury	Where a person was admitted to hospital for 24 hours or more.
Wide centrelines (painted median)	Two parallel painted centrelines, often with audio tactile surfaces, which provide separation of opposing traffic.*

* Jurewicz, C., Aumann, P., Bradshaw, C., Beesley, R., Lim, A. (2015). Road Geometry Study for Improved Rural Safety. Austroads Ltd. Sydney.

† OECD and ITF. (2015). Improving Safety for Motorcycle, Scooter and Moped Riders. OECD Publishing, Paris.

‡ Austroads (2015). Glossary of Terms (2015 Edition). Austroads Ltd. Sydney.



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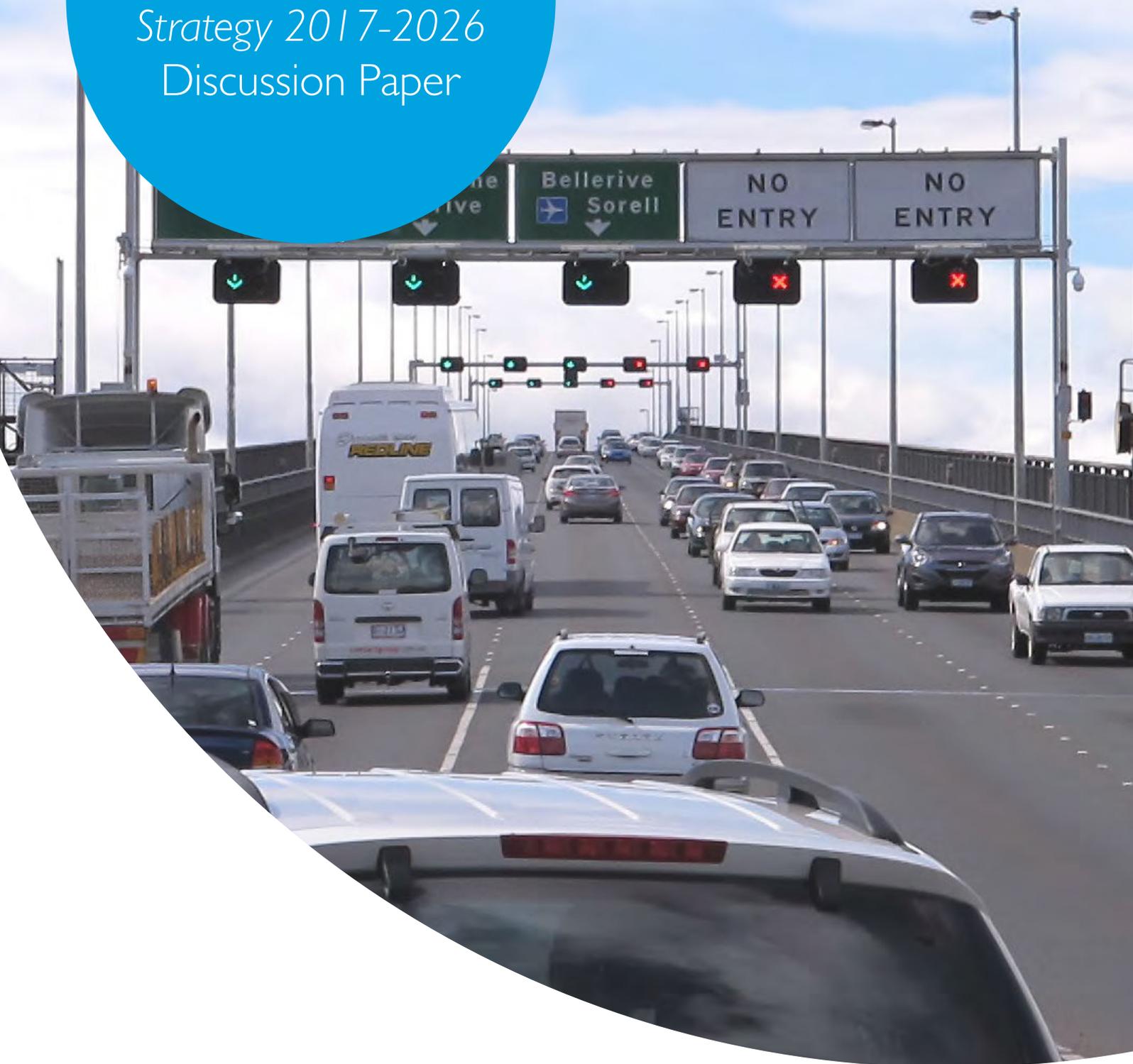
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Towards Zero
– *Tasmanian Road Safety*
Strategy 2017-2026
Discussion Paper



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Foreword



Road safety affects us all.

Whether it's the shock of a near miss, a small prang, sustaining a serious injury or losing someone we love, everybody is likely to be affected by road safety at some point in their life.

Over the past ten years, almost 3,500 people have been killed or seriously injured on Tasmanian roads. This is totally unacceptable – every life is precious and we must do everything we can to minimise the risk of using our road system.

People may find it easier to talk about road safety in an impersonal way by referring to statistics, trends and the road toll. This makes road trauma easier for us to accept – even the word 'toll' implies that it's a price we are willing to pay. But road safety is so much more than just a number – imagine the grief of losing a child, or sustaining an injury and being unable to play your favourite sport or provide for your family. Not only are the outcomes devastating, but they can also have a lasting impact on those involved – emotionally and financially.

To reduce the level of road trauma in Tasmania, the Road Safety Advisory Council (RSAC) is developing the *Towards Zero – Tasmanian Road Safety Strategy 2017-2026*.

The role of RSAC is to oversee the promotion and delivery of road safety initiatives in Tasmania and make recommendations to government about road safety policy. The Towards Zero Strategy will continue to be based on the 'Safe System' approach to road safety, which involves four essential elements working together to benefit road users – safe road user behaviour, safe roads and roadsides, safe vehicles and safe travel speeds. The Safe System recognises that people make mistakes and considers how we can make the whole system more forgiving, so that these mistakes don't cost lives.

The purpose of this Discussion Paper is to put forward options for inclusion in the Towards Zero Strategy. These options are based on community views, lessons learned from our current strategy and independent research.

To ensure the success of the Towards Zero Strategy, we need your help.

Road safety is everyone's responsibility and your input into the Strategy will be crucial. Let us create the safest road system we can – one that forgives our mistakes and works "towards zero" deaths and serious injuries on Tasmanian roads.

Jim Cox

Chair, Road Safety Advisory Council



How can you help?

1. Read this document
2. Reflect on what you have read and what the information means to you.
3. Go to www.towardszero.tas.gov.au and provide your comments through our online feedback form by 31 May 2016.

I. Developing the *Towards Zero* – *Tasmanian Road Safety Strategy 2017-2026*



The current *Tasmanian Road Safety Strategy 2007-2016* is nearing the end of its life.

Over the past ten years nearly 3,500 people have been killed or seriously injured on Tasmanian roads. This is totally unacceptable – although mistakes and crashes are inevitable, death and serious injury are not.

The *Towards Zero* Strategy will set the direction for road safety in Tasmania over the next ten years, with the long-term vision of zero deaths and serious injuries on our roads.

What will inform the *Towards Zero* Strategy?

The *Towards Zero* Strategy will be informed by research and best practice advice, which has been provided by road safety experts from the Centre of Automotive Safety Research (CASR) at the University of Adelaide.

The Strategy must also take into account the attitudes and viewpoints of community members and key stakeholders. With this in mind, RSAC undertook an extensive consultation process to ensure that community members and key stakeholders had the opportunity for input right from the very start.

What are the next steps?

This Discussion Paper is not the *Towards Zero* Strategy – it is a summary of findings from community and stakeholder consultation, and the expert recommendations made by CASR.

Before RSAC finalises the Strategy and makes recommendations to Government, we are seeking your views on our findings, and what we propose.

Over the life of the *Towards Zero* Strategy (from 2017-2026), action plans will be developed to identify which practical actions will be implemented and the timeframes needed to achieve serious casualty reductions and address problem areas.

Our goal

The long-term vision of the *Towards Zero* Strategy is to achieve zero deaths and serious injuries on Tasmania's roads.



2. Overview of the current *Tasmanian Road Safety Strategy 2007-2016*



The *Tasmanian Road Safety Strategy 2007-2016* has focused on reducing serious casualties (see page 51, Glossary of Terms), and has achieved a steady reduction.

However, to achieve our long-term goal of zero deaths and serious injuries on our roads, we need to build on our achievements and continue to address areas which have high priority.

What have we done over the last 10 years?

Over the last 10 years we have introduced a range of measures to help reduce serious casualties on our roads. Following are just a few examples of the types of measures we have introduced.

To encourage safer travel speeds, we now have electronic speed limit signs at schools, variable speed limit signs on the Tasman Highway, changing road conditions signage on roads with a rural default speed limit of 100km/h and fixed speed cameras at seven locations. Speed limits on gravel roads have also reduced from 100km/h to 80 km/h.

Around three quarters of road safety funding has been used to install best practice infrastructure. This includes 2+1 road design (see glossary) at Symmons Plains on the Midland Highway and Gannons Hill on the Bass Highway, median flexible safety barriers, edge barriers, shoulder widening and audible edge and centrelines. It also includes motorcycle safety treatments such as stack cushions, collapsible chevron alignment markers, rub rail and wet and icy traffic systems. Cycling warning signage on popular cycling routes and a Vulnerable Road User Program to minimise conflict between vehicles and pedestrians, cyclists and motorcyclists, are also initiatives which have been introduced.

To enhance vehicle safety we have supported the Australasian New Car Assessment Program (ANCAP), introduced a minimum five-star safety rating for the Government car fleet, developed the 'How safe is your car' campaign to encourage Tasmanians to buy the safest car they can afford and we've promoted how to maintain your car to make it safer.

Many campaigns have also been launched to encourage road users to be safer on our roads. These include a campaign to encourage drivers to leave a minimum passing distance when passing cyclists, a tourist strategy to raise awareness of international visitors and interstate motorcyclists, and a 'share the road' campaign for all road users.

In addition to campaigns, we have also encouraged road users to be safer through the introduction of alcohol interlocks for repeat and high level drink driving offences, by reviewing the graduated licensing system, and by changing the law to allow motorists to cross a centreline to pass cyclists safely. We have also developed a Community Road Safety Grants Program to support communities to address local road safety issues at the grass roots level.

Funding road safety initiatives

Road safety initiatives in Tasmania are largely funded by the Road Safety Levy. The Road Safety Levy was introduced in 2007 to fund the *Tasmanian Road Safety Strategy 2007-2016*. A levy of \$25 per annum (concession \$15) is payable on the registration of all vehicles that have broad access to the road network. This raises around \$12.6 million per year. The RSAC oversees the expenditure of the Levy. The Levy is crucial to the delivery of initiatives developed in accordance with the Strategy and its action plans. New road safety measures must be considered and prioritised within the context of available funding.

What results have we seen?

For the 10 year period 1995 to 2004, just over 5,000 people were seriously injured or killed on Tasmanian roads. For the period 2005 to 2014, coinciding with the introduction of the *Tasmanian Road Safety Strategy 2007-2016*, there were almost 3,500 deaths and serious injuries on Tasmanian roads.

In the current Strategy, a target was set which would see serious casualties almost halved between 2005 and 2020.

As can be seen from the graph below, looking at the 15 year period from 2001 to 2015, reductions in serious casualties are starting to plateau. Although our road trauma level has been decreasing, it is highly unlikely that our ambitious target will be achieved if we don't implement new measures.

Tasmanian Serious Casualties (5 year averages)

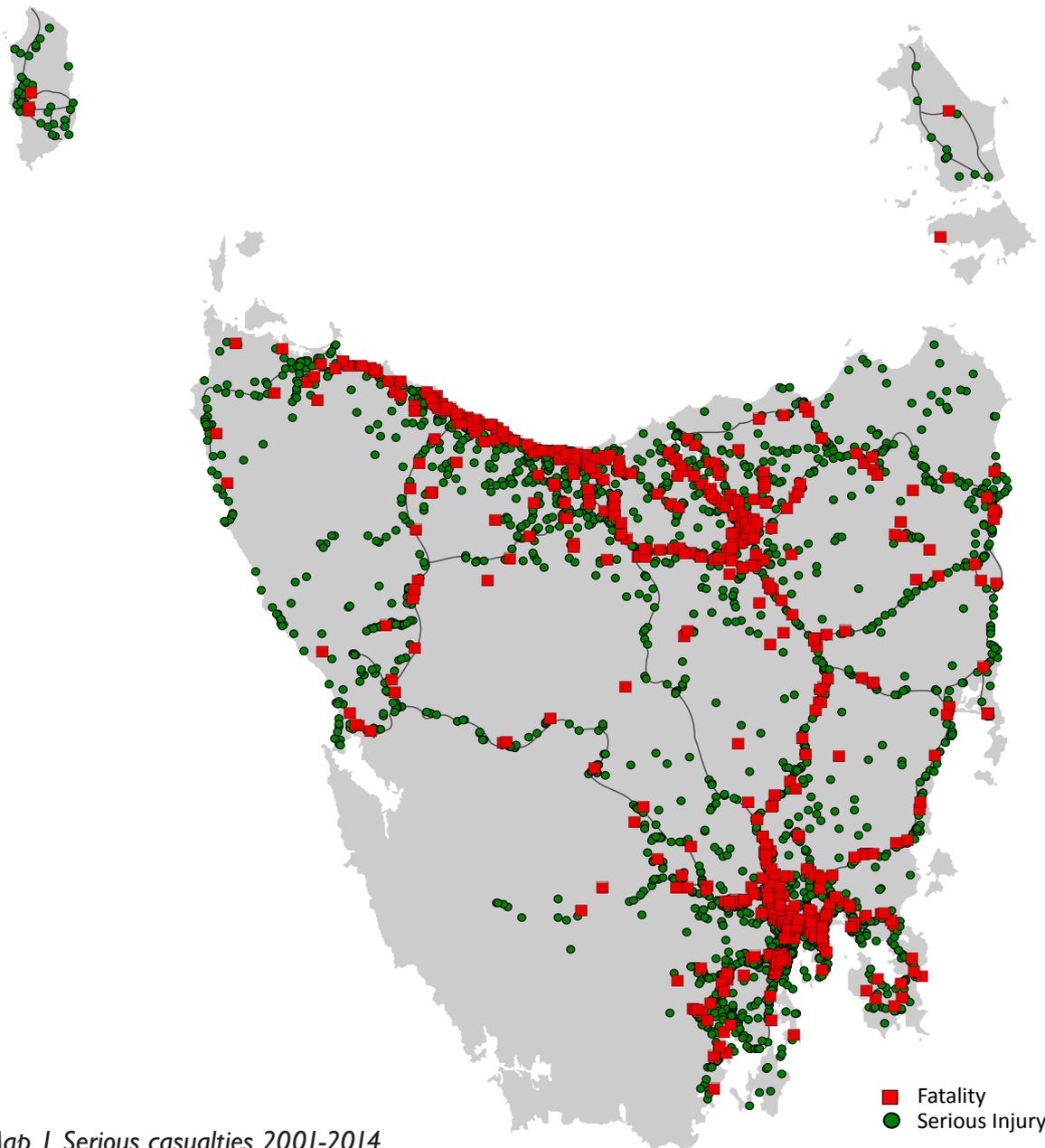


Serious casualty statistics at a glance 2001-2014

Annual average number of fatal and serious casualties for various target areas during the three periods 2001-2006, 2007-2010, and 2011-2014.

Target Area	Annual average in period		
	2001-2006	2007-2010	2011-2014
All crashes	442	332	290
Rural crashes	260	216	181
High speed crashes (80 km/h and above)	267	210	173
Night time crashes (8pm-6am)	94	68	46
Run off road crashes (straight alignment)	73	64	50
Run off road crashes (curved alignment)	128	94	83
Crashes at intersections	68	43	39
Hit fixed object crashes	128	109	73
Head on crashes	79	61	49
Crashes involving young drivers (<25 years old)	132	86	57
Crashes involving novice drivers (L or P licence)	79	65	41
Crashes involving older drivers (>65 years old)	49	38	43
Crashes involving pedestrians	44	30	33
Crashes involving pedal cycles	14	10	12
Crashes involving motorcycles	86	81	76
Crashes involving trucks	39	29	19

As can be seen from the map below, most serious casualty crashes occurred around Tasmania's larger cities, and on the highways that connect these metropolitan centres. However, as serious casualties occur across the whole network, we need to implement countermeasures that will address issues State-wide.



Map 1 Serious casualties 2001-2014

3. The Safe System Approach



The Towards Zero Strategy will be based on the ‘Safe System’ approach to road safety. The Safe System approach benefits all road users and is considered worldwide as best practice in road safety.

A Safe System has four essential elements:

- **Safe Road Users** – encouraging safe, compliant behaviour through education, enforcement and regulation.
- **Safe Roads and Roadsides** – designing and maintaining roads to reduce the risk and severity of crashes.
- **Safe Speeds** – setting appropriate speed limits that complement the road environment.
- **Safe Vehicles** – designing vehicles that protect occupants, lessen the likelihood of a crash and simplify the driving task.

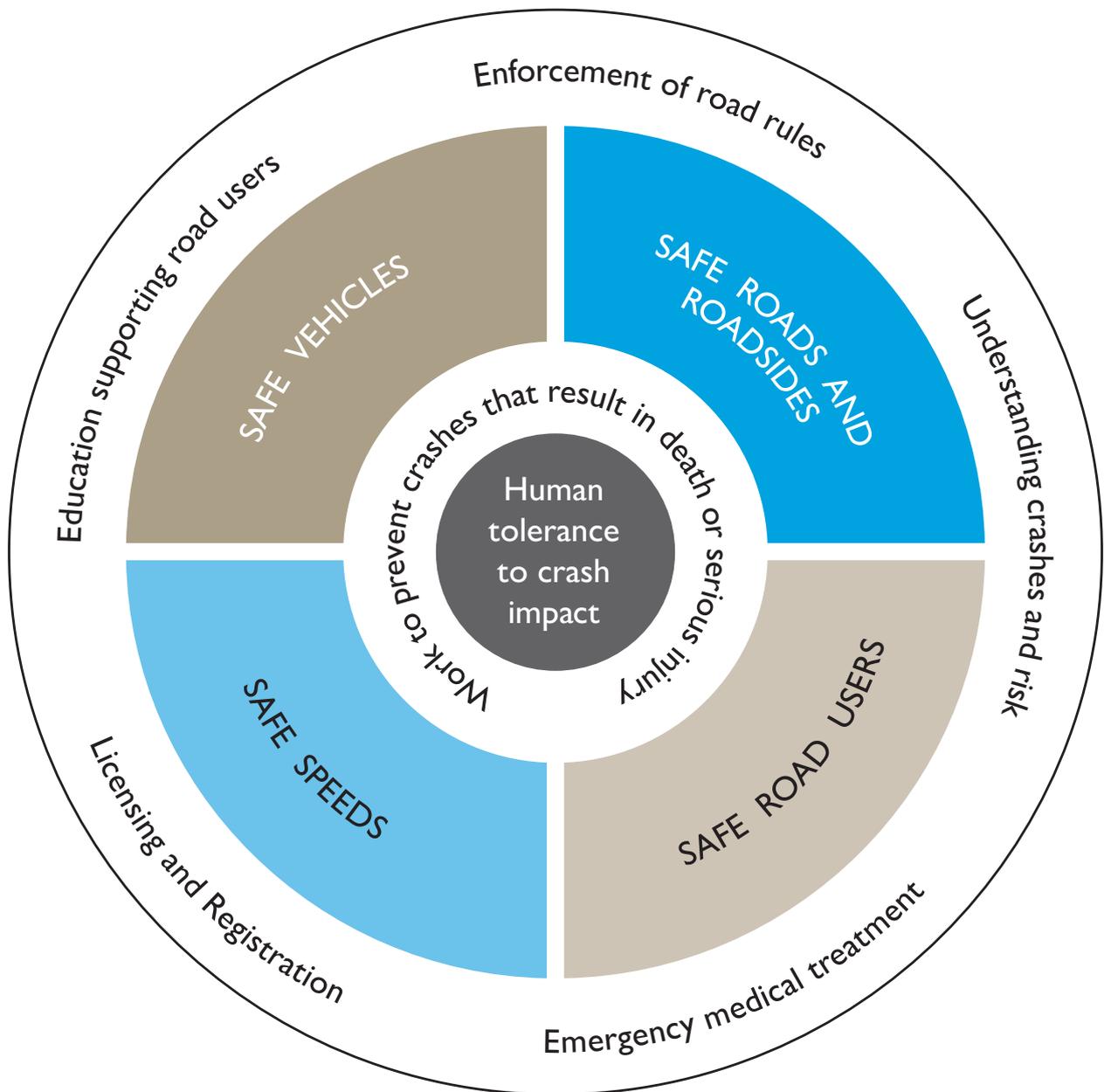
To prevent death or serious injury on our roads, all four elements of the Safe System must work together and continue to be improved. If a crash occurs as a result of a specific weakness of one element, the other three elements should be strong enough to counteract the effects of the crash.

New road safety measures must be considered as part of a whole system to tackle a particular issue. For example, if we know that young drivers are overrepresented in crashes, we must look at ways to change their behaviour on the roads, how the roads might be improved to reduce the impact of them crashing, how speed management might improve their safety and how safer vehicles might better protect them.

The Safe System approach acknowledges that we are all human and we can all make mistakes on the road. Therefore, human frailty is placed at the centre of the System design, so that mistakes don't result in serious injury or death.

Achieving our long term vision of zero deaths and serious injuries on Tasmania's roads will not be easy, but we must work towards it. Responsibility for road safety is shared by everyone, with road users, road designers, vehicle manufacturers and policy makers all having a role to play.

If you haven't yet seen our Safe System video, go to www.towardszero.tas.gov.au



Safe System Principles

1. People make mistakes.
2. People are fragile.
3. We need to create a more forgiving road system.
4. We need to share responsibility for road safety.

What does a Safe System look like?

A successful Safe System will protect people from crash forces if all four of its elements work together to forgive human error.

Safe Road Users

Everyone can make mistakes and get distracted while driving. Under a Safe System, road users must focus on following the road rules, driving to the conditions and being alert and attentive.



Distracted driver



Driver focused on driving task

Safe Roads and Roadside

Road infrastructure plays a vital role in helping to reduce crashes and minimises the extent of injury in the event of a crash.

In the example provided, the road has a loose gravel shoulder rather than being paved, which is less safe in the event that a vehicle veers from the road. Treatments to address this include sealing the shoulder making it easier to stop and/or steer back onto the road. Audio tactile line markings could also be installed – these produce noise and vibration when struck by car tyres which alerts the driver they are leaving the road, generally due to distraction or drowsiness.



Unsealed road shoulder



Sealed shoulder provided with audio tactile edge line

Safe Speeds

Under a Safe System, speed limits are set at survivable levels that are appropriate for the road type. Road users will also travel at speeds that are suitable for the conditions.

If speed limits are set appropriately and road users travel at speeds appropriate for the conditions, the effectiveness of road infrastructure and vehicle safety initiatives are enhanced.

Under a Safe System, if a road does not have safety features, the speed limit should be lower. Speed management has an important place in improving the risk profile of our infrastructure where roads cannot be upgraded due to physical constraints, or as an interim measure until infrastructure treatments can be undertaken.



Higher travel speeds



Lower, more appropriate travel speeds

Safe Vehicles

Vehicles that are designed well for safety can either prevent a crash from happening or help absorb the energy in the event of a crash. Under a Safe System, everyone will be encouraged to drive the safest vehicle they can afford. Ideally, this will be a five star safety rated vehicle.

The first vehicle shown is a car with a three star safety rating. In the frontal offset collision test (conducted at 64km/h) the passenger compartment has started to collapse and the dashboard has been forced into the passenger space putting occupants at risk of severe chest and leg injuries. The test also showed that there would be a high risk of life-threatening chest injuries to vehicle occupants in a side impact. This vehicle also does not have electronic stability control (ESC).

Compare this to a five star car in the same tests. In the frontal offset collision (again conducted at 64km/h) the passenger compartment held its shape well and dashboard displacement was well controlled. Side impact testing showed that the vehicle provided adequate chest protection. ESC comes as standard in this vehicle.



3 star safety rated vehicle



5 star safety rated vehicle



How did we gather comments?

Community forums

hearing community concerns

We went to five key regions across Tasmania to find out first-hand what the communities' views were and why. Around 70 people participated in these forums, with the discussion being diverse and thought-provoking. Forums were held in the following locations:

- South (Hobart)
- West (Queenstown)
- North-West (Burnie)
- North (Launceston)
- East (St Helens)

State Government stakeholder forums

an internal perspective

We met with around 125 government stakeholders and Members of Parliament to gather their views from an internal working perspective.

This included representatives from Police, Ambulance Tasmania, and the Transport Services Division of the Department of State Growth.

Each group had their own specific road safety concerns which were unique to their particular area of work.

Written submissions

research and additional comments

In addition to the forums and survey, community members and stakeholders were invited to make a written submission.

A total of 17 submissions were received, many of which were thoroughly researched and highly detailed.



Online survey

getting input online

Not everyone was able to attend a forum, so we created a survey which could be completed online.

370 people responded to the survey over a period of 11 weeks.

Respondents had a lot to say about road safety, with most people taking the opportunity to provide additional detailed comments where possible.

External stakeholder forums

local government, industry, special interest groups

We met with around 60 key stakeholders to gather a more varied road safety perspective. These stakeholders were from diverse groups who had varying priorities in terms of key challenges and how they could be addressed. Participants included:

- Motoring organisations
- Bicycle user groups
- Motorcycle associations
- Local government
- Public transport associations
- Driver training associations
- Road trauma support services
- Road accident insurers
- Child safety associations

What did we hear?

We asked for community and stakeholder views on numerous road safety issues. As a result, we heard various concerns, opinions and suggestions for improvement. The full report detailing the results from consultation can be found at www.towardszero.tas.gov.au.

Key messages from online survey

Can you make a difference to road safety? If so, how?

63% of respondents believed that they could do something to make a difference to road safety.

The majority said that improving their decision making, being more courteous and encouraging others to do the same could help to make our roads safer.

Do you agree with the Safe System principles? What is the biggest threat to achieving a Safe System?

The large majority of respondents agreed with the Safe System principles, and believed that driver behaviour and driving at excessive speeds for the conditions were factors which could cause a problem within the System.

What is the biggest thing that can be done to improve road safety?

The majority of respondents believed that focusing on education and driver training is critical to improving road safety.

Increased police presence on our roads and better road maintenance were also frequent responses.



Key observations from consultation

The table below shows the most frequent comments from the consultation process and where they fit within the Safe System framework. Each element of the Safe System will be discussed separately in this paper.

Safe Road Users	Safe Roads/ Roadsides	Safe Speeds	Safe Vehicles
<p>Improve driver attitudes (courtesy, attention)</p> <p>Improve driver training</p> <p>More police</p> <p>Drive to conditions education</p> <p>Road rules education (intersections; roundabouts; merging; tailgating; regular updates of changes)</p> <p>Ongoing driver training and assessment</p> <p>Increase penalties</p> <p>Primary/high school education</p>	<p>More consideration of cyclists/pedestrians in road design</p> <p>Better maintenance</p> <p>Better signage</p> <p>More pull over bays/overtaking lanes</p> <p>Remove overgrown vegetation on roadsides</p> <p>Wire rope barriers</p> <p>Separation of traffic at high speeds</p>	<p>More police</p> <p>Reduce speed limits</p> <p>More speed cameras (fixed and moving)</p> <p>Increase speed penalties</p> <p>No penalties for minor breaches</p> <p>Fewer speed zones/changes</p> <p>Uniform, sensible speed limits</p>	<p>Block mobile phone signals</p> <p>Periodic vehicle inspections</p> <p>Speed limiters</p> <p>Alcohol interlocks</p> <p>Less distracting in-car technology</p> <p>Novice power restrictions</p> <p>Incentives to drive safer vehicles</p> <p>Ban vehicle modifications</p>

How will we use these comments?

From consultation, it is clear that many Tasmanians are concerned about the need to improve driver behaviour and bad attitudes on our roads. We recognise that road user behaviour is crucial, and that it is important to continue to improve driver attitudes and reinforce education on road rules and the significance of driving to the conditions.

Road user behaviour is central to the 'Safe Road Users' part of the Safe System. We will continue to work towards improving driver behaviour, but we must also acknowledge that even if we all obeyed the rules all of the time, we would still make mistakes, leading to crashes. We therefore need to also think about how we can improve the other parts of the road system – speed, roads and vehicles – to ensure that if a crash does occur, the chance of serious injury and death is eliminated.

So how do we do this? To help us find the answers, we have looked to the research for guidance.

Myth: Allowing for mistakes means drivers are let off the hook.

This is not the case....

A Safe System critically depends on road users obeying the rules and being alert. Road safety education, training and enforcement remain very important.



5. Independent Crash Research

– What the experts tell us



To assist in the development of the Towards Zero Strategy, the Centre of Automotive Safety Research (CASR) at the University of Adelaide has taken an in-depth look at Tasmania's crash statistics, undertaken extensive research and provided advice on best practice initiatives for Tasmania.

Who is CASR?

CASR is an internationally recognised, leading research organisation that has been at the forefront of road safety analysis for over 30 years. The Centre provides professional advice to various organisations worldwide, and focuses on conducting high quality, independent crash research to enable organisations to make well-informed decisions to reduce road trauma. For more information, visit <http://casr.adelaide.edu.au/>.

How will the research help us?

CASR's research identified, described and recommended proven safety measures to help us save lives and prevent serious casualties on our roads. This will help us to understand the evidence and make informed choices about which safety measures to put into action.

How did CASR approach the research?

CASR approached the research in four steps:

Firstly, CASR gathered data on our crash statistics, road environment, treatment costs, our commitment to invest and many other factors that will have an effect on the new Strategy.

Secondly, CASR reviewed the performance of the *Tasmanian Road Safety Strategy 2007-2016* to determine what measures were successful and priorities for improvement.

Thirdly, CASR developed a method for modelling fatal and serious road injuries in Tasmania. This modelling involved using road transport data (including crash data, traffic growth and the impact of previous road safety changes) from past years to predict the number of serious casualties in future years. The effects of possible future changes were also modelled to determine their possible effect on the number of serious casualties. Forecasting future road trauma is a challenge, but by using a proven model we can reduce the potential for error as far as possible.

Lastly, CASR identified and discussed a range of potential countermeasures which could decrease serious casualties and move Tasmania's road network further towards Safe System performance. Targets for the new Strategy were proposed and best-practice options recommended.

What did the research say?

The team at CASR has undertaken extensive research on Tasmania's road environment and provided us with specific, best practice initiatives for each element of the Safe System. This combination of initiatives is considered by CASR as the best return on investment, with the ability to save the most lives and serious injuries on our roads. CASR has also identified how many serious casualties may be risked if we delay implementation or decide to go down a different path.

CASR's full report can be viewed at www.towardszero.tas.gov.au.

We want to hear from you.

The next section outlines each of the four elements of the Safe System – it includes what we heard from the community and stakeholders, what the experts tell us, and what our options are.

This is where we need your help. We want the community to understand and engage with the Strategy to ensure we can continue to work towards meeting our goal of zero deaths and serious injuries on Tasmania's roads. That's why we have developed an online feedback form for you to complete once you have read and considered the options for each Safe System element.

All comments and possible measures will continue to be considered to ensure we have a robust and sustainable road safety strategy for the next ten years.

The online feedback form is available at www.towardszero.tas.gov.au – please have your say!

Myth: It's mostly the young, inexperienced drivers that we have to worry about.

While it's true that young drivers are over-represented in crash statistics, almost half of serious casualty crashes involve a driver aged 35 or over.





Tasmania's crash data shows that the following are priority areas we need to address:

- Run-off road crashes
- Head-on crashes
- Motorcyclists
- Novice drivers
- Excessive speed
- Inattention and inexperience
- Cyclists
- Drink driving
- Pedestrians
- Older drivers

5.1 Safe Road Users



What did we hear from the community and stakeholders?

- Most survey respondents believed it unlikely they would be caught if they broke a road rule, but were concerned with the penalties of doing so.
- Most survey respondents told us that they never use their mobile phone whilst driving and, if they did, they used a hands-free device.
- Improving driver attitudes, driver training, road rules education and road safety education in schools were common issues raised in consultation.

Australia has been one of the most successful countries in achieving crash reductions from driver education. Education works best when integrated with regulation and enforcement. Educating people on appropriate driver behaviours such as road rules, courtesy and driving to the conditions is important, with various campaigns being implemented in the last ten years to address these issues. However, we must also remember that no matter how well trained and educated people are, mistakes and crashes will still continue to occur. Educating road users definitely has its benefits, but we need to realise that additional effective solutions could lie within other areas of the Safe System.

Myth: Road crashes will only decrease if we improve driver training and retest drivers regularly.

Not the only answer...

Improving driver skills does not always lead to a change in driver behaviour. In fact, research shows that driver training only plays a small role in reducing crash risk for drivers of all ages and experience, as even the most well-trained driver can still make a mistake.





Community perception

“... It doesn't matter what the speed limit is, or how good our roads and vehicles are – the real problem are drivers who have not been taught properly, with bad attitudes ...”

Research findings

Although people believe that “bad” drivers are the problem, extreme behaviours only explain a limited amount of the circumstances behind death and injury on the road. Even if all road users complied with the road rules all of the time, fatalities would only fall by around 50% and injuries by 30%.

What do the experts think we should prioritise?

Continue with the current level of driver education and enhance the Graduated Licensing System (GLS)

The current level of road user education and enforcement on our roads should continue in order to prevent regression in road safety performance. However, we need to have realistic expectations on what can be achieved through behavioural approaches when compared to other options.

A well designed GLS has been proven to be a highly successful approach in achieving safer road use. The GLS governs how novice drivers will progress from a learner through to a fully licensed driver, with rules and restrictions in place to enhance road safety.

Significant casualty reductions can be achieved over the next ten years if we make certain changes to our current GLS to reduce risk, for example, increasing the age at which a driver can attain their P1 licence, introducing passenger restrictions and introducing a late-night curfew. These changes would assist novice drivers with concentration levels, but still allow experience to be developed in a safe environment. Impacts of these measures on employment and mobility will need to be taken into consideration.



What are the other options to make road users safe?

Increase driver education

To improve the safety of road users we could make more information available about misunderstood road rules and driver attitudes, as well as improve education for tourists and school children. Programs supporting safer road use can be effective², however, researchers have generally struggled to demonstrate the effectiveness of these programs. It must therefore be acknowledged that other approaches under the Safe System may be more beneficial and cost-effective.

¹ This figure is an estimated reduction if GLS changes are implemented in 2017 and includes the effects of other intangibles. It is based on a compliance rate of 80%, assuming that some novice drivers may not comply with restrictions or have a work exemption.

² Highly successful initiatives in Tasmania which have improved road user behaviour include the adoption of Graduated Licensing Systems, greater speed enforcement with mass media coverage and random breath testing.

Increase the enforcement level on our roads

Studies have shown that more speed cameras and increased, well-managed police enforcement can improve compliance with road rules and result in crash reductions of around 30%. However, police resources are limited and cover a wide range of activities. To increase effectiveness, enforcement should also be backed up with mass media campaigns.

Lower Blood Alcohol Content (BAC)

Studies have shown that any decrease in the legal BAC limit is associated with significant crash reductions. Currently, even a BAC below the legal limit (0.05) can impair a driver's decision making and reaction time. Decreasing the current legal BAC level to 0.02 may be an option to consider.

Promote protective clothing for motorcyclists

Motorcyclists are a specific road user group that are more at risk of injury in the event of a crash. Studies have shown that wearing protective motorcycle jackets and pants can reduce the likelihood of a motorcyclist being admitted to hospital by around 50%. Promotion of the wearing of protective clothing has clear benefit in reducing injuries for motorcyclists.

What do you think we should do?

Complete the online questionnaire to provide your feedback.

Community perception

“... Money would be better spent on teaching people not to crash, rather than giving them something soft to crash into ...”

Research findings

No matter how well-trained road users are, mistakes will still occur. Safer infrastructure is capable of providing an environment which is forgiving of human error, should a driver make a mistake. If we make the suggested investment in infrastructure, Tasmania is likely to see a much higher reduction in road trauma than would be the result of investment into improving driver behaviour.



Weather
Station
Your Road Safety
Lives At Work

5.2 Safe Roads and Roadsides



What did we hear from the community and stakeholders?

- Most survey respondents felt that Tasmania's roads are 'somewhat' safe, with divided highways being the safest, and gravel roads the most dangerous.
- Many people believe that our roads and roadsides need to be better maintained.
- Many people, namely cyclists, pedestrians and motorcyclists, believe there needs to be more consideration of ALL road users in road design.
- Many people believe that more overtaking lanes and pull-over bays on high volume roads would decrease frustration.

We all deserve to drive on safe roads, and to know that if we do crash, we can expect the best outcome. Many people feel that Tasmania's roads and roadsides can be improved to maximise safety, whether it be by increasing maintenance, creating more pull-over bays or improving infrastructure for cyclists. On the other hand, some community members believe that our roads are safe enough, and money would be better spent elsewhere – but research from around the world has shown that reductions in road trauma can be largely attributed to investment in safer roads and roadsides.



Myth: We already have safe roads.

Tasmania has a large road network – more than 18,000 kilometres of State-owned and local roads cover a wide geographical area. As many of these roads were built more than a hundred years ago, our roads can be safer. Road standards change over time, so we must continue to install safety treatments that are proven to reduce the likelihood and severity of crashes.

What do the experts think we should prioritise?

Target run-off road, head-on and intersection crashes

CASR recommended that if funding were available, 2+1 and 2+2 road configurations with centreline barriers would be the most preferable treatment to reduce run-off road and head-on crashes. We are progressively rolling out such treatments on our high volume, higher risk routes.

While 2+1 configuration roads would have the highest safety return, they are also the most expensive treatment considered. The creation of a safe road environment using barriers in the centre of the road and on the roadsides in a 2+1 configuration will cost around \$730 million on trunk roads alone. It is evident that achieving a Safe System compliant network using 2+1 roads is cost prohibitive. But we can implement a program that prioritises installation of such treatments on higher risk roads, as funds permit.

In relation to intersection crashes, CASR acknowledge that grade separation represents the most effective way of eliminating this type of crash, but it is expensive. Upgrading of intersections by installing roundabouts on trunk roads where injury crashes have occurred, would cost in the order of \$2.1 billion. The cost of applying such an approach to all intersections across the network would be extremely cost prohibitive. Grade separation though could still be considered at intersections on strategically important high volume roads and high risk locations, as funds permit.

CASR recommended that other low cost measures should be considered, in terms of their potential to reduce overall death and injury. These include:

- Audio tactile line markings (see glossary)
- Centreline barriers
- Wide centrelines (where centreline barriers are not feasible)
- Sealed shoulders

At intersections, CASR also recommended that right turns should be eliminated where possible on the entire network. This would reduce the potential for high speed, right-angle crashes. If this is not viable, plateaus (raised platforms) should be utilised.



High reductions in fatal and serious crashes expected if appropriate infrastructure treatments are implemented.

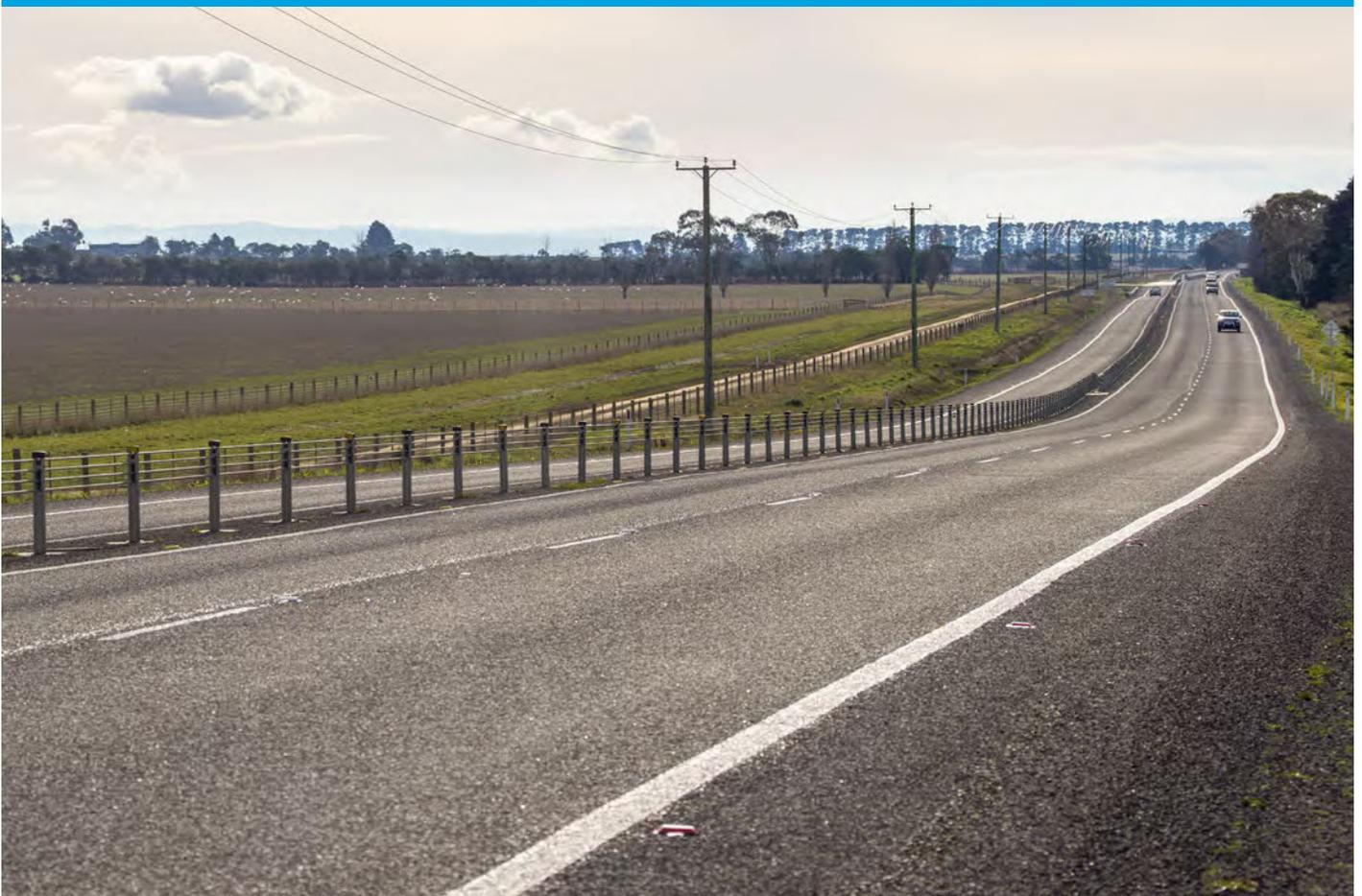
Midland Highway - Symmons Plains 2+1 Installation

Between 2005 and 2009, four people died, three were seriously injured and 14 suffered minor injuries on the Midland Highway, near Symmons Plains. The crashes involved out-of-control vehicles that crossed into the path of oncoming traffic.

Separating vehicles travelling in opposite directions has been highly successful in reducing head-on collisions. Research shows that flexible median barriers can reduce head-on crashes by up to 90%.

To address the crash problem on this 5km stretch of highway, a '2+1' configuration road with median flexible safety barriers was installed. The cost of the project was \$7.5 million, which was funded from the Tasmanian Road Safety Levy.

The works conducted at this site included widening the highway to allow for the installation of flexible safety barriers along the median strip, and incorporating a 2+1 road configuration. This provides two lanes in one direction and one lane in the opposite direction. This is alternated so vehicles travelling in either direction have overtaking opportunities.



Costs and benefits?

Accurately modelling the effects of introducing widespread, large scale infrastructure treatments is extremely difficult. Table 1 however summarises the potential benefits and costs of different infrastructure treatments. It also provides a guide as to where treatments might be applied on the network:

Countermeasure	Expected Benefit	Expected Cost	Where
2+1 configuration	★★★	\$\$\$	Highest volume, strategically important roads
Centreline barrier	★★★	\$\$\$	Highest volume, trunk, freight and regional access routes
Wide centreline	★★	\$\$	Highest volume, trunk, freight and regional access routes where centreline barrier not feasible
Sealed shoulders	★★	\$\$	Highest volume, trunk, freight and regional access routes where above treatments not possible
Audio tactile line marking	★	\$	Highest volume, trunk, freight and regional access routes where above treatments not possible
Grade separation*	★★★	\$\$\$	Highest volume, trunk, freight and regional access routes
Roundabouts*	★	\$\$	Highest volume, trunk, freight and regional access routes Discrete sites if warranted on lower order roads
No right turn*	★★	\$	Where viable
Right turn lanes*	★	\$	Entire network
Plateaus*	★	\$	Highest volume, trunk, freight and regional access routes Any road types in a built up area if warranted

* Intersection treatments

Table 1 Effectiveness and cost of Safe System infrastructure treatments in reducing serious casualties in Tasmania and recommended locations for infrastructure treatments³

³ Based on CASR modelling

What are the other options?

Develop more overtaking lanes

Despite an assumption that overtaking lanes improve safety, CASR noted there are very few studies that actually prove that this is the case. This suggests that the safety effect is likely to be influenced by many other factors. Traditionally, overtaking lanes were implemented on the basis of traffic efficiency with safety as an assumed benefit. It is worthwhile noting that the greatest reductions in injury crashes were associated with the use of overtaking lanes with additional centreline treatments (either wide centrelines or centreline barriers).

Safety for cyclists

CASR also considered infrastructure measures to improve safety for cyclists and acknowledged the significant difficulties in such an approach. The task of retrofitting the road system to improve cyclist safety is difficult as the system is inherently unsafe for this group in most locations and there is community resistance to giving up car space for cyclists. From a theoretical perspective the solution is simple: where speeds cannot be managed to safe levels, segregation should occur. It may be easier to provide separate safe corridors as viable alternatives for cyclists to access different areas, particularly cities, backed up by appropriate infrastructure treatments.

Safety for pedestrians

CASR considered infrastructure measures to address pedestrian safety. Due to the highly random nature of pedestrian collisions in built up areas of Tasmania, an infrastructure response is difficult. However, CASR suggested that it would be desirable to install raised platforms at dedicated pedestrian crossing facilities to slow down vehicles to safe speeds.

What do you think we should do?

Complete the online questionnaire to provide your feedback.

5.3 Safe Speeds



What did we hear from the community and stakeholders?

- Most survey respondents felt that speed is a factor in causing crashes.
- Many people believe that improved in-car speed technology and more speed cameras would help to reduce speeding.
- The community were divided on the issue of whether speed limits should be reduced.

While most respondents believe that speed is a factor in causing crashes, there are concerns that there is too much emphasis on penalising speed and not enough on penalising bad behaviours. While bad behaviour should indeed be penalised, what must be acknowledged is that **the higher the speed, the greater the chance of being in a crash and the more severe the consequences will be**. Speed limits need to be set at appropriate levels and road users need to travel at speeds that are suitable for the conditions. At current travelling speeds, in many cases, vehicles are unable to protect occupants and other road users when crashes occur. Add to this the complexity of children, the elderly, motorcycles and heavy vehicles, and it becomes apparent that our speed limits are not always appropriate in a Safe System context.



Myth: Reducing speed limits won't save lives, it will just take me longer to get anywhere.

Travelling time does not increase by the same proportion as a speed reduction. For example, reducing the speed limit by 10% does not result in a 10% increase in travel time. Research shows that the effect on travel time can actually be as low as 4% - this is a good compromise considering the number of lives and serious injuries which could be saved by driving that little bit slower.

A close-up photograph of a speed camera lens on the left and a speedometer on the right. The speedometer displays '54 km/h' and '620 m'. The background is a blurred road scene with a checkered flag visible in the upper left corner.

Community perception

“... There needs to be less emphasis on penalising minor speed breaches, and more emphasis on addressing bad driver attitudes and lack of skill...”

Research findings

Speeds at which vehicles can prevent injury are generally much lower than the posted speed limits on the network. Establishing appropriate travelling speeds and enforcing those speeds remains one of the most effective ways to reduce death and serious injury on any road network.

165⁵ fewer people killed or seriously injured on our roads if all 110km/h roads were reduced to 100km/h; and 100km/h speed limits on minor roads were reduced to 90km/h (i.e. feeder roads, other state-controlled roads and non-state controlled roads).

What do the experts think we should prioritise?

Reduce speed limits

Establishing appropriate travelling speeds that are safe remains one of the most effective ways of reducing serious casualties on the road network. Even small changes in travelling speed across the network can lead to large reductions in road trauma. This is supported internationally, but much of the research has actually originated in studies on Australian roads.

Of all the interventions modelled, CASR has indicated that speed reductions of just 10km/h would have the biggest effects in reducing road trauma. The following options were considered by CASR:

- Reducing all 110km/h speed limit to 100km/h on state-controlled roads
- Reducing 100km/h speed limits on minor road categories to 90km/h (i.e. feeder roads, other state-controlled roads, and non-state controlled roads)
- Reducing all 60km/h roads to 50km/h.

CASR considers that these speed limit reductions could be introduced relatively quickly early in the Strategy, and would cost less than \$1 million to implement.

205⁴ fewer people killed or seriously injured on our roads if all 110km/h speed limits were reduced to 100km/h on state-controlled roads; 100km/h speed limits on minor roads were reduced to 90km/h (i.e. feeder roads, other state-controlled roads and non-state controlled roads), and 60km/h speed limits were reduced to 50km/h.

The Effects of Speed	
Crash type	Speed at which likelihood of death increases dramatically
Head on collision (cars)	70km/h
Right angle impact (cars)	50km/h
Side impact of car into a tree or pole	30km/h
Collision between car and pedestrian	30km/h

What are the other options?

CASR acknowledges that the implementation of lower speed limits remains a contentious issue in the Tasmanian community. Current practice is to examine speed limits to ensure they complement road infrastructure on a case by case basis. Community engagement in changes to speed limits is critical. Speed limits need to be credible to ensure drivers comply with the limits.

Therefore, instead of the options considered above, we could look at some alternatives:

- Implement lower speed limits on specific road corridors or in certain geographical areas rather than over the whole state.
- Undertake an assessment of speed limits on 100km/h roads, on a case by case basis, taking into account crash risk and road features, such as shoulder and lane width.

Reducing speed across the network also represents the best option for reducing death and serious injury of our most vulnerable road users, pedestrians, cyclists and motorcyclists. While some treatments can be developed specific to these groups, reducing speed is sufficiently broad to assist these types of road users, and the driving population as a whole. Reducing the speed limit to 40km/h in high-activity areas such as carparks and high pedestrian and cyclist areas with numerous road user types, is also considered beneficial. This would be accompanied by gateway infrastructure treatments and traffic calming measures.

Reducing speed limits is complex – we know people don't like too much 'chop and change', so we also need to reduce the number of speed limit changes which occur.

What do you think we should do?

Complete the online questionnaire to provide your feedback.

⁴ This figure is an estimated reduction if implemented in 2017 and includes the effects of other intangibles.

⁵ This figure is an estimated reduction if implemented in 2017 and includes the effects of other intangibles.

5.4 Safe Vehicles



What did we hear from the community and stakeholders?

- Most survey respondents indicated that vehicle safety ratings will be of major consideration when purchasing their next vehicle.
- Most survey respondents felt that the most important safety vehicle features are electronic stability control and side and curtain airbags.
- Many people believe that there would be benefit in introducing periodic roadworthy vehicle checks.
- The community were divided on whether vehicle safety technology is helping or hindering drivers.

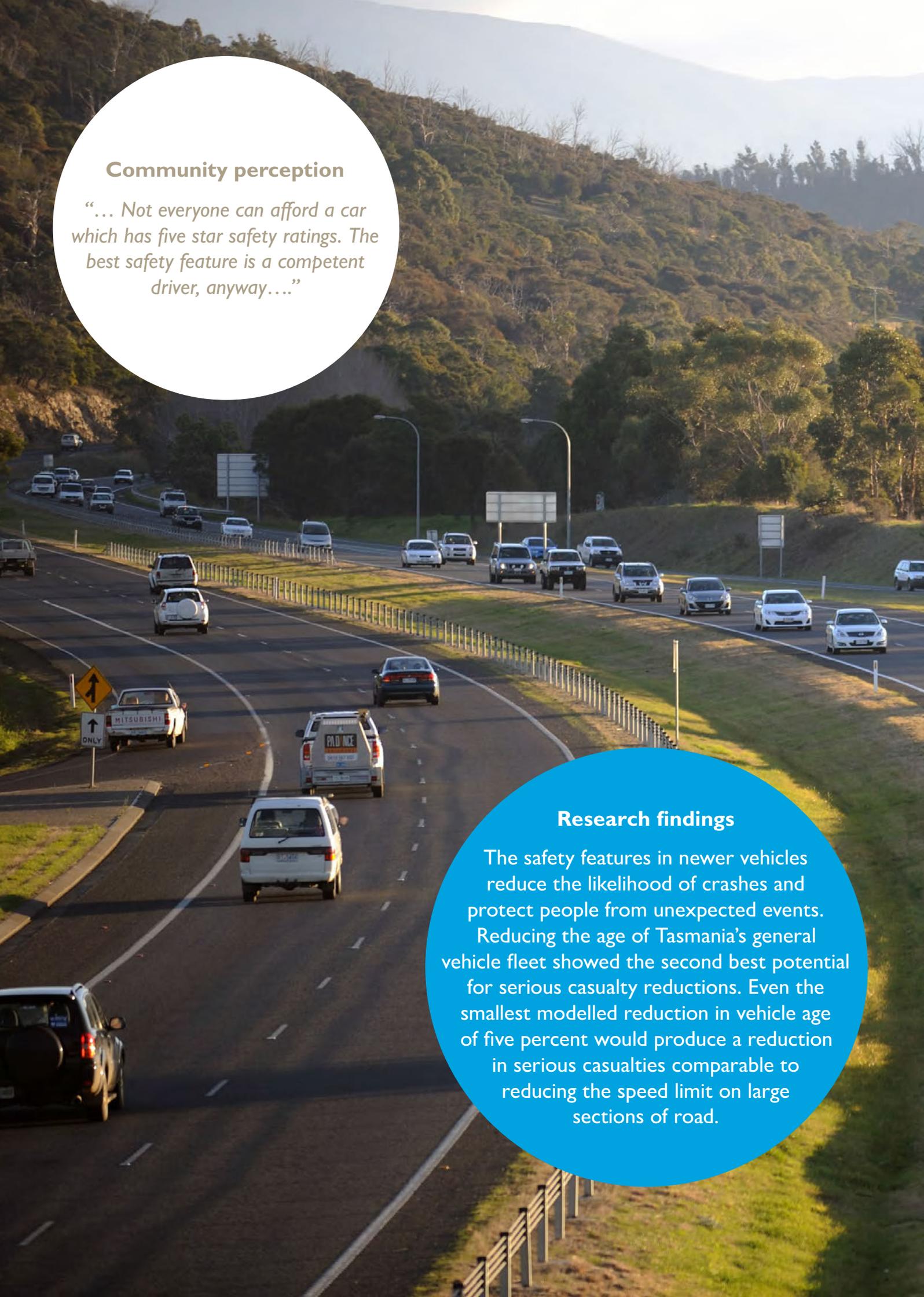
In-car technology, and the ability for a vehicle to protect occupants, has improved dramatically over past decades. Some people believe this is a positive thing, while others believe that certain safety features may result in drivers becoming 'lazy'. However, it must be acknowledged that vehicle safety features have proven performance when it comes to preventing serious casualties, and the sooner new vehicles (with advanced safety technologies) can be introduced into the fleet, the sooner we will see the maximum safety benefits.

Myth: Annual vehicle inspections need to be introduced to get unsafe cars off the roads.

Not the only way....

Current crash studies have shown minimal association between crash rates and the roadworthiness of a vehicle. Without a compelling road safety benefit, it may be hard to justify a reason to impose the cost associated with periodic light vehicle inspections. In fact, evidence suggests that improving the safety features of vehicles is a more effective means of reducing road trauma.





Community perception

“... Not everyone can afford a car which has five star safety ratings. The best safety feature is a competent driver, anyway....”

Research findings

The safety features in newer vehicles reduce the likelihood of crashes and protect people from unexpected events. Reducing the age of Tasmania's general vehicle fleet showed the second best potential for serious casualty reductions. Even the smallest modelled reduction in vehicle age of five percent would produce a reduction in serious casualties comparable to reducing the speed limit on large sections of road.

What do the experts think we should prioritise?

Focus on reducing the age of Tasmania's vehicle fleet

Tasmania currently has an average vehicle fleet age of 12 years – this is the oldest in the country. **If the vehicle fleet age in Tasmania can be reduced in the next ten years, we are likely to see a reduction in road trauma.**

There is not one obvious method to reduce the age of Tasmania's vehicle fleet, and the process can take many years.

However, CASR considers that one of the most effective ways to speed up the process is for Government and industry to purchase new and safe vehicles for their fleets. This is the current Government policy and should be extended to industry. The effects will then flow-on to the broader community when vehicles are sold at a later date to replace older, less safe vehicles.

Promoting new vehicle safety should also remain a priority, however, the impacts on those in lower socio-economic areas must be considered. Various methods such as "cash for clunkers" schemes, introducing incentives for drivers to buy newer vehicles or mandating a maximum vehicle age are all options to consider. Drivers at greater risk (eg. young drivers) should also be encouraged to drive newer, safer cars, as opposed to older vehicles.

Efforts to increase the amount of motorcycles in Tasmania with antilock braking systems (ABS) is considered by CASR as highly worthwhile. Mandating ABS technology on new motorcycles is also currently being considered at the federal level.

As it can take many years to improve and change over vehicles, CASR recommends that initiatives to reduce the age of the vehicle fleet should commence early in the life of the Strategy.

What are the other options?

Mandating vehicle safety features that encourage (or force) safer behaviours from drivers could also be considered, however, it must be noted that vehicle standards in Australia are largely a federal responsibility. The community may also want to consider putting more pressure on vehicle manufacturers to include more 'standard' safety features in new vehicles, without the additional cost.

The effectiveness of features such as intelligent speed adaptation (ISA) and broader use of alcohol interlocks was discussed by CASR. Alcohol interlocks are very effective when fitted, however, they are time consuming to operate and there is little known about how effective they might be if used by drivers who have not committed a drink driving offence.



30⁶ fewer people killed or seriously injured on our roads.

ISA technology is a system that aids the driver in observing the posted speed limit. ISA technology can either provide a warning to the driver when they travel over the speed limit, provide resistance on the accelerator pedal or totally prevent the driver from speeding. Studies have shown that ISA systems can reduce serious casualty crashes by up to 30%.



Myth: We can't prevent traffic crashes altogether.

This is true. BUT it is possible to prevent many crashes that result in death or serious injury. This is the basis of creating a Safe System.

What do you think we should do?
Complete the online questionnaire to provide your feedback.

6 This figure is based on a vehicle age reduction of 5% by the year 2020, and includes the effects of other intangibles.

6. Summary of CASR Research Findings

The current level of road trauma in Tasmania is unacceptable, and our system must be improved – we all have a role to play in reducing the amount of people who lose their lives or are seriously injured on our roads.

To achieve a safer road system, a number of options have been put forward – below is a summary of the initiatives that have been recommended and discussed by CASR.

These initiatives are what the experts think we should prioritise and will be taken into account when developing the Towards Zero Strategy and action plans.

		Safe Road Users		
Considered by CASR		When should it be implemented	Serious casualty savings 2017-2026	Cost
Key initiatives	Enhance the GLS by introducing the following novice restrictions: <ul style="list-style-type: none"> • Making 18 the minimum age to obtain a driver licence • One passenger limitation • Curfew – prohibiting driving between 12am-6am. 	Year 1	55 (if implemented in 2017)	\$3 million
	Continue with current level of driver behaviour education and enforcement.	Ongoing from Year 1	Not modelled	Unknown
Other identified initiatives	Significantly increase driver education and behavioural programs.	-	Not modelled but expected to be low	Unknown
	Increase speed camera use and enforcement levels.	-	Not modelled but studies show up to 30% reduction in crashes	Unknown
	Lower BAC to 0.02	-	Not modelled but studies show up to 10% reduction in crashes	Unknown but expected to be low
	Promote protective clothing for motorcyclists	-	Not modelled but studies show can reduce hospital admissions by up to 50%	Unknown but expected to be low

Safe Roads and Roadsides				
Considered by CASR		When should it be implemented	Serious casualty savings 2017-2026	Cost
Key initiatives ⁷	2+1 configuration with centreline barrier	When feasible	125	\$730 million
	Audio tactile line markings	When feasible	22	\$8 million
	Centreline barriers	When feasible	103	\$54 million
	Wide centrelines (where centreline barriers are not feasible)	When feasible	82	\$60 million
	Sealed shoulders	When feasible	66	\$200 million
	Grade separation	When feasible	36	\$2,130 million
	Roundabouts	When feasible	26	\$280 million
	Eliminate right turns	When feasible	16	\$17 million
	Intersection plateaus	When feasible	17	\$20 million
Other identified initiatives	Overtaking lanes with additional centreline treatments.	When feasible	Unknown but outcomes are best when centreline barrier or wide centreline are in place	Not modelled but expected to be high
	Provide safe corridors as viable alternatives for cyclists	When feasible	Unknown	Unknown
	Install raised platforms at dedicated pedestrian crossing facilities	When feasible	Not modelled but expected to be high if speeds are well managed	Unknown

⁷ Costs and serious casualty savings for infrastructure treatments are based on application on all trunk roads and all initiatives being implemented in 2017. This scenario is unrealistic but it provides scenario to compare the cost and benefits of treatment options on a broad basis.

Safe Speeds				
Considered by CASR		When should it be implemented	Serious casualty savings 2017-2026	Cost
Key initiatives	Reducing all 110km/h speed limit to 100km/h.	Year 1	205 (if implemented in 2017)	Less than \$1 million for each speed change.
	Reducing 100km/h speed limits on minor road categories to 90km/h (i.e. feeder roads, other state-controlled roads, and no-state controlled roads).			
	Reducing all 60km/h roads to 50km/h.			
Other identified initiatives	Implement lower speed limits on specific road corridors or in certain geographical areas rather than over the whole state.	-	Not modelled but any reductions in travelling speed that can be achieved are considered worthwhile.	Unknown but expected to be low
	Reduce speed limits in high-activity areas with numerous road user types to 40km/h.	-	Not modelled but any reductions in travelling speed that can be achieved are considered worthwhile.	Unknown but expected to be low

Safe Vehicles				
Considered by CASR		When should it be implemented	Serious casualty savings 2017-2026	Cost
Key initiatives	Reducing the average age of the vehicle fleet. Options include: <ul style="list-style-type: none"> • encouraging Government and industry to purchase new and safe vehicles for their fleets • promoting new vehicle safety should also remain a priority • “cash for clunkers” schemes • introducing incentives for drivers to buy newer vehicles • mandating a maximum vehicle age 	Year 1	30 if reduction in age of 5% 59 if reduction in age of 10% 86 if reduction in age of 15% ⁸	It is likely that the cost of implementation could be relatively low or even neutral.
Other identified initiatives	Increase the amount of motorcycles in Tasmania with antilock braking systems (ABS)	-	Not modelled but studies show up to 37% reduction in fatal motorcycle crashes.	Unknown

How do the numbers stack up?

Over the last ten years there have been almost 3,500 deaths and serious injuries on Tasmanian roads. While our road trauma level has been decreasing due to current Strategy initiatives, changes in vehicle technology and the road system, reductions in serious casualties are starting to plateau.

If we continue with our current programs and treatments and nothing further is implemented, we could hopefully expect a small continuing decrease in serious casualties over the 10 year period to 2026. However, NO level of road trauma is acceptable – we have to determine what we can do to keep working towards zero road trauma.

In order to achieve a more significant decrease, we must determine which safety initiatives we can introduce that would have the greatest effect. If we continue with what we are doing and also introduce the new measures modelled as early as we can, we have the potential to reduce serious casualties by 2026 to little more than 150 per year.

It must be accepted that delaying new initiatives or implementing options which have a low level of effectiveness may lead to poorer outcomes. Therefore we must weigh-up the effectiveness of potential initiatives against implementation challenges and prioritise them accordingly. Ideally, we need to adopt measures that will have a significant, positive impact and will be broadly supported by the community.

⁸ If changes implemented by 2020

What are the benefits to each road user group?

The following chart illustrates the benefits each road user group gains from each cornerstone of the Safe System. The more stars, the more benefits expected for the return on investment.

Road User Group	Safe Road Use	Safe Roads and Roadsides	Safe Speeds	Safe Vehicles
Motorcyclists	★	★★	★★★	★★
Cyclists	★	★★	★★★	★★
Pedestrians	★	★★	★★★	★★
Drivers	★	★★★	★★★	★★★
Novice Drivers	★★★	★★★	★★★	★★★
Older Drivers	★	★★★	★★★	★★★
Rural Drivers	★	★★	★★★	★★★
Children	★	★★	★★★	★★

☆☆☆ Direct benefit to the target area

☆☆ Not a direct benefit, but some significant benefit still expected.

★ Little benefit expected



7. Next Steps



It is important to remember that this document is not the Towards Zero Strategy. We have taken comments from consultation, and the expert's advice, and presented options for improving road safety in Tasmania. In doing this, we are seeking to stimulate discussion that considers the potential benefits of measures, their cost and the level of community support received.

Now you have seen these options, we want to know what your thoughts are. **Your feedback will be crucial to the Strategy's success.**

When we receive your feedback we will analyse your comments, make improvements where necessary, and create a draft Strategy for the next ten years. We will continue to work with the community, other government agencies, stakeholders and Members of Parliament to determine the best way forward in achieving our goal.

Thank you for your contribution. Everyone has a role to play in improving road safety – it will be essential for all of us to work together to achieve our long-term vision of zero deaths and serious injuries on Tasmania's roads.

Myth: It won't happen to me.

Although most of us have driven for years without incident, road safety affects us all. It's easy to become complacent, but how many people do you personally know that have been affected by a road crash? A friend, family member, someone from work, from your sports club? We are all at risk every time we use our roads.



To let us know what you think please complete the online questionnaire at www.towardszero.tas.gov.au

Glossary of Terms



'2+1' configuration	A three-lane road with the provision of alternating lanes and a flexible safety barrier located in the narrow median.*
'2+2' configuration	A four-lane road with a flexible safety barrier located in the narrow median.*
Audio tactile line markings	Raised or specifically textured strips typically installed on the edge line (or in some cases centreline), generating noise and vibrations through vehicles in order to alert drivers that they are leaving their lane, and encouraging them to return to their lane. ‡
Centreline barrier	A device used on multilane roads to keep opposing traffic in prescribed carriageways. ‡
Delineation	Treatments that enhance the selection of the appropriate path and speed, or position, to allow a manoeuvre to be carried out safely and efficiently, e.g. line marking, raised pavement markers, traffic cones and flaps and post-mounted reflectors. ‡
Fatality	Where a person was dead before a report was made by Tasmania Police or died up to 30 days after the crash.
Feeder road	Roads allowing safe travel between towns, major tourist destinations and industrial areas.
Flexible safety barrier	A road safety barrier system consisting of wire rope cables under high tension that are supported on posts and anchored at the ends. ‡
Grade separation	The separation of road, rail or other traffic so that crossing movements, which would otherwise conflict, are at different elevations.
Motorcycle anti-lock braking system (ABS)	System which prevents the wheels from locking up by automatically modulating the brake pressure when the rider brakes hard. By preventing the wheels from locking, the system aids riders to maintain steering control which may reduce stopping distances in certain situations. †
Plateaus	Flat top speed humps moderating speeds through the intersection, increasing the visibility of the intersection and raising awareness, specifically at intersections that are on the boundary of different speed zones, and at intersections that are dangerous or potentially dangerous.
Sealed shoulder	The sealed edge of roads outside of the travelled carriageway (the shoulder) of roads. Sometimes it is delineated by an edge line applied between the sealed shoulder and the travelled section of a carriageway. The treatment is almost invariably associated with unkerbed roads, and is often applicable to rural roads. ‡
Serious casualties	Include fatalities and serious injuries.
Serious injury	Refers to a person being admitted to hospital for 24 hours or more.
Trunk road	Primary freight and passenger roads connecting Tasmania.
Wide centrelines (painted median)	Two parallel painted centrelines, often with audio tactile surfaces, which provide separation of opposing traffic.*

* Jurewicz, C Aumann, P Bradshaw, C Beesley, R Lim, A (2015), Road Geometry Study for Improved Rural Safety, Austroads Ltd, Sydney.

† OECD and ITF. (2015), Improving Safety for Motorcycle, Scooter and Moped Riders, OECD Publishing, Paris

‡ Austroads (2015) Glossary of Terms (2015 Edition), Austroads Ltd. Sydney

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TOWARDS ZERO ACTION PLAN 2020-2024 AT A GLANCE



Over the next five years, the Tasmanian Government will invest more than \$75 million in road safety improvements under the *Towards Zero Action Plan 2020-2024* (Action Plan).¹ This is the second of three Action Plans supporting the delivery of the *Towards Zero – Tasmanian Road Safety Strategy 2007-2016*, Tasmania's ten-year strategy for reducing road trauma.

The Action Plan is based on the best-practice Safe System approach to road safety and targets our highest risk road safety areas, deliberately focusing on those initiatives that will gain the greatest reductions in serious casualties.² The priority road safety areas over the next five years are:

MAKING OUR RURAL ROADS SAFER

60 per cent of road fatalities occur in rural areas. The Government is committing over \$20 million to:

- Engage with the community, decision-makers and industry practitioners to increase road safety knowledge and build support for speed moderation.
- Reduce the risk of run-off road and head-on crashes on high speed rural roads with cost effective, mass action infrastructure treatments.
- Conduct motorcycle road safety audits and consult with the motorcycling community to identify innovative safety solutions on popular touring routes.

IMPROVING SAFETY IN OUR TOWNS AND CITIES

Pedestrians and cyclists represent one in four serious casualties in our major towns and cities. The Government is committing over \$31 million to:

- Deliver targeted infrastructure upgrades at high traffic areas to reduce serious crashes in urban areas and to improve safety for vulnerable road users.
- Support community involvement in road safety with the Community Road Safety Grants Program.
- Investigate emerging technologies and demonstrate innovative low-cost infrastructure treatments in urban areas.

SAVING YOUNG LIVES

92 young people are seriously injured or killed on our roads per year. The Government is committing over \$12 million to:

- Implement changes to the Graduated Licensing System and investigate changes to motorcyclist training and licensing.
- Keep young children safe with child-restraint checks, school crossing patrol officers, education programs, and campaigns.
- Support education and training initiatives to teach young people the right skills and attitudes and assist disadvantaged young people to gain their license.

ENCOURAGING SAFER ROAD USE

We all have a responsibility to use the roads safely. The Government is committing over \$4 million to:

- Investigate and implement enforcement strategies to reduce speeding, distraction and high-risk driving behaviours.
- Ensure participation in the Mandatory Alcohol Interlock Program to prevent reoffending.
- Promote protective clothing for motorcyclists and increase motorcycle-focused enforcement measures.

MAKING VISITORS SAFER

11 per cent of serious casualties on our roads are non-Tasmanian residents. The Government is committing \$2 million to:

- Inform visitors of important road safety messages using strategically placed signs and trial the use of electronic signage to communicate in real-time.
- Utilise Tasmania's limited entry points to distribute key road safety materials in multiple languages to visitors on arrival.
- Secure and maintain strategic partnerships with tourist industries, businesses and other stakeholders to improve reach.

IMPROVING SAFETY THROUGH VEHICLES AND TECHNOLOGY

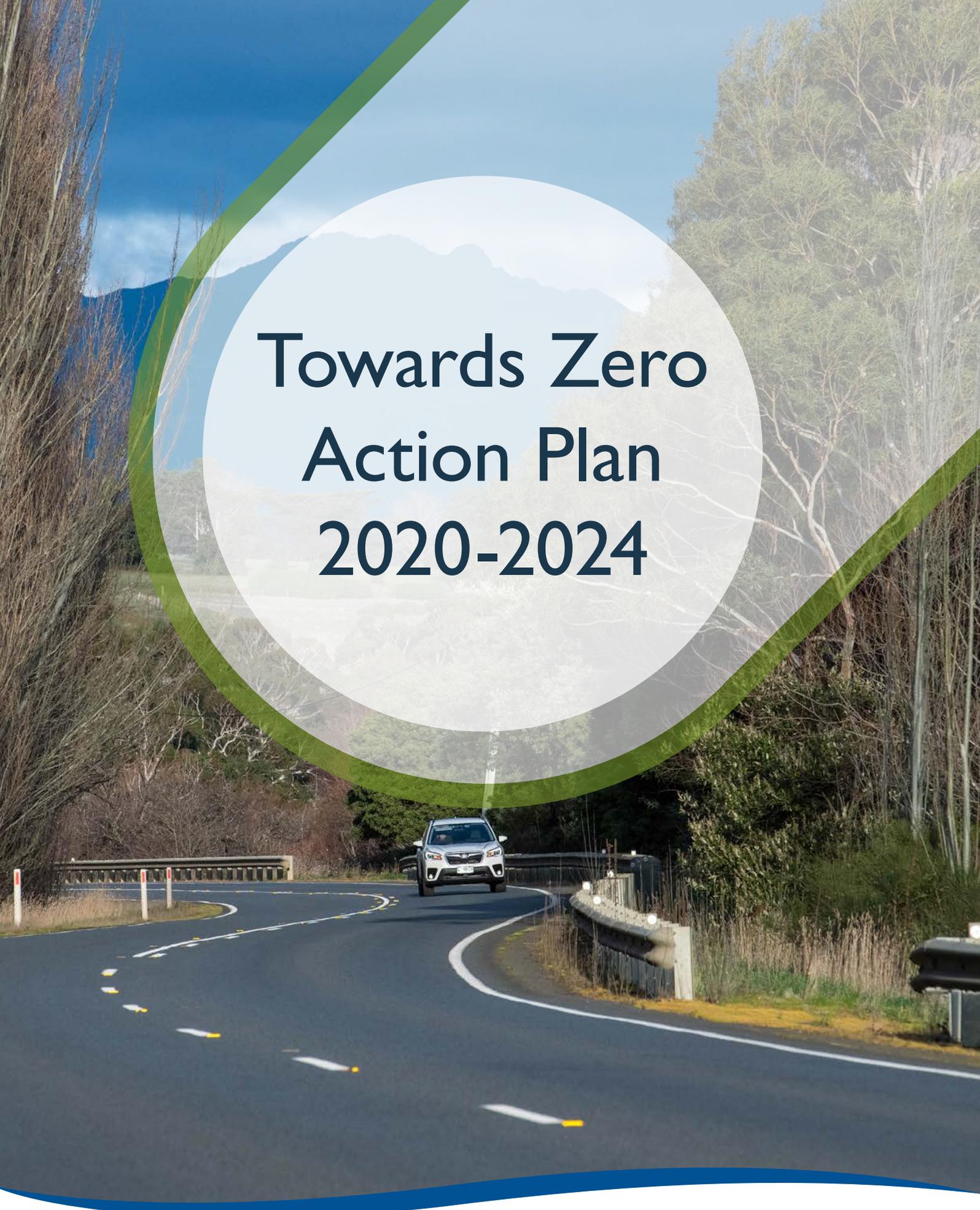
The rate of fatal crashes is four times higher for older vehicles (15 years or more) than for newer vehicles (5 years or less).

The Government is committing over \$3 million to:

- Develop a Light Vehicle Safety Strategy to ensure all vehicles on our roads meet required safety standards.
- Investigate actions to improve safety for vehicles used as a workplace and ensure that the government vehicle fleet meets the highest safety standards.
- Continue to support vehicle safety testing, monitor technological developments, and support all Tasmanians to purchase the safest vehicle they can afford.

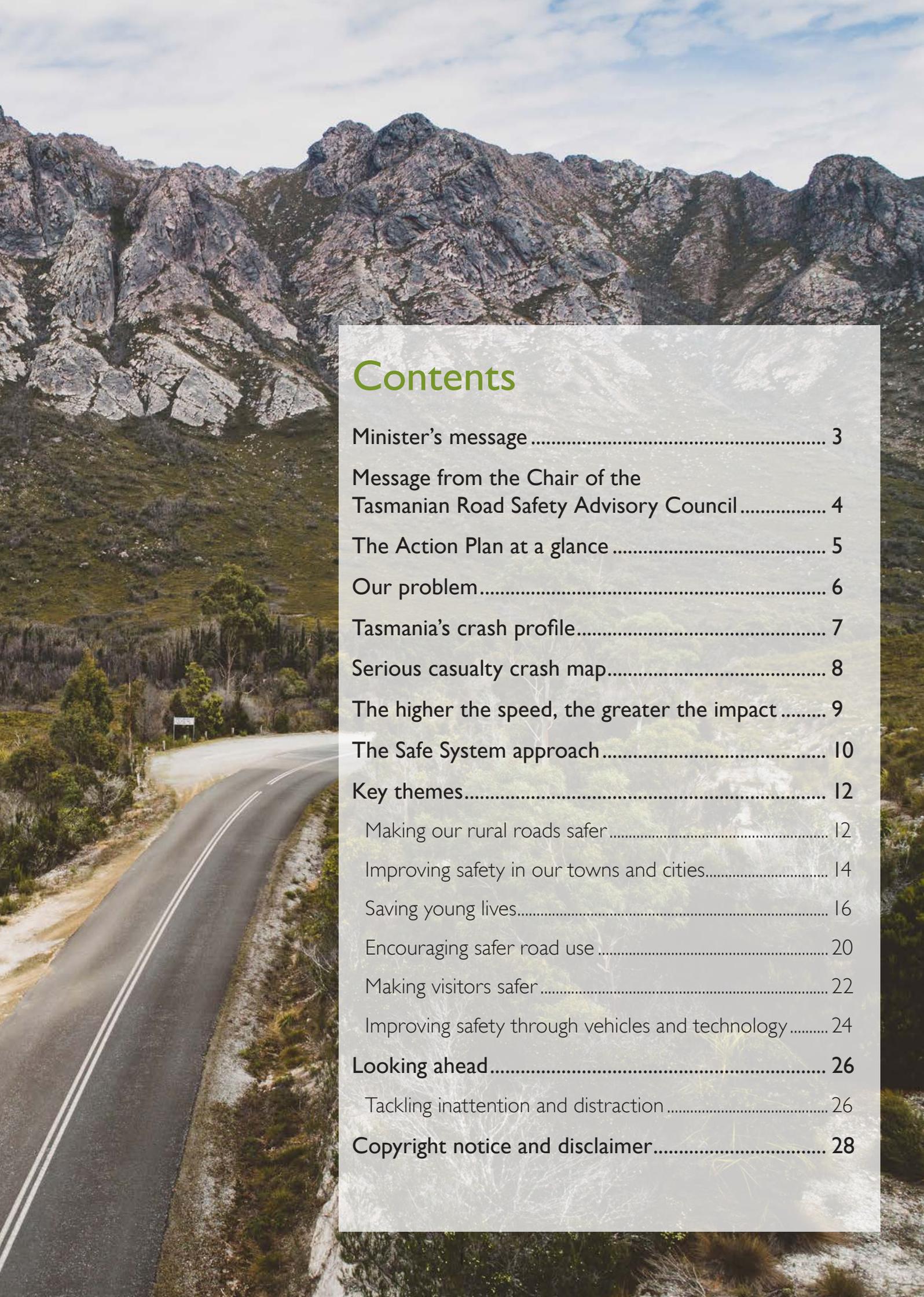
¹ This figure includes funding for the delivery and administration of projects and to provide secretariat support to the Road Safety Advisory Council.

² A 'serious casualty' collectively describes fatalities and serious injuries caused by a crash. A fatality is where a person dies up to 30 days after a crash. A serious injury involves a person being admitted to hospital for 24 hours or more after a crash.



Towards Zero Action Plan 2020-2024





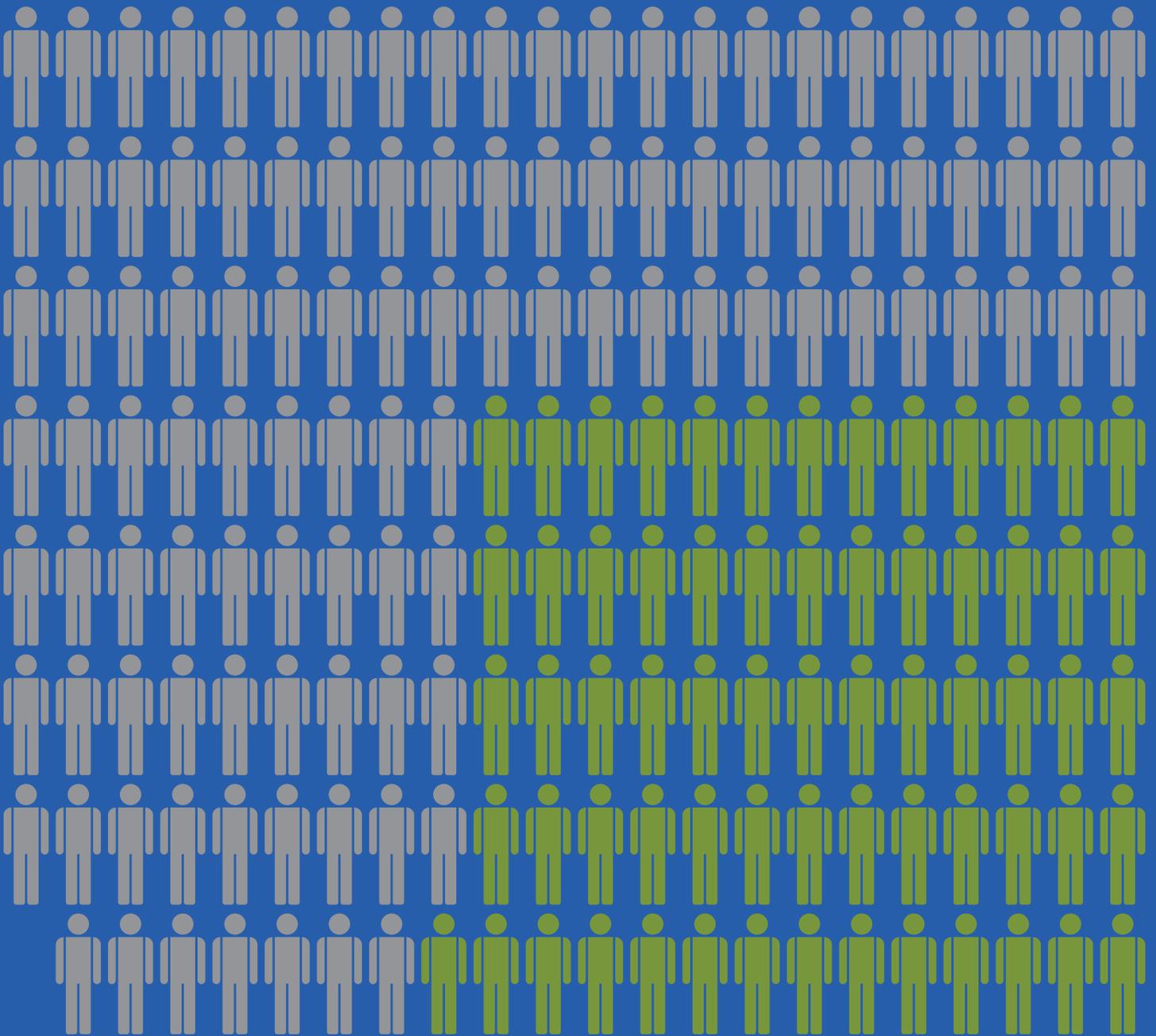
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If nothing changes, we can expect 175 people to be killed on Tasmania's roads over the next five years.*

BUT If Tasmania's road safety performance matches the best in the nation, we can save

66 lives.



* No one can predict the future. But, based on the number of lives lost over the past five years, these are the numbers we are likely to be faced with.

Minister's message



I am pleased to release the *Towards Zero Action Plan 2020-2024* (Action Plan), the State's new road safety plan that outlines the Tasmanian Government's commitment to improving safety on our roads over the next five years.

This Action Plan is the second under the *Towards Zero – Tasmanian Road Safety Strategy 2017-2026*.

Supporting our targeted road safety efforts, the Tasmanian and Australian Governments will invest \$1.5 billion on major state road construction projects to improve efficiency and safety for all road users over the life of this Action Plan.

The Action Plan supplements this significant investment in road infrastructure and commits \$75 million to support road safety policy and programs, public education, and safety improvements for all road users across all of our roads.

This is funded by the Road Safety Levy and by the Motor Accidents Insurance Board's commitment to public education.

I acknowledge the work of the Road Safety Advisory Council in developing the new Action Plan.

The Council provides the Government with advice about best practice initiatives proven to save lives and recommends how the Road Safety Levy should be used to reduce serious casualties on our roads.

We have made steady progress in reducing road trauma in Tasmania, from record highs of more than 1 400 serious casualties annually in the 1970s to the current rate of around 310 serious casualties per year.

As Minister, I don't accept any level of road trauma in our state and ask all Tasmanians to recommit ourselves to doing even better.

Under the 10 year Strategy, we outlined our long-term vision of zero serious injuries and deaths on our roads.

This is what we aspire to. Our shorter-term target is for fewer than 200 serious casualties on our roads by 2026.

Our 2026 target is ambitious and will not be easy to accomplish. Achieving this goal will require all of us to be responsible, intelligent and considerate road users.

We will also need to heed the messages of road safety education campaigns and, where necessary, modify our behaviour.

Over the first twelve months of this Action Plan, we will be making every effort to improve road safety for our young road users. We will be taking action to improve driver licensing, supporting young people to gain a licence, and investing in road safety education campaigns and programs.

Gaining a licence is an important step in a young person's life. It offers new freedoms, independence and can expand the opportunity for gaining employment. The improvements we are making strive to create a safer system for young drivers without creating unnecessary barriers.

Our other key priorities include:

- » Making our rural roads safer – by targeting our rural roads through infrastructure safety improvements, capacity building, speed moderation and enforcement.
- » Improving safety in our towns and cities – focusing on vulnerable road user safety, trialling new technologies, and community road safety.
- » Encouraging safer road use – through public education to encourage safer driving, and enforcement and penalties to deter illegal and unsafe behaviours.
- » Improving safety through vehicles and technology – supporting vehicle safety testing and encouraging all Tasmanians to drive the safest vehicle they can afford.

We will also continue to focus on the road safety of visitors to Tasmania.

It's not possible to design our transport systems to prevent every crash, so we must work together as a community to improve driver abilities and ensure safest possible habits to get all road users safely to their destination.

If we all do that, we will achieve our target of saving lives.

Hon Michael Ferguson MP
Minister for Infrastructure and Transport

Message from the Chair of the Tasmanian Road Safety Advisory Council



Around 170 Tasmanians could die on our roads over the next five years and more than 1 500 could be seriously injured.

That's the unfortunate reality. That's what the averages tell us from the past five years. After decades of falling rates of road trauma, this avoidable national tragedy is threatening to get worse, not better.

We have the tools to save more lives every year. What we need is the wider community to fully understand the problem, to understand the overwhelming weight of evidence behind the solutions to this crisis, and to support necessary and bold actions to stop the pain and suffering associated with road trauma.

Tasmania is striving to lift its performance in areas such as health outcomes, educational attainment and economic performance. We want to be the nation's leader – we want to match or better the best performing Australian states.

The same should apply to road safety. Today, in terms of road fatalities per 100 000 population, we are lagging behind our national counterparts.

Our results are significantly above the national average and more than 60 per cent higher than Victoria, our closest neighbour and, on average, the best performing state.

We must aspire to be the best, but it will take every Tasmanian, including the 400 000 licensed drivers, to embrace the cause.

Road safety has come a long way but, year after year, we continue to face the same issues. Young drivers and males are still significantly over-represented in road trauma, as are motorcyclists.

Most of our road trauma continues to occur in higher speed zones and lane departure crashes (head-on and run-off-road crashes) are still the prevalent crash type.

High risk behaviours such as drink driving and speeding continue to put people at risk.

But we are also facing new challenges such as mobile phone distraction and drug driving.

Too many Tasmanians think that because we have made significant inroads into the "road toll" in the past 40 years that we should be happy with our progress.

Would the families and friends of the 33 Tasmanians who died in 2018 feel that way? Would the families and friends of the 288 seriously injured on our roads last year feel that way? These people's lives have changed forever, in many cases catastrophically.

Death and injury is not the price anyone should pay for getting from A to B more quickly or more efficiently. That's why we're working towards zero road trauma.

It's time our community confronted the tragic facts. It's time for broad community support that's committed to ending trauma on our roads and it's my job to work closely with the community to realise our vision.

The Road Safety Advisory Council is proud to have contributed to the Tasmanian Government's *Towards Zero Action Plan 2020-2024*.

We see it as an opportunity to build on what we have done successfully and as a blueprint for change, not just to meet the challenge of saving lives but to excel at doing so.

We believe this Action Plan is a fundamental building block in getting to a point where Tasmania can lead the nation.

A handwritten signature in blue ink, appearing to read 'Garry Bailey'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Garry Bailey

Chair of the Tasmanian Road Safety Advisory Council

The Action Plan at a glance

Over the next five years, the Tasmanian Government will invest more than \$75 million in road safety improvements in six key areas.¹

<p>Over \$20 million</p> <p>Making our rural roads safer</p> <p>60 per cent of fatalities occur in rural areas.</p> <ul style="list-style-type: none"> Engage with the community, decision-makers and industry practitioners to increase road safety knowledge and build support for speed moderation. Reduce the risk of run-off road and head-on crashes on high speed rural roads with cost effective, mass action infrastructure treatments. Conduct motorcycle road safety audits and consult with the motorcycling community to identify innovative safety solutions on popular touring routes. 	<p>Over \$31 million</p> <p>Improving safety in our towns and cities</p> <p>Pedestrians and cyclists represent one in four serious casualties in our major towns and cities.</p> <ul style="list-style-type: none"> Deliver targeted infrastructure upgrades at high traffic areas to reduce serious crashes in urban areas and to improve safety for vulnerable road user groups. Support community involvement in road safety through the Community Road Safety Grants Program. Investigate emerging technologies and demonstrate innovative low-cost infrastructure treatments in urban areas.
<p>Over \$12 million</p> <p>Saving young lives</p> <p>92 young people are seriously injured or killed on our roads every year.</p> <ul style="list-style-type: none"> Implement changes to the Graduated Licensing System for drivers and investigate improvements to motorcyclist training and licensing. Keep young children safe with child-restraint checks, school crossing patrol officers, road safety education programs in primary schools, and media campaigns. Support education and training initiatives to teach young people the right skills and attitudes, and assist disadvantaged young people to enter the licensing system. 	<p>Over \$4 million</p> <p>Encouraging safer road use</p> <p>We all have a responsibility to use the roads in ways that are safe for those around us.</p> <ul style="list-style-type: none"> Investigate and implement enforcement strategies to reduce speeding, inattention, distraction and other high-risk driving behaviours. Ensure participation in the Mandatory Alcohol Interlock Program to prevent repeat offenders from driving while intoxicated. Improve motorcyclist safety by promoting protective clothing and increasing motorcycle-focused enforcement measures.
<p>\$2 million</p> <p>Making visitors safer</p> <p>11 per cent of all serious casualties on our roads are non-Tasmanian residents.</p> <ul style="list-style-type: none"> Inform visitors of important road safety messages using strategically placed signs and trial the use of electronic signage to communicate in real-time. Utilise Tasmania's limited entry points to distribute key road safety materials in multiple languages to visitors upon arrival. Secure and maintain strategic partnerships with relevant tourist industries, businesses and other stakeholders to better reach visitors. 	<p>Over \$3 million</p> <p>Improving safety through vehicles and technology</p> <p>The rate of fatal crashes is four times higher for vehicles 15+ years old than for vehicles made in the last five years.</p> <ul style="list-style-type: none"> Develop a Light Vehicle Safety Strategy to ensure all vehicles on our roads meet required safety standards. Investigate actions to improve safety for vehicles used as a workplace and ensure that the government vehicle fleet meets the highest safety standards. Continue to support vehicle safety testing, monitor new technological developments, and support all Tasmanians to purchase the safest vehicle they can afford.

1. This figure includes funding for the delivery and administration of projects and to provide secretariat support to the Road Safety Advisory Council.

Our problem

Around 300 people are seriously injured or killed on Tasmanian roads every year.

From the horrific days at the start of the 1970s, when the annual total was almost 1 500, we have steadily reduced serious injuries and deaths. But the lack of reductions in the last 10 years sounds warning bells.

While casualties per head of population and per registered vehicle continue to fall as more and more people use the roads, the total number of casualties has plateaued.

The current numbers of Tasmanians killed or seriously injured in their daily travel is totally unacceptable.

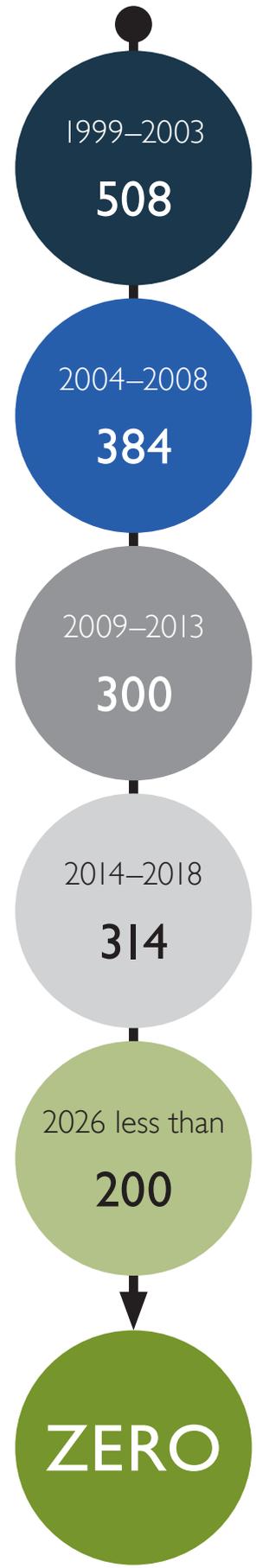
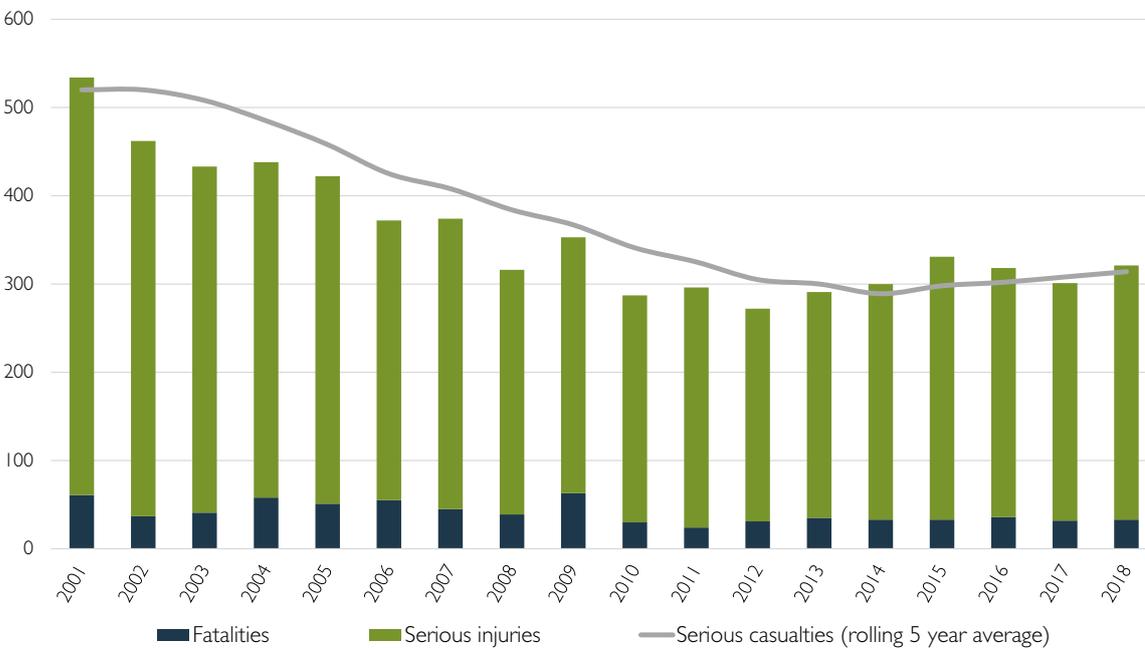
The Towards Zero Strategy establishes a road trauma target of fewer than 200 serious casualties by 2026.² This target was informed by historical road trauma, crash data modelling, and the application of recommended road safety measures.

The road safety measures outlined in this Action Plan are underpinned by the 13 key directions identified in the Towards Zero Strategy.

They are based on community consultation undertaken in the development of the Towards Zero Strategy, road safety expert advice, and review of the current Strategy and Action Plan 2017–2019 by the Road Safety Advisory Council.

Our target remains unchanged to reduce serious injuries and fatalities to fewer than 200 by 2026.

Tasmanian serious casualties 2001– 2018 and Towards Zero target



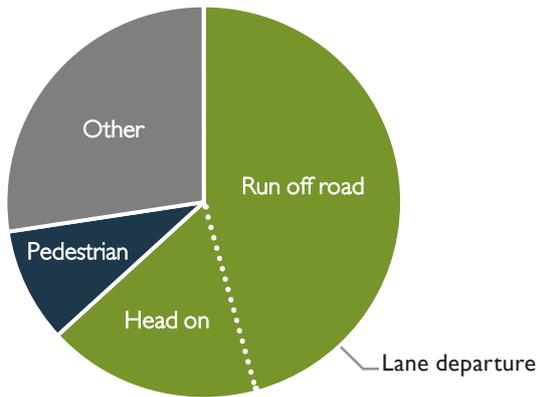
Annual number of serious casualties (five year averages) in Tasmania since 1999 and our future targets.

2. A 'serious casualty' collectively describes fatalities and serious injuries as the result of a crash. A fatality is where a person dies up to 30 days after the crash. A serious injury involves a person being admitted to hospital for 24 hours or more after the crash.

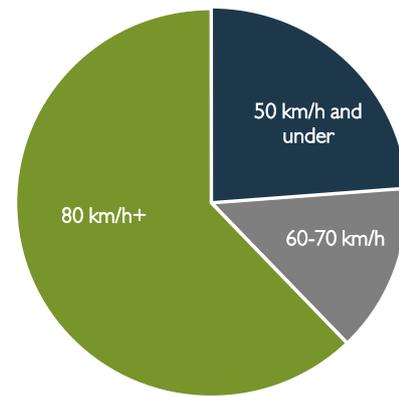
Tasmania's crash profile

Between 2014 and 2018, an average of 281 people were seriously injured and 34 people killed on our roads. This equates to an annual fatality rate of 6.6 per 100 000 population, which is significantly higher than the national average of 5.0 during the same period. The best performing countries in road safety are achieving rates as low as 2.5, which demonstrates the potential improvements that we aspire to.

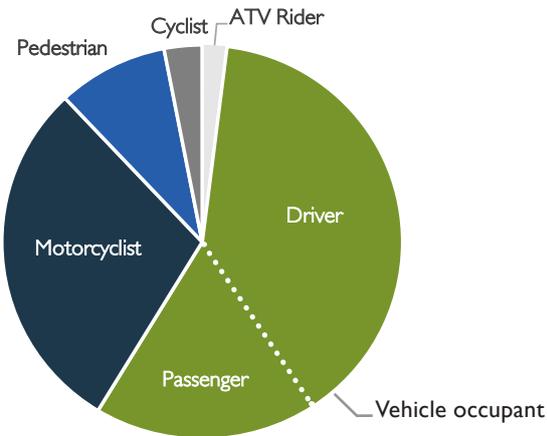
Crash type



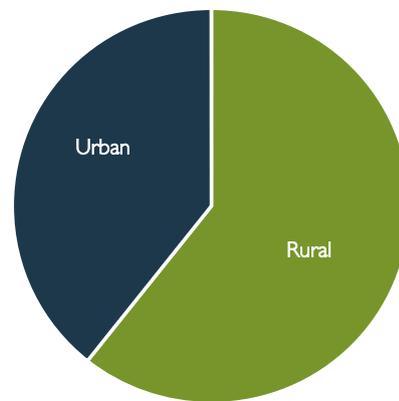
Speed zone



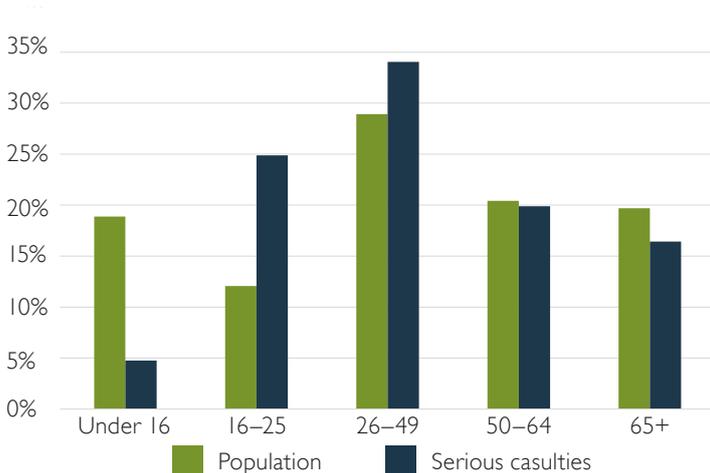
Road user type



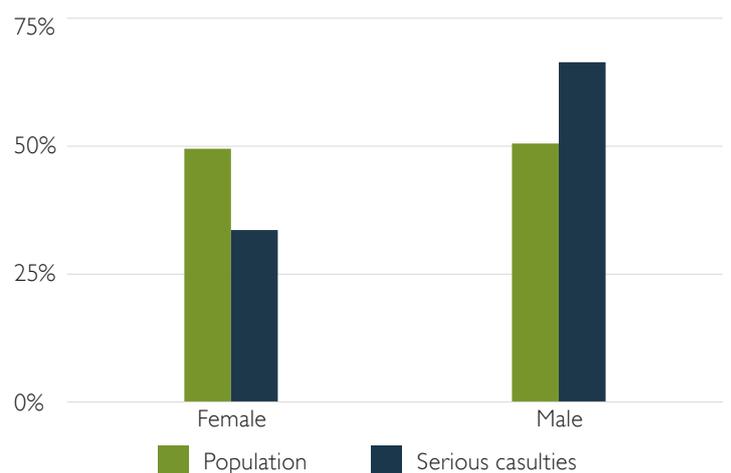
Urbanisation



Age



Gender

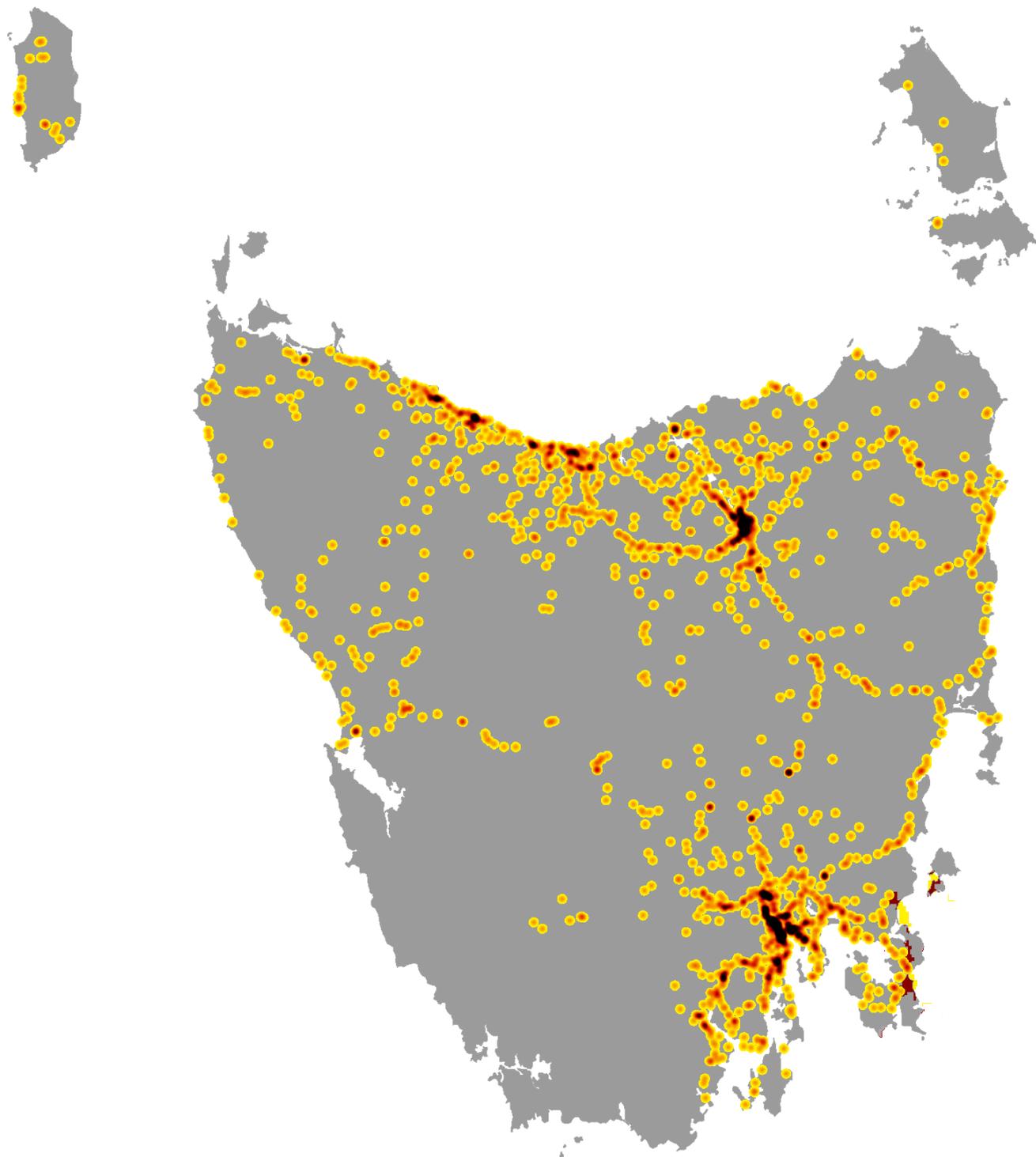


Serious casualty crash map

As can be seen from the heat map below, serious casualties crashes are a state-wide issue. No longer can we target individual blackspots.

We must now be proactive and deliver mass action road safety treatments to improve our road network.

Mass action countermeasures include lane separation, improved delineation, audible edge lines, shoulder sealing, removal of roadside hazards, improved skid resistance, and improved junctions.



The higher the speed, the greater the impact

Speeding includes travelling above the speed limit as well as driving too fast for the conditions, and these are major contributors to both the number and severity of crashes in Tasmania.

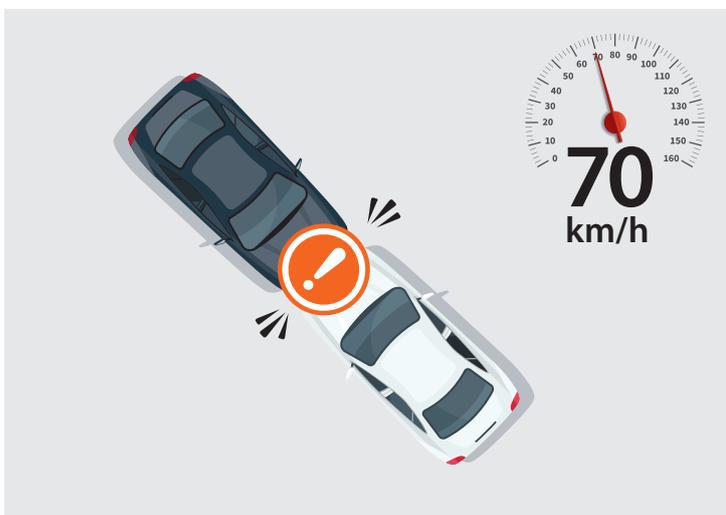
As a vehicle's speed increases, so does the time it takes for the vehicle to come to a stop.

A small increase in speed can make a big difference in the likelihood of crashing and the seriousness of a crash.

Although vehicles are increasingly becoming safer, with better occupant protection, our bodies can only tolerate so much. It's simple physics.

We will develop and implement a speed moderation strategy that combines public education campaigns, a review of speed related penalties, a new speed enforcement strategy, enhancing the automated speed enforcement program and establishment of speed limits that are more appropriate to the safety features of individual roads.

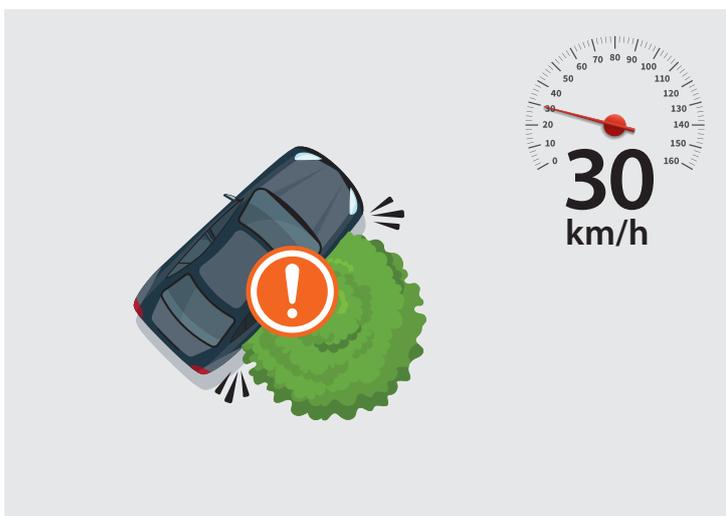
Human tolerance in crash situations



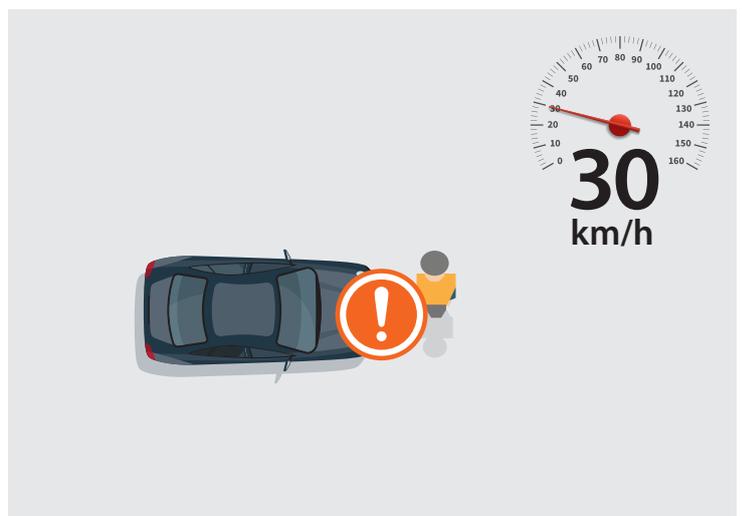
Head-on 70km/h



Side impact 50km/h



Side impact with tree 30km/h



Impact with pedestrian 30km/h

The Safe System approach

We believe that no Tasmanian should be seriously injured or killed as a result of their daily travel on our roads.

Our vision is of a future with zero deaths and serious injuries. To get there we know we have to think and act differently.

We have adopted the European model of creating a Safe System by focusing squarely on safer infrastructure and traffic management, as well as continuing to seek safer vehicles and extensive behavioural change.

A lot of our gains to date have come from protecting people when a crash occurs - seat belts, air bags, a raft of changes improving vehicle crashworthiness, motorcycle and bicycle helmets, reduced speed limits around schools and shopping strips, and so on. More recently, wire rope barrier has been introduced to minimise crash severity when a vehicle, for whatever reason, leaves the roadway.

These are applications of the first Safe System principle - as we are vulnerable beings, we can reduce casualties by reducing crash forces on the human body. Making our infrastructure safer is costly, but in the interim we can reduce crash forces by ensuring travel speeds do not exceed the level of safety inherent in our various roads.

For a very long time we have also focused our efforts on reducing the prevalence of high-risk behaviours by road users: risks such as speeding, drink and drug driving, driving fatigued, and so on. We have made gains in this area. For example, high intensity Random Breath Testing has substantially reduced the role of alcohol in serious crashes.

While we must continue our efforts to limit high risk and irresponsible behaviours, we must also look for other ways to supplement these efforts.

Extensive research has clearly demonstrated that much of the behaviour contributing to crashes is not irresponsible or negligent but the result of imperfect humans making everyday mistakes.

This is the second Safe System principle - we can change the design and operation of our system to reduce the likelihood of mistakes leading to serious crashes. Sealing gravel shoulders, improving sight distances, re-designing critical intersections, and tactile line markings are just some of the tools we have.

Our strategy has a target of reducing serious injuries and deaths to less than 200 by 2026. This is a big challenge and requires all of us to play our part.

Applying the principles of the Safe System means our approach to infrastructure has to continue to change, and we must redouble our efforts to achieve a moderation of travel speeds to match the level of safety built-in at present.

We must achieve all of this while engaging the community to play its part through responsible behaviour and consideration of all fellow road users.

This Action Plan outlines our journey and deserves everyone's full support.





MAKING OUR RURAL ROADS SAFER

60 per cent of fatalities in Tasmania occur in rural areas. We are investing over \$20 million to improve the safety of our rural roads.

Tasmania's population is spread across the state and much of our travel necessarily occurs on high speed rural roads.

These roads connect us with our family and friends, provide access to sporting, social and economic activities.

Our rural roads are twisty and hilly. The frequent advisory sign warning us to slow down for an oncoming corner highlights the challenges of driving in Tasmania.

Misjudging a corner, or veering onto a gravel road shoulder can easily result in loss of control and collision with a roadside hazard or an oncoming vehicle.

The twists and turns also attract recreational motorcyclists, and sadly riders represent one in three of those seriously injured or killed on these roads.

Infrastructure treatments can help reduce the likelihood of these crashes and reduce crash harm. Much has been done to treat 'blackspots' and credit must go to the Australian Government for funding this program, and to state and local government traffic engineers for their work in reducing road trauma.

To be most effective, complete road corridors need to be improved to provide a consistent and predictable road environment. However, infrastructure works are expensive and our rural roads don't often attract priority funding due to their low traffic volumes.

We are establishing a new grants program to work collaboratively with councils on local roads. Funding will help councils assess and install low cost safety infrastructure solutions.

Nine out of 10 of those killed on rural roads are Tasmanian residents.

Simple delineation treatments, such as line marking, reflective pavement markers, guideposts, speed and curve warning advisory signage, all help to alert drivers about the road conditions ahead, day and night.

Removal of roadside hazards and the installation of safety barriers can also reduce the severity of run-off road crashes.

We will continue to engage our motorcycling community to address safety on popular touring routes.

Our plan is to conduct Safe System road safety audits and work with the motorcycling community and other stakeholders to identify innovative treatment options.

Ultimately, we must also tackle the issue of safe speeds on our roads. Travel speeds need to be aligned with the inherent safety features of the road, what we know about safe travel speeds, and traffic mix.

Enforcement and public education will play a key role in moderating travel speeds and help us arrive home safely.

"Tasmania's rural road network is vast and links our communities. They also lead to some of the most popular destinations for visitors to the State. Many rural roads don't have the safety features of higher volume roads. All too often we see both locals and visitors to the State run off the road and crash. These crashes have a significant impact on local towns and improved roads with more safety treatments will go a long way to reducing road trauma."



Mick Tucker
Mayor, Break O'Day Council



What we will do

Establish a rural roads grants program for local government

This program will fund councils to implement mass action infrastructure treatments on their high speed rural roads.

The aim of this program is to significantly reduce lane departure crashes and lessen their harm when they do occur.

Conduct infrastructure upgrades on low volume State roads

We will continue to invest in State roads that have lower traffic volumes, where cost effective treatments such as shoulder sealing, pavement markings, curve warnings, road side hazard removal and safety barriers will achieve maximum value for money.

Improve motorcyclist safety on rural roads

To improve safety for all motorcyclists, we will conduct road safety audits on high risk touring routes across Tasmania. A Safe System approach will inform these audits, where local motorcyclists are integral to the process of assessing the design and risks of a road. Audit findings will be shared with stakeholders to identify countermeasures that often go beyond typical infrastructure solutions.

Develop a speed moderation and community engagement strategy

We will engage with the community to inform and build support for action on safer speeds. As part of this process, we will consider how enforcement can more effectively increase compliance with speed limits.

Expand Safe System knowledge and skills

We will continue to facilitate training sessions, workshops and forums across Tasmania to improve the Safe System knowledge of all those in a position to influence road safety outcomes. This will increase the capacity of our state to build safety-improving road infrastructure that benefits everyone.



IMPROVING SAFETY IN OUR TOWNS AND CITIES

Tasmania's population is growing and our towns and cities are busier than ever. We are investing over \$31 million in projects and programs to improve road safety in our towns and cities.

Almost one quarter of all serious injuries and deaths happen on city and local streets with a speed limit of 50km/h or less.

Over the last 20 years, the number of people seriously injured and killed on local and city streets has steadily declined. This achievement is the result of lowering the default urban speed limit to 50km/h in 2002, safer vehicles, and the progressive installation of safer road infrastructure.

In a crash, the human body can only tolerate a certain level of physical force before serious injury or death is inevitable. This is especially true for pedestrians and cyclists who have little or no protection in the event of a crash with a motor vehicle. That's why setting safe speed limits, as well as ensuring drivers comply with these, is critical.

Cost-effective, small scale infrastructure treatments such as wombat crossings, pedestrian refuges, safety barrier, and kerb outstands can also significantly improve vulnerable road user safety. Such treatments slow traffic, make pedestrians and cyclists more visible, and allow for staged crossing of roads.

We will continue to support local government with funding to provide infrastructure improvements to keep people safe around our schools, shopping centres, sporting facilities, and recreational areas, as well as on our local streets.

Councils are to be congratulated for their work in keeping road users safe in our towns and cities.

Pedestrians and cyclists are at high risk of serious injury or death if hit at speeds above 30km/h. In our major towns and cities, pedestrians and cyclists represent one in four serious casualties.

On busy State highways and arterial routes, we also know that shoulder sealing, safety barriers, line marking and signage can reduce the likelihood of lane departure crashes occurring and reduce their severity when they do.

This type of crash represents 40 per cent of serious casualty crashes in urban areas. Safer infrastructure can also help to reduce the 10 per cent of serious casualty crashes that occur at intersections.

We also need to encourage our community to take a strong lead in achieving our vision of zero road trauma on Tasmania's roads. We will continue to support councils and community groups to deliver road safety education and programs at the local level.



“In small regional towns we encounter many different conditions and a variety of vehicles that travel our roads. It's important to protect all road users especially those who are more vulnerable. Our “Look Out for Your Mates” road safety program is a huge part of keeping our community safe.”

Deb Mainwaring
Manager Connected Communities, Circular Head Council



What we will do

Deliver targeted safety improvements for state roads

We will deliver a range of infrastructure upgrades to make our towns and cities safer to live, walk and drive in.

This will include shoulder sealing, intersection improvements, safety barriers and pavement markings at high traffic areas.

By targeting high volume roads that are not planned for major investment in the short term, we can achieve the maximum road safety benefit from the available funds.

Expand the Vulnerable Road User Program

Under this infrastructure program we will expand investment in road safety for pedestrians, cyclists and motorcyclists.

This annual grants program offers funding to councils to complete small-scale infrastructure treatments such as pedestrian crossings, dedicated bike lanes, upgraded footpaths, wombat crossings and other traffic calming measures.

These improvements make towns and cities across Tasmania safer and more accessible for all types of road users.

Expand the Community Road Safety Grants Program

We will continue to support community involvement in road safety through the Community Road Safety Grants Program.

This program supports local schools, community groups, councils, research institutions and charity organisations to promote and address road safety issues, making everyone more aware and involved in using our roads safely.

Investigate emerging technologies

New technological solutions can reduce the likelihood of crashes involving pedestrians and cyclists in our urban areas. We will monitor emerging technologies for suitability in the Tasmanian context and conduct trials where possible.

Demonstrate emerging infrastructure treatments

We will investigate opportunities to demonstrate innovative infrastructure treatments that can improve road safety in our urban areas. In cooperation with local councils, we want to show how Tasmania's towns and cities can be transformed for the benefit of all road users, especially pedestrians and cyclists.



SAVING YOUNG LIVES

On average, 92 young Tasmanians aged 25 or below are seriously injured or killed on our roads every year. This is 92 too many. We are investing over \$12 million in programs and projects designed to reduce this harm.

Too many young Tasmanians die or suffer life changing injuries on our roads. They are being seriously injured and killed at a higher rate than any other age group.

This needs to change. To achieve this, we will make necessary reforms and continue to deliver programs that will improve road safety at every stage of young people's lives. Our youngest Tasmanians, those in early childhood and primary school, are extremely vulnerable when using our roads.

This is especially true when not properly restrained in the car, when walking or riding a bike and when getting on and off the school bus.

We have a number of programs to help keep children safe, including the provision of school crossing patrol officers and campaigns to encourage lower speeds around schools and school buses.

Tragically, road trauma is the second leading cause of death for young Tasmanians aged 17 to 25.

We also provide support to community organisations to deliver bike and road safety education programs in schools and free child restraint checks across the State.

Later, as young people approach the age when they can get a licence, we support them through a range of programs to educate them about safe driving and to assist them to progress through the licensing system.





Quality Time.

More practice. More conditions. More often.

Education and training initiatives such as the Rotary Youth Driver Awareness Program, the Royal Automobile Club of Tasmania's (RACT) Ready for the Road course and the Full Gear motorcycle safety project will help to develop the skills of young road users and teach them how to use the road with the right attitude and sense of shared responsibility.

Gaining a provisional driver licence is a huge achievement in the life of a young person, offering them greater independence and improved access to social and economic opportunities. Enabling young people to take this important step is one of our major priorities.

Sadly though, it's at this time in their lives, having just graduated from their period of supervised learning, that they are at the greatest risk of being involved in a crash.

There are a number of reasons for this and, consequently, no single solution that will prevent it. That's why we are pursuing a range of evidence-based policy changes. We are also investing in targeted training and assistance programs all around the State.

The implementation of an enhanced Graduated Licensing System (GLS) will support young people to become safer drivers by making sure they get more on-road supervised driving experience in a wider range of conditions and that they demonstrate the right skills before being allowed to drive without supervision.

The enhanced GLS will better protect provisional licence holders from distractions such as mobile phones and peer aged passengers.

A high percentage of Tasmania's young people are already entering the licensing system. To further support young people, we will improve the tools and resources that drivers use to learn the Road Rules and track their progress through the GLS.

Importantly, we will also expand our support to disadvantaged young people through the Driving for Jobs and Learner Driver Mentor Programs.

For novice motorcyclists, recently introduced training requirements will equip young riders with improved skills and an awareness of their vulnerability on the road.

We will continue to monitor the outcomes of these changes while also exploring opportunities to improve the GLS for motorcyclists.

These ongoing initiatives and policy reforms aim to give all Tasmanians the opportunity to gain their licence with the right level of guidance and training to become safer drivers.

What we will do

Expand the Learner Driver Mentor Program

We will continue to support disadvantaged learner drivers under the Learner Driver Mentor Program. This program helps fund community organisations across the state to match volunteer mentors with learner drivers who do not have access to a supervisor, a suitable car and the means to afford professional lessons.

Assisting these young people to meet their required supervised driving hours decreases the risk that they will drive without a licence, helps them connect with their community and improves their job prospects.

Improve the Graduated Licensing System

The Graduated Licensing System (GLS) will be enhanced to reduce crashes among young people and improve the pathway to a provisional driver licence.

A new digital learning platform will make it easier to learn the Road Rules and make getting a licence simpler. Learners will now get more experience in different environments before they graduate to their provisional licence, which is when they are at greatest risk. New safeguards will help protect provisional drivers from dangerous distractions.

Develop an improved GLS for motorcyclists

We will assess the options for a GLS for motorcyclists to ensure they are appropriately experienced and capable before they are granted a full licence. Greater safety is achieved by placing restrictions on learners that are gradually lifted as the rider gains experience and acquires skills under conditions of reduced risk.

Continue to support the Rotary Youth Driver Awareness Program (RYDA)

The RYDA program will continue to make students aware of the significant responsibility that comes with being a driver or passenger. Every year, more than 4 000 students in grades 10-12 take part in practical demonstrations and learn valuable road safety lessons from expert presenters and volunteers.

Continue the Driving for Jobs Program

The Driving for Jobs program will support students from highly disadvantaged areas to progress through the GLS and gain a greater awareness of road safety while also improving their job prospects.

Students undertake a personalised, intensive program with a strong road safety focus including professional on-road lessons and participation in RYDA.





“Learning to drive on the road was one of the most challenging things I’ve ever done. In fact, I found it more difficult than driving on the racetrack. It took lots of practice and a couple of failed tests, but eventually I gained enough experience to get my licence and learned an important lesson – nobody is invincible on the road.”

Alex Peroni
FIA Formula 3 Driver

Provide funding for RACT education initiatives

RACT will be supported to deliver a number of road safety education initiatives. This includes a program for years 10 to 12 students that focuses on the dangers of distraction and inattention.

In a controlled environment, students can drive through a course of traffic cones while attempting to send a text message or while wearing “beer goggles”.

The program also includes an in-class component that teaches students how to progress through the GLS and about the specific rules that apply to L and P plate drivers.

Continue the Real Mates media campaign

The Motor Accident Insurance Board-funded Real Mates campaign will continue to use humour to engage with young men and encourage them to avoid the risks of drink driving.

This successful campaign aims to empower young men to speak up and stop a mate from driving after drinking.

Support Bicycle Network Tasmania

The Bicycle Network will continue to promote bike education, road safety and positive road sharing behaviour to school students across Tasmania.

Keep school children safe on the roads

Over 100 school crossing patrol officers assist children and other pedestrians to safely cross the road at schools all around the State.

The Safety Around Schools project, including the Love 40 campaign, will also encourage drivers to lower their speed and keep a look out for children in school zones and around buses.

Support Kidsafe child restraint checks

Kidsafe Tasmania will continue to conduct free child restraint checking sessions to ensure that young children are safely and lawfully seated and restrained in cars. Kidsafe also distribute and promote educational material informing the public of the correct child restraint type for a child’s age and size.

Encourage safe and legal motorcycle riding

We will continue to support Glenorchy City Council, in partnership with Bucaan House, to deliver its successful Full Gear motorcycle safety project.

This program helps young motorcycle riders enter the licensing system and adopt safe riding practices.



ENCOURAGING SAFER ROAD USE

We all have a responsibility to use the roads in ways that are safe for those around us. We are committing over \$4 million to improve the way we behave on our roads.

To encourage everyone to use our roads safely, we will strike the right balance between education and enforcement.

This means supporting people to drive safely, ensuring we all understand the harm that can result from breaking the road rules, and addressing high-risk and illegal behaviour through an effective deterrence regime.

While most crashes are the result of a simple mistake, we all have the opportunity to make safer choices to reduce our risk of crashing and injuring or killing innocent road users.

Purchasing the safest vehicle you can afford, driving to the road and weather conditions, obeying the speed limit, only driving while alert, and giving full attention to the road are all effective ways of improving the safety of yourself and those around you on the road.

Unfortunately, a number of serious casualty crashes are due to high risk and illegal behaviours such as speeding, inattention, mobile phone use, and driving under the influence of drugs or alcohol.

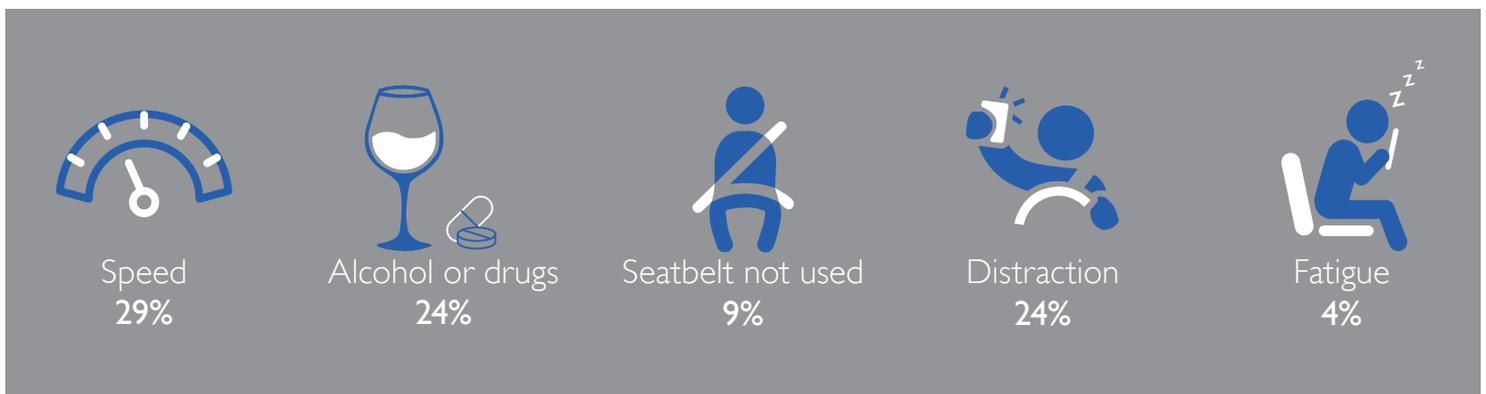
For some drivers, the most effective way of deterring extreme and illegal road use is through high visibility policing and enforcement backed by appropriate sanctions.

The Fatal Five – speeding, driving under the influence of drugs or alcohol, inattention, fatigue and failure to wear seatbelts – will continue to be a focus of road safety enforcement.

We will continue with a strong on road enforcement presence and, where possible, trial and implement new means of detecting illegal driving.

No one is a perfect driver. Every one of us will make mistakes on the road. We will keep improving our transport system so that serious injuries and fatalities are reduced. But to achieve our vision of a zero road toll, we need all road users to play their part, to follow the rules and consider their own safety and the safety of others.

Serious casualties attributed to the Fatal Five



What we will do

Investigate strategies to address inattention and distraction

Inattention and distraction are concerning causes of serious casualty crashes. Strategies to address this growing issue, such as technologies that can detect the use of mobile phones by drivers, will be investigated and implemented.

Promote safe behaviours through campaigns

We will continue to educate and encourage people to use our roads safely through targeted media campaigns. This will include campaigns like Love 40, which reminds drivers of their responsibility to slow down in school zones and around buses to protect children.

Promote protective clothing for motorcyclists

Motorcyclists are significantly over-represented in Tasmania's road trauma figures. One of the reasons for this is that riders are more likely to be injured in a crash due to a lack of physical protection. We will continue to work to reduce the risks to motorcyclists through a range of actions, including supporting the work of MotoCAP to promote the use of protective clothing.

Ensure participation in the Mandatory Alcohol Interlock Program

Drink driving is a significant factor in serious casualty crashes on our roads. We will introduce supporting measures to increase participation in the Mandatory Alcohol Interlock Program. This will mean that more drink driving offenders will be required to demonstrate that they can separate their drinking from their driving, reducing the chance of alcohol related crashes.

Review the penalties for putting others at risk

For enforcement activities to improve safety on our roads, they need to be backed up with the right penalties. Tasmania's road safety focused penalties will be reviewed to ensure they are up-to-date and provide an appropriate deterrence to those who break the rules.

Implement a new speed enforcement strategy

Tasmania Police will enact new speed enforcement techniques to increase the rate of detection and enforcement and increase the perception that offending drivers and motorcyclists will be caught.

Improve enforcement of high-risk behaviours

Following a successful and widely supported trial, Tasmania Police will expand its use of unmarked motorcycles to detect and intercept high-risk traffic offences in busy areas across the State. Helmet mounted cameras assist to capture evidence of illegal mobile phone use, speeding, blocking of intersections, failure to wear seatbelts and failure to comply with red and amber traffic signals. We will continue to investigate innovative new ways of detecting and enforcing these kinds of high-risk and inattention-type offences.

Investigate an enhanced automated speed enforcement program

Speed cameras are relatively underutilised as a deterrence and enforcement mechanism in Tasmania. In other states and territories, enhanced speed camera programs have resulted in significant reductions in serious injuries and fatalities on the road. We will investigate a range of proven and emerging speed camera technologies and assess their potential to reduce speeding and save lives at high-risk locations and across the entire road network.

Improve enforcement of high-risk riding

Speed is a factor in at least one quarter of motorcyclist serious casualties. Unfortunately, our speed cameras are only equipped to capture the number plates of oncoming traffic. This means that our speed cameras offer no deterrence to motorcyclists, whose number plates are mounted only on the back. We will introduce rear-facing speed cameras to address this issue and investigate other techniques for enforcing speed and other high-risk behaviours for motorcyclists.

Continue to promote the Road Rules

The Road Rules are designed to make our roads safe. Compliance with the Rules makes our behaviour on the roads predictable, improving safety for all road users. We will continue to develop user-friendly and tailored information resources so that the Road Rules are easily understood and adhered to by all road users.



“Tasmania Police recently trialled the use of unmarked motorcycles within the Hobart CBD. In just three months, we detected over 1 000 high-risk traffic offences including 246 people using their phone while driving. We will now be using unmarked motorcycles state-wide to reduce serious injuries and fatalities caused by these behaviours.”

Inspector John Ward
Tasmania Police



MAKING VISITORS SAFER

168 visitors to Tasmania have been seriously injured or killed on our roads in the past five years. We are investing \$2 million in initiatives to support the education and safety of visiting drivers and motorcyclists.

To encourage the growth of our visitor economy, the Tasmanian Government has set a goal of attracting 1.5 million visitors to Tasmania annually by 2020.

New strategies have been introduced to encourage visitors to travel outside of traditional peak seasons, stay longer and travel further into regional areas.

One outcome resulting from this growth is an increasing number of visitors on Tasmanian roads.

Targeted road safety education is essential for visiting drivers and motorcyclists, and those who are new to Tasmania (seasonal workers, international students and new migrants).

These groups tend to have a higher crash risk or low awareness of driving conditions and our road rules.

Tasmania is a destination of choice for those who enjoy exploring at their own pace on self-drive holidays.

A growing number of these visitors are from left-hand drive countries and are unfamiliar with our road rules and roads, particularly gravel and rural roads.

In motorcycling circles, Tasmania is known for having some of the best touring roads in the world. Sadly, visiting motorcyclists represent nearly 50 per cent of non-Tasmanian serious casualties on our roads.

11 per cent of all serious casualties on our roads are non-Tasmanian residents.

The majority of visiting motorcyclists who crash are from interstate and crashes tend to happen on our scenic touring routes. Seasonal workers, migrants, and international students, attracted by the lifestyle, employment and educational opportunities Tasmania offers, are also at risk from being unfamiliar with our road environment.

We will continue to build on the work already delivered through the Tourist Road Safety Strategy to improve safety for visitors to our state.

New initiatives will be developed, taking an evidence-based practical approach, in consultation and collaboration with a wide range of stakeholders.

“As an industry, we take driver safety very seriously. It is important that we do everything we can to ensure our visitors have a safe and enjoyable journey whilst in Tasmania. Together, we can do this by providing up-to-date and consistent messaging around the Road Rules and how to be safe whilst driving in Tasmania.”



Brigitte Schroeder
State Operations Manager, Europcar

What we will do

Complete installation of the tourist road safety signage network

We will install tourist road safety signage across the road network. These strategically placed signs provide road users with important road safety information relevant to the area they are travelling in.

Messaging and placement of the signs will be determined in collaboration with stakeholders, local government and State Roads.

Trial responsive electronic signage

We will trial responsive electronic signage at a regional tourism gateway. This technology provides the opportunity to present a variety of real time road safety messages to travellers.

It also allows them to alter their route due to weather conditions, fires or other situations if necessary.

Develop effective and engaging education materials

We will develop education materials using imagery, symbols and multi-lingual material (written and audio translations) to promote important road safety messages through targeted communication channels.

Education materials include hangers in vehicles, keep left stickers, road safety maps, posters, brochures, a webpage, film clips, roadside signs, editorial content, digital material, print and online advertising along with billboards and LED screens.

Secure strategic partnerships

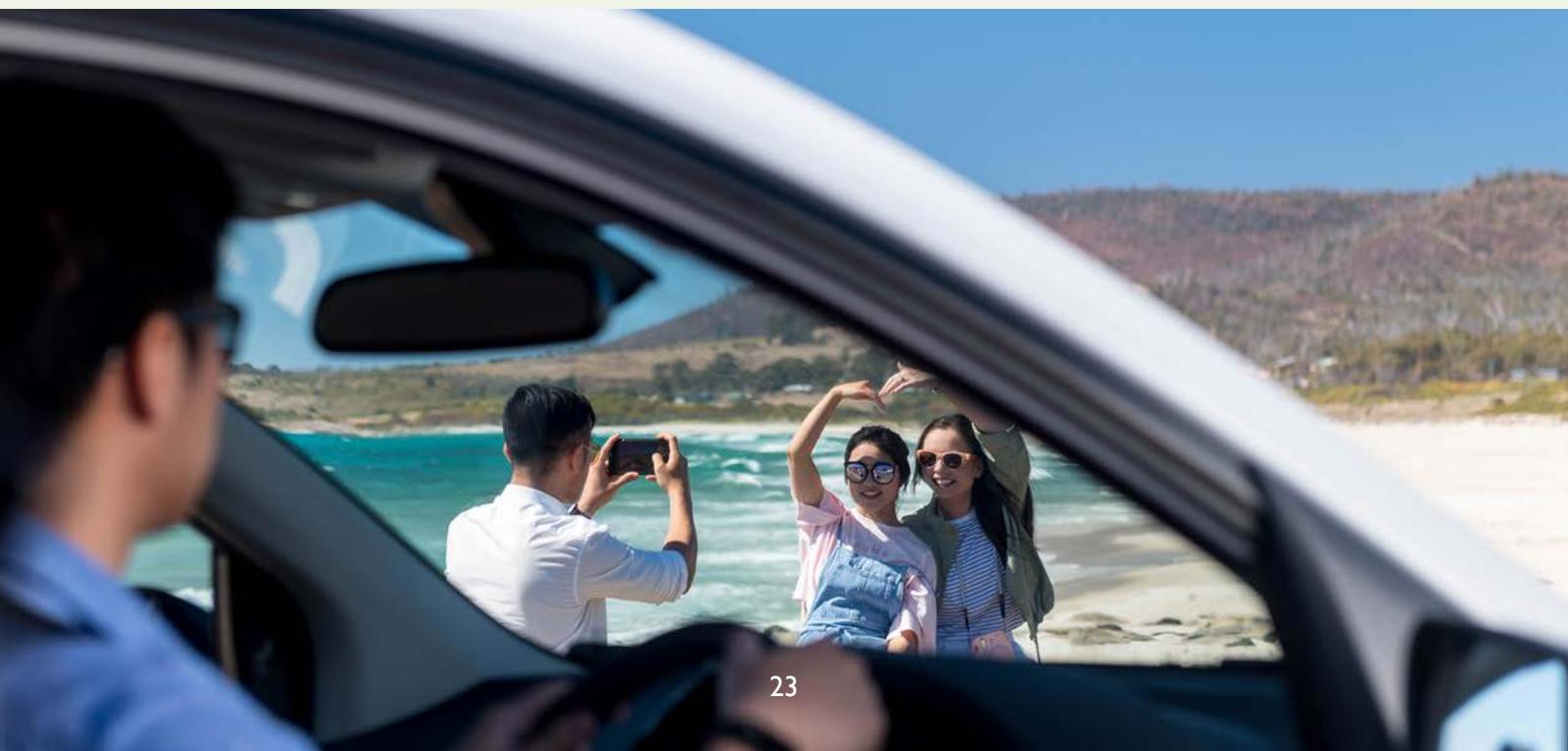
Securing strategic partnerships is crucial in ensuring that we can provide reach of message, create original promotional opportunities and strengthen our distribution network. Organisations and groups such as the Tasmanian hire and drive industry, the Tasmanian Visitor Information Network, the Spirit of Tasmania and airports play a crucial role in enabling us to effectively reach visiting drivers and motorcyclists. We will also actively seek out non-traditional partnerships, based on synergies with our target audiences to create appealing and creative ways to promote road safety messages.

Attract visitors' attention by focusing activity on gateway entry points

The benefit of being an island state is that visitors must enter through our airports and sea ports. This provides the perfect opportunity to reach them with important road safety messages on arrival to the State. Commercial distribution channels, hire and drive companies, the Spirit of Tasmania, visitor networks, airports and tourism operators are key to the successful distribution of materials and the promotion of important road safety messages to visitors.

Build stakeholder alliances

Stakeholders are key to improving safety for visiting drivers. We can achieve much more if we cooperate with stakeholders, providing education about road safety issues, encouraging their input and creating opportunities to deliver joint initiatives. We will continue to collaborate with our national and international road safety colleagues, sharing insights and information while contributing to the development of effective strategies and tools to address road safety issues relating to visiting drivers and motorcyclists. We value the diversity of our stakeholders, their opinions, and the central role they play in helping make our roads safer.





IMPROVING SAFETY THROUGH VEHICLES AND TECHNOLOGY

Advances in vehicle design and technology are helping to prevent crashes from occurring and better protecting all road users in Tasmania. We are committing over \$3 million to support and encourage Tasmanians to drive safer vehicles.

Under the Safe System approach, we know that we will make mistakes – it is a part of being human. To achieve our vision of zero road trauma, we must take advantage of the latest vehicle and crash avoidance technologies and ensure that more Tasmanians are travelling in safer vehicles.

New vehicles are increasingly becoming safer with ongoing improvements in minimum safety standards. Modern vehicles provide superior occupant protection in crashes and are increasingly equipped with active collision avoidance technologies.

A challenge for Tasmania is that it has the oldest vehicle fleet in the country with an average age of 12.8 years. This means more time and resources must be expended maintaining the roadworthiness of Tasmania's older vehicles. This means that many Tasmanians are not benefiting from the latest safety features.

Active collision avoidance technologies are now recognised in the ANCAP vehicle safety testing. These technologies alert the driver to potential hazards, give the driver more control in emergency situations and act autonomously to prevent a collision. New features also help drivers to adhere to the speed limit, minimise blind spots, reduce distraction and monitor signs of driver fatigue.

We will continue to support ANCAP in its work, crash testing and publishing new vehicle safety ratings. ANCAP plays an important role in influencing manufacturers to build safer vehicles, while also informing consumer choices both online and at the point of sale.

The rate of fatal crashes per registered vehicle is four times higher for vehicles aged 15 years or older than for vehicles aged five years old or less.

Many Tasmanians purchase their vehicles second hand. Like ANCAP, the Used Car Safety Ratings website helps consumers to choose the safest vehicle within their budget.

The majority of new cars are purchased by fleet buyers. We know that we can improve road safety by ensuring that fleet managers, both in government and the private sector, buy vehicles with the highest safety ratings.

Not only will this improve the safety of people who use the roads for work, it also introduces a greater number of safer vehicles into the second hand market.

Automating the driving task and collision avoidance technologies are in their infancy, but they are evolving rapidly and have enormous potential to reduce road trauma.



“Always choose the safest car available within your budget. Explore the Used Car Safety Ratings website to compare makes and models by price range. And if you have a newer car let your son or daughter borrow it. Don't think about the extra insurance cost. Your children will be far better protected in a crash.”

Ian Johnston
Road Safety Expert, Tasmanian Road Safety Advisory Council



The image above shows the Toyota Hilux, Australia's highest selling vehicle, undergoing ANCAP testing of its Autonomous Emergency Braking (AEB). AEB is a crash avoidance technology that enables the vehicle to constantly monitor the road environment and independently apply the brakes if it detects an oncoming collision with another vehicle, pedestrian or cyclist.



These types of 'safety assist' technologies, which are becoming increasingly commonplace in new vehicles, have the potential to deliver significant road trauma reductions for both vehicle occupants and vulnerable road users.

What we will do

Ensure that the vehicles on our roads are roadworthy

The Transport Safety and Investigation Unit will perform a range of important road safety roles, including public education on vehicle usage and public passenger vehicle compliance and enforcement. We will develop a Light Vehicle Safety Strategy to improve road safety by ensuring all vehicles in use on our roads meet required safety standards.

Continue to support ANCAP

We will continue to provide funding to the Australasian New Car Assessment Program (ANCAP) and assist in the promotion of its work testing and advocating for the purchase of safer vehicles.

Assist young drivers to buy safer vehicles

Young drivers are one of the highest risk groups on our roads, yet they often drive older and less safe vehicles. We will investigate and implement ways of assisting young drivers to buy the safest vehicle they can afford.

Improve safety for workplace drivers

We will investigate opportunities to improve the safety of the large number of Tasmanians whose work involves driving on our roads.

This includes implementing higher standards for government fleets and encouraging the private sector to purchase safer vehicles.

Monitor developments in vehicle technology

We will monitor autonomous vehicle and crash avoidance readiness in Tasmania to make sure that our infrastructure, communication devices and laws are compatible with emerging technologies.



TACKLING INATTENTION AND DISTRACTION

The community is becoming increasingly concerned about driver inattention and distraction, especially from mobile phone use. Although not a key theme, we recognise the need for action and are undertaking a number of programs and projects designed to reduce this problem and protect drivers and passengers in the event of a crash.

Driving is a complex task and one that demands our full attention. However, keeping drivers' minds on the job is easier said than done.

All drivers engage in distracting activities while they are driving. Changing a song, drinking a coffee, refereeing the kids in the backseat or checking your mobile phone – these are all activities that distract us and interfere with safe driving.

Distraction occurs when a driver, either willingly or unwillingly, engages in a secondary activity that interferes with performance of the primary task of driving the vehicle.

Distraction can be visual (taking your eyes off the road), physical (taking your hands off the steering wheel) or cognitive (taking your mind off the driving task), or a combination of these.

Addressing inattention and distraction is a challenge for authorities.

There are two main things we can do – try to stop the behaviour and reduce the harm if the behaviour causes a crash.

We try to reduce the incidence of distraction through public education and enforcement. Increasingly, new technologies are also helping to tackle the problem.

In addition, infrastructure safety improvements described under key themes in the Action Plan help alert the driver to focus on driving (audible line marking) and reduce the injuries sustained if a crash does occur (wire rope barrier).

Distraction affects driver performance and safety. It decreases our ability to control speed and following distance, makes it difficult to maintain our position on the road, reduces our awareness of surrounding traffic, events, traffic signals and signs, and makes our responses to hazards slower.

Don't be a goose.
**Leave your
phone alone.**

What we will do

Unmarked motorcycle enforcement

In 2019 Tasmania Police trialled the use of unmarked motorcycles in urban areas around the State to allow police to use lane filtering in traffic and increase the detection of mobile phone use.

The immediacy of detection, with drivers being caught in the act and the evidence recorded by a helmet mounted camera, is a powerful deterrent to both the driver and other drivers in the vicinity. The use of unmarked motorcycles will be expanded to tackle distraction and inattention in urban areas.

Trial mobile phone use detection technology

New technologies are being developed all the time. We will trial new camera technologies that can detect mobile phone use to increase enforcement of inattention and to deter people from using their mobile phone while driving.

Mobile phone ban for L and P platers

Changes to the Graduated Licensing System (GLS) mean that all learner (L1 and L2) and provisional (P1 and P2) licence holders will be banned from any mobile phone use, including hands-free and speaker mode.

Young drivers have limited experience and need to devote their attention to driving. Removing distractions like mobile phones is a proven way to help reduce distractions and protect new drivers.

Continue to support the Rotary Youth Driver Awareness Program (RYDA)

The RYDA program will continue to make students aware of the significant responsibility of being a driver or passenger and help them to have an appropriate attitude when they're in a vehicle.

The program promotes the importance of concentrating on the driving task and the dangers of distraction.

Develop inattention/distraction campaigns

Building on the success of the 'Don't be a goose - leave your phone alone' campaign, we will continue to develop new inattention/distraction campaigns to educate the public about the dangers of driving distracted and using a mobile phone while driving.

As well as using television, radio, print and digital media channels, we will use signage and billboards to remind drivers when they are on the road and undertaking the driving task.

Infrastructure safety improvements

The majority of our serious injuries and deaths are due to lane departures resulting in head on and run-off road crashes. Safety treatments such as audio tactile line marking (rumble strips) help to alert the motorist when they are straying off their path and get them back on track before a crash occurs. Signage can advise of the need for caution and to reduce speed.

Sealing road shoulders gives drivers more leeway to correct if they find themselves distracted and reduces the likelihood of loss of control. Installation of centre and side barriers and hazard removal will help to reduce the severity of crashes and keep vehicles from colliding with other vehicles, trees and other solid objects.

Under the themes of Making our Rural Roads Safer and Improving Safety in our Towns and Cities, we have allocated around \$50 million over five years to install infrastructure safety improvements and, in doing so, will help to combat inattention and distraction.

Vehicle Technologies

We will encourage Tasmanians to buy the safest car they can afford. Safety features such as crumple zones and airbags reduce the severity of injury when a crash occurs.

Active safety assist technologies like biometric sensors, blind spot sensors, lane-keep technology and emergency braking help drivers to avoid crashes. The majority of crashes involve human error. Vehicle technologies will help to reduce both the incidence and severity of crashes.

ACT CANdrive trial

We are actively monitoring developments in automated vehicle technology which has the potential to remove the human error element on our roads.

More than 30 Canberra drivers are participating in a world first trial to improve safety in automated vehicles using Seeing Machines' driver monitoring technology. Vehicle automation is progressing rapidly and promises many benefits for road users.

The increase of automation in cars promises increased levels of safety, but a key identified risk is driver inattention. The ACT Government CANdrive automated vehicle trial has been designed to collect driver engagement data in both automated and non-automated driving conditions.

The project has helped Seeing Machines develop and validate its algorithms related to driver engagement and has demonstrated that driver monitoring can help mitigate the risk of driver inattention.



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Jeremy Rockliff

Premier of Tasmania

Share

12 February 2020

Michael Ferguson, Minister for Infrastructure and Transport

Protecting our vulnerable road users

The Tasmanian majority Liberal Government is committed to protecting vulnerable road users as we work towards our long-term vision of zero deaths or serious injuries on Tasmanian roads.

The safety of vulnerable road users – pedestrians, cyclists and motorcyclists – is set to improve, with submissions being called for our latest round of Vulnerable Road User Program funding.

Over the past five years, more than 40 per cent of serious casualties on Tasmanian roads were vulnerable road users.

That's why we have made \$1 million available each year to reduce casualties through infrastructure improvements that reduce the risk of conflict between motor vehicles and vulnerable road users.

The projects are delivered in partnership with local government. Previous infrastructure through the program has included electronic speed signs in high pedestrian areas, enhanced pedestrian crossings and new off-road pathways.

As a community, we must work together to reduce the number of cyclist, pedestrian and motorcyclist fatalities and injuries, and improving infrastructure is one of the solutions.

The Vulnerable Road User Program is a key focus of our new \$75 million Towards Zero Action Plan 2020-2024 (<https://www.towardszero.tas.gov.au>), which targets Tasmania's highest risk areas to achieve the greatest possible reductions in serious injuries and deaths as a result of road trauma.

Councils have until Friday, March 27, 2020, to submit their proposals. More information is available at www.transport.tas.gov.au (<http://www.transport.tas.gov.au>)

[More Media Releases from Michael Ferguson \(/media_release_search?queries_member_query=221795\)](#)

[More Media Releases from the Minister for Infrastructure and Transport \(/media_release_search?queries_portfolio_query=Minister for Infrastructure and Transport\)](#)

Latest releases

Supporting our farmers on the Harvest Trail

(https://www.premier.tas.gov.au/releases/supporting_our_farmers_on_the_harvest_trail)

Skills for economic recovery (https://www.premier.tas.gov.au/releases/skills_for_economic_recovery)

Further support for Tasmania's screen industry during COVID-19

(https://www.premier.tas.gov.au/releases/putting_downward_pressure_on_fuel_prices_in_tasmania2)

Young Tasmanian Aboriginal Leaders Scholarships

(https://www.premier.tas.gov.au/releases/young_tasmanian_aboriginal_leaders_scholarships)

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