

2.10

GENERIC PROVISIONS PARKING





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Part 2 Generic Provisions

2.10 Parking

This section of the DCP guides the provision of car and bicycle parking and their design for private developments. It recognises the strong link between the provision of private and public domain parking, with the latter guided by a range of policies and actions outside the scope of this DCP. It also recognises that parking *provision* and *design* can be complemented by parking *management* measures, many of which are also outside the scope of this DCP.

This section of the DCP applies to the Inner West Local Government Area for the extent of land shown on Figure X: Extent of land where this DCP applies.

It prescribes different car parking provision rates for three sub-sections of the LGA - highly accessible areas (Parking Area 1), moderately accessible areas (Parking Area 2) and least accessible areas (Parking Area 3). Car parking rates are most constrained in Parking Area 1 and least constrained in Parking Area 3. The three Parking Areas are described in Section 2.10.4 and are shown on the map provided in Appendix 1. For bicycles, provision rates are prescribed uniformly across the where this DCP applies.

2.10.1 Objectives

- 01** To balance the need to meet car parking demand on-site to avoid excessive spillover on to streets, with the need to constrain parking to maintain the area's compact urban form and promote sustainable transport.
- 02** To balance the need to provide service/delivery areas on-site to avoid excessive use of streets for this purpose, with the need to constrain those areas to maintain the area's compact urban form and promote sustainable transport.
- 03** To improve the integration of land use and transport by applying strict constraints to car parking within accessible areas and more modest constraints in less accessible areas.
- 04** To ensure parking provision and design is compatible with the particular development proposed.
- 05** To allow for appropriate variation of provision rates and design parameters for developments with particular characteristics, such as affordable housing or re-use of older buildings.
- 06** To provide for current and future demand for bicycle parking and to ensure bicycle parking is well designed and located.
- 07** To ensure all parking facilities are safe, functional and accessible to all through compliance with design standards.
- 08** To ensure all parking facilities achieve positive visual, environmental, sustainable transport and pedestrian safety outcomes through adoption of best practice principles.
- 09** To give priority, in larger developments and where appropriate, to certain users in allocating parking, including emergency vehicle parking, service/delivery, mobility parking, bus/bicycle priority and parking for carshare and environmental vehicles.

2.10.2 Policy approach

Parking policy is an important component of promoting sustainable transport and planning for liveable and economically viable communities.

Traditional car parking policies aimed to meet demand, whereas contemporary policies balance this against the need to constrain car ownership/use and promote sustainable transport. The constrained approach can improve building design, improve affordability of housing, retain heritage values, improve the viability of developments and businesses, improve visual amenity and reduce environmental impacts. Contemporary policies also meet current demand and allow for future demand for bicycle parking and parking for carshare and environmental vehicles.

This approach also aims to improve the management of existing parking resources to optimise turnover and make best use of valuable land devoted to car parking. Many tools can improve management of parking, such as pricing and enforcement. Although many of these tools apply to the public domain, and as such are outside the ambit of this section of the DCP, they can and should be utilised where appropriate in the private domain.

In larger developments, and in some smaller developments where appropriate, a key action for improved management of parking is prioritising targeted users of parking space - for efficiency, equity and environmental reasons. In general terms, highest priority should be given to emergency vehicle parking, service/delivery areas, mobility parking, bus/bicycle priority and parking for carshare and environmental vehicles. Lowest priority should be given to conventional private cars.

2.10.3 Policy context

The approach to car parking adopted by this DCP is supported by:

- *Metropolitan Strategy (2005)*, which provides the policy context for a proposed metropolitan-wide parking policy that will support sustainable transport in locations with good public transport access;
- *RMS Guide to Traffic Generating Developments (2002)*, which provides guidance on parking provision rates, whilst recognising the need to reduce those rates in accessible areas in the interests of applying travel demand management principles; and
- *Integrating Land Use and Transport Planning Policy (2002)*, which includes Accessible Development Principles, one those being *to manage parking supply in accessible areas*.

The Integrating Land Use and Transport Policy includes a set of Accessible Development Principles. Principle 8 is to manage parking supply. The objective of that principle is:

“To use the location, supply and availability of parking to discourage car use. Prominent, plentiful, cheap and unrestricted parking encourages people to drive; public transport becomes a less attractive alternative. Large parking areas are often unsightly and reduce amenity. They can be difficult or dangerous to cross on foot, and may impede access from public transport stops to destinations.”

The principle states that control of parking is an effective tool in managing the demand for travel. Consideration needs to be given to reducing parking requirements for development in areas with good public transport, as well as the location and design of parking areas.

Good practice is achieved when:

- *Parking policies are consistent with broader land use and transport policies;*
- *Parking provision and price is related to access to public transport and services;*
- *Provision and management of parking is related to land use, with maximum provision rates identified;*
- *Parking provision is constrained in commercial centres with good access to public transport;*
- *Shared use of parking spaces is encouraged for land uses with staggered peak demand periods;*
- *Parking is placed at the rear of buildings or beneath buildings where possible, particularly in commercial centres;*
- *Mobility parking is provided at key facilities, with adequate enforcement;*
- *Vehicular access to car parks does not reduce accessibility or amenity to pedestrians, cyclists and buses; and*
- *Parking incentives and priority spaces are allocated to targeted users, such as carshare/environmental vehicles and high occupancy vehicles.*

The approach to car parking provision adopted by this DCP is also supported by:

- *Marrickville Strategic Plan 2006/11, which includes objectives to plan for sustainable transport and a built environment that is accessible to all residents and maximises use of public transport and other alternatives to the car;*
- *Marrickville Council Annual Management Plan and Budget 2009/13, which includes a number of Council actions designed to meet the above Strategic Plan objectives;*
- *IWLEP 2022, which includes an objective to support sustainable transport;*
- *Marrickville Urban Strategy 2007, which includes an objective to integrate land use and transport; and*
- *Marrickville Integrated Transport Strategy 2007, which includes a recommendation to manage the supply of private domain car parking in accessible areas.*

Recommendation 4.4 of the Marrickville Integrated Transport Strategy states (in part): “Improve the management of private domain car parking in accessible areas by managing supply, improving bicycle parking and encouraging car sharing in private developments.”

With regard to car parking design, refer to relevant Australian Standards.

Key Australian standards for car parking design are:

- *Australian Standard AS2890.1-2004 Off-street car parking;*
- *Australian Standard AS2890.6-2009 Off-street parking for people with disabilities;*
- *Australian Standard AS2890.2-2002 Commercial vehicles; and*
- *Australian Standard AS1668.2-1991 Mechanical ventilation in buildings.*

2.10.4 Provision rates approach

The main elements of the approach to parking provision rates in this DCP are:

1. Car parking provision is slightly constrained across the land where this DCP applies as a demand management measure; and
2. Car parking provision rates are further constrained in accessible areas.

The approach adopted by the DCP is supported by other private and public domain parking management policies and actions that collectively aim to improve the management of parking and promote sustainable transport across the area

Justification for providing car parking at a rate lower than that specified in this section of the DCP could include:

1. Peak parking and traffic activity occurs during periods where surrounding parking demand is lowest;
2. Existing site and building constraints make provision of car parking impractical;
3. Located adjacent to high-frequency public transport services and/or urban services;
4. Includes management regimes to minimise car use, such as workplace travel plans or on-site carshare schemes;
5. Provides a business or social service that benefits the local community and contributes to the vitality of the area;
6. Development targeted to demographic sector with low car use/ownership;
7. Safety of motorists, pedestrians and cyclists is unduly compromised by provision of parking;
8. Development contributes to heritage conservation of the building and setting; and
9. Parking for the development is consistent with the aims and objectives of this section of the DCP.

Consistent with the principle of applying the greatest constraint to car parking within accessible areas, parking provision rates differ across three Parking Areas as follows.

Parking Area 1, where car parking is most constrained, is defined as:

- The suburb of Newtown, but excluding land to the west of Edgeware Road;
- The suburb of Camperdown, but excluding land to the north of Salisbury Road, to the west of St Marys Street, to the north of Trade Street and to the west of Kingston Road;
- The suburb of Enmore, but excluding land to the west of Liberty Street, to the south of Stanmore Road and to the west of Enmore Road;

- 200 metres around railway stations; and
- All business zones within the major centres of Marrickville, Dulwich Hill and Petersham.

Parking Area 2, where car parking is moderately constrained, is defined as:

- 200 metres around Parking Area 1;
- 200 metres around light rail stops and Strategic Bus Corridor routes; and
- All business zones not within Parking Area 1.

Parking Area 3, where car parking is least constrained, is defined as all land not within Parking Area 1 or Parking Area 2.

In contrast to car parking, bicycle parking provision rates are uniformly applied across the LGA and are generally applied to meet current unconstrained demand and a modest level of growth in bicycle ownership/use into the future.

2.10.5 Car parking provision

Table 1 shows car parking provision rates for the main land uses within the Marrickville LGA.

C1 Development must comply with car parking rates detailed in Table 1.

Table 1: Onsite car parking requirements

Land use	Car spaces: Parking Area 1	Car spaces: Parking Area 2	Car spaces: Parking Area 3
RESIDENTIAL			
Boarding houses	1 parking space per resident employee and 0.5 parking spaces per boarding room	1 parking space per resident employee and 0.5 parking spaces per boarding room	1 parking space per resident employee and 0.5 parking spaces per boarding room
Backpackers' accommodation; tourist and visitor accommodation	1 per 300m ² GFA	1 per 200m ² GFA	1 per 100m ² GFA
Dwelling houses (incl. attached, semi-detached and secondary dwellings)	1 per dwelling house or 1 per principal dwelling and secondary dwelling combined	1 per dwelling house or 1 per principal dwelling and secondary dwelling combined	1 per dwelling house or 1 per principal dwelling and secondary dwelling combined
Hostels (incl. aged)	1 per 5 staff for staff + 1 per 20 beds for residents & visitors + 1 for ambulance	1 per 4 staff for staff + 1 per 15 beds for residents & visitors + 1 for ambulance	1 per 3 staff for staff + 1 per 10 beds for residents & visitors + 1 for ambulance
Hotel or motel accommodation; serviced apartments	1 per 5 staff for staff + 1 per 5 units for residents	1 per 4 staff for staff + 1 per 3 units for residents	1 per 3 staff for staff + 1 per 2 units for residents
All residential flat buildings and shoptop housing with 7 or more units – non-adaptable units	0.2 per studio + 0.4 per 1br unit + 0.8 per 2br unit + 1.1 per 3+br unit for residents	0.4 per studio + 0.5 per 1br unit + 1.0 per 2br unit + 1.2 per 3+br unit for residents + 0.1 per unit for visitors	0.6 per studio + 0.8 per 1br unit + 1.2 per 2br unit + 1.2 per 3+br unit for residents + 0.1 per unit for visitors
All residential flat buildings and shoptop housing with 7 or more units - adaptable units	1 mobility space per studio, 1br, 2br or 3+br unit for residents	1 mobility space per studio, 1br, 2br or 3+br unit for residents + 0.25 visitor mobility spaces per unit	1 mobility space per studio, 1br, 2br or 3+br unit for residents + 0.25 visitor mobility spaces per unit
Shoptop housing – developments with 6 or less units	0.2 per studio or 1br unit + 0.5 per 2 or 3+br unit for residents	0.25 per studio or 1br unit + 0.5 per 2 or 3+br unit for residents	0.25 per studio or 1br unit + 0.5 per 2 or 3+br unit for residents

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Land use	Car spaces: Parking Area 1	Car spaces: Parking Area 2	Car spaces: Parking Area 3
Seniors housing	0.2 per unit for residents + 1 per 5 units for visitors & carers	0.33 per unit for residents + 0.33 per unit for visitors & carers	0.5 per unit for residents + 0.33 per unit for visitors & carers
BUSINESS & RETAIL			
Business premises; retail premises; shops			
Up to 500m ²	1 per 100m ² GFA for customers & staff	1 per 80m ² GFA for customers & staff	1 per 50m ² GFA for customers & staff
500-750m ²	5 + 1 per 65m ² GFA over 500m ² GFA for customers & staff	7 + 1 per 45m ² GFA over 500m ² GFA for customers & staff	10 + 1 per 30m ² GFA over 500m ² GFA for customers & staff
750-1,000m ²	9 + 1 per 45m ² GFA over 750m ² GFA for customers & staff	12 + 1 per 35m ² GFA over 750m ² GFA for customers & staff	19 + 1 per 25m ² GFA over 750m ² GFA for customers & staff
Over 1,000m ²	15 + 1 per 35m ² GFA over 1000m ² GFA for customers & staff	20 + 1 per 30m ² GFA over 1,000m ² GFA for customers & staff	29 + 1 per 20m ² GFA over 1000m ² GFA for customers & staff
Entertainment facilities	1 per 60m ² GFA for those purposes	1 per 50m ² GFA for those purposes	1 per 40m ² GFA for those purposes
Function centres/Community centres	1 per 80m ² GFA	1 per 60m ² GFA	1 per 40m ² GFA
Funeral homes	1 per 12 seats for patrons & staff	1 per 10 seats for patrons & staff	1 per 5 seats for patrons & staff
Health consulting rooms; medical centres	1 per 100m ² GFA	1 per 80m ² GFA	1 per 60m ² GFA
Office premises	1 per 100m ² GFA for staff & visitors	1 per 80m ² GFA for staff & visitors	1 per 60m ² GFA for staff & visitors
Registered clubs; nightclubs; bar component of hotel or motel accommodation	1 per 6 staff for patrons & staff	1 per 5 staff for staff + 1 per 30 patrons (as per patron limit on license) for patrons	1 per 3 staff for staff + 1 per 10 patrons (as per patron limit on license) for patrons
Restaurant and takeaway food or drink premises	1 per 100m ² GFA for customers & staff	1 per 80m ² GFA for customers & staff	1 per 50m ² GFA for customers & staff
Service stations and ancillary uses	1 per 100m ² GFA shop area for customers + 1 per 5 vehicle repair bays for staff	1 per 80m ² GFA shop area for customers + 1 per 4 vehicle repair bays for staff	1 per 50m ² GFA shop area for customers + 1 per 3 vehicle repair bays for staff
Drive-in/take-away food premises	1 per 30m ² GFA (or part thereof) plus queuing facility for minimum of 6 cars	1 per 25m ² GFA (or part thereof) plus queuing facility for minimum of 6 cars	1 per 20m ² GFA (or part thereof) plus queuing facility for minimum of 6 cars
Vehicle sales or hire premises	1 per 300m ² of site area for customers & staff	1 per 250m ² of site area for customers & staff	1 per 200m ² of site area for customers & staff
Brothels and other sex service premises	1 per 100m ² GFA for customers & staff	1 per 80m ² GFA for customers & staff	1 per 50m ² GFA for customers & staff
INDUSTRY & WAREHOUSE			
Bulky goods premises	1 per 150m ² GFA for customers & staff	1 per 125m ² GFA for customers & staff	1 per 100m ² GFA for customers & staff
Industries; light industries; Warehouse and distribution centres	1 per 300m ² GFA for customers & staff	1 per 250m ² GFA for customers & staff	1 per 200m ² GFA for customers & staff
Vehicle body repair workshops	1 per 50m ² GFA	1 per 40m ² GFA	1 per 30m ² GFA
Vehicle repair stations	1 per 50m ² GFA	1 per 40m ² GFA	1 per 30m ² GFA

Land use	Car spaces: Parking Area 1	Car spaces: Parking Area 2	Car spaces: Parking Area 3
RECREATION			
Indoor recreation facilities	1 per 100m ² GFA for those purposes	1 per 75m ² GFA for those purposes	1 per 50m ² GFA for those purposes
Outdoor recreation facilities	Tennis court: 1 per 2 courts; Bowling green: 5 for the first green plus 2 per additional green - for customers & staff	Tennis court: 1 per court; Bowling green: 10 for the first green plus 5 per additional green - for customers & staff	Tennis court: 1 per court; Bowling green: 15 for the first green plus 10 per additional green - for customers & staff
INFRASTRUCTURE			
Child care centres	1 per 50m ² GFA	1 per 40m ² GFA	1 per 30m ² GFA
Tertiary educational establishments	1 per 5 staff for staff + 1 per 30 full-time students for students	1 per 4 staff for staff + 1 per 25 full-time students for students	1 per 3 staff for staff + 1 per 15 full-time students for students
Hospitals	1 per 10 beds for patients & visitors + 1 per 4 staff for staff + ambulance facility	1 per 8 beds for patients & visitors + 1 per 3 staff for staff + ambulance facility	1 per 5 beds for patients & visitors + 1 per 2 staff for staff + ambulance facility
Places of public worship	1 per 50m ² GFA for patrons & staff	1 per 40m ² GFA for patrons & staff	1 per 30m ² GFA for patrons & staff
Schools	1 per 5 staff for staff and dropoff & pickup facility for parents & carers	1 per 4 staff for staff plus + dropoff & pickup facility for parents & carers	1 per 2 staff for staff + dropoff & pickup facility for parents & carers

C2 The following points must be considered in the calculation of car parking provision rates:

- i. Table 1 above reproduces adaptable dwelling parking requirements within Section 2.5.10 of this DCP – in the event of any inconsistency in the number of spaces required, the requirements in Table 1 above shall prevail;
- ii. Service and delivery (truck) parking rates specified in Table 6 are to be applied in addition to (car) parking rates specified in Table 1;
- iii. Required parking is to be excluded from GFA calculations, with any parking in excess of those requirements included in GFA calculations;
- iv. Calculated parking provision numbers must be checked against a merit assessment to ensure appropriateness for the intended land use;
- v. When calculating the total required number of car parking spaces (including car parking spaces required for people with disabilities and bicycle and motor cycle parking spaces) –if the result is not a whole number, it must be rounded **UP or DOWN** to the nearest whole number. For example –
2.5 spaces = 3 spaces required
4.4 spaces = 4 spaces required
- vi. For mixed use developments, calculations for each of the different uses should be carried out separately and rounded to whole figures (as described above);
- vii. For residential uses, parking calculations for adaptable dwellings, non-adaptable dwellings and visitors should be carried out separately and rounded to whole figures (as described above);

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- viii. For residential uses, parking calculations for non-adaptable units (studio, 1br, 2br & 3+br) should be carried out together, then rounded;
- ix. Parking for different land uses in a mixed use development and for different parking users, such as residents and visitors, should be provided separately and be marked or signposted to indicate the intended user; In assessing the provision of parking, consideration should be given to shared use of adjacent public or private domain parking between time-separated land uses, such as office use by day and club use by night;
- x. Visitor car parking is not required for residential flat building developments and shop top housing developments in commercial centres (Parking Area 1), nor is visitor car parking required for shoptop housing developments with six units or less in any Parking Area. This is due to space constraints involved with small-lot developments;
- xi. Calculation of parking provision for uses not specified in Table 1 above is to be undertaken on merit, guided by the RMS *Guide to Traffic Generating Developments* rates reduced by 30%, 25% and 20% for Parking Areas 1, 2 & 3 respectively;
- xii. Parking rates for vehicle repair and vehicle body repair stations are intended for staff and do not take into consideration areas that are to be used for vehicles being worked on, waiting to be worked on or waiting to be picked up. The area to be used for those purposes must also be provided on-site and in a manner that does not adversely impact on surrounding amenity or availability of on street parking.

CAR PARKING CALCULATION EXAMPLE

Residential Flat Building parking calculation example - 20 units in Parking Area 2:

Adaptable Dwellings

4 adaptable units (any type) @ 1 space per dwelling = 4 mobility spaces
Visitor parking @ 0.25 spaces per adaptable dwelling = 1 mobility space

Other Dwellings (non adaptable)

3 x studio units @ 0.4 spaces per dwelling = 1.2 spaces
5 x 1br units @ 0.5 spaces per dwelling = 2.5 spaces
5 x 2br units @ 1 space per dwelling = 5 spaces
3 x 3br units @ 1.2 spaces per dwelling = 3.6 spaces
Total = 12.3 spaces
Rounded down = 12 spaces
Visitor spaces @ 0.1 spaces per dwelling = 1.6 spaces
Rounded up = 2 spaces

Total Parking Required

Resident parking 16 spaces (including 4 mobility spaces)
Visitor parking 3 spaces (including 1 mobility space)
TOTAL = 19 spaces

- C3** Council may waive its requirements for onsite parking provision for low density housing, where such provisions (in the form of a garage, carport or hardstand area) +:
- i. Has adverse impacts on the existing streetscape;
 - ii. Disrupts the existing pattern where the majority of the adjoining dwellings have no provisions for onsite parking; and
 - iii. Is inconsistent with the desired future character of the area.

For further design information on parking for low density housing, refer to Section 4.1 Low Density Residential Development, Part 4.1.7 Car Parking of this DCP.

2.10.6 Traffic and transport plans

For larger developments, Council may require a traffic and transport management plan to accompany the development application. A useful format for such a plan is a transport management and accessibility plan (TMAP).

A TMAP assesses the existing traffic and transport situation, predicts impacts associated with the development, sets mode shift targets away from car use toward walking, cycling and public transport and defines a set of actions that will create the desired mode shift. Parking provision rates and management of parking are significant components of the TMAP. The TMAP may include a workplace travel plan, transport access guide and parking management plan, or may require that these be prepared and implemented post-approval.

For further information on the preparation of TMAPs refer to the Transport for NSW publication Draft Interim Guidelines for the Preparation of Transport Management and Accessibility Plans.

2.10.7 Child care centres

In assessing development applications for child care centres, a thorough merit assessment will be required in addition to consideration of the provision rates for this land use, as specified in Table 1. Child care centres are a special case due to the high number of car trips generated for a short duration at drop off and pick up times, and the particular safety issues involved with young children around cars. It may be appropriate that the pickup/dropoff area be provided on the street with appropriate kerbside parking regulations.

For further information on parking for childcare centres, refer to:

- *RMS Guide to Traffic Generating Developments.*
- *SSROC 2005 Discussion Paper on Planning Requirements for Child Care Centres.*

2.10.8 Parking for targeted users

As stated above, a number of priority parking spaces can be allocated to targeted users to promote equity of access and encourage use of environmental vehicles over conventional vehicles. For larger developments, the objectives and details of such allocation could be within a parking management plan. In most instances, highest priority will be assigned to emergency vehicles, mobility parking and service/delivery areas. Priority could also be given to parking for parents with prams, carshare vehicles and environmental vehicles.

Environmental vehicles include very small cars, hybrid cars and fully electric cars. Spaces allocated to environmental vehicles should be marked and managed according to the specific vehicle type targeted. In the case of fully-electric cars, it may be appropriate to provide recharging facilities adjacent to the parking space. Environmental vehicles could technically include bicycles and motorcycles.

2.10.9 Carshare parking

For larger developments, there may be an opportunity to provide dedicated on-site parking spaces for carshare vehicles. Carshare schemes are most effective in areas with ready access to public transport and services – generally within Parking Areas 1 and 2. They are also most effective where carshare vehicles can be accessed at any time by residents and business operators on the site, as well as those in the surrounding precinct.

Carshare schemes provide an alternative means by which residents and business operators can have access to a car, and as such, may enable on-site parking for private cars to be reduced. Accordingly, Council will look more favourably on proposed reductions from the rates specified in car parking provision in Table 1 if a carshare scheme is provided on the site.

The number of carshare spaces provided will depend on an assessment of demand, which must consider access to public transport and services, parking provision proposed and existing carshare schemes near the site. Additional carshare spaces may be earmarked for future use to accommodate any increase in carshare demand. Beyond the provision of the carshare spaces, developers must oversee the establishment and operation of a carshare scheme soon after completion or occupation of the development. In most instances, this will be in partnership with a car share provider.

For further information on car sharing in Australia and overseas, refer to Australian Greenhouse Office 2004: Car Sharing – An Overview.

2.10.10 Car stackers

Council discourages the use of mechanical car stackers, largely because of previous experience with stackers malfunctioning and therefore failing to provide the required parking provision.

2.10.11 Parking information for new residents of residential flat buildings

Developers of new residential flat buildings and commercial buildings must inform new residents and occupants of the following Council policy:

“Developments within the local government area involving land use changes, new commercial and/or multi-unit housing developments are excluded from participation in any Resident/business Parking Scheme.”

2.10.12 Car parking design controls

- C4** Parking areas must be designed in accordance with relevant standards, in particular Australian Standards, Austroads and RMS guidelines.

Australian Standard AS 2890.1-2004 Parking facilities and AS 2890.6-2009 Off-street parking for people with disabilities provides details for the design of parking facilities. In order to meet Council's requirements, developments must comply with those Australian Standards.

- NB** *Off-street parking is generally provided as 90 degree parking spaces. Angled parking, while generally discouraged, may be considered where site constraints result in the provision of 90 degree spaces being impractical or inappropriate.*
- C5** The minimum dimensions for an off-street parking space is 5.4 metres by 2.5 metres and clearly marked to be easily identified by users.
- C6** If parking spaces are affected by columns then they must be designed in accordance with relevant standards. Small car parking spaces will only be considered if they are residual spaces in large car onsite car parks.
- C7** The standard height clearance is 2.3 metres (2.5 metres for designated parking areas for persons with disabilities). Clearance must be measured to the lowest appurtenance on the ceiling, such as beams, which could include fire sprinklers, signs, lighting fixtures or ventilation ducts.
- NB** *Headroom is the vertical distance measured from the surface level of the parking area and the lowest point of any structure above that parking area.*
- C8** Compliance with minimum aisle widths is necessary to ensure direct vehicle movements in and out of parking spaces and enable the effective function of parking areas.

For permissible aisle and parking bay width variations according to parking bay angles, refer to AS 2890.1-2004.

- C9** To allow vehicle drivers adequate visibility of pedestrians, the maximum ramp grade at the property boundary must be 1 in 20 or 5% within 6 metres of the property boundary.

Public safety is the main consideration when planning the location of car access to a development. The location of access depends on the type of road frontage, sight distance, intersections and potential vehicle/pedestrian conflicts. Potential conflicts associated with driveways are often proportional to the traffic generating potential of the development which they serve.

- C10** Where possible, avoid positioning driveways:
- i. In places with high traffic volumes, such as on main roads;
 - ii. Close to intersections;
 - iii. Opposite other developments generating a large amount of traffic (unless separated by a median);
 - iv. Where there is a heavy and constant pedestrian movement along the footpath;

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- v. Where right turning traffic entering the facility may obstruct through traffic; and
- vi. Where traffic using the driveways interferes with or blocks the operations of bus stops, taxi ranks, loading zones or pedestrian crossings.

C11 The following general design principles must be considered when planning access driveways for developments:

- i. Separate ingress and egress vehicular driveways must be arranged to enable vehicular flow in a clockwise direction;
- ii. Reversing movements into or out of public streets (except in the case of individual dwelling houses) must be avoided;
- iii. Arrangements must avoid on-street queuing;
- iv. Each driveway must be positioned to be clear of all obstructions, such as fences, walls, poles or trees, which may prevent drivers from viewing pedestrians;
- v. Each driveway must be relatively level within 6 metres of the site boundary or any pedestrian way (the recommended maximum grade is 5%); and
- vi. Each driveway must be signposted with appropriate entry, keep left and signs on exit.

The RMS has adopted seven types of access driveways – Type 1 to 5 for cars (or light vehicles) and Types 6 and 7 for heavy vehicles (see Tables 3 and 4).

Table 3: Driveway type

Road frontage	Number of car parking spaces served by the driveway					
	Less than 25	25-100	101-300	301-600	More than 600	Heavy Vehicles
Major	1-2	2-3	3-4	4	5	7
Minor	1	1-2	2-3	3-4	4	6

Table 4: Driveway dimensions

Type	Entry width	Exit width	Minimum separation of driveways	Splay at kerbline	Kerb return turnout radius
1	3-6 metres	combined	NA	0.5 metres	-
2	6-9 metres	combined	NA	1 metre	-
3	6 metres	4-6 metres	1-3 metres	1 metre	2-9 metres
4	6-8 metres	6-8 metres	1-3 metres	1 metre	2-9 metres
5	Direct feed from a controlled intersection via a dedicated public roadway				
6	8-10 metres	8-10 metres	3 metres	1 metre	2-9 metres
7	10-12 metres	10-12 metres	3 metres	1 metre	2-9 metres

C12 Clear sight lines must be provided at the property line to ensure adequate visibility between vehicles on the driveway and pedestrians on the frontage and the footpath.

C13 Details of any proposed security measures must be provided on the plans and documentation provided with any development application submitted to Council, if requested by Council. For details refer Section 2.9 (Community Safety) of this DCP.

C14 The location of boom gates must allow sufficient queuing areas for vehicles entering the site. Where visitor spaces are provided, unobstructed access must be provided to those areas.

C15 A safe, clearly defined pedestrian pathway through a car park to building entrances and other main pedestrian attractors must be provided in larger car parks and in car parks for child care centres. Such a pathway may also be warranted in smaller car parks where there is likely to be a well-used pedestrian route through the car park.

The location of access driveways must comply with the relevant standard in relation to distances from intersections.

For more information on access driveways, refer to AS 2890.1-2004.

2.10.13 Bicycle parking provisions

Table 5 shows only the main land uses likely to be the subject of a development application within land where this DCP applies. To determine provision rates for land uses not listed in this table, a merit assessment should be undertaken.

The merit assessment should reference the NSW Planning Guidelines for Walking and Cycling, Austroads Part 14 Bicycles and the RMS Guide to Traffic Generating Developments.

Table 5 shows bicycle parking provision rates for the main land uses within land to where this DCP applies. There may be instances where a variation in these rates is justified on merit. In contrast to car parking, bicycle parking provision rates are uniformly applied across the land where this DCP applies and are generally applied to meet current demand and a certain level of growth in bicycle use into the future, although gross overprovision is not desirable.

Rates are given for bicycle parking spaces, generally in the form of racks, as well as showers and clothes lockers for staff. These rates are primarily based on the *NSW Planning Guidelines for Walking and Cycling*, which is based on the current average bicycle journey-to-work mode share for the Sydney region (around 3%), and an estimated increase to 5% in the future.

A 5% staff mode share translates to one bicycle parking space per 20 staff. Staff numbers can vary significantly on any one site as businesses come and go – particularly on industrial sites. On these sites, a merit assessment will ensure bicycle parking is not significantly over or under provided.

C16 Development must comply with following bicycle parking facility rates outlined in Table 5.

Table 5: Bicycle spaces

Land use	Bicycle parking spaces	Clothes lockers (staff & students)	Showers (staff & students)
RESIDENTIAL			
Boarding houses	1 per 2 boarding rooms for residents + 1 per 10 boarding rooms for visitors	-	-
Backpackers' accommodation; tourist and visitor accommodation	1 per 2 units or rooms for residents + 1 per 10 units & rooms for visitors + 1 per 20 staff for staff	1 per 3 staff spaces	1 + extra on merit

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Land use	Bicycle parking spaces	Clothes lockers (staff & students)	Showers (staff & students)
Dwelling houses (including attached & semi-detached)	-	-	-
Secondary dwellings	-	-	-
Hostels (including aged)	1 per 20 units or rooms for residents	-	-
Hotel or motel accommodation; serviced apartments	1 per 20 units or rooms for staff & patrons	1 per 3 staff spaces	1 + extra on merit
Residential flat buildings	1 per 2 units for residents + 1 per 10 units for visitors	-	-
Seniors housing	1 per 10 units for residents	-	-
BUSINESS & RETAIL			
Bulky goods premises; industry; light industry; warehouse and distribution centres	1 per 150 m ² GFA for staff; 1 per 1000m ² GFA for bulky goods premises customers	1 per 3 staff spaces	1 + extra on merit
Business premises; retail premises; shops	1 per 300 m ² GFA for staff + 1 per 500m ² GFA for customers if premises over 1000m ² GFA	1 per 3 staff spaces	1 + extra on merit
Function centres	1 per 100m ² GFA for staff + 1 per 100m ² GFA for patrons	1 per 3 staff spaces	1 + extra on merit
Funeral homes	1 per 100m ² GFA for staff + 1 per 100m ² GFA for patrons	1 per 3 staff spaces	1 + extra on merit
Health consulting rooms; medical centres	1 per 8 practitioners for staff + 1 per 4 practitioners for patrons	1 per 3 staff spaces	1 + extra on merit
Office premises	1 per 200m ² GFA for staff + 1 per 750m ² GFA for visitors for premises over 1000m ² GFA	1 per 3 staff spaces	1 + extra on merit
Registered clubs; nightclubs	1 per 25m ² GFA bar area for staff + 1 per 100m ² GFA other areas for patrons	1 per 3 staff spaces	1 + extra on merit
Restaurants	1 per 100m ² GFA for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
Service stations and ancillary uses	1 per 20 staff for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
Takeaway food or drink premises	1 per 100m ² GFA for staff + 1 per 50m ² GFA for customers	1 per 3 staff spaces	1 + extra on merit
Vehicle sales or hire premises	1 per 20 staff for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
INDUSTRY AND WAREHOUSE			
Vehicle body repair workshops	1 per 20 staff for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
Vehicle repair stations	1 per 20 staff for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
RECREATION			
Indoor recreation facilities	Bowling alley: 1 per alley for staff & customers; Squash courts: 1 per court for staff & customers; Gym & health & fitness: 1 per 10 staff + 1 per 50m ² GFA for customers	1 per 3 staff spaces for staff + showers as part of facility for customers on merit	1 + extra on merit for staff + showers as part of facility for customers on merit
Outdoor recreation facilities	Tennis court: 1 per court; Bowling green: 2 per green	1 per 3 staff spaces for staff + showers as part of facility for customers on merit	1 + extra on merit for staff + showers as part of facility for customers on merit
INFRASTRUCTURE			

Land use	Bicycle parking spaces	Clothes lockers (staff & students)	Showers (staff & students)
Child care centres	1 per 20 staff for staff + 2 for customers	1 per 3 staff spaces	1 + extra on merit
Educational establishments	1 per 20 staff for staff + 1 per 10 students for students	1 per 3 staff spaces + 1 per 3 student spaces	1 + extra on merit for staff & students
Hospitals	1 per 20 staff for staff + 1 per 30 beds for visitors	1 per 3 staff spaces	1 + extra on merit
Places of public worship	1 per 20 staff for staff + 1 per 20 seats for patrons	1 per 3 staff spaces	1 + extra on merit
Schools	1 per 20 staff for staff + 1 for 10 students for students	1 per 3 staff spaces + lockers for students on merit	1 + extra on merit for staff + showers for students on merit

2.10.14 Bicycle parking design controls

This DCP focuses on private domain bicycle parking, whilst recognising the importance of public domain bicycle parking, and the interrelationship between the two types. The location and design of bicycle parking can be more important than level of provision, as poorly located and designed facilities, even if adequate in terms of capacity, may ultimately attract little use.

- C17** Bicycle parking should be located to have priority over car parking with regard to access to building entrances and lifts, and be clearly marked and easily accessible, have good surveillance, provide a means of securely locking bicycle frames and wheels and should not create a hazard for pedestrians, motorists or cyclists.

Key bicycle parking guidelines are:

- *Australian Standard AS 2890.3 Bicycle parking facilities;*
- *Austrroads 1999 Guide to Traffic Engineering Practice Part 14 Bicycles - Chapter 10: End-of-trip facilities;*
- *Department of Planning 2004 Planning Guidelines for Walking & Cycling - Section 7.6: Bicycle parking & end-of-trip facilities;*
- *RMS 2003 NSW Bicycle Guidelines – Chapter 11: Bicycle parking & access to public transport interchanges; and*
- *RMS 1993 Guide to Traffic Generating Developments.*

Whilst bicycle parking types are wide and varied, for the purposes of this DCP, bicycle parking can be divided into four broad categories, with this section of the DCP largely concerned with the first two:

1. All day parking for staff and students at workplaces and educational establishments – usually in the form of lockers, compounds or racks in secure locations such as basement car parks;
2. Permanent parking or storage of bicycles for residents of apartments – usually in the form of lockers or racks in basement car parks;
3. Short term parking for visitors to commercial centres, individual commercial and industrial buildings and other public and private buildings – usually in the form of racks near building entrances or on the street; and
4. All day parking at public transport stops – usually in the form of lockers or racks in secure locations, such as at rail station entrances.

- C18** In practice, most bicycle parking will be in the form of racks. To ensure they are functional and secure:
- i. Both wheels and frame must be able to be easily locked to the rack with a U-lock, cable or chain without damaging the bicycle;
 - ii. Parked bicycles must not obstruct pedestrians or vehicles;
 - iii. The parking area must be weather protected;
 - iv. The racks should be in a convenient location, usually near building entrances, and open to view to enhance security; and
 - v. The parking area must be easily accessible from a bicycle route, footway or roadway.

Australian Standards AS 2890.3 provides the standards for bicycle parking facilities.

2.10.15 Motorcycle parking controls

Provision of dedicated motorcycle (and motor scooter) parking bays can increase the efficiency of parking areas.

- C19** Motorcycle parking shall be provided at a rate of 5% of the car parking required under Table 1 rounded up or down to the nearest whole figure (for example, 1.4 spaces would become one space, while 1.5 or 1.6 spaces would become two spaces).
- C20** The minimum dimensions for a motorcycle parking space are 2.5 metres by 1.2 metres and must be clearly marked. Transverse motorcycle parking bays are acceptable.
- C21** Motorcycles are vulnerable to damage from being struck by other vehicles. Motorcycle parking bays must be located away from where cars will be reversing or manoeuvring. Where motorcycle parking bays are located adjacent to car parking areas, bollards, landscaped areas or other barriers can protect parked motorcycles.
- C22** Many motorcycles rely on side-stands to park. Motorcycle parking areas must be located on flat and even surfaces. The gradient of a motorcycle bay must not exceed 1 in 20 (5%) either parallel to or at 90 degrees to the angle of parking.
- C23** Motorcycle side stands are generally located on the left side. Where angled (transverse) motorcycle parking is located on an uphill gradient the bays must also be angled uphill. This will avoid riders manually reversing uphill.

2.10.16 Vehicle service and delivery areas

For service and delivery area design details, refer to *RMS Guide to Traffic Generating Developments* (2002). The minimum requirements for new larger developments are in Table 6. For new uses in existing larger premises, Council will assess service and delivery requirements on merit. The merit assessment should consider the need to provide adequate space for this purpose, whilst also considering existing site constraints and the need to minimise space devoted to service and delivery functions in the interest of minimising development costs and maintaining the area's compact urban form. In all cases, the applicant must demonstrate that in providing these areas, the objectives of this section of the DCP will not be unduly compromised.

- C24** For larger developments, at least one on-site service area must be provided, with the minimum area for vehicle parking being 7.5 metres by 3 metres.

The design of service and circulation areas must consider the type of vehicles delivering to the premises and the type of goods being handled. Developments to be serviced by semi-trailers require particular attention, as those vehicles create significant off-site impacts and consume large areas for movement. It may be appropriate to limit trucks servicing a site to smaller rigid trucks only.

C25 Proposals must meet minimum requirements for the parking of service and delivery vehicles, as detailed in Table 6.

Table 6: Service and delivery vehicle areas

Type of development	Minimum requirements
Commercial premises	One truck space per 4,000m ² GFA up to 20,000m ² GFA plus one truck space per 8,000m ² thereafter (50% of spaces adequate for trucks)
Department stores	One truck space per 1,500m ² GFA up to 6,000m ² GFA plus one truck space per 3,000m ² thereafter (all spaces adequate for trucks)
Supermarkets, shops and restaurants	One truck space per 400m ² GFA up to 2,000m ² GFA plus one truck space per 1,000m ² thereafter (all spaces adequate for trucks)
Wholesale, industrial	One truck space per 800m ² GFA up to 8,000m ² GFA plus one truck space per 1,000m ² thereafter (all spaces adequate for trucks)
Hotels and motels	One service vehicle space per 50 bedrooms or bedroom suites up to 200 plus one space per 100 thereafter plus one space per 1,000m ² of public area set aside for bar, tavern, lounge and restaurant (50% of spaces adequate for trucks)
Residential flat buildings and residential components of mixed use developments	One service vehicle space per 50 apartments (above first 50) up to 200 apartments plus one space per 100 apartments thereafter
Other uses	One service vehicle space per 2,000m ² (50% of spaces adequate for trucks)

The following design principles should be considered in the design of service vehicle areas, as detailed in RMS Guide to Traffic Generating Developments (2002):

- *The layout of the service area must be designed to facilitate operations relevant to the development;*
- *Service areas must be a physically defined area which is not used for other purposes, such as storage of goods and equipment or parking areas;*
- *Separation of service vehicle and car movements must be a design objective;*
- *All vehicles must enter and leave the property in a forward direction; and*
- *Internal circulation roadways must be adequate for the largest vehicle anticipated to use the site.*

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- C26** Minimum vehicle dimensions, as detailed in Table 7, must be used in the design of service bay areas.

Table 7: Service vehicle dimensions

Vehicle type	Length	Width	Height	Turning circle (kerb-to-kerb)
Station wagon	4.7 metres	1.9 metres	1.4 metres	11 metres
Utilities	4.7 metres	1.9 metres	1.4 metres	11 metres
Van	5.4 metres	2.1 metres	2.5 metres	13.5 metres
Small rigid truck	6.6 metres	2.1 metres	4.3 metres	14.4 metres
Max. rigid truck	11 metres	2.5 metres	4.3 metres	21.7 metres
Max. articulated truck	17.5 metres	2.5 metres	4.3 metres	16.2 metres

- C27** Manoeuvring areas must be designed to ensure direct movement to parking bays and loading areas.

Templates of vehicle turning circles and loading bay manoeuvring areas are provided in RMS 2002 Guide to Traffic Generating Developments; AS 2890.1-2004 and AS 2890.2-2002.

Appendix 1 – DCP 2011 Parking Areas Map

See the attached map