The Hills Development Control Plan (DCP) 2012

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Part C Section 1 Parking



ATTACHMENT 3

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1. INTRODUCTION

This Section of the DCP must be read in conjunction with Part A – Introduction of this DCP.

1.1. LAND TO WHICH THIS SECTION OF THE PLAN APPLIES

This Section of the DCP applies to all land identified under The Hills Local Environmental Plan (LEP) 2012 and to all permissible parking activities as defined in the LEP 2012. Where the provision of parking is ancillary to the overall development, further specific controls are included in separate relevant Sections of this DCP.

1.2. AIMS AND OBJECTIVES OF THIS SECTION OF THE DCP

The aim of this Section of the DCP is to establish Council's specific objectives and development controls for the provision of parking within the Shire.

OBJECTIVES

Council's overarching objectives for parking developments are:

- *(i)* To provide guidelines aimed at improving overall traffic management and safety.
- (ii) To ensure satisfactory access, parking provisions, circulation and goods loading and delivery facilities are provided within developments.
- (iii) To ensure the efficient flow of traffic through car parks to minimise the potential for pedestrian and vehicle conflict.
- *(iv)* To set out Council's planning and engineering standards for parking in the Shire.
- (v) To encourage the use of more ecologically sustainable forms of transport such as bicycles.
- (vi) To ensure that all parking provided by development relates to the site's environmental conditions.

2. OBJECTIVES AND DEVELOPMENT CONTROLS

The objectives and development controls for parking are set out in the following sections.

In addition to the policies, guidelines and documents specified in Section 1.4 of Part A – Introduction, this Section is to be read in conjunction with other relevant Sections including:

Part C Section 3 – Landscaping

2.1. GENERAL PARKING REQUIREMENTS

OBJECTIVE

(i) To provide sufficient parking that is convenient for the use of residents, employees and visitors of the development.

DEVELOPMENT CONTROLS

2.1.1. GENERAL

- (a) Number of required parking spaces and associated conditions must be provided in accordance with Table 1. Any part spaces must be rounded up to the nearest whole number.
- (b) All car parking spaces must be provided onsite.
- (c) The minimum provision of spaces for restaurants or café as required in Table 1 applies to indoor and outdoor seating.
- (d) The provision of boat trailer and boat wash down areas are required for caravan parks and/or holiday cabin developments in the vicinity of the Hawkesbury River.
- (e) Car parking for child care centres must be situated in a convenient location, allowing for safe movement of children to and from the centre.
- (f) Parking spaces for an exhibition home may be permitted to be located within the front setback, provided the parking area is reinstated to lawn upon the expiry of the exhibition home consent. In the case of exhibition home villages a centralised parking area should be provided.
- (g) Any changes to parking provisions occurring after development consent or implementation of development consent must be subject to an application under Section 96 of the Environmental Planning and Assessment Act 1979.

- (h) Where justified, a proportion of car parking may be subject to time restrictions upon application, consideration and approval by Council. All employees parking are to be provided on-site.
- Stack parking will not be included in the assessment of the number of car parking spaces for retail, commercial, medium density residential and industrial development and the like.
- Access arrangements in bush fire prone areas shall be in accordance with Planning for Bushfire Protection 2006.

2.1.2. MIXED USE PARKING

(a) Where the component uses are operated concurrently, parking will be assessed as the sum of the requirements for each component. Component parking requirements are to be based on requirements in Table 1. Calculations shall include an appropriate proportion of any shared common or administrative area.

2.1.3. DUAL USE PARKING

- (a) Where the component uses are not operated concurrently, parking provisions will be based on whichever of the components generates the greatest car parking requirement. The onus will be on the applicant to satisfy Council that the uses are not operated concurrently.
- (b) Where the main usage periods of the component uses do not coincide, Council may consider a reduction in the car parking requirements provided that the total car parking is not less than that needed for the component that generates the greatest requirement. The onus will be on the applicant to satisfy Council that the main usage periods do not coincide.

2.1.4. REMODELLING OR ALTERATIONS TO EXISTING PREMISES

- (a) If the development does not result in increased floor space and the use of the building is not significantly changed, then additional parking provisions may not be required.
- (b) If the remodelling results in increased floor area, then additional parking will be required for the increase.

(c) If the use of the development is changed, this will be taken into account in assessing the parking requirement according to the new use as well as any increase in floor space.

SUBMISSION REQUIREMENTS

- Parking calculations number of spaces provided for the proposed development using Table 1. Any part spaces must be rounded up to the nearest whole number.
- A Traffic Impact Report should be provided:
 - Where development is likely to generate significant traffic, or
 - Where it is a requirement of another section of the DCP.
- A Parking Study will be required where proposed parking provisions need to be substantiated. This occurs when:
 - An activity or land use is not included in Table 1, or
 - Dual use or mixed use car parking arrangements may be proposed.

Table 1 Required Minimum Car Parking Provisions

GFA = Gross Floor Area **GLFA** = Gross Leasable Floor Area

Land Use Class	Land Use	Required Minimum Provision			
Residential	Dwelling	1 space per dwelling			
and Multi Dwelling Housing 2		1 space per 1 bedroom unit 2 spaces per 2 or 3 bedroom unit 2 visitor spaces per 5 units			
	Residential Flat Buildings in Centre (See note 1 below)	1 space per 1 bedroom unit 1.5 spaces per 2 bedroom unit 2 spaces per 3 bedroom unit 2 visitor spaces per 5 units			
	Dual Occupancy	1 undercover space per dwelling below 125m ² of floor space 2 spaces (1 undercover) per dwelling above 125m ² of floor space			
	Home Business or Home Industry	Car parking rate will be determined on a merit based assessment but must be provided at a rate that will ensure that the proposal does not result in a significant increase in traffic in accordance with LEP 2012.			
Commercial	Commercial premises (including business premises, office premises)*	1 space per 25m ² GFA			
	Centre Commercial	1 space per 40m ² GFA			
Retail Shops * [#] (including shopping centres and general business retail)		1 space per 18.5m ² GLFA			
	Service Station & Convenience Store	6 spaces per work bay, plus <u>with Convenience Store</u> - 1 space per 20m ² GFA, plus <u>with Restaurant</u> - 15 spaces per 100m ² GFA of restaurant or 1 space per 3 seats whichever is the greater, plus 1 space per restaurant employee			
	Vehicle repair station	3 spaces per 100m ² of GFA or 3 spaces per work bay, whichever is the greater			

Land Use Class	Land Use	Required Minimum Provision			
	Vehicle sales or hire premises	 0.75 spaces per 100m² of site area, plus 6 spaces per work bay where vehicle servicing is provided on site. 			
	Garden Centre, Plant Nurseries	 1 space per employee, plus 1 space per 18.5m² GLFA of ancillary retail floor space. Additional parking spaces to be determined by Council in respect of each application to ensure that parking demand generated by the activity is contained within the subject site. Traffic and parking study is required to accompany the application. 			
	Roadside Stall	Minimum of 4 spaces located within the property boundaries.			
	Market	2.5 spaces per stall (customers only)			
	Bulky Goods Premises	1 space per 40m ² of GFA			
Industry – component uses	Industrial	1 space per 50m ² of GFA, or 1 space per 2 employees, whichever is greater.			
	Industrial – Edwards Road Precinct (See note 2 below)	1 space per 75m ² of GFA			
	Warehouse	1 space per 50m ² of GFA			
	Warehouse – Edwards Road Precinct(See note 2 below)	1 space per 75m ² of GFA			
	Vehicle body repair workshop	1 space per 2 employees, plus 6 spaces per work bay			
	Sex Services Premises	1 space per room used or capable of being used for sex services plus 1 space per employee. All car parking areas shall be well lit, easy to locate and monitored by surveillance.			
	Visitor Parking	1 space for every 2 units constructed			

Notes.

- 1. Centre parking rates apply to Castle Hill Major Centre, Baulkham Hills Town Centre and Rouse Hill Major Centre as identified in Sheet 1, 2 and 3 in Appendix A Centre Maps to this Section.
- 2. Land within the Edwards Road Precinct is identified within Appendix B Edwards Road Precinct to this Section.

Land Use Class	Land Use	Required Minimum Provision			
Entertainment	Pubs/, Registered Clubs	1 space per 1.85m ² of service area in bar and lounge plus 1 space per 2 employees			
	Entertainment Facilities* #	1 space per 5 seats or 1 space per 10m ² of non-fixed seating floor space			
	Food and Drink Premises				
	Take-away food and drink premises* (No seating)	1 space per 18.5m ² GFA.			
	Restaurant or café*	1 per 5 seats, plus			
		12 spaces per 100m ² of GFA, plus			
		10 car spaces for queuing where a drive through facility is proposed.			
	Function Centre	1 space per 3 seats, or			
		15 spaces per 100m ² GFA, which ever is the greater.			
		These rates apply to both indoor and outdoor seating.			
	Restaurant or cafe within a commercial office building	1 space per 25m ² of GFA.			
	Restaurant or cafe within a retail shopping complex	1 space per 18.5m ² of GLFA.			
Recreational Facilities	Gymnasiums/Fitness Centre*	1 space per 25m ² of GFA			
	Squash Courts & Tennis Courts*	3 spaces per court plus 1 space per 5 seats where spectator seating/galleries are provided			
	Bowling Green	30 spaces for the first green, plus 15 spaces per each additional green			
	Bowling Alley	3 spaces per alley			
	Indoor Cricket or Soccer Centre*	15 spaces per pitch			
	Equestrian Centre, Other Recreational Facility	Submit parking study to substantiate proposed car parking provisions.			
Health Hospital Nursing and Convalescent Homes		 1 space per 2 beds for visitors plus 1 space per 1.5 employees plus 1 space per 2.5 visiting medical officers Unless otherwise specified by Seniors Living SEPP. 			

Land Use Class Land Use		Required Minimum Provision			
	Medical Centres, Health consulting rooms	3 spaces per consulting room plus 1 space per support employee			
Education	Child Care Centre [#] (including Kindergartens, Crèches)	1 space per employee plus 1 space per 6 children enrolled for visitors and/or parent parking Also see section 2.1.1(e)			
	Educational Establishment (School) [#]	 space per employee plus space per 8 year 12 students, plus space per 30 students enrolled for visitors and/or parent parking 			
	Educational Establishment (Tertiary Institution) [#]	1 space per 2 students enrolled			
Accommodation	Bed & Breakfast Accommodation	1 space per guest room in addition to residential requirement			
	Caravan Park/Holiday Cabins	1 space per caravan or camping site plus Also see section 2.1.1(d)			
	Hotel or Motel Accommodation [#]	1 space per 1 guest room plus 1 space per 2 employees in addition to any space generated by a public bar or restaurant.			
	Marina	 0.6 spaces per wet berth 0.2 spaces per dry storage berth 0.2 spaces per swing mooring 0.5 spaces per marina employee Development applications are to be accompanied by a traffic and parking study to ensure that parking demand generated by the activity is contained within the subject site. 			
Other	Veterinary Hospital	3 spaces per consulting room plus 1 space/10 cats or dogs accommodated overnight			
	Animal Boarding or Training Establishment.	Development applications are to be accompanied by a traffic and parking study to ensure that parking demand generated by the activity is contained within the subject site.			
	Place of public worship	1 space per 5 seats			
	Funeral home/chapel	1 space per 4 seats plus 1 space per funeral service area			

Land Use Class	Land Use	Required Minimum Provision		
	Exhibition Home	4 spaces per exhibition home Also see section 2.1.1(f)		

Note. *Bicycle parking is also required – refer to Table 3 for provisions.

 $^{\scriptscriptstyle\#}$ Set down areas are to be provided for these land uses – refer to section 2.6.

2.2. PARKING FOR DISABLED PERSONS AND PARENTS WITH PRAMS

OBJECTIVES

- (i) To ensure appropriate on-site provision and design of parking for disabled persons and parents with prams.
- (ii) To ensure that designated spaces provided are easily accessible to points of entry to building or facility.
- (iii) To ensure amenity and safety in the design and construction and operation of the development in accordance with Council's ESD Objective 7.

DEVELOPMENT CONTROLS

- (a) A proportion of the total parking spaces required shall be provided for disabled persons in accordance with Table 2.
- (b) A continuous, accessible path of travel in accordance with AS 1428.1 shall be provided between each parking space and an accessible entrance to the building or to a wheelchair accessible lift.
- (c) A proportion of the total parking spaces required shall be provided for parents with prams at the rate of 1 space per 100 spaces at:
 - shopping centres;
 - transport terminals;
 - hospitals; and
 - > other large public facilities.
- (d) Parking spaces for disabled persons and parents with prams should:
 - have minimum 3.2 metres x 5.4 metres dimensions for each designated parking space;
 - be provided adjacent to an accessible entrance or a wheelchair accessible lift;
 - be signposted and identified for the nominated parking use;
 - have a clearance height of 2.5 metres from floor level; and
 - provide a level area with a gradient less than 1:40.
- (e) Directional signage to designated parking spaces should be provided from the entry of the parking facility.

- (f) Set down areas should be level with a gradient less than 1:40, have adequate circulation space and be located away from traffic flow. Adjacent kerb ramps should be provided to allow access to a footpath, building entrance or a wheelchair accessible lift.
- (g) Refer to Council's "Making Access for All: guidelines ensuring criteria for all public facilities" for further parking and access designs. This document is available at the Customer Service Centre at Council's Administration Building or at Council's website.

SUBMISSION REQUIREMENTS

- Site plan indicating:
 - parking layout and locations of designated spaces for disabled persons and parents with prams; and
 - locality of adjacent wheelchair accessible entrances and lifts.
- Parking calculations.

Table 2 Disabled Persons Parking Provisions

Source: AS 2890.1 1993 - Part 1 Parking Facilities - Off Street Car Parking

	Required Provision
Land Use	(percentage of total car parking)
Retail/Commercial A shopping centre with or without commercial premises (banks, credit union, restaurants or cafes, offices etc), or an office area. Includes strip shopping centres or CBD areas, shopping complexes, supermarkets, and variety stores.	2%
May include post office, entertainment, community, recreation venues and the like.	
Transport Railway stations, bus/rail interchanges	3%
Community	070
Civic centres, town halls, community centres, senior citizen's clubs, and health	3%
care.	
Recreation	3%
Leisure centres, gymnasiums, swimming pools, parks, gardens, foreshore, and	
sporting venue.	
Education	
Schools	3%
Tertiary institutions	2%
Entertainment	
Theatres, libraries, art galleries, sports centres, entertainment centres	4%
Medical	
Hospitals	4%
Medical Centres	3%
(including community health centres, radiology units, rehabilitation units)	
Places of Public Worship	
Individual churches or religious centres	3%

Notes.

- 1. Percentages in Table 2 apply to the total number of parking spaces to be provided.
- 2. Small car parks must provide a minimum of 1 space for disabled persons.

2.3. BICYCLE PARKING

OBJECTIVES

- (i) To provide convenient and accessible on-site bicycle parking and appropriate associated facilities.
- (ii) To encourage the use of bicycles in order to help reduce the dependence on motor vehicles in accordance with Council's ESD Objective 9.

DEVELOPMENT CONTROLS

- (a) The provision of bicycle parking must in accordance with Table 3.
- (b) Bicycle parking should be located in close proximity to building entrances and clustered in lots not exceeding 16 spaces.
- (c) Bicycle parking facilities should not impede pedestrian or vehicular circulation.

- (d) Bicycle parking facilities should be located in highly visible, illuminated areas to minimise theft and vandalism.
- (e) Provision of shower and change facilities for bicycle riders should be provided in accordance with Table 3.
- (f) Installation and dimensions of bicycle parking facilities and storage should be in accordance with:
 - AS 2890.3-1993 Parking Facilities Bicycle parking facilities; and
 - Guide to Traffic Engineering Practice BICYCLES - Part 14 - Austroads (Standards Australia).

SUBMISSION REQUIREMENTS

- Parking calculations
- Site plan indicating location of:
 - designated bicycle spaces/storage facilities; and
 - shower and change facilities.
- Statement of Environmental Effects Indicating:
 - security details for bicycle parking areas; and
 - provision of shower and change facilities.

Land Use	Minimum Bicycle Parking Provisions	Change and Shower Facilities
Commercial Premises (including business premises and office premises)	2 spaces plus 5% of the total number of car spaces required where – New development exceeds 5,000m ² in GFA or Additions to existing developments that increase the size of the total development to greater than 5,000m ² GFA.	Yes
Gymnasium/Fitness Centre or Squash/Tennis courts or Indoor Cricket/Soccer	1 per 4 employees plus 1 per 200m ² GFA	Yes
Industry – Warehousing, Factories	2 spaces plus 5% of the total number of car spaces required where – New development exceeds 4,000m ² in GFA or Additions to existing developments that increase the size of the total development to greater than 4,000m ² GFA.	Yes
Retail/Shops	2 spaces plus 5% of the total number of car spaces required where – New retail developments exceed GFLA of 5,000m ² or Additions to existing developments that increase the size of the total development to greater than 5,000m ² GFLA.	Yes
Bulky Goods Premises	2 spaces plus 5% of the total number of car spaces required where – New development exceeds 4,000m ² in GFA or Additions to existing developments that increase the size of the total development to greater than 4,000m ² GFA.	Yes
Schools	1 space per 5 pupils over year 4	Yes

Source: Guide to Traffic Engineering Practice "BICYCLES - Part 14 – Austroads" (Standards Australia).

Land Use	Minimum Bicycle Parking Provisions	Change and Shower Facilities
Tertiary Institution	1 space per 50 full-time students	Yes

2.4. MOTORCYCLE PARKING

OBJECTIVES

(i) To have equitable provision of parking for motorcyclists.

DEVELOPMENT CONTROLS

- (a) Motorcycle parking is to be provided for all developments with on-site parking of more than 50 car parking spaces, at a rate of 1 motorcycle parking space for every 50 car parking spaces or part thereof.
- (b) Motorbike spaces should be 1.2 metres wide and 2.5 metres long when spaces are 90 degrees to the angle of parking. (See Figure 1 -Motorcycle Parking Dimensions).

SUBMISSION REQUIREMENTS

- Parking calculations.
- Site plan indicating location of designated motorcycle parking spaces.

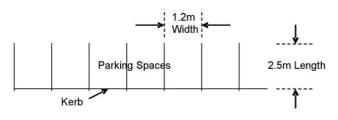


Figure 1 Motorcycle Parking Dimensions At 90 Degree Angle

Source: AS 2890.1 1993 – Parking Facilities-Part1: Off Street Car Parking

2.5. CARWASH BAYS

OBJECTIVES

(i) To provide on-site car wash facilities within residential multi-unit developments.

(ii) To ensure during the design, construction and operation of car wash bays, that water is utilised efficiently and that water leaving the site is of a quality and quantity comparable to that which is received in accordance with Council's ESD Objective 3.

DEVELOPMENT CONTROLS

- (a) The carwash bay can be either a designated car space separate to that of total car spaces as calculated, or can be a visitor space when not utilised by visitors.
- (b) A minimum provision of one designated carwash bay space per residential multi-unit development.
- (c) Car wash bays are not to be used to carry out engine degreasing or mechanical repairs and must be signposted to reflect this prohibition.
- (d) Wastewater must be treated so as to remove grease, oil and silt and must be either reused for car washing or used for irrigation of landscaped areas on site. To treat wastewater in this way application for a licence must be applied for from the Office of Environment and Heritage. Approval can be sought from www.environment.nsw.gov.au/licensing/.
- (e) Alternatively wastewater can be discharged to the sewer, This is only where (b) is not feasible according to a report provided by a hydraulic engineer, the Council or the Office of Environment and Heritage. Approval from Sydney Water must be sought by applying for "Permission to Discharge Trade Wastewater". Refer to the fact sheet on Sydney Water's web site <u>www.sydneywater.nsw.gov.au</u>. - "Disposal of Trade Wastewater from Residential Car Wash Bays".
- (f) Wastewater option (e) requires the construction of a roof over the designated car wash space and must be bunded to exclude rainwater as per Sydney Water's requirements.

(g) Approval must be obtained either from the Office of Environment and Heritage or Sydney Water prior to construction of the development.

SUBMISSION REQUIREMENTS

- Site plan indicating locations of designated car wash spaces.
- Statement of Environmental Effects indicating:
 - Details of method wastewater removal.

2.6. SET DOWN AREAS

OBJECTIVES

- (i) To provide designated set down areas in close proximity to busy centres.
- (ii) To provide safe and convenient designated set down areas for passengers to arrive close to their destination.

DEVELOPMENT CONTROLS

- (a) Set down areas must not conflict with the movement of other traffic, pedestrians and other vehicle parking.
- (b) There must be a safe continuous accessible path of travel from set down area/s to a wheelchair accessible entrance or lift.
- (c) The following forms of development should provide set down areas for cars:
 - Educational establishments.
 - Shopping centres.
 - Community centres.
 - Libraries.
 - > Entertainment facilities.
 - Child Care Centres.
 - Recreational facilities.
 - > Transport terminals and interchanges.
- (d) The following forms of development should provide set down areas for coaches and community buses:
 - > Hotel or Motel Accommodation.
 - Community Centres.
 - Registered Clubs.
 - > Tourist Destinations and Centres.
 - Transport Terminals and Interchanges.
- (e) The number of set down areas must be in accordance to the developments needs.

- (f) Set down areas for cars must be separate to set down areas used for coaches and community buses.
- (g) Set down areas, except those used for coaches and community buses, must be used only to drop off passengers and must not be used for passenger collection.
- (h) Set down areas must be signposted to indicate that their use is time limited.

SUBMISSION REQUIREMENTS

- Site plan indicating location and design of designated set down areas.
- Statement of Environmental Effects Details of types of vehicles expected to set down passengers and the likely frequency of use.

2.7. CAR PARK DESIGN AND LAYOUT

OBJECTIVES

- *(i)* To provide safe, convenient and accessible design and layout of parking areas.
- (ii) To provide suitable dimensions for all types of parking spaces.
- (iii) To provide appropriate parking design and layout that complements building design and function.
- (iv) To ensure pedestrian amenity is enhanced.

DEVELOPMENT CONTROLS

2.7.1. GENERAL

- (a) The layout of the car park should facilitate ease of access and egress of vehicles through the parking area at all times without congestion.
- (b) For all development other than single dwelling houses and dual occupancies, vehicles must enter and exit the site in a forward direction.
- (c) Adequate queuing distance should be provided where the parking area fronts an arterial road as justified by relevant data or a study carried out by a suitably qualified person.
- (d) Any changes to parking layout and design occurring after development consent or implementation of a development consent must

be subject to an application under Section 96 of the Environmental Planning and Assessment Act 1979.

(e) Provisions within this section are in accordance with AS 2590.1 –1993 Parking Facilities – Part 1 Off Street Car Parking. For further design requirements for car park design and layout please refer to the Australian Standard.

2.7.2. PARKING DIMENSIONS

- (a) The minimum car parking dimensions required for right angle parking shall be provided in accordance with Table 4.
- (b) Two-way aisles are not recommended for angle parking other than for parking at right angles (90 degrees).
- (c) The preferred parking angle should be at 90 degrees to the aisle. Where site area is limited other angles of parking will be considered. For angle parking design requirements other than at 90 degrees refer to AS 2890.1-1993 Parking Facilities Part 1: Off Street Parking.
- (d) All parking spaces shall be designed to ensure they can be accessed by a maximum 3 point combined manoeuvre, i.e. 1 movement to enter the space and 2 movements to leave, or 2 movements to enter and 1 to leave. (See Figure 2 for manoeuvres).
- (e) Parallel parking is to be avoided unless it can be demonstrated that it does not disrupt traffic circulation or create a hazard.
- (f) At blind aisles the end spaces should be made one metre wider than the adjacent spaces. (See Figure 3). Otherwise, provision should be made for cars to turn round at the end of aisles and allow vehicles to exit in a forward direction.
- (g) Spaces adjacent to obstructions must be 300mm wider on the side of the obstruction.
- (h) The width of car spaces in multi-storey or basement parking areas is to be exclusive of any building columns.
- (i) Basement parking areas should be setback the same distance as the building above.

2.7.3. PEDESTRIAN CIRCULATION AND SAFETY

(a) Parking areas should be designed so that pedestrian entrances and exits are separate from vehicle entrances and exits.

- (b) Safe crossing points through to or leading to entrances must have adequate sight distance and must be provided with appropriate directional signs and indicative pavement markings.
- (c) Lifts and stair lobbies, and access to buildings should be clearly marked.
- (d) Where possible, parking aisles should be orientated parallel with expected pedestrian travel paths. (See Figure 4).

2.7.4. DRAINAGE

(a) All car parking areas are to provide adequate drainage of surface water to prevent flooding of adjoining properties.

2.7.5. LIGHTING AND VENTILATION

- (a) Covered or enclosed car parks must have adequate lighting and ventilation, preferably by natural means.
- (b) Where car parks might be utilised in the evening, adequate artificial lighting should be provided for the whole car park area.

2.7.6. PARKING DIRECTIONS

- (a) All car parking spaces should be clearly line marked.
- (b) Where designated parking spaces are provided such as customer, visitor, parents with prams and disabled persons parking, signposting must clearly indicate the location of these spaces.
- (c) Arrow markings on the surface of aisles and driveways should be used to demonstrate circulation pattern, whether in one-way or twoway directions.
- (d) Entries and exits must be appropriately signposted.

SUBMISSION REQUIREMENTS

- Site Plan indicating car park layout including:
 - Traffic circulation details;
 - Location of parking spaces;
 - Location of directional and parking signs;
 - Pedestrian access and circulation through parking areas;
 - Contours demonstrating existing spot levels and proposed finished levels;

- Vehicle turning path detail overlaid on the plans demonstrating that entry and exit is achieved in a forward direction; and
- Location and height of any retaining walls.
- Cross Section indicating:
 - Extent of cut and fill;
 - Location and height any of retaining walls;
 - Headroom clearance to overhead obstructions (eg. Fire sprinklers, servicing ducts, piping etc.); and
 - Longitudinal section of the driveway from the centreline of the public roadway from where access is proposed to the rear of the parking area. Transition grades to prevent vehicle scraping are to be detailed.
- Statement of Environmental Effects detailing:
 - Method of drainage; and
 - Lighting and ventilation methods.

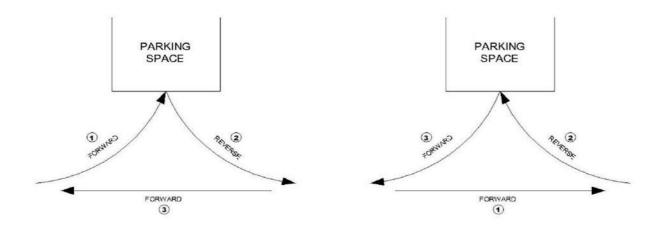
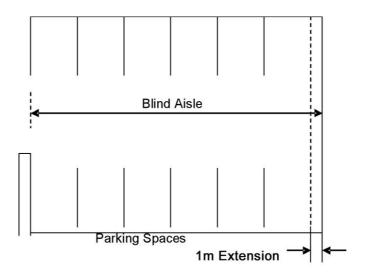


Figure 2 Vehicle Movements In And Out Of Parking Spaces

Table 4 Minimum Parking Bay Dimension For Right-Angled Car Parking

Source: AS 2890.1 1993 - Parking Facilities - Part 1: Off Street Parking

Land Uses	User Class No.	Required Door Opening	Space Width (metres)	Space Length (metres)	Aisle Width (metres) One Way	Aisle Width (metres) Two Way
Tenant, employee and commuter parking, universities (generally parking all day)	1	Front Door, first stop	2.4	5.4	6.2	7.0
Long-term town centre parking, sports facilities, entertainment centres, hotels, motels (generally medium- term parking)	2	Front Door, second stop	2.5	5.4	5.8	7.0
Short-term town centre parking, shopping centres, supermarkets, hospitals & medical centres (generally short-term parking and where children & goods can be expected to be loaded into the vehicles).	3	Rear Door, full opening	2.6	5.4	5.4	7.0
Parking for people with disabilities	4	Front door, full opening plus wheelchair manoeuvre space	3.2	5.4	5.0	7.0





Note. The maximum length of blind aisle is equal to six 90 degree car spaces.

Source: AS 2890.1 1993-Parking Facilities-Part 1: Off Street Car Parking

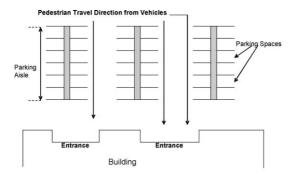


Figure 4 Example Of Direct Pedestrian Access To Entrance

2.8. LANDSCAPING

OBJECTIVES

- (i) To provide appropriate landscaping for external and uncovered car parks so that they do not detract from the surrounding area.
- (ii) To provide shade and improve amenity of loading, service and parking areas and to provide a buffer to neighbouring properties.
- (iii) To utilise landscaping to provide amenity to neighbouring properties in accordance with Council's ESD objective 7.

DEVELOPMENT CONTROLS

- (a) Outdoor parking areas are to be provided with two metre wide landscaping strips:
 - > Between rows served by different aisles.
 - Between spaces at a rate of one in every ten car parking spaces.
- (b) Outdoor parking areas are to be screened by a minimum of two metre wide landscaping strips. Such landscaping is to be of a mature and dense nature and be designed according to Part C Section 3 – Landscaping of this DCP.
- (c) Driveways are to be screened by a minimum of two metre wide landscaping strip on either side.
- (d) Where soils permit infiltration the landscaping strips should be used to promote reuse of drainage water.
- (e) Landscaping species selected should not:
 - block signs;
 - impede entry and access points;
 - > overgrow paths;
 - cause restrictions to pedestrian and vehicle movements; and
 - compromise safety aspects such as sight distances.
- (f) Shade trees are to be provided within landscaping strips.
- (g) Plant and tree species selected for the purpose of providing shade should not be of a kind that will cause damage to vehicles because of their nature of dropping fruit, cones or nuts.
- (h) In addition reference should be made to Part C Section 3 - Landscaping of this DCP when selecting appropriate species.

SUBMISSION REQUIREMENTS

Landscape Plan

2.9. LOADING AND DELIVERY REQUIREMENTS

OBJECTIVES

- To provide suitable access on-site for service vehicles, for the purpose of loading and/or delivering goods.
- (ii) To ensure that types of loading and delivery areas are suited to the needs of the development.
- (iii) To ensure that adequate numbers of loading and delivery areas are allocated for appropriate types of service vehicles.
- (iv) To protect neighbourhood amenity and safety in the design and construction and operation of loading and service areas in accordance with Council's ESD objective 7.

DEVELOPMENT CONTROLS

- (a) All loading and delivery areas are to be provided on-site.
- (b) Loading and delivery facilities are to be designed in accordance with AS 2890.2-1989, Off Street Parking - Part 2: Commercial vehicles facilities.
- (c) The use of loading and delivery areas must not conflict with the safe efficient circulation of pedestrians and other vehicles on-site.
- (d) In larger developments loading and delivery areas should operate independently of other parking areas.
- (e) Service vehicles are to be able to efficiently manoeuvre to and from loading and delivery areas in accordance with AUSTROADS Design Vehicular and Turning Templates.
- (f) Loading and delivery areas must not affect the amenity of adjoining residential properties.
- (g) Loading bays are not to be used for the storage of goods that may impede the use of the bay for the delivery or loading of goods.
- (h) The number of loading bays for supermarkets, department stores, mixed small shops and offices are required in accordance with Table 5.

- (i) Council may consider variations to the standards required by Table 5 in circumstances where the applicant is able to demonstrate compliance with the objectives of this Section of the DCP by alternate means.
- (j) For those land uses not referred to in Table 5 the applicant will be required to demonstrate the development proposal satisfies the objectives of this Section of the DCP. In this regard the following information is to be submitted:
 - The types of vehicles expected to load and deliver on-site.
 - The frequency with which these vehicles will visit the site.
 - The largest vehicles expected to visit the site. These areas must be able to be utilised by all smaller loading and delivery vehicles also.

Table 5 Minimum Number Of Loading Bays Required

GLFA = Gross Leasable Floor Area **GFA** = Gross Floor Area

Development	Number of Loading Bays		
Supermarket (GLFA)	2 for the first 930m ²		
	2 for the next 930m ²		
	1 for each extra 930m ²		
Department Store (GLFA)	2 for the first 4,645m ²		
	2 for the next 4,645m ²		
	1 for each extra 4,645m ²		
Mixed Small Shops	2 for the first 465m ²		
(GFLA)	2 for the next 465m ²		
	1 for each extra 530m ²		
Offices (GFA)	1 for the first 1,860m ²		
	1 for next 3,720m ²		
	1 for the next 3,720m ²		
	1 for each extra 9,250m ²		

SUBMISSION REQUIREMENTS

- Site Plan must indicate:
 - the relevant locations and dimensions of loading and delivery areas; and

- the swept path of the design service vehicle to be overlaid on the site plan to demonstrate all turning movements of service vehicles from the public road to the delivery/loading dock.
- Loading Bay Calculations in accordance with Table 5.
- Statement of Environmental Effects where Table 5 is not applicable the statement of environmental effects must indicate the following to substantiate that the design and number of loading and delivery areas are appropriate for the proposed development:
 - The type/s of service vehicles expected to delivery to and load from the site;
 - The frequency with which these vehicles will visit the site, indicating times during the day/night and approximate number of visits per week or month; and
 - Illustration that the dimensions of the loading and delivery areas are suited to the types of vehicles visiting the site. (Refer to AS 2890.2-1989 – Part 2: Commercial vehicle facilities for dimension requirements).

2.10. ACCESS DRIVEWAYS

OBJECTIVES

- *(i)* To provide driveways with safe access and egress to and from properties.
- (ii) To reduce conflicts between entering and exiting street traffic and car park traffic.
- (iii) To ensure safety in the design, construction and operation of access driveways in accordance with Council's ESD objective 7.

DEVELOPMENT CONTROLS

- (a) Access driveway widths are to comply with AS 2890.1-1993 Parking Facilities – Part 1: Off Street Car Parking.
- (b) Driveways are to be provided in locations that have adequate sight distance.
- (c) Driveways will be prohibited in the locations shown in Figures 5 and 6.
- (d) Access driveways are to be constructed in accordance with Council's "Specification for the Construction of Footpath & Gutter Crossings" (2001).

- (e) Access driveways are to be located a minimum of one metre from drainage structures and other service facilities located on the nature strip.
- (f) Except for residential properties, driveway entrances and exits should be signposted appropriately.
- (g) Access driveways should not be entered from or exited onto intersections where one or more of the intersecting roads are a collector, subarterial or arterial road.
- (h) Indirect access must be sought in preference to direct access where the proposed development fronts a high-volume road. Where direct access is proposed, a study by a suitably qualified person must be conducted to indicate potential impacts. This study will also be assessed by the RMS.
- Driveways for multi dwelling housing, residential flat buildings and Seniors Living SEPP developments must be able to be accessed by service vehicles such as fire tankers, ambulances and bushfire tankers.
- In addition, application of controls for driveways in other applicable Sections of the DCP should be applied.

SUBMISSION REQUIREMENTS

- Site Plan including:
 - Indication of driveway locations in relation to the existing roadway and the kerb alignment; and
 - All tangent points on the kerb return must be identified.

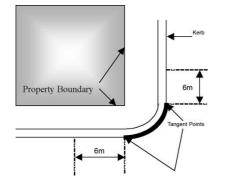


Figure 5 Driveways Prohibited Within 6 Metres From Tangent Points Of Kerb

Source: AS 2890.1 – 1993 Parking Facilities – Part 1: Off-Street Car Parking

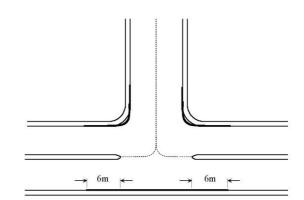


Figure 6 Driveways Prohibited On The Opposite Side Of The Road Or Within 6m Of Median Opening

3. **REFERENCES**

Australian Standard – AS 2890.1 – 1993 – Part 1 Parking Facilities – Off Street car parking.

Australian Standard – AS 2890.2 – 1989 – Off Street parking – Part 2: Commercial vehicle facilities.

Australian Standard – AS 2890.3 – 1993 – Parking Facilities – Bicycle parking - facilities.

Baulkham Hills Shire Council, 1993 Kellyville/Rouse Hill Landscape and Urban Design Strategy.

Department of Environment and Planning, 1981 Technical Bulletin 14: Guidelines for Site Landscaping of Commercial and Industrial Development.

Department of Urban Affairs & Planning, 1988 Rural Land Evaluation: A Manual for Conducting a Rural Land Evaluation Exercise at the Local Planning Level. Department of Urban Affairs and Planning, Sydney.

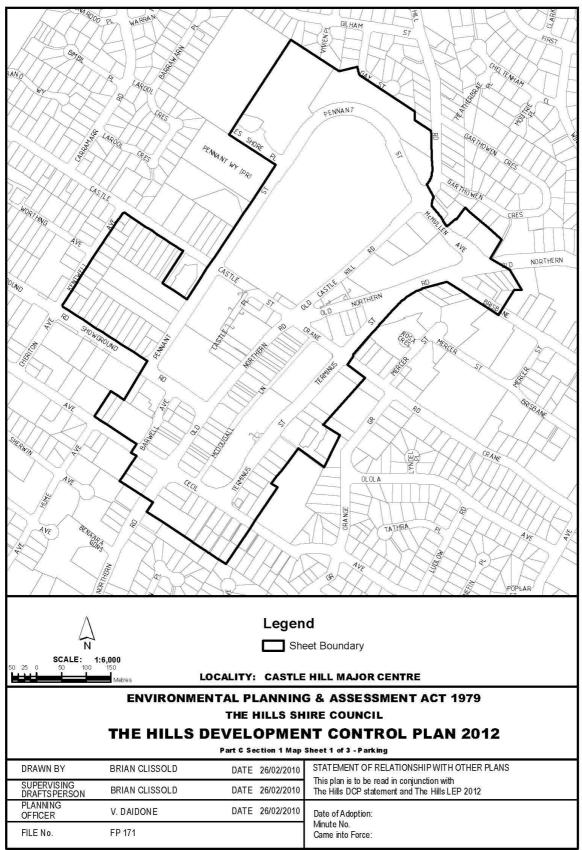
Department of Urban Affairs and Planning DUAP Circular No E3 Author.

Roads & Traffic Authority 1995, The Guide to Traffic Generating Developments.

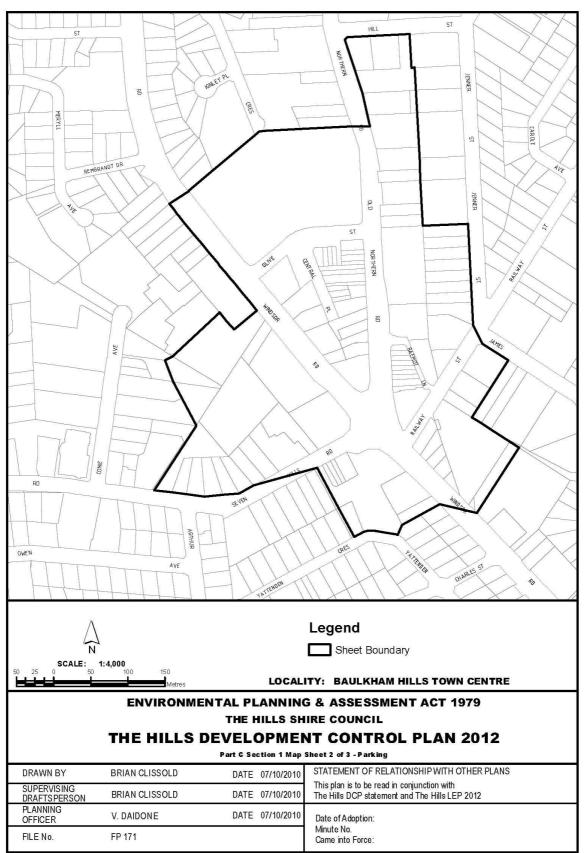
Sinclair Knight Merz, 1996 Kellyville traffic and Parking Study. Prepared for Baulkham Hills Shire Council.

Standards Australia - Guide to Traffic Engineering Practice BICYCLES - Part 14 – Austroads.

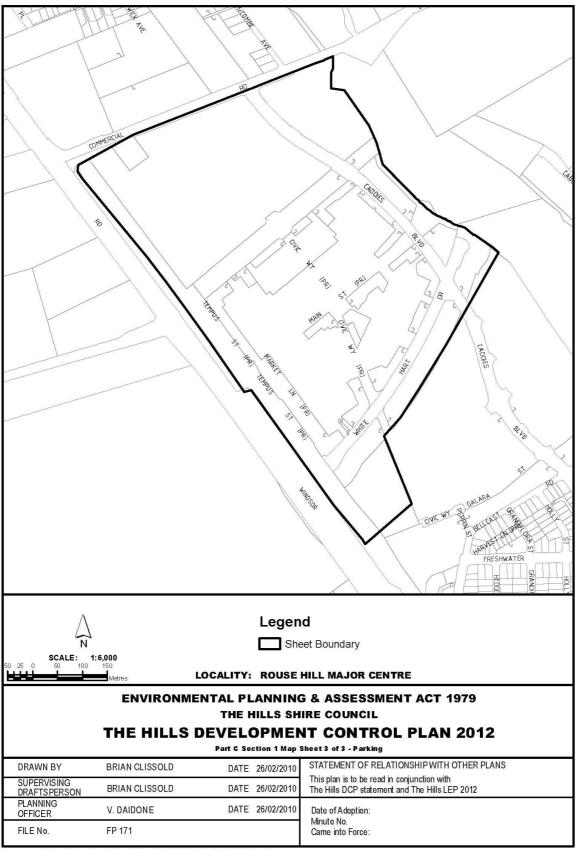
APPENDIX A – CENTRE MAPS



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APPENDIX B – EDWARDS ROAD PRECINCT

