



3.0 General Planning Considerations

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3.1 Vehicle Access Parking and Manoeuvring

3.1 Introduction

3.1.1 Application of this chapter

This section does not necessarily apply to all development applications.

If you are occupying a building in which Council has already approved an activity/use/business etc. the same as your proposal, the parking requirements will not change.

If you are changing the use of a building then the parking requirements may change.

As a general guide, anyone wishing to develop land or change the use of a building should use this section to make sure the development has appropriate parking facilities.

3.1.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objectives:

- to provide detailed parking requirements for individual land use categories
- to provide measures to protect the natural environment
- to ensure parking areas relate to site conditions.

3.1.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance Criteria	Design Solution
General	
<p>PC1. Car parking and service vehicle areas are:</p> <ol style="list-style-type: none"> a. sufficient, safe and convenient and meets user requirements including pedestrians, cyclists and vehicles b. safe, easily accessible, does not obstruct the passage of vehicles or create traffic conflicts, impact pedestrians or cyclists and does not result in detrimental effects to adjoining or nearby properties c. provided according to projected needs and provide pleasant areas in which to park 	<p>DS1.1 In determining the prescriptive parking requirements for each type of land use, Council has been informed by a range of technical studies and documents, including detailed review of carparking rates in business and industrial zoned land and the Roads and Traffic Authority Guide to Traffic Generating Developments, October 2002. However, Council uses these prescriptive parking requirements on a discretionary basis only, and may be flexible in establishing parking conditions according to expert reports on the existing parking and traffic conditions in the vicinity of the subject site.</p> <hr/> <p>DS1.2 In calculating the number of car spaces required, Council takes into consideration:</p> <ol style="list-style-type: none"> a. the type of development (or land use) proposed b. the size and scale of the development c. the intensity of the development d. street hierarchy and existing traffic situation <hr/> <p>DS1.3 Table 1 and Table 2 provide on-site parking requirements for each specific land use. Where parking calculations produce a fraction, the requirement is rounded up e.g. 3.2 spaces = 4 spaces. Note: <i>Parking requirements may also be contained in area specific DCPs.</i></p> <hr/> <p>DS1.4 Within an existing premise where a change of use is proposed from a shop/business premise to a food and drink premises, the following parking requirements will apply:</p> <ul style="list-style-type: none"> • Where the public area in the proposed use is less than 100m² no additional parking is required.
Layout, Circulation, Access and Egress	
	<p>DS1.5 Refer to AS 2890.1 2004 and AS2890.2 Part 2 for the design and layout of parking facilities.</p> <hr/> <p>DS1.6 Council does not encourage, but may consider stacked parking for parking spaces in a controlled parking situation which:</p> <ol style="list-style-type: none"> a. allows no more than two cars in the stacked parking arrangement; b. is likely to maintain a very low turnover; or c. is able to function easily within the management of the site's future operation.
Stenciling of Street Driveways	
	<p>DS1.7 All driveways in Hurstville are to be finished in plain concrete.</p>

Development Requirements

Performance Criteria	Design Solution
	<p>DS1.8 In streets which have brick paved surfaces, driveways are constructed to Council's Engineering Specification including a concrete base with matching brick paving surface.</p>
	<p>Ramps, Transitions & Driveways</p>
	<p>DS1.9 Alignment levels for all points of vehicular access must be obtained prior to submission of a development application. These levels will be made available by Council's Engineering Department following the payment of the appropriate fee.</p> <p>Note: Ramp grades are to be designed in accordance with AS/NZS 2890.2 2004 Part 2.</p>
	<p>DS1.10 The AS/NZS 2890.1 2004 Ground Clearance Template is to be used as follows:</p> <ol style="list-style-type: none"> a. prepare a longitudinal section of the grade change or irregularity to natural scale, and to the same scale as the template – scale to be 1:20
	<p>Underground/Basement Parking Areas</p>
	<p>DS1.11 Underground parking areas are to be concentrated under building footprints so as to maximise deep soil landscaping.</p>
	<p>DS1.12 Driveways to underground car parks are to be designed so as to minimise the visual impact on the street, and to maximise pedestrian safety. Pedestrian access to the development should be separate and clearly defined.</p>
	<p>DS1.13 Access ways to underground car parking areas is to be located away from doors and windows to habitable rooms wherever possible.</p>
	<p>DS1.14 Basement car parking is preferable in commercial and residential flat buildings.</p>
	<p>DS1.15 All underground parking areas are to have security doors. Where mechanical ventilation is proposed the motor room and exhaust shafts are to be shown on the development application plans.</p>
	<p>Parking for People with a Disability</p>
	<p>DS1.16 Parking complies with AS 1428 Design for access and mobility and AS/NZS 2890.6.</p>
	<p>DS1.17 The provision of parking areas for drivers with a disability is an important consideration in any development. Council encourages the provision of parking for those with a disability beyond the minimum requirements of the Australian Standards.</p>
	<p>Section 94</p>
	<p>DS1.18 Council may consider accepting a cash contribution in lieu of on-site parking where a Section 94 Plan is in place. This applies to retail and commercial developments. The contribution is a payable under</p>

Development Requirements

Performance Criteria	Design Solution
	<p>Section 94 - developer contributions, of the Environmental Planning and Assessment Act 1979.</p> <p>Note: Contact Council to see whether the Hurstville Section 94 Contributions Plan 2012 applies to your development and determine any applicable charges. A copy of this plan can be downloaded from www.georgesriver.nsw.gov.au.</p> <p>Car Washing Area</p> <p>DS1.19 A designated car washing area (which may also be a designated visitor car space) is required for service stations and residential developments of four or more dwellings.</p> <p>DS1.20 Car wash bays which collect waste water must be covered and discharge the water to the sewer in accordance with the requirements of Sydney Water.</p>
Environmental Design	
<p>PC2. Parking areas:</p> <ul style="list-style-type: none"> a. promote pleasant, safe car parking areas and protect the natural environment b. are designed to reflect the environmental conditions of the land c. incorporate measures to protect the natural environment 	<p>DS2.1 Proposals for parking areas are to be accompanied by a landscape plan, prepared by a qualified landscape architect or designer, illustrating means to soften the visual impact of parked cars and any associated structures, as per these landscaping controls.</p> <p>DS2.2 Significant environmental features within the land such as rock outcrops, benches and trees are to be retained as a landscaped feature of the parking area.</p> <p>DS2.3 Council considers that landscaping needs to be included in every car parking design, within and on the perimeters of the car parking area. Accordingly, the following is required:</p> <ul style="list-style-type: none"> a. planting beds fronting a street or public place are to have a minimum width of 1 metre b. shade trees are to be provided in open parking areas at the ratio of 1 shade tree for every 6 spaces c. plants to avoid are those which have a short life, drop branches, gum or fruit or those which interfere with underground pipes <p>DS2.4 Parking areas are to incorporate a 150mm concrete kerb or edge treatment to reduce the likelihood of vehicles damaging adjoining landscaped areas. The use of bollards should also be considered.</p> <p>Drainage</p> <p>DS2.5 All parking areas are to have adequate drainage for runoff and seepage. Council requires that minimum gradients be provided in car parks.</p>

Development Requirements

Performance Criteria	Design Solution
	<p>DS2.6 A detention tank or pipe with reduced outlet should be offered, preferably integrated with a pollution trap. Parking areas may provide for temporary detention of water to a maximum depth of 150mm to reduce the velocity of stormwater run-off. Such parking areas are to be designed to provide pollution traps around the perimeter so as to reduce the impact of pollutants on the water quality of downstream watercourses. See Council's Drainage Code for further information.</p> <p>Streetscape</p> <p>DS2.7 Proposals for multi-level car parking areas are to provide a facade at the street frontage which is consistent with the streetscape and character of adjacent development.</p> <p>DS2.8 If a proposed parking area adjoins a residential property Council requires fencing and/or mounding to be included in the landscaping proposal to protect the privacy of the residential property and reduce noise.</p>
<p>PC3. Carparking areas are designed to:</p> <ol style="list-style-type: none"> prevent crime through environmental design reduce conflict between vehicles and pedestrians include features which suggest to both residents and potential offenders that car parking areas are owned, cared for and not amenable to crime include features that minimise vehicular and pedestrian conflict be illuminated and provide users with a feeling of security and safety allow for drive by surveillance 	<p>Visibility</p> <p>DS3.1 On-site parking spaces are to be located in areas visible from nearby habitable windows, entrances, public spaces etc.</p> <p>DS3.2 On-site driveways are to provide an unobstructed view of passing pedestrians and vehicles.</p> <p>Safety</p> <p>DS3.3 Sloping ramps from car parks, garages and other communal areas are to have at least one full car length of level driveway before they intersect pavements and carriageways.</p> <p>Security</p> <p>DS3.4 Entry to basement car parks, including pedestrian routes, are to be available only to residents through security access/egress routes via main buildings.</p> <p>DS3.5 Visitor parking shall be provided in open unrestricted areas. If visitor parking is provided within a secure parking area (basement or otherwise) suitable access provisions shall be made such as a security intercom.</p> <p>DS3.6 Exit points for driveways to basement car parks for block edge development may require pedestal activated boom gates.</p>

Development Requirements

Performance Criteria	Design Solution
	<p data-bbox="767 286 1420 322">Lighting</p> <p data-bbox="767 338 1420 524">DS3.7 The intensity of lighting in the entranceway to covered or underground car parks is to be graded from the most bright (at the entrance proper), to minimum levels of accepted illumination (away from entrances), to allow for the gradual adjustment of driver/pedestrian “light” vision.</p> <p data-bbox="767 539 1420 575">Pedestrians and Car Park Layouts</p> <p data-bbox="767 591 1420 1256">DS3.8 To help minimise the likelihood of conflict when sites have both pedestrian and vehicular access, the following is required:</p> <ul style="list-style-type: none"> <li data-bbox="932 696 1420 792">a. parking areas are to be designed so that through traffic is either excluded or appropriately managed <li data-bbox="932 801 1420 927">b. pedestrian entrances/exits are to be separated from the vehicular entrances/exits (parking spaces must not obstruct required exit doors) <li data-bbox="932 936 1420 1256">c. developments generating a significant amount of pedestrian movement throughout the car park (such as shopping centres or office parks) are to establish clear and convenient pedestrian routes. These routes should minimise the number of points which cross vehicle paths and be appropriately marked to heighten driver awareness (e.g. painting, use of contrasting materials, lighting and/or signage).

Development Requirements

Table 1: Carparking Rates – land located Inside a Business or Industrial zone

Development Type	Parking Spaces Required On-Site
Business Premises and Office Premises	1 space per 60m ²
Child care centres	1 space per 10 children for drop off and pick up and 1 space per 2 staff; with a Transport and Parking Assessment Study
Community Facilities; information and education facilities; public administration building	Identify car parking demand through a Transport and Parking Assessment Study
Educational establishments	1 space per 2 employees
Entertainment facilities, including function centres	Identify Carparking through a Transport and Parking Assessment Study
Funeral Chapels, Funeral Homes	1 space per 10 seats
Health consulting rooms	1 space per practitioner + 1 space per consulting room
Hospitals	Identify car parking demand through a Transport and Parking Assessment Study
Industrial (except for Warehouse)	1 space per 100m ²
Industrial (Warehouse)	1 space per 300m ²
Medical centre	1 space per practitioner + 1 space per consulting room
Place of worship	1 space per 10 seats or 1 space per 10m ² GFA (whichever is greater) with a Transport and Parking Assessment Study
Pubs	1 space per 50m ²
Recreational Area, Recreation Facility (indoor) (includes gymnasium) and Recreation Facility (outdoor)	Identify car parking demand through a Transport and Parking Assessment Study
Registered clubs (excluding residential) and nightclubs	1 space per 18.5m ²
Residential Accommodation	Dwelling (1-2 bedrooms): 1 space per dwelling Dwelling (3 bedrooms and over): 2 spaces per dwelling Visitor spaces: 1 space per 4 dwellings (or part thereof) Note: Different rates may apply where within 800m of a railway station in accordance with the Apartment Design Guide and the RMS Guide to Traffic Generating Development (2002)
Respite day care centres	1 space per 4 persons (pick up and drop off to be considered)
Restricted premises	1 space per 50m ²
Retail premises (including food and drink premises, restaurants and café)	1 space per 50m ²
Service stations, Vehicle repair; Passenger transport facilities; transport depots	Identify car parking demand through a Transport and Parking Assessment Study
Tourist and Visitor Accommodation (includes backpackers accommodation; bed & breakfast accommodation; hotel or motel accommodation and serviced apartments)	1 space per 5 bedrooms/unit of accommodation (excluding Backpacker accommodation); 1 space per 5 beds of backpacker accommodation; Plus the requirements of any associated restaurant/function room etc.
Veterinary hospitals	1 space per practitioner + 1 space per consulting room

Development Requirements

Table 2: Carparking Rates –land located Outside a Business or Industrial zone

Development Type	Parking Spaces Required On-Site
Boarding House	1 space per 3 beds plus 1 space per 2 employees
Business Premises	1 space per 50m ² GLFA
Child Care Centre	Refer to the Child Care Centres section of this DCP for car parking requirements.
Educational Establishment	1 space per 2 employees
Entertainment Facility (includes Cinemas, Theatres, and Public Assembly Areas etc.)	1 space per 10m ² GLFA or 1 space per 6 seats, whichever is greater.
Entertainment Facility (Indoor - Cricket/Netball/Soccer Centre)	8 spaces per court
Function Centre (Catering and Reception Centre)	1 space per 10m ² dining area + 1 space per 2 employees
Garden Centre	1 space per 100m ² GLA of site area
Health Services Facility	1 space per practitioner + 1 space per consulting room
Home Business, Occupation or Industry	1 space per employee who is not a resident of the dwelling
Hospital	1 space per 2 beds
Hotel or Motel Accommodation	1 space per 5 bedrooms of accommodation, plus the requirements of any associated restaurant/function room etc. Provisions shall be made for off street accommodation of buses and taxis.
Hotel or Motel Accommodation	1 space per unit + 1 space per 2 employees
Light Industry	
Office Area:	1 space per 40m ² GFA
Manufacturing (factory):	1 space per 100m ² GFA
Warehouse (storage):	1 space per 300m ² GFA
Medical Centre	3 spaces per consulting room
Office	1 space per 40m ² GLFA
Place of Public Worship (Church, Temple, Mosque)	1 space per 10 seats or 1 space per 10m ² GFA (whichever is greater)
Pub	1 space per 56m ² of GLFA
Recreation Facility (Indoor - Bowling Alley)	3 spaces per lane
Recreation Facility (Indoor – Gymnasium)	4.5 (min) - 7.5 (ideal) spaces per 100m ² GFA
Recreation Facility (Indoor - Squash / Tennis courts)	3 spaces per court
Recreation Facility (Outdoor - Bowling Club)	Greater of 30 spaces for first green + 15 spaces per each additional green or 1 space per 18.5m ² GFA
Registered Club (general)	1 space per 18.5m ² GFA
Residential Accommodation	Refer to the Residential Development section of this DCP or Controls for Specific Sites and Localities section (if applicable) for car parking requirements

Development Requirements

Development Type	Parking Spaces Required On-Site
Residential Accommodation (Serviced Apartments)	1 space per 4 units + short term standing area
Residential Care Facility (Nursing Home)	1 space per 10 beds, plus 1 space per 2 employees
Restaurant (Fast Food Restaurants) Development with on-site seating: Development with on-site seating & drive through facilities:	12 spaces per 100m ² GFA and 1 space per 5 seats (internal & external) or 1 space per 2 seats (internal), Greater of 1 space per 2 seats (internal) or 1 space per 3 seats (internal & external) + queue space for drive through: <ul style="list-style-type: none"> • McDonalds: 10-12 car lengths • KFC: 5-8 car lengths • Other: Council to determine
Restaurant or Cafe	15 spaces per 100m ² GFA or 1 space per 3 seats (whichever is greater)
Restricted Premises (Drive-in Liquor Stores)	1 space per 50m ² GLFA + queuing space for 3 vehicles.
Retail Premises	Spaces per 100m ² GLFA <ul style="list-style-type: none"> • 6 spaces per 100m² where GLFA is 0 - 10, 000m² • 5 spaces per 100m² where GLFA is 10,000 - 20,000m² • 4 spaces per 100m² where GLFA is >20,000m²
Retail Premises (Bulky Goods Retail Store)	1 space per 50m ² GLFA
Retail Premises (Car Tyre Retail Outlet)	Greater of 3 spaces per 100m ² GFA or 3 spaces per work bay
Service Station	6 spaces per work bay + 1 space per 25m ² GLFA of convenience store. If the petrol station and convenience store includes a restaurant; add 15 spaces per 100m ² GFA or 1 space per 3 seats (whichever is greater).
Shop (Video Store)	6 spaces per 100m ² GLFA
Take-away Food and Drink Premises (without seating or drive through facilities)	Council to determine
Vehicle Body Repair Workshop (Automotive Uses/Panel Beaters)	6 spaces per work bay (stacked parking acceptable)
Vehicle Sales or Hire Premises (Motor Showroom)	1 space per 130m ² GLFA 6 spaces per work bay (for vehicle servicing facilities)
Veterinary Hospital	1 space per 40m ² for < 120m ² GFA 1 space per 30m ² for GFA 120m ² - 1000m ² 1 space per 22m ² for > 1000m ² GFA



3.2 Subdivision

3.2 Introduction

3.2.1 Application of this chapter

This section applies to all development for the purposes of subdivision.

3.2.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objectives:

- to enable the orderly subdivision of land, ensuring that a range of development types are achievable
- to ensure the creation of new allotments are compatible with the surrounding subdivision pattern as reflected in lot size, orientation and shape
- to minimise adverse impacts on adjoining land
- to ensure sufficient building and landscaped area is available on newly created allotments
- to ensure adequate solar access and vehicular access is available to all allotments and that adequate provision is made for drainage and utility services.

3.2.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance Criteria	Design Solution
Lot Size and Shape	
<p>PC1. Lot size and shape:</p> <ul style="list-style-type: none"> a. ensures the subdivision is consistent with the objectives and minimum subdivision lot size requirements of the Hurstville Local Environmental Plan 2012 b. ensures subdivision design takes into account inherent site constraints and minimises any potential adverse environmental impacts c. provides adequate solar access, vehicular access, building area and landscaped area for allotments 	<p>DS1.1 Residential allotment sizes are to conform to Table 1 – Lot size and shape</p>
	<p>DS1.2 The width or the area of any existing or proposed access handle is to be excluded when determining the area or width of each allotment (Refer to Figure 1 - Site area or width calculations - access handles) <i>Note: Clause 4.1 of Hurstville Local Environmental Plan 2012. In battleaxe allotments an access handle comprises any access corridor, accessway, right-of-carriageway or the like.</i></p>
	<p>DS1.3 Allotment sizes for dual occupancy housing are to conform to Table 2 - Lot size and shape for Dual Occupancy.</p>
	<p>DS1.4 Allotments for multi-dwelling housing are to have a minimum size of 500 m² per dwelling in the FSPA.</p>
	<p>DS1.5 Allotments in the IN2 Light Industrial Zone are to have a minimum size of 650 m².</p>
	<p>DS1.6 New allotments for dwelling houses and attached dual occupancy developments are to have a minimum width of 15m for the entire allotment.</p>
	<p>DS1.7 Where the street layout or site feature results in irregularly shaped allotments the lots must have a minimum width of 15m for the whole building footprint and applicants must demonstrate that a development that complies with Council's other controls for development including setback, landscaping and open space can be achieved.</p>
	<p>DS1.8 Battleaxe allotments are to conform to Table 3 – Battleaxe Lots.</p>
	<p>DS1.9 Width of easement is to comply with Table 4 – Width of Easements</p>
	<p>DS1.10 Where the topography of a site requires separate pedestrian access or is only accessible by the use of an inclinators, an accessway with a minimum width of 2 metres is to be provided.</p>
	<p>DS1.11 Corner allotments may be required to provide a 3 metre x 3 metre splay corner (road to road), or 1.5 metre x 1.5 metre (lane to road). Applicants are advised to consult with Council staff prior to lodgement of any development application to determine specific requirements.</p>
	<p>DS1.12 On newly created allotments an indicative building envelope must be able to demonstrate how solar access, vehicular access, setbacks, landscaped areas, and tree preservation can be achieved.</p>

Development Requirements

Performance Criteria	Design Solution
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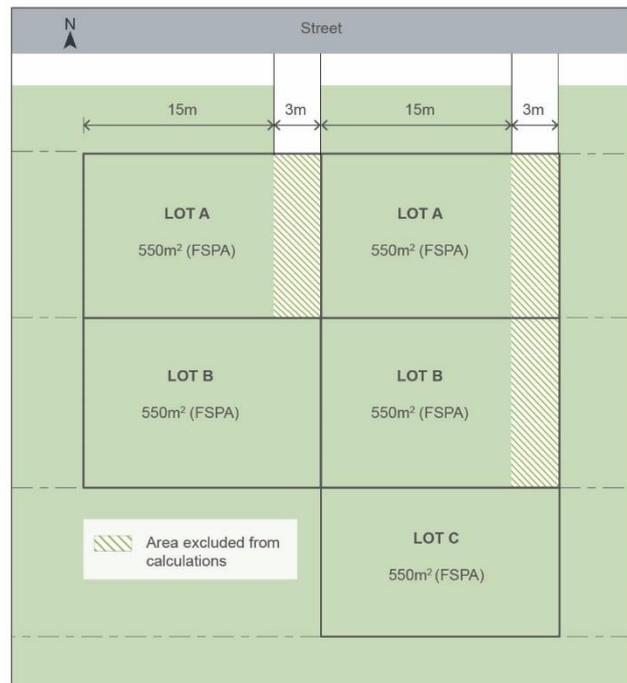
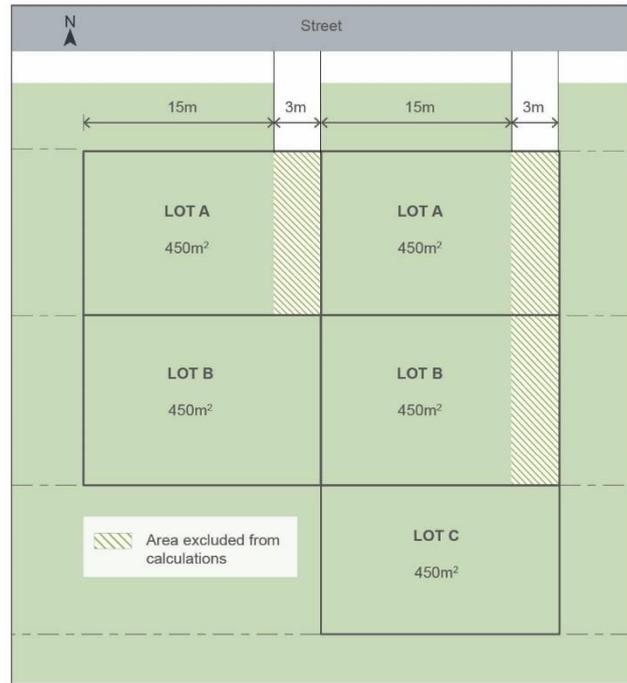


Figure 1: Site area or width calculations - access handles

Roads, Vehicular Access and Car Parking

- PC2.** Roads, vehicular access and car parking:
- a. ensures road design takes into account connectivity, legibility and permeability and adequately caters for the safety of all road users, including motor vehicles, pedestrians and cyclists
 - b. ensures road construction meets minimum standards

DS2.1 Public roads are to be constructed to Council's Traffic Engineers' satisfaction, in accordance with the relevant Australian Standards and relevant road authority's policy and specifications on road design and road safety guidelines.

Development Requirements

Performance Criteria	Design Solution
<p>c. ensures adequate vehicular access and car parking is provided to allotments, according to the subdivision type, taking into account inherent site constraints without interfering with the natural topography and landscape</p>	<p>DS2.2 Pedestrian footpaths or shared pathways / cycle ways are to be designed in accordance with AS 1428.1—2001 Design for Access and Mobility.</p> <p>DS2.3 Consent should be obtained from the relevant road authority under the Roads Act 1993 for each opening of a public road required for the development.</p> <p>DS2.4 Driveways and car parking are to be constructed in accordance with AS 2890.1—2004, Parking facilities—Off-street car parking and with the relevant road authority’s policy and specifications on vehicle and driveway crossings.</p> <p>DS2.5 Driveways and car parking must satisfy the requirements contained in Section 3.1.2.1—Parking Provision of this DCP and comply with the relevant DCP controls according to the development type.</p> <p>DS2.6 A driveway on a battleaxe lot is to conform to the following requirements:</p> <ol style="list-style-type: none"> a. is to be capable of carrying a variety of service vehicles, including fire engines b. is to be provided from the carriageway to the building line c. reciprocal right-of-way and easement for services must be shown d. where access is shared by three or more residential allotments: <ul style="list-style-type: none"> • the driveway is to be 6m wide or passing bays are to be provided at suitable locations • a 12 metre diameter turning circle, or appropriately designed “hammer head” or “T-turn” to Council’s Traffic Engineers’ satisfaction, full concrete construction, is required at a location which will suit all allotments • access is to be constructed prior to the release of the linen plan by Council
Utilities and Services	
<p>PC3. To ensure allotments are adequately serviced by appropriate utility services</p>	<p>DS3.1 Development consent must not be granted unless Council is satisfied that any public utility infrastructure that is essential for the proposed development (including water and electricity supply, disposal and management of sewage and stormwater) is available or that adequate arrangements have been made to make that infrastructure available when required. See Clause 6.7 of Hurstville Local Environmental Plan 2012.</p>

Development Requirements

Performance Criteria	Design Solution
	<p>DS3.2 Service supply to multiple battleaxe subdivisions is to be provided by underground cable. Confirmation that this has been arranged is required in writing from the relevant authority before approval and release of plans can be finalized.</p> <p>DS3.3 Adequate space for the storage of waste and recycling bins is to be provided on the site in an accessible location (see Waste Management in Appendix 1).</p>
Drainage	
<p>PC4. To ensure subdivisions are fully drained to Council standards according to the subdivision type.</p>	<p>DS4.1 All subdivisions must be fully drained by an appropriately designed piped gravity drainage system. This system shall be designed for a minimum 1 in 20 year ARI storm frequency and discharge to a suitable location approved by Council.</p> <p>DS4.2 For inter-allotment drainage of two-lot residential subdivisions where surface water is collected via surface grates etc, any pipelines through adjacent property via a minimum 1m wide drainage easement:</p> <ul style="list-style-type: none"> a. shall be a minimum of 150 mm in diameter or larger, laid at 1% minimum grade b. shall have a minimum inlet pit of 450 mm², including provision for a 150 mm deep silt arrestor; c. shall be of sewer grade PVC <p>DS4.3 Where the site to be subdivided is larger than a two-lot residential subdivision, the pipe size is subject to determination by a qualified hydraulic engineer.</p> <p>DS4.4 All subdivisions must include provision for inter-allotment drainage and the overland flow path of any resulting overflow of stormwater generated by a storm of 100 year ARI.</p> <p>DS4.5 Runoff from storms up to the 100 year ARI that cannot be conveyed within the piped (minor) drainage system (including overflows from roof gutters) must be safely conveyed within formal overland flow paths (major system) to an approved outlet. Any overland flow must be wholly contained within the road corridor or a drainage easement of suitable width. The product of velocity and depth of flow (V x d) shall not exceed 0.4m²/s along these flow paths. Where it is not practicable to provide flow paths that meet these requirements for overland flow, the piped drainage system shall constructed to accept runoff from 100 year ARI storms.</p> <p>DS4.6 Runoff that currently enters a site as a sheet flow from upstream properties shall not be obstructed from flowing onto the site and shall not be redirected so as to increase the peak flow rate or volume of surface runoff entering adjoining properties.</p>

Development Requirements

Performance Criteria	Design Solution
	<p>DS4.7 Where increased seepage is anticipated or becomes evident as a result of site works and this is likely to impact on adjoining properties or the public footpath, appropriately designed subsoil cut off drains shall be provided and connected to the piped drainage system.</p>
	<p>DS4.8 In calculating the width of any drainage easement, consideration shall be given to the width of any overland flow generated by the 100 year ARI storm. This overland flow shall be wholly contained within any drainage easement created. Council may approve an “Easement over Existing Line of Pipes” or an easement of lesser width than 1 m, subject to the diameter of the pre-existing drainage line and site constraints. A condition must be imposed on any approval for a subdivision application that creates additional lots, requiring the creation of “Easements to Drain Water” sufficient to ensure that every lot so created has a legal right of drainage through to an appropriate public drainage system.</p>
	<p>DS4.9 All designs must be prepared by professionals qualified in drainage design.</p>
	<p>DS4.10 Flows shall be determined using the rational method in accordance with procedures set out in <i>Australian Rainfall and Run-off</i> (Institution of Engineers, Australia, 1987 or later) or using an appropriate hydrological/hydraulic computer model.</p>
	<p>DS4.11 Inter-allotment piped stormwater drainage systems shall be designed for a 5 minute duration storm of 20 year ARI or greater.</p>
	<p>DS4.12 All pipe sizing shall be confirmed by hydraulic grade line analysis however a minimum of 375 mm diameter pipe size shall apply to pipelines that become Council’s asset.</p>
	<p>DS4.13 The minimum pipe grade shall be 1% and fullpipe velocities at 20 year ARI shall be between 0.6 and 6 m/s.</p>
	<p>DS4.14 Fully detailed hydraulic plans together with tabulated hydrological and hydraulic information must be submitted to Council.</p>

Table 1: Lot size and shape

Location	Lot size (minimum)
Lots in the residential zones: <ul style="list-style-type: none"> • R2 Low Density Residential • R3 Medium Density Residential 	450 m ²
R2 Low Density Residential lots in the FSPA	550m ²

Development Requirements

Table 2: Lot size and shape for Dual Occupancy

Location	Lot size (minimum)
Lots in the residential zones: <ul style="list-style-type: none"> R2 Low Density Residential R3 Medium Density Residential 	630 m ²
R2 Low Density Residential lots in the FSPA	1000m ²

Table 3: Battleaxe lots

Location	Number of lots per access corridor(maximum)	Width of access handle (minimum)
Lots in the residential zones: <ul style="list-style-type: none"> R2 Low Density Residential R3 Medium Density Residential 	6	3m, if handle services up to two lots
		6m, if handle services more than two lots (unless passing bays are provided at suitable locations).
IN2 Light Industrial Zone	2	6 m

Table 4: Width of easements

Ownership	Nominal Pipe Diameter	Easement Width (minimum)
Private	up to 225 mm	1 metre
	300mm to 600mm	1.8 metres
Council or larger private inter-allotment drains	300 mm to 900 mm	2.5 metres
	1.05m to 1.2 metres	3.0 metres
	Pipes and culverts larger than 1.2 metres	Width appropriate to site location



3.3 Access & Mobility



3.3 Introduction

3.3.1 Application of this chapter

This Section applies to all land covered by Hurstville DCP No.1. It affects certain types of residential, industrial, commercial and retail development. However, the main emphasis is on new, larger developments, although changes of use and alterations and additions to existing buildings may need to comply with certain provisions of this section. The compliance table below explains in further detail what developments are subject to this Section and what requirements need to be satisfied before approval will be considered by Council.

3.3.2 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance Criteria	Design Solution
<p>PC1. Development is designed for access and mobility and to:</p> <ul style="list-style-type: none"> a. provide information, awareness and understanding of access and mobility issues b. create appropriate levels of access and mobility for new developments, alterations and additions to existing buildings, public buildings and open space c. assist in providing a continuous path of travel throughout the City of Hurstville d. ensure compliance with the Disability Discrimination Act, 1992 (Commonwealth), as well as the relevant Australian Standards e. provide controls for adaptable housing which recognise the diverse accommodation needs of the community, particularly older persons and people with a disability 	<p>DS1.1 Development is to comply with Table 1 – Assessment Criteria</p>

Table 1: Assessment Criteria

Development Types	Adaptable Housing	General Access Requirements	Parking
Places of Shared Accommodation (such as shared hotels, boarding houses, backpackers, bed and breakfasts)	One accessible bedroom per five guests'/tenants' bedrooms or part thereof. All common facilities within the room where an accessible bedroom is located must also be accessible.	Access for all persons through the principal entrance and access to any common laundry, kitchen, sanitary or other common facilities in accordance with relevant Australian Standards.	1 parking space per 10 bedrooms or part thereof shall be provided in accordance with AS 2890.
Residential Flat Buildings including conversion of industrial buildings and shop top residential developments. (Mainly Class 2 of the BCA, with mixtures of Classes for those including commercial components)	In developments containing five or more dwellings, a minimum of one adaptable dwelling, designed in accordance with relevant Australian Standards must be provided for every ten dwellings or part thereof.	Access for all persons through the principal entrance and access to any common laundry, kitchen, sanitary or other common facilities in accordance with relevant Australian Standards.	One accessible parking space for every adaptable dwelling designed in accordance with Australian Standards.

Development Requirements

Development Types	Adaptable Housing	General Access Requirements	Parking
Multi dwelling housing	In developments containing 5 or more dwellings, a minimum of 1 adaptable dwelling, designed in accordance with AS 4299, shall be provided. Adaptable housing dwellings shall be provided thereafter at the rate of 1 per 5 dwellings or part thereof	Access to required adaptable dwellings and relevant parking spaces Appropriate access for all persons through the principal entrance of the building and access to any common facilities shall be provided	One accessible parking space for every adaptable dwelling designed in accordance with Australian Standards.
Commercial / Business Premises developments (including commercial premises, shops, remodelling / refurbishment of shops / shopfronts, refreshment rooms) and industrial developments (including warehouses) Classes 5 to 8 of the BCA This also includes changes of use or alterations and additions where a Development Application is required.	Nil.	Access is required to a principal entrance and to public areas in existing buildings or developments if it is proposed to carry out a substantial intensification of use or substantial alterations. In no case shall alterations result in a decrease in access. General access for all persons to appropriate sanitary facilities and other common facilities including kitchens, lunch room, shower facilities, indoor and outdoor recreational facilities.	One space per 20 spaces or part thereof, where parking areas have more than 20 spaces but less than 50 spaces. 2% of parking spaces where 50 or more parking spaces provided in accordance with AS 2890.
Places of Assembly (including cinemas, churches), Public Buildings (including Council and Government Offices), Health Care Buildings, Educational Establishments, Child-Care Centres. (Class 9 of the BCA)	Nil	Access for all persons through the principal entrance and access to appropriate sanitary facilities in accordance with the BCA and relevant Australian Standards.	One space per 20 spaces or part thereof, where parking areas have more than 20 spaces but less than 50 spaces. 2 % of all parking spaces are to be set aside for accessible parking where 50 or more parking spaces are provided, to be designed in accordance with AS 2890.
Ancillary Non-Habitable Buildings associated with Class 2 to 9 buildings (such as private garages, sheds, laundries, shower and sanitary facilities) where the main building is required to be accessible and / or adaptable. (Class 10a of the BCA).	Nil.	Access in accordance with AS 1428.	Provide parking in accordance with the development type associated with the Class 10a buildings.

Development Requirements

Development Types	Adaptable Housing	General Access Requirements	Parking
<p>Aquatic Centres and Public Swimming Pools</p> <p>(Class 10b of the BCA for swimming pools not located within and enclosure or building).</p> <p>(Class 9b of the BCA for swimming pools located within and enclosure or building).</p>	Nil.	Access for all persons through the principal entrance and access to appropriate sanitary facilities in accordance with the BCA and relevant Australian Standards.	One space per 20 spaces or part thereof, where parking areas have more than 20 spaces but less than 50 spaces. 2 % of all parking spaces are to be set aside for accessible parking where 50 or more parking spaces are provided, to be designed in accordance with AS 2890.
<p>Public Open Space and Facilities (including new footpaths, road works, toilets, pavilions, board walks and the like) where a Development Application is required.</p>	Nil.	Access in accordance with AS 1428.2 where appropriate and reasonable.	One space per 20 spaces or part thereof, where parking areas have more than 20 spaces but less than 50 spaces. 2 % of all parking spaces are to be set aside for accessible parking where 50 or more parking spaces are provided, to be designed in accordance with AS 2890.



3.4 Crime Prevention Through Environmental Design



3.4 Introduction

3.4.1 Application of this chapter

This section applies to residential flat buildings, mixed use developments, commercial developments, light industrial developments, public buildings and multi dwelling housing. Many of the principles are also relevant for single dwellings and dual occupancy housing and may be considered in the design of these housing types.

3.4.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objectives:

- to enhance safety by reducing opportunities for crime to occur
- to improve observation of public and private spaces
- to optimise the use of public spaces and facilities by the community
- to promote the design of safe, accessible and well maintained buildings and spaces

3.4.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance Criteria	Design Solution
Site and Building Layout	
<p>PC1. Site and building layout:</p> <ul style="list-style-type: none"> a. ensures that the way in which the site, and the buildings within the site, are laid out enhance security and feelings of safety. b. ensures that private and public spaces are clearly delineated c. ensures that the design of the development allows for natural surveillance to and from the street and between individual dwellings or commercial units within the site d. provides entries that are clearly visible and avoid confusion e. avoids blind corners in pathways, stairwells, hallways and car parks f. provides natural surveillance for communal and public areas g. ensures that design for natural surveillance also provides for a suitable streetscape appearance h. where permitted, provides appropriate mixed uses within buildings to increase opportunities for natural surveillance, while protecting amenity i. locates public services (ATMs, telephones, help points, bicycle storage etc) in areas of high activity j. designs car parks to allow for natural surveillance and ensure clear sight lines, ease of access and safety at the entrance and within the car park 	<p>DS1.1 Avoid blank walls fronting the street.</p>
	<p>DS1.2 Offset windows, doorways and balconies to allow for natural observation while protecting privacy.</p>
	<p>DS1.3 Access to dwellings or other uses above commercial/retail development should not be from rear lanes.</p>
	<p>DS1.4 Entrances should be located in prominent positions, be easily recognisable through design features and directional signage and should allow users to see into the building before entering.</p>
	<p>DS1.5 Pathways within and to the development should be direct and all barriers along the pathways should be permeable including landscaping and fencing.</p>
	<p>DS1.6 Consider the installation of mirrors, glass or stainless steel panels to allow users to see ahead and around corners in corridors and stairwells.</p>
	<p>DS1.7 Locate active uses or habitable rooms with windows adjacent to the main communal/public areas e.g. playgrounds, swimming pools, gardens, car parks etc.</p>
	<p>DS1.8 Communal areas and utilities e.g. garbage bays should be easily seen and lit.</p>
	<p>DS1.9 Where elevators or stairwells are provided, open style or transparent materials are encouraged on doors and/or walls of elevators/stairwells.</p>
	<p>DS1.10 Waiting areas and entries to elevators/stairwells should be close to areas of active uses, and should be visible from the building entry.</p>
<p>DS1.11 Seating should be located in areas of active uses.</p>	
Multi Dwelling Housing or Residential Flat Buildings	
	<p>DS1.12 Ensure that the multi dwelling housing or residential flat buildings address the street, or both streets if located on a corner.</p>
	<p>DS1.13 Position habitable rooms with windows at the front of the dwelling.</p>
	<p>DS1.14 Garages and carports should not dominate the front façade of the building.</p>
Commercial Premises	
	<p>DS1.15 Locate shops and businesses on lower floors and residences on upper floors. In this way, residents can observe the businesses after hours while the residences can be observed by the businesses during business hours.</p>
	<p>DS1.16 Incorporate car wash services, taxi ranks and shop kiosks etc within car parks.</p>

Development Requirements

Performance Criteria	Design Solution
	DS1.17 Locate public facilities in highly visible locations that are well lit and, where possible, near activities with extended trading hours e.g. restaurants, convenience stores and avoiding locating near possible hiding places eg. fire stair.
	DS1.18 Design ATMs to incorporate mirrors or reflective materials so that users can observe people behind.
	DS1.19 Provide directional signs to key services and landmarks e.g. railway station, taxi ranks, library etc.
	DS1.20 Ensure surveillance between the shopfront and the street by retaining clear sight lines and limiting promotional material on windows.
	DS1.21 Avoid displaying merchandise on the footpath.
	DS1.22 Supermarkets and other stores that provide shopping trolleys should provide an incentive scheme for their return or a retrieval service.
	DS1.23 If staff entrances must be separated from the main entrance, they should maximise opportunities for natural surveillance from the street.
	DS1.24 In industrial developments, administration/offices should be located at the front of the building.
	Car Parks
	DS1.25 Avoid large expanses of car parks. Where large expanses of car parks are proposed, surveillance such as security cameras should be provided.
	DS1.26 Where possible, locate entry/exit points in close proximity and close to the car park operator or shops, cafes etc.
	DS1.27 Minimise the number of entry and exit points to car parks.
	DS1.28 Access to lifts, stairwells and pedestrian pathways should be clearly visible within the car parks.
	DS1.29 Car park design should avoid hidden recesses.
	DS1.30 Locate car parks in areas that can be observed by adjoining uses.
	DS1.31 Pedestrian corridors/routes should be clearly identified in car parks servicing large developments.
	DS1.32 Locate disabled parking spaces in highly visible and convenient areas.
	DS1.33 Where staff car parking is provided it should be separate and secured from the public car park.
	Open Space
	DS1.34 Open spaces should be clearly designated and situated at locations easily observed by people. Parks and playgrounds should be located in front of buildings; shopping centres etc and should face the street rather than back lanes.

Development Requirements

Performance Criteria	Design Solution	
	DS1.35 Seating, play equipment, BBQ areas etc should be provided to encourage the use of open spaces.	
	DS1.36 Seating should be conveniently located and easily seen.	
	DS1.37 Facilities e.g. toilets and telephones, should be located close to areas of active uses and access to facilities should be direct and free of obstruction.	
	DS1.38 Pathways should be direct, follow pedestrian desire lines and avoid blind corners.	
Lighting		
PC2. Lighting: <ul style="list-style-type: none"> a. enhances the amenity and safety of a site after dark by increasing opportunities for casual surveillance, deterring unauthorised access and reducing feelings of fear and vulnerability of legitimate site user b. enhances the amenity and safety of a site after dark by increasing opportunities for casual surveillance, deterring unauthorised access and reducing feelings of fear and vulnerability of legitimate site users c. is provided to enable natural surveillance, particularly in entrances/exits, service areas, pathways and car parks d. be clearly identifies all exist and entries after dark e. ensures service areas such as garbage areas and loading bays are well lit f. is designed so it doesn't produce areas of glare and shadow 	DS2.1 Dwelling and commercial unit main entries should be well lit at night.	
	DS2.2 Use diffused lights and/or movement sensitive lights.	
	DS2.3 All lighting must be vandal resistant and easy to maintain.	
	DS2.4 Direct lights towards access/egress routes and possible hiding places to illuminate potential offenders, rather than towards buildings or resident observation points.	
	DS2.5 Illuminate possible places for intruders to hide.	
	DS2.6 Lighting should have a wide beam of illumination, which reaches to the beam of the next light, or the perimeter of the site or area being traversed, thereby avoiding dark shadows.	
	DS2.7 Generally areas should be lit to enable users to identify a face 15 metres away.	
	DS2.8 Avoid light spillage onto neighbouring properties as this can cause nuisance and reduce opportunities for natural surveillance.	
	DS2.9 Use energy efficient lamps/fittings/switches to save energy.	
	Commercial Premises	
	DS2.10 Leave some lights on at night or use sensor lights	
	DS2.11 Locate additional lighting below awnings to provide adequate illumination to the footpath areas.	
	Car Parks	
	DS2.12 Illuminate all external edges and access points to car parks during its opening hours.	
DS2.13 Ensure that the intensity of lighting to covered or underground car parks is graded to allow for the adjustment of driver and pedestrian vision. Brighter light should be used at entrance and pedestrian access ways and dimmer light should be used elsewhere.		
DS2.14 Lighting should be sufficiently bright to enable a car park user to see into the rear seat of a parked car before they enter the car.		

Development Requirements

Performance Criteria	Design Solution
	<p>Open Space</p> <p>DS2.15 Illuminate access points to areas of open space and pathways.</p> <p>DS2.16 Locate brighter lights in highly used areas.</p> <p>DS2.17 Ensure lighting does not produce dark shadows close to pathways and entries/exits.</p> <p>DS2.18 Lighting should be increased where parks are used by pedestrians as a thoroughfare or shortcut. As a guide, areas should be lit to enable users to identify a face 15 metres away.</p> <p><i>Note: Details of all lighting (location, type and intensity) for public areas must be submitted with a development application for multi dwellings housing, residential flat buildings, commercial premises and car parks.</i></p>
<p>Landscaping</p> <p>PC3. Lighting and fencing:</p> <ol style="list-style-type: none"> does not reduce the security of a site where used to delineate private space, is used in a way which enhances safety does not obstruct casual surveillance and allows intruders to hide uses vegetation as barriers to deter unauthorised access avoids large trees/shrubs and buildings works that could enable an intruder to gain access 	<p>DS2.19 Avoid medium height vegetation with concentrated top to bottom foliage. Plants such as low hedges and shrubs, creepers, ground covers and high canopied vegetation are good for natural surveillance. Refer Figure 1 – Vegetation placement for passive surveillance.</p> <p>DS2.20 Trees with dense low growth foliage should be spaced or crown raised to avoid a continuous barrier.</p> <p>DS2.21 Use low ground cover or high canopied trees, clean trunks, to a height of 2m around children's play areas, car parks and along pedestrian pathways.</p> <p>DS2.22 Avoid vegetation, which conceals the building entrance from the street.</p> <p>DS2.23 Select planting species having regard to their type and location to minimise possible places for intruders to hide.</p> <p>DS2.24 When planting is provided within 5m of a pedestrian pathway, it should be lower than 1 metre or thin trunked with high canopy.</p> <p>DS2.25 Planting should not prevent informal surveillance by adjacent residents.</p> <p>DS2.26 Prickly plants can be used as effective barriers. Species include bougainvilleas, roses, succulents, and berberis species.</p> <p>DS2.27 Avoid large trees, carports, skillion extensions, fences, and downpipes next to second storey windows or balconies that could provide a means of illegal access to the building.</p> <p>DS2.28 Ensure vegetation is maintained regularly.</p>

Development Requirements

Performance Criteria	Design Solution
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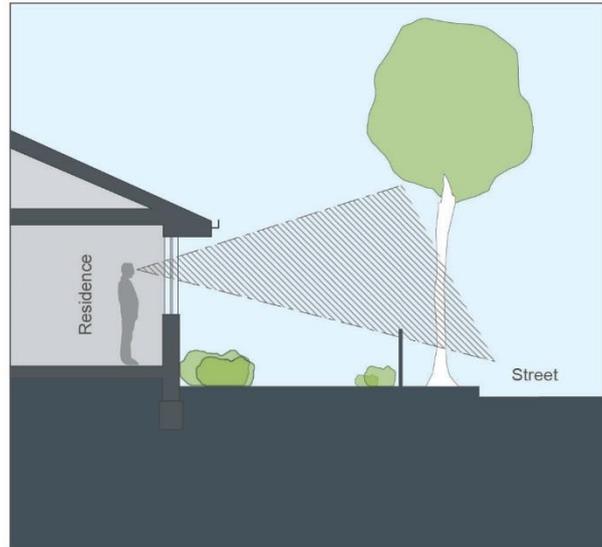


Figure 1: Vegetation placement for passive surveillance

Fencing	
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<p>PC4. Fencing:</p> <ul style="list-style-type: none"> a. does not restrict casual surveillance between the site and the street due to its height, location and design b. where on the front boundary, should be designed to maximise opportunities for casual surveillance between the site and the street and minimise opportunities for concealment 	<p>DS4.1 Front fences are to be predominantly open in design to allow sight through the fences eg picket fences, wrought iron.</p> <p>DS4.2 If noise insulation is required, install double-glazing at the front of the building rather than a high solid fence (greater than 1 metre).</p> <p>DS4.3 Fences are not to inhibit surveillance of the communal areas, pathways, and footpath by occupants of the building. Both the height of the fence in relation to the building as well as the nature of the construction materials need to be considered.</p>
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Security and Operational Management	
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<p>PC5. Development:</p> <ul style="list-style-type: none"> a. ensures an appropriate level of security is achieved b. provides an appropriate level of security for individual buildings and communal areas to reduce opportunity for unauthorised access c. ensures individual dwellings are equipped with appropriate security devices d. ensures an appropriate level of security is achieved in communal areas e. provides adequate security to commercial premises with extended hours of operation 	<p>DS5.1 Locks are to be fitted on all doors and windows to the Australian Standard.</p> <p>DS5.2 Security devices such as grilles on door and window openings must be 'permeable' to allow casual surveillance. Solid shutters are not permitted on the window and door openings, which have frontage to the street or are adjacent to open space.</p> <p>DS5.3 Install viewers on entry doors to allow building occupants to see who is at the door before it is opened.</p> <p>DS5.4 Install intercom, code or card locks or similar for main entries to residential flat buildings and commercial premises including car parks.</p> <p>DS5.5 Entry doors are to be self-closing and signs displayed requesting building occupants not to leave doors wedged open.</p> <p>DS5.6 Consider installing user/sensor electronic security gates at car park entrances, garbage areas and laundry areas etc., or provide alternative access controls.</p>
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Development Requirements

Performance Criteria	Design Solution	
	DS5.7 Pedestrian entry to basement parking must be through secured access via the main building.	
	DS5.8 External storage areas are to be well secured and well lit.	
	DS5.9 If security grilles are used on windows they must be operable from inside in case of emergencies.	
	DS5.10 Ensure skylights and/or roof tiles cannot be readily removed or opened from outside.	
	DS5.11 Provide lockable gates on side and rear access.	
	Commercial Premises	
	DS5.12 Consider security infrastructure such as monitored alarm systems, building supervisors or security guards.	
	Car Parks	
	DS5.13 Use security devices, such as an intercom or remote lock facility in multi-level car parks where appropriate.	
	DS5.14 Locate a help point on each parking level and/or allocate security staff for larger developments.	
	DS5.15 Use only a limited area of a multi-level car park outside peak hours.	
DS5.16 Consider the installation of boom gates or similar devices at entrances and exits of the car park.		
Building Identification		
PC6. Development:	DS6.1 Each individual dwelling or commercial unit is to be clearly numbered and unit numbers and directions should be provided on each level of the development.	
a. ensures buildings are clearly identified by street number to prevent unintended access and to assist persons trying to find the address	DS6.2 Each building entry must clearly state the dwelling or unit numbers accessed from that entry.	
b. ensures that parking areas are clearly identified by signage to prevent unintended access and to assist persons trying to find their car	DS6.3 Street numbers are to be at least 7cm high, and positioned between 1m and 1.5m above ground level on the street frontage.	
c. ensures that signage is clearly visible, easy to read and simple to understand	DS6.4 Street numbers should be made of durable materials preferably reflective or luminous, and should be unobstructed (e.g. by foliage).	
	DS6.5 Location maps and directional signage should be provided for larger developments.	
	DS6.6 Both directional and behavioural signage should be provided at entrances to open space areas and parks.	
	Car Parks	
	DS6.7 Building identification and directional signage in car parks should be clearly visible, easy to read and simple to understand and utilise strong colours, standard symbols and simple graphics.	
	DS6.8 Both pedestrians and drivers should be provided with a clear understanding of the direction to stairs, lifts and exits.	

Development Requirements

Performance Criteria	Design Solution
	<p>DS6.9 In multi-level car parks, creative signage should be used to distinguish between floors to enable users to easily locate their cars.</p> <p>DS6.10 Signage should advise car parks users of the security measures that are in place and where to find them eg. Intercom systems.</p> <p>DS6.11 Signage should be provided in car parks to advise users to lock their cars and not display valuables.</p> <p>DS6.12 Where exits are closed after hours, ensure this information is indicated at the car park entrance.</p>
Building Ownership	
<p>PC7. Development is:</p> <ol style="list-style-type: none"> designed to promote a sense of site ownership and to encourage responsibility in making sure the site is well looked after and cared for designed to promote pride and sense of place and ownership and reduce illegitimate use/entry. 	<p>DS7.1 Use psychological barriers such as fences, gardens, lawn strips, varied textured surfaces to define different spaces within a development.</p> <p>DS7.2 To distinguish dwellings or groups of dwellings use design features e.g. colouring, vegetation, paving, artworks, fencing, furniture etc.</p> <p>DS7.3 Ensure the speedy repair or cleaning of damaged or vandalised property and the swift removal of graffiti.</p> <p>DS7.4 Provide information advising where to go for help and how to report maintenance or vandalism problems.</p>
Open Space	
	<p>DS7.5 Provide features that reflect the community's needs and that will consequently be well utilised (e.g. play equipment, seating areas etc).</p> <p>DS7.6 Consider using cultural themes applicable to the area and encourage community involvement in design.</p> <p>DS7.7 Encourage volunteer management and maintenance of public areas.</p>
Building Materials	
<p>PC8. Building materials:</p> <ol style="list-style-type: none"> minimise opportunities for criminal damage and can be easily maintained reduce the opportunity for intruder access minimise opportunities for vandalism are regularly maintained and include swift removal of graffiti to enhance 'cared for' image 	<p>DS8.1 Use toughened or laminated glass at ground floor public areas.</p> <p>DS8.2 Roller shutters for commercial premises or car parks should be in the form of an opaque or clear security grille rather than a solid material.</p>
Car Parks	
	<p>DS8.3 Use materials that enhance natural surveillance within the car park.</p> <p>DS8.4 Encourage the use of transparent materials for walls and doors of car parks.</p> <p>DS8.5 Paint the ceilings and walls of the car park in light colours to enhance brightness.</p>

Development Requirements

Performance Criteria	Design Solution
	<p>DS8.6 Reflective film can be used on windows overlooking car parks. Potential intruders will not know if they are being observed during daylight hours.</p> <p>DS8.7 Consider the installation of open style security grilles to individual parking spaces rather than separate garaging.</p> <p>DS8.8 Where feasible include security grilles from underground car parks to the street to provide some surveillance.</p>
Building Maintenance	
<p>PC9. Development</p> <ul style="list-style-type: none"> a. creates the impression that the site is well looked after and well cared for b. uses materials that reduce the opportunity for vandalism. 	<p>DS9.1 Ensure the speedy repair or cleaning of damaged or vandalised property and the swift removal of graffiti.</p> <p>DS9.2 Provide information advising where to go for help and how to report maintenance or vandalism problems.</p> <p>DS9.3 Strong, wear resistant laminate, impervious glazed ceramics, treated masonry products, stainless steel materials, anti-graffiti paints and clear over sprays will reduce the opportunity for vandalism. Flat or porous finishes should be avoided in areas where graffiti is likely to be a problem.</p> <p>DS9.4 Where large walls are unavoidable, consider the use of vegetation or anti-graffiti paint. Alternatively, modulate the wall, or use dark colours to discourage graffiti on vulnerable walls.</p> <p>DS9.5 External lighting should be vandal resistant. High mounted and/or protected lights are less susceptible to vandalism.</p> <p>DS9.6 Communal/street furniture should be made of hardwearing vandal resistant materials and secured by sturdy anchor points or removed after hours.</p>



3.5 Landscaping

3.5 Introduction

3.5.1 Application of this chapter

This chapter applies to landscaping associated with development for Residential Accommodation in the R2 Low Density and R3 Medium Density Residential zones, except for Dwelling Houses and development covered by the Apartment Design Guide.

3.5.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objectives:

- to contribute to the creation of a distinct landscape character for Hurstville
- to protect existing significant trees and vegetation
- to reduce the visual and environmental impact of buildings, structures and hardstand
- to create attractive, comfortable, functional and safe streets, public domain and private domain
- to complement and enhance the function of communal open space, private open space and setback areas
- to provide potential habitat for desirable local wildlife species
- to encourage on site stormwater infiltration
- to reduce the urban heat island effect.

3.5.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance criteria	Design solution
Street and neighbourhood landscape character	
PC1. Development contributes to the creation of a distinct, attractive landscape character for streets and neighbourhoods	DS1.1 Where a street or neighbourhood has an existing desirable landscape character, similar species are planted on site, except where the species are identified as being undesirable in accordance with Appendix 1 – Recommended species for landscaping.
	DS1.2 Where a street or neighbourhood does not have an existing desirable landscape character, a coherent range of species are planted on site in accordance with Appendix 1 – Recommended species for landscaping.
Landscaping area and dimensions	
PC2. The size and dimensions of landscaping areas are adequate to minimise the visual impact of buildings and structures and provides areas of a high level of utility and amenity	DS2.1 No design solution is provided and each proposal is assessed on its own merits.
Significant trees and vegetation	
PC3. Development protects existing significant trees and vegetation:	DS3.1 Site layout and design, including buildings, structures and hardstand, ensures the long term retention and health of existing significant trees and vegetation.
	DS3.2 Where significant trees or vegetation are required to be removed to allow for site development, they are to be replaced with the same or similar species achieving the same coverage at maturity.
Front, side and rear boundaries	
PC4. Landscaping in front setbacks: <ol style="list-style-type: none"> integrates the public and private domain is co-ordinated with the street planting pattern and species reduces the visual impact of buildings, structures and hardstand 	DS4.1 Landscaping in front setbacks consists of: <ol style="list-style-type: none"> an area of sufficient dimensions to accommodate planting <p>Note: <i>this area must be a minimum of 2m</i></p> <ol style="list-style-type: none"> shade trees that grow to a height consistent with or greater than that of the building screening shrubs where required to mitigate the visual impact of blank walls low shrubs and ground covers to ensure complete coverage of planting area
PC5. Landscaping alongside boundaries reduces the visual impact of buildings on adjoining premises	DS5.1 Landscaping is provided along the entire length of rear boundaries where buildings are located and consists of: <ol style="list-style-type: none"> an area of sufficient dimensions to accommodate planting <p>Note: <i>this area must be a minimum of 2m</i></p> <ol style="list-style-type: none"> shade trees that grow to a height consistent with or greater than that of the building screening shrubs where required to mitigate the visual impact of blank walls low shrubs and ground covers to ensure complete coverage of planting area

Development Requirements

Communal and private open space	
<p>PC6. Landscaping in communal open space and private open space contributes to the their useability and amenity</p>	<p>DS6.1 A minimum of one shade tree is planted in each area of private open space.</p>
	<p>DS6.2 Trees planted in areas of communal open space are to provide shade to a minimum of 25% of the area at maturity.</p>
	<p>DS6.3 A minimum of 50% of private and communal open space areas are to be covered in turf and / or planting area.</p>
	<p>DS6.4 Trees planting in area of private or communal open space are to:</p> <ul style="list-style-type: none"> a. enable the penetration of winter sun and mitigate the penetration of afternoon summer sun b. enable the penetration of desirable cooling winds in summer and mitigate the penetration of undesirable cold winds in winter
Carparks	
<p>PC7. Landscaping reduces the environmental impacts of carparks</p>	<p>DS7.1 Landscaping is to be provided within and around the perimeter of carparking areas that accommodate over 6 vehicles.</p>
	<p>DS7.2 Shade trees are provided at a ratio of at least 1 for every 6 carparking spaces</p> <p><i>Note: this requirement may be reduced for Child Care Centres or for other uses where there is typically a short term usage pattern, eg primarily customer drop off/pick up.</i></p>
	<p>DS7.3 Raised or sunken planting beds having a minimum width of 1m are provided around the entire perimeter of carparks.</p>
	<p>DS7.4 Landscaped areas and trees are to be protected with a 150mm concrete kerb or edge treatment to protect them from damage by vehicles.</p>
Landscaping plans	
<p>PC8. Development applications are supported by sufficient detail to demonstrate achievement of the objectives of this chapter</p>	<p>DS8.1 Development that involves landscaping is to be supported by a:</p> <ul style="list-style-type: none"> a. a survey plan showing the location of existing trees, their type and condition and what are being proposed to be removed b. concept level landscape plan showing the extent, function and character of landscaped area c. detailed landscape plan showing excavation, location of site services, proposed levels, drainage, construction detail; and a detailed planting schedule

Development Requirements

Landscaping near areas of ecological significance	
<p>PC9. Landscaping that is located adjacent to areas of ecological significance protects and strengthens the ecological values of the area</p>	<p>DS9.1 Landscaping comprises species that are consistent with the dominant species in the adjoining area of ecological significance.</p> <p><i>Note: exceptions may be made where adjoining an area that is bushfire prone.</i></p>
Landscaping near bushfire prone areas	
<p>PC10. Landscaping within or adjacent to areas that are bushfire prone minimise risk or bushfire hazard to people and property</p>	<p>DS10.1 Fire resistant species are planted in areas that are susceptible to bushfire hazard.</p>
Stormwater management	
<p>PC11. Landscaping facilitates on site stormwater infiltration and does not result in significant adverse water quality impacts</p> <p><i>Note: due to the existing soil profile of parts of Hurstville, on site infiltration is not always possible, and this will be considered by council when assessing development applications for compliance with this performance criteria</i></p>	<p>DS11.1 Opportunities for on-site stormwater infiltration are provided through measures such as:</p> <ol style="list-style-type: none"> a. turf and raised planting beds b. minimising the extent of impervious surfaces
	<p>DS11.2 Landscaped areas and suitably drained and ensure the soil and sediment does not exit the site.</p>
Maintenance	
<p>PC12. Landscaping areas are able to be easily maintained</p>	<p>DS12.1 Trees that have short life, drop branches or have gum or fruit or those that can damage underground pipes through invasive root systems are avoided.</p>
	<p>DS12.2 Turfed areas are readily accessible by standard lawn cutting devices.</p>
	<p>DS12.3 Planting beds are provided with a durable automatic irrigation system.</p>
	<p>DS12.4 One hose cock is provided for each separate area of communal or landscaped open space.</p>
	<p>DS12.5 Where they are difficult to access, landscaping areas are planted with durable, long life species that have minimal maintenance requirements.</p>
Safety	
<p>PC13. Landscaping provides for personal and property safety</p>	<p>DS13.1 Landscaping is sited and designed in accordance with the principles of CPTED.</p>
	<p>DS13.2 Landscaping enables clear sight lines to be achieved along pathways and minimise opportunities for concealment.</p>
	<p>DS13.3 Dense screening vegetation is not provided within front setbacks.</p>
Utilities	
<p>PC14. Landscaping does not interfere with the effective functioning of utilities</p>	<p>DS14.1 Landscaping does not interfere with the effective functioning of overhead, surface level or underground utilities.</p>



3.6 Public Domain

3.6 Introduction

3.6.1 Application of the chapter

This chapter applies to development that involves works in the public domain.

3.6.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objective:

- to create public domain within streets that protects and enhances the character and visual quality of Hurstville.

3.6.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Performance criteria	Design solution
General	
<p>PC1. Development contributes to the creation of attractive, comfortable and safe streets that comprise consistent and high quality paving, street furniture and street tree plantings.</p>	<p>DS1.1 Development that proposes works in the public domain is to obtain all necessary council and statutory authority approvals before work commences.</p> <hr/> <p>DS1.2 Where council has prepared a streetscape design manual for a street or area detailing public domain requirements, works are consistent with the requirements of the manual.</p> <hr/> <p>DS1.3 Construction activity that damages council assets in the public domain such as kerb and gutter is to replace the damaged asset to the same or an equivalent standard.</p> <hr/> <p>DS1.4 The placement of trees, street furniture and signage is to provide for amenity without causing clutter.</p> <hr/> <p>DS1.5 Footpath pavement width is to allow for comfortable walking, unimpeded by obstacles.</p> <hr/> <p>DS1.6 Streets are to have shared services pits to reduce maintenance costs and reduce conflict with street plantings.</p> <hr/> <p>DS1.7 For large scale development, high quality, durable and coordinated street furniture that enhances the comfort, legibility and attractiveness of the public domain is to be provided, and may include a selection of:</p> <ul style="list-style-type: none"> a. seating b. lighting c. rubbish bins d. signage <hr/> <p>DS1.8 Street trees are to be provided on all streets to achieve the following outcomes:</p> <ul style="list-style-type: none"> a. coordinated palette of climatically responsive species b. reinforce the street hierarchy and create distinct places c. be robust and low-maintenance d. be planted in a coordinated, regularly spaced and formalised manner e. increase the comfort of the public domain for pedestrians f. enhance the environmental performance of the precinct by increasing opportunities for energy efficiency, reducing the heat island effect and providing habitat for wildlife



3.7 Stormwater

3.7 Introduction

3.7.1 Application of this chapter

This chapter applies to development that involves management of stormwater.

Part A applies to residential development, except for Dual Occupancies, Dwelling Houses, Secondary Dwellings and Outbuildings. Stormwater requirements for these land uses are contained in Section 4.4 of the DCP.

Part B specifies additional design solutions for industrial, commercial and mixed-use development.

3.7.2 Purpose of this chapter

The purpose of this chapter is to achieve the following objectives:

- to provide for the efficient and functional management of stormwater
- to achieve acceptable discharge rates for stormwater discharge off site, including minimising the risk of flooding
- to ensure the quality of stormwater discharged off site does not cause significant adverse impacts on the ecological values of receiving waters such as creeks, rivers or estuaries
- to ensure development does not exacerbate overland flow issues for other properties
- to minimise change to existing ground levels
- to ensure stormwater management does not adversely affect the visual quality of streetscapes
- to achieve development outcomes that are suited to the level of flooding risk identified by Council's Hurstville Flood Study

3.7.3 Development Requirements

The development requirements for this Section are provided in the table below.

Development Requirements

Part A – Residential Flat Buildings, Multi Dwelling Housing and Boarding Houses

Performance criteria	Design solution	
General		
<p>PC1. Stormwater management is provided on site:</p> <ul style="list-style-type: none"> a. to not increase the existing level of hazard to persons or property b. to ensure rainwater run-off and overland flow is directed into an approved stormwater drainage system c. to reduce and control rainwater run-off in order to minimise overland flows, soil erosion and siltation in streams and water ways. d. to encourage an environmentally sustainable regime of stormwater management that achieves a balance between collecting and re-using rainwater, maintaining acceptable environmental flows in streams and allowing for on-site surface infiltration via landscaping. 	<p>Stormwater management systems</p> <p>DS1.1 Stormwater flows are managed within the drainage sub-catchment the site is located.</p> <p>DS1.2 Original or existing stormwater flow patterns are formalised and are not significantly altered in terms of direction and fall.</p> <p>DS1.3 Development does not concentrate, divert or increase overland flow of stormwater onto an adjoining property and where overland flow is an issue in a rare storm event as determined by Council's Hurstville Flood Study, a post-development flood analysis is to be provided.</p> <p>DS1.4 Measures are implemented during construction to reduce soil erosion from development sites.</p> <p>DS1.5 A development application is supported by a concept stormwater management plan showing how surface and roof waters are to be discharged by gravity to the street or easement and the size of all pipes.</p> <p>DS1.6 On-site retention of roof run-off using rainwater tanks or detention tanks for storage and re-use must be provided.</p> <p>DS1.7 All runoff is discharged to the adjacent road kerb and council's drainage system or an easement over a downstream property.</p> <p>DS1.8 On-site infiltration is maximised by minimising sealed surfaces and increasing porous surfaces to reduce stormwater runoff.</p>	
	Stormwater management systems– design and capacity	
		<p>DS1.9 Overland flow paths are designed for the 100 year storm ARI event.</p> <p>DS1.10 On site stormwater and drainage control is to be designed for the 20 year ARI storm.</p>
	Where involving drainage by gravity	
		<p>DS1.11 Where the property falls to the street, stormwater is discharged to the adjacent road kerb or Council's drainage system directly in front of the development site by gravity.</p> <p>Note: A drainage application under Section 68 of the Local Government Act 1993 and Section 138 of the Roads Act 1993 is required to get approval to connect to Council's drainage system.</p> <p>DS1.12 The point discharge to the gutter must not exceed 25 litres per second (a total for the site).</p>

Development Requirements

Performance criteria	Design solution
	<p>DS1.13 Development sites greater than 700m² in area must discharge stormwater into Council's stormwater system. A gully pit with 2400mm lintel is to be constructed at this location. If no pipe line exists, a new pipe line must be constructed to discharge stormwater.</p> <p>Note: A drainage application under Section 68 of the Local Government Act 1993 and Section 138 of the Roads Act 1993 is required to get approval to connect to Council's drainage system.</p>
	<p>DS1.14 All other impervious surface water runoff from areas such as driveways and footpaths is to drain by gravity to Council's drainage system.</p>
Where involving drainage by easement	
	<p>DS1.15 Developer required creating an easement over the adjoining downstream property/s to drain stormwater by gravity across the downstream properties to the road kerb or Council's drainage system.</p> <p>Note: A drainage application under Section 68 of the Local Government Act 1993 and Section 138 of the Roads Act 1993 is required to get approval to connect to Council's drainage system.</p>
	<p>DS1.16 Where an easement is required over downstream properties for drainage purposes:</p> <ol style="list-style-type: none"> a. it is to have a minimum width of 1m and a separate Development Application is required for the installation of the pipeline within easement. b. a letter of consent from the owner(s) of the downstream properties is to be submitted with the Development Application for installation of the pipeline within easement. <p>The applicant is to provide Council with evidence that the easement has been registered with the Registrar General.</p>
	<p>DS1.17 Buildings are not to be constructed over the easement</p>
	<p>DS1.18 All other water runoff from impervious surfaces such as driveways and footpaths to be intercepted and drained by gravity to Council's drainage system</p>
On site detention	
	<p>DS1.19 The rate of discharge of roof and pavement runoff from the site is to be controlled by the provision of an on-site detention system.</p>
	<p>DS1.20 On site detention facility shall be designed in accordance with Hurstville City Council's 'Drainage and On-Site Detention Policy'.</p>
Where involving drainage by a pump out system	
	<p>DS1.21 Pump-out systems are only allowed to drain basement and its driveway ramps.</p>

Development Requirements

Performance criteria	Design solution
	<p>DS1.22 Where a pump out system is proposed for the drainage of a basement and its driveway ramp, discharge is either to be directed to a harvest/reuse system or connected to Councils drainage pipe system</p>

Part B – Additional Design Solution for Industrial, Commercial and Mixed-use Developments

(in addition to controls listed in Part A)

Performance criteria	Design solution
	<p>Stormwater quantity</p> <p>DS1.23 Stormwater discharge for development sites is not to exceed the 5 year ARI storm event.</p> <p>DS1.24 An on-site stormwater detention system is provided that reduces the flow rate of stormwater discharge.</p>
	<p>Stormwater quality</p> <p>DS1.25 The quality of stormwater leaving development sites is consistent with water quality standards set by the Environment Protection Authority and ANZECC.</p>
	<p>Stormwater management systems – type</p> <p>DS1.26 A trunk drainage system that provides for the 20 year ARI event.</p> <p>DS1.27 Development is to maintain natural drainage systems and not change the drainage pattern through filling.</p> <p>DS1.28 Development applications are supported by drainage diagrams, including the size of all pipes, that demonstrate the effective collection and discharge of all surface and roof waters to the street gutter by means of adequate pipes.</p>
	<p>Disposal of waste water from work areas</p> <p>DS1.29 Covered, bunded work areas, including workshops and lube bays, are graded into collection sumps and/or grated drains so that surface effluent generated within the workshop area is directed into a dedicated drainage system for treatment, storage and disposal and/or reuse.</p>
	<p>Washing of vehicles</p> <p>DS1.30 Washing of vehicles/boats is conducted in a car wash bay, which is roofed and bunded to exclude rainwater.</p> <p>DS1.31 Waste water from car washing is to be discharged to the sewer under a Trade Waste Agreement from Sydney Water.</p>

Development Requirements

Performance criteria	Design solution
	<p>DS1.32 Alternative water management and disposal options may be possible where water is recycled, minimised or re-used on the site and is to comply with:</p> <ul style="list-style-type: none"> a. Environment Protection Authority's Environment Protection Manual for Authorised Officers: Technical Section (Car Washing Waste) b. Environment Protection Authority's Managing Urban Stormwater: treatment techniques
	Carpark stormwater treatment
	<p>DS1.33 Any open parking area(s) must drain to a stormwater treatment device capable of removing litter, oil, grease and sediment prior to discharge to the stormwater system.</p>
	<p>DS1.34 Car parks comply with:</p> <ul style="list-style-type: none"> a. Environment Protection Authority's Environment Protection Manual for Authorised Officers: Technical Section (Stormwater First Flush Pollution) b. Environment Protection Authority's Managing Urban Stormwater: Treatment techniques
	<p>DS1.35 Stormwater treatment device(s) are to be maintained on a regular basis</p>
	Storage and handling of chemicals
	<p>DS1.36 All chemicals are to be stored and handled in accordance with:</p> <ul style="list-style-type: none"> a. AS 1940-1993 The Storage and Handling of Flammable and Combustible Liquids b. Environmental Protection Authority's Environmental Protection Manual for Authorised Officers: Technical Section (Bunding and spill management) (1995)