

SUTHERLANDSHIRE

**147 GARNET ROAD,  
KAREELA**

**DCP 2015 CHAPTER 44**



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## 147 Garnet Road Kareela

This part of the DCP provides the site-specific planning requirements for development of 147 Garnet road Kareela. Residential flat development must be designed in accordance with SEPP 65 and the Apartment Design Guide 2015 (ADG).

The chapter is to be read in conjunction with other chapters: “Vehicular access, Traffic, Parking and Bicycles”, “Stormwater and Groundwater Management”, “Natural Resource Management”, “Environmental Risk”, “Administrative Provisions”, “Social Impact” and “Other uses”.

Council’s Public Domain Design Manual contains specifications for elements in the public domain, for example street furniture and footpath design. Required frontage works for developments must be in accordance with the Public Domain Design Manual.

### 1. The site

This chapter applies to the site at 147 Garnet Road, Kareela as shown on *Map One* below. The area shown outlined in red has been rezoned under SSLEP2015 to allow residential flat development (Additional Permitted Use).

The site is large and unique. It is located within an established low density urban area yet separated from residential development to the north and west by Sir Joseph Banks Native Plant Reserve. The natural topography of the site also places it below the level of the adjoining neighbourhood.

The site has a bushland character but has been developed with a large institutional building and surface car park benched into the natural slope of the land. The remaining land slopes significantly to the east. The site contains significant trees and vegetation worthy of preservation. The site is also located adjacent to a national significant and protected Grey Headed Flying Fox (GHFF) camp.

The eastern boundary of the site abuts Bates Drive School, and the southern boundary abuts the Sylvanvale childcare centre. Further to the southeast is open space (including the Harrie Denning Soccer Centre), and further east Kareela Oval. This open space contains the Grey Headed Flying Fox (GHFF) camp.



Map One: Site Plan

## 2. Strategy

This vision for the site is to facilitate the redevelopment of the site for greater residential density yet retain the existing landform and its densely vegetated setting. The site is unusual in its context, and it is important for any development on this site to integrate with the landscaped character of the existing bushland. To minimise the impact of development future building footprints are to be limited to those areas that have already been substantially modified. This approach will allow more trees to be retained while also providing a buffer between new residents and the existing Grey Headed Fox Community.

The 16m allowable building height provides the potential for smaller building footprints and enables breaks in the built form. Building form can be set in to the existing topography. A 16 metre-built form can be accommodated while maintaining the dominance of ridgeline vegetation. Future development should ensure that the natural qualities of the site remain the dominant elements of the setting.

### **3. Residential Flat Buildings**

State Environmental Planning Policy 65 is a fundamental part of the assessment of the residential flat buildings. The SEPP and the Apartment Design Guide 2015 (ADG) prevail over Councils DCP requirements. The SEPP is supported by tools for improving the design of residential flat buildings and gives guidance on how the design quality principles provided under SEPP65 can be applied to new developments. The principles of the ADG will be applied to all development defined as Residential Flat Buildings.



#### 4. Landscape Strategy / Design

Good design recognises that landscape and building operate together as an integrated system, resulting in greater aesthetic quality and amenity for the occupants, neighbours and the public domain. High quality landscape design protects and builds on the existing sites natural and cultural features to contribute to a development positive relationship to its context and site.

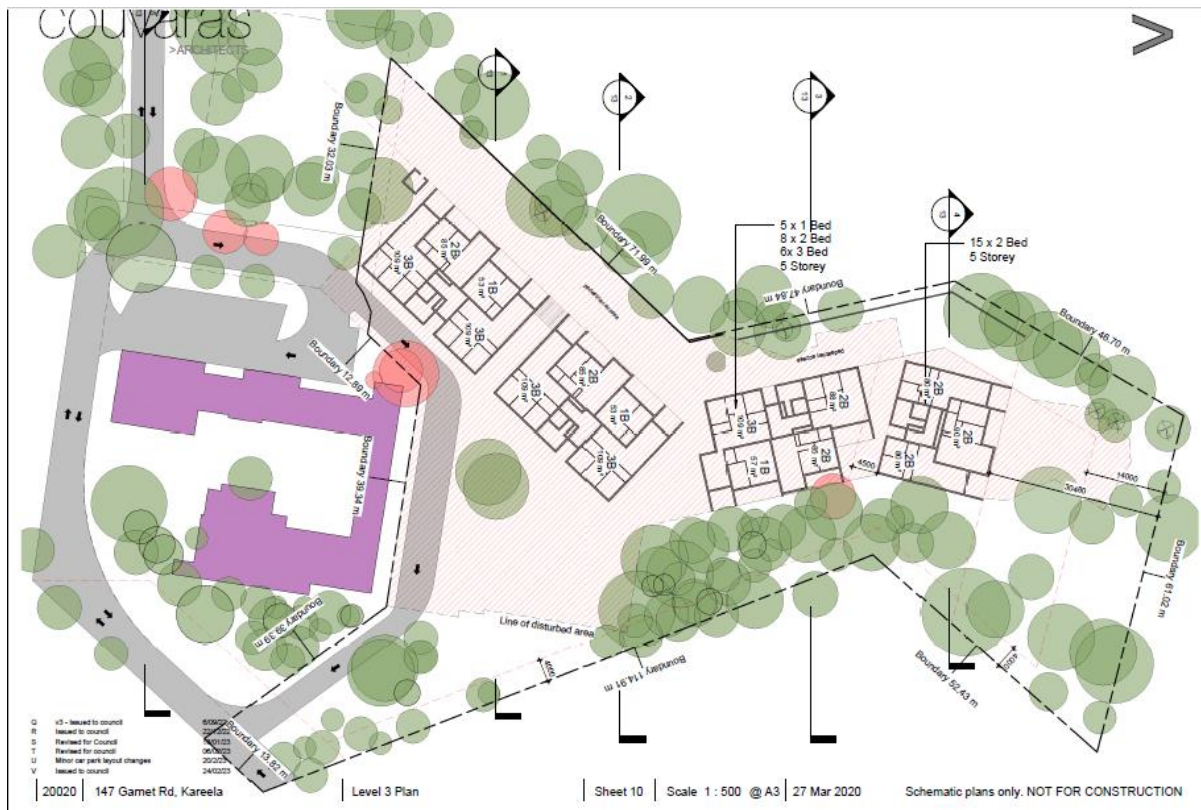
Sutherland Shire's tree cover, areas of bushland and natural beauty are valued by its residents. Landscape design in new development must recognise that existing trees, important landscape elements, appropriate planting, and where possible minimise urban runoff.

The subject site is in a neighbourhood with strong landscaped character, and it adjoins densely vegetated land which falls to the east towards Bates Drive. The remnant vegetation on site is significant and is typical of coastal enriched sandstone dry forest community. The site also contains natural sandstone outcrops. The site is identified as Greenweb Restoration area under Sutherland Shire Development Control Plan 2015 and bordered by a Greenweb Core Area. The site is subject to a 50% landscaped area requirement under Clause 6.14 and the Landscape Area Map of the Sutherland Shire Local Environmental Plan 2015.

The site is of high environmental significance. However, a large part of the site has been previously levelled and cleared for the existing administration building, indoor pool and car park. Accordingly, development should maintain the natural features on site and be limited to the current disturbed areas and allow for trees to be retained.



Map Two: Tree Retention Map



*Map Three: Disturbed Area Map*

*Note: disturbed area means the area on site which has been previously developed. The aim is to minimise disturbance on the existing natural features. Disturbed areas are shown inside the red hashed area.*

#### **4.1 Objectives**

1. Retain and enhance the existing tree canopy
2. Contribute to local character and the amenity of the locality by using planting and landscape elements appropriate to the scale of the development.
3. Encourage landscape treatments, both deep soil landscaping and planting on podiums, which provide amenity and privacy for residents.
4. Maintain the natural topography by limiting benching of the site
5. Maintain the site's natural features
6. Development is limited to areas which are already disturbed by development to minimise impacts on the site's natural features.

#### **4.2 Controls**

1. Development is to be limited to the existing disturbed areas of the site. No development is to occur outside the disturbed area (as outlined in red - Map Three). Trees should be retained as indicated in Map 2.



2. There should be no net loss of trees on site. Any tree removals are required to be offset with native vegetation on site, and should align with the tree retention map
3. The landscape design must include indigenous canopy trees that will achieve minimum 8 metres height at maturity within suitable setback areas. Where setbacks allow, the trees must be planted more than 3 metres from adjoining structures.
4. The landscape design should achieve opportunities for deep soil landscape planting between buildings. Tree planting must be in areas that provide for deep soil and separation of more than 3m between trees and structures. Planting beds should be a minimum of 900mm wide to support shrubs and small trees.
5. The landscape design must include a buffer of trees between the GHFF camp and the residences to block the sight and some smell of the camp. Plants chosen for revegetation of the buffer should be species that GHFF do not forage on.
6. Landscaping in the vicinity of a driveway entrance should not obstruct visibility for the safe ingress and egress of vehicles and pedestrians.
7. Any privacy fencing must be appropriately landscaped with screen planting.
8. Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions. This space must incorporate shelter, furniture and facilities suitable for outdoors, and if provided at ground level, include canopy trees. Communal open space on roof tops should be designed to optimise privacy for occupants and adjoining residents
9. Podium planting is required on that part of a basement which extends beyond the building footprint. Planting in this area is to have sufficient soil depth to support the species selected and should constitute a minimum of 50% of the area of the exposed basement. This planting is intended:
  - a. to offset the potential for excessive paved areas;
  - b. to provide residents with attractive outlooks from dwellings, and
  - c. to assist in the creation of privacy between dwellings, and between dwellings and common areas.

*Note: The planting required on top of the basement structures is shallow soil landscaping. This is in addition to the required deep soil landscaping for 50% of the site, as required by SSLEP2015.*

10. Where planting is proposed on that part of a basement which extends beyond the building footprint, roof tops or within planter boxes, the space to be planted must be designed and constructed to contain a minimum soil depth of:
  - 450mm for grass and ground covers
  - 600mm for shrubs
  - 900mm for small trees
  - 1200mm for large trees.Species selection must be suited to the future microclimate. Landscaping on basement roofs and planter boxes must be accessible for maintenance access.

11. Where trees are proposed on roofs or planter boxes an area of 3m x 3m per tree must be provided. Planter boxes in this case must be stepped, mounded or set down in the slab to reduce their apparent height on the surface to 450mm.
12. Where site levels allow, landscaping on basement roofs is to be integrated with surrounding deep soil landscaping and hard paved areas so the basement roof landscaping reads as an extension of the deep soil landscaping
13. Where planter boxes edge both sides of a pedestrian path or entrance, the vertical height of the planter shall not exceed a height greater than half the width of the pathway.
14. Appropriate paving must be provided to driveways, walkways, entries, fire egress points, garbage bin enclosures, letter boxes, clothes lines and under pergolas.
15. A communal rainwater tank and pump should be located underground in common open space. Common open space areas must be provided with a water efficient irrigation system and taps at a minimum 25m intervals connected to the rainwater tank. Each private open space must be provided with a tap connected to the rainwater tank.
16. An external energy efficient lighting system is to be provided for pedestrian access and driveways located within communal open space.
17. Any parking and underground parking is to be located in existing cleared areas.
18. Internal driveways within the drip zone of existing trees should have a pervious surface treatment.

*Note:*

*All indigenous tree species must be selected from Council's Native Plant Selector available on Council's website. The Native Plant Selector is a tool that recommends plants suitable for Sutherland Shire's ecosystems based on the specific address of the site locality. The tool is available online at Council's website.*

*For additional guidance on landscape design and implementation refer to the Sutherland Shire Environmental Specifications - Landscape 1-5. Applicants should also refer to the Greenweb map and controls in Chapter 39 Natural Resource Management. For development application submission requirements refer to Council's DA Guide.*

#### **4.3 Assessment Principles for Determining the Quality of Landscaping**

In assessing whether the landscaping design is high quality, Council will consider the following:

1. The size, shape and orientation of spaces allocated for landscaped area.
  - i. Narrow spaces can rarely support vegetation of adequate scale. Where a site's landscaped area is largely composed of very narrow spaces the

design is unlikely to meet the objectives of the landscape standards despite numerical compliance.

- ii. Whether sunlight access is sufficient to support the growth of the landscaping proposed.
2. Whether the size and shape of spaces allocated for the trees and shrubs proposed are sufficient for the species to grow to maturity.
3. Whether the scale of the trees and landscaping complements the scale of the buildings and the spaces where they are located. For example, where it is desirable to grow medium size trees and shrubs within a side setback to screen development, a minimum width of 3m for landscaping to enable boundary planting is desirable.

## 5. Grey Head Flying Fox

The subject site is immediately adjacent to Kareela Creek Reserve to the east of the site, which is home to a nationally significant Grey Headed Flying Fox (GHFF) camp which has hosted up to 12,000 grey headed flying foxes at a time.

GHFF are a vulnerable native mammal protected by State and Federal legislation, including the NSW Biodiversity Conservation Act 2016 (the BC Act) and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). It is therefore an offence to harm them or disturb their habitat without a specific licence to do so.

In order to protect the grey headed flying fox and minimise disturbance from construction, the following objectives and management actions have been put in place.

### 5.1 Objectives:

1. Ensure the interface with the Grey Headed Flying Fox Camp is sensitively considered in all design, construction and ongoing site management decisions so that the status of the camp as a desirable habitat is maintained and the amenity of future residents and surrounding schools is appropriately managed.

### 5.2 Controls:

1. A *Flora and Fauna Management Plan* prepared by a qualified person must be submitted and determined satisfactory by Councils Environmental Scientist.
2. The building design should incorporate features to mitigate conflicts between residents and the camp, including the management of open space, lighting and the like. This may include the following design measures:
  - a. Development should utilise double glazed windows to reduce sound from the GHFF camp impacting future residents.
  - b. Development should utilise air conditioning units to cool homes when opening windows may not be possible due to smell from camp.
  - c. Development should have car parking undercover to prevent impacts from faecal drop.
  - d. Development should provide partial cover for private outdoor areas to prevent impacts from faecal drop.
  - e. Development should retain desirable feeding and roost trees for grey headed flying fox.

A *Flora and Fauna Management Plan* should consider the following Key Action/ Management Points:

1. Development should make potential homebuyers aware that the property is adjacent to a nationally significant grey headed flying fox camp and that this may have negative impacts such as amenity, noise and smell.

2. No major construction, limited staff access to site and works restricted to very low noise activities during creching season where grey headed flying foxes are rearing dependent young. Creching season usually runs from September to December but may vary depending on climatic conditions
3. Focus major construction during June to August while camp numbers are low and grey headed flying foxes are not breeding or rearing young.
4. Loud construction should not take place in the early morning before 7.30am while grey headed flying foxes are returning and settling in to camp.
5. Reduce dust leaving construction site using best industry practices such as sprinkler misters
6. Process should be put in place to manage dead or injured flying foxes that may land on construction site to protect workers from potential disease from grey headed flying fox. Information of the risk of touching or handling dead or injured flying fox should be provided during site inductions.
7. Any potential disturbance to grey headed flying fox flight path that could cause tangling or harm to be discussed with council representative prior to installation and alternatives utilised where possible. This includes but not limited to scaffold, power lines, nets, wire fences etc.
8. Loud work should stop on days where heat is 40 degrees or higher as GHFF are already under considerable strain from climatic conditions and further disturbance may cause them to take flight and become harmed.
9. A nominated qualified person with experience in flying-fox behaviour will monitor for welfare triggers and direct works where required. Non critical works will be conducted in periods where the camp is either empty or numbers are lowest, timed to avoid late stage pregnancy and the presence of dependent young (usually Jun-Jul). A maximum of two unsuccessful attempts to recommence work are allowed before ceasing for the day. A Dispersal Plan must be developed to detail how actions will be managed.

In this regard Council has developed guidelines for Management of animal welfare – *Stop work measures - Camellia Gardens Management Plan* which should be used as a in the Management Plan as a template for management of various on site actions.



## 6. Setbacks and Built Form:

The spatial relationship of buildings is an important determinant of urban form. Building separation relates to urban form because it affects the spatial continuity and the degree of openness in the street. Spaces between buildings also provide opportunities for landscaping and access.

Separation between buildings is required to minimise adverse amenity impacts. Buildings which are too close together can create amenity problems, including lack of visual and acoustic privacy, loss of daylight access to dwellings and to private and shared open spaces.

### 6.1 Objectives:

1. Provide for landscaped transitions to adjacent development and open space
2. Create opportunities for planting of landscaping and tree canopy, including deep soil zones from locally indigenous canopy trees.
3. Encourage good design with articulation
4. Provide visual and acoustic privacy between privacy for existing and new residents and neighbours.
5. Minimise overshadowing of adjacent properties and private open space
6. Reinforce the desired spatial character of an area in terms of openness and density
7. To limit development to existing disturbed areas on the site.
8. Control overshadowing of adjacent properties

### 6.2 Controls:

1. Building form shall be setback and limited to the existing disturbed areas as indicated in Map Three: Disturbed Area Map.
2. Basements shall be located beneath the building footprint and the current disturbed area.
3. Any excavation must be a minimum 5m from trees to be retained.
4. If private courtyards are located in the required setbacks, their design must not compromise the potential for large scale indigenous trees.
5. Setbacks are measured perpendicular from the boundary to the closest extent of the building, including balconies, awnings, podiums, sunscreens and the like (excluding eaves).
6. Building forms are to be articulate to prevent continuous linear walls and promote variations and interest to setbacks area and these walls.
7. Lift overruns and service plants must be integral part of the building design.

### **6.3 Assessment Principles:**

1. Where a variation to the setbacks is sought, assessment will be in accordance with the SEPP 65 and Apartment Design Guide building separation distances. Where the neighbouring site is not yet developed, habitable rooms should be assumed when calculating separation distances.

- Up to four storeys (12m)
  - 12 metres between habitable rooms/balconies
  - 9 metres between habitable rooms and non-habitable rooms
  - 6 metres between non-habitable rooms.
- Above four storeys (up to 25m)
  - 18 metres between habitable rooms/balconies
  - 13 metres between habitable rooms and non-habitable rooms
  - 9 metres between non-habitable rooms.

2. To test whether a building's side and rear setbacks are appropriate, the following questions should be asked:

1. Does the proposed bulk and scale of the development result in excessive visual intrusion when viewed from an adjoining development or public area outside of the site?
2. Does the scale and siting of the proposed development result in significant overshadowing or adjoining properties?
3. Does the podium wall or any basement level or elements erected on the podium, result in excessive visual intrusion when viewed from outside the site?

If the answer is 'yes' to any of these questions the development should respond to the following principles:

- i. Would the impact of the proposed building be reduced if it provided some degree of articulation of the elevations to create visual interest and to offset bulk and scale? This can be achieved through stepped floor plans, reducing the length of walls between design features, and variation in setbacks of the ground and first floors, provision of bay windows, recessed portions of walls and the provision of portions of feature walls which are of a different texture or material finish, and articulation of roof lines.
- ii. Would the impact of the proposed building be reduced with a greater setback? As a general rule, the setback of a building should progressively increase as the building length and wall height increases. Planting can assist in screening building bulk, but it should not be relied upon as the sole solution to overcome design weaknesses.

## 7. Building Layout and Private Open Space:

Good design provides a building layout that maximises the natural attributes of the site. Carefully considered building layout and design also creates a higher level of amenity for occupants through enhanced visual and acoustic privacy, passive heating and cooling, attractive outlooks from living spaces, and flexible and useable indoor and outdoor spaces that meet the needs of workers and/or occupants.

Similarly, good built development design meets the needs of its occupants by providing adequate site facilities. Considering the need and location of site facilities at the design stage is important in achieving good design outcomes. There is less opportunity to achieve good design outcomes for site facilities following construction. Site facilities and ancillary structures that integrate into developments minimise the impacts of such facilities and structures upon the occupants of surrounding buildings, the streetscape and the natural environment.

### 7.1 Objectives:

1. Ensure outdoor living areas are functional and responsive to the environment and appropriate for the internal layout of the building.
2. Promote the design of buildings which are responsive to the orientation of the site.
3. Minimise the impacts of ancillary aspects of development on building occupants or neighbours, and on the streetscape and the natural environment.

### 7.2 Controls:

1. Suitable clothes drying facilities shall be provided which are not visible from a public place and have access to sunlight.
2. Ensure all residential buildings have a sense of address.
3. Access to all levels of the development, including the basement, must be made available by a lift in order to facilitate access by people with disabilities.
4. Where acceptable under the ADG, balconies and other outdoor living spaces should be positioned to face away from the GHFF camp.
5. Dwellings that face towards the GHFF camp must include double glazed doors and windows, masonry walls, masonry roof slabs and mechanical ventilation to mitigate noise and smell impacts.

## 8. Solar Access:

Solar access forms an integral part of the design process. Buildings should be sited and designed to provide adequate daylight and sunlight access to living areas and private and communal open space areas. Good solar design improves amenity and energy efficiency.

Daylight consists of two types of light:

skylight - diffuse light from the sky - and sunlight - direct beam radiation from the sun.

The amount and quality of daylight varies with the time of day, the season and weather conditions. This variability contributes to pleasant environments in which to live and work.

Achieving maximum daylight access requires consideration of the internal layout and orientation of the development as well as the surrounding development and natural features.

### 8.1 Objectives:

1. Design and locate buildings so that reliance on artificial light sources is minimised.
2. Maximize solar access to private open space, communal open space and living rooms within a development.
3. Ensure that daylight access is provided to all habitable rooms.
4. Ensure development retains reasonable levels of solar access to the neighbouring properties and the public domain.

### 8.2 Controls:

1. New buildings and additions are sited and designed to maximise direct sunlight to north-facing living areas, communal and private open space areas.
2. Living rooms and private open spaces for at least 70% of residential units in a development should receive a minimum of 2 hours direct sunlight between 9am and 3pm in midwinter.
3. New development is to be designed to ensure direct daylight access to communal open space between March and September and provide appropriate shading in summer.
4. Skylights and lightwells must not be used as the primary source of daylight in habitable rooms.
5. For neighbouring dwellings:
  - a. Direct sunlight to north facing windows of habitable rooms and 10m<sup>2</sup> of useable private open space areas of adjacent dwellings should not be reduced to less than 2 hours between 9.00am and 3.00pm on 21 June.
  - b. Consideration will be given to reduced solar access where the proposed dwelling is generally compliant with all development

standards and controls, and the extent of impact is the result of orientation, site constraints, and or existing built forms.

- c. Overshadowing by vegetation should be ignored.
- d. Overshadowing by fences, roof overhangs and changes in level should be taken into consideration.

### **8.3 Assessment Principles:**

1. The numerical guidelines for overshadowing will be applied with the NSW Land and Environment Court Planning Principle for sunlight (NSW LEC 1082) in mind where relevant:
  - i. The ease with which sunlight access can be protected is inversely proportional to the density of development. At higher densities sunlight is harder to protect and the claim to retain it is not as strong.
  - ii. The amount of sunlight lost should be taken into account as well as the amount of sunlight retained.
  - iii. Overshadowing arising out of poor design is not acceptable, even if it satisfies numerical guidelines.
  - iv. In areas undergoing change, the impact on what is likely to be built on adjoining sites should be considered as well as the existing development.



## **9. Visual and Acoustic Privacy:**

Building design must take into consideration aspects of visual privacy and noise sources and minimise their future impacts on occupants. Amenity is enhanced by privacy and a better acoustic environment. This can be achieved by carefully considering the location of the building on the site, the internal layout, the building materials used, and screening devices. Major roads and rail operations generate noise and vibration, and people living and working near major transport corridors can be adversely affected. Major roads can also impact on air quality due to their volume of traffic. Building design must take into consideration the noise, vibration and air quality effects of busy roads and rail corridors and minimise the amenity and health impacts on future occupants.

### **9.1 Objective:**

1. Ensure a high level of amenity by protecting the acoustic and visual privacy of occupants within all built development and in private open spaces.
2. Ensure buildings are sited and designed so that acoustic and visual privacy and vibration from outside sources are controlled to acceptable levels.
3. Minimise direct overlooking of windows and private open space so that the amenity of adjoining school yards, neighbours and intended occupants is respected.
4. Recognise the outlook and views from principal rooms and private open space without compromising visual privacy of others.

### **9.2 Controls:**

1. Locate, orientate and design new development to maximise the provision of visual privacy.
2. Use detailed site and building design elements to increase visual privacy without compromising access to light and air.
3. All noise generating equipment such as mechanical plant or equipment, air conditioning units, swimming pool filters, fixed vacuum systems, mechanical ventilation from carparks, driveway entry shutters, garbage collection areas or similar must be designed to protect the acoustic privacy of residents and neighbours. All such noise generating equipment must be acoustically screened. The noise level generated by any equipment must not exceed an LAeq (15min) of 5dB(A) above background noise at the property boundary.

## 10. Adaptable and Liveable Housing

Adaptable and 'liveable' (universally designed) dwellings are conventional dwellings that incorporate construction and design elements to meet people's changing mobility requirements over their lifetime (e.g. level pathways, wider doorways and corridors and reinforced bathroom walls to enable future installation of grab rails). The focus is on creating safe, accessible and functional housing for a diverse demography including the elderly, families with children and people with permanent or temporary disabilities.

An 'adaptable dwelling' is a dwelling with design features that are easily adapted at a later date to flex with the changing needs of the occupants, as specified in AS 4299 (Adaptable Housing). The provision of adaptable housing units within a development can assist people to continue to live in a dwelling which is suited to their mobility and level of ability. It is far more cost effective than relocation or substantial building renovations to modify a home to be more accessible at a later date. Adaptable housing is an important part of the housing mix in the Shire as the number of people over the age of 55 years is above the Sydney average. It is also increasing as a proportion of the total population.

A 'liveable' dwelling is a form of adaptability that incorporates elements 'designed in' at the construction stage, thus not requiring subsequent modification or adaptation through the lifecycle of occupants.

For the purpose of this section, a liveable dwelling means a dwelling designed to Silver Standard *Liveable Housing Design Guidelines*.

### 10.1 Objectives for Adaptable and Liveable Housing

1. Provide housing that will meet the access and mobility needs of any occupant.
2. To ensure a suitable proportion of dwellings include layouts and design features to accommodate changing mobility requirements of residents.
3. To promote ageing in place by extending the usability of dwellings to meet 'whole of life' needs of the community.

### 10.2 Controls for Adaptable Housing

1. All new multi dwelling housing must provide dwellings designed in accordance with the Australian *Adaptable Housing Standard (AS4299)* to Class C Certification at the following rates:
  - Development containing 3-5 dwellings – none.
  - Developments of 6 or more dwellings – 20% adaptable
2. When the calculations for the number of dwellings results in a fraction, numbers  $\leq .5$  should be rounded down.

3. Variations will be considered where it can be demonstrated that site conditions would preclude achieving the controls.
4. An applicant will need to demonstrate compliance with the adaptable housing provisions. This may include a report prepared by an appropriately qualified person submitted with the development application, specifying how the proposal has addressed the requirements in this chapter, the relevant Australian Standards (e.g., *Australia Standard 1428 – Design for access and mobility*) and the National Construction Code.
5. The design of adaptable dwellings must be integrated into the development with the use of consistent materials and finishes.

### **10.3 Controls for Liveable Housing**

1. In addition to complying with the adaptable housing rates in clause 1 above, all new multi dwelling housing developments must provide 'liveable dwellings (i.e., dwellings designed to Silver Standard *Liveable Housing Design Guidelines*) at the following rates:
  - Developments containing 3- 5 dwellings – 1 dwelling.
  - Developments of 6 or more dwellings –10% of dwellings.
2. When the calculations for the number of dwellings results in a fraction, numbers  $\leq .5$  should be rounded down.
3. Dwellings provided in accordance with Clause 1 must incorporate the following *Liveable Housing Design Guidelines*:
  - An accessible continuous path of travel from the street entrance and/or parking area to dwelling entrance.
  - At least one level entrance into the dwelling.
  - Internal doors and corridors width that facilitate comfortable and unimpeded movement between spaces.
  - A toilet on the ground (or entry) level that provides easy access.
  - Reinforced walls around the toilet, shower and bath to support the safe installation of grab rails at a later date.
  - A continuous handrail on one side of any stairway where there is a rise of more than one metre.
4. On-site car parking spaces shall be in accordance with Australian Standard – AS 2890.1 (as amended) and Australian Standard – AS 2890.6.
5. Where proposed, all 'liveable' dwellings must be clearly identified on the submitted DA plans.
6. Variations to (1) will only be considered where it can be demonstrated that site conditions would preclude achieving the controls.

**Note:**

For further details on the *Liveable Housing Design Guidelines*, applicants are encouraged to visit [www.livablehousingaustralia.org.au](http://www.livablehousingaustralia.org.au)

## 11. Safety and Security:

In April 2001, the NSW State Government introduced *Crime Prevention Through Environmental Design (CPTED)* to Section 4.15 of the *Environmental Planning and Assessment Act, 1979*. The guidelines require consent authorities to ensure development provides safety and security for users and the community. If a development presents a crime risk, the guidelines can be used to justify modification of the development to minimise crime risk, or refusal of the development on the grounds that crime risk cannot be appropriately minimised.

### 11.1 Objectives:

1. Reduce crime risk and minimise opportunities for crime.
2. Encourage the consideration and application of crime prevention principles when designing and siting buildings and spaces.
3. Encourage dwelling layouts that facilitate safety and encourage interaction and recognition between residents.
4. Ensure pedestrian and vehicle safety.

### 11.2 Controls:

1. The design of development is to incorporate *Crime Prevention Through Environmental Design* principles.
2. Development is to be designed to incorporate and/or enhance opportunities for effective natural surveillance by providing clear sight lines between public and private places, installation of effective lighting, and the appropriate landscaping of public areas.
3. Balcony balustrades should respond to the location, being designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony.
4. Driveways and fencing must provide adequate sight distance for the safety of pedestrians using the footpath area.

#### Note:

For further information, refer to:

NSW Police Service 2001, *Safer by Design*

NSW Department of Urban Affairs and Planning 1979, *Crime Prevention and the Assessment of Development Applications, Guidelines under Section 4.15 of the Environmental Planning and Assessment Act, 1979*.

## 12. Parking:

Accommodating vehicles can have a significant impact on the design of new development. The location and layout of the parking will influence the layout and design of buildings and landscaping. All development must satisfy the demand for parking that it creates within its own site. The provision of sufficient parking must not compromise the safety of the on street and off street environment for vehicles, pedestrian and cyclists. Parking is required for different types of vehicles according to the proposed use. Vehicles include passenger vehicles, motor bikes, light vehicles and heavy vehicles and pushbikes.

Vehicular access across footpaths to roadways presents a potential point of conflict between vehicles, pedestrians and cyclists. As such the design and location of vehicle footpath crossings requires careful consideration to ensure public safety is optimised

### 12.1 Objectives:

1. Ensure all land uses and / or combination of activities provides sufficient parking on site to satisfy the demand for the parking by different vehicle types generated by the development including Traffic Generating Development.
2. Minimise amenity impacts on neighbouring properties including streetscape, noise and light spill.
3. Maximise safety for residents and visitors to the development
4. Minimise potential conflicts between pedestrians and vehicles
5. Minimise the impact of noise and glare from vehicle movements on dwellings within or external to the site.
6. Ensure that the most appropriate access point is used to optimise traffic flows and public safety
7. Ensure safe and orderly movement of traffic

### 12.2 Controls:

1. Car parking shall be provided in accordance with the following table:

Zone	Requirements
Residential Flat Building or Multi Dwelling Housing	A minimum of 1 space per bed, 1.5 spaces per 2 bed, 2 spaces per 3 beds,  Plus 1 visitor space per 4 units  *Maximum: up to 3 car spaces per unit

\*Where more than the minimum parking spaces are proposed per dwelling, the additional space/s will only be considered to meet Council's requirements for parking, and be excluded from the calculation of gross floor area, if it is provided within a basement and meets the objective and controls for basement specified in the streetscape and building form.



Maximum parking rates in a basement meet Council's requirement for parking, and as such are not included in the calculation of gross floor area.

2. Where a car parking requirement is expressed as a minimum number of spaces the development shall not provide less spaces than that minimum
3. Where the development proposal raises unique traffic parking issues, or where development is identified as Traffic Generating Development, then a Traffic Report shall be completed.
4. Where the calculations for the number of parking spaces results in a part or fraction of a parking space of 0.5 or greater for the whole development, then the actual number shall be rounded up. For example, 1.5 spaces shall be rounded up to 2 spaces for the whole development.
5. Where a development is identified as Traffic Generating Development then the parking requirement specified in the RTA Guide to Traffic Generating Development shall apply.
6. Development with 10 or more dwellings require one designated carwash bay with minimum dimensions of 3m x 7.6m. Additional carwash bays are required in development in excess of 30 dwellings at a rate 1 per 20 dwellings.
7. Where a development is on the lower side of the roadway or where basement car parking is proposed, the driveway is to be a maximum grade 5% for 3 metres immediately inside the boundary to ensure driver visibility.
8. The minimum vehicular crossing and driveway width for a combined vehicular crossing (entry/exit) is 5.5m and 4m for a separate vehicular crossing with a minimum spacing between driveways of 3m.
9. The design of the all-vehicle access ways shall enable all vehicles to enter and leave the site in a forward direction. Turning areas shall be provided to enable a maximum 3-point turn to achieve this egress.
10. Car parking areas must be designed to minimise headlight glare onto the windows of dwellings within the site or neighbouring properties.
11. As a minimum, developments must provide 1 bicycle space per 10 car parking spaces for the first 200 car spaces, plus 1 space per 20 car parking spaces thereafter.
12. Bicycle parking facilities are to be installed in accordance with Australian Standard AS2890.3 – Bicycle Parking Facilities (as amended), Aust road's Guide to Traffic Engineering Practice – Part 14 Bicycles and the Austroads Bicycle Parking Facilities: Guideline for Design for Installation (AP- r527-16).
13. Bicycle parking facilities must address the following design principles:
  - a. Accommodate all usual types of bicycles such that damage to them is minimised during storage and retrieval.
  - b. Not post a hazard to bicycle users, pedestrian or motorists.

- c. Be well lit, safe and secure, easy to access and use.
- d. Cater for the difference needs of residents, employees and visitors to the development.
- e. Be located in convenient and accessible locations within the development that allow for good passive surveillance, such as near key building entrances, the lobby and the lift core.
- f. When located within a car park, preferably be situated at street level and in a manner that provides the most direct, safe and convenient access while minimising conflict with vehicles and pedestrians.
- g. Where a bicycle parking and storage facility cannot be located at street level, it must be located no more than one level above or below street level. Access to street level entry and exist must be direct, safe and minimise potential conflicts with vehicles.

14. Further design requirements for car parking and access are provided for in vehicular access, roads, traffic, parking and bicycles chapter 36.

### 13. Waste Management Requirements:

The design of waste and recycling storage areas within the development determines the efficiency of waste handling as well as affecting occupant amenity and the streetscape presentation of the development.

Multiple households within the property increase challenges with regard to minimising the volume of waste, the ease of access, and the efficiency of waste sorting and removal system

#### 13.1 Objectives:

1. Ensure that waste storage areas and collection systems are sufficient for the waste generated by the development and its residents.
2. Maximise source separation and recovery of recyclables
3. Ensure waste management systems are intuitive for occupancy's and are readily accessible, integrated with the design of a development.
4. Minimise risk to health and safety associated with handling and disposal of waste and recycles material, and sure optimum hygiene.
5. Minimise adverse environmental impact associated with waste management.
6. Discourage illegal dumping by providing on site storage and removal services for hard waste. Hard waste consists of discarded items of bulky household waste which are awaiting removal.
7. Enable the servicing of the waste management system on site, and the efficient collection of waste and recyclables by collection services providers, with minimum disruption and impact on the community.
8. Ensure bin storage areas do not dominate the streetscape.

#### 13.2 Controls:

1. Provision must be made for waste management, including storage and collection, in accordance with Sutherland Shire Council's "Waste Collection Policy for Multi-Unit Dwellings and Residential Flat Buildings"