



## SECTION 2 COMMERCIAL & MIXED USE DEVELOPMENT

### 2.1 INTRODUCTION

The North Sydney LGA contains a variety commercial centres ranging from one of Australia’s largest commercial centres down to small scale neighbourhood centres focusing on one or a small cluster of retail shops and services.

The most significant commercial centre in the North Sydney LGA is the North Sydney Central Business District (CBD), which primarily comprises tall commercial towers with some isolated mixed commercial and residential development. Its close proximity to Sydney Harbour and City of Sydney provides the area with a vibrant and successful commercial centre. The CBD is well serviced by public transport and provides access to a wide range of employment, cultural, social, educational and recreational opportunities. Conversely, the amenity of the CBD is compromised by a general lack of open space, access to solar access and intensively used public walkways. Its good access to public transport and proximity to the Sydney CBD, reinforces the need to encourage high grade commercial floor space to ensure that the CBD continues to contribute to its status as a “global city” as identified under the Metropolitan Strategy.

The remaining centres of North Sydney comprise a variety of mixed use areas zoned either *B1 Neighbourhood Business*, *B4 Mixed Use* or *IN2 Light Industrial*. These centres generally provide for a wide range of residential, commercial and high tech industrial floorspace. The proximity of residential and commercial development can create potential conflicts which must be addressed at the design stage such that amenity of residents is maximised while also enabling commercial premises to operate effectively and contribute to a vibrant centre.

#### 2.1.1 General Objectives

The general objectives of this Section of the DCP are to ensure that commercial and mixed use developments:

- O1 can meet the aims and residential and employment population targets as outlined in the State Government’s *Metropolitan Strategy* and *Inner North Subregional Strategy*,
- O2 can meet the aims and dwelling targets of Council’s *Residential Development Strategy*,
- O3 is consistent with the principles contained within the *Integrated Land Use and Transport Policy*;
- O4 provide various grades and sizes of commercial floorspace to accommodate a mix of business, service, high tech industry, retail and recreational uses,
- O5 are designed to contribute positively to their surroundings and particularly to diversity, vitality, social engagement and ‘a sense of place’,
- O6 provide active street frontages both during the day and night,
- O7 contribute to maximising public transport usage, walking and cycling,
- O8 provide an acceptable level of amenity to residents living within and adjoining centres,
- O9 are designed to mitigate against the extreme impacts of the sun, wind and rain,
- O10 provide adequate natural light to buildings, public places and streets,
- O11 incorporate innovative sustainable design to reduce energy and water consumption and meets or exceeds sustainability requirements,
- O12 minimise the acoustic impacts on residents from non-residential activities,
- O13 maximise opportunities for the sharing of views,



- O14 creates safe and high quality urban environments through careful design of buildings and use of materials, and a well designed and maintained public domain,
- O15 encourages the provision of adaptable office development which meets the requirements of new office technology and caters for variations in office layout and use,
- O16 soften the highly urbanised landscape by introducing water and greenery,
- O17 minimise stormwater runoff, maintain and improve stormwater quality and encourage recycling where possible, and
- O18 contribute to attractive and well designed public open spaces to service increased population of the area.

### 2.1.2 When does this section of the DCP apply?

This section of the DCP applies to:

- (a) development for any purpose on land zoned:
  - (i) *B1 Neighbourhood Centre*,
  - (ii) *B3 Commercial Core*,
  - (iii) *B4 Mixed Use*.
- (b) development for any non-residential purpose on land zoned *IN2 Light Industry*, and
- (c) development for any purpose on land zoned *SP2 Infrastructure*, except where any adjacent or adjoining land is zoned:
  - (i) *R2 Low Density Residential*,
  - (ii) *R3 Medium Density Residential*,
  - (iii) *R4 High Density Residential*, or
  - (iv) *E4 Environmental Living*.

Where the subject land is zoned *SP2 Infrastructure* and any adjacent or adjoining land is zoned *R2 Low Density Residential*, *R3 Medium Density Residential*, *R4 High Density Residential* or *E4 Environmental Living*, development applications will be required to comply with Part B: Section 3 – *Non-residential development in residential zones* of the DCP.

If land zoned *SP2 Infrastructure* is located adjacent to one or more of the following zones:

- (a) *B1 Neighbourhood Centre*,
- (b) *B3 Commercial Core*,
- (c) *B4 Mixed Use*,
- (d) *IN2 Light Industry*,

then the controls of the most restrictive zone will apply to the subject site. For example, if the subject site is located adjacent to land zoned *B1 Neighbourhood Centre* and *B4 Mixed Use*, then the provisions of the *B1 Neighbourhood Centre* would apply.

### 2.1.3 Relationships to other sections

Where relevant, this section of the DCP should be read in conjunction with the following Sections of the DCP:

- (a) Part A: Section 3 – Submitting an Application;
- (b) Part B: Section 8 – Outdoor Dining and Display of Goods on the Footpath;
- (c) Part B: Section 9 – Advertising and Signage;
- (d) Part B: Section 10 – Car Parking and Transport;

**Commercial & Mixed Use Development**

- (e) Part B: Section 11 – Construction Management;
- (f) Part B: Section 12 – Access;
- (g) Part B: Section 13 – Heritage and Conservation;
- (h) Part B: Section 14 – Contamination and Hazardous Building Materials;
- (i) Part B: Section 15 – Bushland;
- (j) Part B: Section 16 – Tree and Vegetation Management;
- (k) Part B: Section 17 – Erosion and Sediment Control;
- (l) Part B: Section 18 – Stormwater Drainage;
- (m) Part B: Section 19 – Waste Minimisation and Management; and
- (n) Part B: Section 20 – Public Infrastructure.

**2.1.4 Relationships to other documents and planning policies**

Where relevant, this section of the DCP should be read in conjunction with the following:

- (a) [SEPP No.65 – Design Quality of Residential Apartment Development;](#)
- (b) The DoP’s [Apartment Design Guide;](#)
- (c) [SEPP \(Affordable Rental Housing\) 2009;](#)
- (d) Livable Housing Australia’s [Livable Housing Design Guidelines;](#)
- (e) [SEPP \(Housing for seniors and people with a disability\) 2004;](#)
- (f) [SEPP \(Building Sustainability Index: BASIX\) 2005;](#)
- (g) [SEPP \(Infrastructure\) 2007;](#)
- (h) The DoP’s [Development Near Rail Corridors and Busy Roads – Interim Guideline](#) (19 December 2008);
- (i) [SREP \(Sydney Harbour Catchment\) 2005;](#) and
- (j) The DoP’s [Sydney Harbour Foreshores and Waterways Area DCP \(2005\);](#)
- (k) The [St Leonards / Crows Nest Planning Study – Precincts 1, 2 and 3.](#)

**2.2 FUNCTION**

The main financial and business activities are complemented by a variety of other supporting infrastructure, activities and services located in and around the area which are essential to its functioning as a place where people work, live and visit.

Diversity of people, environments and experiences encourages activity and contributes to the popularity of areas. Diversity attracts many users, extends the usefulness of the area and contributes to the sustainability of both community and environment.

**2.2.1 Diversity of activities, facilities, opportunities and services**

**Objectives**

- O1 To ensure a diversity of activities, facilities, opportunities and services is provided, including high grade business accommodation, community services, employment, entertainment, government agencies, health and welfare, recreation and retail.
- O2 To ensure that streets are appropriately activated to encourage pedestrian use.

**Provisions**

- P1 Non-residential buildings or components of buildings should incorporate a variety of different sized spaces that reflect a site’s location in the commercial centre hierarchy



(i.e. large floor plates should be provided in higher order centres with small floor plates in lower order centres).

- P2 Consideration should be given to incorporating community and entertainment facilities within a development.
- P3 A variety of uses should be provided at street level, which contributes positively to economic and social vitality.
- P4 Avoid blank walls that face streets and laneways at the ground level.
- P5 Enhance the amenity of the public domain to meet the needs of the workforce, residents and visitors.
- P6 Mixed use developments within the *B1 Neighbourhood Centre*, *B4 Mixed Use* or *IN2 Light Industrial* zones should:
  - (a) ensure all residential common areas of the building (including the principal entrance to the building) are accessible to all persons regardless of mobility; and
  - (b) have the retail/commercial uses located on the ground floor, retail/commercial or residential uses on the first floor, and residential uses on upper floors.

### 2.2.2 Maximise use of public transport

#### Objectives

- O1 To ensure that developments maximise access to public transport, walking and cycling.
- O2 To try and achieve a modal split of 60% public transport and 30% private car.

#### Provisions

- P1 Locate pick up and drop off points for public transport and taxi ranks as close as possible to public spaces and activities.
- P2 Locate short stay (ten minute) parking spaces within or as close as possible to meeting places.
- P3 Limit the amount of long stay off street commuter parking to that which existed at the time of gazettal of NSLEP 2001 (Amendment No.9 – North Sydney Centre) on the 28 February 2003.
- P4 Minimise any non-residential parking on site.
- P5 Bicycle storage facilities are provided in accordance with Part B: Section 10 - *Car Parking and Transport* of the DCP.
- P6 Provide showers for use by cyclists and people that walk to work.

### 2.2.3 Mixed Residential Population

#### Objectives

- O1 To provide a mixed residential population in terms of age, gender, household type and size, education, income and employment, including households with children, households on low to moderate incomes, households with aged or disabled persons.

#### Provisions

- P1 Mixed use developments incorporating residential accommodation containing less than 20 dwellings must include, at least two of the following dwelling types:
  - (a) studio;
  - (b) 1-bedroom;
  - (c) 2-bedroom; and
  - (d) 3-bedroom.



**Commercial & Mixed Use Development**

- P2 Despite P1 above, no more than 55% of all dwellings must comprise a combination of both studio and 1-bedroom dwellings.
- P3 Mixed use developments incorporating residential accommodation containing 20 or more dwellings should provide a mix of dwelling sizes in accordance with Table B-2.1.

TABLE B-2.1: Dwelling Mix	
Dwelling Size	% of Total Dwellings
studio	10-20%
1 bedroom	25-35%
2 bedroom	35-45%
3 bedroom+	10-20%

- P4 Variations to the dwelling mix within P2 or P3 will not be considered, unless the applicant can adequately demonstrate by an authoritative analysis of current and future market demand that the suggested mix is not reasonable.
- P5 In mixed use developments containing residential accommodation, all new dwellings must satisfy the Silver level performance requirements of the *Livable Housing Design Guidelines*. The incorporation of Gold and Platinum level universal design features is strongly supported.<sup>1</sup>

**Note:** For details on the universal design features and performance requirements of the *Livable Housing Design Guidelines* visit <http://www.livablehousingaustralia.org.au/>.

- P6 A minimum of 20% of dwellings in mixed use developments containing more than 5 dwellings must comprise adaptable housing<sup>2</sup>, and be designed and constructed to a minimum Class C Certification under AS 4299 – Adaptable Housing.
- P7 Where adaptable housing is to be provided, the adaptable housing components must:
  - (a) be integrated into the overall design of the development, and must not be isolated; and
  - (b) not use a different standard of materials and finishes to the remainder of the building.
- P8 Where universally designed and adaptable dwellings are proposed, those dwellings must be clearly identified as such on the submitted development application plans.
- P9 Developments requiring adaptable housing must also satisfy the provisions of Part B: Section 12 - Access of this DCP.
- P10 Provide services and facilities within the development that meet the needs of different population groups and build flexibility into communal spaces to meet changing needs.

**2.2.4 Design of tourist and visitor accommodation**

**Objectives**

- O1 To ensure that hotel or motel accommodation and serviced apartments are not used or converted for permanent residential accommodation.

<sup>1</sup> This provision applies to residential development which requires development approval and does not apply to alterations and additions to existing homes or complying development under NSW State Codes.

<sup>2</sup> Adaptable housing is designed with accessible features that can be modified to meet changing needs of residents over time. Typical adaptable features include level and wider doorways and corridors, slip resistant floor surfaces, reachable power points, lever door handles and lever taps. When designing adaptable housing consult AS 1428, 4299 and AS 4586.



O2 To minimise impacts on the operation of other uses, where the short term visitor accommodation is provided within a mixed use development.

**Provisions**

- P1 No more than 50% of rooms to hotel or motel accommodation must be provided with kitchens or kitchenettes.
- P2 Rooms to hotel or motel accommodation must be provided in accordance with the dimensions indicated in Table B-2.2.

TABLE B-2.2 - Minimum and maximum room sizes		
Number of persons	Minimum Size	Maximum Size
1	10.5m <sup>2</sup>	27m <sup>2</sup>
2	16m <sup>2</sup>	27m <sup>2</sup>
3	21.5m <sup>2</sup>	27m <sup>2</sup>
4 (max)	27m <sup>2</sup>	27m <sup>2</sup>

- P3 All tourist and visitor accommodation developments must provide common facilities such as conference rooms, restaurants and bars.
- P4 Balconies to hotel or motel accommodation rooms are not permitted.
- P5 Where tourist and visitor accommodation is to be provided within a mixed use development, it must be provided with separate and secured access from other land use activities accommodated within the building.

**2.2.5 Tourist and visitor accommodation management**

**Objectives**

- O1 To ensure that tourist and visitor accommodation are appropriately managed.

**Provisions**

- P1 Hotels or motel accommodation is to be operated as one entity with a central management structure.
- P2 A Management Statement, stating that the premise is a hotel or motel with common facilities, or a serviced apartment should be submitted with the DA to ensure that the premise operates as a hotel or motel or serviced apartment.
- P3 Prior to the granting of any development consent, the Management Statement should be conjointly signed by Council and applicant.
- P4 Maximum period of tenure for guests must not exceed 13 weeks.
- P5 Hotel or motel accommodation rooms are to be serviced daily.

**2.3 ENVIRONMENTAL CRITERIA**

A clean and protected environment is important to the community. It contributes to the comfort and wellbeing of current users and to the sustainability of the environment for future generations.

**2.3.1 Clean Air**

**Objectives**

- O1 To ensure that development does not adversely affect air quality.



**Commercial & Mixed Use Development**

**Provisions**

- P1 Operating plant, building materials and finishes should be incorporated that are non-toxic and reduce toxic emissions.
- P2 Discourage use of the private motor car and encourage walking, cycling and use of public transport.
- P3 Car parking is provided in accordance with Part B: Section 10 - *Car parking and Transport* of the DCP.

**2.3.2 Noise**

**Objectives**

- O1 To ensure reasonable levels of acoustic amenity to nearby residents.

**Provisions**

- P1 Noise emission associated with the operation of non-residential premises or non-residential components of a building must not exceed the maximum 1 hour noise levels (LAeq 1 Hour) specified in Table B-2.3.

<b>TABLE B-2.3 –Noise Emission Limits</b>			
<b>Time Period</b>			<b>Max 1 hour noise level (LAeq 1 Hour)</b>
<b>Day</b>	<b>Week</b>	<b>Time</b>	
Weekday	Day	7am – 6pm	60 dBA
	Evening	6pm – 10pm	50 dBA
	Night	10pm – 7am	45 dBA
Weekend	Day	8am – 7pm	60 dBA
	Evening	7pm – 10pm	50 dBA
	Night	10pm – 8am	45 dBA

**Notes:** LAeq (1hour) readings are to be measured during the noisiest 1 hour period between Day – 7/8am to 6/7pm, Evening – 6/7pm – 10pm and Night – 10pm to 7/8am.

- P2 In terms of determining the maximum noise levels as required by P1 above, the measurement is to be taken at the property boundary of the nearest residential premises. Within a mixed use development, the boundary is taken to be nearest floor ceiling or wall to a residential dwelling on the site.
- P3 Despite P1 above, the noise emission associated with the operation of non-residential premises or non-residential components of a building must not exceed 5 dBA above the background maximum 1 hour noise level (LAeq 1 Hour) during the day and evening and not exceeding the background level at night when measured at the boundary of the property.
- P4 Council may require the submission of an Acoustic Report to ensure compliance with P1 above.
- P5 Plant and machinery should incorporate noise reduction measures to minimise their impacts.
- P6 Developments should be designed and / or incorporate features that reduce noise transmission.
- P7 Where practical, development should incorporate adequate measures for tonal, low frequency, impulsive, or intermittent noise.
- P8 Developments must comply with *EPA Noise Policy for Industry 2017* in particular the modification required for acceptable noise level (ANL).



### 2.3.3 Wind Speed

#### Objectives

- O1 To ensure pedestrian comfort is not adversely affected by wind when walking along public streets or sitting down in public spaces.

#### Provisions

- P1 Buildings should be designed to reduce wind velocity at footpaths and public outdoor spaces.
- P2 Development should not result in the wind speed exceeding 13m/s at footpaths and accessible outdoor spaces.
- P3 A Wind Impact Report, prepared by an appropriately qualified person, must be submitted with any application where the proposal results in the building exceeding 33m in height.

### 2.3.4 Reflectivity

#### Objectives

- O1 To minimise the impacts by reflected light and solar reflectivity from buildings on pedestrians and motorists.

#### Provisions

- P1 Buildings should provide a greater proportion of solid to void on all facades and use non-reflective materials.
- P2 Buildings should use non-reflective glass and / or recess glass behind balconies.
- P3 Sun shields, such as awnings, canopies and pergolas should be provided to glazed areas.
- P4 Council may require the submission of a Reflectivity Study prepared by a suitably qualified consultant.

### 2.3.5 Artificial illumination

#### Objectives

- O1 To minimise the impact of artificial illumination on the amenity of residents and pedestrians.
- O2 To provide a safe urban environment without adverse effects on surrounding development or the public domain.
- O3 To minimise the impact of artificial illumination in contributing to sky glow.

#### Provisions

- P1 External facades of buildings should not be floodlit.
- P2 Where external artificial illumination is proposed:
- (a) it should be designed and sited to minimise glare.
  - (b) It must comply with the standards set out in Australian Standard AS 4282 – *Control of the Obtrusive Effects of Outdoor Lighting*.
- P3 Illumination of roof top and/or podium level facilities is not to exceed the curfew outlined in Table B-2.4.



**Commercial & Mixed Use Development**

TABLE B-2.4 – Illumination curfews	
Zone	Curfew Time
B3 Commercial Core	1.00am
B1 Neighbourhood Centre B4 Mixed Use IN2 Light Industry	11.00pm

- P4 Entrances must be well lit and do not produce shadows or adverse glare.
- P5 Staff entrances which are separated from the main building entrance must be well lit and opportunities for casual surveillance is maximised.
- P6 Timers and sensors should be used to minimise sky glow.
- P7 Council may require the submission of a Lighting Report for a development prepared by an appropriately qualified person.

**2.3.6 Awnings**

**Objectives**

- O1 To provide adequate weather protection for people using streets and other public spaces.

**Provisions**

- P1 Provide continuous, horizontal awnings on all street frontages which are activated by ground floor uses and those streets identified in the relevant area character statement (refer to Part C of the DCP), using materials that are sun, rain and wind proof.
- P2 Awnings must be provided as required in Table B-2.5.

TABLE B-2.5 – Awnings		
Requirement	Zone	
	B3 Commercial Core B4 Mixed Use	B1 Neighbourhood Centre
Minimum Width	2m (min)	2m (min)
Setback from kerb -	General	1.1m (or 600mm where walkway is not of sufficient width)
	To accommodate street trees	1.5m
Height above footpath level	3.2m - 4.2m	3.0m - 3.6m

- P3 New awnings should match the height of existing awnings on adjacent sites.
- P4 Weather seals are to be provided between new and existing awnings on adjacent sites and between the waning and the building.
- P5 Where appropriate, temporary shade structures such as retractable blinds, umbrellas and pergolas may be provided (e.g. to outdoor café and gardens).
- P6 Openings with a minimum dimension of 1.5m - 2m (measured from kerb) by 2.5m wide must be provided in awnings located over public footpaths to allow for the accommodation of street trees.



### 2.3.7 Solar access

#### Objectives

- O1 To ensure that solar access is maintained to Special Areas, open spaces and publicly accessible outdoor places.
- O2 To maintain solar access to residential areas surrounding the North Sydney Centre.
- O3 To avoid the creation of long solid masses of development which prevent the penetration of daylight and/or sunlight through to pedestrian levels and to northern and eastern facades of buildings.
- O4 To ensure that all dwellings have reasonable access to sunlight and daylight.

#### Provisions

- P1 Developments within the North Sydney Centre must comply with the height and overshadowing requirements contained within cl.4.3, and cl.6.4 of NSLEP 2013.
- P2 Developments located outside of the North Sydney Centre should be designed and sited such that solar access at the winter solstice (21st June) provides a minimum of 3 hours between the hours of 9.00am and 3.00pm to:
  - (a) any solar panels;
  - (b) the windows of main internal living areas;
  - (c) principal private open space areas; and
  - (d) any communal open space areas.

located on the subject property and any adjoining residential properties.

**Note:** *Main internal living areas excludes bedrooms, studies, laundries, storage areas.*

- P3 Despite P2 above, living rooms and private open spaces for at least 70% of dwellings within a residential flat building or shoptop housing should receive a minimum of 2 hours of solar access between the hours of 9.00am and 3.00pm at the winter solstice (21st June).
- P4 New development should not overshadow existing or proposed public open spaces located outside of the North Sydney Centre between 11.30am and 2.30pm.
- P5 Spaces are to be created between taller buildings to avoid a solid mass of development and to allow daylight and/or sunlight to penetrate through to pedestrian level.
- P6 Setbacks must be provided between buildings above the podium level.
- P7 Provide a mix of sun-protected and unprotected areas in public open space, roof top gardens and other outdoor spaces.
- P8 Avoid providing apartments within mixed use developments that have a sole orientation to the south. Where south facing apartments can not be avoided, ensure that they are provided with adequate access to natural light (e.g. by providing enlarged windows, skylights and the like). No more than 15% of all dwellings in the development must not receive no direct sunlight between 9am and 3pm at mid-winter.
- P9 The use, location and placement of photovoltaic solar panels take into account the potential permissible building form on adjoining properties.

### 2.3.8 Views

Due to North Sydney's sloping topography and proximity to Sydney Harbour, views and vistas comprise special elements that contribute to its unique character and to the amenity of both private dwellings and the public domain.

New development has the potential to adversely affect existing views. However, the ability to share views becomes increasingly more difficult in locations of existing or anticipated areas of high density (e.g. North Sydney Centre, St Leonards and Milsons Point). Whilst no-



**Commercial & Mixed Use Development**

one is entitled to a view, attempts should be made to consider the potential impact on existing views and share those where reasonably possible.

When considering impacts on views, Council will generally not refuse a development application on the grounds that the proposed development results in the loss of views, where that development strictly complies with the building envelope controls applying to the subject site.

**Objectives**

- O1 To protect and enhance opportunities for vistas and views from streets and other public places.
- O2 To protect and enhance existing views and vistas from streets and other public spaces.
- O3 To provide additional views and vistas from streets and other public spaces where opportunities arise.
- O4 To encourage view sharing as a means of ensuring equitable access to views from dwellings, whilst recognising development may take place in accordance with the other provisions of this DCP and the LEP.

**Provisions**

- P1 Where appropriate, the opening up of views should be sought to improve the legibility of the area.
- P2 Provide public or semi-public access to top floors where possible (e.g. restaurants, roof top gardens and facilities).
- P3 Use setbacks, design and articulation of buildings to maintain street views, views from public areas and those identified in the relevant area character statement (refer to Part C of the DCP).
- P4 Maintain and protect views identified in the relevant area character statement (refer to Part C of the DCP) from future development.
- P5 Where a proposal is likely to adversely affect views from either public or private land, Council will give consideration to the Land and Environment Court’s Planning Principles for view sharing established in *Rose Bay Marina Pty Ltd v Woollahra Municipal Council and anor* [2013] NSWLEC 1046 and *Tenacity Consulting v Warringah Council* [2004] NSWLEC 140. The Planning Principles are available to view on the Land and Environment Court’s website ([http://www.lec.justice.nsw.gov.au/planning\\_principles](http://www.lec.justice.nsw.gov.au/planning_principles)).

**2.3.9 Acoustic privacy**

**Objective**

- O1 To ensure all residents within mixed use developments are provided with a reasonable level of acoustic privacy.

**Control**

- P1 This subsection only applies to the residential component of any mixed use development.
- P2 New dwellings shall be designed and constructed to comply with the criteria specified in Table B-2.6 for all noise intrusion from external noise sources (including mechanical services noise from within the development itself), with windows and doors closed:

TABLE B-2.6: Acoustic Amenity		
Internal Space	Time Period	Max 1 hr noise level (LAeq 1 Hour)
Living areas	Day or Night	≤ 40 dBA
Sleeping Areas	Day or Night	≤ 35 dBA



**Notes:** Readings are to be LAeq (1hour), when measured during the noisiest 1 hour period between Day 7am to 10pm; and Night – 10pm to 7am.

P3 Where multiple dwellings are provided within the same building, the residential components of the building shall be designed and constructed to comply with the requirements in Table B-2.7 regarding acoustic insulation of walls and floors.

TABLE B-2.7: Acoustic transmission	
Item	Criteria
Field Sound Reduction Index R'w of walls floors services and ducts	BCA as Amended, Except that Field Noise Reduction Index of all inter-tenancy walls shall be designed to achieve $\geq R'w55$ and the intent of the BCA requirements.
Field Sound reduction Index R'w of doors	Any door (including the effects of its frame and any edge gaps) in a wall between a dwelling and a stairwell or other internal common area shall be designed to achieve an $\geq R'w28$
Impact Isolation of Floors	Where the floor of a dwelling separates a habitable room of one dwelling and a habitable room, bathroom, toilet, laundry, kitchen, plant room, stairway, public corridor, hallway and the like of a separate tenancy, the floor shall be designed to achieve a weighted standardised impact sound pressure level, $L_{n'tw}$ not more than 55 dB.

P4 An acoustic report prepared by a certified acoustic consultant must be submitted with all development applications which involves the construction of 4 or more new dwellings and must address the requirements to P2.

P5 Buildings are to be designed and rooms positioned to reduce noise transmission within and between dwellings.

P6 Bedrooms should be designed so that wardrobes provide additional sound buffering between rooms within the dwelling or between adjoining dwellings over and above the requirements in P3 above.

P7 Windows and doors should be located away from external noise sources, or buffers used where separation cannot be achieved.

P8 Materials with low noise penetration properties should be used where practical.

P9 Locate bedrooms and private open spaces away from noise sources such as garages, driveways, mechanical equipment and recreation areas.

P10 Mechanical equipment, such as pumps, lifts or air conditioners should not be located adjacent to bedrooms or living rooms of dwellings within the development or on adjoining properties.

P11 Where dwellings are located on busy roads incorporate the following into the design of the development to reduce traffic noise within the dwelling:

- (a) cavity brick walls;
- (b) double glazing;
- (c) solid core doors;
- (d) concrete floors; and
- (e) recessed balconies.

P12 Development comprising places of public worship, hospitals, educational facilities or child care centres or containing residential uses on land which is on or is within 100m of a railway corridor, a road corridor for a freeway, a tollway, a transit way or any

**Commercial & Mixed Use Development**

other road with an annual average daily traffic volume of more than 40,000 vehicles (based on the traffic volume data published on the website of the RMS) must consider the requirements of the DoP's *Development Near Rail Corridors and Busy Roads – Interim Guideline* (19 December 2008) in accordance with cl.87(2) and cl.102(2) of SEPP (Infrastructure) 2007. An acoustic report may be required to be prepared to demonstrate compliance with this Guideline and the acoustic requirements within cl.87(3) and cl.102(3) of the [SEPP \(Infrastructure\) 2007](#).

- P13 Where possible, avoid the use high brick fences on busy roads. High fences present a harsh and bland appearance to the street, obstruct views from the footpath to gardens and dwelling entries, reduce amenity for pedestrians and reduce casual surveillance of the street. Try to reduce acoustic impacts through other acoustic reduction measures.

**2.3.10 Vibration**

**Objectives**

- O1 To minimise the impact on safety and the operation of road and rail tunnels.

**Provisions**

- P1 Development on land which is on or is within 60m of a railway corridor, or is adjacent to a road corridor for a freeway, a tollway, a transit way or any other road with an annual average daily traffic volume of more than 40,000 vehicles (based on the traffic volume data published on the website of the RMS) must consider the requirements of the DoP's *Development Near Rail Corridors and Busy Roads – Interim Guideline* (19 December 2008) in accordance with cl.87(2) and cl.102(2) of [SEPP \(Infrastructure\) 2007](#). In particular, consideration should be given to the vibration criteria contained within the Department of Environment Climate Change and Water's *Assessing Vibration: a technical guideline*. A vibration assessment report may be required to be prepared to demonstrate compliance with these Guidelines.

**2.3.11 Visual privacy**

**Objectives**

- O1 To ensure that existing and future residents are provided with a reasonable level of visual privacy.

**Provisions**

- P1 Locate windows to avoid direct or close views into the windows, balconies or private open space of adjoining dwellings.
- P2 Where windows are located with a direct outlook to windows of an adjacent dwelling, the windows must be provided with a minimum sill height of 1.5m, or use fixed obscure glazing or other privacy devices.
- P3 Provide suitable screening structures or planting to minimise overlooking from proposed dwellings to the windows, balconies or private open space of adjacent dwellings, to windows, balconies or private open space of dwellings within the same development.
- P4 Provide visual separation between any non-residential use and residential uses within buildings and sites.
- P5 The residential components of mixed use developments are to provide adequate separation between habitable rooms, balconies and non-habitable rooms, consistent with [SEPP 65](#). The relevant separation distances are reproduced in Table B-2.8.



TABLE B-2.8: Building Separation Requirements

Building height (metres)	Between habitable rooms and balconies	Between habitable & non-habitable rooms	Between non-habitable rooms
Up to 4 storeys (approx. 12m)	12m	9m	6m
5 to 8 storeys (approx. 12-25m)	18m	12m	9m
9 storeys + (approx. 25m +)	24m	18m	12m

- P6 Council may consider a variation to the building separation control within P5 above, but only where the applicant can demonstrate that the variation has been made in response to site and context constraints and that the variation is not made at the expense of amenity (e.g. visual and acoustic privacy, outlook, solar access). However, Council will not consider a variation if an apartment's only outlook is onto an area that is under the minimum building separation distance.

## 2.4 QUALITY BUILT FORM

Commercial centres and their skylines evolve. Well designed buildings respond to the environment of the centre in terms of the various scales at which they are experienced. They can also make a positive contribution to the character and identity of the centre and provide a benchmark for innovative design in building and environmental technology.

Buildings in centres should have a positive relationship with relevant topographical features, surrounding buildings and the townscape when viewed from all directions.

Proposals for large scale developments have the potential for dramatic impacts on the urban environment. They can harm qualities that people value about a place such as solar access and scale. For these reasons proposals for tall buildings are particularly subject to very close scrutiny.

Proposals will be assessed in terms of their positive contribution and any adverse impacts associated with their design and siting. They will be evaluated for the quality of their design and their response to their urban context.

The relationship of proposals to transport infrastructure will be considered in the assessment. This includes existing capacity available, the quality of links between transport and the site, and the feasibility of making improvements to those links.

Any building must be sustainable in the broadest sense taking into account its social and economic impact, based on whole life costs and benefits.

### 2.4.1 Context

#### Objectives

- O1 To ensure that the site layout and building design responds to the existing characteristics, opportunities and constraints of the site and within its wider context (adjoining land and the locality).

#### Provisions

- P1 Proposed developments must be designed to respond to the issues identified in the site analysis and in the relevant area character statement (refer to Part C of the DCP).
- P2 A Site Analysis is undertaken in accordance with Part A: Section 5 - *Site Analysis* of this DCP.

### 2.4.2 Site Consolidation

**Objectives**

- O1 To enable the creation of a human scale that also reflects a consistent subdivision pattern.
- O2 To enable the creation of suitably sized commercial floor plates that can be tenanted easily.

**Provisions**

- P1 Amalgamate lots to achieve lot frontage identified in the relevant area character statement (refer to Part C of the DCP).
- P2 Break down the apparent length of buildings by incorporating articulation, design and detailing and or a change in materials, finishes and colours.

### 2.4.3 Setbacks

**Objectives**

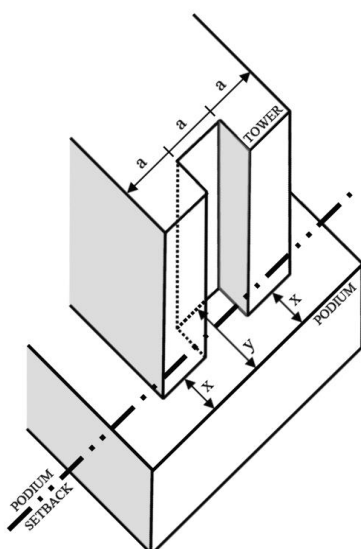
- O1 To enable a reduction in the impact of scale.
- O2 To ensure adequate ventilation, solar access, privacy, view sharing and a reduction of adverse wind effects.
- O3 To improve pedestrian flow and amenity and allow a range of activities to be accommodated.

**Provisions**

**General**

- P1 Provide a setback for public space at ground level where indicated in the relevant area character statement (refer to Part C of the DCP).
- P2 New development must give consideration to the setbacks of adjacent buildings and heritage items.

**Front**



**Figure B-2.1:**

Weighted average is the average of projections and recesses from setback above podium (i.e.  $x + x + y / 3 =$  podium setback)

- P3 A zero metre setback must be provided, unless an alternative setback is identified within the in the relevant area character statement (refer to Part C of the DCP).

P4 That part of the building located above the podium must be setback a weighted average (refer to Figure B-2.1) in accordance with the relevant area character statement (refer to Part C of the DCP).

**Side & Rear**

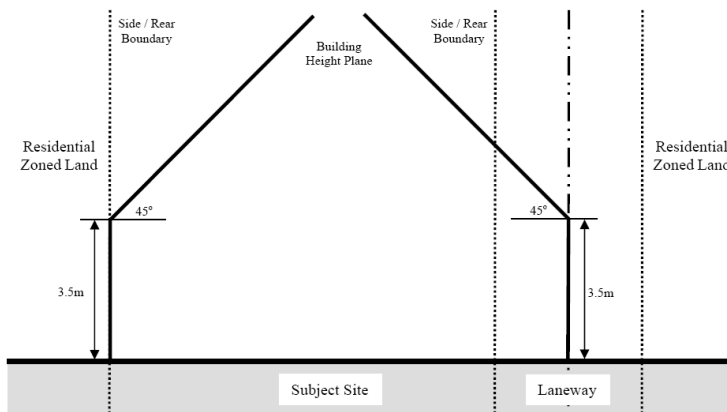
P5 A zero metre setback, unless an alternative setback is identified within the relevant area character statement (refer to Part C of the DCP).

P6 Despite P5 above, buildings containing non-residential activities must be set back a minimum of 3m from the property boundary where the adjoining site has balconies or windows to main living areas of dwellings or serviced apartments located at the same level.

**Note:** Side setbacks may be affected by building separation requirements and or podium level setback requirements.

P7 Despite P5 above, a development proposed on land adjoining or adjacent to a residential or recreation zone must not exceed a building height plane commencing:

- (a) at 3.5m above ground level (existing) and projected at an angle of 45 degrees internally to the site from all boundaries that directly adjoin land zoned R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential, RE1 Public Recreation, or
- (b) at 3.5m above ground level (existing) and projected at an angle of 45 degrees internally to the site from the centre line of any adjoining road or laneway separating the site from land zoned R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential, RE1 Public Recreation.



**Figure B-2.2:**  
Building height plane requirements

P8 Where setbacks are required from existing property boundary this should be clear of all structures above and below ground level, excluding awnings and other elements allowed by Council.

P9 Where an applicant seeks a basement structure built to the property boundary fronting a laneway in the B1 Neighbourhood Centre or B4 Mixed Use zone for the purposes of underground car parking, Council may require a 1.5m setback at street level to be provided subject to an s.88B instrument application outlining public access rights, clear of any structure to 1.5m below ground level (existing) and 3m above ground level (existing) and requiring all maintenance, cleaning and the like to be the responsibility of the property owner. Applicants are advised to contact Council prior to the lodgement of any development application seeking a basement car park built to the property boundary fronting any laneway to determine if the setbacks in this provision are required to be met.

P10 Stratum subdivisions will generally not be accepted for dedication of land/airspace to Council.

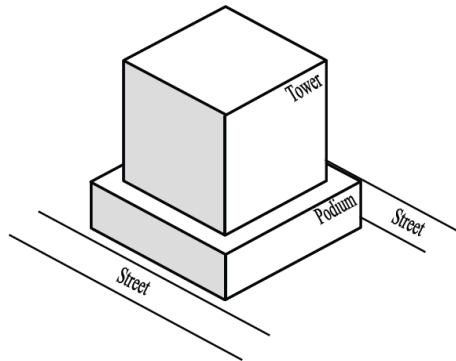


### 2.4.4 Podiums

**Objectives**

- O1 For buildings to reinforce a human scale when read from the public domain.
- O2 To ensure that laneways are integrated into pedestrian network.
- O3 To ensure that laneways are safe and comfortable for pedestrians.

**Provisions**



**Figure B-2.3:**  
Podium/tower form of development

- P1 Where required, a podium must be provided along all street frontages including laneways, with a height and setback above the podium, in accordance with the relevant area character statement (refer to Part C of the DCP).
- P2 Podiums should match the height and setbacks of adjacent buildings or the average of the heights of the adjacent podiums having regard to their existing nature and/or their redevelopment potential.
- P3 Where the ground level changes across the width of a site, the podium should be stepped at an appropriate location to maintain a characteristic podium height.

### 2.4.5 Building design

**Objectives**

- O1 To ensure that buildings are designed to reinforce the urban character of a locality.
- O2 That buildings clearly define streets, street corners and public spaces.

**Provisions**

- P1 Floor to ceiling heights should be provided in accordance with the minimum requirements set out in Table B-2.9.

TABLE B-2.9: Minimum floor to ceiling height requirements			
Zone	Ground Floor	First Floor	Upper Floors
B1 Neighbourhood Business	3.3m	2.7m	2.7m
B3 Commercial Core	3.3m	3.3m	3.3m
B4 Mixed Use	3.3m	3.3m	2.7m
IN2 Light Industrial	3.3m	2.7m	2.7m

- P2 Council may consider a variation to the minimum requirements in P1, but only if the applicant can demonstrate that the dwelling or non-residential floor space is capable of



receiving satisfactory natural daylight and ventilation (e.g. shallow apartments / commercial tenancies with large amounts of window area).

- P3 The apparent length of buildings should be broken down through the use of articulation, design and detailing, changes in materials and colours.
- P4 High quality materials should be used throughout the building design.
- P5 Podiums are to be built to the boundary of the site unless providing a setback for public space at ground level as required by the relevant area character statement (refer to Part C of the DCP).
- P6 Buildings should be built predominantly to setback alignment.
- P7 Building should be articulated and have a positive relationship with the public domain in terms of scale and setbacks.
- P8 Building elements, such as materials, finishes, and window dimensions should relate to neighbouring buildings.
- P9 Buildings are to respect the setting and curtilage of heritage items (refer to Part B: Section 13 - *Heritage and Conservation* of the DCP).
- P10 Buildings should incorporate architectural detailing and ornamentation which provides a rich visual reference for pedestrians.
- P11 Balconies are to be incorporated within the setback or building envelopes.
- P12 Within the *B1 Neighbourhood Centre* zone, provide a traditional two storey shopfront parapet form along the primary street frontages, with any development above two storeys (where permissible) set back in accordance with the relevant area character statement.

## 2.4.6 Skyline

### Objectives

- O1 To provide a distinctive and well designed skyline through the introduction of visually interesting elements in the articulation and detailing of the upper levels and roofs of buildings.

### Provisions

- P1 Buildings located on land within the North Sydney Centre must comply with the building height requirements outlined in cl.4.3 and cl.6.3 of NSLEP 2013.
- P2 The built form should step down from the centre of each commercial or mixed use centre to a comparable scale at the interface of any adjoining residential zone.
- P3 Roofs should be designed such that they are integral with the overall design of the building.
- P4 All roof top located building plant and services are to be contained within a single structure. It should be centrally located to avoid overshadowing and other impacts.
- P5 If telecommunication aerials are to be provided, they must be incorporated into the roof top design, and not comprise ad-hoc additions.
- P6 With respect to buildings greater than 30m in height, and all buildings within the North Sydney Centre, the roof is to be designed such that consideration is given to the building being seen in a regional view catchment.
- P7 All plant room equipment must not be visible from any location viewed from ground level.

### **2.4.7 Junction and termination of streets**

#### **Objectives**

- O1 To ensure that the design and form of buildings reinforces the junction and termination of streets (excluding laneways).

#### **Provisions**

- P1 Buildings located on the corner of a street intersection or at the termination of a street should:
- (a) be designed with increased emphasis to anchor primary vistas and nodal points;
  - (b) be designed such that the corner of the building addressing an intersection is reinforced through utilisation of splays, curves, building entries and other architectural elements;
  - (c) where located at a street intersection, incorporate a minimum 1.5m splay measured from the corner of the intersection along each property boundary; and
  - (d) be designed such that the building's height is concentrated on that section of the building located at the corner of the street intersection or is centralised on the street façade where it is located at the termination of a street.

### **2.4.8 Balconies - Apartments**

#### **Objectives**

- O1 To ensure the provision of functional private open space for apartments.

#### **Provisions**

- P1 Balconies must be incorporated within building envelope (as specified by setbacks and or building height plane) and should not be located on roofs, podiums or be cantilevered.
- P2 Balconies should be integrated into the overall architectural form and detail of the building.
- P3 No balconies, verandahs or the like are to project over the public domain.
- P4 Where a proposal involves the conversion of an existing commercial building, and that commercial building's envelope does not comply with the setback and/or building envelope controls for the site, any new balcony must not project beyond the existing building's envelope.
- P5 Balconies should not be enclosed.
- P6 Notwithstanding P5, Council may permit the enclosure of a balcony, but only if:
- (a) the building is predominantly characterised by enclosed balconies; or
  - (b) if the building is not predominately characterised by enclosed balconies, subject to the approval of a balcony strategy for the building.
- P7 A balcony strategy should:
- (a) include details outlining the size, scale and choice of materials of the proposed enclosure/s); and
  - (b) be adopted by the body corporate before being submitted to Council.

### **2.4.9 Through-site pedestrian links**

#### **Objectives**

- O1 To increase pedestrian permeability through commercial and mixed use centres.
- O2 To increase linkages to facilities, outdoor spaces and public transport.



O3 To provide safe and usable pedestrian spaces.

O4 To increase the amenity for pedestrians.

**Provisions**

P1 Provide linkages through sites to other streets and laneways as identified in the relevant area character statement (refer to Part C of the DCP) applying to the site or where enhancing pedestrian movement to public transport infrastructure.

P2 Provide linkages to facilities, outdoor spaces and public transport.

P3 Provide public access through pedestrian links from 6am to 10pm daily.

P4 Pedestrian links must be lined with active uses along at least one side of the link to engage pedestrians.

P5 Pedestrian links must be a minimum of 6m in width that is free from obstructions.

P6 Escalators must be provided within the link where there is a substantial change in level.

P7 The number of pedestrian entries to the link is maximised.

P8 The extent of natural light to the link should be maximised where possible.

P9 Where a through-site link is to be provided along the side boundary of a property, it should be open to the sky.

P10 Signage must be provided at the entry to the linkage, indicating public accessibility and the street to which the connection links.

P11 Opportunities for integration of public art installations within the link are to be maximised.

P12 The linkage is to be designed to positively respond to the "safer by design" principles.

**2.4.10 Streetscape**

**Objectives**

O1 To ensure that footpaths, kerb and guttering and street trees contribute to a consistent streetscape.

O2 To promote the creation of lively and active street and laneway frontages.

O3 To create visual interest in the built form.

O4 To create a feeling of safety both by day and night.

O5 To minimise visual clutter associated with overhead infrastructure.

**Provisions**

P1 The ground level of buildings should align with the corresponding level of the adjacent footpath, laneway or outdoor space.

P2 Continuous active uses, such as shops and cafes, should be provided at the ground level of the building to all streets, laneways and public spaces.

P3 Where practical, the building's ground level façade to a laneway should be provided as an active frontage (e.g. has a retail or commercial premises fronting the laneway).

P4 Landscaping and changes in level at building frontages is to be avoided where possible to facilitate natural surveillance of public areas and views into buildings.

P5 All ground level windows fronting street, laneways and public spaces must be glazed with clear glass, to promote active surveillance of the public domain.

P6 All ground level shopfronts are to have a zero metre setback unless specified in the relevant area character statement (refer to Part C of the DCP).

**Commercial & Mixed Use Development**

- P7 Introduce visually interesting elements to the building façade such as articulation, detailing and art works.
- P8 Streetscape elements, such as street furniture, lighting, paving, awnings, outdoor seating and umbrellas, are to be consistent with Council’s Public Domain Style Manual and Design Codes.
- P9 Undergrounding of overhead infrastructure should be provided in association with significant new development, consistent with the North Sydney Council Undergrounding Master Plan.

**2.4.11 Entrances and exits**

**Objectives**

- O1 To enable equitable access to all persons regardless of ability.
- O2 To ensure that entrances are clearly visible from the street and convey a sense of address.
- O3 To maximise safety and amenity of occupants to building containing a mixture of land uses.

**Provisions**

- P1 Main entrances and exits located at the front of the site must be directly visible from the street.
- P2 At least one main entrance to the building provides a continuous path of travel.
- P3 Entrances must not be obscured by landscaping or other obstacles and have clear sight lines.
- P4 Entrances are clearly identifiable to reduce confusion and unintentional entry.
- P5 If exits to the building are closed after hours, this must be indicated at the entrance of the building.
- P6 Entrance lobbies are well illuminated, with seating provided and a firm and level non-slip floor surface.
- P7 Places of safe refuge are incorporated into the overall design of buildings. Lift lobbies or toilets may be used as all or part of a safe refuge.
- P8 Access to the building must be designed in accordance with the provisions contained within Part B: Section 12 – Access of the DCP.
- P9 Separated pedestrian entrances and lobbies are to be provided where it is proposed to accommodate within the same building, the following mixture of land uses:
  - (a) residential accommodation and non-residential development; or
  - (b) hotel or motel accommodation or serviced apartments and any other form non-residential development.

**2.4.12 Nighttime appearance**

**Objectives**

- O1 To improve the visual interest of the street and cityscape by night.

**Provisions**

- P1 Encourage the use of large windows to enable internal illumination to spill onto public footpaths and public areas.
- P2 Decorative elements or prominent architectural features of a building should be illuminated, but only where they do not result in adverse impacts upon nearby residents.



### 2.4.13 Public spaces and facilities

#### Objectives

- O1 To ensure that buildings contribute to external and internal public spaces and facilities nearby and inclusion of these areas as part of the public domain.
- O2 To ensure that buildings interact with and contribute positively to their surroundings at street level.
- O3 To ensure that buildings contribute to diversity, vitality, social engagement and "a sense of place".

#### Provisions

- P1 In terms of built form and intensity, new development should respect the scale, character and density of existing development located adjacent to business zoned land.
- P2 Development should not detrimentally affect the amenity of the existing area, having regard to its redevelopment potential.
- P3 A range of outdoor spaces should be provided. Larger spaces and deeper footpaths provide opportunities for a wider range of activities to be accommodated.
- P4 Avoid cluttering spaces and changes of level.
- P5 Locate facilities that attract people, such as public phones, seating and information kiosks, in public spaces to reinforce activity at ground level.
- P6 Avoid over-management of public spaces by security patrols or through the use of closed circuit television (CCTV).

## 2.5 QUALITY URBAN ENVIRONMENT

The design of buildings meets the needs of the widest range of people in the community from childhood to old age. This includes people with any form of disability. Commercial centres should be barrier free for the disabled travelling within the centre in the public domain as well as in the use of private property. Safe and enjoyable continuous paths of travel should be provided for pedestrians with rear lanes offering convenient short cuts.

Natural surveillance of areas lowers the likelihood of vandalism and crime. Clear sight lines and the proximity of dwellings and retail areas to the public domain assist in creating a safer environment. High walls and barriers obscure sight lines and can increase the likelihood of crime.

### 2.5.1 Accessibility

#### Objectives

- O1 To ensure that buildings are made accessible to all persons regardless of their mobility.

#### Provisions

- P1 Buildings are to be designed in accordance with the provisions contained within Part B: Section 12 - Access of the DCP.

### 2.5.2 Safety and security

#### Objectives

- O1 To ensure that a high level of personal safety and security is provided within the development.

**Commercial & Mixed Use Development**

**Provisions**

- P1 Design routes between building entrances to maximise personal safety. Routes from parking areas to lift lobbies are particularly important in this regard. Clear lines of sight and well lit routes are required.
- P2 Where open space and pedestrian routes are provided, they must be clearly defined, and have clear and direct sightlines for the users.
- P3 Adequate lighting must be provided to open spaces, entrances and pedestrian areas to avoid the creation of shadowed areas.
- P4 Rear service areas and access lanes should either be well secured or easily visible.
- P5 Land use activities which operate after normal business hours should be located along well-used pedestrian routes.
- P6 Public toilets, telephones and other public facilities must be provided with direct access and good visibility from well-used public spaces.
- P7 Robust and durable design features should be used where relevant to discourage vandalism.
- P8 Consider the use of bollards or low walls and the careful design of shopfronts to decrease the likelihood of ram raids and provide higher levels of security for shop owners or tenants.
- P9 The use of security grilles at the street frontage is discouraged. If security grilles are necessary then install on the inside of the shopfront and maintain clear visibility into the shop. Use toughened glass.
- P10 Solid security rollers to shopfronts are not permitted.
- P11 Fire escapes should not be recessed into the building form. If it is necessary locate them in recesses, then the recess must be shallow to provide for personal security of pedestrians.
- P12 Buildings should be designed to allow for the overlooking and natural surveillance of rear lanes (e.g. from retail and other uses at all levels of the building).
- P13 Rear lanes should be provided with safe and secure lighting.
- P14 Clear sight lines should be maintained around all vehicle access points.
- P15 Street numbering of buildings must be clearly visible from street at all times of the day such that they are easily identifiable.

**2.5.3 Illumination**

**Objectives**

- O1 To ensure the safety of pedestrians in the public domain after dusk.

**Provisions**

**General**

- P1 The following areas must be illuminated in accordance with *AS 1158.3.1 - Pedestrian (P)*:
  - (a) public footpaths;
  - (b) laneways; and
  - (c) areas under publically accessible awnings over public or private property.
- P2 Accent lighting should be used to highlight solid sections of buildings which adjoin public footpaths.
- P3 Level of lighting provided, and fittings used, should be consistent with that of nearby properties.



- P4 Lighting is to be provided in accordance with *AS/NZS 1158.3.1:1999 Pedestrian (P) – "pedestrian area performance and installation requirements"* except in the following instances:
- (a) Within the North Sydney CBD Character Area:
    - (i) Illuminance values in the range of 150% to 400% of the Lighting Category P6 illuminances.
    - (ii) Maintained horizontal average illuminance – 30 lux.
    - (iii) Minimum maintained horizontal average illuminance – 10 lux.
    - (iv) Maintained illuminance uniformity – 10.
    - (v) Maintained vertical illuminance – 10 lux.
  - (b) Within all other business zones:
    - (i) Illuminance values in the range of 100% to 300% of the Lighting Category P6 illuminances.
    - (ii) Maintained horizontal average illuminance – 20 lux.
    - (iii) Minimum maintained horizontal average illuminance – 7 lux.
    - (iv) Maintained illuminance uniformity – 10.
    - (v) Maintained vertical illuminance – 7 lux.
- P5 As a minimum requirement, all external lighting should operate, from dusk until dawn on Thursday, Friday and Saturday nights, and from dusk until midnight on all other nights. Extended illumination may be considered in the *B3 Commercial Core* zone only.
- P6 Control is initiated by a suitably adjusted/calibrated photo-electric switch should be incorporated to turn on at dusk and that the lights will be at full output when the daylight illuminance in the subject areas falls to the required illuminances stipulated above.
- P7 Luminaires must be suitable for the installation conditions (non-corroding, sealed against ingress of water, dust and insects) and utilize lamps with a luminous efficacy not less than 70 lumens per watt.
- P8 Luminaires should be aesthetically compatible with the design of the awnings and building façade to which they are attached.
- P9 Bare lamp fluorescent luminaires are not permitted.
- P10 The use of recessed downlights (with suitable broad lighting distribution) is encouraged wherever practical.
- P11 Where the design of the awning or building façade precludes the installation of recessed downlights, use surface mounted luminaires compatible with the design of the awning/façade.

## 2.5.4 High quality residential accommodation

### Objectives

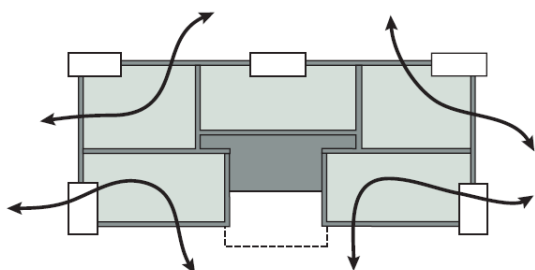
- O1 To provide a high level of internal amenity for those who reside in the building.



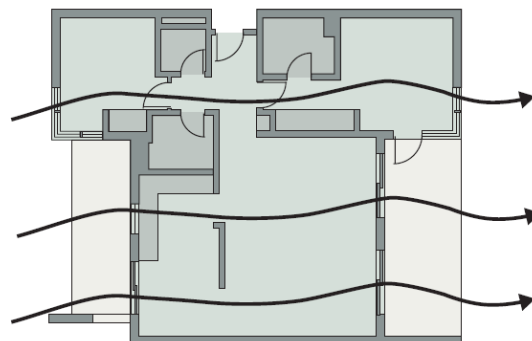
**Commercial & Mixed Use Development**

**Provisions**

- P1 Apartments within mixed use developments, must be designed to provide the following minimum internal areas<sup>3</sup>:
  - (a) Studio 35m<sup>2</sup>
  - (b) 1 bedroom 50m<sup>2</sup>
  - (c) 2 bedrooms 70m<sup>2</sup>
  - (d) 3+ bedrooms 90m<sup>2</sup>
- P2 Include courtyards, balconies and gardens as the principal open space area for residents. These should have solar access for a minimum of 2 hours a day measured at June 21<sup>st</sup>.
- P3 Communal corridors must have a minimum width of 2m to facilitate movement (i.e. no right angled corners).
- P4 No more than 8 dwellings are to be accessible from a single common lobby space.
- P5 Avoid the use of double loaded corridors.
- P6 Maximum depth of a habitable room from a window, providing light and air to that room, is 10m.
- P7 Apartments have a minimum width of 4m. An apartment's width should increase relative to an increase in its depth.
- P8 Single aspect apartments have a maximum depth of 8m from a window.
- P9 The habitable space serviced by a window is no more than 10 times the glazed area of the window.



**Figure B-2.5:**  
Corner apartments can achieve effective natural cross ventilation



**Figure B-1.8:**  
This optimal layout allows air flow directly from one side of the apartment to the other.

- P10 At least 60% of apartments are to be provided with cross ventilation (i.e. window openings that face different directions). For apartments with no cross ventilation, ceiling fans must be provided.
- P11 Utilise double glazing, awnings or window solar screens to reduce reliance on artificial cooling of buildings.
- P12 The amount of glazing on eastern and western elevations is to be minimised and incorporate external shading devices.

<sup>3</sup> Minimum internal space excludes balconies, garages and ancillary storage space. For multi-dwelling developments with one predominant dwelling type strict compliance with minimum space is required.



- P13 Amenity and safety of residents is protected from intrusion by users of the non-residential parts of the development (e.g. through the use of security access to lifts and car parking).

### 2.5.5 Lightwells and Ventilation

#### Objectives

- O1 To ensure that apartments within mixed use developments are provided with sufficient natural solar access and ventilation, where the provision through conventional means (i.e. windows) is adversely restricted or compromised.

#### Provisions

- P1 Council does not support the use of lightwells for the provision of light and ventilation to dwellings. However, Council may consent to the use of lightwells, but only if the following criteria are satisfactorily met:
- (a) the lightwell does not provide the primary source of natural daylight and ventilation to any habitable room of a dwelling within the development; and
  - (b) the dimensions of the lightwell comply with the building separation requirements set out in P5 to s.2.3.11 to this Part of the DCP (e.g. if non-habitable rooms face into a lightwell under 12m in height, the lightwell should measure 6m x 6m in plan); and
  - (c) the lightwell is directly connected at ground level to streets or lanes in buildings greater than 30m in height to allow air movement in the lightwell; and
  - (d) all building services (e.g. utility installations, pipes, cabling and the like) are concealed and not overlooked by principal living rooms or bedrooms; and
  - (e) the lightwell is fully open to the sky.
- P2 Despite P2(b) above, a lesser dimension may be considered, but only if it can be satisfactorily demonstrated that acoustic privacy, visual privacy and daylight access to all dwellings can be provided.
- P3 Alternative methods of ventilation of dwellings may be considered, but only if it can be satisfactorily demonstrated that there is no impact on privacy, noise, and fire safety.
- P4 If an alternative method of ventilation is proposed, submit a ventilation report by a certified ventilation consultant in accordance with the AS 1668, which recommends that the minimum natural cross ventilation rate of airflow should be 60L/s and the minimum removal of excess heat should be 10 air changes per hour, to provide reasonable comfort to occupants.

### 2.5.6 Private Open Space

#### Objectives

- O1 To ensure that residents of apartments within mixed use developments are provided with a reasonable level of outdoor amenity.
- O2 To ensure that private open spaces are a sufficient size to be usable.

#### Provisions

- P1 Apartments within mixed use developments must provide at least one private open space with the following minimum areas:
- (a) Studio 4m<sup>2</sup>
  - (b) 1 bedroom 8m<sup>2</sup>
  - (c) 2 bedrooms 10m<sup>2</sup>
  - (d) 3+ bedrooms 12m<sup>2</sup>

**Note:** Best practice standard for balcony size is 15% of floor area of the apartment.

**Commercial & Mixed Use Development**

- P2 Private open spaces must provide a minimum depth of 2m, or 2.4m where it relates to a 3+ bedroom apartment.
- P3 Where apartments are proposed without private open space, the size of the apartment must be increased by the minimum private open space requirement.
- P4 Private open spaces should be located such that they are directly accessible off a main living area of the dwelling.
- P5 In addition to the requirements of P1, multi-dwelling developments are encouraged to provide communal residential areas to encourage social interaction.

*Notes: It is considered best practice to provide communal areas in the order of 25% to 30% of the site area. A reduction in this requirement could be considered acceptable where private open spaces in excess of the minimum requirements are provided.*

- P6 Communal residential spaces:
  - (a) should comprise a mixture of indoor and outdoor spaces (such as gymnasium, pool and meeting rooms for residents);
  - (b) must be provided in developments containing more than 15 bedrooms, with a minimum area of 20m<sup>2</sup> or 1m<sup>2</sup> per bedroom, whichever is the greater;
  - (c) may be provided in form of an internal room as long as it has a minimum area of 75% of the total residential communal area requirement (as required in P6(b) above), with the remainder appropriately located in the external recreation area; and
  - (d) must be provided with access to natural light and not be located in basements.

**2.5.7 Vehicular access**

**Objectives**

- O1 To enhance pedestrian safety.
- O2 To minimise the disruption to the streetscape from vehicle crossovers.
- O3 To enhance the visual streetscape.

**Provisions**

- P1 Where available and practical, all vehicle access must be provided from laneways.
- P2 Service vehicle access should be combined with parking access.
- P3 Vehicular access points should be limited to a maximum of one access point per building.
- P4 Where possible, shared or amalgamated vehicle access points with an adjoining building should be provided.
- P5 Vehicle entries, walls and ceilings should be finished with high quality materials, finishes and detailing, similar to the overall external facades of the building.
- P6 Service ducts and pipes should be concealed when viewed from the public domain.
- P7 Parking areas must be designed to enable vehicles to enter and leave the site in a forward direction.

**2.5.8 Car Parking**

**Objectives**

- O1 Maintain existing on-site car parking provision for employees and visitors.

**Provisions**

- P1 Provide on-site car parking in accordance with Part B: Section 10 – Car Parking and Transport of the DCP.



- P2 All car parking must be provided underground.
- P3 Where security doors/gates are proposed provide an intercom system to facilitate visitor/service access to underground parking areas.
- P4 Disabled and visitor parking spaces must be designated common property once the development is subdivided.

### 2.5.9 Garbage Storage

#### Objectives

- O1 To ensure sufficient space is provided on site for waste storage.
- O2 To ensure garbage storage areas are screened from the public domain.
- O3 To ensure convenient access for collection.

#### Provisions

##### General

- P1 Communal on-site waste storage, recycling and collection points must be provided for each development site.
- P2 Separate waste storage facilities must be provided where a development contains a mixture of both residential and commercial uses. Access to these separate storage areas is to be restricted to their respective users.
- P3 A garbage storage area should be located within 2m of the street or laneway boundary.
- P4 Notwithstanding P3 above, a garbage storage area may be located anywhere on a site, but only if a garbage collection area, capable of accommodating all of the required bins for the entire development is located within 2m of the street or laneway boundary.
- P5 Garbage storage facilities should not be located in conjunction with the main pedestrian entrances to a building.
- P6 Garbage bins stored in a collection facility should be located within 3m of the facility's entrance.
- P7 Convenient access for on-site movement and collection should be provided.
- P8 More than one communal on-site waste storage and recycling area should be provided on large or steep sites, or where there is more than one Council collection point.
- P9 Garbage storage areas must be screened from streets and laneways to discourage the illegal dumping of rubbish and unsightly mess visible to pedestrians.
- P10 Garbage storage areas must be located and managed to avoid causing a nuisance from smells, insects or animals.
- P11 Sufficient space must be provided to accommodate any on-site treatment facilities (e.g. compaction) proposed to be incorporated.
- P12 Garbage storage areas should be adequately protected from inclement weather. Where appropriate, the area should be enclosed or undercover.
- P13 Storage areas must be well ventilated and drained to a lawfully approved sewerage system.
- P14 Where a garbage chute is provided or required:
  - (a) a separate garbage chute must be provided for the residential and commercial components of the building;
  - (b) the garbage chute room must be adequately ventilated and incorporate fire safety and other services in accordance with the BCA.



**Commercial & Mixed Use Development**

P15 Garbage facilities are to be designed and constructed in accordance with Council's Waste Management Guide (refer to Appendix 3).

**Commercial components**

P16 On-site garbage storage areas must be provided which are capable of accommodating the number of garbage and recycling bins as indicated in Table B-2.10. However, industry standards for waste generation rates may be used where these differ from the Council rates or if no Council rate is given.

<b>TABLE B-2.10: Waste bin requirements</b>			
<b>Type of Premises</b>	<b>Sub type of premises</b>	<b>Typical Volume of Waste generated to be stored</b>	
		<b>Waste</b>	<b>Recycling</b>
<b>Child care facilities</b>	All types	20L / child /week	10L / child /week
<b>Office buildings</b>	General office use	10L / 100m <sup>2</sup> GFA / day	10L / 100m <sup>2</sup> GFA / day
<b>Retail Trading</b>	Shops < 100m <sup>2</sup>	50L / 100m <sup>2</sup> GFA / day	25L / 100m <sup>2</sup> GFA / day
	Shops ≥ 100m <sup>2</sup>	50L / 100m <sup>2</sup> GFA / day	50L / 100m <sup>2</sup> GFA / day
	Supermarkets	660L / 100m <sup>2</sup> GFA / day	130L / 100m <sup>2</sup> GFA / day
	Showrooms	40L / 100m <sup>2</sup> GFA / day	10L / 100m <sup>2</sup> GFA / day
	Greengrocers	240L / 100m <sup>2</sup> GFA / day	410L / 100m <sup>2</sup> / day
	Florist / plant shop	900L / 100m <sup>2</sup> GFA / day (combined)	
	Butcher / Delicatessen	80L / 100m <sup>2</sup> GFA / day	Variable, but average 50L / 100m <sup>2</sup> GFA / day
	Bakery	295L / 100m <sup>2</sup> GFA / day	165L / 100m <sup>2</sup> GFA / day
<b>Food and drink premises</b>	Take away food and drink premises	80L / 100m <sup>2</sup> GFA / day	240L / 100m <sup>2</sup> GFA / day
	Restaurants and cafes	10L / 1.5m <sup>2</sup> GFA / day	120L / 100m <sup>2</sup> GFA / day
	Registered clubs	50L / 100m <sup>2</sup> bar area / day	50L / 100m <sup>2</sup> bar area / day
	Pub Small bar	80L / 100m <sup>2</sup> restaurant GFA / day	50L / 100m <sup>2</sup> dining area / day
<b>Assembly rooms</b>	Social recreational or religious premises	50L / 100m <sup>2</sup> GFA / day	10L / 100m <sup>2</sup> GFA / day
	Entertainment facilities	1L / 4 seats / screening	0.5L / 4 seats / screening
<b>Tourist and visitor accommodation</b>	Backpacker accommodation	40L / occupant space / week	20L / occupant space / week
	Hotel and motel accommodation	5L / bed space / day	5L / bed space / day
		50L / 100m <sup>2</sup> bar area / day	50L / 100m <sup>2</sup> bar area / day
		10L / 1.5m <sup>2</sup> dining area / day	50L / 100m <sup>2</sup> dining area / day
Serviced apartments	120L / apartment / week	60L / apartment / week	



**TABLE B-2.10: Waste bin requirements**

Type of Premises	Sub type of premises	Typical Volume of Waste generated to be stored	
		Waste	Recycling
Industrial	-	Dependant upon industry type	Dependant upon industry type

- P17 Notwithstanding the rates to P16, Council may permit a reduction in the number of bins required, but only if a garbage compactor is required or proposed to be incorporated within the development.
- P18 All developments containing a lift must provide:
- (a) a garbage chute leading to a central garbage storage room that has a waste compaction unit attached with a minimum compaction ratio of at least 2:1; and
  - (b) an interim recycling room with a minimum dimension of 1.5m square on each level of the building with at least one point of access to the garbage chute, with the space to accommodate at least 1 x 240 litre recycling bin for the separate collection of recyclable materials.
- P19 The area allocated must accommodate any privately arranged collection (e.g. daily or weekly, etc. collections).
- P20 Source separation must be provided within the garbage storage area to maximise recycling and reduction of waste sent to land fill.
- P21 Food and drink premises and any other premises involved in the storing of perishable goods are required to:
- (a) provide specialised containment for food scraps;
  - (b) Arrange regular/daily collection of food scraps; and
  - (c) Provide refrigerated garbage rooms where large volumes of perishables (such as seafood) and infrequent collection is proposed.
- P22 Grease traps may be required in certain circumstances (refer to Sydney Water may have specific trade waste requirements).
- P23 Special arrangements are required for the storage and disposal of any special waste material, such as medical or hazardous wastes. Applicants should contact Council and Environment Protection Authority for further information.

**Residential component**

- P24 On-site garbage storage areas must be provided which are capable of accommodating at least the number of garbage and recycling bins as indicated in Table B-2.11.

**TABLE B-2.11: Waste bin requirements**

No. of Apartments	No. of garbage bins required	No. of recycling bins required
1-3	1 x 80 litre bin / dw*	1 x 140 litre bin / dw
4-12	1 x 80 litre bin / dw or 1 x 240 litre bin / 3 dws	2 x 240 L comingled mobile recycling bin each colour coded and dedicated specifically for paper and co-mingled glass/plastic bottles and cans



**Commercial & Mixed Use Development**

**TABLE B-2.11: Waste bin requirements**

No. of Apartments	No. of garbage bins required	No. of recycling bins required
13 or more	1 x 240 litre bin / 3 dws 660 litre bins permitted	2 x 240 litre mobile bins / 15 dws or part thereof 660 litre bins permitted colour coded and dedicated specifically for paper and co-mingled glass/plastic bottles and cans

\* dw = dwelling

- P25 Notwithstanding the rates to P24, Council may permit a reduction in the number of bins required, but only if a garbage compactor is required or proposed to be incorporated within the development.
- P26 All developments containing a lift must provide:
- (a) a garbage chute leading to a central garbage storage room that has a waste compaction unit attached with a minimum compaction ratio of at least 2:1; and
  - (b) an interim recycling room with a minimum dimension of 1.5m square on each level of the building, with at least one point of access to the garbage chute, which is provided with space to accommodate 1 x 240 litre bin for the separate collection of recyclable materials.
- P27 Developments which do not contain a lift, but propose to incorporate a garbage chute, must comply with the requirements of P26(a) and P26(b).
- P28 Each dwelling must be provided with a waste storage cupboard within the kitchen, capable of accommodating at least 2 days waste and to enable source separation of garbage, recyclables and compost material in separate containers.

**2.5.10 Site facilities**

**Objectives**

- O1 To ensure that any site facilities are unobtrusive, integrated into developments, provide for occupants needs and reduce impacts on the environment.

**Provisions**

**General**

- P1 Site facilities should be located in the most accessible and convenient location and, if possible, located near regularly staffed areas such as reception areas.
- P2 Direct access should be provided to site facilities. The use of long corridors and blind corners should be avoided. The use of lighting and mirrors should be used in problem areas.
- P3 Site facilities should be designed to encourage their use by keeping them clean and vandal resistant. Access routes should be clearly signed and information provided in facilities to report maintenance and vandalism.
- P4 Seating is open to view and well lit after dark.
- P5 Provide no more than one telecommunications/TV antenna per building.

**Commercial**

- P6 Services such as ATMs, self service vending machines and telephones should be:
- (a) located in areas of frequent activity,
  - (b) be well lit after dark,



- (c) located away from concealed areas, and
- (d) be well maintained and vandal resistant.

- P7 ATMs and self service vending machines must not be located in recesses and must be designed to incorporate mirrors or reflective material so users can observe people approaching from behind.
- P8 ATMs and self-service vending machines must be unobtrusive and sympathetically integrated into shop-fronts and are not to obstruct pedestrian access.
- P9 Where ATMs or self-service vending machines issue paper receipts, the machine must incorporate a rubbish receptacle which is integrated into the overall design of the machine.
- P10 To ensure that self-service vending machines do not distribute inappropriate material to minors, the applicant must demonstrate to Council’s satisfaction how the distribution of restricted material/s will be restricted.

**Residential**

- P11 Open air drying facilities should be provided in a sunny location which are adequately screened from streets and public places.
- P12 Provide a lockable mailbox for each dwelling close to the main pedestrian entry to the dwelling or building.
- P13 Provide ancillary storage facilities at the rate outlined in Table B-2.12 and linked to each dwelling through provisions of the relevant Strata Plan (at least 50% within the apartment).

TABLE B-2.12: Residential storage	
Dwelling Size	Minimum Storage Rate
Studio	4m <sup>3</sup>
1 bedroom dwelling	6m <sup>3</sup>
2 bedroom dwelling	8m <sup>3</sup>
3+ bedroom dwelling	10m <sup>3</sup>

- P14 Basement storage facilities will not be permitted for conversion to car parking spaces, either informally or by means of lodging a development application or a s.96 application to modify a development consent.
- P15 Incorporate car wash bays in mixed use developments where there are more than 4 dwellings within the development.

**2.5.11 Temporary structures**

**Objectives**

- O1 To ensure that the location of temporary structures promotes public safety and amenity.
- O2 To encourage vitality, diversity and natural surveillance in the community without causing adverse effects on the streetscape.

**Provisions**

- P1 Temporary structures must not be located:
  - (a) in locations that hinder access to power or water access points;
  - (b) within 5m from front and/or side boundaries to facilitate pedestrian movement;



**Commercial & Mixed Use Development**

- (c) which breach traffic signs or hinder pedestrian or vehicular movement (e.g. in driveways or doorway entrances.);
  - (d) in such a way as to impact on informal or formal through site links or areas formally designated for public access; and
  - (e) near fire protection equipment or exits.
- P2 Mobile carts or stalls:
- (a) are not permitted on road shoulders;
  - (b) may be subject to a limited period of consent and hours of operation;
  - (c) must not provide any live or amplified music or other sounds promoting the cart or stall;
  - (d) must comply with the [Food Act 2003](#), the *National Code for Food Vending Vehicles and Temporary Food Premises* and the *Building Code of Australia*;
  - (e) should use biodegradable materials for all coffee/drink cups, cutlery and/or packaging of pre-cooked food stuffs;
  - (f) should be designed and use colours and materials that are compatible with the nature of Council’s plazas; and
  - (g) must obtain the relevant Council permit and display it during the hours of operation.
- P3 Temporary stalls on public footpaths will be generally limited to Mount Street Plaza and Elizabeth Plaza, Ernest Place.
- P4 Internal temporary structures should be compatible with the interior design of the building within which it is to be located.
- P5 Outdoor temporary structures are designed to be consistent with streetscape through their design and use of materials, colours and finishes.
- P6 Maximum of one coffee cart within a 200m radius.
- P7 Signage for any mobile cart is limited to one business identification sign affixed to the front panel of the cart and must not exceed 50% of that area.
- P8 Any ancillary equipment should not be visible from the street and should be stored directly inside the temporary structure.
- P9 Mobile cart/stall operators are responsible for the control of litter generated by the cart or stall.
- P10 Tables and chairs are not permitted to be provided for patrons. A stool may be permitted for the operator only.

**2.6 EFFICIENT USE OF RESOURCES**

The commercial and retail sectors are significant users of electricity and are major contributors to greenhouse emissions in Australia. Improving energy efficiency is one of the most cost effective ways of reducing greenhouse gas emissions. The pursuit of energy efficiency can bring economic, social and environmental benefits. Another reason to encourage energy efficiency is the reduction in maintenance costs and improved leasability and saleability of the building.

Reducing waste has environmental, social and economic benefits. There are many opportunities in the development process to reduce the amount of waste and to maximise the amount of material that is recycled and reused, rather than going to landfill.

The amount of stormwater runoff in an area relates directly to intensity of development in that area. The more impervious to stormwater an urban area is, the larger the runoff quantities are and thereafter the impact on the environment.



Applicants must comply with the submission requirements and performance targets set out in Table B-2.13 in order to demonstrate the proposed development will achieve an efficient use of resources.

**TABLE B-2.13: Non-residential thresholds, submission requirements and performance targets**

Threshold/size	Submission requirement	Performance target
<b>Alterations affecting less than half the original building or tenancy (measured over the roof and the outer walls)</b>	An Efficient Use of Resources Commitment Table (to be completed by the applicant).	Compliance with / consideration of (as relevant) DCP provisions within Efficient Use of Resources sub-sections.
<b>Alterations affecting more than half the original building or tenancy (measured over the roof and the outer walls)</b>	The development must comply with the relevant submission requirements as if it were a new development.	The development must comply with the relevant performance targets as if it were a new development.
<b>Less than 2000m<sup>2</sup> GFA</b>	An Efficient Use of Resources Commitment Table (to be completed by the applicant).	Compliance with / consideration of (as relevant) DCP provisions within Efficient Use of Resources sub-section.
<b>2000m<sup>2</sup>-5000m<sup>2</sup> GFA</b>	An Efficient Use of Resources Commitment Table (to be completed by the applicant); AND A NABERS Energy Commitment Agreement and associated documentation (see s.2.6.1(P21) below); OR If a NABERS Energy rating tool is not available for the particular type of non-residential development proposed, an Energy Efficiency Report from a suitably qualified consultant that sets out proposed energy efficiency measures; AND	Compliance with / consideration of (as relevant) DCP provisions within Efficient Use of Resources sub-section.  The Commitment Agreement must be for a 4.5 star NABERS rating for the base building, whole building, or tenancies as appropriate; OR If an Energy Efficiency Report is required it must demonstrate that a high level of energy efficiency will be achieved.
	A WSUD report from a suitably qualified consultant.	Compliance with / consideration of (as relevant) DCP provisions within Efficient Use of Resources sub-section, particularly regarding on-site detention, discharge rates and quality of discharge; and demonstration that WSUD has been incorporated to the maximum extent practicable.
<b>&gt;5000m<sup>2</sup> GFA</b>	A NABERS Energy Commitment Agreement and associated documentation (see s.2.6.1(P21) below); OR If a NABERS Energy rating tool is not available for the particular type of non-residential development proposed, an Energy Efficiency Report from a suitably qualified consultant that sets out	The Commitment Agreement must be for a 4.5 star NABERS rating for the base building, whole building, or tenancies as appropriate; OR If an Energy Efficiency Report is required it must demonstrate that a high level of energy efficiency will be achieved.



**TABLE B-2.13: Non-residential thresholds, submission requirements and performance targets**

Threshold/size	Submission requirement	Performance target
	proposed energy efficiency measures; AND	
	A WSUD report from a suitably qualified consultant; AND	Compliance with / consideration of (as relevant) DCP provisions within Efficient Use of Resources sub-section, particularly regarding on-site detention, discharge rates and quality of discharge; and demonstration that WSUD has been incorporated to the maximum extent practicable.
	Evidence that the building design has been awarded a Green Star rating; OR If evidence of a Green Star rating being awarded is not available at DA stage or if a Green Star rating tool is not available for the particular type of non-residential development proposed, a Sustainability Report including an Efficient Use of Resources Commitment Table (to be completed by suitably qualified consultants) must be submitted.	The base building, or the whole building where there is to be one tenant to occupy the whole building, must achieve a 5 star Green Star rating; OR If a Sustainability Report which includes an Efficient Use of Resources Commitment Table is required it must demonstrate compliance with / consideration of (as relevant) DCP provisions within the Efficient Use of Resources sub-section and demonstrate that the development will achieve a very high degree of environmental sustainability.

**2.6.1 Energy efficiency**

Most commercial buildings or premises could reduce their energy consumption by at least 20% by investing in the latest energy efficient equipment. Such investment invariably offers a highly profitable rate of return, resulting in cost-effective energy savings with the positive result of reducing emissions.

Nearly half of energy consumption in buildings is due to heating, cooling, ventilation, office equipment and lighting. A typical energy bill is 25% of a building’s total operating costs. By incorporating passive solar design strategies and using building techniques that minimise energy use, it is possible to reduce energy associated costs by up to 60%.

The main sources of energy use in commercial buildings include heating and cooling (air-conditioning), lighting and the use of office equipment. The way the occupants operate and maintain a building is crucial to its energy efficiency so just having a smart design does not guarantee an efficient building. Controls in this section of the DCP seek to acknowledge these facts by addressing both building design and maintenance.

**BASIX – Building Sustainability Index**

Developments involving the construction of a new dwelling and some alterations to existing dwellings will require the submission of a BASIX certificate. For further information, visit [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au).

**National Australian Built Environment Rating Scheme (NABERS)**

North Sydney Council encourages developers to obtain a NABERS rating for commercial and commercial components of buildings. The rating assesses a building’s performance in terms of its Greenhouse gas emissions during its operation.

The Rating Scheme, which is managed by the Department of Environment, Climate Change and Water (DECCW), allows owners and occupiers of commercial and commercial



components of buildings to benchmark the greenhouse performance of their premises on scale of one to five. One represents the most polluting and five, the least polluting, with three representing best market practice. New commercial buildings, refurbishments, tenancies and fitouts will have to demonstrate compliance with this DCP by signing DECCW's NABERS – Energy Commitment Agreement and achieving a minimum 4.5 star rating for the base building, whole building for tenancies (as appropriate).

**Green Star**

North Sydney Council encourages developers to obtain a Green Star rating for developments involving the provision of substantial commercial floor space. The Green Star rating system, which is managed by the Green Building Council of Australia, is a comprehensive, national, voluntary environmental rating system that evaluates the environmental design and construction of buildings. Approximately, 11 per cent of Australia's CBD<sup>4</sup> commercial office buildings are Green Star certified, reinforcing that building "green" is now a business imperative.

The following Green Star Certified Ratings are available:

- **4 Star Green Star Certified Rating** (score 45-59) signifies 'Best Practice' in environmentally sustainable design and/or construction
- **5 Star Green Star Certified Rating** (score 60-74) signifies 'Australian Excellence' in environmentally sustainable design and/or construction
- **6 Star Green Star Certified Rating** (score 75-100) signifies 'World Leadership' in environmentally sustainable design and/or construction

Although Green Star certification requires a formal process, any project can freely download and use the Green Star tools as guides to track and improve their environmental attributes. Refer to [www.gbca.org.au](http://www.gbca.org.au).

**Objectives**

- O1 To ensure that developments minimise their use of non-renewable energy resources.
- O2 To ensure that buildings are designed such that the air conditioning plant meets performance requirements, while minimising energy usage.
- O3 To encourage the use of energy efficient lighting.

**Provisions**

**General**

- P1 Where alterations affect more than half the total volume of the original building (measured over the roof and the external walls), achieve the targets in this subsection for the whole of the building.
- P2 Consider the following issues when assessing the energy rating of buildings and whether any of these issues prevent the achievement of the energy ratings:
  - (a) orientation or shape of the block;
  - (b) existing overshadowing due to either the surrounding terrain or existing development;
  - (c) topography, geology or geo-technical constraints preclude energy saving design such as slab-on-ground construction; and
  - (d) conflict with requirements or guidelines in relation to privacy, area character, building design, bulk and scale or heritage considerations set out in the LEP or the DCP.
- P3 Ensure that the development does not reduce the energy efficiency of buildings in the vicinity.

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<sup>4</sup> Figures obtained from the Green Building Council of Australia, circa October 2010.



**Commercial & Mixed Use Development**

- P4 Improve the control of mechanical space heating and cooling by designing heating/cooling systems to target only those spaces which require heating and cooling, not the whole building.
- P5 Where the proposed development involves the installation of any of the following:
  - (a) hotwater systems;
  - (b) clothes drier;
  - (c) dishwasher;
  - (d) fixed air conditioning systems (including reverse cycle systems);
  - (e) fixed heating systems;
 they must have a minimum energy star rating of 4.5 stars.
- P6 Lighting for streets, parks and any other public domain spaces provided as part of a development should be energy efficient LED lighting.
- P7 Car parking areas should be designed and constructed so that electric vehicle charging points can be installed at a later time.
- P8 Where appropriate and possible, the development of the public domain should include electric vehicle charging points or the capacity for electric vehicle charging points to be installed at a later time.
- P9 Improve the efficiency of hot water systems by insulating hot water systems.
- P10 Wherever possible solar hot water systems should be provided.
- P11 Incorporate on-site renewable energy sources to supplement energy needs during daily peak energy use.
- P12 In considering proposals for renewable energy, consideration should be given to the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.
- P13 Timers and movement sensors should be used to minimise energy consumption, particularly for lighting and mechanical ventilation in public areas.
- P14 Energy efficient lighting and technology should be used to reduce energy consumption. Consider the use of solar powered illumination.
- P15 Use solar powered lighting for external areas.

**Residential component**

- P16 A BASIX Certificate is required to be submitted with all developments incorporating residential development types nominated under SEPP (Building Sustainability Index: BASIX) 2004.

**Note:** BASIX assessments and certificates can be obtained on-line at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

**Commercial components**

- P17 In multi-floor or multi-tenant or strata-subdivided developments, electricity sub-metering is to be provided for light, air-conditioning and power within each floor and/or tenancy and/or strata unit. Locations are to be identified on the development plans. Electricity sub-metering should be provided for significant end uses that will consume more than 10,000 kWh/a.
- P18 Reduce reliance on artificial lighting by designing lighting systems to target only those spaces which require lighting at any particular 'off-peak' time, not the whole building.
- P19 Locate appliances and equipment that generate waste heat, (such as copiers) in areas separated from the spaces requiring cooling.
- P20 Buildings, or the commercial components of mixed use buildings, that have a gross floor area greater than 2000m<sup>2</sup> must be capable of achieving a minimum 4.5 star



rating under DECCW's NABERS Energy. In this regard, the following information is required to be lodged with the relevant certifying authority (Council or an accredited certifier) prior to the issue of a Construction Certificate:

- (a) Evidence that a Commitment Agreement has been entered into with DECCW, to deliver this Star rating for the base building (i.e. services traditionally supplied as 'common' to tenants, such as air conditioning, lifts and common area lighting) or for the whole building where the applicant is to occupy the entire building.
- (b) An independent energy assessment report that follows the guidelines in DECCW's *NABERS Energy and Water for Offices Rules for collecting and using data*. This document can be obtained from [www.nabers.gov.au/](http://www.nabers.gov.au/);
- (c) A computer building simulation in accordance with DECCW's *NABERS Energy Guide to Building Energy Estimation*. This document can be obtained from [www.nabers.gov.au/](http://www.nabers.gov.au/). The computer building simulation is required to demonstrate to the satisfaction of Council, or the private certifier if Council is not the certifying authority, that the building can reasonably be expected to achieve the proposed rating under realistic operating conditions.

P21 Developments involving the provision of more than 5,000m<sup>2</sup> of office floor space must demonstrate that the development can achieve a minimum 5 star rating under the Green Building Council of Australia's Green Star – Office rating tool. The rating tool can be obtained from the Green Building Council of Australia's website - [www.gbca.org.au](http://www.gbca.org.au).

### 2.6.2 Passive solar design

#### Objectives

O1 To ensure that site layout and building orientation allows for maximum solar access and are adapted to local climatic conditions and prevailing site characteristics.

#### Provisions

- P1 To achieve maximum solar access for the buildings residential components of a building orient the building within 20° west of north to 30° east of north.
- P2 Adapt site layout and building orientation to local climatic conditions and prevailing site characteristics, such as existing overshadowing, planting and slope.
- P3 Locate the main daytime living areas (e.g. family, dining and meal rooms) on the northern side of apartments.
- P4 Orient the long axis or length of the building to the northerly aspect.
- P5 East and west facing glazing should be minimised and fully shaded at the summer solstice.
- P6 Ensure windows of living areas to apartments that face north will receive at least three hours of sunlight between 9am and 3pm over a portion of their surface during the winter solstice.
- P7 Provide shading devices on north facing walls to completely shade glazing from October to late February. To calculate the extent of shading device, draw a section and extend a line from the base of the window at 70°. The outer edge of the eaves or shading device should reach this line.
- P8 Optimise natural light access to reduce the amount of energy used to run artificial lighting (limiting the internal depth of the building allows efficient use of natural light).
- P9 If landscaping is proposed as part of the development, a documented landscape design concept shows how the landscaping contributes to energy efficiency by providing substantial shade in summer, especially to west-facing windows and open car park areas, and admitting winter sunlight to outdoor and indoor living and working areas.

**Commercial & Mixed Use Development**

- P10 Consideration should be given to using north facing pergolas to shade walls and windows (deciduous vines can be trained over the pergola to provide effective cooling in warm weather).
- P11 Where a north facing pergola contains fixed louvres, space and orient the louvres so that a line between the top of one blade and the bottom of the next makes an angle of 70°.
- P12 Angle louvres to correspond to the lowest altitude angle the sun reaches at noon in winter (31° in Sydney).
- P13 Where main living areas are oriented northwards, aim to achieve a glazed area of 30% of the dwelling’s floor area in this direction.
- P14 South facing glazing should be kept to a minimum to reduce winter heat losses.
- P15 Buildings are designed, wherever possible, to include a north facing roof where a solar hot water system or collector can be installed.

**2.6.3 Thermal mass and insulation**

Thermal mass is the ability of a material to absorb heat energy. Materials like concrete, bricks and tiles are deemed to have a high thermal mass, as they require a lot of heat energy to change their temperature. Lightweight materials such as timber have low thermal mass. More thermal mass results in more even range in inside air temperature. Appropriate use of thermal mass throughout your home can make a big difference to comfort and heating and cooling bills.

Thermal mass is not a substitute for insulation. Thermal mass stores and re-radiates heat whereas insulation stops heat flowing into or out of the building. A high thermal mass material is not generally a good thermal insulator.

Insulation acts as a barrier to heat flow and is essential to keep your home warm in winter and cool in summer. A well insulated and well designed home will provide year-round comfort, cutting cooling and heating bills by up to half. This, in turn, will reduce greenhouse gas emissions.

**Objectives**

- O1 To achieve more even, year-round average temperature, making the building more comfortable for occupants and resulting in less demand for artificial heating or cooling.

**Provisions**

- P1 To maximise natural heating, provide flooring that will absorb heat from the winter sun (i.e. a concrete slab floor on the ground offers the best thermal massing properties, whilst timber floors have minimal performance in terms of thermal mass. Dark coloured tiles laid over a concrete slab is the most desirable covering in terms of maximising the performance of thermal mass in a dwelling).
- P2 To maximise natural cooling, protect thermal mass from summer sun with shading and insulation. Allow cool night breezes and air currents to pass over the thermal mass, drawing out all the stored energy.
- P3 Incorporate masonry walls and insulated walls and ceilings to contribute to the effectiveness of thermal mass.
- P4 Thermal insulation is used in the roof, walls and floor.
- P5 Ceiling/roof insulation must have at least an R3.0 rating or equivalent and wall insulation must have at least an R1.5 or equivalent rating. Insulation of cavity brick walls is not required. These ratings are based on AS 2627: Part 1-1993.
- P6 Use bulk or reflective insulation, or a combination of both, to achieve the required insulation value.
- P7 Heat loss/gain is minimised through the use of awnings, shutters or high performance glazing (e.g. double glazing).

## 2.6.4 Natural ventilation

### Objectives

- O1 To ensure that dwellings are designed to provide all habitable rooms with direct access to fresh air and to assist in promoting thermal comfort for occupants.
- O2 To reduce energy consumption by minimising the use of mechanical ventilation, particularly air conditioning.
- O3 To ensure that workers are provided with direct access to fresh air and to assist in promoting thermal comfort for occupants

### Provisions

- P1 Locate windows and openings in line with each other on opposing walls and with prevailing breezes.
- P2 Provide ceiling fans for use in summer (fans produce a cooling air movement that is preferable to letting in the hot daytime air).

## 2.6.5 Water Conservation

### Objectives

- O1 To minimise the use of potable water .
- O2 To encourage the reuse of greywater, rainwater and stormwater.

### Provisions

#### General

- P1 Where the proposed development involves the installation of new:
  - (a) shower roses;
  - (b) taps for use over a basin, ablution trough, kitchen sink or laundry tub;
  - (c) flow restrictors;
  - (d) toilets;
  - (e) white goods, such as clothes washers or dishwashers;they must have the highest WELS star rating available at the time of development.
- P2 Recycled water (serviced by dual reticulation) should be utilised for permitted non-potable uses such as toilet flushing, laundry, irrigation, car washing, fire fighting, industrial processes and cooling towers..
- P3 Harvest and use rainwater for garden irrigation and toilet flushing.
- P4 Collect and reuse stormwater runoff for subsurface irrigation.
- P5 Use endemic plants (as listed on Council's website) and xeriscape principles in landscaping.  
*Note: Xeriscape principles essentially seek to limit the use of water for irrigation, through the design of landscaped areas and careful use of vegetation.*
- P6 Install water efficient irrigation systems and controls.
- P7 Separate meters are to be installed for the make-up lines to cooling towers, swimming pools, on the water supply to outdoor irrigation, and other significant end uses.
- P8 Where cooling towers are used they are:
  - (a) to employ alternative water sources where practical; or
  - (b) to include a water meter connected to a building energy and water metering system to monitor water usage; and
  - (c) to be connected to a recirculating cooling water loop; and



**Commercial & Mixed Use Development**

- (d) discouraged where they are a single pass cooling systems; and
- (e) to be connected to a conductivity meter to ensure optimum circulation before discharge.

P9 Install a pool cover where the proposed development includes an external swimming pool.

**Commercial**

P10 Rainwater tanks or other alternative water sources including recycled water systems are to be installed to minimise the use of potable water and maximise the use of alternative water sources.

P11 Rainwater tanks should be plumbed to appropriate end uses, including toilet flushing, water features, car washing and garden irrigation.

P12 Separate meters are to be installed on separate units of occupancy in non-residential BCA class 5, 6 and 7 buildings.

P13 A reporting system should be developed to inform/educate occupants about the building's water consumption.

P14 Use waterless urinals.

P15 Install sensor operated taps, or automatic shutoff taps, especially in public areas.

**Residential**

P16 A BASIX Certificate is required to be submitted with all buildings incorporating residential development types nominated under SEPP (Building Sustainability Index: BASIX) 2004.

**Note:** BASIX assessments and certificates can be obtained on-line at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

**2.6.6 Waste Management & Minimisation**

**Objectives**

- O1 To minimise material usage and waste during building, construction and demolition.
- O2 To minimise the level of waste during operation reduce new building material usage and minimise volume of demolition materials.

**Provisions**

P1 A Waste Management Plan for the demolition, construction and operation of the building must be provided in accordance with Part B: Section 19 - *Waste Minimisation and Management* of the DCP.

P2 The building should be designed to encourage waste minimisation (e.g. source separation, reuse and recycling).

P3 Adequate recycling systems must be provided in the design of the garbage room.

P4 Materials with long lives and low maintenance needs are encouraged to be incorporated.

P5 Contractors and sub-contractors employed to undertake proposed construction works and waste removal should be educated about the waste objectives of the development.

P6 The storage of any hazardous waste materials must be adequately secured.

**2.6.7 Stormwater management**

**Objectives**

- O1 To mimic pre-development or natural drainage systems through the incorporation of WSUD on-site.



O2 To protect watersheds by minimising stormwater discharge and maximising stormwater quality.

O3 To minimise off-site localised flooding or stormwater inundation.

**Provisions**

P1 An *Erosion and Sediment Control Plan* for the construction of the building is required in accordance with Part B: Section 17 - *Erosion and Sedimentation Control* of the DCP.

P2 A *Stormwater Management Plan* for the operation of the building is required demonstrating compliance with this subsection as well as Part B: Section 18 - *Stormwater Management* of the DCP.

P3 Demonstrate how run-off from the site will be minimised and the quality of water leaving the site will be improved.

P4 Rainwater tanks should be installed for all developments, including major alterations and additions and mixed-use developments. Rainwater tanks should be plumbed to appropriate end uses, including toilet flushing, water features, car washing and garden irrigation, to ensure sufficient use of tank water so that capacity exists to accommodate rainwater from storm events.

P5 As a minimum, post-development stormwater discharge rates should be less than pre-development stormwater discharge rates.

P6 As a minimum, post-development stormwater quality should be improved from pre-development levels.

P7 On-site stormwater detention, including the use of grass swales and detention basins, should be pursued where practicable to minimise and filter stormwater runoff

P8 Impervious surfaces should be minimised.

P9 Ensure paved areas are at least 50% pervious.

P10 In addition to a Stormwater Drainage Plan, residential developments with a gross floor area greater than 2000m<sup>2</sup> must also submit a Water Sensitive Urban Design report from a suitably qualified consultant demonstrating that WSUD has been incorporated to the maximum extent practicable and that stormwater discharge will be reduced to the maximum extent practicable.

P11 All developments with a gross floor area greater than 2000m<sup>2</sup> are to undertake a stormwater quality assessment to demonstrate that the development will achieve the post-development pollutant load standards indicated below:

- (a) Litter and vegetation larger than 5mm: 90% reduction on the Baseline Annual Pollutant Load;
- (b) Total Suspended Solids: 85% reduction on the Baseline Annual Pollutant Load;
- (c) Total Phosphorous: 65% reduction on the Baseline Annual Pollutant Load;
- (d) Total Nitrogen: 45% reduction on the Baseline Annual Pollutant Load.

**2.6.8 Building Materials**

**Objectives**

O1 To encourage the use of materials which have a low environmental impact during their life cycle.

O2 To encourage the use of toxin free material to minimise the health impact of materials used indoors.

O3 To maximise the energy efficiency of buildings.

**Provisions**

P1 Products with the least life cycle impact should be favoured.

**Commercial & Mixed Use Development**

- P2 The use of the following types of building materials are to be maximised wherever possible:
- (a) materials which are sourced from renewable and abundant resources;
  - (b) materials which are durable;
  - (c) locally manufactured materials and produced;
  - (d) materials with a low embodied energy content;
  - (e) salvaged and/or recycled materials;
  - (f) timber used be obtained from certified sustainable sources;
  - (g) materials with a high recycled content (>50%);
  - (h) low volatile organic compound (VOC) emitting materials;
  - (i) mechanical fixings instead of adhesives and glues, wherever possible;
  - (j) when using Medium Density Fibreboard, ensure that it has a low formaldehyde content;
  - (k) use toxin-free floor finishes;
- P3 Avoid the use of the following:
- (a) copper, chrome, cadmium, lead, mercury, cyanide, and formaldehyde;
  - (b) materials, sealants and adhesives containing PVC;
  - (c) wood treated with CCA;
  - (d) solvents.
- P4 Use physical termite barriers (made of granite or stainless steel) instead of chemicals where possible.
- P5 Buildings should use lighter coloured materials and finishes on main external parts of the building.

**2.6.9 Adaptive reuse of buildings**

**Objectives**

- O1 To encourage the adaption and reuse of buildings.

**Provisions**

- P1 Where feasible, existing buildings are to be reused in preference to demolition.
- P2 Buildings should be designed to encourage adaptable office floorspace to accommodate changing occupier requirements.

**2.6.10 Hotwater systems**

**Objectives**

- O1 To ensure the most efficient water heating methods are used to assist in the reduction of greenhouse gas emissions and use of non-renewable resources.

**Provisions**

- P1 New hotwater systems installed in dwellings must not solely rely on electrical mains power to heat the water (n.b. sole electrical hotwater systems are not permitted in new dwellings).
- P2 Install solar powered water heaters on any residential development. Solar powered water heaters may be either gas or electrically boosted, but boosting should be limited to a maximum of 50% of total heating requirement with the remainder of heating requirements achieved through solar gain.



- P3 Where it can be demonstrated that insufficient solar access is available for a solar powered system install a heat pump or natural gas system.
- P4 Locate solar cells, heat pumps or any associated structures so as to avoid impact on the aesthetics of a building, the streetscape, or heritage significance of a building or conservation area.
- P5 Centralise solar or heat pump hot water systems in larger scale residential flat buildings or attached dwelling developments, to achieve economies of scale.
- P6 Where it can be demonstrated that the installation of a low greenhouse gas emission water heating system would require additional expenditure which is not cost-effective over a five year period other systems may be considered.

### **2.6.11 Green roofs**

A green roof can comprise a roof system that is designed to promote the growth of various forms of vegetation, renewable energy production and/or water collection technology on the tops of buildings. Although a green roof is only one element of a building, it is extremely important when considering the long term sustainability of buildings and their impacts on the environment.

Green roofs can not only assist in minimising impacts on the environment but can also help to reduce a building's running costs.

Applicants are requested to consult the *North Sydney Council Green Roof and Wall Resource Manual* for technical guidance on the design, construction and maintenance of green roofs.

#### **Objectives**

- O1 To provide accessible roof space providing increased amenity for the occupants and visitors of the building.
- O2 To improve the aesthetics and amenity of the urban environment (this particularly relates to the appearance of the roof when viewed from surrounding buildings).
- O3 To provide space to accommodate renewable energy production.
- O4 To improve stormwater management by controlling both the quality and flow of stormwater.
- O5 To increase biodiversity by the use of plant material, and in particular to promote food production where appropriate.
- O6 To protect the building structure by increasing its thermal protection which will also help to reduce internal heating and cooling requirements.

#### **Provisions**

- P1 Development applications for all new buildings or alterations and additions to an existing building that involves the creation of new roof spaces must submit a roof plan demonstrating how the new available roof space<sup>5</sup> contributes to the achievement of at least three of the above objectives.
- P2 In satisfying provision P1 above, the roof plan must illustrate those parts of the available roof space to be used as a green roof immediately after construction of the proposed works and/or areas capable of being retrofitted for a green roof at a later date. Applicants are encouraged to accommodate green roofs immediately after construction.

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<sup>5</sup> "Available roof space" excludes plant rooms, lift overruns and other equipment such as building maintenance units. Available roof space includes the roof tops of any podiums.

## 2.6.12 Wind Turbines

### Objectives

O1 To manage the impacts of wind turbines.

### Provisions

P1 Wind turbines are:

- (a) not to involve the removal or pruning of a tree or other vegetation that requires a permit or development consent for removal or pruning, unless that removal or pruning is undertaken in accordance with a permit or development consent;
- (b) to be clear from power lines in accordance with the requirements of the relevant electricity authority;
- (c) not to affect the structural integrity of the building;
- (d) should not detract from the significance of a heritage item or a heritage conservation area;
- (e) not to be located along a bat or bird flyway; and
- (f) to be installed in accordance with manufacturer's specifications.

P2 Wind turbines are not to cause the following LAeq levels to be exceeded in any nearby residential development (with windows closed):

- (a) in any bedroom in the building—35 dB(A) at any time between 10pm and 7am;
- (b) anywhere else in the building (other than a garage, kitchen, bathroom or hallway)—40 dB(A) at any time.

## 2.7 PUBLIC DOMAIN

The public domain includes streets and laneways, parks, plazas and malls, as well as areas for café and restaurant seating, entries and foyers to buildings and the interface where buildings meet the street or an adjoining open space.

The quality of the public domain has an impact on how people relate to their surroundings, how they use the public domain, how comfortable they feel in it, how they feel about it, and what they think about it. The public domain allows for freedom of movement, access to a range of services and activities. It provides space to relax in, meet friends, 'hang out', congregate and be entertained in. It above all contributes to community identity and sense of place.

Design of the public domain is important - too often buildings relate poorly to the public domain and public spaces are just the left over spaces between buildings. A well designed public domain is one which is accessible to all, encourages a diverse range of activities and users throughout an extended period of the day, and is safe and comfortable for all users. Successful streets and public spaces are the ones we enjoy walking along, shopping at or sitting in.

All Public Domain design should be in accordance with the *North Sydney Centre Domain Strategy*, the *St Leonards Public Domain Strategy* and *North Sydney Council Infrastructure Manual*.

### 2.7.1 Street furniture, landscaping works, utilities and equipment

#### Objectives

O1 To ensure that street furniture, landscaping works, utilities and equipment positively contribute to the community's enjoyment of the public domain, but does not impede pedestrian movement and safety or reduce visual quality.

#### Provisions

P1 Where relevant, all works should be designed in accordance with:



- (a) North Sydney Centre Public Domain Strategy;
- (b) St Leonards Public Domain Strategy; and
- (c) North Sydney Council Infrastructure Manual.

- P2 Where present, overhead wires are to be relocated underground along property boundaries, consistent with the North Sydney Council Undergrounding Master Plan.
- P3 Seating should be provided in public spaces that are not allocated to a specific use (e.g. a café) for people to 'hang out', take refuge and rest.
- P4 Seating or seating areas should be positioned at the edge of footpaths where through movement is not obstructed.
- P5 Pedestrian sight lines should not be obstructed by landscaping or other street improvements.
- P6 Public areas should be free from clutter and unclear level changes, having particular regard for accessibility.
- P7 Publicly accessible areas are to be provided with a high quality of lighting for security and amenity purposes.

### 2.7.2 Public entertainment and expression

#### Objectives

- O1 To ensure that venues for public entertainment and expression of community identity are provided.

#### Provisions

- P1 Formal and informal spaces for public entertainment should be provided.
- P2 Multi-functional street furniture should be incorporated into the design (e.g. a flat bench may become an informal plinth for performance artists).
- P3 At least one space within the North Sydney Centre must be provided that is large enough to hold an open air performance or market.
- P4 Public notice boards and kiosks should be provided in locations where people will be gathering.
- P5 Space should be provided within buildings for community facilities such as exhibition areas, recreational facilities or cinemas.

### 2.7.3 Public art

#### Objectives

- O1 To contribute to the cultural life and enjoyment of commercial areas.
- O2 To allow for community self expression.

#### Provisions

- P1 The design of public art should be in accordance with *North Sydney Centre Public Domain Strategy*.
- P2 Artworks should be integrated into the design of public spaces and the publically accessible locations of private developments (i.e. main entrances, lobbies, street frontages, gardens, walls and rooftops).
- P3 Council's Arts and Culture Officer should be consulted in the design and execution stages for any public artwork, prior to development consent being issued.
- P4 Community groups should be consulted in the design of artworks.
- P5 Consideration should be given to artworks that serve a dual role (e.g. as play equipment for children, informal seating or a marker for a meeting place).

**Commercial & Mixed Use Development**

- P6 Artwork should demonstrate its relevance to its location, reflecting the area's history, culture or local community.
- P7 Artwork should enhance a sense of place or the distinctive identity of the area.
- P8 Council's *Arts Plan* should be considered in the design of all public art. It documents the process for completing an Arts Plan submission where an Arts Plan is lodged with a development application.

**2.7.4 Paving**

**Objectives**

- O1 To ensure pedestrian surfaces are safe for all users.
- O2 To ensure that pedestrian routes are clearly identified.
- O3 To ensure that paving is constructed from materials that provide consistency and continuity of streetscape.

**Provisions**

- P1 Except where negotiated with the Council, all footpath paving along property frontages must be provided in accordance with Council's specifications (including requirements for disabled access).
- P2 The extent, nature and type of paving materials include tactile surfaces in appropriate locations to assist the visually impaired.
- P3 Paving may be considered as part of public art, but only in consultation with Council.

**2.7.5 Native vegetation and water**

**Objectives**

- O1 To increase the provision of native vegetation and water in the public domain and publically accessible areas within private developments.

**Provisions**

- P1 All works should be designed in accordance with *North Sydney Centre Public Domain Strategy*.
- P2 Water features, utilising non-potable water, should be considered for inclusion within public spaces, building entrances, foyers, facades and rooftops.
- P3 Roof top gardens should be considered for incorporation where practicable and where they do not result in unreasonable amenity impacts to adjoining and neighbouring properties.
- P4 Trees should be planted where appropriate to provide shade, shelter and fauna.
- P5 Development on properties in proximity to bushland must be consistent with the requirements of Section 15 – *Bushland* to Part B of the DCP.

**Note:** Refer to the *Bushland Buffer Map* in Appendix 4 to this DCP to determine if the subject property is located in proximity to bushland.



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