

SECTION 6 MIXED USE DEVELOPMENT



About mixed use development

North Sydney Council's mixed use areas provide for a variety of residential and commercial floorspace. These areas are well serviced by public transport. Access is available to a wide range of employment, cultural, social, educational and recreation opportunities. These areas are generally have an under supply of open space and public walkways are intensively used.

Most of North Sydney's mixed use areas are located along major roads including Pacific Highway and Military Road. Milsons Point is also identified as a mixed use area. The mixed use areas to the west of the Warringah Expressway represent the highest density development in the Council area with many high rise residential and commercial towers. These areas have good exposure to the Sydney Harbour and can be seen from surrounding areas. To the east of the expressway the mixed use areas are lower in scale and extend along the length of Military Road through Cremorne and Neutral Bay.

Council supports the recycling of all buildings. Buildings converted for an alternative use should be appropriate for that use. The recycled building must be able to meet the controls set out in this section. Lightwells or modification of the floor area may be required to meet the objectives of this section. The gross floor area (GFA) of building should not be altered as part of the conversion process if it exceeds height and floorspace controls.

How this section is used

This section is used in the preparation and assessment of any development application on land within a Mixed Use Zone. Some of the provisions of this section will be more applicable to large scale development in the Milsons Point, North Sydney Centre and St Leonards mixed use areas. If you are unsure please contact Council for more information.

What we want to achieve

Mixed use areas are attractive, memorable, sustainable and busy places that are accessible to all; where,

Function

- various grades and sizes of commercial floorspace accommodate a mix of small and larger business, services, high tech industries, retail and recreation
- the dwelling mix achieves an on-site dwelling density contributing to energy efficient design and residential amenity

- there is housing choice in the mix of dwelling sizes and in the range of affordability
- uses and activities are mixed to meet the needs of residents, workforce and visitors
- public transport, including walking and cycling, is the main form of access

Environmental Criteria

- extremes of sun, wind and rain are lessened by building design
- natural light reaches buildings, public places and streets
- sounds are mainly from people, with mechanical noise subdued

Quality Built Form

- a safe, high quality urban environment is achieved through the careful design of buildings and use of materials, and a well designed and maintained public domain
- the heritage significance and curtilage of heritage items and conservation areas is maintained and enhanced
- the landscape is highly urbanised, but softened by introduced water and greenery
- there is opportunity for all to enjoy the views from and within the area

Quality Urban Environment

- community facilities meet the needs of the working and resident population, visitors, and residents of nearby neighbourhoods, in terms of wellbeing, culture and recreation, and add to the diversity and activity of the area.
- traffic is managed so that pedestrians can move within the area freely and safely and amenity is maintained
- additional open space is provided to service increased population of the area
- pedestrians are assisted in safely crossing roads that form barriers to movement
- existing uses and facilities which are important to the community are maintained

Efficient Use of Resources

- energy efficient design and life cycle assessment of buildings enables the conservation of natural resources and minimisation of use of non-renewable energy resources.
- stormwater runoff is minimised, and recycled where possible
- water and energy consumption in is reduced by meeting or exceeding targets of the BASIX sustainability index for residential development

Public Domain

- building design contributes positively to the surroundings at street level and contributes to diversity, vitality, social engagement and 'a sense of place'



6.1 Function

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

Diversity of activities, facilities, opportunities and services

- a. **A diversity of activities, facilities, opportunities and services; including business, community services, employment, entertainment, government agencies, health and welfare, recreation and retail.**
 - i. Provide a variety of different sized non-residential spaces (eg. showrooms, boutique shops and cafes, suites for medical/legal centres).
 - ii. Provide a variety of outdoor and indoor communal spaces (such as gymnasium, pool and meeting rooms for residents; gardens, seating or outdoor café space for the public).
 - iii. Consider incorporating community and entertainment facilities (such as a child care centre or cinema).
 - iv. Where the number of bedrooms exceed 15, a private communal area within the building is provided, with an area calculated by providing a minimum of 1m² per bedroom. (min. 20m²).
 - v. Common areas for residents should have natural light, should not be located in basement and should have at least 75% of area in form of internal room, remainder appropriately located in the external recreation area
 - vi. All common areas (including the principal entrance to the building) are accessible by all persons.
 - vii. Locate retail/commercial uses on the ground floor, retail/commercial or residential uses on the first floor, and residential uses on upper floors.

Mixed residential population

- b. **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.**

Section 6.1
Mixed Use
Development

Dwelling yield that is consistent with Council's Residential Development Strategy, being approximately:

- one apartment per 100m² to 150m² of gross floor space.
- i. Regulate dwelling density for sites consistent with Council's Residential Development Strategy.
 - ii. Provide a mix of dwelling types and sizes as follows:
 - studio apartments maximum 15%
 - 1 bedroom apartments maximum 30%
 - 2 bedroom apartments minimum 40%
 - 3 bedroom+ apartments minimum 15%
 - iii. Substantive variations to unit mix must be supported by an authoritative analysis of current and future market demand.
 - iv. Provide at least 4% of dwelling space as affordable housing (applicable with gazettal of Affordable Housing State Environmental Planning Policy).
 - v. Provide a minimum 10% of dwellings as adaptable housing * *
 - vi. Integrate the affordable and adaptable housing components, do not isolate them or use a different standard of materials and finishes.
 - vii. Provide services and facilities within the development that meet the needs of different population groups and build flexibility into communal space to meet changing needs.

Maximum use of public transport

- c. **Maximum use of public transport to access the centre. Mode split of 60% public transport to 30% private transport.**
 - i. Locate pick up and drop off points for public transport and taxi ranks as close as possible to public spaces and activities.
 - ii. Locate short stay (ten minute) parking spaces within or as close as possible to meeting places.*
 - iii. Reduce the amount of long stay commuter parking on site.*
 - iv. Minimise non-residential parking on site.

6.2 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.

Clean Air

- a. **Clean air**

* * Explanatory notes:

Affordable housing is low to moderate rental accommodation that is let at or below the most recent median rental level for that particular type of accommodation in the North Sydney Local Government Area. The median rent levels are published quarterly by the Planning NSW and are available from Council.

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 Australian Standards 1428, 4299 and 4586.

Section 6.2

Mixed Use Development

- i. Select operating plant, materials and finishes that are non-toxic and reduce toxic emissions.*
- ii. Discourage use of the private motor car and encourage walking and cycling.*
- iii. Car parking complies with the requirements of car parking section of this DCP.

Noise

- b. **Noise production does not exceed the following repeatable maximum L Aeq (1 hour) level, on weekdays:**

Day 7am-6pm: 55dB(A)
Evening 6pm- 10pm: 45dB(A)
Night 10pm-7am: 40dB(A)

and on weekends:

Day 8am-7pm: 50dB(A)
Evening 7pm-10pm: 45dB(A)
Night 10pm-8am: 40dB(A)

or in any case not more than 5 dB(A) above the background level during the day and evening and not exceeding the background level at night when measured at the boundary of the property.

- i. Incorporate noise reduction measures on plant and machinery.
- ii. Use design features or planning that will reduce noise.
- iii. Incorporate adequate measures for tonal, low frequency, impulsive, or intermittent noise.*
- iv. Comply with *EPA Industrial Noise Policy 2000* in particular the modification required for acceptable noise level (ANL).*

Acoustic Privacy

- c. **Acoustic privacy for occupants of the proposed development and for neighbours. Noise within dwellings with windows closed does not exceed:**

Living areas 40dBA
Sleeping areas 35dBA

and all walls and floors separating units have a weighted sound reduction index (R_w) of not less than 55 and an impact isolation less than $L_{dB}55$ above habitable areas.*

Readings are to be Laeq (1hour), when measured during the noisiest 1 hour period between Day 7am-6pm; Evening – 6pm to 10pm; and Night – 10pm to 7am.

- i. Consider building and room layout to reduce noise, recess balconies.
- ii. Consider location of windows and walls in relation to noise sources.

* may be required as a condition of consent

- iii. Use materials with low noise penetration properties (such as double glazing).
- iv. Locate bedrooms and private open space away from noise sources such as active recreation areas, garages and driveways.
- v. Design bedrooms so that wardrobes act as sound buffers between them.
- vi. Do not locate mechanical equipment, such as pumps, lifts or air conditioners next to bedrooms.
- vii. Comply with the *EPA Environmental Criteria for Road Traffic Noise 1999*.
- viii. For applications with 4 or more dwellings submit an acoustic report by a certified acoustic consultant addressing the above requirements.

Visual Privacy

- d. **Visual privacy within dwellings and private open spaces from public spaces or to and from neighbouring dwellings.**
 - i. Consider location of windows and doors within the development and in relation to neighbouring buildings.
 - ii. Do not locate windows and doors to individual dwellings opposite each other.*
 - iii. Use trees, plants and screens to screen windows and private open spaces.*
 - iv. Consider use of obscure glass, high window sills, angling and staggering of windows.
 - v. Provide adequate separation between windows of habitable rooms and balconies, consistent with SEPP 65.*

Table: Habitable buildings separation

Building height (metres)	Separation between habitable rooms	Separation between habitable balconies & non-habitable rooms	Separation between non-habitable rooms
Up to 12	12	9	6
12-25	18	13	9
25 and above	24	18	12

- vi. Building separation control may be varied in response to site and context requirements providing the variation is not made at the expense of amenity (eg visual and acoustic privacy, outlook, solar access).

Section 6.2
Mixed Use
Development

* may be required as a condition of consent

- vii. Building separation control may not be varied if an apartment's only outlook is onto an area that is under the minimum building separation distance.

Wind Speed

- e. **Maximum wind speed of 13m/s at footpaths and accessible outdoor spaces so that people do not experience uncomfortable wind speeds when walking down the street or when sitting in public spaces.**
- i. Submit a Wind Impact Report, prepared by an appropriately qualified person, where the building has a height of 33m or more.*
- ii. Reduce wind velocity at footpaths and public outdoor spaces through building design

Reflected light

- f. **Pedestrians and motorists are not affected by reflected light, reflectivity from buildings is minimized.**
- i. Provide a greater proportion of solid to void on all facades and use non reflective materials.
- ii. Use non-reflective glass or recess glass behind balconies.*
- iii. Provide sun shields to glass, such as awnings, canopies and pergolas.
- iv. Submit a Reflectivity Study.*

Artificial light

- g. **Artificial light does not impact on the amenity of residents and pedestrians.**
- i. Do not locate roof top advertising on buildings.*
- ii. Do not floodlight buildings.*
- iii. Impose an 11 p.m. curfew on lighting of rooftop or podium level facilities.*
- iv. When replacing existing roof signage, use direction, screening and other technologies to mitigate and reduce light spill, to improve the amenity of surrounding residences, and, where appropriate, reduce size.*

Outdoor lighting

- h. **Renewable energy sources are used for outdoor lighting. A safe urban environment is achieved without adverse affects on surrounding development or the public domain.**
- i. Council may require the submission of a Lighting Report for the building prepared by an appropriately qualified person.*
- ii. Use solar powered lighting and technology which reduces the amount of energy for lighting.*

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- iii. Entrances are well lit and do not produce shadows.*
- iv. If staff entrances must be separated, they are well lit and opportunities for casual surveillance is maximised.*

Awnings

i. Weather protection for people in streets and other public spaces.

- i. Provide continuous, horizontal awnings with a minimum width of 2m, and on street frontages identified in the character statement, using materials that are sun, rain and wind proof.
- ii. Project awnings to within 1.1m of the kerb (or 0.6m where walkway not of sufficient width) to allow for street signage and 1.5m for street trees, continuous along street frontage.
- iii. Locate awnings at least 3.2m, and no more than 4.2m, above the footpath level.
- iv. Relate height of awnings to existing adjacent awnings and provide a weather seal where awnings adjoin each other and the building.
- v. Provide temporary shade structures such as retractable blinds, umbrellas and pergolas where appropriate (eg. outdoor café and gardens).

Solar access

j. Solar access is maintained to open spaces and publicly accessible outdoor places. Spaces between taller buildings avoid a solid mass of development and allow for penetration of daylight and/or sunlight through to pedestrian level and to northern and eastern facades of buildings.

- i. Provide setbacks that create gaps between buildings to allow penetration of sunlight (for buildings higher than 16m).
- ii. Avoid or minimize overshadowing of northern and eastern facades of adjacent buildings.
- iii. Minimise south facing units and use lightwells to provide natural light where not available.
- iv. Do not overshadow existing or proposed public open spaces between 11.30 am and 2.30 p.m.
- v. Provide a mix of sun-protected and unprotected areas in public open space, roof top gardens and other outdoor spaces.

Views

k. People have access to distant views. Where appropriate, the opening up, or effective closure, of views to improve the legibility of the area.

- i. Provide public or semi-public access to top floors where possible (eg. restaurants, roof top gardens and facilities).

* may be required as a condition of consent

- ii. Use setbacks, design and articulation of building to maintain street views, views from public areas and those identified in the character statement.

6.3 Quality built form

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

Buildings in these areas 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 the very closest scrutiny.

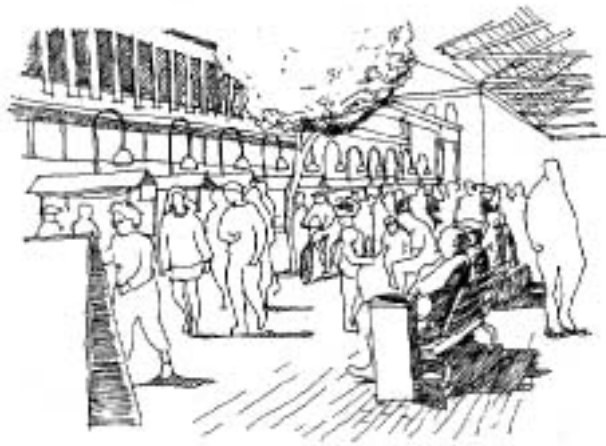
Proposals will be assessed in terms of their positive contribution and any adverse impacts associated with their design and siting. They will be evaluated for the quality of their design and their response to their urban context.

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.

Context

- a. **Site layout and building design responds to the existing characteristics, opportunities and constraints of the site and its context (adjoining land and the locality).**
 - i. Undertake the site analysis in accordance with Site Analysis section of this DCP.
 - ii. Design the development in response to the issues identified in the site analysis and in the Character Statements (where relevant).



Public spaces and facilities

- b. The building contributes to external and internal public spaces and facilities nearby and inclusion of these areas as part of the public domain. The building interacts with and contributes positively to its surroundings at street level; it contributes to diversity, vitality, social engagement and 'a sense of place'.**
 - i. Provide a range of outdoor spaces. Larger spaces and wider footpaths provide more opportunities for a range of activities.
 - ii. Avoid cluttering spaces and changes of level.
 - iii. Locate facilities that attract people, such as public phones and information kiosks, in public spaces to reinforce levels of activity.
 - iv. Avoid over-management of public spaces by security patrols or through the use of closed circuit television (CCTV).

Skyline

- c. 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.**
 - i. Integrate roof design into the overall building design.
 - ii. Contain all roof top equipment and services within a single structure centrally located to avoid overshadowing and other impacts.
 - iii. Minimise roof projections and internalise roof access.

Junction and termination of streets

- d. Building form and design reinforces the junction and termination of streets (not including laneways).**
 - i. Emphasise the built form at the corner of the street block and at the termination of a street.

- ii. Reinforce the corner through utilisation of splays, curves, building entries and other architectural elements.
- iii. Set splays back minimum 1.5m from corner of property boundary in each direction.
- iv. Amass height on the section of the building at the corner and reduce heights on other sections.

Through-site pedestrian links

- e. **The building provides access to the site and surrounding area especially for pedestrians, subject to security and safety considerations.**
 - i. Provide access from 6am to 10pm daily.*
 - ii. Line with active uses that engage pedestrians.
 - iii. Have a minimum of 6m in width that is free from obstructions.*
 - iv. Provide escalators where there is a substantial change in level.
 - v. Maximise the number of pedestrian entries from the street and laneways.
 - vi. Provide linkages to facilities, outdoor spaces and public transport.
 - vii. Provide linkages through site to other streets and laneways where identified in the character statement.

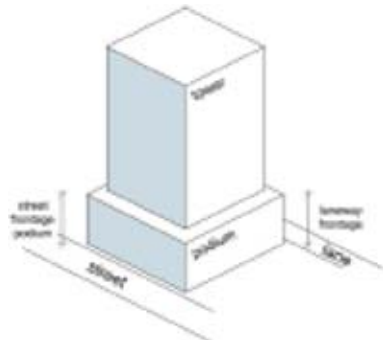
Streetscape

- f. **Lively and active street and laneway frontages that create a feeling of safety both by day and night.**
 - i. Align ground floor level with the corresponding level of the footpath, laneway or outdoor space.*
 - ii. Provide active uses, such as shops and cafes, at ground level to all streets, laneways and public spaces.
 - iii. Provide at least 50% of the building frontage to the laneway as a commercial or retail shopfront.
 - iv. Avoid landscaping and changes in level at building frontages to facilitate natural surveillance of public areas and views into buildings.
 - v. Clear glaze all street and laneway frontage windows at ground level.*
 - vi. Shopfronts have a zero setback at ground level unless specified in the character statement.
 - vii. Introduce visually interesting elements to the building façade such as articulation, detailing and art works.
 - viii. Elements used in the streetscape (eg street furniture, lighting, awnings, outdoor seating and umbrellas) to be consistent with Council's corporate standards.

* may be required as a condition of consent

Subdivision

- g. **A human scale of buildings that reflects a consistent subdivision pattern.**
- i. Amalgamate lots to achieve lot frontage identified in the character statement.
- ii. Break down the apparent length by articulation, design and detailing, change in materials and colours.



Setbacks

- h. **Setbacks reduce impact of scale as well as assist with ventilation, solar access, privacy, view sharing and a reduction of adverse wind effects.**
- i. Street and laneway setbacks at ground level are in accordance with those identified in the character statement.
- ii. Side setbacks are in accordance with those identified in the character statement.
- iii. Consider adjacent setbacks and heritage items in the vicinity.
- iv. Front setback above podium is a weighted average in accordance with the character statement.
- v. Buildings containing commercial activities are set back from adjacent balconies or windows to main living areas of residential and serviced apartments by a minimum of 3m from the property boundary.
- vi. Maintain solar access to open space and balconies or windows to main living areas of adjacent buildings for a minimum of 2hrs/day measured on June 21st.
- vii. 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.
- viii. Where an applicant seeks to extend basement structure to original property boundary for the use of underground carparking, a 1.5m setback at street level shall be subject to an 88B instrument application outlining public access rights, clear of any structure to 1.5m below ground level and 3m above ground level and requiring all maintenance, cleaning and the like to be the responsibility of the property owner.

* may be required as a condition of consent

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

Entrances and exits

i. Entrances and exits cater for the disabled and are clearly visible from the street and convey a sense of address.

- i. Main entrances and exits located at the front of the site visible from the street.
- ii. At least one main entrance to the building is incorporated in a continuous path of travel.
- iii. Entrances are not obscured by landscaping or other obstacles and have clear sight lines.
- iv. Entrances are clearly identifiable to reduce confusion and unintentional entry.*
- v. If exits are closed after hours, indicate at the entrance of the building.*
- vi. Provide a level landing between the door and the end of the ramp.*
- vii. The entrance lobby is well illuminated, with seating provided and a firm and level non-slip floor surface.*
- viii. All specifications relating to doors and circulation spaces are in accordance with AS 1428.2.*
- ix. 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.*
- x. Design the building so that evacuation procedures for people with disabilities are in place.

Slip resistant floor surfaces

j. Common floor surfaces and finishes are not slippery and do not pose a slip hazard.

- i. Ground and floor surfaces comply with the requirements for floor surfaces in AS 1428.2 and AS 4586.
- ii. All floors and finishes (except carpet) in the building have a slip resistance class to comply with the relevant location criteria set out in Table 3 of the Standards Australia publication NB 197:1999 An Introductory Guide to the Slip Resistance of pedestrian Surface materials.

Street frontage podium

k. A consistent street frontage podium that contributes to the human scale of buildings.

- i. Provide a podium at the street frontage with a height and setback above the podium in accordance with the character statement.

* may be required as a condition of consent

- ii. Where the level changes across the width of a site, step the podium at an appropriate location to maintain podium height.

Laneway frontage podium

I. Laneways form an integral component of the pedestrian network in mixed use areas and are safe and comfortable for pedestrians.

- i. Provide a podium at the laneway frontage in accordance with the height and setback above the podium in the character statement.
- ii. Where the level changes across the width of a site, step the podium at an appropriate location to maintain podium height.

Building design

m. Building design that reinforces the urban character and clearly defines streets, street corners and public spaces.

- i. Finished floor to ceiling heights are a minimum of 3.6 m for the ground floor, 3.3 m for the first floor (commercial or residential), and 2.7 m for upper floors (commercial or residential). *
- ii. Build the podium to the boundary of the site unless providing a setback for public space at ground level.
- iii. Build predominantly to setback alignment.
- iv. Balconies incorporated within building envelope (as specified by setbacks) and not on roof of podium.
- v. Building façade where appropriate has small indentations, pedestrian entries, vertical divisions such as recessed or Juliette balconies and bays, glazed and solid elements to break up the massing of the building and create a distinctive character.
- vi. Provide a variety of treatments for building elements such as balconies, window framing, cladding and colour.
- vii. Relate building elements such as materials, finishes, and window dimensions to neighbouring buildings.
- viii. Respect the setting and curtilage of heritage items (ref. Cultural resources and heritage section)

Nighttime appearance

n. The building adds to the visual interest of the street and cityscape by night.

- i. Lower level windows allow light to pass onto footpath.
- ii. Internally lit windows illuminate building's form.
- iii. Illuminate decorative elements or architectural features of the building. *

Temporary structures and streetscape

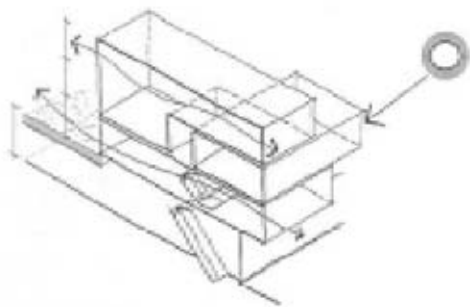
- o. Temporary structures for the sale of goods designed to encourage vitality, diversity and natural surveillance in the community without causing adverse effects on the streetscape.**
- i. Temporary stalls on public footpaths limited to Mount Street Plaza, Elizabeth Plaza, Ernest Place.
- ii. Internal temporary structures compatible with the interior design of the commercial building.
- iii. Outdoor temporary structures consistent with the character of the streetscape.
- iv. The design of any temporary structure complements the external design and materials of nearby buildings.
- v. Only one temporary structure within a 200 metre radius.
- vi. Signage limited to one business identification sign on the front panel of cart, not to exceed 50% of that area.
- vii. Ancillary equipment not to be visible from the street but stored directly inside the temporary structure.
- viii. No temporary structures in residential and/or conservation areas.
- ix. Mobile cart/stall operator to control litter generated by use.
- x. Temporary structures are not located near fire protection equipment or exits.
- xi. No tables and chairs for patrons apart just a stool for stall operator.

6.4 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. Mixed use areas 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.

Section 6.4
Mixed Use
Development



High quality residential accommodation

a. The provision of a high standard of residential amenity in buildings.

i. Provide units generally with the following minimum space:

Studio	40m ²
1 bedroom	55m ²
2 bedroom	80m ²
3+ bedroom	100m ²

For the purpose of this clause minimum space excludes balconies, garages and ancillary storage space.

- ii. Include courtyards, balconies and gardens as the principal open space area for residents. These should have solar access for a minimum of 2hrs/day measured June 21st.
- iii. Design common corridors with a minimum width of 2m and design to be accessible and facilitate movement eg. no right angled corners.
- iv. Built-in furniture and sanitary facilities comply with the standards of AS 1428.2.*
- v. Avoid double loaded corridors and limit the number of units accessible from one common lobby space to no more than 10.
- vi. Habitable space serviced by a window is no more than 10 times the glazed area of the window.
- vii. Maximum depth of a habitable room from a window, providing light and air to that room, is 10m.
- viii. Provide cross ventilation with window openings face different directions to either the street/lane, lightwell or courtyard, in approximately 75% of units. For units with no cross ventilation provide ceiling fans.
- ix. Minimise the amount of glazed area on the eastern and western elevations and incorporate shading devices.
- x. Apartments have a minimum width of 4 metres with increased width relative to increased depth.
- xi. Single aspect apartments limited in depth to 8 metres from a window.

* may be required as a condition of consent

- xii. Amenity and safety of residents is protected from intrusion by users of the non-residential parts of the development, for example through the use of security access to lifts and carparking

Lightwells and Ventilation

a.a. Provide lightwells for supplementary solar access and ventilation.

- i. Living areas do not have lightwells as their only source of outlook.
- ii. Lightwells have a minimum plan area of 9m² for buildings less than 18m in height, 18m² for buildings between 18m and 45m in height and 24m² for building above 45m in height.
- iii. Buildings over 30m in height should have lightwells directly connected at ground level to streets or lanes to allow air movement in the lightwell.
- iv. Building services (i.e. utility installations, pipes, cabling and the like) are not to be exposed in lightwells overlooked by principal living rooms or bedrooms.
- v. Alternative methods of ventilation will be considered providing there is no impact on privacy, noise, and fire safety.
- vi. 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.

Balconies

a.b. Balconies are functional and provide private open space for apartments.

- i. Balconies are a minimum depth of 2m and area of 8m² (best practice standard for balcony size is 15% of floor area of the apartment).
- ii. Balconies are not included within total floor area.
- iii. Where balconies are not proposed, the unit size should be increased by 8m² (being the minimum balcony size).
- iv. Balconies incorporated within building envelope (as specified by setbacks) and not on roof of podium or cantilevered.
- v. Where conversion of existing commercial buildings is proposed the envelope should not be extended beyond that allowed by setback controls, particularly to incorporate balconies.
- vi. Enclosure of balconies will require a masterplan (masterplan should include the size, scale and choice of materials of the

Section 6.4
Mixed Use
Development

proposed enclosure) if the building is not predominately characterised by enclosed balconies.

- vii. Balcony enclosure masterplans should be adopted by the body corporate before being submitted to Council.
- viii. Balconies should be integrated into the overall architectural form and detail of the building.

Accessibility

b. A path of travel is continuous, relatively straight and does not incorporate any obstacle preventing safe access by people with disabilities, having regard for AS 1428.1, 1428.2, 1428.3 and 1428.4.

- i. Paths are at least 1000 mm wide, excluding skirtings, handrails and other obstructions.
- ii. There is at least 2000mm headroom at all times.
- iii. At the end of paths and ramps, there are contrasting surfaces.
- iv. Kerb ramps are not the only or prime method of moving from one level to another. Where it is appropriate, provide lifts.
- v. Gradients between landings are constant and the angle of approach to changes in gradient is at or near zero degrees.
- vi. Kerb ramps are provided from the footpath to the road at all intersections and through traffic islands where practicable. The kerb ramps are flush with the footpaths and roadways and avoid ridges which create barriers for wheelchairs and child strollers. Tactile surfaces indicate a kerb ramp for people with impaired vision.
- vii. The ramp and sloping sides are slip resistant and of colours that contrast with the adjoining surfaces.
- viii. Tactile surfaces are integrated and extended for 200mm away from ramps at both top and bottom. This could take the form of rough brooming or other similar texture to aid people with impaired vision.
- ix. Lift design and associated functions are in compliance with AS 1735.12 and AS 1428.2.*
- x. Information concerning the level and direction of travel both in lifts and lift lobbies is both visible and audible.*
- xi. Controls for lifts are accessible to all and control buttons and lettering are raised.*
- xii. In fixed seating venues provide one wheelchair space for each 100 seating places or part thereof, with a minimum of 2 spaces. The positioning of spaces provides equal amenity and choice for all users.*

Section 6.4
Mixed Use
Development

* may be required as a condition of consent

c. All signs and symbols including their location, size, and illumination are designed to be understood by all users, including those with sensory disabilities

- i. International symbols should be used, with specifications relating to signs, symbols and size of lettering complying with AS 1428.2.*
- ii. Height of letters on signage is in accordance with AS 1428.2.*
- iii. Signs and other information indicating access and services should incorporate tactile communication methods in addition to visual methods to assist people with various disabilities such as people with sight impairment or intellectual disabilities.

d. Design which considers the hearing impaired (specifications relating to hearing augmentation are found in Australian Standard 1428.2)

- i. Appropriate signage identifies areas where a hearing augmentation device is provided, its type, and whether it is turned on or off.*
- ii. Places of assembly provide hearing augmentation for at least 15% of the seating.*

Safety and security

e. A high level of personal safety and security in the development

- i. Design routes between building entrances and dwellings 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.
- ii. Provide open space and pedestrian routes that are clearly defined, and have clear and direct sightlines for the users.
- iii. Provide adequate lighting of open spaces, entrances and pedestrian areas to avoid the creation of shadowed areas.*
- iv. Ensure that rear service areas and access lanes are either secured or easily visible.
- v. Locate after hours land use activities along well-used pedestrian routes.
- vi. Locate public toilets, telephones and other public facilities with direct access and good visibility from well-used public spaces.
- vii. Discourage vandalism through the use of robust and durable design features.*
- viii. Bollards or low walls and the careful design of shopfronts can decrease the likelihood of ram raids and provide higher levels of security for shop owners or tenants.

Section 6.4
Mixed Use
Development

* may be required as a condition of consent

- ix. Avoid security grilles at the street frontage. If security grilles are necessary then install on the inside of the shopfront and maintain clear visibility into the shop. Use toughened glass.*
- x. Avoid recesses for roller doors and fire escapes. If these are necessary locate them in recesses that are shallow to provide for personal security of pedestrians.*
- xi. Provide for overlooking and natural surveillance of rear lanes (eg. from retail and other uses) and first floor uses that overlook street frontage.
- xii. Provide safe and secure lighting of rear lanes.*
- xiii. Maintain clear sight lines around the vehicle access points.
- xiv. Buildings are easily identifiable at all times by number. Street numbering is clearly visible from street.*

Lighting

f.a. Provide sufficient lighting of public areas in accordance with AS 1158.3.1 Pedestrian (P). *

- i. Provide sufficient footpath and laneway lighting, in accordance with AS 1158.3.1 Pedestrian (P). *
- ii. Provide sufficient lighting of shopfronts and the area under awnings, in accordance with AS 1158.3.1 Pedestrian (P). *
- iii. Use accent lighting to highlight solid sections of buildings adjoining public footpaths. *
- iv. Level of lighting provided, and fittings used, to be consistent with that of nearby properties.

Lighting Technical Parameters

f.b. Provide lighting in accordance with AS/NZS 1158.3.1:1999 Pedestrian (P) – “pedestrian area performance and installation requirements”, except the following;

North Sydney CBD

- 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

Other mixed use areas

- 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

f.c. Hours of operation

- i. External lighting operates, as a minimum requirement, from dusk until dawn on Thursday, Friday and Saturday nights, and from dusk until midnight on other nights.
- ii. Control to turn on at dusk is initiated by a suitably adjusted/calibrated photo-electric switch such that the lights will be at full output when the daylight illuminance in the subject areas falls to the required illuminances stipulated above.

f.d. Types of Luminaires

- i. Luminaires are 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.
- ii. Luminaires are aesthetically compatible with the design of the awnings and building façade.
- iii. Do not use bare lamp fluorescent luminaires.
- iv. Where practicable, use recessed downlights (with suitable broad lighting distribution).
- v. 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.

Car parking

f. Adequate on-site car parking provision for residents

- i. Provide on-site car parking in accordance with the Car Parking section of this DCP.
- ii. Provide all parking associated with apartment buildings underground.
- iii. Where security doors/gates are proposed provide an intercom system to facilitate visitor/service access to underground parking areas.*
- iv. The use of carspaces is restricted to the occupiers(s) of the development.*
- v. Designate disabled and visitor car parking spaces as common property.*

* may be required as a condition of consent

Bicycle storage

g. The use of bicycles as an environmentally beneficial form of transport and an alternative to the use of private motor vehicles

i. Provide on-site, secure bicycle parking spaces and storage at the following rates for residential:

- 1 bicycle locker per 3 dwellings
- visitor parking 1 bicycle rail per 12 dwellings*

and for mixed use/commercial:

- 1 bicycle locker per 600m² of gross floor area (GFA)
- visitor parking 1 bicycle rail per 2 500m² GFA*

ii. Design bicycle parking and storage facilities in accordance with AS 2890.3.

Vehicular access

h. Pedestrian safety is enhanced and disruption to the streetscape from vehicle crossovers is minimised.

i. Provide all vehicle access from laneways, where these are available.

ii. Combine service vehicle access with parking access.

iii. Limit vehicular access points to a maximum of one per building.

iv. Where possible, share or amalgamate vehicle access points with an adjoining building.

v. Finish vehicle entries, walls and ceilings with high quality materials, finishes and detailing, similar to the external facades of the building.

vi. Conceal service ducts and pipes from visibility from the street.*

Garbage Storage

i. Efficient design of garbage storage areas in residential areas.

i. Provide a communal onsite waste storage, recycling area and collection point.*

ii. Provide separate garbage storage facilities for commercial and residential uses.

iii. Garbage collection point within two metres of street boundary, bins stored in collection facility are within three metres of facility entrance.*

iv. Provide a sufficiently large waste storage and recycling area to hold the required number of and size of bins as set out in Table 1 (*on the next page*).*

* may be required as a condition of consent

- v. Provide a waste cupboard within the kitchen of each dwelling of sufficient size to hold a single day's waste and to enable source separation of garbage, recyclables and compost material.*
- vi. Provide convenient access for on-site movement and collection.
- vii. Provide more than one communal on-site waste storage and recycling area on large or steep sites, or where there is more than one Council collection point.
- viii. Screen garbage storage areas from the laneway to discourage dumping of rubbish and unsightly mess visible to pedestrians.*
- ix. Locate and manage the area to avoid causing a nuisance from smells, insects or animals.*
- x. Provide adequate manoeuvring space.
- xi. Provide sufficient space to comfortably contain any on-site treatment facilities (eg compaction).
- xii. Provide adequate weather protection: where appropriate enclosed or undercover.*
- xiii. Provide ventilation and drain to sewer.*

Commercial garbage storage

j. Efficient design of garbage storage areas in retail and commercial areas

- i. Provide commercial premises with waste storage and recycling areas similar to that described for residential uses, with any necessary modifications.*
- ii. Calculate the space allocated for waste storage and recycling areas taking into account the waste generation rates set out in the "Garbage Bays" pamphlet available from the Council. Industry standards for waste generation rates may be used where these differ from the Council figures or if no Council figure is given.
- iii. The area allocated must accommodate any privately arranged collection (eg daily or weekly, etc collections).*
- iv. Pay particular attention to paper and cardboard recycling, with source separation at the waste storage and recycling area, education of staff and regular collection services.*
- v. Specialised containment is provided for food scraps.*
- vi. Arrange regular/daily collection of food scraps.*
- vii. Provide refrigerated garbage rooms when large volumes, perishables (such as seafood) and infrequent collection is proposed.*
- viii. Provide grease traps where appropriate. (Sydney Water may have specific trade waste requirements.)*

Section 6.4
Mixed Use
Development

- ix. Make special arrangements for storage and disposal of special waste material, such as medical or hazardous wastes. Contact should be made with the Council and Environment Protection Authority.*
- x. Other design suggestions are described in the "Garbage Bays" pamphlet available at Council.

Table: Bin options

Number of units	Bin Options
1 – 3 Units	1 x 56 litre garbage bin per unit; 1 x 50 litre recycling crate per unit. Garbage: 1 x 56 litre bin per unit or 1 x 240 litre mobile bin shared between each 4 units.
4 - 12 Units	Recycling: 1 x 50 litre crate per unit or 4 x 120 or 240 litre mobile recycling bins per 4 dwellings, each colour coded and dedicated specifically for paper and co-min gled glass/plastic bottles and cans. Garbage - 1 x 240 litre mobile bin shared between each 4 units.
More than 12 units	Recycling - A set of 4 x 120 or 240 litre mobile recycling bins per 4 dwellings, colour coded and dedicated specifically for paper and co-mingled glass/plastic bottles and cans.

Site facilities

- k. Site facilities are unobtrusive, integrated into developments, provide for residents needs and reduce impacts on the environment**
 - i. Provide open air clothes drying facilities in a sunny location, which are adequately screened from streets and public places.*
 - ii. Provide a lockable mailbox for each dwelling close to the main pedestrian entry to the dwelling or building.*
 - iii. Provide no more than one telecommunications/TV antenna per building.*
 - iv. Provide storage facilities at the rate of 10 m³ per studio or one bedroom unit, plus 5m³ for each additional bedroom, linked to each dwelling through provisions of the relevant Strata Plan (at least 50% within the unit).
 - v. Do not convert basement storage facilities to carparking spaces, either via informal means or a section 96 development application.
 - vi. Locate facilities in the most accessible and convenient location and if possible locate near regularly staffed areas such as reception.
 - vii. Direct access to facilities and avoid long corridors and blind corners. Use lighting and mirrors in problem areas.

Section 6.4
Mixed Use
Development

* may be required as a condition of consent

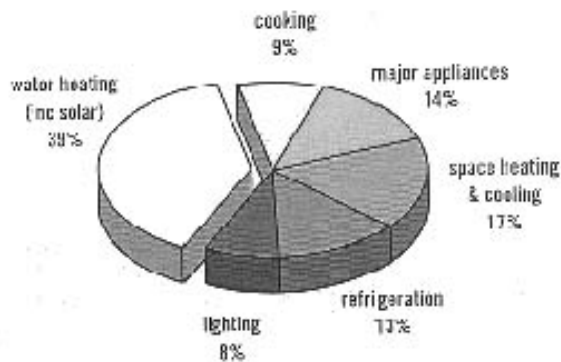
- viii. Design facilities to encourage use by keeping them clean and vandal resistant. Access routes clearly signed and information provided in facilities to report maintenance and vandalism.
- ix. Services such as ATM and telephones located in areas of frequent activity, well lit after dark, located away from concealed areas, well maintained and vandal resistant.
- xi. Do not locate ATMs in recesses and design to incorporate mirrors or reflective material so users can observe people approaching from behind.
- xii. Seating open to view and well lit after dark.

Temporary structures, public safety and amenity

I. Location of temporary structures promotes public safety and amenity.

- i. Avoid locations that hinder access to power or water access points.
- ii. Setback of 5 metres from front and/or side boundaries to facilitate pedestrian movement.
- iii. Avoid locations that breach traffic signs or hinder pedestrian or vehicular movement (eg. in driveways or doorway entrances).
- iv. No mobile carts or stalls on road shoulders.
- v. A limited period of consent may be imposed as well as hours of operation.
- vi. No live or amplified music or other sounds promoting the cart.
- vii. Compliance with the [Food Act 2003](#); *the National Code for Food Vending Vehicles and Temporary Food Premises* and the *Building Code of Australia*.
- viii. Coffee cups, cutlery and/or packaging for precooked foodstuffs are made of biodegradable materials.
- ix. Temporary structures are not located in such a way as to impact on informal or formal through site links or areas formally designated for public access.
- x. The design (colours, materials) of any mobile cart or stall in a public open space is compatible with the nature of Council's Parks and Reserves.
- xi. A Council Permit is required for temporary structures on public land that must be displayed during the hours of operation.

6.5 Efficient use and management of resources



Nearly half of energy consumption in buildings is due to heating, cooling, ventilation 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%.

North Sydney Council encourages developers to obtain Building Greenhouse Rating for buildings. The Rating assesses greenhouse a building's performance in terms of the services such as air conditioning, lifts and common area lighting.

The Rating is conducted by the Sustainable Energy Development Authority (SEDA). For more information contact Council.

From 1 February 2005, development applications for all forms of new residential development require a BASIX certificate. BASIX is a NSW state government initiative to promote the sustainability of dwellings by reducing water and energy consumption. For further information visit www.basix.nsw.gov.au.

Until BASIX compliance is required, development plans should be accompanied by a SEDA Greenhouse Rating for both residential and non-residential components of development, including alterations and additions

Reducing waste has environmental, social and economic benefits. There are many opportunities in the development process to reduce the amount of waste and to maximize 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 the greater the impact on the environment.

It is the developer's and their designer's responsibility to ensure that the following principles are incorporated in the proposed development.

Energy efficiency

- a. **Ensure developments are designed to minimize energy consumption from non-renewable sources and reduce greenhouse emissions.**

Section 6.5
Mixed Use
Development

- i. Obtain an official commitment based SEDA Building Greenhouse Rating for the non-residential component of the base building.*
- ii. Obtain BASIX certificate (for new residential development).
- iii. Use a combination of the following to achieve the required ratings:
 - passive solar design;
 - thermal mass;
 - thermal insulation;
 - natural ventilation;
 - building shell;
 - colours and materials.
- iv. Where alterations affect more than half the total volume of the original building (measured over the roof and the external walls), achieve the targets of this section for the whole of the building.
- v. Consider the following issues when assessing the energy rating of buildings and whether any of these issues prevent or limit energy ratings:
 - orientation or shape of the block is such that a suitable northerly orientation, defined as 20° west of north to 30° east of north is prevented.
 - existing overshadowing due to either the surrounding terrain or existing development.
 - topography, geology or geo-technical constraints preclude energy saving design such as slab-on-ground construction.
 - 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.
- vi. Ensure the development does not reduce the energy efficiency of buildings in the vicinity.
- vii. Use a hot water system or systems with a Greenhouse Score of 3.5 or greater, consider using solar alternatives. The following are preferred water heating systems and their Greenhouse Score: instantaneous gas (5), gas central boiler with insulated circulating main ring (4), and electric heat pump system (4).*
- viii. If installing clothes driers ensure they achieve a minimum SEDA Greenhouse Score of 3.5 stars.

Passive solar design

- b. **Site layout and building orientation (passive solar design) allow for maximum solar access to dwellings, especially to living areas, and are adapted to local climatic conditions and prevailing site characteristics.**

Section 6.5
Mixed Use
Development

* may be required as a condition of consent

- i. To achieve maximum solar access orient the building within 20° west of north to 30° east of north.
- ii. Orient the long axis or length of the building to the northerly aspect.
- iii. Adapt site layout and building orientation to local climatic conditions and prevailing site characteristics, such as existing overshadowing, planting and slope.
- iv. Locate the main daytime living areas (family, dining, meal rooms) on the north side of the dwelling.
- v. Ensure windows of living areas that face north will receive at least two hours of sunlight between 9am and 3pm over a portion of their surface during the winter solstice.
- vi. 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 should reach this line (see diagram on top left).
- vii. Use building materials that are non toxic, have a low embodied energy and are sourced from renewable and abundant resources.*
- viii. Incorporate on-site renewable energy sources to supplement energy needs during daily peak energy use.*
- ix. Locate windows and openings in line with each other, and with prevailing breezes.
- x. Use movement controlled lighting and mechanical ventilation in public areas.*
- xi. Use solar powered lighting for external areas.*

Thermal mass and insulation

- c. **Thermal mass and insulation to achieve more even, year-round average temperatures, making the dwelling more comfortable to live in and resulting in less demand for artificial heating or cooling measures. ***
 - i. Provide flooring that will absorb heat from the sun and is accessible to the winter sun. A concrete slab floor on the ground offers the best thermal massing properties. Dark coloured tiles on grout on concrete slab is the most desirable covering in terms of thermal mass in a dwelling, whilst timber floors have minimal performance in terms of thermal mass.*
 - ii. Incorporate insulated walls and ceilings to contribute to the effectiveness of thermal mass.*
 - iii. Use bulk or reflective insulation, or a combination of both, to achieve the required insulation value.*
 - iv. Thermal insulation complies with Australian Standard 2627 Part 1-1993.*

* may be required as a condition of consent

Waste management

d. Encourage waste minimization through source separation, reuse and recycling

- i. Council may require the submission of a Waste Management Plan detailing estimated volume of waste and method of waste disposal for the construction and operation phases of the building and/or a Procurement Plan listing materials used in construction prepared by an appropriately qualified person.*
- ii. Design the building to encourage waste minimisation (eg. source separation, reuse and recycling).*
- iii. Refer to the section on Waste Management in this DCP.

Stormwater and water management

e. Reduce urban run off and water wastage

- i. Council may require the submission of a Stormwater and Water Management Plan for the construction and operation of the building, if greater than 10 dwellings.*
- ii. Demonstrate how run-off from the site will be minimised and the quality of water leaving the site is improved.*
- iii. Minimise stormwater runoff through use of water retention facilities or using porous surfaces for paving in outdoor areas.*
- iv. Collect and reuse rainwater in irrigation, car washing and toilet flushing where practicable.*
- v. Incorporate car wash bays in multi-unit, if greater than four dwellings.*
- vi. Incorporate water saving measures within the building's operation (such as low flow tap and shower heads).*
- vii. Refer to State Environmental Planning Policy No. 4 – Development without consent and miscellaneous exempt and complying development: clause 16, regarding the installation of water tanks.
- viii. Install pool cover where proposed development includes a swimming pool.

6.6 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.

* may be required as a condition of consent

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.

Street furniture, landscaping works, utilities and equipment

a. Street furniture, landscaping works, utilities and equipment that contribute to the community's enjoyment of the public domain, but do not impede pedestrian movement and safety nor visual quality.

- i. Overhead wires, where present, are undergrounded along property boundaries.*
- ii. Provide seating in public spaces that is not allocated to a specific use (eg. a café) for people to 'hang out', take refuge and rest.*
- iii. Position seating or seating areas at the edge of footpaths where through movement is not blocked.*
- iv. Do not obscure pedestrian eye-level sight lines with landscaping or other street improvements.*
- v. Keep public areas free from clutter and unclear level changes, having particular regard for accessibility.*
- vi. Maintain a high quality of lighting for security and amenity.*

Public entertainment and expression

b. Venues for public entertainment and expression of community identity.

- i. Provide formal and informal spaces for public entertainment.
- ii. Use multi-functional street furniture, eg. A flat bench may become an informal plinth for performance artists.*
- iii. Provide at least one space that is large enough to hold an open air performance or market.
- iv. Provide public notice boards and kiosks in locations where people will be gathering.*
- v. Provide space for community facilities within the building, such as exhibition areas, recreational facilities or cinemas.*

Public art

c. Public art that contributes to the cultural life and enjoyment of the centre, and allows for community self expression.

- i. Integrate artworks into the design of public spaces.*

Section 6.6
Mixed Use
Development

- ii. Integrate artworks into the design of private development, in publicly accessible locations such as main entrances, lobbies, street frontages, gardens, walls and rooftops.*
- iii. Consult with Council's Arts and Culture Officer in the design and execution stages.
- iv. Consult with community groups in the design of artworks.
- v. Consider artworks that serve a dual role, eg. as play equipment for children, informal seating or a marker for a meeting place.*
- vi. Artwork has demonstrated relevance to its location, reflecting the area's history, culture or local community.*
- vii. Artwork enhances a sense of place or the distinctive identity of the area.*
- viii. Refer to the Arts Plan which documents the process for completing an Arts plan submission where an Arts Plan is lodged with a development application.

Paving

- d. Pedestrian surfaces that are safe for all users, clearly identified and constructed from materials that provide consistency and continuity of streetscape.**
 - i. Except where negotiated with the Council, provide all footpath paving along property frontages in accordance with Council's specifications (including requirements for disabled).*
 - ii. The extent, nature and type of paving materials includes tactile surfaces in appropriate locations to assist the visually impaired.*
 - iii. Consider paving as community art, in consultation with Council.*

Native vegetation and water

- e. Increased native vegetation and water in the public domain.**
 - i. Include water features in public spaces, building entrances, foyers, facades and rooftops.*
 - ii. Provide roof top gardens where practicable.
 - iii. Plant trees where appropriate for shade, shelter and fauna.*
 - iv. Use native species and planting methods which minimise potable water consumption.*

6.7 Checklist

The following information is to serve as a checklist for development applications being submitted to Council. All objectives should have a corresponding response that is evident in the proposed design for the development. The manner in which the design of the development has responded to the objectives for each component should be described.

* may be required as a condition of consent

The controls may have been used to guide the process of the design. These can be referred to by circling the relevant clause number.

6.1 Function

- a. i. ii. iii. iv. v. vi.
- b. i. ii. iii. iv. v. vi. vii.
- c. i. ii. iii. iv.

Notes:

6.2 Environmental Criteria

- a. i. ii. iii.
- b. i. ii. iii. iv.
- c. i. ii. iii. iv. v. vi. vii. viii.
- d. i. ii. iii. iv. v.
- e. i. ii.
- f. i. ii. iii. iv.
- g. i. ii. iii.
- h. i. ii. iii. iv.
- i. i. ii. iii. iv. v.
- j. i. ii. iii. iv. v.
- k. i. ii.

Notes:

6.3 Quality Built Form

- a. i. ii.
- b. i. ii. iii. iv.
- c. i. ii. iii.
- d. i. ii. iii.
- e. i. ii. iii. iv. v. vi. vii.
- f. i. ii. iii. iv. v. vi. vii. viii.
- g. i. ii.
- h. i. ii. iii. iv. v. vi. vii. viii.
- ix.
- i. i. ii. iii. iv. v. vi. vii. viii.
- ix. x.
- i.i. i.
- j. i. ii.
- k. i. ii.
- l. i. ii. iii. iv. v. vi. vii. viii.
- m. i. ii. iii.
- n. i. ii. iii. iv. v. vi. vii. viii.
- ix. x. xi.

Notes:

6.4 Quality Urban Environment

- a. i. ii. iii. iv. v. vi. vii. viii.
- ix. x.
- a.a i. ii. iii. iv. v. vi.
- a.b i. ii. iii. iv. v. vi. vii. viii.
- b. a.i. i. ii. iii. iv. v. vi. vii.
- viii. ix. x. xi. xii.
- c. i. ii. iii.
- d. i. ii.
- e. i. ii. iii. iv. v. vi. vii. viii.
- ix. x. xi. xii. xiii. xiv. xv. xvi.
- xvii.
- f.a. i. ii. iii. iv.

f.b.	i.	ii.	iii.	iv.				
f.c.	i.	ii.						
f.d	i.	ii.	iii.	iv.	v.			
f.	i.	ii.	iii.	iv.	v.			
g.	i.	ii.						
h.	i.	ii.	iii.	iv.	v.	vi.		
i.	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.
	ix.	x.	xi.					
j.	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.
	ix.	x.						
k.	i.	ii.	iii.	iv.	v.	v.a	vi.	vii.
	viii.	ix.	x.					
l.	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.
	ix.	x.	xi.					

Notes:

6.5 Efficient Use and Management of Resources

a.	i.	ii.	iii.	iv.	v.	vi.	vii.	
b.	i.	ii.	iii.	iv.	v.	vi.	vii.	
	viii.	ix.	x.	xi.				
c.	i.	ii.	iii.	iv.				
d.	i.	ii.	iii.					
e.	i.	ii.	iii.	iv.	v.	vi.	vii.	viii.

Notes:

6.6 Public Domain

a.	i.	ii.	iii.	iv.	v.	vi.		
b.	i.	ii.	iii.	iv.	v.			
c.	i.	ii.	iii.	iv.	v.	vi.	vii.	
d.	i.	ii.	iii.					
e.	i.	ii.	iii.	iv.				

Notes:

Documentation required by this section of the DCP

- Noise Management Plan (see 2b(i))
- Wind Impact Report
- Reflectivity Study
- Field Sound Transmission
- Lighting Report
- Traffic and Parking Study
- Energy Report
- Waste Management Plan
- Stormwater and Water Management Plan
- BASIX