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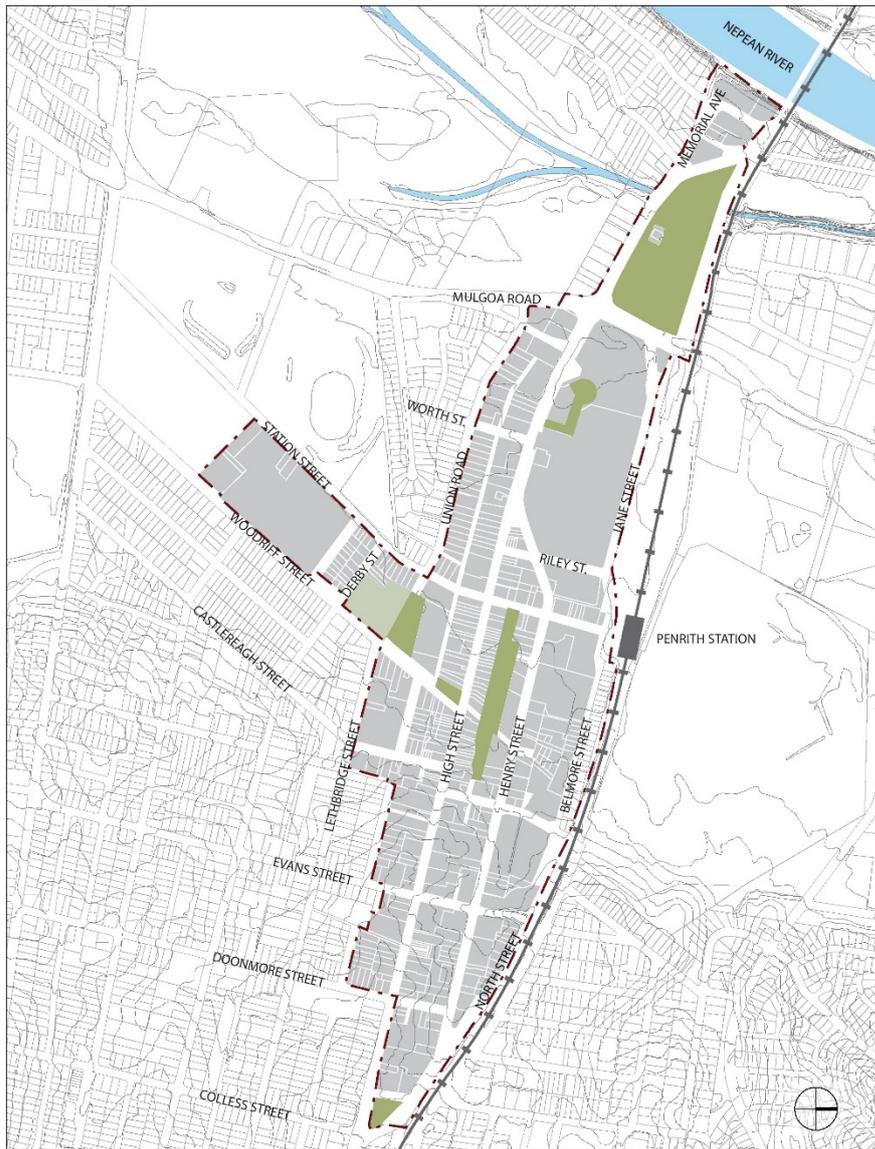
# Part A Penrith City Centre

## 11.1 Preliminary

### 11.1.1 Area included within the Penrith City Centre

This Section applies to development on land covered by the Penrith City Centre as shown in Figure E11.1. This part of the Section provides specific controls for the Penrith City Centre in addition to the general controls elsewhere in this DCP.

**Figure E11.1 Penrith City Centre**



 Area covered by Penrith City Centre

### **11.1.2 Aims and Objectives of this Section**

The aim of this Section is to provide more detailed provisions for development in the Penrith Centre that will:

- a) contribute to the growth and character of Penrith
- b) deliver a balanced social, economic and environmental outcome; and
- c) protect and enhance the public domain.

The general objectives of this Section are:

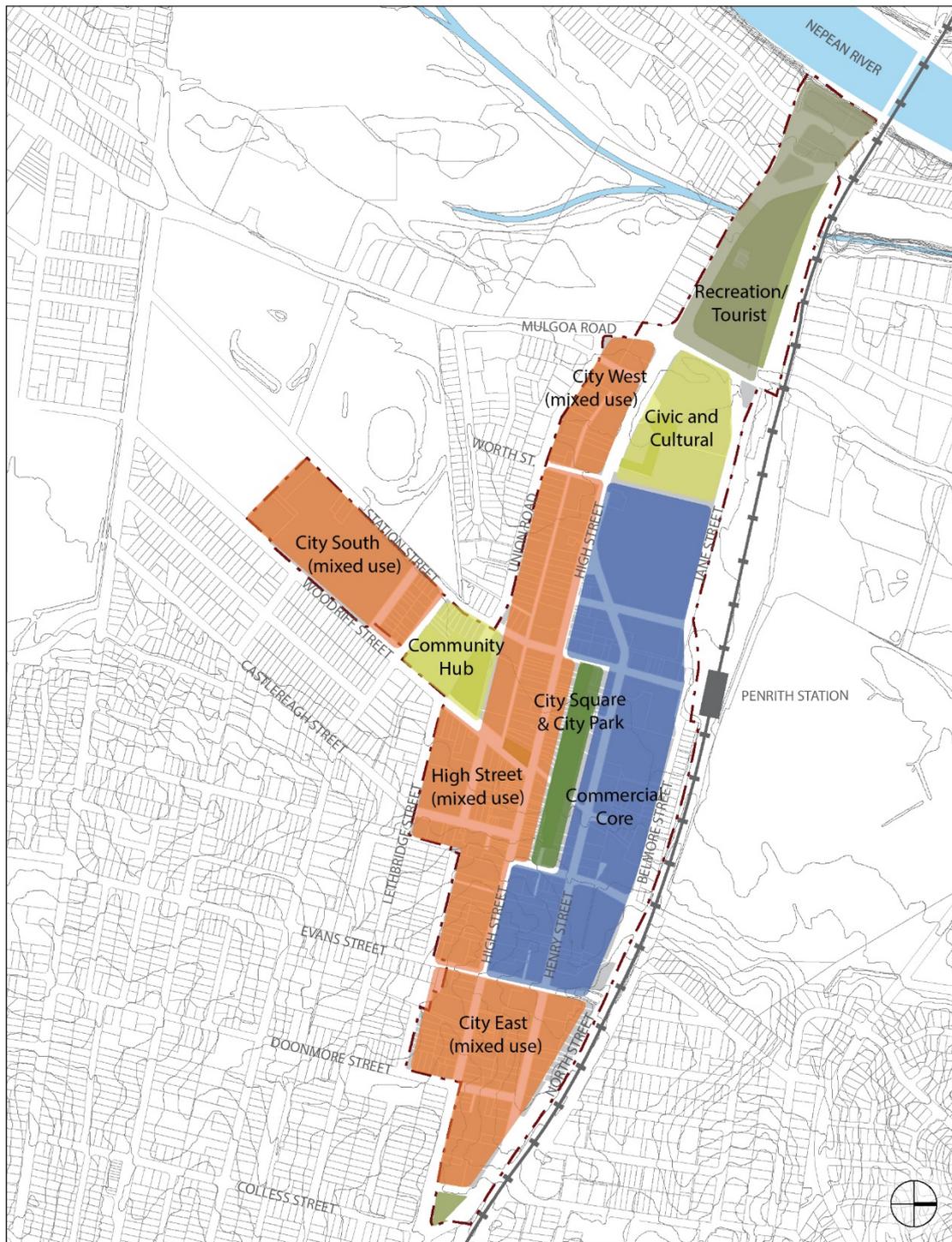
- a) To facilitate the revitalisation of Penrith City Centre by promoting redevelopment and urban sustainability;
- b) To promote high quality urban design and environmental sustainability in the planning, development and management of the City Centre;
- c) To provide for mixed use, commercial and residential development within the Town Centre which provides high levels of amenity for occupants;
- d) To provide high levels of accessibility within the City Centre, connecting significant activity nodes, public open space and surrounding residential areas;
- e) To encourage development within Penrith City Centre that gives primacy to the public domain and creates an attractive and vibrant centre;
- f) To encourage integration of the residential and non-residential land uses and improved access to transport facilities;
- g) To achieve an attractive and sustainable Penrith City Centre; and
- h) To ensure that development in the Penrith City Centre is consistent with the desired future character of each precinct as described in the following section.

### **11.1.3 Penrith City Centre Precincts and Character areas**

The Penrith City Centre developed along a section of The Great Western Highway that was also the transport stop on The Great Western Rail Line. Its reliance on transport links for its development is evident in its elongated, east-west pattern. The City Centre has a distinctive heart in High Street.

There are eight precincts in the Penrith City Centre, all comprising their own distinct characteristics and is illustrated in Figure E11.2. The intended character of these precincts is identified below and will be used to inform and guide future development.

Figure E11.2 Penrith City Centre Character Areas



## **1. High Street Mixed Use**

High Street is the historic heart of Penrith and is the focus of the City Centre activities with its central spine of 2.5km that is segmented into sub-precincts. The street has many low-rise, small scale retail shops, and a concentration of civic and cultural functions.

High Street is a focus of pedestrian activities with its wider, covered footpath areas which already encourage alfresco dining. The street will continue to be the hub for pedestrian street life in the City Centre, accompanied by central city 'greening'. Mixed use developments will encourage a diversity of uses locating in the centre to further activate the street, whilst the residential development aligning the southern edge of the street will engage pedestrian activities into the city centre.

Views of the Blue Mountains escarpment are available along sections of High Street, particularly the eastern half of High Street up to mid-block past Station Street, and should be retained at street level.

This precinct offers the new City Park and City Square, which will be located in what is currently the Allen Place parking area. These public space areas are intended to be a series of linked areas, each expressing its own character to entice residents and workers to visit and enjoy these spaces. The City Park and City Square will be connected to High Street and surrounding streets via laneways and arcades.

The buildings surrounding City Park and City Square will need to have active street frontages and uses fronting these public spaces. Memory Park, located at the corner of High Street and Woodriff Street, is a significant public space in the City Centre that needs to be preserved. It is at this space where ANZAC Day remembrance ceremonies are celebrated.

The concentration of public spaces in this precinct means that development will need to address any potential impacts on these spaces as buildings get higher.

Tree-lined streets provide shade to pedestrians. Other public domain improvements are proposed in the precinct such as continuing the awnings along the street frontage, high quality paving, street furniture and pedestrian lighting.

## **2. Commercial Core**

This area is the 'gateway' to Penrith on arrival by rail, and given this status, needs to be a focus for the highest quality developments.

The Commercial Core precinct is dominated by the Westfield Penrith (Penrith Plaza) shopping centre. The interface of the shopping centre with the city and the 'street life' activity along High and Station Streets needs to be strengthened.

The eastern side of Station Street contains a mixture of commercial uses with some fringe retail and car parking. Council has significant land assets in this area. The TAFE College brings student life and activity into the area, and its presence should be strengthened. The government office development consolidates State Government activities in one building, opposite the station. This area, close to the station, has the potential to significantly intensify as a location for high quality commercial development, supported by some ground level retail.

This precinct will form the northern boundary of the new City Square and City Park. Both public spaces will be located in what is currently the Allen Place parking area, and are intended to be a haven for workers and residents in the City Centre. It is envisaged that the City Square and City Park will become the focus of City activities.

## **3. City East / Mixed Use**

This is the eastern gateway into the city centre area and should be enhanced.

The area east of Evans Street currently contains a mix of fringe retail and residential development. It can develop in the future as a mixed use precinct with a village character of its own, including mixed use buildings containing retail, commercial and residential uses and a small retail hub with emphasis on access and walkability. It is envisaged for this area to develop a live-work character.

High rise commercial development should be restricted in this area to minimise leakage from the Commercial Core area. Links through this area to Nepean Hospital need to be protected and strengthened.

#### **4. City South / Mixed Use**

This area comprises the single storey Nepean Village shopping centre, surrounded by a large surface car park. It enjoys street frontages aligning its eastern and western boundaries that provide very distinct characteristics either side. Immediately adjoining the southern boundary is a former industrial property that will be redeveloped into a high density residential precinct.

It is envisaged this area will redevelop into a mixed use precinct with its own identity with clear connections to and synergies with the adjoining high density residential precinct and act as the shopping and service hub for the surrounding and intensifying residential area. There needs to be further emphasis on the land uses and activities located at, as well as the design and utility of urban spaces at the common boundary with that precinct. Future development should reduce the impact of surface car parks on local streets.

Its redevelopment opportunities will need to consider the interface with different environments aligning its boundaries, being residential (to its east) and sporting facilities (in the west).

The precinct can be redeveloped as a mixed use precinct with its own identity through better connectivity to the city centre at the northern end.

#### **5. City West (Mixed Use)**

The precinct comprises the southern side of High Street, between Worth Street and the intersection to Mulgoa Road. This area is presently underdeveloped, with a number of apartment buildings having been approved or under construction immediately behind High Street.

This area should be redeveloped, primarily as a high density residential precinct that will complement and bring additional activity to the adjoining civic and cultural precinct. It is envisaged that this area develop a live-work environment, which is promoted through the design and layout of residential buildings, and the location of compatible commercial and retail uses at the street level of such buildings.

This precinct currently enjoys unobstructed views of the Blue Mountains escarpment. It is acknowledged that redevelopment will result in loss of such views however, where view corridors can be reasonably maintained from High Street, then the views should be retained.

There is an opportunity to locate an urban space in this precinct that affords an “eat street” environment with connection to the adjoining civic and cultural precinct.

#### **6. Civic and Cultural Precinct**

Penrith’s Civic Centre, comprising the council’s offices and library, as well as the Joan Sutherland Performing Arts Centre comprise the civic and cultural precinct. It is located at the north-eastern corner of the High Street and Mulgoa Road intersection, enjoying unobstructed views of the Blue Mountains escarpment.

The precinct contains green public spaces which can be redeveloped to enliven this precinct, making it attractive and vibrant after hours.

## **7. Community Hub**

A number of community facilities are already sited in the city centre and there is an opportunity to amalgamate these facilities in a central precinct at the heart of the city centre, between Station Street and Woodriff Street. There is opportunity to enhance the existing public space with landscaped and shaded spaces for community groups to meet and gather.

Its central location is ideal in ensuring that the precinct is easily accessible from adjoining residential areas, and greatly enhances the precinct's focus for community functions.

## **8. Recreation / Tourist**

The precinct between the Nepean River and the Commercial Core is critical to creating Penrith as a true river city. The sports facilities at Woodriff Gardens and the rowing club along the river provide recreation opportunities for the local residents and workers. The area has low scale development, with some tourist facilities already located along the river (such as a hotel and function centre).

Creating a recreational link between the city centre and the river is a priority in this area. The landscape extension of High Street to the riverfront will be the priority to reconnect the city with the river and to create attractive and legible pedestrian links.

There is a potential to improve pedestrian and cycle connections across the river in this area. Opportunities for outdoor restaurants and cafes along the river should be examined, with the riverfront being landscaped as links to the Great River Walk are established, and improved pedestrian/ cycle paths provide 'bridge to bridge' recreational opportunities.

# **11.2 Building Form**

## **11.2.1 Introduction**

Building form and character refers to the individual elements of building design that collectively contribute to the character and appearance of the built environment.

The development provisions in this Section of the DCP are intended to encourage high quality design for buildings in the Penrith City Centre, balancing the character of Penrith with innovation and creativity. The resulting built form and character of development should contribute to an attractive public domain in central Penrith and produce a desirable setting for its intended uses.

The controls in this section aim to:

- a) Establish the scale, dimensions, form and separation of buildings appropriate for the setting in the city centre.
- b) Achieve an attractive and sustainable Penrith city form within the City Centre context.
- c) Provide a strong definition of the public domain. Achieve active street frontages with good physical and visual connections between buildings and the street.
- d) Ensure there is consistency in the main street frontages of buildings having a common alignment to improve accessibility.
- e) Provide for pedestrian comfort and protection from weather conditions.

- f) Define the public street to provide spaces that are clear in terms of public accessibility and safety, and are easy to maintain. Ensure building depth and bulk is appropriate to the environmental setting and landform by providing for view sharing and good internal building amenity.
- g) Ensure building separation is adequate to protect amenity, daylight penetration and privacy between adjoining developments.
- h) Encourage mixed use development with residential components that achieve active street fronts and maintain good residential amenity.
- i) Achieve an articulation and finish of building exteriors that contribute to a high quality of design excellence.
- j) Provide for high quality landscape to contribute to the amenity of the City Centre and a sustainable urban environment.
- k) Maintain and enhance important views from the City Centre to surrounding natural landscape features.
- l) Contribute to the legibility of the City.
- m) Ensure that buildings are responsive to the character and heritage values of the Penrith City Centre.

## **11.2.2 Building to Street Alignment and Street Setbacks**

### **A. Background**

Street setbacks and building alignments establish the front building line. They help to create the proportions of the street and can contribute to the public domain by enhancing streetscape character and continuity of street facades.

Street setbacks can also be used to enhance the setting and address for the building. They provide for landscape areas, entries to ground floor apartments and deep soil zones.

Buildings should be built up to the street alignment to reinforce the urban character and improve pedestrian accessibility, amenity and activity at street level. Above street frontage height, buildings are to be set back to provide sunlight access to streets, pedestrian areas and lower levels of other buildings. These setbacks offer comfortable wind conditions, view corridors, an appropriate building scale for pedestrians, and good growing conditions for street trees.

Towards the edges of the city centre, buildings are setback to provide amenity in predominantly residential areas, including entries to ground floor apartments, landscaping and deep soil zones.

### **B. Objectives**

- a) To establish consistent building alignments to the street.
- b) To provide street setbacks appropriate to building function and character.
- c) To establish the desired spatial proportions of the street and define the street edge.
- d) To create a transition between public and private space.
- e) To locate active uses, such as shopfronts, closer to pedestrian activity areas.

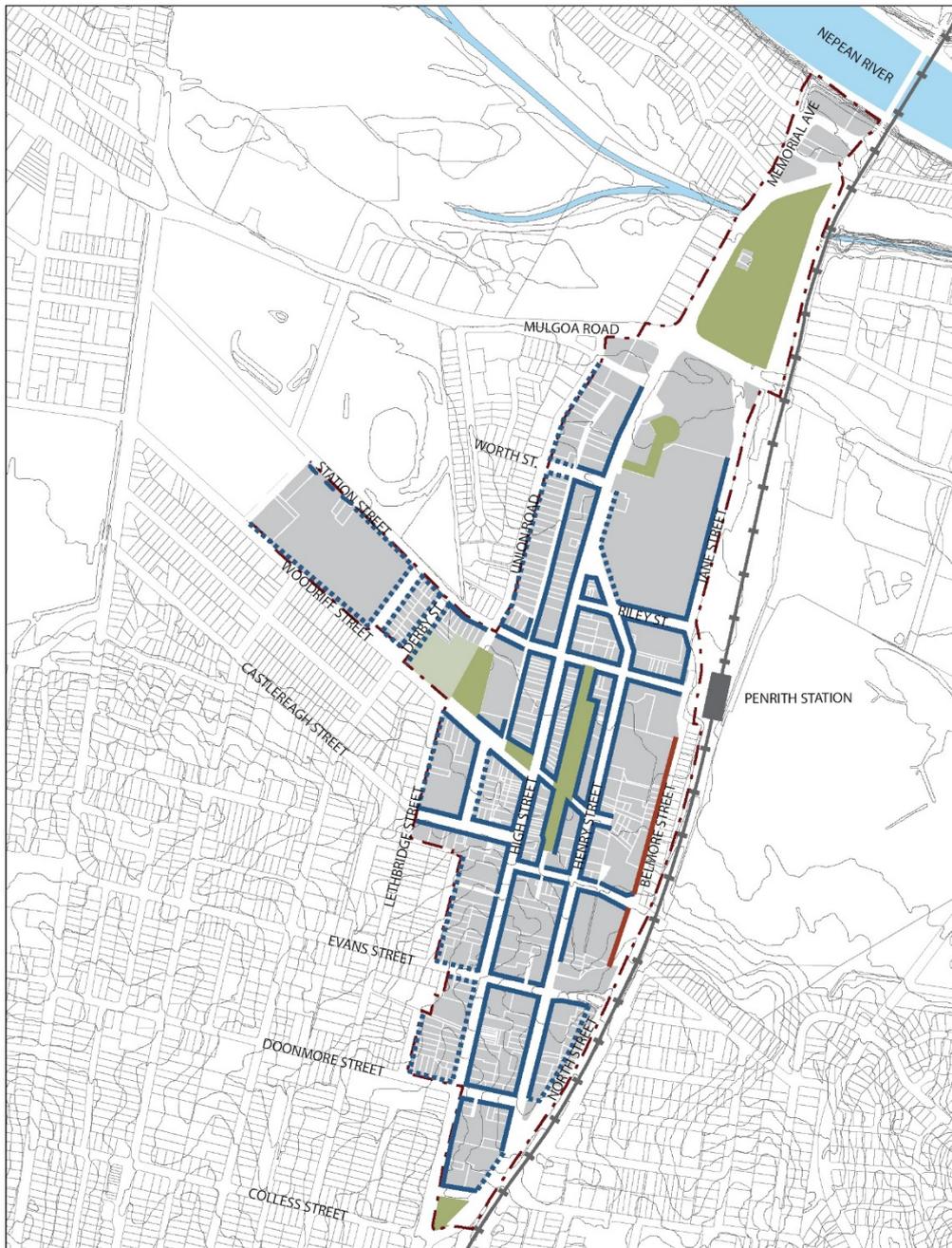
- f) To allow for street landscape character, where appropriate.
- g) To maintain sun access to the public domain.
- h) To protect important views to the Blue Mountains escarpment.

### **C. Controls**

The controls for building form are as follows:

- 1) Street building alignment and street setbacks are specified in Figure E11.3.
- 2) Balconies may project up to 600mm into front building setbacks, provided the cumulative width of all balconies at that particular level totals no more than 50% of the horizontal width of the building façade, measured at that level.
- 3) Minor projections into front building lines and setbacks for sun shading devices, entry awnings and cornices are permissible.
- 4) Notwithstanding the setback controls, where development must be built to the street alignment (as identified in Figure E11.3) it must also be built to the side boundaries (0m setback) where fronting the street. The minimum height of development built to the side boundary must comply with the minimum street frontage height requirement.
- 5) Buildings along High Street must demonstrate that views to the Blue Mountains escarpment are maintained through the provision of perspectives.

Figure E11.3 Front Setbacks



-  Built to street alignment
-  2.0 - 3.0 m average front setback
-  5.0 m minimum front setback
-  12.0 m minimum setback

## 11.2.3 Street Frontage Heights

### A. Background

Well framed streets are an important characteristic of a City Centre. It is important that buildings within Penrith City Centre contribute to a strong definition of the street and public domain and reflect the City's status as a Regional City, and the function and character of different parts of the City.

The desired street frontage heights are specified in this section to ensure a sense of street enclosure that is appropriate to Penrith's natural setting and status as a regional city.

Street frontage heights refer to the height of the building at the street alignment and directly address the public street. Street sections specify required street frontage height and setbacks for development above street frontage height.

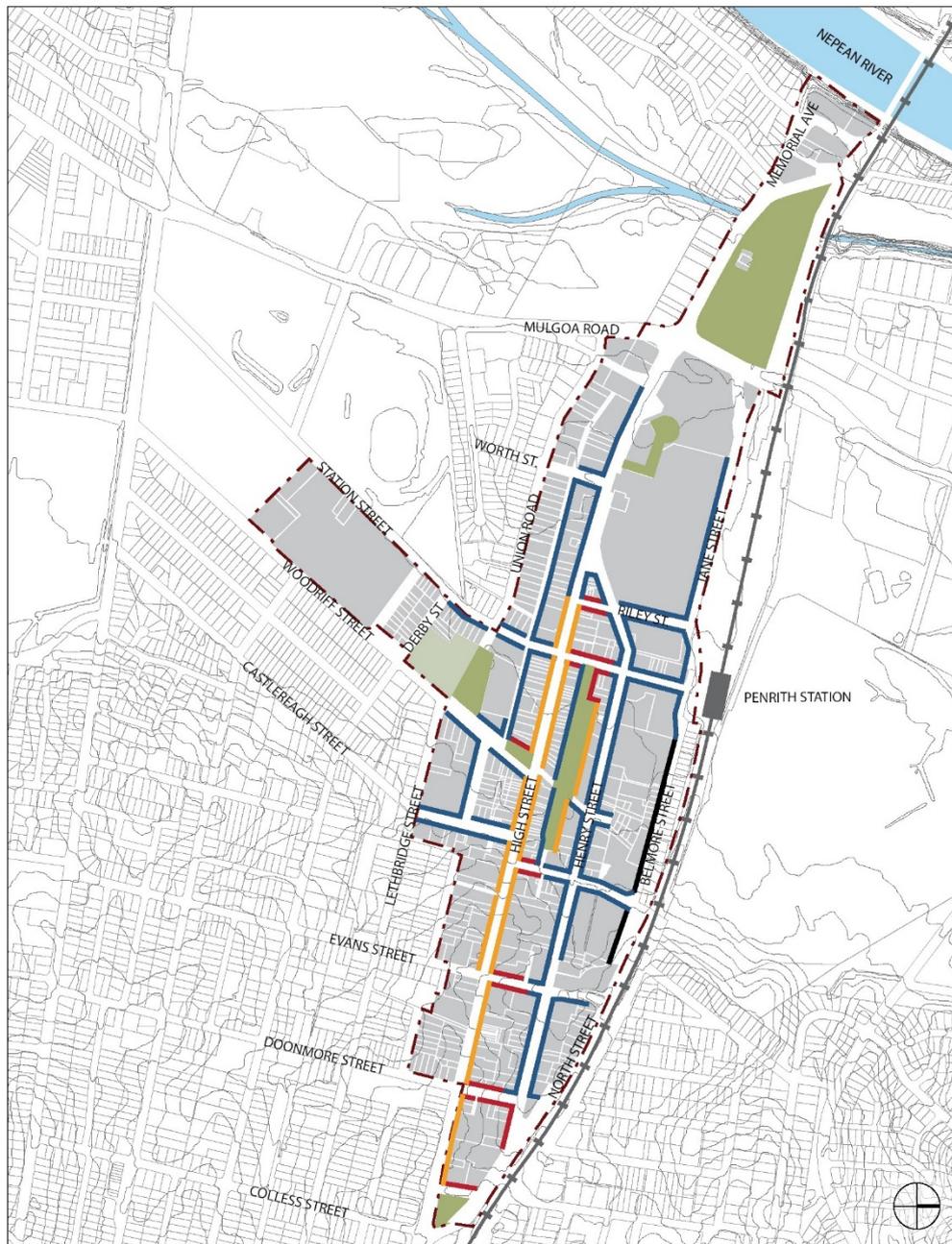
### B. Objectives

- a) To provide consistent streetscapes through control of the built form visible from the public domain.
- b) To achieve comfortable street environments for pedestrians in terms of daylight, scale, sense of enclosure and wind mitigation as well as healthy environments for street trees.
- c) To allow sunlight access to new and existing significant public spaces in the city centre.
- d) To provide for an appropriate transition in building heights from key public spaces.
- e) To provide well sealed enclosure to the significant public spaces.
- f) To protect important views to the Blue Mountains escarpment.

### C. Controls

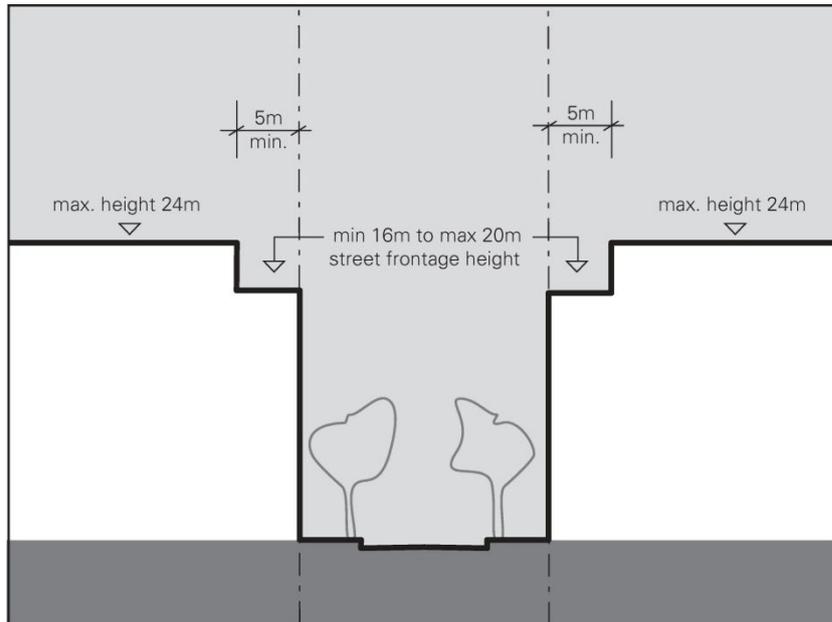
- 1) Buildings must comply with the relevant street frontage heights as shown in Figure E11.4 and illustrated in Figures E11.5 to E11.10.
- 2) Development of land in the vicinity of Allen Place, Memory Park and Judges Park the development must demonstrate that it does not adversely overshadow the adjoining public places.

Figure E11.4 Street Frontage Heights



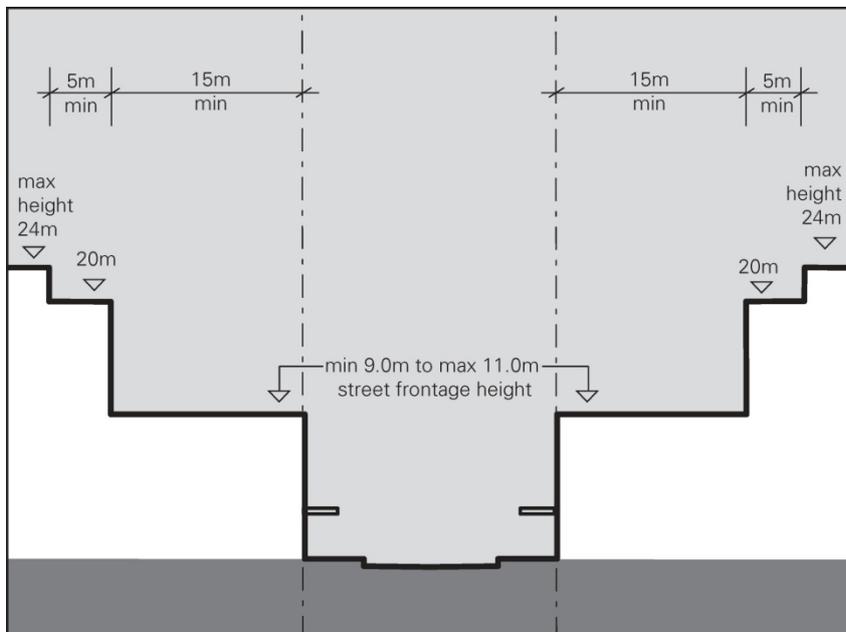
-  Street frontage height A applies - refer to figure E11.5
-  Street frontage height B applies - refer to figure E11.6
-  Street frontage height C applies - refer to figure E11.7
-  Street section D applies - refer to figure E11.8
-  Special section through Allen Place - refer to figure E11.9
-  Front setback applies as specific in figure E11.3

**Figure E11.5: Street Frontage Height Type A**



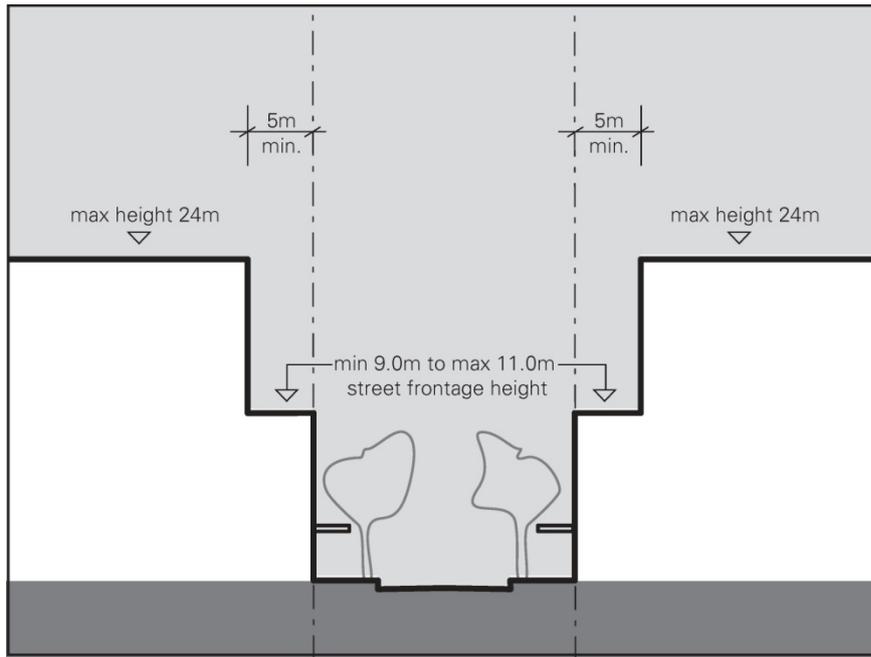
STREET FRONTAGE HEIGHT TYPE A

**Figure E11.6: Street Frontage Height Type B**



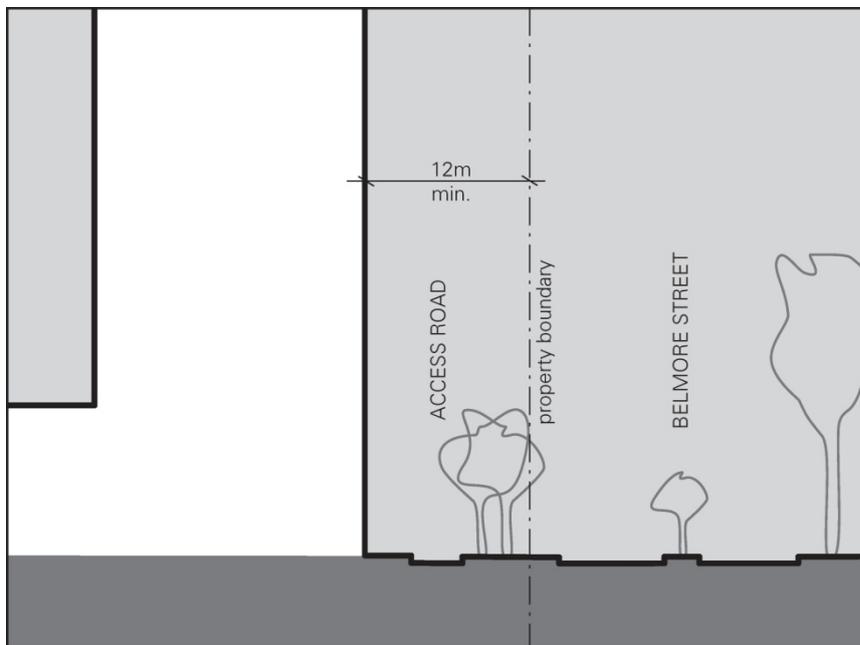
STREET FRONTAGE HEIGHT TYPE B

**Figure E11.7: Street Frontage Height Type C**



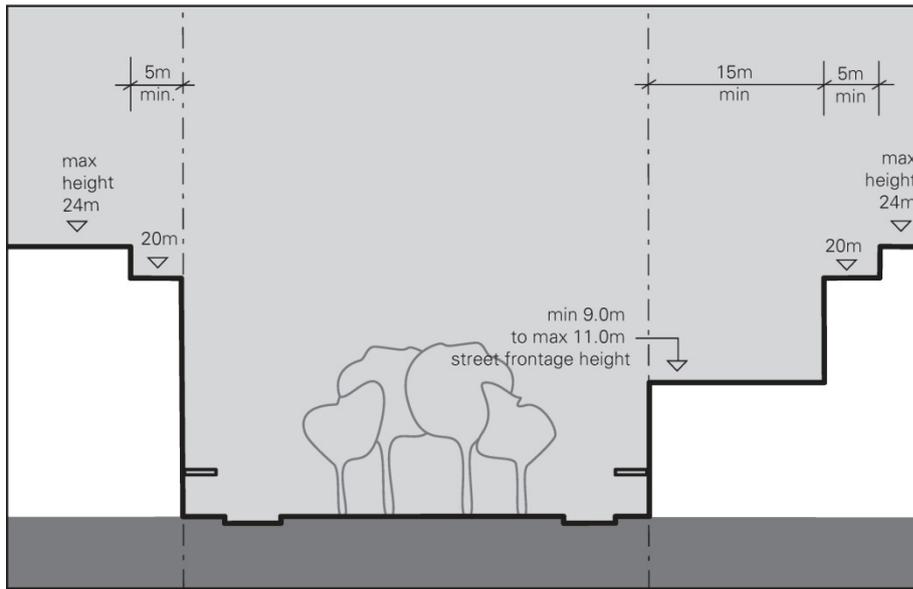
STREET FRONTAGE HEIGHT TYPE C

**Figure E11.8: Street Frontage Height Type D**



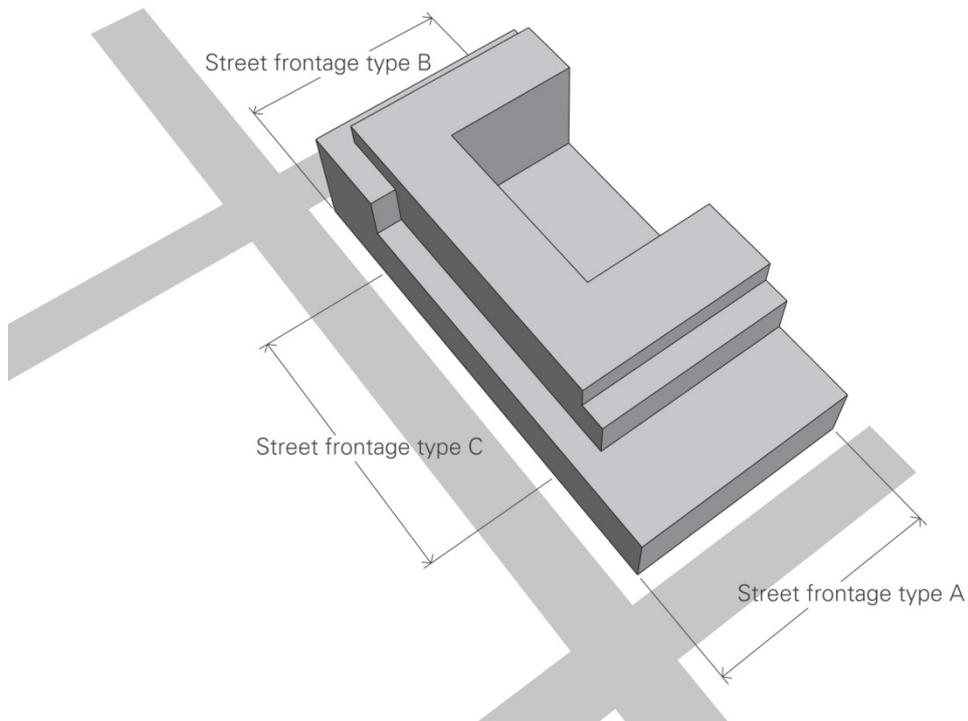
STREET SECTION TYPE D

**Figure E11.9: Section through Allen Place (looking west)**



SECTION THROUGH ALLEN PLACE  
(looking west)

**Figure E11.10: Example of possible transition between lower street frontage (Type A) to higher street frontage height (Type B) with the use of street frontage Type C**



## 11.2.4. Building Depth and Bulk

### A. Background

Controlling the size of upper level floor plates of taller buildings allows for good internal amenity, access to natural light and ventilation and reduces potential adverse effects that tall and bulky buildings may have on the public domain.

Building depth is related to building use. Typically, mixed use buildings have larger commercial floor plates combined with smaller residential floors.

### B. Objectives

- a) To promote the design and development of sustainable buildings.
- b) To achieve the development of living and working environments with good internal amenity and minimise the need for artificial heating, cooling and lighting.
- c) To provide viable and useable commercial floor space.
- d) To achieve usable and pleasant streets and public domain at ground level. To achieve a city skyline sympathetic to the topography and context.
- e) To allow for view sharing and view corridors.
- f) To reduce the apparent bulk and scale of buildings by breaking up expanses of building wall with modulation of form.

### C. Controls

- 1) The maximum floorplate sizes and depth of buildings are specified in the table below (also refer to Figure E11.11).
- 2) Notwithstanding the above, no building above 24m in height is to have a building length in excess of 50m.
- 3) All points of an office floor should be no more than 10m from a source of daylight (e.g. window, atria, or light wells) in buildings less than 24m in height, and no more than 12.5m from a window in buildings over 24m in height.
- 4) Use atria, light wells and courtyards to improve internal building amenity and achieve cross ventilation and/or stack effect ventilation. (Refer to figures E11.12 and E11.13)

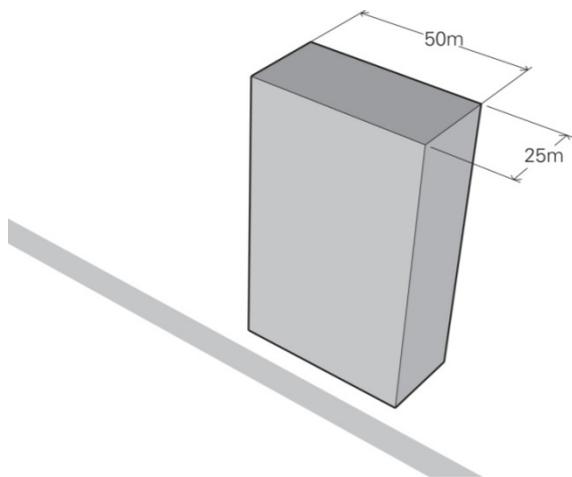
The controls for building depth and height are outlined in Table E11.1.

**Table E11.1: Controls for building depth and height**

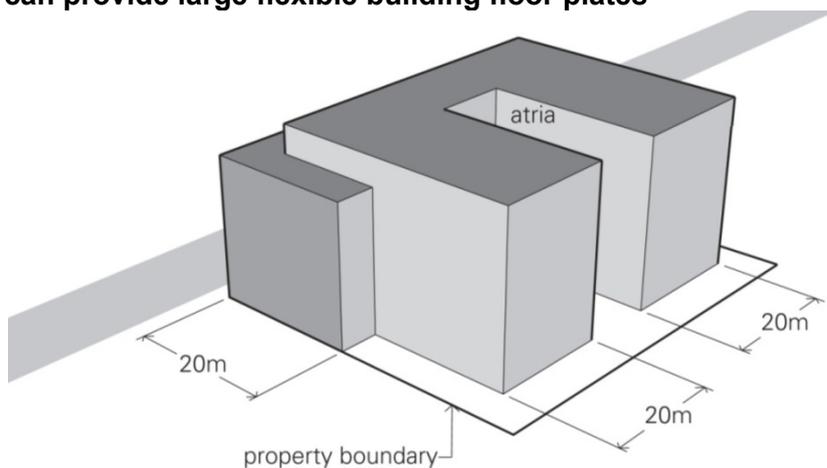
Land Use	Building Use	Condition	Maximum Floorplate	Maximum Building Depth (excludes balconies)
Commercial Core	All	Above 24m height	1,200m <sup>2</sup>	25m
Mixed Use	Non Residential	Above 20m height	900m <sup>2</sup>	20m

Land Use	Building Use	Condition	Maximum Floorplate	Maximum Building Depth (excludes balconies)
	Residential	Above 20m height	750m <sup>2</sup>	18m
<b>All other zones</b>	All	Above 12m height	750m <sup>2</sup>	18m

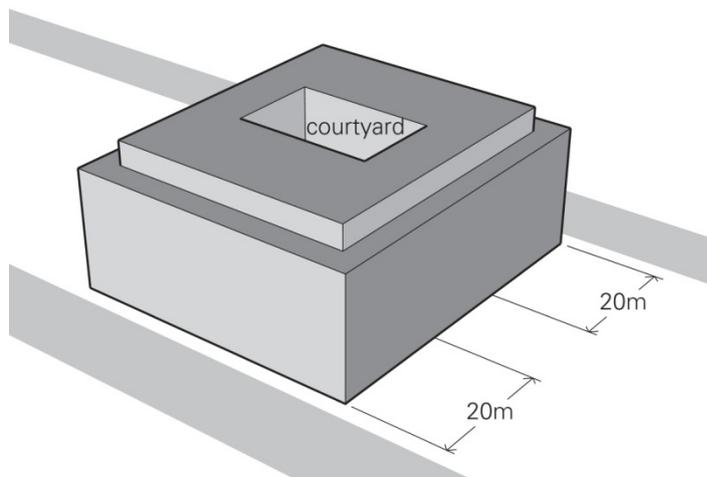
**Figure E11.11: In the Commercial Core, the floor plates of commercial buildings above 24m are limited to 1,200m<sup>2</sup>**



**Figure E11.12: Atria type buildings allow good light penetration and ventilation, and can provide large flexible building floor plates**



**Figure E11.13: Courtyard type buildings allow good light penetration and well suited to sites with two street frontages**



## 11.2.5 Boundary Setbacks and Building Separation

### A. Background

Setbacks allow ventilation, daylight access and view sharing and increase privacy. In residential buildings and serviced apartments, separation between windows on side and rear facades and other buildings is particularly important for privacy, acoustic amenity and view sharing.

For commercial buildings, separation distances are smaller due to reduced requirement for visual and acoustic privacy.

Separation for mixed use buildings containing residential and commercial uses is to be in accordance with specified distances for each component use.

### B. Objectives

- a) To ensure an appropriate level of amenity for building occupants in terms of daylight access, outlook, view sharing, ventilation, wind mitigation, and privacy.
- b) To achieve usable and pleasant streets and public domain areas in terms of wind mitigation and daylight access.

### C. Controls

- 1) The minimum building setbacks from the side and rear property boundaries are specified in Table E11.2 and illustrated in figures E11.14 to E11.16.
- 2) Notwithstanding the setback controls, where development must be built to the street alignment (as identified in figure E11.3) it must also be built to the side boundaries (0m setback) in the vicinity of the street.
- 3) Where 0m side and rear boundary setbacks are permissible, and where it can be demonstrated that 0m setbacks cannot be achieved, Council may consider buildings that are setback from the boundary providing they are setback at least 5m to provide amenity in terms of day light access, useable outdoor space and landscaping. (Refer to figures E11.14 or E11.15)

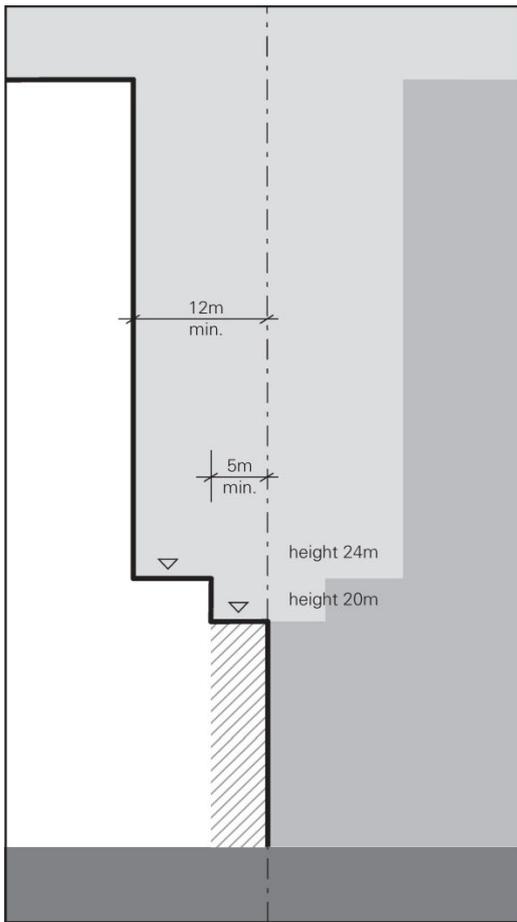
- 4) If the specified setback distances cannot be achieved when an existing building is being refurbished or converted to another use, appropriate visual privacy levels are to be achieved through other means.

**Table E11.2: Minimum side and rear setback distance from property boundary**

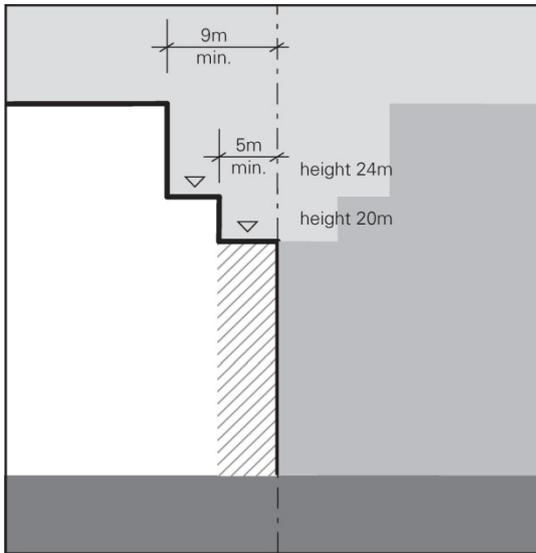
<b>Zone</b>	<b>Building Height and Use</b>	<b>Minimum Setback</b>
<b>Commercial Core</b>	Up to a height of 20m	0m
	Above 20m	5m
	Above 24m	12m
<b>Mixed Use</b>	<b>Non-Residential Uses</b>	
	– Up to 20m	0m
	– Above 20m	5m
	– Above 24m	9m
	<b>Residential uses up to 12m height:</b>	
	– Non-habitable rooms	3m
	– Habitable rooms	6m
	<b>Residential uses up to 24m height:</b>	
	– Non-habitable rooms	4.5m
	– Habitable rooms	9m
	<b>Residential uses above 24m height:</b>	
	– Non-habitable rooms	6m
	– Habitable rooms	12m
<b>All other zones</b>	<b>Non-residential uses:</b>	
	– Up to 12m	3m
	– Above 12m	6m
	<b>Residential uses up to 12m height:</b>	
	– Non-habitable rooms	3m
	– Habitable rooms	6m

Zone	Building Height and Use	Minimum Setback
	<b>Residential uses above 24m height:</b>	
	– Non-habitable rooms	6m
	– Habitable rooms	12m

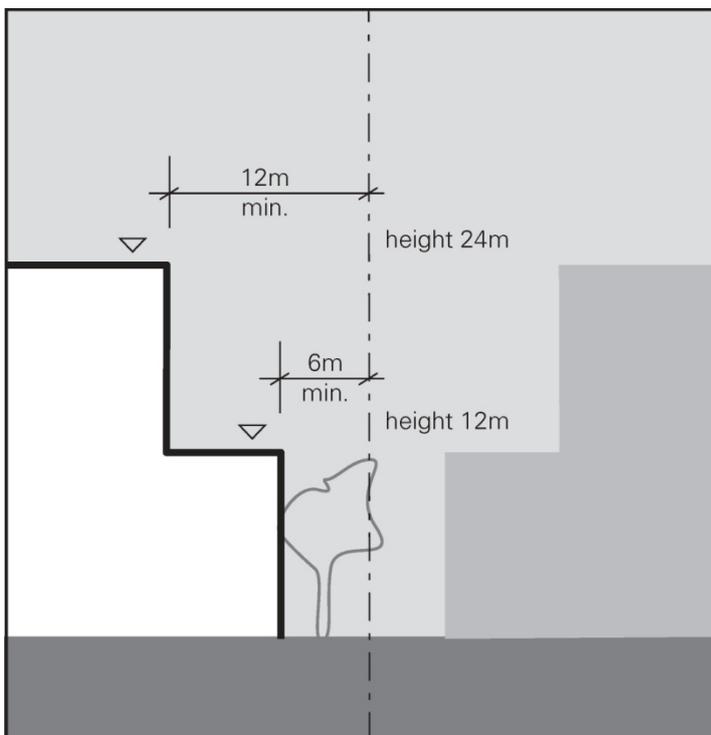
**Figure E11.14: Minimum side and rear setbacks in the Commercial Core. Generally prefer lower levels to be built to the boundary or set back at least 5m.**



**Figure E11.15: Minimum side and rear setbacks for non-residential development in the Mixed Use zone. Generally prefer lower levels to be built to be built to the boundary or set back at least 5m.**



**Figure E11.16: Minimum side and rear setbacks for habitable rooms of residential development in the Mixed Use zone.**



## 11.2.6 Mixed Use Buildings

### A. Background

Typically, different land uses and activities that are permitted in the same zone may be located in the same building and known as “mixed use developments”.

Mixed-use developments provide a variety of uses and activities within city centres, encouraging use of the City outside the working day, adding vibrancy and life to the city streets. Different uses within the same building are best located to a pattern and layout suitable to the mix of uses, with retail and business activity at ground level to assist street activation, and residential uses, requiring privacy and noise mitigation, located above street level.

Mixed use development within the City Centre is supported in sustainable locations, close to transport nodes, city parks and recreational areas and along central pedestrian locations.

### B. Objectives

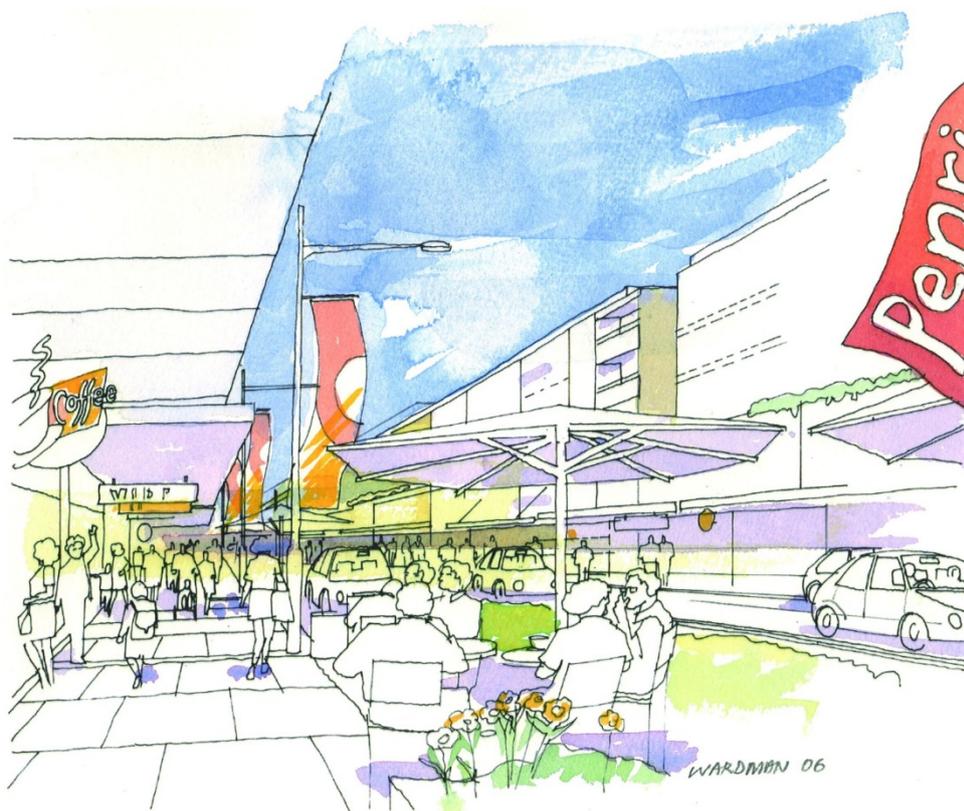
- a) To encourage a variety of mixed-use developments in the City Centre.
- b) To create lively streets and public spaces in the City Centre.
- c) To increase the diversity and range of shopping and recreational activities for workers, residents and visitors.
- d) To enhance public safety by increasing activity in the public domain on week nights and on weekends.
- e) To minimise potential conflicts and achieve compatibility between different uses.
- f) To minimise conflicts between permitted land use and heritage buildings.
- g) To ensure that the design of mixed-use buildings addresses residential amenity.
- h) To create legible and safe access and circulation in mixed use buildings.
- i) To ensure that mixed use buildings address the public domain and the street.

### C. Controls

- 1) Provide flexible building layouts which allow greater adaptability of the floor area of, or tenancies on, the first floor of a building above the ground floor.
- 2) Ground floor of all mixed-use buildings is to have a minimum floor to ceiling height of 3.6m in order to provide for flexibility of future use. Above ground level, minimum floor to ceiling heights are 3.3m for commercial office, 3.6m for active public uses, such as retail and restaurants, and 2.7m for residential.
- 3) The commercial and residential activities of the building are to have separate service provision, such as loading docks, from residential access, servicing needs and primary outlook.
- 4) Locate clearly demarcated residential entries directly from the public street. Clearly separate and distinguish commercial and residential entries and vertical circulation.
- 5) Provide security access controls to all entrances into private areas, including car parks and internal courtyards.

- 6) Provide safe pedestrian routes through the site.
- 7) Front buildings onto major streets with active uses.
- 8) Avoid the use of blank building walls at the ground level.

### Mixed Use Buildings in High Street



## 11.2.7 Site Cover and Deep Soil Zones

### A. Background

Limiting site cover provides separation between buildings. This space may be public (accessible and useable by the general public), communal (shared by all occupants of a development) or private (for the exclusive use of a single dwelling or tenancy). Limiting site cover improves amenity by providing daylight access, visual privacy and opportunities for recreation and social activities. Site coverage is greater closer to the city core where wall-to-wall development is allowable.

Deep soil zones are areas of natural ground retained within a development, uninhibited by artificial structures and with relatively natural soil profiles. Deep soil zones have important environmental benefits, including:

- promoting healthy growth of large trees with large canopies,
- protecting existing mature trees, and

- allowing infiltration of rainwater to the water table and reduction of stormwater runoff.

## B. Objectives

- To provide an area on sites that enables soft landscaping and deep soil planting, permitting the retention and/or planting of trees that will grow to a large or medium size.
- To limit building bulk on a site and improve the amenity of developments, allowing for good daylight access, ventilation, and improved visual privacy.
- To provide passive and active recreational opportunities.

## C. Controls

- The maximum site cover and minimum deep soil area for development is specified in Table E11.3 below:

**Table E11.3: Maximum site cover & minimum deep soil for development**

Zone/Area	Maximum Site Cover	Minimum Deep Soil Area
Commercial Core	100%	0%
Mixed Use (Other)	100%	0%
Mixed Use (City East)	70%	10%
All Other Zones	70%	10%

- Deep soil area is provided in one continuous block. In multiple deep soil areas are provided they must have a minimum dimension (in any direction) of 6m.
- Where non-residential developments result in full site coverage and there is no capacity for water infiltration, the deep soil component must be provided on structure, in accordance with the provisions of Section 11.2.9 Planting on Structures. In such cases, compensatory stormwater management measures must be integrated within the development to minimise stormwater runoff.
- Where deep soil zones are provided, they must accommodate existing mature trees as well as allowing for the planting of trees/ shrubs that will grow to be mature trees.
- No structures, works or excavations that may restrict vegetation growth are permitted in this zone (including but not limited to car parking, hard paving, patios, decks and drying areas).

## 11.2.8 Landscape Design

### A. Background

Landscape design includes the planning, design, construction and maintenance of all utility, open space and garden areas. Good landscaping provides breathing space, passive and active recreational opportunities and enhances air quality in city centres. It is fundamental to the amenity and quality of outside space for residential flats and multi-dwelling housing.

## B. Objectives

- a) To ensure that the use of potable water for landscaping irrigation is minimised.
- b) To ensure landscaping is integrated into the design of development.
- c) To add value and quality of life for residents and occupants within a development in terms of privacy, outlook, views and recreational opportunities.
- d) To improve stormwater quality and control run-off.
- e) To improve the microclimate and solar performance within the development.
- f) To improve urban air quality and contribute to biodiversity.

### Communal public space with deep soil zone allows for tree planting and high quality landscape



## C. Controls

- 1) Recycled water should be used to irrigate landscaped areas.
- 2) Commercial and retail developments are to incorporate planting into accessible outdoor spaces.
- 3) Remnant vegetation must be maintained throughout the site wherever practicable.
- 4) A long-term landscape concept plan must be provided for all landscaped areas including the deep soil landscape zone, in accordance with the Landscape Design Section of this DCP. The plan must outline how landscaped areas are to be maintained for the life of the development.

## 11.2.9 Planting on Structures

### A. Background

The following controls apply in the Commercial Core and Mixed Use zones for planting on roof tops or over car park structures, particular for communal open space required as a component of mixed use residential development, and in non-residential developments where the landscaping proposed is not on natural ground.

Constraints on the location of car parking structures due to water table conditions may mean that open spaces and courtyards might need to be provided over parking structures. The plants in these areas are grown in total containment with artificial soils, drainage and irrigation and are subject to a range of environmental stresses that affect their health, and ultimately their survival. Quality landscape design and open space amenity relies in part on the quality and health of plants.

### B. Objectives

- a) To contribute to the quality and amenity of open space on roof tops and internal courtyards.
- b) To encourage the establishment and healthy growth of greening in urban areas.
- c) To minimise the use of potable water for irrigating planting on structures.

### C. Controls

- 1) Recycled water should be used to irrigate in areas with planting on structures.
- 2) Design for optimum conditions for plant growth by:
  - a) providing soil depth, soil volume and soil area appropriate to the size of the plants to be established,
  - b) providing appropriate soil conditions and irrigation methods, and
  - c) providing appropriate drainage.
- 3) Design planters to support the appropriate soil depth and plant selection by:
  - a) ensuring planter proportions accommodate the largest volume of soil possible and soil depths to ensure tree growth, and
  - b) providing square or rectangular planting areas rather than narrow linear areas.
- 4) Increase minimum soil depths in accordance with:
  - a) the mix of plants in a planter for example where trees are planted in association with shrubs, groundcovers and grass,
  - b) the level of landscape management, particularly the frequency of irrigation,
  - c) anchorage requirements of large and medium trees, and
- 5) soil type and quality.
- 6) A long-term landscape concept plan is to be submitted with a development application. The plan is to be prepared in accordance with the requirements of the Landscape Design Section of this DCP. The plan must outline how the planting on structures are to be maintained for the life of the development.

## Encourage high quality landscape on structures and internal communal courtyards



## 11.3 Pedestrian Amenity

### A. Background

The pedestrian amenity provisions are intended to achieve a high quality of urban design and pedestrian comfort in the public spaces of the City Centre. The pedestrian environment is to be characterised by excellence of design, high quality materials and a standard of finish appropriate to a regional city centre. The City's lanes, arcades and through site links should form an integrated pedestrian network providing choice of routes at ground level for pedestrians.

In addition to the objectives and controls outlined in the introduction of this Section, the objectives of this section aim to increase the vitality, safety, security and amenity of the public domain by:

- a) encouraging future through site links at ground level.
- b) ensuring active street frontages and positive building address to the street.
- c) ensuring provision of awnings along the commercial core street frontages and other retail and tourist areas.

- d) mitigating adverse impacts on the street arising from driveway access crossings, advertising signage and selection of building finishes and materials.
- e) protecting significant views and vistas along streets.

### **11.3.1 Permeability**

#### **A. Background**

Site links provide access connections between long sides of street blocks for pedestrian and vehicular access at street level. These links provide an important permeability function in the form of lanes, shared zones, arcades and pedestrian ways.

#### **B. Objectives**

- a) To improve access in the city centre by providing through site links as redevelopment occurs.
- b) To retain and enhance existing through site links as redevelopment occurs.
- c) To encourage active streets fronts along the length of through site links where possible.
- d) To provide for pedestrian amenity and safety.
- e) To encourage removal of vehicular entries from primary street frontages.
- f) To retain and develop lanes as useful and interesting pedestrian connections as well as for service access.
- g) To improve the permeability of large sites when they are redeveloped for more intensive uses.

#### **C. Controls**

- 1) Through site links are to be provided as shown in Figure E11.18.
- 2) Existing dead end lanes are to be extended through to the next street as redevelopment occurs.
- 3) New through site links should be connected with existing and proposed through block lanes, shared zones, arcades and pedestrian ways and opposite other through site links.
- 4) Existing publicly and privately owned links are to be retained.
- 5) The redevelopment of sites with an extra area of 5 hectares or more are to include new streets, lanes and/or site links to ensure permeability and encourage public access throughout the site.
- 6) Signage is to be located at street entries indicating public access through the site as well as the street to which the link connects.

#### ***Pedestrian links***

- 7) Through site links for pedestrians are to be provided as shown in Figure E11.18 with accessible paths of travel that are:
  - a) a minimum width of 4m for its full length and clear of all obstructions including columns, stairs, etc.;
  - b) direct and publicly accessible thoroughfares for pedestrians; and

c) Open-air for its full length and have active frontages or a street address.

8) Arcades are to:

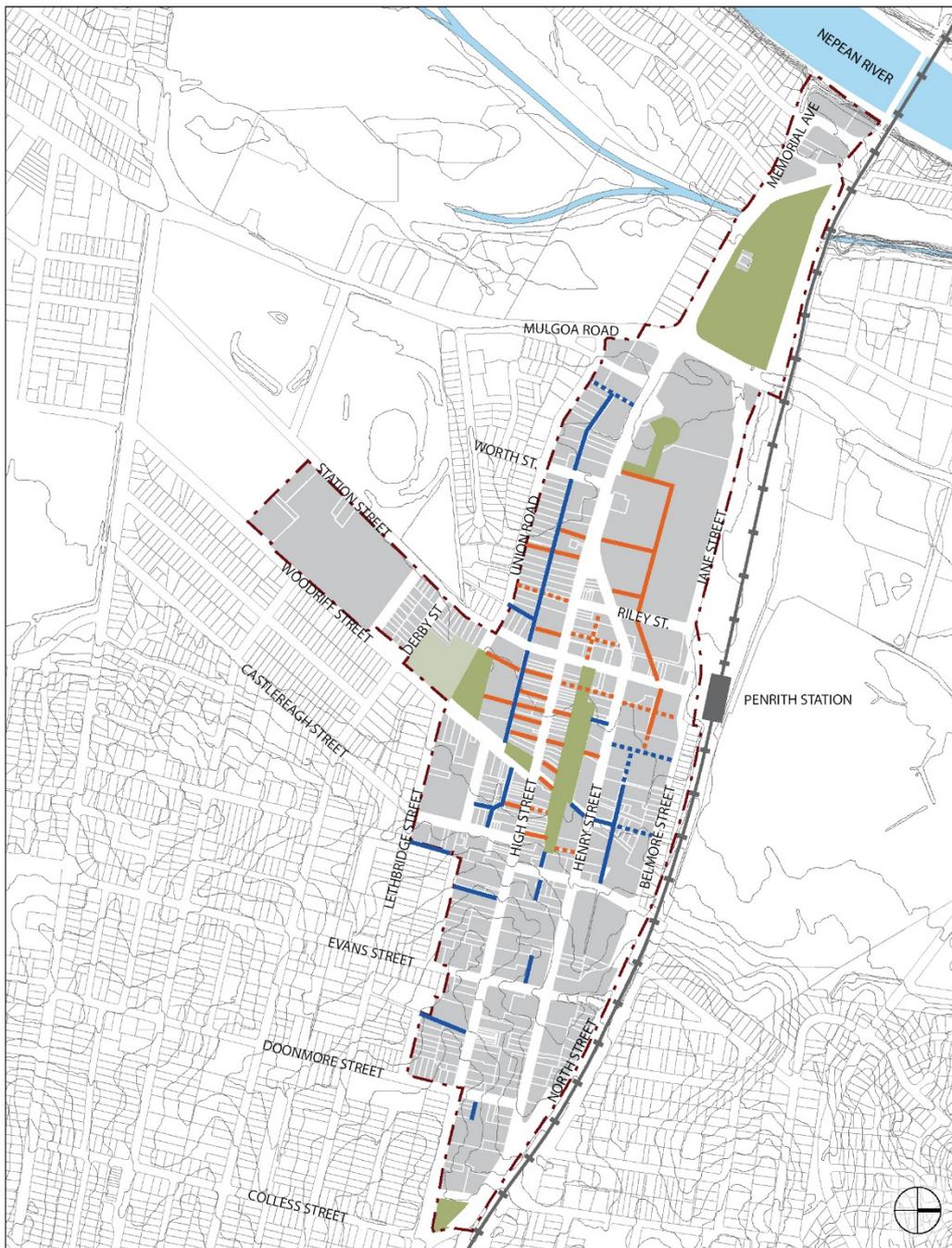
- a) have a minimum width of 4m for its full length and clear of all obstructions including columns, stairs, etc.;
- b) direct and publicly accessible for pedestrians during business trading hours;
- c) be designed as an accessible path of travel for persons with a disability and incorporate the 'safer by design' principles;
- d) have active frontages on either side for its full length;
- e) where practical, have access to natural light for at least 30% of its length; and
- f) where enclosed, have clear glazed entry doors to at least 50% of the entrance.

**Lanes**

9) Lanes are to be designated pedestrian routes that are:

- a) accessible paths of travel, with a minimum width of 6m for its full length clear of all obstructions;
- b) designed, paved and lit in accordance with the lighting provisions of this Plan and any technical documents applying to the city centre. The *Penrith City Centre Public Domain Masterplan* should be referred to for further design details.
- c) appropriately signposted indicating the street(s) to which the lane connects.

Figure E11.18 Existing and Desired Links



## 11.3.2 Active Street Frontages and Address

### A. Background

Active street frontages promote an interesting and safe pedestrian environment. Busy pedestrian areas and non-residential uses such as shops, studios, offices, cafes, recreation and promenade opportunities promote the most active street fronts. Residential buildings contribute positively to the street by providing a clear street address, direct access from the street and direct outlook over the street.

### B. Objectives

- a) To promote pedestrian activity and safety in the public domain.
- b) To maximise active street fronts in Penrith City Centre.
- c) To define areas where active streets are required or are desirable.
- d) To encourage an address to the street outside of areas where active street frontages are required.

### C. Controls

#### ***Active Street Frontages***

- 1) Active frontage uses are defined as one or a combination of the following at street level:
  - a) entrance to retail;
  - b) shop front;
  - c) glazed entries to commercial and residential lobbies occupying less than 50% of the street frontage, to a maximum of 12m frontage;
  - d) café or restaurant if accompanied by an entry from the street;
  - e) active office uses, such as reception, if visible from the street;
  - f) public building if accompanied by an entry.
- 2) Active street fronts are to be located at the ground level of all buildings located in those areas as shown in the Active Street Frontages map of Penrith LEP 2010.
- 3) Ground floor active street frontage uses are to be at the same level as the adjoining footpath and must be directly accessible from the street.
- 4) Restaurants, cafes and the like are to consider providing openable shop fronts.
- 5) Only open grill or transparent security shutters are permitted to retail frontages.

#### ***Street Address***

- 1) Street address is defined as entries, lobbies, and habitable rooms with clear glazing to the street not more than 1.2m above street level, and does not include car parking areas.
- 2) Street address is required on the ground level of buildings specifically located in areas shown in the Active Street Frontages Map of Penrith LEP 2010.

- 3) Residential developments are to provide a clear street address and direct pedestrian access off the primary street front, and allow for residents to overlook all surrounding streets.
- 4) Provide multiple entrances for large developments including an entrance on each street frontage.
- 5) Provide direct 'front door' access from ground floor residential units.
- 6) Residential buildings are to provide not less than 65% of the lot width as street address.

### **11.3.3 Awnings**

#### **A. Background**

Awnings increase the useability and amenity of public footpaths by protecting pedestrians from sun and rain. They encourage pedestrian activity along streets and, in conjunction with active edges such as retail frontages, support and enhance the vitality of the local area. Awnings, like building entries, provide a public presence and interface within the public domain and contribute to the identity of a development.

A separate approval to erect an awning over the road reserve including a footpath will be required under the *Roads Act 1993* and the *Local Government Act 1993*.

#### **B. Objectives**

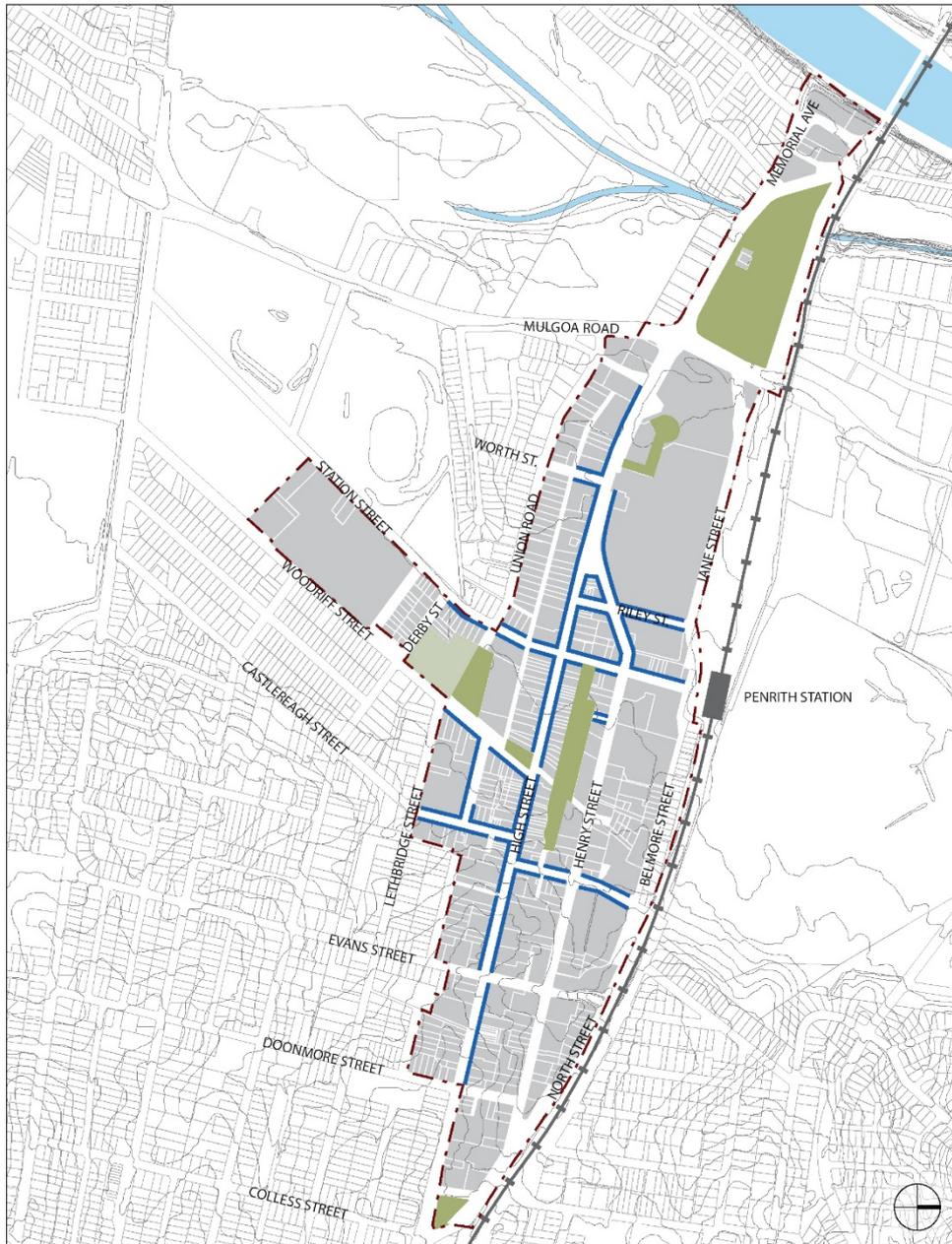
- a) To provide shelter from wind and rain for public streets where most pedestrian activity occurs.
- b) To address the streetscape by providing a consistent street frontage in the city centre.

#### **C. Controls**

- 1) Continuous street frontage awnings are to be provided for all new developments as indicated in Figure E11.19.
- 2) Awnings dimensions should generally be:
  - a) minimum 2.8m deep where street trees are not required, otherwise minimum 2.4m deep;
  - b) minimum soffit height of 3.2m and maximum of 4m;
  - c) steps for design articulation or to accommodate sloping streets are to be integral with the building design and should not exceed 700mm;
  - d) low profile, with slim vertical fascias or eaves (generally not to exceed 300mm height); and
  - e) set back from kerb to allow for clearance of street furniture
- 3) Awning design must match building facades and be complementary to those of adjoining buildings.
- 4) Wrap awnings around corners for a minimum 6m from where a building is sited on a street corner.
- 5) Vertical canvas drop blinds may be used along the outer edge of awnings along north-south streets. These blinds must not carry advertising or signage.

- 6) Provide under awning lighting recessed into the soffit of the awning or wall mounted onto the building to facilitate night use and to improve public safety.
- 7) One under-awning sign may be attached to the awning, at intervals of 6m of the awning frontage.

**Figure E11.19 Awnings**



 Continuous awnings required

## 11.3.4 Vehicle Footpath Crossings

### A. Background

Vehicle crossings over footpaths disrupt pedestrian movement and threaten safety. The design of vehicle access to buildings also influences the quality of the public domain. Overly wide and high vehicle access points detract from the streetscape and the active use of street frontages.

The design and location of vehicle access to developments should minimise both conflicts between pedestrians and vehicles on footpaths, particularly along pedestrian priority places, and visual intrusion and disruption of streetscape continuity.

Design of driveways and vehicle access is to be in accordance with the provisions of the Transport, Access and Parking Section of this DCP.

### B. Objectives

- a) To make vehicle access to buildings more compatible with pedestrian movements.
- b) To reduce the impact of vehicular access on the public domain.
- c) To ensure vehicle entry points are integrated into building design and contribute to the building design.

### C. Controls

#### ***Location of Vehicle Access***

- 1) No additional vehicle entry points will be permitted into the parking or service areas of development along those streets identified as significant pedestrian circulation routes in Figure E11.21.
- 2) In all other areas, one vehicle access point only (including the access for service vehicles and parking for non-residential uses within mixed use developments) will be generally permitted.
- 3) Where practicable, vehicle access is to be from lanes and minor streets rather than primary street fronts or streets with major pedestrian activity.
- 4) Where practicable, adjoining buildings are to share or amalgamate vehicle access points. Internal on-site signal equipment is to be used to allow shared access. Where appropriate, new buildings should provide vehicle access points so that they are capable of shared access at a later date.
- 5) Vehicle access may not be required or may be denied to some heritage buildings.

#### ***Design of Vehicle Access***

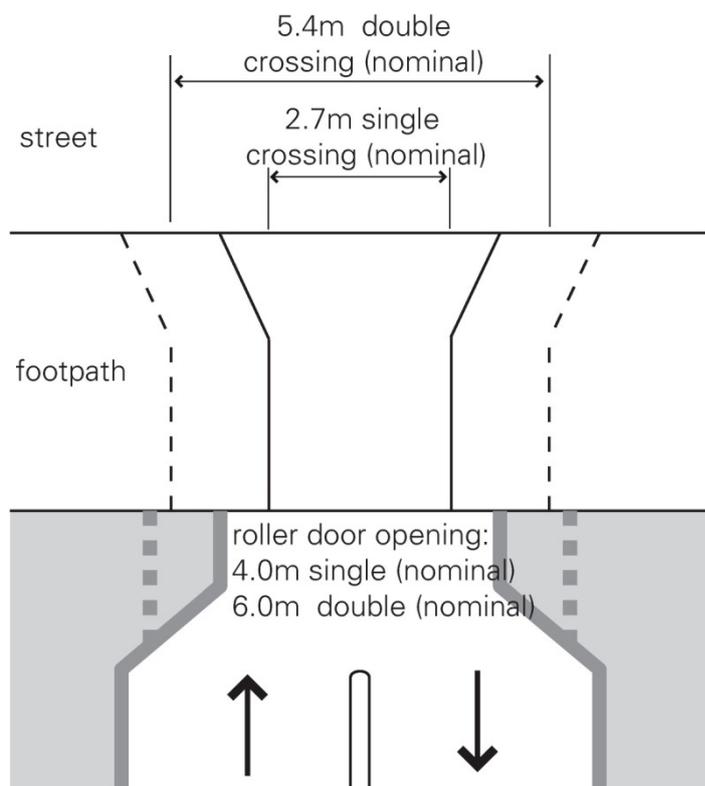
- 1) Wherever practicable, vehicle access is to be a single lane crossing with a maximum width of 2.7m over the footpath, and perpendicular to the kerb alignment. In exceptional circumstances, a double lane crossing with a maximum width of 5.4m may be permitted for safety reasons (refer to Figure E11.20). The *Penrith City Centre Public Domain Masterplan* should be referred to for further design details.
- 2) Vehicle access ramps parallel to the street frontage will not be permitted.
- 3) To ensure vehicle entry points are integrated into building design.

- 4) Doors to vehicle access points are to be roller shutters or tilting doors fitted behind the building facade.
- 5) Vehicle entries are to have high quality finishes to walls and ceilings as well as high standard detailing. No service ducts or pipes are to be visible from the street.

**Porte Cocheres**

- 1) Porte cocheres disrupt pedestrian movement and do not contribute to active street frontage. They may only be permitted for hotels and major tourist venues subject to urban design, streetscape, heritage and pedestrian amenity considerations.
- 2) If justified, porte cocheres are to be internal to the building with one combined vehicle entry and exit point, or one entry and one exit point on two different street fronts of the development.
- 3) In exceptional circumstances for buildings with one street frontage only, an indented porte cochere with separate entry and exit points across the footpath may be permitted, as long as it is constructed entirely at the footpath level and provides an active frontage at its perimeter and provides for safe and clear pedestrian movement along the street.

**Figure E11.20: Vehicle Footpath Crossing**





## 11.3.5 Pedestrian Overpasses and Underpasses

### A. Background

Streets represent important components of the public domain and provide the best potential amenity and safety when activated by pedestrians. Streets offer sky exposure, sunlight and air, a sense of orientation and direct access to the main frontages of buildings. Generally, pedestrians should be encouraged to use the street level to enhance and contribute to street life, to promote activity and interest, and to maximise safety and security of the public domain. Penrith's climate does not warrant pedestrian isolation from the street, and any conflicts between pedestrians and vehicles are to be resolved at the street level.

Pedestrian overpasses are discouraged as they have a negative impact on the streetscape quality and on views and vistas along streets. New pedestrian underpasses will only be considered where they would directly connect to major transport nodes such as the railway station and substantially improve pedestrian safety and access.

### B. Objectives

- a) To promote pedestrian activation of streets and public places.
- b) To promote 'safer by design' and crime prevention principles.
- c) To encourage pedestrian circulation at street level.
- d) To protect views and vistas along streets.

### C. Controls

- 1) New overpasses over streets are discouraged. In exceptional circumstances, new overpasses may be considered subject to assessment of impacts on safety and crime prevention, streetscape amenity and activation of the public domain. In such circumstances, overpasses are to be fully glazed, not greater than 6m wide or more than one level high.
- 2) New pedestrian underpasses are strongly discouraged as they reduce pedestrian accessibility, safety and passive surveillance opportunities. In exceptional circumstances, new underpasses may be considered where it can be demonstrated they would substantially improve pedestrian safety and accessibility, will incorporate active uses for the entire length and have a minimum width of 4.5m clear of all fixed obstructions and a minimum ceiling height of 4m.

## 11.3.6 Building Exteriors

### A. Background

Penrith's cityscape and public domain is defined by its buildings, streets and public places. The maintenance and improvement of the public domain is dependent on a consistent approach to the design of new development including the articulation and finish of building exteriors.

### B. Objectives

To ensure that buildings in Penrith:

- a) contribute positively to the streetscape and public domain by means of high quality architecture and robust selection of materials and finishes;

- b) provide richness of detail and architectural interest especially at visually prominent parts of buildings such as lower levels and roof tops;
- c) present appropriate design responses to nearby development that complement the streetscape;
- d) clearly define the adjoining streets, street corners and public spaces and avoid ambiguous external spaces with poor pedestrian amenity and security; and
- e) maintain a pedestrian scale in the articulation and detailing of the lower levels of the building; and
- f) contribute to a visually interesting skyline.

### **C. Controls**

- 1) Adjoining buildings (particularly heritage buildings) are to be considered when designing new buildings and extensions to existing buildings in terms of:
  - a) appropriate alignment and street frontage heights;
  - b) setbacks above street frontage heights;
  - c) appropriate materials and finishes selection;
  - d) facade proportions including horizontal or vertical emphasis; and
  - e) the provision of enclosed corners at street intersections.
- 2) Balconies and terraces should be provided, particularly where buildings overlook parks and on low rise parts of buildings. Gardens on the top of setback areas of buildings and on roofs are encouraged.
- 3) Articulate façades so that they address the street and add visual interest.
- 4) External walls should be constructed of high quality and durable materials and finishes with 'self-cleaning' attributes, such as face brickwork, rendered brickwork, stone, concrete and glass.
- 5) To assist articulation and visual interest, avoid expanses of any single material.
- 6) Maximise glazing for retail uses, but break glazing into sections to avoid large expanses of glass.
- 7) Highly reflective finishes and curtain wall glazing are not permitted above ground floor level
- 8) A materials sample board and schedule is required to be submitted with applications for development over \$1 million or for that part of any development built to the street edge.
- 9) The design of roof plant rooms and lift overruns is to be integrated into the overall architecture of the building, and in residential buildings may be screened by roof pergolas.

## 11.4 Access, Parking and Servicing

### A. Background

In addition to controls contained in the Transport, Access and Parking Section of this DCP, this section contains more detailed objectives and controls on pedestrian access, on-site parking and site facilities, and site facilities and services for the City Centre.

### B. General Objectives

- a) To facilitate the development of building design excellence appropriate to a regional city.
- b) To improve non-vehicular access to the city centre, including but not limited to bicycle, pedestrian and mass transit options.
- c) To require parking and servicing provisions to be contained within development sites to an amount and rate adequate for the economic and sustainable growth of the city centre.
- d) To provide for safe and secure access.
- e) To minimise impacts on city amenity, the public domain and streetscape.
- f) To ensure that access is provided for persons with a disability.

### 11.4.1 Pedestrian Access and Mobility

#### A. Background

Any new developments must be designed to ensure that safe and equitable access is provided to all, including people with a disability.

#### B. Objectives

- a) To provide safe and easy access to buildings to enable better use and enjoyment by people regardless of age and physical condition, whilst also contributing to the vitality and vibrancy of the public domain.
- b) To ensure buildings and places are accessible to people with a disability.
- c) To provide a safe and accessible public domain.

#### C. Controls

- 1) Main building entry points should be clearly visible from primary street frontages and enhanced as appropriate with awnings, building signage or high quality architectural features that improve clarity of building address and contribute to visitor and occupant amenity.
- 2) The design and provision of facilities for persons with a disability including car parking must comply with Australian Standard 1428 Parts 1 and 2 (or as amended) and the *Commonwealth Disability Discrimination Act 1992* (as amended). The *Penrith City Centre Public Domain Masterplan* should be referred to for further design details for access through and from public places.
- 3) Barrier free access is to be provided to not less than 20% of dwellings in each development and associated common areas.

- 4) The development must provide at least one main pedestrian entrance with convenient barrier free access to the ground floor, and have direct link to an identified accessible path of travel in the adjoining public domain.
- 5) The development must provide accessible internal access, linking to public streets and building entry points.
- 6) Pedestrian access ways, entry paths and lobbies must use durable materials commensurate with the standard of the adjoining public domain (street) with appropriate slip resistant materials, tactile surfaces and contrasting colours.
- 7) A report from an accredited access consultant is to be submitted with development application, indicating the proposal's compliance with AS1428. If approved, Council may impose a condition on the development consent requiring the submission of a compliance certificate (or other such document) from an accredited access consultant attesting to the development's compliance with AS1428, and that a person with a disability can access the development.

## **11.4.2 On-Site Parking Options**

### **A. Background**

On-site parking includes underground (basement), surface (at-grade) and above ground parking, including parking stations.

There are particular constraints in certain areas of Penrith city centre on the provision of car parking in underground structures. Due to the high water table, excavation on certain sites may become difficult beyond one level of basement parking. This may necessitate site design which locates the parking above ground. In these cases, minimising the impacts of above ground parking on the public domain is important.

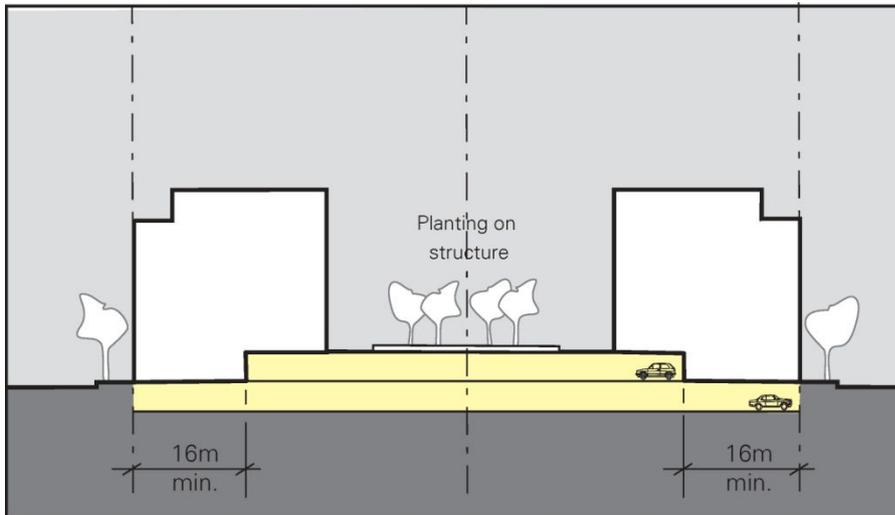
### **B. Objectives**

- a) To encourage economic growth in the City Centre.
- b) To enable the conversion of above ground parking to other future uses.
- c) To support the complementary use and benefit of public transport and non-motorised modes of transport such as bicycles and walking.

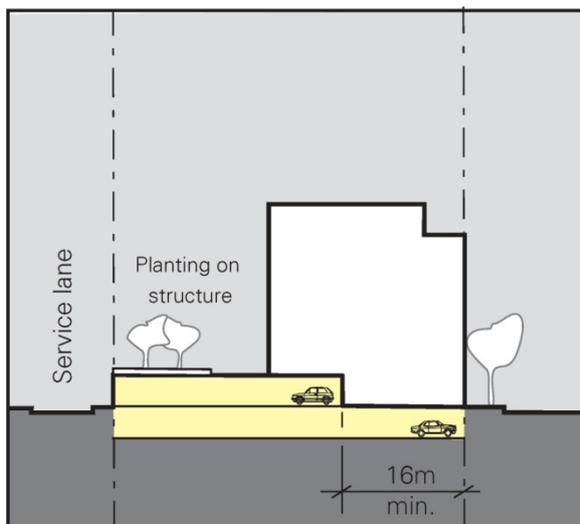
### **C. Controls**

- 1) In addition to the parking requirements outlined in the Transport, Access and Parking Section of this DCP, Figures E11.22 and E11.23 contains additional options for car parking at Penrith City Centre.
- 2) On-site parking is to be accommodated in basement parking except in the blocks between Belmore and Henry Streets where above ground car parking may be permissible in the form illustrated in Figure 11.24 below.

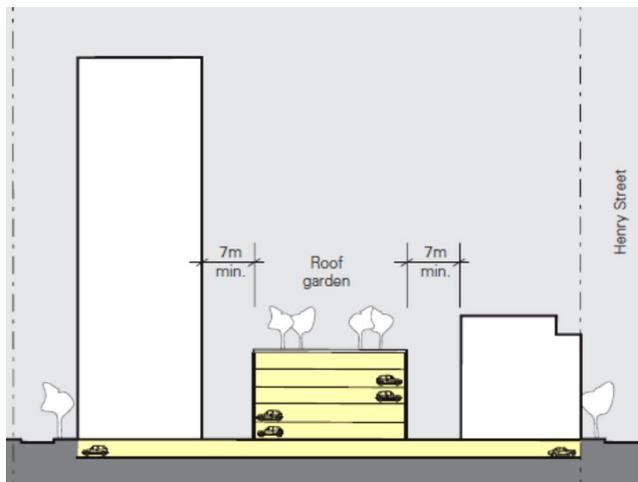
**Figure E11.22: Aboveground parking must be screened by an active edge to the public domain**



**Figure E11.23: Above ground parking may be located adjacent to a lane, as illustrated above, with appropriate screening to reduce the impact on the public domain.**



**Figure E11.24: In the blocks between Belmore and Henry Streets, above-ground car parking may be permissible in the middle of the block where buildings ensure that it is not visible from surrounding streets or public spaces.**



### 11.4.3 Site Facilities and Services

#### A. Objectives

- a) To ensure that the design and location of site facilities (such as clothes drying areas, mail boxes, recycling and garbage disposal units/ areas, screens, lighting, storage areas, air conditioning units, rainwater tanks/ hot water systems, solar panels and other such devices and communication systems) are integrated within the development and are unobtrusive.
- b) To ensure that site services and facilities are adequate for the nature and quantum of development.
- c) To establish appropriate access and location requirements for servicing.
- d) To ensure service requirements do not have adverse amenity impacts.

#### B. Controls

##### **Mailboxes**

- 1) Letterboxes should be integrated into a wall immediately adjacent the building entrance(s). Where there are a number of entrances into the building, the letterboxes located at each entrance should service the tenancies that will utilise that building entrance.
- 2) Letterboxes shall be secure and large enough to accommodate articles such as newspapers.

##### **Communication facilities/networks**

- 3) Telecommunication infrastructure should be built into the development and predominantly below ground, incorporating the following services fundamental in the effective operation of businesses, home businesses and dwellings:
  - a) Multiple telecom services including high speed internet (including broadband), voice and data systems,

- b) Cabling from all telephone lines, cable TV, internet is built into the building from the outset,
  - c) Consider centralised (C.A.T.V.) system is provided.
- 4) Where a master antenna is provided, the antennae must be sited in a location that does not intrude into, or is less visible from, surrounding public spaces/ open areas.

#### ***Service Infrastructure***

- 5) Infrastructure attributed to the servicing of the development, including associated cabling, should be located below ground.

#### ***Air conditioning units, service vents and other associated structures***

- 6) Such structures should be:
- a) located away from street frontages and lanes;
  - b) located in a position where the likely impact is minimised; and
  - c) adequately setback from the perimeter wall or roof edge of buildings.
- 7) Where it is to be located on the roof, it should be integrated into the roofscape design and in a position where such facilities do not become a feature in the skyline at the top of building(s).
- 8) Refer to the Water Management Section of this DCP for locational and connection requirements.

#### ***Loading/Unloading Areas***

- 9) Loading/ unloading areas are to be:
- a) integrated into the design of developments;
  - b) separated from car parking and waste storage and collection areas;
  - c) located away from the circulation path of other vehicles; and
  - d) designed for commercial vehicle circulation and access complying with AS2890.2.
- 10) For mixed use developments, separate loading/unloading areas should be provided for commercial/retail and residential uses.
- 11) Vehicular access to the loading/unloading area(s) is preferred off rear lanes, side streets and right of ways. Where appropriate, consider a single vehicular access point for the loading/unloading area(s) and waste collection area(s).

#### ***Fire service and emergency vehicles***

- 12) Generally, provision must be made for all emergency vehicles to enter and leave the site in a forward direction, particularly the NSW Fire Brigade vehicles where:
- a) NSW Fire Brigade cannot park their vehicles within the road reserve due to the distance of hydrants from the building or restricted vehicular access to hydrants; or
  - b) otherwise required by the NSW Fire Brigade's Code of Practice – Building Construction – NSWFB Vehicle Requirements.
- 13) For developments where NSW Fire Brigade vehicle(s) is required to enter the site, the circulation path and access/egress provision is to comply with NSW Fire Brigade's Code of Practice – Building Construction – NSWFB Vehicle Requirements.

## 11.5 Sustainable Development

### 11.5.1 Reflectivity

#### A. Background

Reflective materials used on the exterior of building can result in undesirable glare for pedestrians and potentially hazardous glare for motorists. Reflective materials can also impose additional heat load on other buildings. The excessive use of highly reflective glass should be discouraged. Buildings with a glazed roof, façade or awning should be designed to minimise hazardous or uncomfortable glare arising from reflected sunlight.

#### B. Objectives

a) To restrict the reflection of sunlight from buildings to surrounding areas and buildings.

#### C. Controls

- 1) New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.
- 2) Visible light reflectivity from building materials used on the facades of new buildings should not exceed 20%.
- 3) Subject to the extent and nature of glazing and reflective materials used, a Reflectivity Report that analyses potential solar glare from the proposed development on pedestrians and motorists may be required.

### 11.5.2 Maximising Liveability and Longevity

#### A. Background

Developments should be designed and constructed beyond its initial/first use to ensure that building stock is durable and capable for adaptability in the future. This 'whole of building' approach should also consider how the building design, finishes and materials used in the construction phase affect the amenity and safety of future occupants of the building(s).

#### B. Objectives

- a) To encourage the design of developments based on a 'whole of building' approach.
- b) To reduce the occurrence of 'sick building' syndrome on occupants.
- c) To ensure that community safety and crime prevention measures are incorporated in the design of the development, including the public domain.

#### C. Controls

- 1) Demonstrate how the passive and active environmental design features of the building design and proposed construction achieves ESD criteria and the 'whole of building' approach. Elements include, but not limited to:
  - a) Adaptability of buildings and floor levels within buildings to accommodate a range of uses over time;
  - b) Occupant comfort and amenity;
  - c) Fulfilling the Ecospecifier's Assessment criteria; and

- d) Incorporation of safety and crime prevention measures in the design of buildings and public domain as well as the siting of activities in the building.

A report, prepared by a suitably qualified environmental design expert, may be required with the development application and application for Construction Certificate.

- 2) Development proposals may require referral to the NSW Police for crime prevention and safety considerations, in accordance with the community safety protocol.

### **11.5.3 Reduce Resource Consumption**

#### **A. Background**

All materials have environmental and health consequences in extraction, manufacture, transport, storage and eventually, use in a development. Some materials have significant impacts for maintenance and disposal, and should be carefully considered as part of the material selection at the design and specification stages of a development.

#### **B. Objectives**

- a) To encourage the selection and use of construction materials with low environmental impact over the lifecycle of the building.
- b) To reduce the health problems associated with the solvent content of finishes and fittings.
- c) To reduce the health problems associated with the high formaldehyde emission from composite wood products.

#### **C. Controls**

- 1) Materials with low embodied energy properties and/or materials that have been salvaged/ recycled are to be selected for the construction and fit out of the development.
- 2) Avoid using high environmental/high impact materials, such as volatile organic compounds (VOC's) and hydrofluoro-carbons (HCFC's) as these materials can become volatile at room temperature contributing to poor indoor air quality and affecting the health of occupants.

## **11.6 Controls for Residential Development**

#### **A. Background**

In addition to the controls in the Residential Development Section of this DCP, the State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development (SEPP 65) and the accompanying Residential Flat Design Code also apply to residential development in the Penrith City Centre. This includes residential flat buildings, any residential flat component of a mixed use development, and serviced apartments that are strata titled. The Residential Flat Design Code includes provisions for:

- a) Site Analysis;
- b) Site configuration;
- c) Site amenity;
- d) Site access;
- e) Building configuration;

- f) Building amenity;
- g) Building form; and
- h) Building performance.

## **11.6.1 Housing Choice and Mix**

### **A. Background**

A choice of apartment types and mix of sizes in the City Centre caters for a variety of socio-economic groups. All residential development in the Penrith City Centre should also comply with the provisions outlined below.

### **B. Objectives:**

- a) To ensure that residential development provides a mix of dwelling types and sizes to cater for a range of household types.
- b) To ensure that dwelling layout is sufficiently flexible for residents' changing needs over time.
- c) To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate the changing requirements of residents.
- d) To ensure the provision of housing that will, in its adaptable features, meet the access and mobility needs of any occupant.

### **C. Controls**

- 1) Where residential units are proposed at ground level, a report must be provided with the development application demonstrating how future non-residential uses can be accommodated within the ground level design. The report must address:
  - a) access requirements including access for persons with a disability;
  - b) any upgrading works necessary for compliance with the Building Code of Australia; and
  - c) appropriate floor to ceiling heights.
- 2) For smaller developments comprising up to six dwellings demonstrate how the proposal achieves a mix appropriate to the locality.
- 3) For developments containing more than six dwellings, a mix of living styles, sizes and layouts is to be achieved by providing:
  - a) a mix of bed-sitter/studio, one bedroom, two bedroom and three bedroom apartments;
  - b) bed-sitter apartments and one bedroom apartments must not be greater than 25% and not less than 10% of the total mix of apartments within each development; and
  - c) two bedroom apartments are not to be more than 65% of the total mix of apartments within each development.
- 4) 10% of all dwellings or a minimum one dwelling, whichever is the greater, must be designed to be capable of adaptation for disabled or elderly residents. Dwellings must be

designed in accordance with the Australian Adaptable Housing Standard (AS 4299-1995), which includes “pre-adaptation” design details to ensure visitability is achieved.

- 5) Where possible, adaptable dwellings shall be located on the ground floor, for ease of access. Dwellings located above the ground level of a building may only be provided as adaptable dwellings where lift access is available within the building. The lift access must provide access from the basement to allow access for people with disabilities.
- 6) The development application must be accompanied by certification from an accredited Access Consultant confirming that the adaptable dwellings are capable of being modified, when required by the occupant, to comply with the Australian Adaptable Housing Standard (AS 4299-1995).
- 7) Car parking and garages allocated to adaptable dwellings must comply with the requirements of the relevant Australian Standard as accessible car spaces.

### **Residential Development in Woodriff Street**



## **11.7 Controls for Special Areas**

### **A. Background**

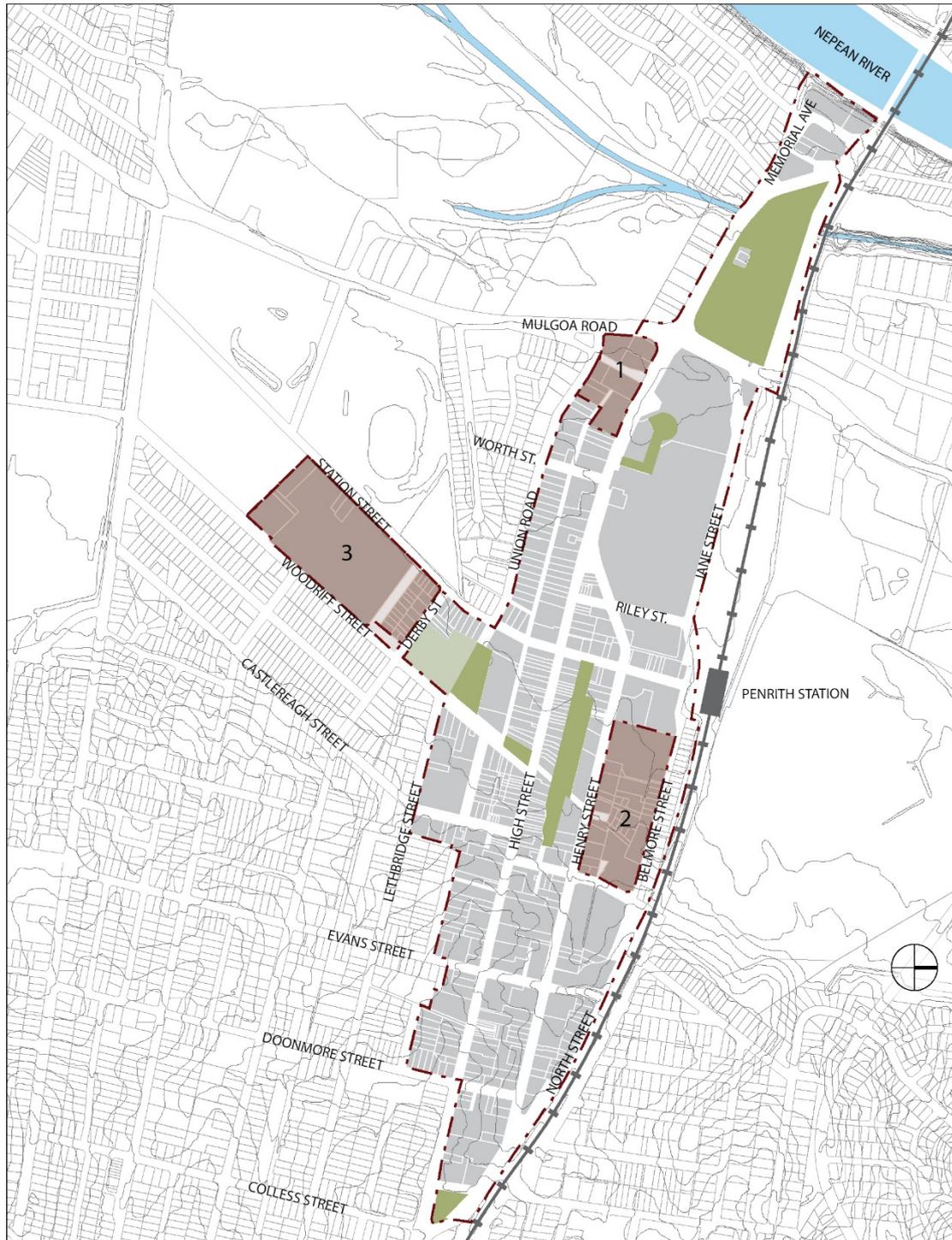
The following controls are additional to the general controls elsewhere in this DCP. Controls for special areas relate to specific sites or precincts in the City Centre.

#### **11.7.1 Precinct Controls**

### **A. Background**

Due to their size and/or strategic importance in the City Centre, specific design principles and development outcomes have been identified for the sites identified in Figure E11.25. Redevelopment of these sites should implement design principles and outcomes expressed in the clauses and diagrams that follow.

Figure E11.25: Areas where Precinct controls apply



### **11.7.1.1 Precinct 1**

Precinct 1 is the area generally bounded by High Street, Mulgoa Road and Union Road, as shown in Figure E11.26.

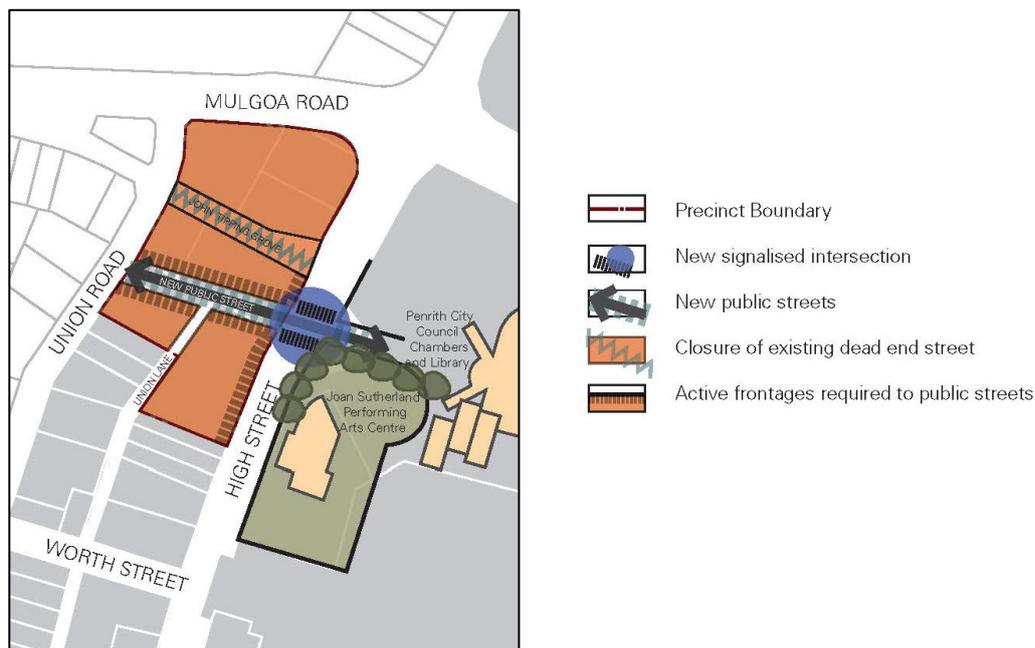
#### **Development of the site must adhere to the following design principles:**

- 1) Rationalise the existing pattern of land ownership.
- 2) Relocate redundant public street to provide north-south connectivity and active 'eat street' adjoining the Civic and Cultural Precinct.
- 3) Provide high quality and activity public domain interface with new and existing public streets.

#### **Development of the site should provide the following outcomes:**

- 1) Streets and pedestrian connections:
  - a) Closure John Tipping Grove between High Street and Union Road.
  - b) A new public street providing direct connections between High Street and Union Road.
  - c) Replace existing roundabout on High Street with a signalised intersection at junction of High Street and the new street.
  - d) Potential extension of Union Lane to the west to provide access and additional street frontage.
- 2) Land ownership:
  - a) Consolidation of existing land ownership patterns to allow orderly development of land.
- 3) Public domain interface:
  - a) Active frontage/land uses along the new street and High Street.
- 4) Built form:
  - a) Building built to the street alignment of the new street.

**Figure E11.26: Precinct 1 Design Principles**



### 11.7.1.2 Precinct 2

Precinct 2 is the area bounded by Henry Street, Lawson Street and Belmore Street, as shown in Figure E11.27.

**Development of the site must adhere to the following design principles:**

- 1) Provide good east-west and north-south connectivity with new streets, new lanes and pedestrian connections.
- 2) Provide off-street parking that is screened from existing streets.
- 3) Provide high quality and active public domain interface with all other existing public streets.

**Development of the site should provide the following outcomes:**

#### 1) Streets and pedestrian connections:

- a) Provide at least two new public streets with direct connections between Belmore Street and Henry Street.
- b) Provide a new lane with east-west connectivity through the site and access to the rear of properties on Henry Street.

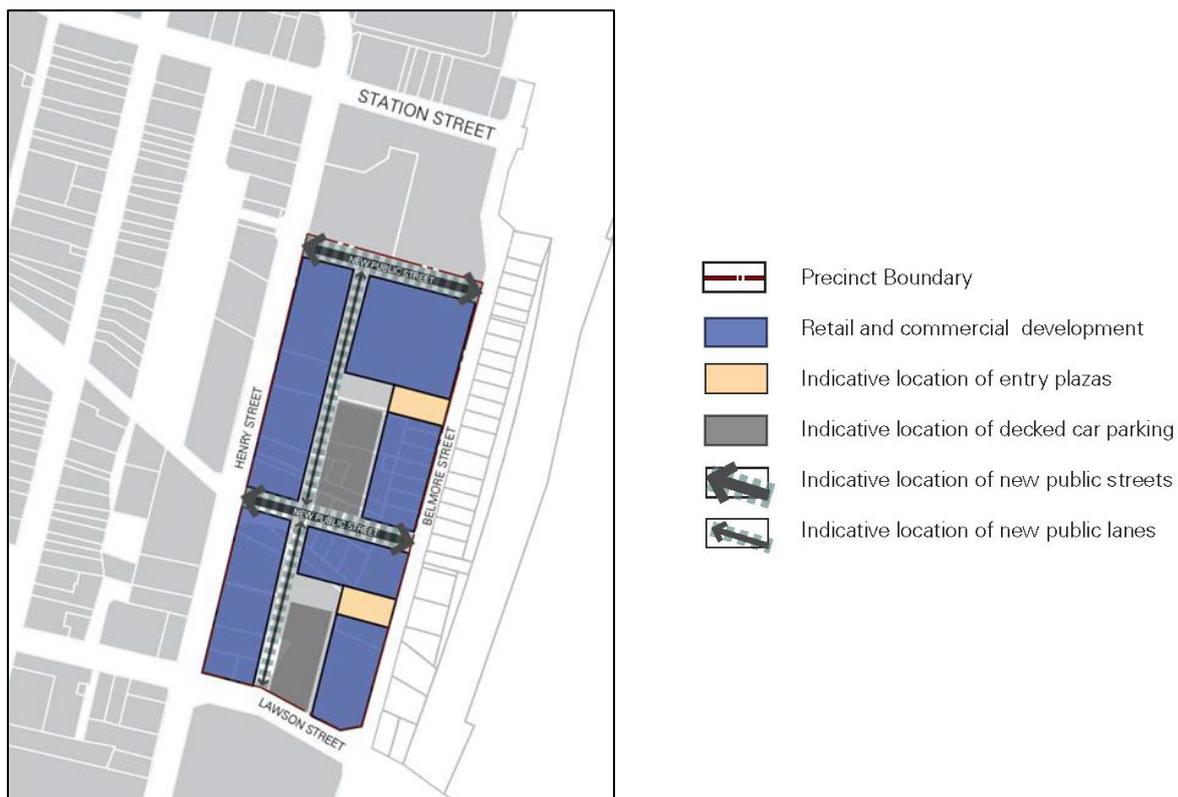
#### 2) Open space:

- a) Design entry plazas as small public spaces to be adjacent to larger commercial buildings on Belmore Street.

#### 3) Public domain interface:

- a) Active frontages to Henry Street, Lawson Street, Belmore Street and the new north-south streets.

**Figure E11.27: Precinct 2 Design Principles**



### 11.7.1.3 Precinct 3

Precinct 3 is the area bounded by Station Street, Jamison Road, Derby Street and the “Panasonic”, as shown in Figure E11.28.

**Development of the site must adhere to the following design principles:**

- 1) Provide good east-west and north-south connectivity with new streets and pedestrian connections.
- 2) Provide opportunities for residential uses towards Station Street and immediately adjoining the “Panasonic” site, where there is greater potential for appropriate amenity and street address.
- 3) Consolidate retail uses on remainder of the site.
- 4) Investigate opportunities for expansion of the shopping centre to the north.
- 5) Consolidate loading and service access to retail development on Woodriff Street.
- 6) Provide high quality and active public domain interface with all other existing public streets.
- 7) Provide sensitive interface with heritage items in the precinct.

**Development of the site should provide the following outcomes:**

- 1) Streets and pedestrian connections:
  - a) Provide a new public street with direct connections between Station and Woodriff Streets and a buffer between retail and residential development.
  - b) Provide a new pedestrian connection, parallel Station Street, linking with the pedestrian connection proposed on "Panasonic" site as illustrated.
  - c) Additional public streets, lanes and thoroughfare may be required to provide for residential address.
  - d) The closure of Reserve Street may be considered, subject to more detailed traffic analysis, the provision of adequate new public streets between Station and Woodriff Streets, and to provision of retail development with a direct and active frontage to Derby Street.
- 2) Land uses:
  - a) Locate retail, tourist accommodation and residential land uses in Area A.
  - b) Locate retail and commercial land uses only in Area B (as indicated).
- 3) Public domain interface:
  - a) Active frontage to Station Street, Reserve Street and Derby Street.
  - b) Front building setbacks as indicated.
  - c) Distinctive corners treatments at the locations indicated.
  - d) A landscaped corridor of mature trees on the northern side of Woodriff Street.
- 4) Heritage:
  - a) Integrate heritage listed buildings into the design of the new retail and residential development.

**Figure E11.28: Precinct 3 Design Principles**

