17/12/2018

DESIGN STATEMENT

Village Green Penrith Seniors Housing Development Reserve Street Site PENRITH

Prepared on behalf of Greengate

Prepared by:

Jackson Teece Architecture

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REVISION REGISTER				
			AUTHORISED	
ISSUED FOR:	DATE	REVISION NO.	NAME / POSITION	SIGNATURE
Development Application	17/12/2018	A	David Pennisi Architect	

Date: 17/12/2018

This statement has been prepared to accompany the Development Application for a Seniors Housing Development at Reserve Street Site PENRITH.

Introduction

The current site at the Reserve Street carpark located within the Penrith City Centre is an opportunity to provide an integrated seniors housing development for a new market of late retirees that challenge the long held assumption that abandoning work was synonymous with quitting urban life. The appreciation of the city setting, as a place of potential freedom and community during these important stages of life are defining the topography of the current seniors housing landscape. This project offers an opportunity to fulfil this ambition in concert with the future objectives of city character and urban form guided by the Penrith City Council's planning objectives.

Design Aesthetics and Amenity

The project accommodates 76 independent living units over two (2) x six (6) storey buildings and one (1) residential care home with one hundred and twenty (120) beds, all buildings contain associated social and functional spaces to complete the village operations. At a total of 11,990m2, the buildings set out an urban scale of development appropriate for an inner city location. The site is a very prominent and visible corner that contributes to the streetscape presence encountered when travelling along the Woodriff Street Axis north towards the city centre. It also enjoys the context of a community bowling club and Nepean shopping centre developments to its north and southern edges. The new village adopts a linear courtyard development that promotes consistent boundary setback and a series of open community spaces between the buildings that are linked by high quality external landscaping nodes and pathways.

The village proposal introduces a new format and scale of development that is consistent with the redevelopment constraints of the local council. It seeks to make reference to the domestic scale of its neighbours by its articulation and external treatment as a group of similar but different buildings with each building's function expressed in the facade. The materials used in the various facades make reference to the surrounding context of materials used in detached housing to the east including face masonry, render and metal cladding finishes.

The resident areas prioritised at the ground level of the development with the building's lower level excavated and dedicated to car parking, storage and back of house care building functional spaces such as laundry and kitchen areas.

The residential care building is organised into a singular building plan with it's primary address on the ground floor off Reserve Street. This level contains all front of house, resident wellness and staff areas functional rooms for the facility and is defined by a civic colonnade and podium treatment wrapping around each street frontage. The typical upper residential floors are planned as two intimate 12 bed residential wings at each end of the building plan. The centre of each floor plan provides the resident community with the communal served spaces taking advantage of the direct and oblique views to the north and south through adjoining external terraces.

The arrangement of the two northern apartment buildings with their main entrances on Derby street, reconfigure the ground level colonnade treatment of the care building into an indoor / outdoor entry experience that defines the resident community village green as part of the forecourt to the interior lobbies of the buildings. These buildings are arranged as an efficient layout of one, two and three bedroom apartments wrapped around a building lift and stair core on the southern side.

The generous appointment of communal areas at the ground floor level of both the apartment and residential care buildings provide residents opportunities to interact within the village during any time of the day. The adjoining landscape areas directly support these community

Date: 17/12/2018

spaces and extend the implied size of these rooms with direct reference to their planning and function. Between the scale of the apartment and the city, this project establishes a calibrated sequence of thresholds, each offering residents a choice between retreat and engagement.

Sustainability

The design achieves excellent natural ventilation and daylight access for all parts of the development. This will minimise the need for artificial lighting and heating or cooling and, together with the specification of efficient light fittings and appliances, will minimise the use of energy during operation. Efficient fixtures and fittings will further reduce water usage.

Environmental Impacts

It is not expected that the proposed development will have any detrimental impact on the surrounding community, commercial and/or residential properties or the general public.

Project No. 2018085 17 December 2018

SEPP 65 – Design Verification Statement in support of DA Application for Seniors Housing comprising a Residential Care Facility and Independent Living Unit Buildings at Reserve Street, Penrith for Greengate.

Greengate Village Green Penrith - DA

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We confirm that the development has been designed by Daniel Hudson (NSW Registered Architect No 8315, Director) Jackson Teece and that the intent of the design quality principles as set out in Schedule 1 of the SEPP No.65 – Design Quality of Residential Apartment Development have been achieved for this development.

This statement includes commentary on how the design meets the nine Design Quality Principles put forward in SEPP 65 and a checklist in table format showing compliance with the detailed design guidance contained in the Apartment Design Guide.

Daniel Hudson Director

Jackson Teece

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SEPP 65 APARTMENT DESIGN GUIDE - REPORT

Design Quality Principle

Comment in relation to proposal

Consistent?

Principle 1 Context and Neighbourhood character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

The subject site is a highly visible corner site located within the Penrith City Centre and is envisioned to form a distinct precinct within this urban area. The precinct will contribute a unique identity that responds to the various contexts including a community hub directly north, current Nepean shopping village to the south and medium density residential land (current low density) to the eastern sides of the site.

It is considered that the proposal provides reasonable consideration for impact on the current and potential future development of the adjacent sites and broader surrounding contexts. The proposal seeks to set a good standard for any further surrounding development.

The proposed buildings have been designed to respond to a modern design language that prioritises high amenity to accommodate its social agenda and integrating with the local community needs for the provision of seniors housing, aged care and associated usages.

Yes

Principle 2 Built Form and Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

The proposed redevelopment is comprised of two six storey apartment buildings and one six storey residential care building in a linear courtyard arrangement. Appropriate building separation is provided and maintains good solar access and ventilation for the village residents.

This courtyard typology provides consistent setbacks to the street frontages and offers alternate locations for multiple building address with good surveillance and full activation of the public domain surrounding.

The orientation takes advantage of a primary northern aspect providing greater visual privacy from adjoining neighbours and improved daylight and sunlight access for building occupants. The centralised courtyards contribute a large amount of high quality landscaped open space for resident's recreational use. All vehicular areas and access points are separated from residential areas and are hidden below the building footprint.

Yes

Principle 3 Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context.

Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment. The care village design proposes a density consistent with the Penrith LEP and the design requirements of the *Vertical Villages* provision under SEPP (Housing for Seniors or People with a Disability).

The surrounding land use to the north and south include the Penrith Bowls and Recreation Club and Nepean Shopping Village, these will be complementary uses for the proposed seniors living development and will have no impact on the amenity of their use.

The village is approximately 700 meters from the Penrith train station. There is also three local bus stops currently located on Derby Street directly connected to the development.

Yes

Principle 4 Sustainability

SEPP 65 APARTMENT DESIGN GUIDE - REPORT

Design Quality Principle

Comment in relation to proposal

Consistent?

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and liveability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

Energy efficiency objectives have been achieved through passive environmental design strategies including building orientation, high natural light levels, thermal mass, bulk insulation, roof overhangs and sun screening. These strategies contribute to good levels of personal comfort for residents and low energy consumption for the occupants.

Several environmentally sensitive design principles have been adhered to. Typically, four of the seven apartments on each floor achieve natural cross ventilation and solar access into habitable spaces. Balconies have been provided to reduce heat gain into habitable spaces and overall apartment depths are limited to encourage a high performance of the above passive systems.

Yes

Principle 5 Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, microclimate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours' amenity, provides for practical establishment and long term management.

The buildings have been designed to provide suitable space for attractive landscaping and the landscaping has been designed to maximise amenity for residents.

Landscaping has been chosen for sustainability, requiring low maintenance, to ensure it retains its character into the future with simple long term management.

This is currently an undeveloped site currently used as an unsealed carpark and child care centre, with little existing landscaping to be retained other than significant established street trees that surround the site frontages.

The landscape design proposes a series of distinct spaces that serve the recreational needs of the resident community within the village. It has been designed to promote usability, with opportunities for social interaction and equitable access.

The proposed development will provide for more than 49% of the site area as a combination of deep soil landscaping as well as landscaping within planter areas along the podium levels of the residential buildings & also includes a small bowling green & nature walking pathways & other outdoor recreation areas.

Yes

Principle 6 Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident wellbeing.

Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

The apartments are designed to meet the high standards of the client's boutique village accommodation model with room dimensions and shapes carefully planned to maximise the development's attractiveness to potential buyers whilst complying with the minimum requirements of the apartment design guide principles.

The apartment buildings are orientated towards the north eastern street frontage providing a clear address and reinforcing the definition of the street. The ground plane is activated with resident apartments and common community spaces that contributes to the streetscape providing an active ground plane. All high value existing street trees are retained as part of this strategy.

The two apartment buildings provide compliant building separation at lower an upper levels. This encourages good solar access and ventilation to habitable areas of each building. Solar access to the adjoining properties to the west are not affected by the apartment orientation. Also, the

Yes

Design Quality Principle	Comment in relation to proposal	Consistent?
	current low density residential land across Woodriff Street to the south east maintains good levels of solar access in midwinter till 200pm.	
	Each apartment building is provided with an appropriate sized balcony or courtyard depths which enhance the amenity of the resident's life style. The lower floor balcony articulation on both buildings is modulated on the facade as a solid upstand that assists in reducing overlooking and noise into these apartments. The private open space of each apartment is supplemented by generous areas of communal open space at the ground floor level of the development.	
Principle 7 Safety		
Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose.	Apartment blocks are arranged on site to provide a simple clear layout of the street and access ways for surveillance, with good vistas and overlapping views from multiple apartments to the street and walkway system and courtyards.	Yes
Opportunities to maximise passive surveillance of public and communal areas promote safety.	The courtyards have been designed as large open space that assists with the visibility and are linked by primary wide pedestrian avenues.	
A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily	Landscaping has been designed to meet the objectives of Crime Prevention Though Environmental Design, CPTED.	
weil in and visible areas that are easily maintained and appropriate to the location and purpose.	The detailed design of the buildings will avoid the incorporation of any "natural ladders" in the form of easily scalable balustrading, fencing and the like to prevent intruders gaining access to the buildings.	
	External lighting will be provided to ensure surveillance is maintained during the evenings. Site pathways and building entries will be illuminated with up-lighting and/or pole mounted lights to provide security at night.	
Principle 8 Housing Diversity an	d Social Interaction	
Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well-designed apartment developments	The apartment mix has been nominated by the client to suit the socio-economic profile of the local and current seniors living market in Penrith, future demographic trends and any required allocation for social and affordable housing. The sizes of each apartment range from:	Yes
respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features,	 53 – 68 m2 for 1 bedroom /+study apartments 74 – 92 m2 for 2 bedroom apartments 104 m2 for 3 bedroom apartments 	
including different types of communal spaces for a broad range of people,	The apartments have been designed to:	
providing opportunities for social interaction amongst residents.	 Distributes the apartment mix evenly within the floor plate, enhancing the expression and visual interest in the building facade Respond to site characteristics and context Provide appropriate kitchen and storage facilities Enable furniture removal & placement 	
	 Provide adequate solar access and natural ventilation Universal design philosophy 	
	The incorporation of universal design philosophy entrust the project with a robust and flexible housing stock that is	

SEPP 65 APARTMENT DESIGN GUIDE – REPORT			
Design Quality Principle	Comment in relation to proposal	Consistent?	
	suitable for the needs of modern seniors living amenity and performance.		
Principle 9 Aesthetics			
Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of material, colours and textures. The visual appearance of well-designed apartments development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape	The building facades composition considers the external expression of the care village functions when viewed from each aspect of the site. The apartment façade design essentially incorporates three separate layers of the expression including: - Ground floor layer: recessive and activated (predominately glazed) ground floor spaces. Strong architectural elements of colonnade elements provide clear entry and circulation pathways adjacent high quality landscaped open spaces. - Middle floor layers: horizontal banded forms broken into segmented lengths (primary frontage) with short ends articulated in a finer expression of framing, infilled with textured material, full height windows and sun shade devices. - Upper layer: Contrasting external finishes and vertical texture integrate with a structured roof form defining the primary north east & south west elevations The modulation of the facade within these layers provides an important consideration of reducing the appearance of the building scale when viewed from the surrounding streets. These detail elements included slab edge expressions, window location & sizes, sunshade type, orientation & finish, infill façade material selections of textured masonry and smooth render surfaces. Lightweight metal sheet materials and roof form articulation are carefully considered in a singular expression at the top of buildings.	Yes	

PRIMARY DEVELOPMENT CONTROLS	GUIDELINES	COMMENTS
Floor Space Ratio	Test and desired built form outcome against proposed floor space ratio to ensure consistency with building height, building footprint, three dimensional building envelope and open space requirements.	Penrith City Council planning controls provide for a maximum FSR of 2:1. The proposed development application is submitted under the provisions of the Seniors Housing SEPP with an FSR of 2.46:1. The proposal relies on a 0.5:1 floor space ratio bonus provided by the Part 6 of the Seniors Housing SEPP.
Building Height	Objectives: - To ensure future development responds to the desired scale and character of the street and local area.	Penrith City Council's Planning height control is 24m above the existing ground level. All building elements are below this level. The proposed buildings include a minimum floor to floor height of 3.1 metres above ground and 3.6 metres at ground floor level.

	- To allow reasonable daylight access to all developments and the public domain.	The north-south orientation of the apartment buildings and the large open space provided between the buildings, permit adequate daylight and solar access to the apartments, common open space and the public domain.
Street Setbacks	- Identify the desired streetscape character, the common setback of buildings in the street, the accommodation of street tree planting and the height of buildings and daylight access controls. - Relate setbacks to the area's street hierarchy.	The proposed building street setbacks are: Eastern Setback (Woodriff Street): 4 metres Northern Setback (Derby Street): 4 metres Southern Setback (Reserve street): 4 metres Setbacks allow for landscaping and deep soil planting around the residential components of the development.
Side and Rear Setbacks	Relate side setbacks to existing streetscape patterns. Test side and rear setbacks with building separation, open space and deep soil zone requirements. Test side and rear setbacks for overshadowing of other parts of the development and/or adjoining properties, and of private open space.	The proposed building side and rear setbacks are: Western Setback: - (232 Derby Street): approx. 6 metres - (7 Reserve Street): approx. 12 metres Southern Setback: - (7 Reserve Street): approx. 6 metres Setbacks allow for landscaping and deep soil planting around the residential components of the development.
Building Depth	10-18 metres is generally appropriate Developments wider than 18 metres must demonstrate how satisfactory day lighting and natural ventilation are to be achieved.	Residential component building depths vary from 9 to 12 metres, however the proposed articulated building forms support natural cross ventilation and penetration of adequate natural light to non-service rooms.
Building Separation	 For buildings 5 to 8 Storeys: 9 – 18 m between habitable rooms and balconies Test building separation controls for daylight access to buildings and open spaces. Building separation controls may be varied in response to site and context constraints. Developments that propose less than the recommended distances apart must demonstrate that daylight access, urban form and visual and acoustic privacy has been satisfactorily achieved 	Building separation provided (within a development) is: - at least 12 metres (4 storeys) between habitable rooms and balconies and, - at least 18 metres (5 – 6 storeys) between habitable rooms and balconies Building separation provided (at the neighbouring boundary conditions) is: - approximately 6 metres (6 storeys) between habitable rooms and balconies and, - additional screening is provided to windows of habitable rooms and balconies (>4 storeys)

SEPP 65 KEY STANDARDS As per 5E 'Templates'	GUIDELINES	COMMENTS
3F Visual privacy	Visual privacy balances site and context specific design solutions with views, outlook, ventilation and solar access. The adjacent context, site configuration, topography, the scale of the development and the apartment layout all need to be considered.	Building separation provided (within a development) is - at least 12 metres (4 storeys) between habitable rooms and balconies and, - at least 18 metres (5 – 6 storeys) between habitable rooms and balconies Building separation provided (at the neighbouring boundary conditions) is: - approximately 6 metres (6 storeys) between habitable rooms and balconies and, - additional screening is provided to windows of habitable rooms and balconies (> 4 storeys) Full height screening devices separate adjacent balconies and provide adequate visual privacy to apartments. Solid end walls with narrow windows are used to manage privacy impacts between buildings. A combination of solid and open balustrades to balconies provide privacy to apartments (< 4 storeys) when viewed from the public domain.
3J Bicycle and Car Parking	Provision of parking for alternative forms of transport such as car share vehicles, motorcycles and bicycles should also be considered.	Outdoor bicycle parking facilities will be provided for visitors in 2 locations – in the vicinity of the Derby & Reserve street site entrances. Secure undercover bicycle parking facilities for staff and visitors will be provided close to the common lobbies of the basement car park.
4A Solar and Daylight Access	Demonstrate that daylight access, urban form and visual and acoustic privacy satisfactorily achieved.	The proposed building is considered to be in a 'built-up metropolitan area' which requires a minimum of 2 hours sunlight between 9am and 3pm in mid-winter. The design maximises a northern aspect and the number of single aspect south facing apartments is minimised with only 13% of units receiving no direct sunlight between 9am and 3pm at mid-winter. The proposal meets the A.D.G. target minimum of 70% of units receiving at least 2 hours between 9am and 3pm in mid-winter.
4B Natural Ventilation	Apartment layout and building depth have a close relationship with the ability of an apartment to be naturally ventilated. Generally as the building gets deeper, effective airflow reduces.	At least 60% of the proposed apartments benefit from natural cross ventilation and the overall maximum depth of all apartments do not exceed 18m. Single aspect apartments at the upper floor level utilise ventilation sky lights to provide additional natural ventilation of internal areas.
4C Ceiling Heights	Ceiling height is directly linked to achieving sufficient natural ventilation and daylight access to habitable rooms.	Apartment living areas and bedrooms are provided with 2.7m high ceilings (1 – 6 storeys) and 3.3m high slab soffit at ground level to promote future flexibility of use.
4D Apartment size and layout	The layout of an apartment establishes the way rooms of different functions are arranged and located, the size of the rooms, the circulation between rooms and the degree of privacy for each room.	Due consideration has been given to the internal layout of every apartment, to give adequate space for the intended functions and circulation to maximise commercial attractiveness. Apartments are designed to comply with the minimum internal areas required for each apartment type and minimum dimension of habitable rooms.

4E Private open space and Balconies	Private open spaces are outdoor spaces of the apartment, including balconies, courtyards and terraces, which enhance the amenity and indoor/ outdoor lifestyle of residents. They capitalise on New South Wales' temperate climate, providing an area for external activities and an extension of living spaces.	All balconies are designed to provide at least 2m depth for 1 and 2 bedroom units and 2.5 depth for 3 bedroom units, allowing for outdoor table settings appropriate for the apartment type. Other, narrower balconies are also provided for additional amenity and building articulation / form. The ground floor and podium level apartments will have private open spaces equivalent or larger than the balconies to upper levels.
4F Common Circulation and spaces	Important design considerations include safety, amenity and durability. In addition, the choice of common circulation types has a direct influence on the apartment types provided.	Each block has a maximum of seven apartments opening off a single circulation core (double-loaded corridor arrangement) Community rooms, co-located with communal open space for resident activities are provided in the ground floor of each apartment building. Building entries have been designed to: Provide an appropriate, identifiable, secure and accessible entry from main road frontage. Provide separate pedestrian and vehicle entries. Provide mailboxes in appropriate locations at building entrances.
4G Storage	Adequate storage is an important component of apartment design. It is calculated by volume as opposed to floor area and should be provided proportionally to the size of the apartment.	Dedicated storage cupboards are provided within each unit achieving the minimum storage volume within the apartment which will be supplemented by the provision of additional allocated storage areas within the secure basement.
Pedestrian access	Follow the accessibility standard set out in AS 1428 (parts 1 and 2), as a minimum. Provide barrier free access to at least 20 percent of dwellings in the development.	The Accessibility Report: SEPP Housing for Seniors and Persons with a Disability confirms that pedestrian access to all dwellings complies with AS1428.1 & SEPP: HS/PWD (2004) Well defined access routes to and around the site are provided through paving and landscape treatment. Pedestrian access is provided for people with disabilities and all dwellings have lift access. Barrier free access is provided to all dwellings from the car parks and the street frontage.
Vehicular access	Locate vehicle entries away from main pedestrian entries and on secondary frontages.	A single proposed driveway approximately 7.7 metres wide provides shared access to basement carpark and ancillary services areas of the village. Aisle widths within the basement carpark are between 5.8 – 6.1 metres wide, to permit safe conditions for two-way traffic, while limiting the site area given over to vehicles. All resident car parking is located in the basement. Visitor pick up /drop off and resident loading areas are located in lay back locations on the North and South Street frontages. The driveway into the basement parking area is located well away from pedestrian entries, which are also located off landscaped open spaces.
Deep Soil Zones	7% of the site area to be deep soil zone, with a minimum dimension of 6m.	987 m² of deep soil zones with a minimum dimension of 2-3 metres (including paved areas) are provided, representing approximately 19.9% of the site area.
Open Space	25% communal open space and 3m dimensions with at least 50% of solar access for 2 hours between 9am and 3pm on June 21.	A total of 2,132 m² of common open space is provided across the site (excluding balconies or courtyards of any units). This represents approximately 43% of the site area. All dwellings have private open space either as courtyards or balconies of satisfactory dimension.

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	Dwellings to have adequate private open space. Ground level 15m2 and 3m dimensions Upper levels 10m2 and 2m dimensions (2 bedroom apartments).	In addition, there are multiple community rooms and facilities across the site at ground floor level to accommodate a range of uses such as library, gym, computers, games, cafe and multi-purpose spaces connected to landscaped open space for use by residents.
Ground Floor Apartments	Optimise the number of ground floor apartments with separate entries and consider requiring an appropriate percentage of accessible units. This relates to the desired streetscape and topography of the site.	Six ground floor apartments are provided. Three of these may all be accessed directly from Derby Street and the others from public open garden spaces.
Planting on structures	Provide minimum soil depth to cater for range of height of trees, shrubs, ground cover, lawn etc.	The landscape design makes provision for sustainable soil depths for all selected species on the podiums.
Safety	Carry out a formal crime risk assessment for all residential developments of more than 20 new dwellings.	Apartment blocks are arranged on site to provide a simple clear layout from the surrounding streets and new access ways for surveillance, with good vistas and overlapping views from multiple apartments to the street and walkway system and courtyards.
		The courtyards have been designed to be large to assist with visibility and are all linked by a primary wide pedestrian pathways.
		Landscaping has been design to meet the objectives of Crime Prevention Through Environmental Design, CPTED.
		The detail design of the buildings will avoid incorporation of any 'natural ladders' in the form of easily scalable balustrading, fencing and the like to prevent intruders gaining access to the buildings.
		External lighting will be provided to ensure surveillance is maintained during night time. Site pathways and building entries will be lit with up-lighting and/or pole mounted lights to provide security at night.
Solar and Daylight Access	Living rooms and private open spaces for at least 70 percent of apartments in a development should receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid-winter. In dense urban areas a minimum of two hours may be acceptable.	The proposed site configuration provides primarily for northerly facing units with larger corner east / west facing and limited south facing apartments. This proposal meets the A.D.G. target minimum of 70% of units receiving at least 2 hours between 9am and 3pm in mid-winter.
	Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10% of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).	
Facades	Compose facades with an appropriate scale, rhythm and proportion by articulation and definition, incorporate elements to reflect orientation, coordinate	The building facades are carefully articulated to provide visual variety. The variety of architectural elements including sliding sun shades, balconies and awnings create a cohesive response to the mixed use development vision and zone of the site. This creates an articulated facade with a depth of patterning and

	building services and elements such as drainage pipes, ventilation and security.	shading that provides definition to the inner city urban form. A complementary palette of natural and engineered materials with the use of screening elements is the employed palette. Lower levels contain masonry infill cladding with upper levels a light weight metal cladding system. Clear glazing and aluminium screening is also in keeping with the concept of responding to the local environmental conditions.
Roof Design	Relate roof design to desired built form and size and scale of building; design roofs to respond to the orientation of the site, minimise visual intrusiveness of roof services, provide quality open space on rooftops, facilitate future use of roof for rainwater tanks, solar cells etc.	Roof forms have been designed as an integrated form with the lightweight upper floor levels of the apartment buildings. The primary roof eaves along the north and south façades enhance the expression and form of the lightweight upper floor building levels. This technique helps minimise the bulk and scale of the buildings when viewed from the surrounding streets. The roof design is appropriate as it is consistent with the character of high-quality residential developments in the surrounding area.
Energy Efficiency	Incorporate passive solar design techniques, reduce necessity for mechanical heating and cooling and artificial lighting.	The BASIX assessment and design verification statement demonstrate that the proposed building has been designed for optimal energy efficiency.
Maintenance	Provide maintenance access to external facades and plant equipment.	Maintenance has been addressed as follows: Access provided to all roof top plant All roofs are accessible Durable materials will be selected. Landscape elements will be suitable and readily accessible for maintenance. The grounds and buildings will be maintained by the building owners.
Waste management	Supply waste management plans as part of the development application submission as per the NSW Waste Board.	A Waste Management plan is included in the SEE addresses the operational waste produced by the the completed development only. Demolition & construction waste will be addressed by the head contractor in a construction management plan.
Water Conservation	Rainwater is not to be collected from roofs coated with lead- or bitumen-based paints, or from asbestos-cement roofs. Normal guttering is sufficient for water collections provided that it is kept clear of leaves and debris.	The BASIX assessment and design verification statement demonstrate that the proposed building has been designed for optimal water efficiency.
Stormwater Management	Objectives: - Minimise impacts natural waterways - Minimise the discharge of sediment and other pollutants to the urban stormwater drainage system during construction.	Stormwater Drainage system has been designed to Penrith City Council's requirements.