

APPENDIX K: DESIGN GUIDELINES

Introduction

These Design Guidelines support a Concept Development Application for the Telopea Masterplan, a State Significant Development (SSD) submitted to the Department of Planning, Industry and Environment (DPIE) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). They have been prepared by Bates Smart Architects for Frasers Property Australia on behalf of NSW Land and Housing Corporation.

The purpose of the design guidelines is to guide the future development of the Telopea Concept Plan Area) and the land to which they apply. The guidelines reference 'core' and 'non-core' areas as identified in Figure 1.

Vision

Through its renewal and revitalisation, Telopea will become a place of enhanced wellbeing: where natural systems are relinked and rehabilitated, where communities connect, and where people have access to a range of activities, opportunities and pathways. Like its floral namesake, Telopea will become a place of beauty and balance.

At the core of Telopea will be a mixed-use local centre, providing the foundation for a growing population and capitalising on government public transport investment in the Parramatta Light Rail project.

The concept plan is designed to celebrate the site's sloping bushland hillside character through streets and building forms built along the contours and arranged to retain the sites most significant trees. New neighbourhood parks and residential buildings are nestled around existing Eucalyptus stands which step down the hillside.

Outside the core, the extensive but fragmented landholding sets the standard for future development in the area. 3 storey townhouses and 5-8 storey apartment buildings will step and stagger down the hillside, acting as a good neighbour, maximising solar access and ensuring remnant sites can be easily developed.

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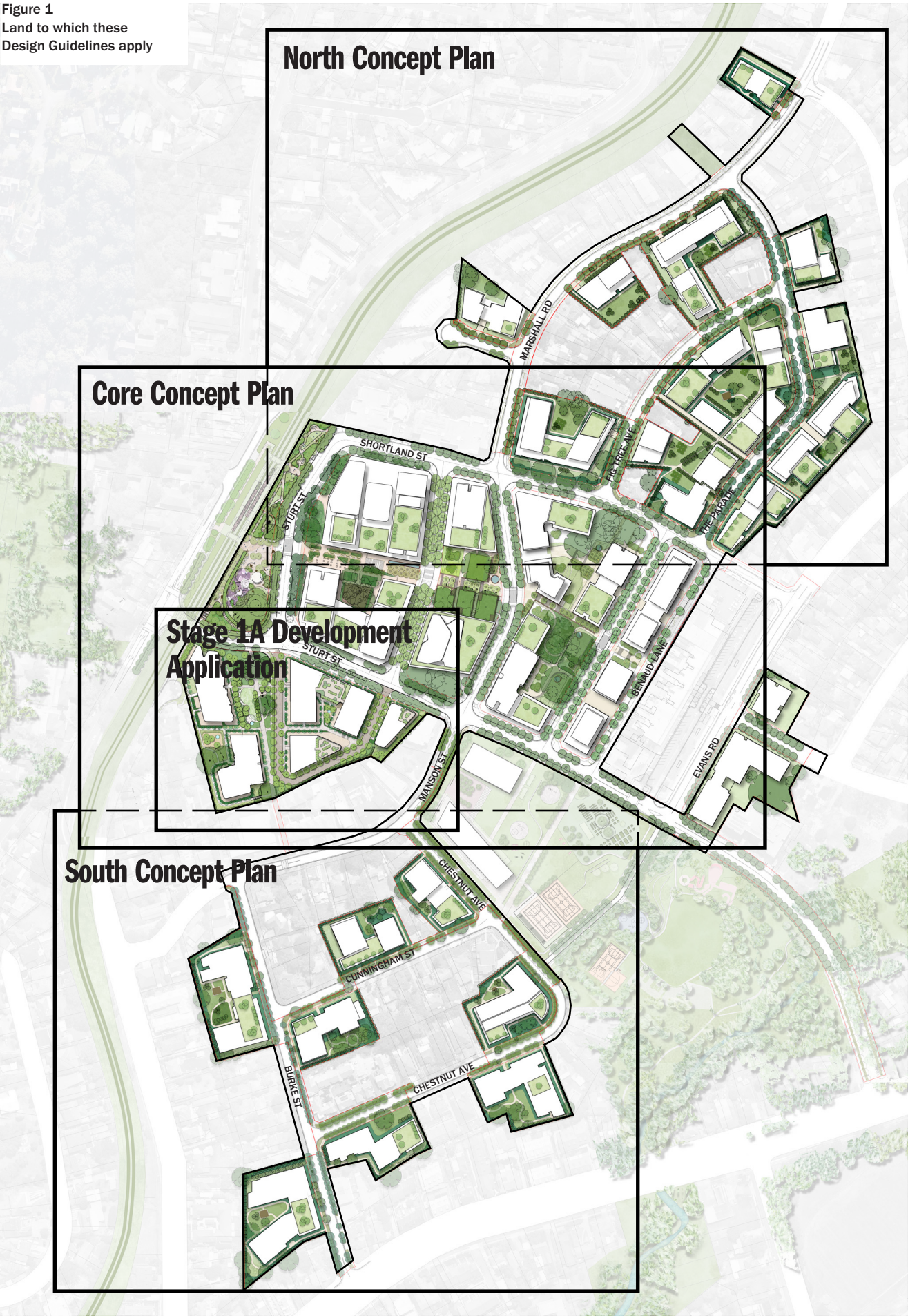
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Figure 1
Land to which these
Design Guidelines apply



1. BUILT FORM

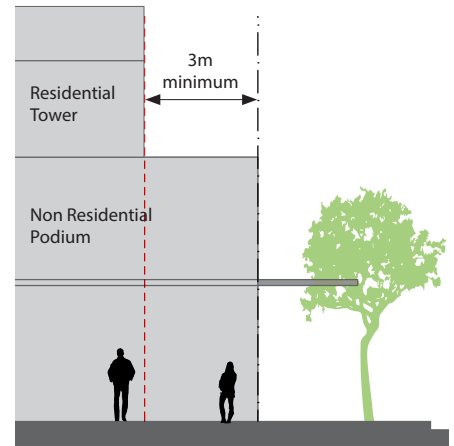


Figure 2
Podium and Tower blocks

1.1 Building Setbacks, Massing and Articulation

Objectives

- A. To encourage an urban form which works with the topography, addresses streets, maximises solar access and creation of views.
- B. To ensure that the built form enables a healthy environment for landscaping and street trees.
- C. To provide buildings that positively contribute to the physical definition of the public domain

Provisions

1. Where the length of a building exceeds 45m, it is to be broken into two or more components each with different architectural characters to the street or public domain. Building breaks should be a minimum of 3m deep and 3m wide and include a change of level at the parapet.
2. In the upper core area bounded by Sturt Street, Shortland Street and Manson Street, buildings should generally adopt a podium and tower typology with a street wall of 2-5 storeys and a tower which is generally set back a minimum of 3m (Figure 2).

3. In the lower core and non-core areas, buildings should adopt a perimeter block typology.
4. Street setbacks within the Core Area should be as follows:
 - Between 0 metres to 3 metres for activated street frontage with retail, community or commercial uses (figure 3); or
 - Between 3 metres and 6 metres (or greater) where residential uses are at ground level to allow for landscaping and the protection of significant trees (figure 4), except in Stage 1a where street setbacks can be reduced to no less than 2.7m
 - The setbacks are measured to the face of the building.
5. Street setbacks within the non-core areas should be between 3 and 6 metres. The setback must demonstrate that it adequately considers: Site levels; existing vegetation; topography; surrounding built form; and footpaths and boundaries.
6. In the non-core areas, Developments should provide a minimum side setback of 2 metres to the side boundaries for up to 18 metres along the boundary and, then a 6 metres wide side setback to the side boundary for the remaining portion of the site. Zero side boundary setbacks can be provided if it provides a better

amenity outcome to neighbouring sites (refer to Figure 5).

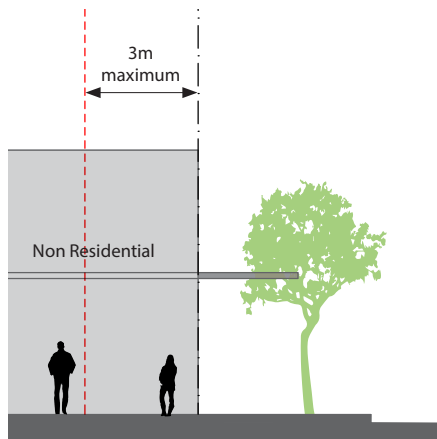


Figure 3
Setbacks - Non Residential

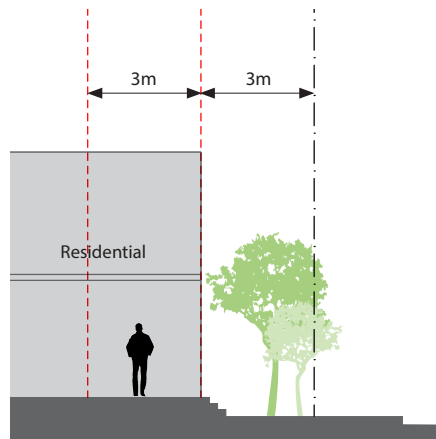


Figure 4
Setbacks - Residential

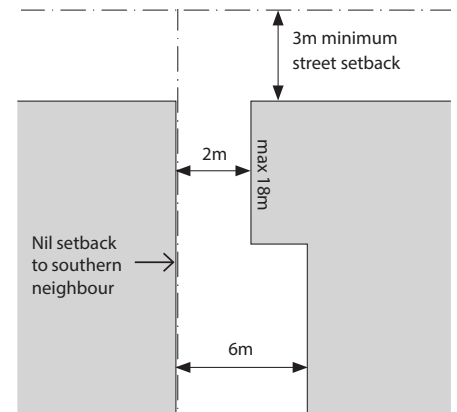


Figure 5
Setbacks - Non Core area

1.2 Ground Level Interface

Objectives

- A. To transition between private and public domain without compromising safety and security.
- B. To maximise the amenity of new streets and public open spaces.
- C. To retain and enhance the amenity of Public open spaces.

Provisions

1. Buildings must address all streets and pedestrian links to ensure passive surveillance of the public domain.
2. The ground floor of buildings used for retail and/or commercial use are to have a minimum floor to ceiling height of 3.6 metres. All retail and commercial floors above the ground floor are to have a minimum floor to ceiling height of 3.3 metres.
3. Apartments, balconies and courtyards fronting Public Open Spaces should be provided with a landscaped buffer on common title to separately define public and private space but maintain passive surveillance.
4. Community and retail uses should provide active frontages to adjacent public open spaces.
5. Communal open space should be clearly defined and separate from the public domain.
6. Apartments can be located below the street level in the following situations:
 - the distance of the apartment front wall is a minimum of 5 metres from the street boundary or adequate privacy screening and landscaping is demonstrated;
 - the FFL of the lowest apartment is not more than 1500mm below the level of the street; and
 - the floor to floor height is 3.1metres and the head height of the windows is not less than 300mm from the underside of the slab above
7. Front boundary fences are to be open, permeable and balance privacy with views to any landscaped area.
8. Front setbacks shall be landscaped. Due to topographical constraints, basements may extend into the front setback to avoid raising from ground at the rear and/ or extending into the rear set-back. Where trees are located in the front setback above basement the soil depth is to be 1 metre above drainage on the slab.

1.3 Pedestrian and Vehicular Entry Locations

Objectives

- A. To provide building entries and pedestrian access that connects to and addresses the public domain.
- B. To provide accessible and easily identifiable building entries and pathways.
- C. To minimise conflicts between vehicles and pedestrians
- D. To create high quality streetscapes

Provisions

- 1. Primary building entries should address the street and/or be clearly visible from the public domain
- 2. Driveways should be:
 - Set back from any road.
 - Designed so that vehicles can enter and leave in a forward direction
 - Separated and clearly distinguished from pedestrian access.
 - Located at least 2 metres from the side boundary with any public domain area, street, lanes or parks, with the setback to be landscaped.

- 3. Access to basement parking or service areas should be located in combined and consolidated entries to minimise impacts on pedestrians.
- 4. Ensure loading docks are capable of accommodating vehicles for both garbage collection and removalists.
- 5. Where internal dedicated loading docks are not possible, on-street loading zones will be discretely located near building entries.

1.4 Rooftops

Objectives

- F. To maximise opportunities to use roof space for residential accommodation and open space.
- G. To incorporate sustainability features into the roof design.
- H. To minimise the visual impact of roof plant.

Provisions

- 1. Private and communal roof terraces should be provided where possible.
- 2. Roofs that are overlooked by other buildings should provide either communal open space or landscape planting.
- 3. Plant areas should be screened from view.
- 4. Upper level roofs should accommodate solar panels.

1.5 Facade & Materials

Objectives

- A. To define and reinforce a distinctive character within the precinct.
- B. To express building functions.
- C. To create buildings which will improve with age.

Provisions

- 1. The lower levels of residential buildings should use high quality, durable materials such as brick, concrete and glass as the predominant facade material.
- 2. Painted precast or render should be avoided as a primary facade material.
- 3. Façade materials should be self-finished, durable and low maintenance.
- 4. Use of colour in building façades should focus on naturally occurring hues.
- 5. Where buildings project over the street reserve they should be designed in conjunction with the public domain to avoid any compromise of street tree planting

1.6 Adaptable and Universal Design

Objectives

- A. Universal design features are included in apartment design to promote flexible housing for all community members.
- B. A variety of apartments with adaptable housing designs are provided.

Provisions

- 1. 90% of social dwellings should incorporate the Liveable Housing Guideline's silver level universal design features, with the remaining 10% of all social housing dwellings incorporating the Liveable Housing Guidelines' Gold level universal design features.
- 2. 5% of market dwellings should incorporate the adaptable housing requirements of AS4299 Class C.

2. LANDSCAPE AND OPEN SPACE

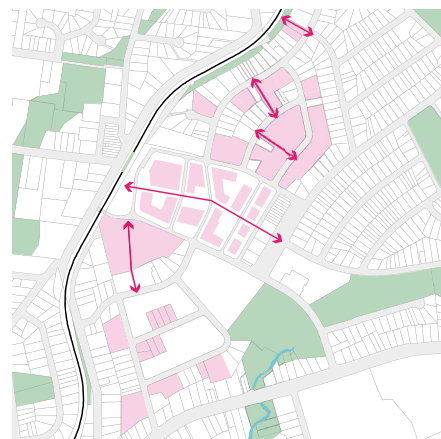


Figure 6
Pedestrian Links

2.1 Pedestrian Links

Objectives

- A. To improve access to streets and connection to destinations within large sites.
- B. To provide additional connections to the light rail active transport corridor
- C. To provide a publicly accessible, pedestrian friendly and level access route from Evans Road to the light rail station as an alternative to steeply sloping Sturt and Shortland Streets

Provisions

1. Provide publicly accessible through-site connections in accordance with figure 6.
2. The width of the Eyles Street link will be a minimum of 18m to provide for tree retention, open spaces, ramps and stair landings.
3. Eyles Street primary access route should have clear sight lines and be no less than 6m wide.
4. Basement parking shall not extend below any areas proposed for dedication to council.

5. Any mechanical transportation (lift and/or escalator and/or travelator) required for public circulation is to be publicly accessible 24 hours 7 days a week.
6. Eyles Street access route should be activated by a mix of retail frontages, community facilities, open spaces, residential entrances to individual properties, residential lobbies and residential communal facilities.
7. In residential areas, pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate.

2.2 Public and Communal Open Space

Objectives

- A. To provide high quality public domain, including landscape design which celebrates retained trees, contributes to the streetscape and residential amenity
- B. To retain and enhance the existing publicly accessible open space along the rail corridor.
- C. To connect new public spaces to the existing open space network.
- D. To provide an adequate area of communal open space to enhance residential amenity and to provide opportunities for landscaping.

Provisions

1. All public open space dedicated to Council must be deep soil with no underground car parking.
2. Incorporate passive recreational facilities to complement those already provided in Sturt Park and other nearby Council public open spaces, as appropriate

3. Provide safe opportunities and points of interest for the community to gather / meet, walk, engage in physical activity and children's play.
4. Maximise solar access to public open space during winter months and shade during summer months.
5. A Public Domain Plan is to be provided for all new developments over 6 storeys. The Public Domain Plan is to detail upgrades to the surrounding public domain network, including foot paving, street tree planting, street furniture, street lighting and the like.
6. Communal open space is to be provided in a mixture of ground level, podium and rooftop locations.

2.3 Deep Soil Zones

Objectives

- G. To retain existing mature trees and to support healthy tree growth.
- H. To provide passive recreation opportunities.
- I. To promote management of water and air quality.

Provisions

1. Deep soil zones should generally be provided in accordance with the Concept Development Application drawings which provides 30% of the site area in a mix of private development lots and land to be dedicated to Council.
2. Building setbacks and public domain should maximise deep soil zones to accommodate existing and newly planted large trees.

2.4 Trees

Objectives

- A. To ensure development maximises opportunities for future planting of trees and retention of existing significant trees within the public and private domain.

Provisions

1. Street layout and building location and design should demonstrate retention of highly significant trees, with a preference for retention of clusters of significant trees.
2. Detailed development applications will include a landscape plan that will outline the existing tree retention and additional trees to be planted.
3. Tree protection measures including root management works should be implemented to ensure the survival of mature trees proposed to be retained.
4. New street trees should be planted to maximise and enhance tree canopy cover and provide opportunities for wildlife corridors
5. New trees should be specified to consider a succession planning strategy to retain the existing character of the site into the future.

3. TRANSPORT AND PARKING

Objectives

- A. To encourage walking and cycling and public transport use in order to reduce the number of motor vehicles travelling to and from the precinct.
- B. Development shall provide adequate parking and encourage sustainable and active transport usage by residents and visitors.
- C. Provision of car parking with an appropriate level and balance of on-site and on-street parking provision.

Provisions

1. If development includes car and bicycle parking in connection with non-residential and residential uses, the development must provide car parking spaces in accordance with Table 1.
2. Car parking will be generally be incorporated into basement (for apartments, shopping centres and community facilities) and utilised by occupants or long-stay visitors.

Table 1: Telopea Precinct Parking Rates

Type	Rate	
RESIDENTIAL FLAT BUILDINGS, SHOP TOP HOUSING OR MIXED USE DEVELOPMENT WITH A RESIDENTIAL ACCOMMODATION COMPONENT		
Studios, 1, 2, and 3+ bedroom apartments	Maximum Car Parking rate: Studio: 0.6 spaces, 1-bed: 0.6 spaces, 2-bed: 0.9 spaces, 3-bed: 1.4 spaces. Car parking can be averaged across the residential component of the development	
Visitors parking	Maximum 1 space per 10 dwellings, including any on street parking available.	
Car share spaces	A minimum of 1 space is to be allocated to car share for developments with 50 or more dwellings. Any car share spaces should be located on street where practical, if not practical car share spaces can be provided in basements.	
AFFORDABLE AND SOCIAL HOUSING PARKING		
Studios, 1, 2, and 3+ bedroom apartments	Car parking rates as per the State Environmental Planning Policy (Affordable Rental Housing) 2009	
NON-RESIDENTIAL USES PARKING		
Supermarket and Specialty Shops	1 space per 30m ² of Gross Floor Area, Assessed on merits	
Commercial (including medical and professional consulting)	1 space per 50m ² of Gross Floor Area, Assessed on merits	
Community Uses including childcare centres on public land	Assessed on merits, will take into account integration of retail/ community uses and ability to share car parking as it would facilitate multi-stop facilities	
Place of public worship	Assessed on merits, will take into account integration of retail/ community uses and ability to share car parking as it would facilitate multi-stop facilities	
Recreation facility	Assessed on merits, will take into account integration of retail/ community uses and ability to share car parking as it would facilitate multi-stop facilities	
BICYCLE PARKING AREAS		
Land Use	Residents	Visitors
Residential accommodation	Minimum 1 bicycle storage space per dwelling in a mix of individual storage cages and shared bike parking areas	Minimum 1 bicycle storage space per 15 dwellings.

4. SUSTAINABILITY

Objectives

- A. To ensure buildings meet sustainable design principles with a focus on energy and water saving, but also considering sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency.
- B. To ensure the community meets sustainable design principals considering governance, liveability, economic prosperity, environment and innovation, along with creating a community that promotes health and wellbeing;
- C. The development to be carbon neutral in operational energy
- D. To use third party certification to verify the sustainability initiatives have been achieved;

Provisions

1. Achieve 5 Star Green Star Design & As Built v1.2 minimum for all residential buildings including provisions such as:
 - BASIX Energy 30 (on average)
 - BASIX Water 40 (on average) *If recycled water becomes available to connect to, BASIX water 45 (on average) will be provided. - agreed
 - NatHERS 7-star (on average)
 - NABERS 6 star energy and 5 star water (where applicable)
2. Achieve 6 Star Green Star Communities v1.1 for the precinct, including provisions such as:
 - Provision for and adoption of recommendations as a result of undertaking a climate adaptation and resilience plan
 - Incorporation of Water Sensitive Urban Design
 - Dedicated community development manager for community building and development
 - Reduction of the urban heat island effect by the balance of roof space (after PV prioritisation) being green roof and open space
 - provision of alternatives to private car ownership through target initiatives such as car share, bicycle parking for each dwelling and at least 300 visitor bicycle parking spaces
3. Achieve a carbon neutral integrated infrastructure solution, including provisions such as:
 - Embedded electricity network
 - Embedded hot water network
 - Zero gas to residential
 - Smart metering and energy monitoring
 - On-site renewable energy
 - 100% Carbon Neutral power
4. Achieve a minimum Silver level WELL rated community, encompassing provisions to comply with the following WELL Pre-conditions:
 - AQU: Fundamental Air Quality
 - WQT: Drinking Water Quality
 - SUP: Supermarket Access
 - LMP: Lighting Master Plan
 - MIX: Mixed-use Development
 - EXT: Extreme Weather Warnings
 - SOU: Sound Planning
 - HWM: Hazardous Waste Management
 - AMH: Access to Mental Health Services
 - VIS: Community Visioning
 - GND: Green Rating Systems

5. DESIGN EXCELLENCE

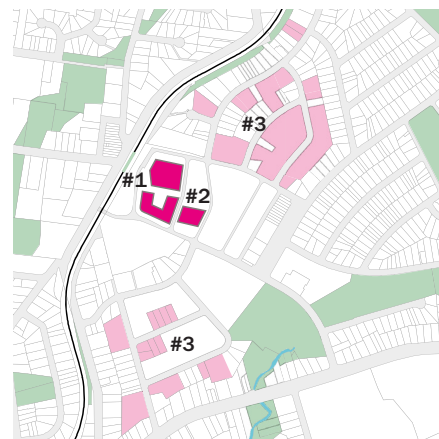


Figure 7
Design Competition sites

Objectives

- A. To ensure architectural diversity is achieved.
- B. To achieve a high standard of architectural and urban design, materials and detailing appropriate to the building type and location.
- C. To ensure the form and external appearance of the buildings improve the quality and amenity of the public domain.
- D. To deliver excellence and integration of landscape design.

Provisions

1. Design Teams will be allocated across the Telopea Concept Plan Area to encourage design diversity and create visual interest.
2. Architects should be selected from the NSW Government Architect's Pre-qualification Scheme for Strategy and Design Excellence.
3. The nominated Design Team will be retained throughout the design process for each respective stage.

4. In addition to preparing the relevant Development Application documentation, the Design Team will be expected to:

- retain lead roles over the relevant design decisions in the preparation of the design drawings for a construction certificate for the preferred design;
- retain lead roles over design decisions in the preparation of the design drawings for the contract documentation; and
- maintain continuity during the construction phases to the completion of the project.

Design Competitions

- A total of three architectural design competitions are to be held (refer Figure 7), including:
 - Competition #1 – Buildings C1 and C2 and Telopea Square
 - Competition #2 – Building C3
 - Competition #3 – Other within North or South Precinct (location to be determined)
- The competitions will be managed by Frasers Property Australia.
- Each competition brief will be prepared by Frasers Property Australia and provided to the NSW Government Architect for comment prior to finalisation.

- Each competition will have a minimum of three architects competing.
- In order to achieve a diversity of architecture within the Core Precinct, Competition #1 will have a minimum of two architects and one landscape architect per competing team.
- The competition Jury will comprise the following:
 - NSW Government Architect nominated representative;
 - Frasers Property Australia nominated Architect; and
 - Frasers Property Australia nominated development representative.
- The Jury for Competition #2 will also include a Parramatta City Council nominated representative.
- The NSW Department of Planning, Industry and Environment will be invited as an observer for all competitions.

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