### **B3.2.9 LANES AND WALKWAYS**

Lanes and walkways are designed to be direct and short, with sufficient dimension to provide for vehicular movements, open views and allow planting.

A range of lanes and walkways are introduced to break down long blocks, increase walkability and add interest and difference in the urban grain.

Lanes and walkways provide secondary frontage for driveway access, loading, substations and other required services, fire escapes and the like. They can also offer address for secondary dwellings, courtyards and garden spaces, thus allowing a greater diversity of frontage opportunities.

Reservation: 7.5m

Topography: Generally flat Footpath Verges: 1.2m minimum

Parking Lanes:

Driveway Crossings: regular, to be integrated and minimal

Character: Park edge street with interface to potential school site.

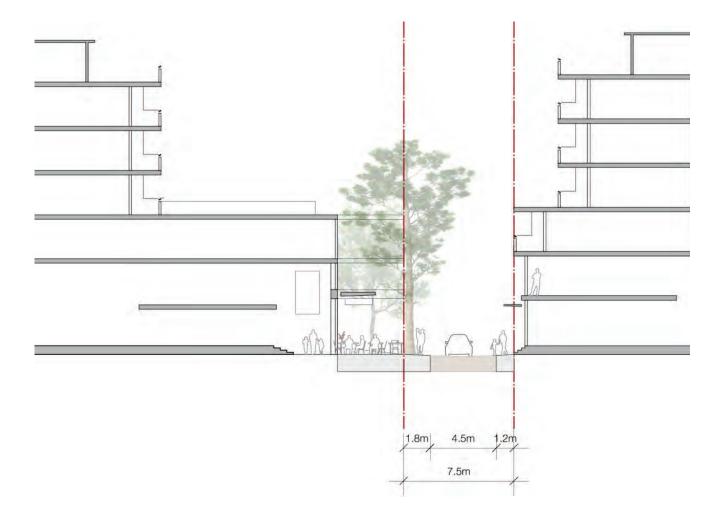
Pedestrian focussed

Finishes: High quality concrete to footpaths

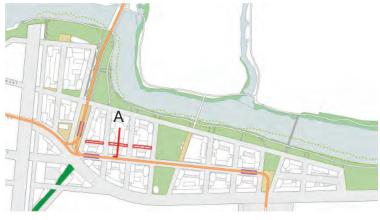
Feature stone at active locations

Seating, bins and water fountains where retail occurs

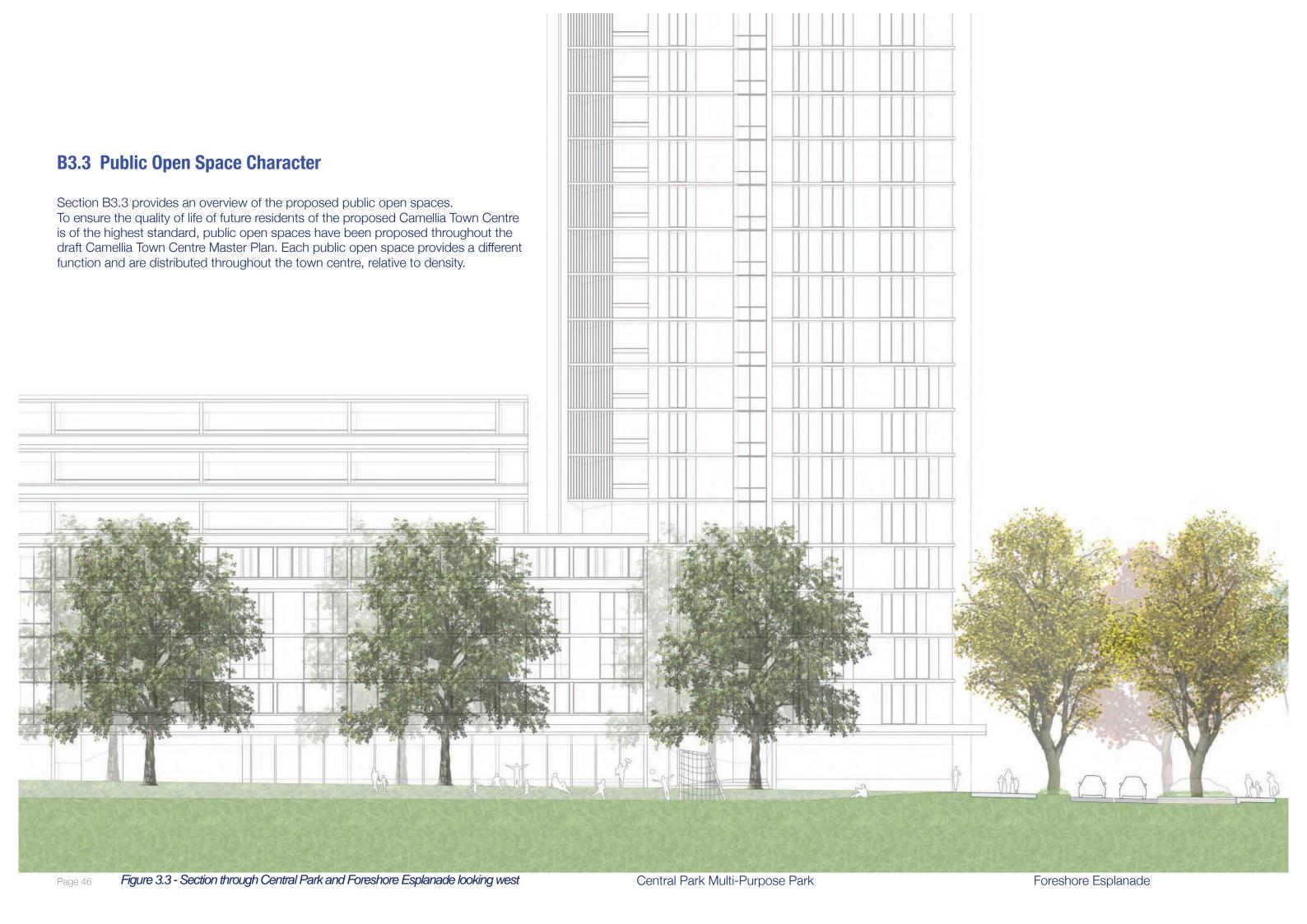
Vegetation: Suitablly robust, deciduos tree species where possible









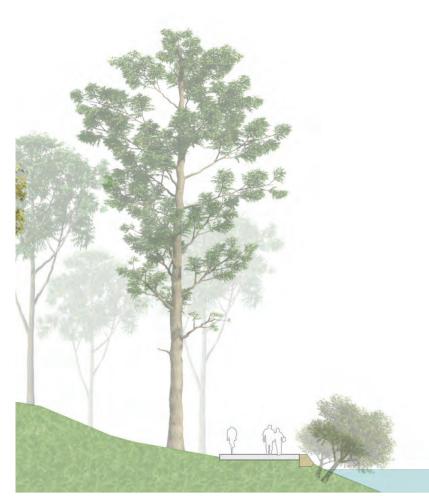


### Generally

- Streetscapes, pocket parks, landscape features and plazas in Camellia support a richness of human activity, enabling visitors and the community to gather;
- The landscape character of each space is an essential component of its design and environmental performance;
- Open space design and materials facilitate ease of movement for people of all ages and mobility levels;
- Footpaths and cycleways have generous proportions, with a minimum width of 2.5m, and to exceed national standards:
- The design of surface materials provides subtle direction for preferred use of the space, through level, colour, textural changes rather than using bollards and fences; and
- Shade structures are to be incorporated into the riverfront parks, and be configured to provide protection of seating and play areas.

### **Trees and Green Canopy**

- Landscape should be experienced as a designed entity with specific character and function that is not secondary to buildings;
- Trees should be designed into all streets and public spaces and designed in response to the the space's use and selected tree species;
- Trees should be well established and a proportion should be of full development height when planted;
- Landscape treatment and street trees should be designed to provide physical and design connection to the surrounding precincts;
- Landscape should be used to soften hard infrastructure and de ne the series of formal and informal spaces:
- Trees should give a green outlook for future residents and workers;
- Trees should shade the ground plane in summer and provide relief from urban heat island effect;
- Trees species chosen should be demonstrated to thrive in local climatic conditions;
- Consideration should be given to providing landscape corridors for local fauna;
- Preferred tree species should have reliable form, minimal propensity for limb fall, and be hardy; and
- All trees are to be irrigated and to incorporate WSUD features in their planting environment.





### **B3.3.1 Riverfront Parkland**

The draft Camellia Town Centre Master Plan provides for an 8.4 hectare riverfront parkland being 1.7km in length. The continuous riverfront parkland takes advantage of the proposed town centre's unique continuous northern frontage to the Parramatta River.

The parklands embrace this environmental asset and unlocks public access to the Parramatta River edge. The Riverfront parklands run the length of the foreshore of the Parramatta River, embracing the natural features of the mangroves. The Riverfront Parkland includes:

- **Point Park** located at the bend of the Parramatta River:
- **2 Riverfront Green** connecting the town square with the Parramatta River;
- **Eastern Park** located at the eastern end of the proposed town centre providing a buffer between new development and existing land uses further east.

Drawing south from the Riverfront into the town centre are a range of multi-use spaces, including:

- 4 Camellia Town Square integrating the light rail stop and civic space
- 5 Central Park and Library Square provising multi-purpose active recreation
- 6 Pocket Park and Square providing local park and passive recreation

Each of these parks and places are discussed in detail on the following pages.



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### **B3.3.2 Point Park**

The Point Park as shown in Figure 3.3.2 is a conspicuous space holding the bend of the Parramatta River. It has a key relationship to the heritage building ensemble of the Western Sydney University opposite, and as such the landscape design should be sensitive to this interface.

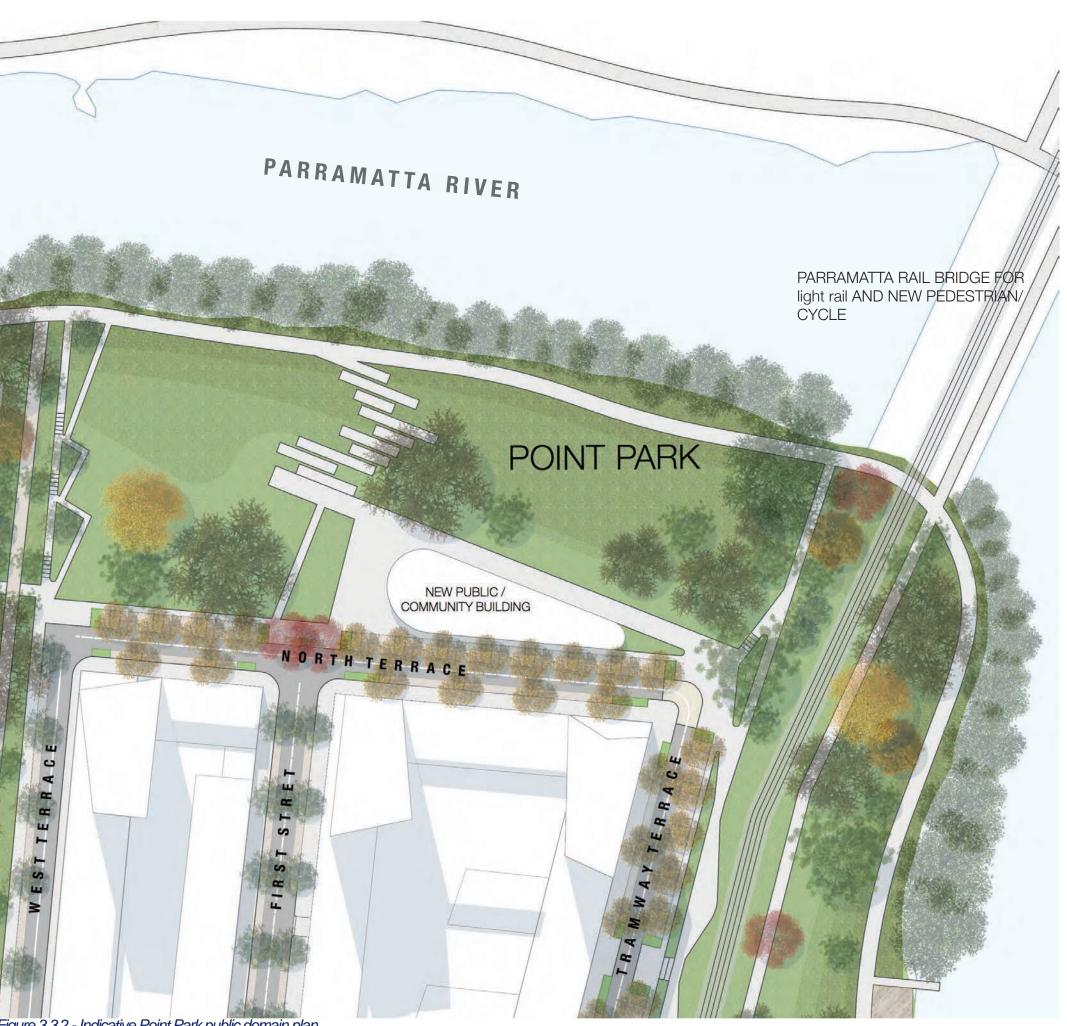
A public building at the centre of the southern edge gives address, activation and overlooking the park. This building and any associated forecourt should be integrated as a confident and outward-looking building giving presence and character to the town centre whilst acknowledging the WSU campus opposite.

The Point Park is critical to the management of overland flow in flood events, and it is important that the contours and earthworks of the park integrate both this and the ability for visitors to be comfortable as they make their way from the town centre to the river's edge.

Investigations should be undertaken to minimise the length and impact of the light rail's transition from bridge to foreshore, as well as the way that a foreshore shared-path or boardwalk can maintain continuity and heighten the experience of access to the river.



Figure 3.3.2 - Indicative Point Park public domain plan



### **B3.3.3 Riverfront Green**

The Riverfront Green connects the Town Square with Parramatta River and is the broadest piece of the continuous Riverfront Parkland.

Figure 3.3.3 identifies the concept plan for the Riverfront Green. This space sits at the junction of several movement paths and must cater to a large number of pedestrians, cyclists, joggers and commuters at any one time.

It faces north-east and should be gently sloping to allow for a range of passive activities and large gatherings.

The Riverfront Green is one of a limited number of places where there are breaks in the existing magroves exist - giving extensive views east down the Parramatta River. The opportunity should be taken to create an larger-scale urban waterfront experiece.

The light rail passes along its western edge between the park and the street. These levels should be carefully designed to allow free movement of pedestrians across the light rail safely at regular intervals. Design of levels should be such that fencing is eliminated - rather, elements such as low sitting walls and vegetation can provide buffers and notify pedestrians of changes in conditions.

The Riverfront Green is well located to integrate a future public wharf and ferry stop with the nearby light rail stop in the Town Square. Further investigation and consultation should be undertaken to determine the feasibility of such an addition.

At special events such as New Year's Eve and public holidays it is envisaged that the Riverfront Green will be the focus of community celebrations.





Figure 3.3.3- Indicative Riverfront Green public domain plan

## **B3.3.4 Camellia Town Square & Market Place**

The town centre will have a Town Square as the central focus for the community.

Camellia Town Square is focussed around the new light rail stop and possible interchange and potential adaptive re-use of the pumping station.

The square has substantial perimeter frontage for retail and is edged by public streets. Any building proposals should consider the solar access to the key gathering spaces in mid-winter.

To reinforce its linear proportion, a number of uses and activities such as permanent kiosks and temporary markets should be investigated to enliven the generous hardscape surrounding the station and also to link activity between built edges across the square.

The Square will be a vibrant space, allowing for the community and visitors to congregate and socialise. The Square is a key element within the public domain of the Camellia Town Centre.

The Square will be robust and provide for shade and amenity. Significant vegetation and landscaping should be provided to soften the hard surfaces of the public spaces.

Figure 3.3.4 adjoining provides a concept design of the Camellia Town Square and identifies a mixture of landscape and vegetation throughout the hardstand areas.



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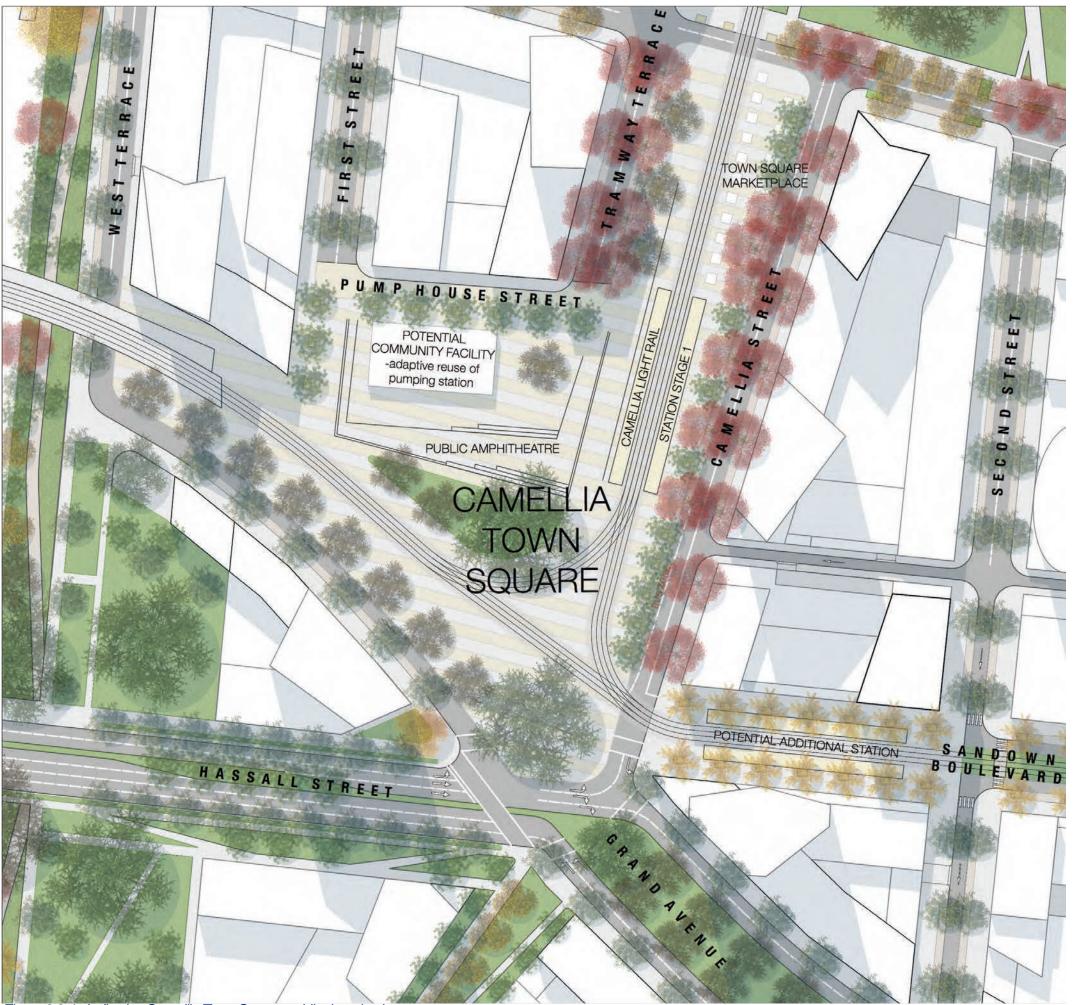


Figure 3.3.4 - Indicative Camellia Town Square public domain plan

### **B3.3.5 Central Park & Library Square**

The central park is a hard-working active and passive recreation space. During school hours the field north of Sandown Boulevard functions as additional play space for the potential new school to the east.

The park should be designed to allow for active recreation, sport and play. It should be designed to be multi-purpose to enourage people of all ages to use the space. Figure 3.3.5 provides an indicative layout of the proposed Central Park and Square.

The street between the school and playing field should be managed to provide safe access during school hours, and provide a public frontage and additional parking in other times outside of school hours.

Due to the likely intensity of use of the park it is suggested be investigated to maximise its functionality and probable intensity of use.

To the south of Sandown Boulevard a second park is envisaged to be more heavily planted for green relief and quiet gathering.

A public building is located in the south-west corner, preferably a library and/or community facility. This building would front a square addressing Grand Avenue.

### **KEY**





Figure 3.3.5- Indicative Central Park & Library Square public domain plan

### **B3.3.6 Pocket Park & Square**

Three blocks to the east of the Central Park, a pocket park is envisaged. This park provides open space for all ages and seek to provide elements for children suited to the size of the park as well as for contemplation, relaxation and gatherings. It is located adjacent to a potential future light rail stop and connects to the riverfront park across the Foreshore Esplanade.

To the south of the pocket park is a public square, activated by the crossing of the light rail either on it's journey to or from the stabling yard, or as it may continue east along the Sandown Boulevard as part of Stage 2.

Temporary markets and exhibitions could also potentially occupy both the Pocket Park and Square.





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### **B3.3.7 Eastern Park**

The Eastern Park provides a green book-end to the town centre terminating Sandown Boulevard and buffering new development from existing uses further east.

Should additional parts of Camellia become suitable for renewal in future years the Eastern Park will be ready to become a central community space. Should the need arise, the Eastern Park would be well suited to having a public pool or skate park integrated along the Grand Avenue edge.

The Eastern Park should be heavily vegetated with mature trees for shade and to buffer to existing uses, but also provide open space for informal and passive recreation and games as a relief to the more formalised and multi-purpose field in the Central Park.

Figure 3.3.7 provides a conceptual plan of the proposed Eastern Park.

# PARRAMATTA RIVER FORESHORE ESPLANADE EASTERN PARK SANDOWN BOULEVARD GRAND AVENUE



Figure 3.3.7- Indicative Eastern Park public domain plan

### **B4** Public Facilities

B4 identifies the proposed public and community facilities that are required to service the future population of the Camellia Town Centre. The proposed facilities have been co-located with public open spaces previously outlined in section B3.3 of this report.

Figure B4 identifies the proposed public facilities which include:

## 1 Potential Community/Function Centre Takes advantage of proximity to WSU and should have a direct dialogue and respect to the heritage buildings opposite.

## Potential Indoor Recreation Facility Adaptive reuse of the pumping station retains existing architectural character and presence in the town centre. Group activites adjacent to the Town Square will assist passive surveillance and vibrancy throughout the day and night, including potential markets

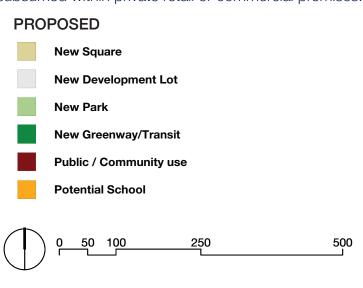
### 3 Potential Library

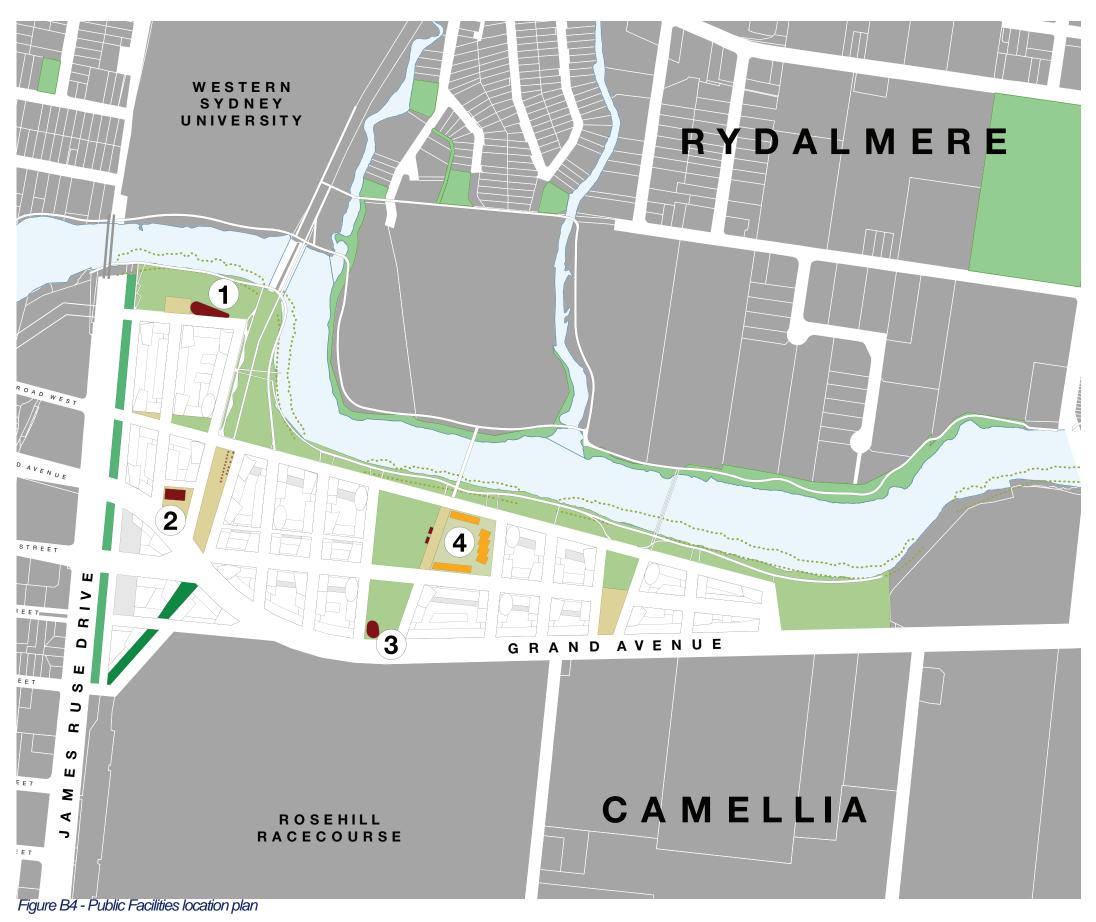
Located close to the potential new school and within the park provides easy access for students and surveillance of the park.

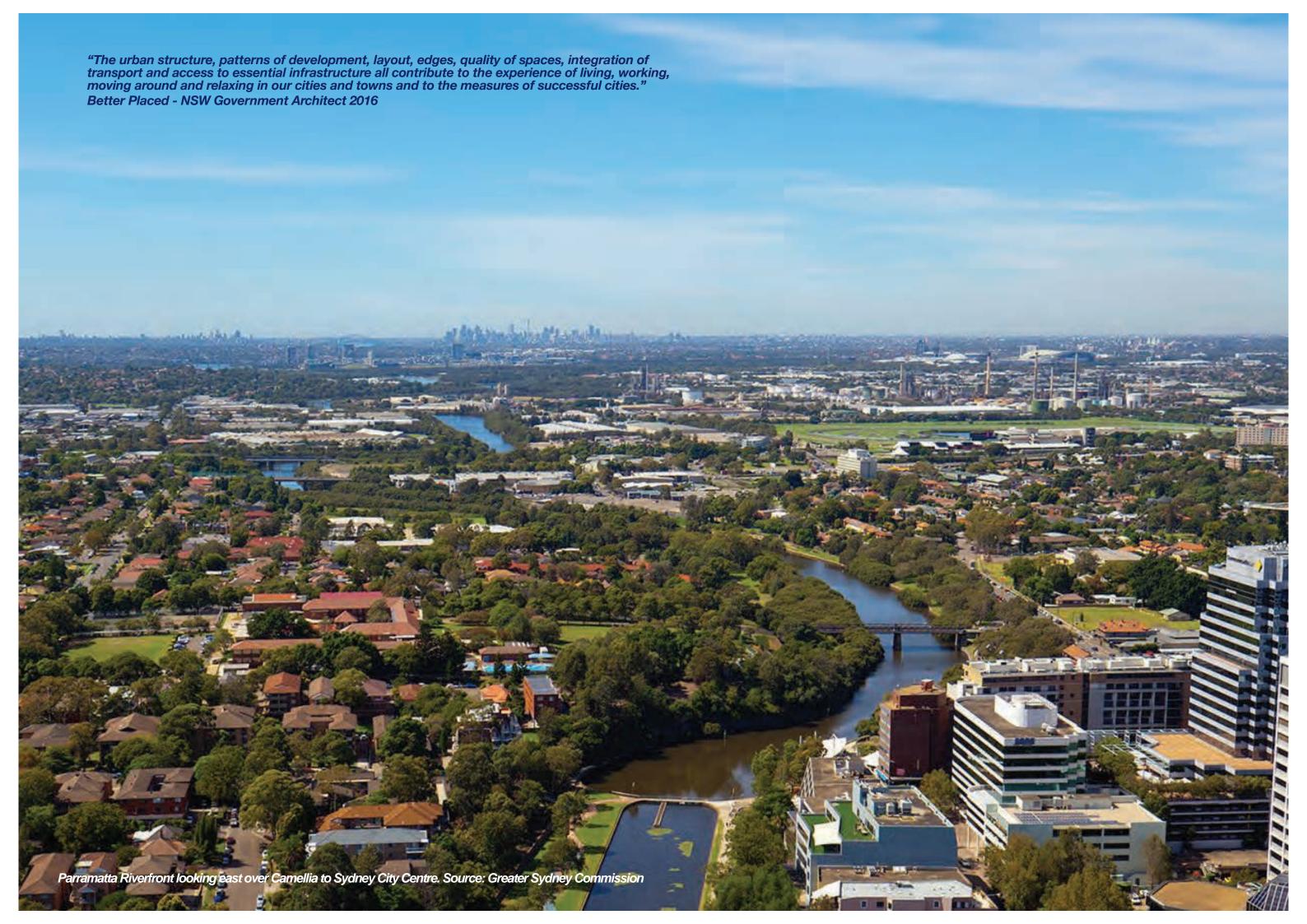
### 4 Potential Primary School

Centrally located and walkable to the Town Square and station, adjacent to the multipurpose playing field. The land area for the potential school is 1.0 ha.

These public uses should be clearly identified elements related to the public spaces and streets, and not be subsumed within private retail or commercial premises.





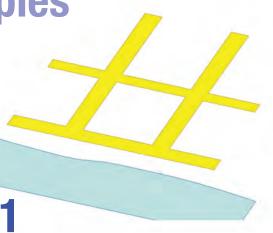


**B5** Built Form Principles

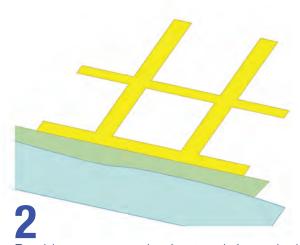
The built form proposed within the draft Camellia Town Centre Master Plan seeks to respond to existing flooding and contamination constraints but also develop a built form that responds the proposed town centre's context within Greater Parramatta and the assets that the location of Camellia provides including frontage to the Parramatta River and new light rail stop.

A rational street network which exemplifies this location will provide relief to density and allow solar access, address, frontage, additional views to park and water, and wayfinding.

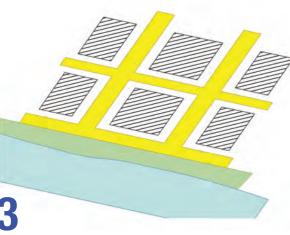
Section B5 provides details on the principles and elements that are envisaged by the draft Camellia Town Centre Master Plan and applies the adjacent principles.



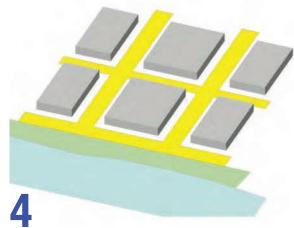
Provide rational streets and orient to the river, utilising streets as SEPP65 Apartment Design Guide tower separations.



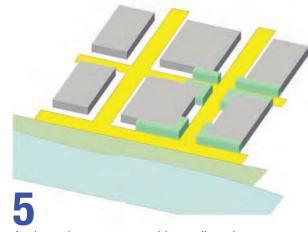
Provide a generous riverfront park for outlook and amenity with an accessible public edge.



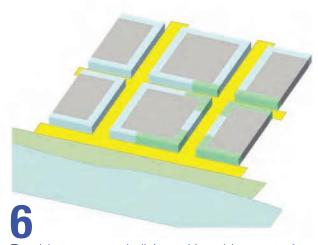
Consolidate contamination within the centre of private development blocks (no storage below the public domain) and establish coordinated public domain levels.



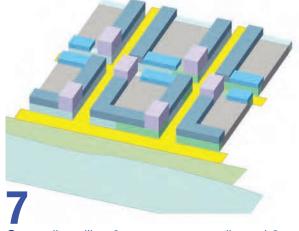
Cap contamination with parking above (possible on-site contamination resolution).



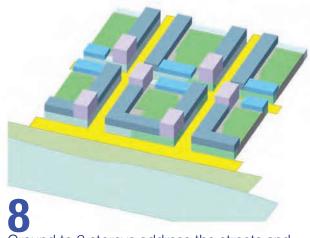
Activate key corners with retail and non-residential uses.



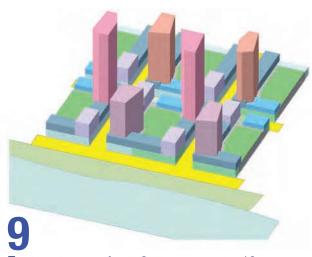
Provide street-scale living with a thin crust of residential - maximum depth 9m



Generally, utilise 6 storey street walls and 9 storeys at important corners.



Ground to 9 storeys address the streets and courtyards and take their amenity from the streets and courtyards landscaping as well as building separations. The generous quality and quantity of both is essential.



Feature towers from 9 storeys up to 40 storeys are off-set, not behind or in front of other tall elements, to a maximum 750sqm footprint.

### **B5.1 Street Level & Town Centre Living**

To ensure that car parking is hidden from the public domain, blocks should be designed with an articulated crust of residential and non-residential uses. This thin building type allows a number of stacked, double height and complementary uses including:

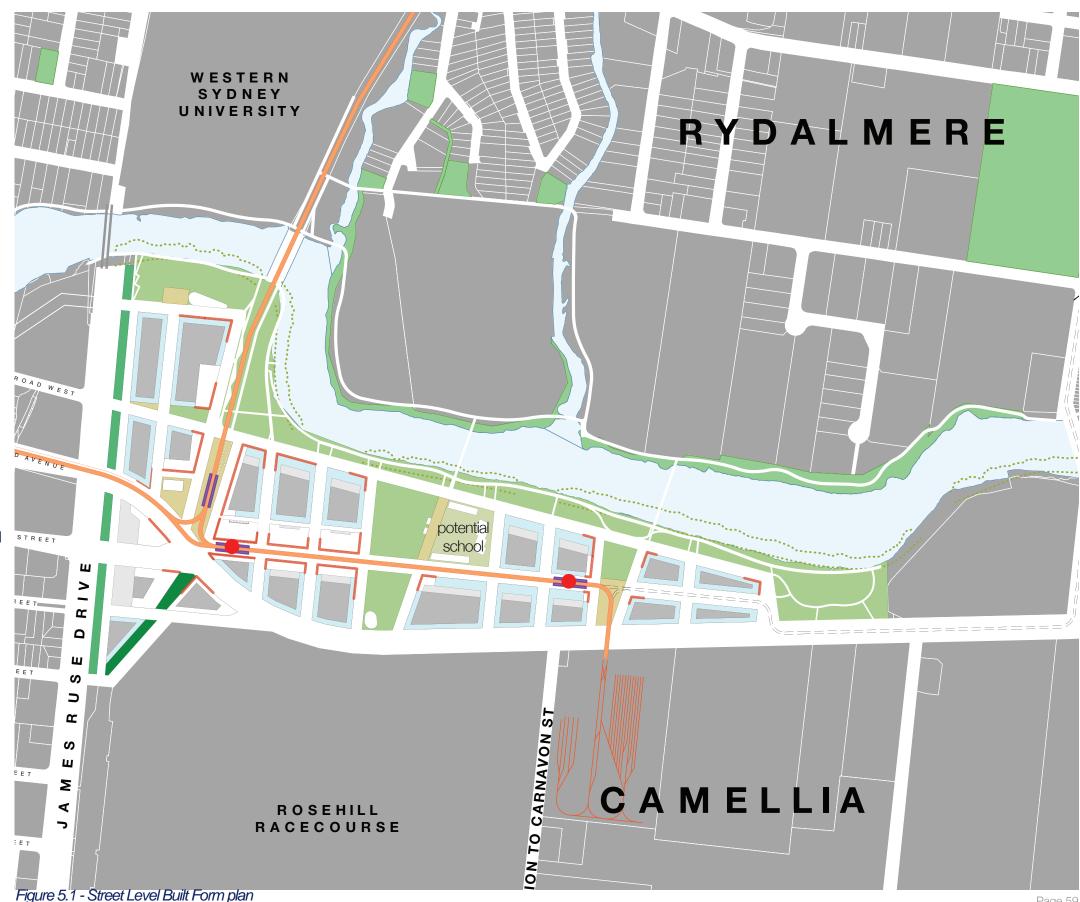
- ground floor cafes;
- dual level showrooms;
- dual level restaurants;
- double-height retail space:
- flexible home-offices e.g. Soho suites; and
- Innovative technologies.

A connected and distributed street network of local streets and parks within the town centre offer a range of choices for wayfinding and amenity at the street level that is essential to new urban places.

This plan is based on thin section buildings and smaller footprint towers to ensure optimum performance in terms of State Environmental Planning Policy (SEPP) 65 Design Quality principles and the accompanying Apartment Design Guidelines (ADG).

With good apartment design, this should ensure that a high percentage of dwellings would enjoy environmental benefits including good solar access, effective natural ventilation, outlook to street trees and consolidated garden spaces.

## **PROPOSED** 2-3 storey crust (residential) **Car Parking Active Frontage** Potential additional stations - see section B2.6



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### **B5.2 Maximum Building Heights**

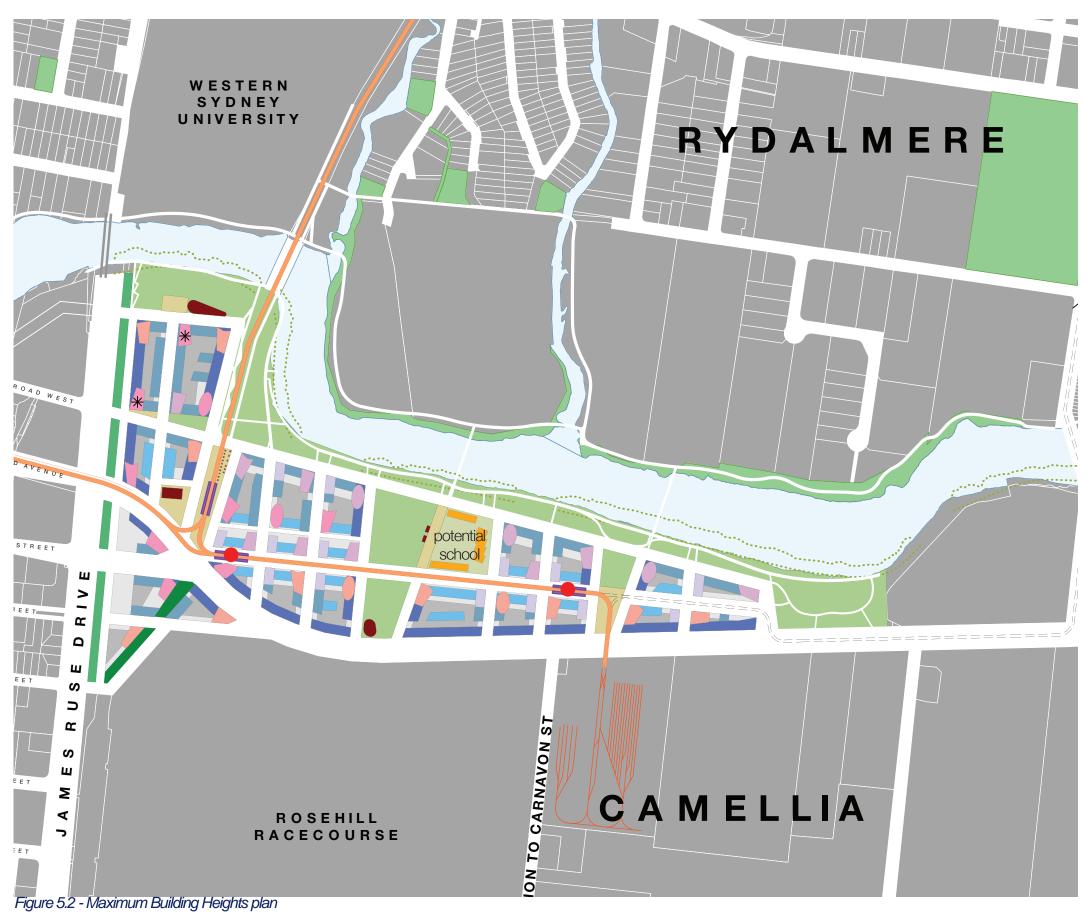
Above the street wall fronting podiums the Camellia Town Centre is to be comprised of 9, 21, 27, 36 and 40 storey mixed use slender towers. These taller elements are located on corner sites to reinforce the Camellia Town Centre strucrure and also take advantage of exceptional residential amenity and distant views. The highest elements are focussed around the town centre core, light rail stop and northern precinct where views along the Parramatta River east and west are greatest.

These buildings would support a more intense street life, making important street corners, and creating a varied skyline and silhouette with slender and elegant proportions.

Tower footprints are controlled by a maximum 750sqm plan area (gross - the footprint measured inclusive of all balconies, common vertical and horizontal circulation, services, floor space and external walls) which assists in achieving environmental performance in line with SEPP 65's Apartment Design Guidelines (ADG).

The building heights have been derived to ensure Camellia is a subordinate centre, supporting the Parramatta City Centre as a key component of Greater Parramatta.

### **PROPOSED New Square** 5 storey **New Development Lot** 6 storey **New Park** 8 storey **New Greenway/Transit** 9 storey **Light Rail Corridor** 21 storey **Light Rail Station** 27 storey Public/Community (3 st) 36 storey Potential School (3-4 st) 40 storey Potential additional stations - see section B2.6 500



### **B5.3 Built Form Matrix**

The adjacent matrix provides a summary of the built form types envisaged across the Camellia Town Centre and their performance requirements. The built form types denoted A - I and their respective colours are calibrated to figures 5.1 and 5.2, and should be read in conjunction.

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Calibrated densities and scales of built form will be distributed across the town centre with maximum scale concentrated around the light rail stops and squares.

Development will meet, and where possible exceed SEPP 65 Apartment Design Guideline requirements.

Interface of all development will respond to and contribute to the quality and character of the streets by:

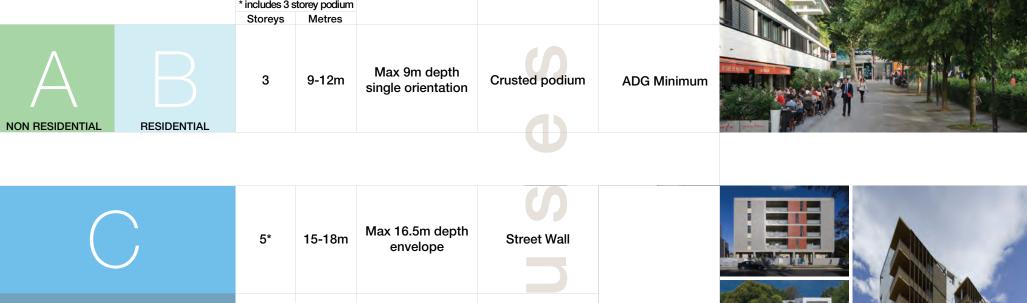
- At lower levels, direct access from the street to ground floor apartments and opportunities to overlook the street should be maximised to promote **\( \Sigma** safety and social interaction; and
- Taller elements are arranged in a holistic, three dimensional manner, judiciously and equitably located across the town centre.

Increase building separation and minimise building footprint proportionally to the building height to achieve **u** amenity and a desirable urban form.

"Coordinate building height and building depth: buildings that have smaller depths over a greater height deliver better residential amenity than those with greater depth and a lower height"

**NSW Apartment Design Guide** 

Built Form Code		Height *includes 3 storey podium		Building Footprint	Building Typology	Deep soil landscape
		Storeys	Metres			
NON DESIDENTIAL	BESIDENTIAL	3	9-12m	Max 9m depth single orientation	Crusted podium	ADG Minimum



within blocks,

minimum.

provide for

trees.









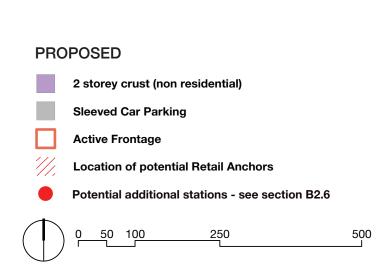
### **B5.4 Active Frontage & Retail**

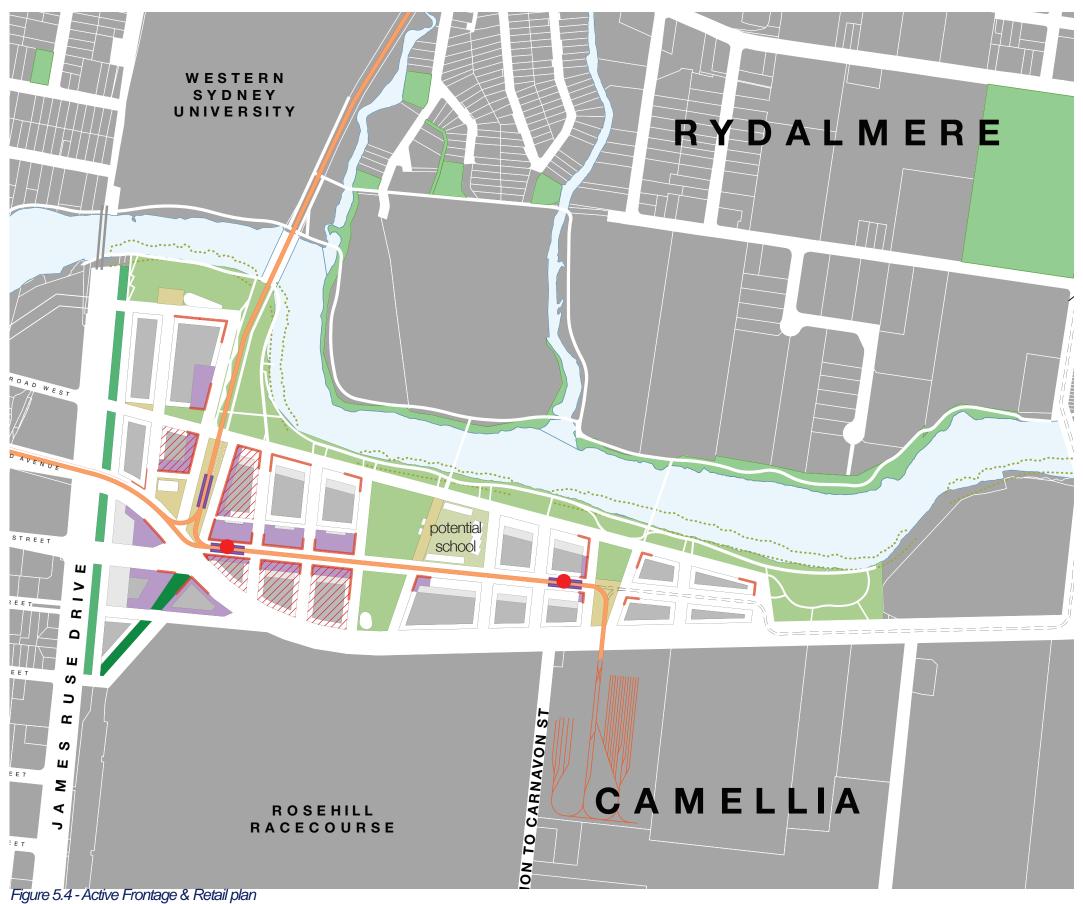
Retail and active frontages should make a cohesive retail core around the Town Square and light rail stop as well as activate important corners within the town centre. Figure 5.4 identifies the location of active frontages throughout the town centre.

The distribution and intensity of streets, land uses, built form and community assets reinforces the Trio of Streets which converge at the town centre Core. This coordinated strategy reinforces street-based pedestrian activity associated with access to committed and potential light rail stops. These stops would concentrate a mix of uses, including street edge retail, office employment and small-scale urban spaces.

Those blocks identified as anchors are noted for their strategic position, proportion and ability to be serviced from a number of street and lane edges.

Retail and active frontages should be fine grain and materially interesting, avoiding long single or blank frontages. Larger footprint retail should be concentrated in the blocks facing the Town Square.





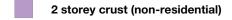
### **B5.5 Parking and Access**

Access into and movement within blocks for car parking and servicing should be designed and integrated to minimise the number and appearance of entries and openings - integrated as part of the architectural facade. Figure 5.5 provides an indication of preferred locations of vehicle access points to service blocks.

Primary street frontages should be prioritised to provide activation and articulation by limiting basement entries, docks and services to the lanes and secondary street address. Further, the Master Plan seeks to:

- Provide maximum parking limits that de-concentrate and minimuse traffic generation;
- Have access designed so there is minimal negative impact to the active edge, and to provide for the continuity of the pedestrian environment. Car parking structures should be 'sleeved' with active building edges. In particular, loading docks and related services should sleeved by civic or habitable uses and frontages;
- Ensure parking is accommodated for within the building design, set behind active frontages;
- Integrate service and functional elements into the design and façade treatment, minimising the visual and accessibility impact on the public realm;
- Adopt reduced parking rates to influence travel behaviours, promote the use of light rail, encourage wallking and cycling and reduce car-dependency.

### PROPOSED

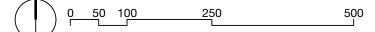


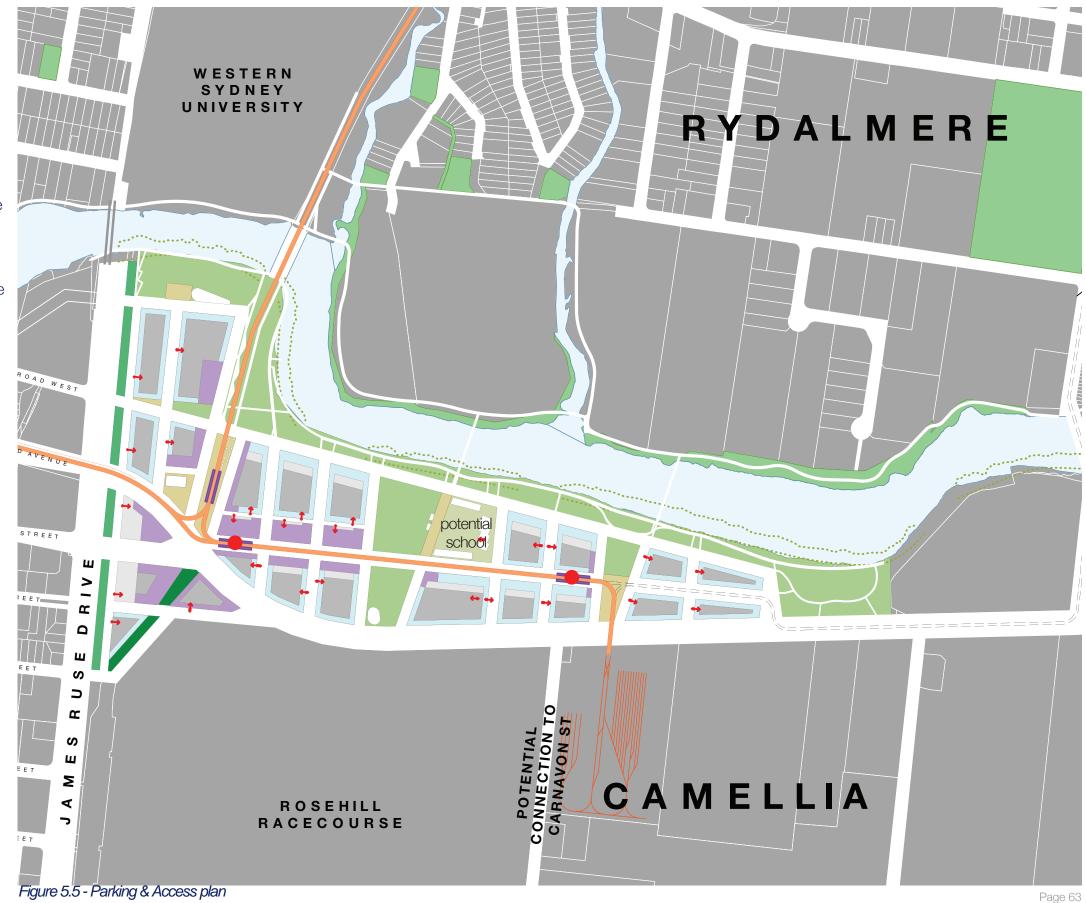
2-3 storey crust (residential)

Above Ground Sleeved Podium Car Parking

Car Park Access

Potential additional stations - see section B2.6





### **B5.6 Sunlight Access & Daylight**

Solar access across the public domain, within blocks and around built form is critical to providing amenity within dense urban environments.

The orientation, depth and distribution of taller built forms must be carefully balanced to provide amenity within dwellings, between buildings and to streets and open spaces adjoining.

The orientation of built form north-south along its longest edge provides for faster moving shadows and deeper penetration of sunlight into blocks and courtyards, particularly in winter. The Master Plan seeks to utilise these concepts to ensure the public domain and dwellings receive maximum sunlight.

To further limit the over-shadowing impacts of taller elements, a limit to the gross footprint of towers should be enforced.

Limiting the footprint of towers provides additional space between buildings in a more slender proportion, reduces bulk at the street level and from beyond the site.

The location, size and orientation of the built form has been considered to limit the overshadowing of the public opens spaces including the potential primary school site and the Rosehill Racecourse to the south of the Camellia Town Centre.



WINTER SOLSTICE 9AM - view from the sun



WINTER SOLSTICE 12PM - view from the sun



**WINTER SOLSTICE 3PM - view from the sun**Figure 5.6 - Indicative built form in 3D with solar testing in plan



WINTER SOLSTICE 9AM - shadows in plan



**WINTER SOLSTICE 12PM - shadows in plan** 



WINTER SOLSTICE 3PM - shadows in plan

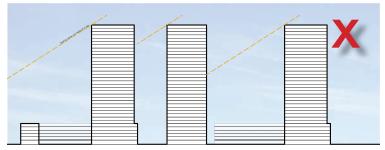
### **B5.7 Views & Tower Placement**

The more slender tower forms that result from the maximum 750m<sup>2</sup> (gross) footprint control will provide a range of public and private benefits by:

- Allowing views between buildings to the sky from the public domain;
- Ensuring ADG compliant separation of towers and therefore outlook for the residents;
- Minimising perceptions of large bulky towers and prevent 'overcrowding';
- Preventing overly-long facades, which would otherwise present as monolithic elements; and
- Ensuring the spacing between towers and their predominant north-south orientation should minimise overshadowing.

These taller building forms would be predominantly street-fronting with zero setback, being located around the Camellia Town Centre, at prominent corners and along park frontages to maximise amenity and reinforce the public domain structure.

The arrangement of towers in 3 dimensions will avoid 'stacking' of taller elements behind one another and allow reduced visual density, increased solar access and views - as demonstrated in the diagrams below below and right.



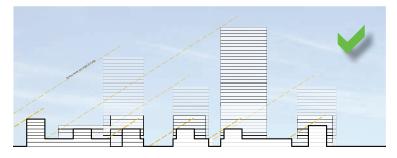


Figure 5.7a - Arrangement of built form in section

Views between offset towers at 20 storeys



Views between offset towers at 20-30 storeys



Views between offset towers at 30-40 storeys



Figure 5.7b - Arrangement of built form in plan showing views

## **B5.8 Landscape Requirements Within Blocks**

The SEPP65 Apartment Design Guide identifies a deep soil minimum 7% of site area, except where predominantly retail/commercial blocks occur.

Given the podium design of the buildings within Camellia Town Centre, opportunities exist to promote rooftop and podium gardens with generous planter boxes with minimum soil depths of 1.2m to allow for mature tree planting.

Planting and landscape on top of buildings will also aid in reducing the urban heat island effect.

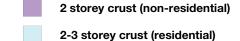
Opportunities also exist for green walls on buildings - not only for aesthetic value but to green and cool the streets as part of a water sensitive urban design strategy

Other opportunities for greening the urban form include:

- Minimum one mature tree (8m+) per 40sqm of communal private open space;
- Zero street setbacks throughout integrated planting encouraged;

Streets and parks are to be dedicated to Council. All deep soil is to be unencumbered by basements or other built elements, to ensure major landscape space for the community.

### **PROPOSED**



Above Ground Sleeved Podium Car Parking

5 storey

6 storey

8 storey





Figure 5.8a - Indicative Section A-A from First Street to Tramway Terrace looking north



Figure 5.8b - Indicative Section B-B from Grand Avenue to Foreshore Esplanade looking west

## **B5.9 Building Ground Floor Relationship** to the Public Domain - Non Residential

The ground floor design in mixed use buildings should consider a two-tier approach to encourage activation as demonstrated in Types A and B - Where A has a zero-setback and display at the street, and B accommodates an integrated flood refuge/circulation zone integrated behind the boundary. They should both also:

- Provide a consistant ground floor setback within blocks through primary and secondary building lines:
- Encourage a continous and universally accessible ground floor promenade that potentially connects across property boundaries;
- A maximum single step height transition of 900mm for retail ground floor frontages;
- Consider building access, activation, services, and overland flow details;
- Encourage active and attractive street and foreshore arrangements, eliminating blank walls; and
- Consider alternative solutions for constrained infill



High quality frontages should manage level change as part of an integrated approach using high quality materials and gentle transitions such as these

recent infill developments in Waterloo

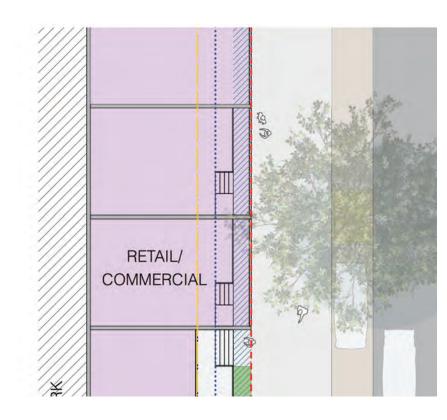
and Surry Hills.

Consistency of alignment along streets should be sought by designing to primary and secondary alignments.

The **Primary Building Line** is a zero-setback and follows the boundary to the street.

The **Secondary Building Line** is 2m set back from the boundary and is the zone that accommodates stairs, ramps and other transitions at the ground floor as well as balconies and architectural articulation above.

A **3m setback** occurs at ground floor only to provide meaningful private open scape for ground floor apartments. The Ground floor 1m transition and landscape zone shown is shown hatched and sits within this 3m setback zone.



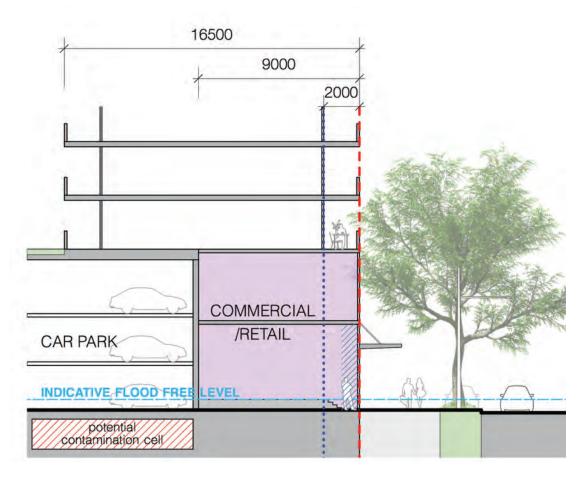
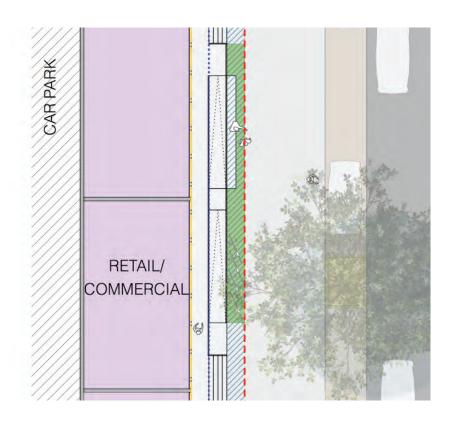


Figure 5.9a - conceptual plan and section of non-residential street interface type A

Type B illustrates an integrated second-tier flood refuge and pedestrian circulation network within the boundary. This may be necessary where commercial display or seating requires elevation due to flooding or adjacent street conditions.



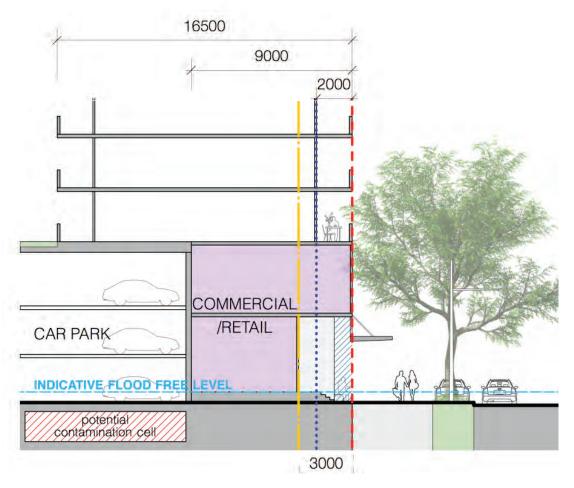


Figure 5.9b - conceptual plan and section of non-residential street interface type B

## **B5.10 Building Ground Floor Relationship** to the Public Domain - Residential

The ground floor design of residential frontages should provide a high quality public domain relationship and adequate privacy and address. As depicted in Figure B5.10 they should also:

- Provide a generous ground floor height to accommodated alternate ground floor uses over time;
- Locate the entry for ground floor dwellings to be above the FFL (Flood Free Level) but to be no greater than 750mm above the footpath level;
- Encourage planting to screen and provide further privacy.

Specific design considerations:

- Solid boundary elements are limited to a maximum height of 1m from the adajcent footpath level;
- Elements above 1m are to be 50% transparent to a

Consistency of alignment along streets should be sought by designing to primary and secondary alignments.

The **Primary Building Line** is a zero-setback and follows the boundary to the street.

The **Secondary Building Line** is 2m set back from the boundary and is the zone that accommodates stairs, ramps and other transitions at the ground floor as well as balconies and architectural articulation above.

A **3m setback** occurs at ground floor only to provide meaningful private open scape for ground floor apartments. The Ground floor 1m transition and landscape zone shown is shown hatched and sits within this 3m setback zone.



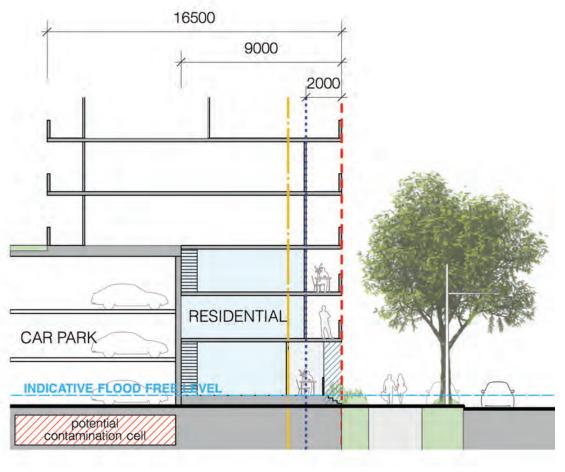


Figure 5.10 - conceptual plan and section of residential street interface

A range of positive examples exist in renewal sites across Sydney such as Green Square where street entries, transparent fencing and landscape are integrated to provide a holistic and inviting street address. A range of high quality materials and doubleheight elements are utilised to provide generosity and articulation.