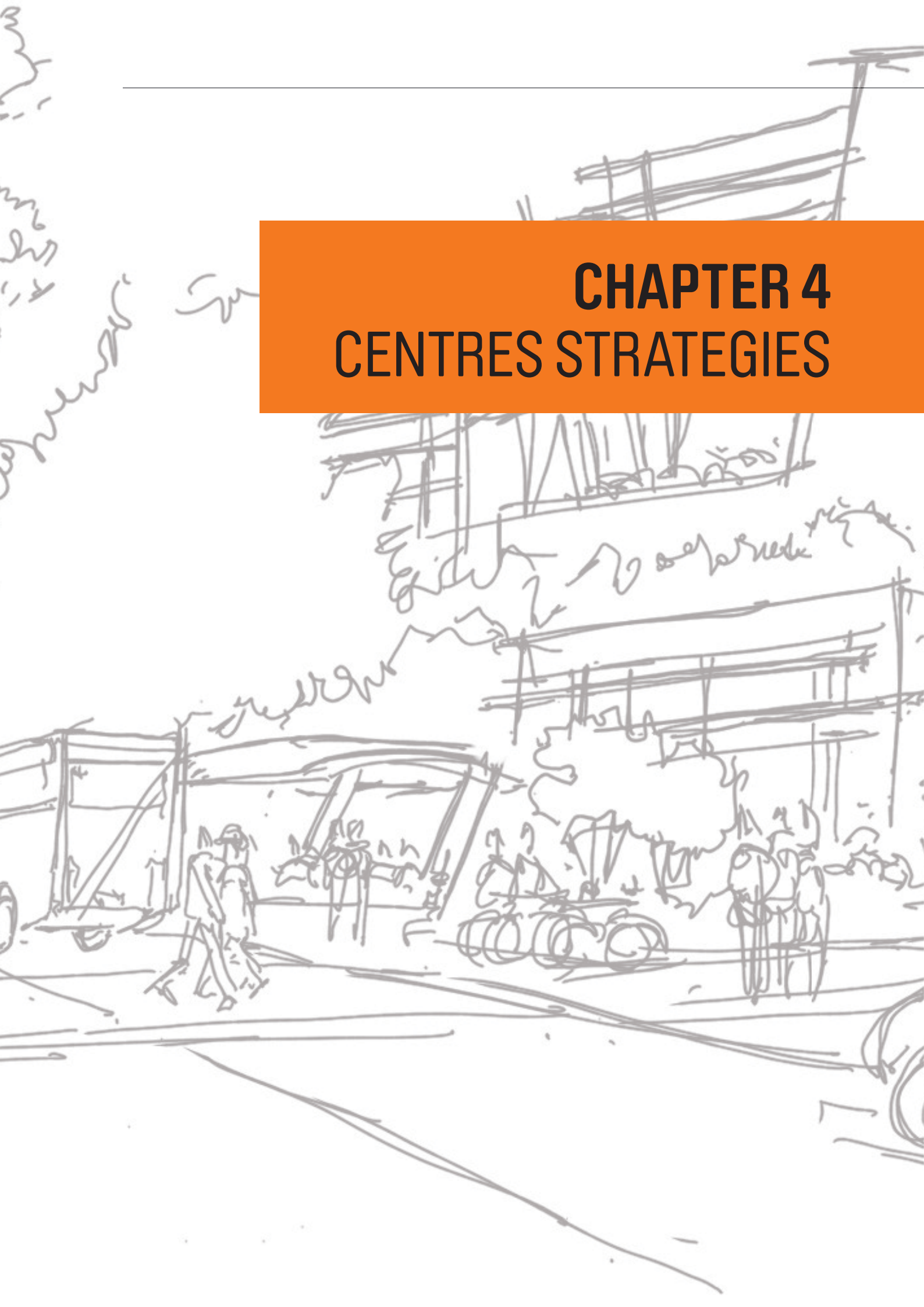

CHAPTER 4
CENTRES STRATEGIES

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TABLE OF CONTENTS

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4 CENTRES STRATEGIES

KEY POINTS OF THIS CHAPTER

- City of Parramatta Centres Hierarchy Map
- Definition of CBD, town centres, urban villages and neighbourhood local centres
- Strategy maps and materials palettes for paving, street tree, overhead power line, furniture lighting, pole and banner for CBD and town centres
- Strategy maps for paving, street tree and overhead power line for Carlingford Urban Village

This section defines Parramatta's main centres and provides guidance about public domain finishes, fixtures and fittings required for each centre. This will assist developers to understand the City's requirements for public domain works triggered by development proposals. Centres are identified and located in the Centres Hierarchy Map in Figure 4.1. The hierarchy of centres has been determined on analysis of demography, proximity to public transport modes, land use type, and a review of state government objectives.

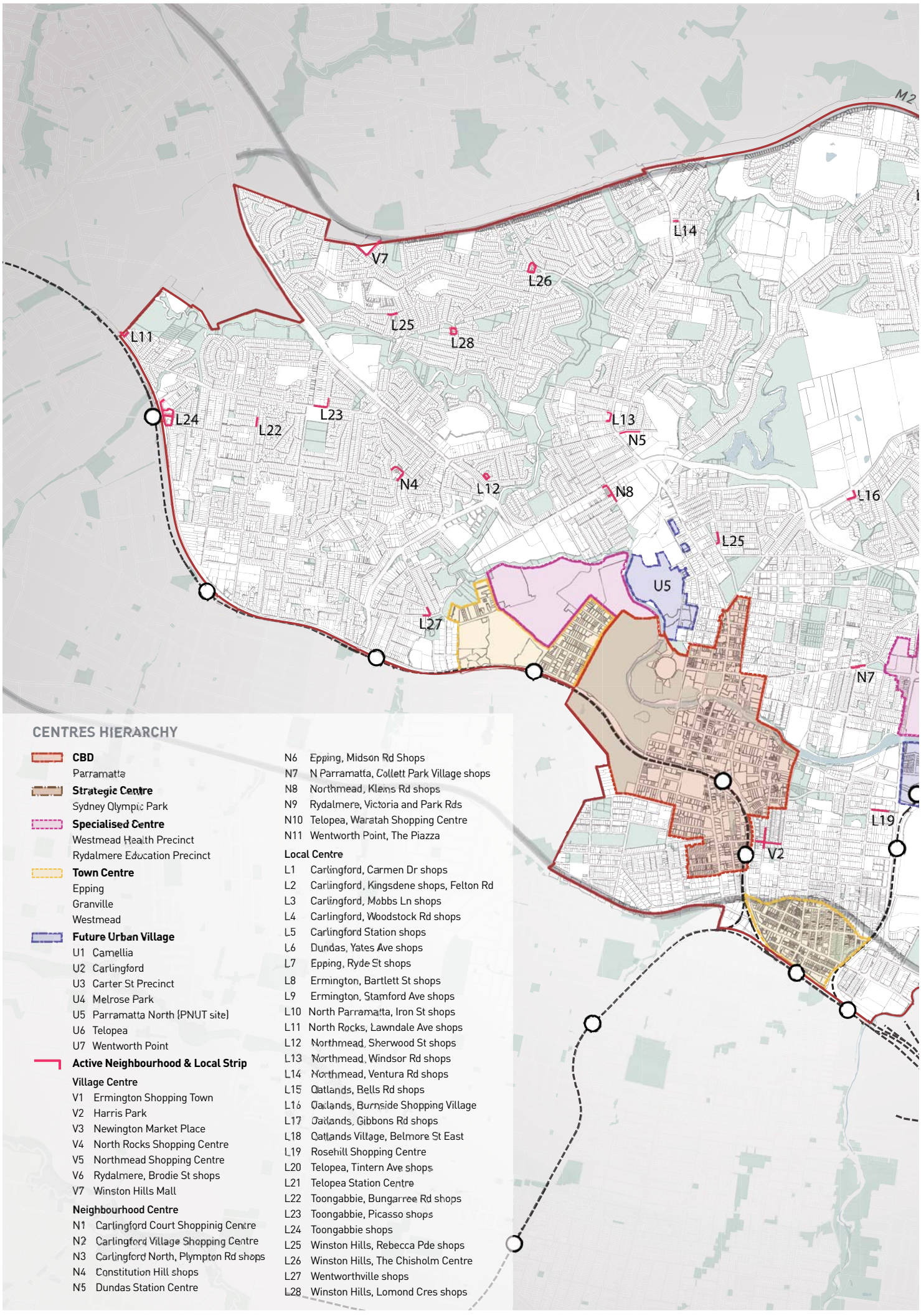
The hierarchy of centres includes the following:

- CBD
- Strategic Centre
- Specialised Centre
- Town Centre
- Future Urban Village
- Active Neighbourhood and Local Centres

Defining and spatially mapping City of Parramatta's centres assists in determining appropriate public domain treatments. This section also addresses public domain requirements for local streets.

Centre strategy maps and material palettes articulating the required public domain finishes, fixtures and fittings for each centre are provided.

Key element strategies observed in the preparation of the centre strategies and material palettes are identified in Chapter 5.



CENTRES HIERARCHY

CBD
Parramatta

Strategic Centre
Sydney Olympic Park

Specialised Centre
Westmead Health Precinct
Rydalmere Education Precinct

Town Centre
Epping
Granville
Westmead

Future Urban Village
U1 Camellia
U2 Carlingford
U3 Carter St Precinct
U4 Melrose Park
U5 Parramatta North (PNUT site)
U6 Telopea
U7 Wentworth Point

Active Neighbourhood & Local Strip

Village Centre
V1 Ermington Shopping Town
V2 Harris Park
V3 Newington Market Place
V4 North Rocks Shopping Centre
V5 Northmead Shopping Centre
V6 Rydalmere, Brodie St shops
V7 Winston Hills Mall

Neighbourhood Centre
N1 Carlingford Court Shoppinig Centre
N2 Carlingford Village Shopping Centre
N3 Carlingford North, Plympton Rd shops
N4 Constitution Hill shops
N5 Dundas Station Centre
N6 Epping, Midson Rd Shops
N7 N Parramatta, Collett Park Village shops
N8 Northmead, Kleins Rd shops
N9 Rydalmere, Victoria and Park Rds
N10 Telopea, Waratah Shopping Centre
N11 Wentworth Point, The Piazza

Local Centre
L1 Carlingford, Carmen Dr shops
L2 Carlingford, Kingsdene shops, Felton Rd
L3 Carlingford, Mobbs Ln shops
L4 Carlingford, Woodstock Rd shops
L5 Carlingford Station shops
L6 Dundas, Yates Ave shops
L7 Epping, Ryde St shops
L8 Ermington, Bartlett St shops
L9 Ermington, Stamford Ave shops
L10 North Parramatta, Iron St shops
L11 North Rocks, Lawndale Ave shops
L12 Northmead, Sherwood St shops
L13 Northmead, Windsor Rd shops
L14 Northmead, Ventura Rd shops
L15 Oatlands, Bells Rd shops
L16 Oatlands, Burnside Shopping Village
L17 Oatlands, Gibbons Rd shops
L18 Oatlands Village, Belmore St East
L19 Rosehill Shopping Centre
L20 Telopea, Tintern Ave shops
L21 Telopea Station Centre
L22 Toongabbie, Bungarree Rd shops
L23 Toongabbie, Picasso shops
L24 Toongabbie shops
L25 Winston Hills, Rebecca Pde shops
L26 Winston Hills, The Chisholm Centre
L27 Wentworthville shops
L28 Winston Hills, Lomond Cres shops

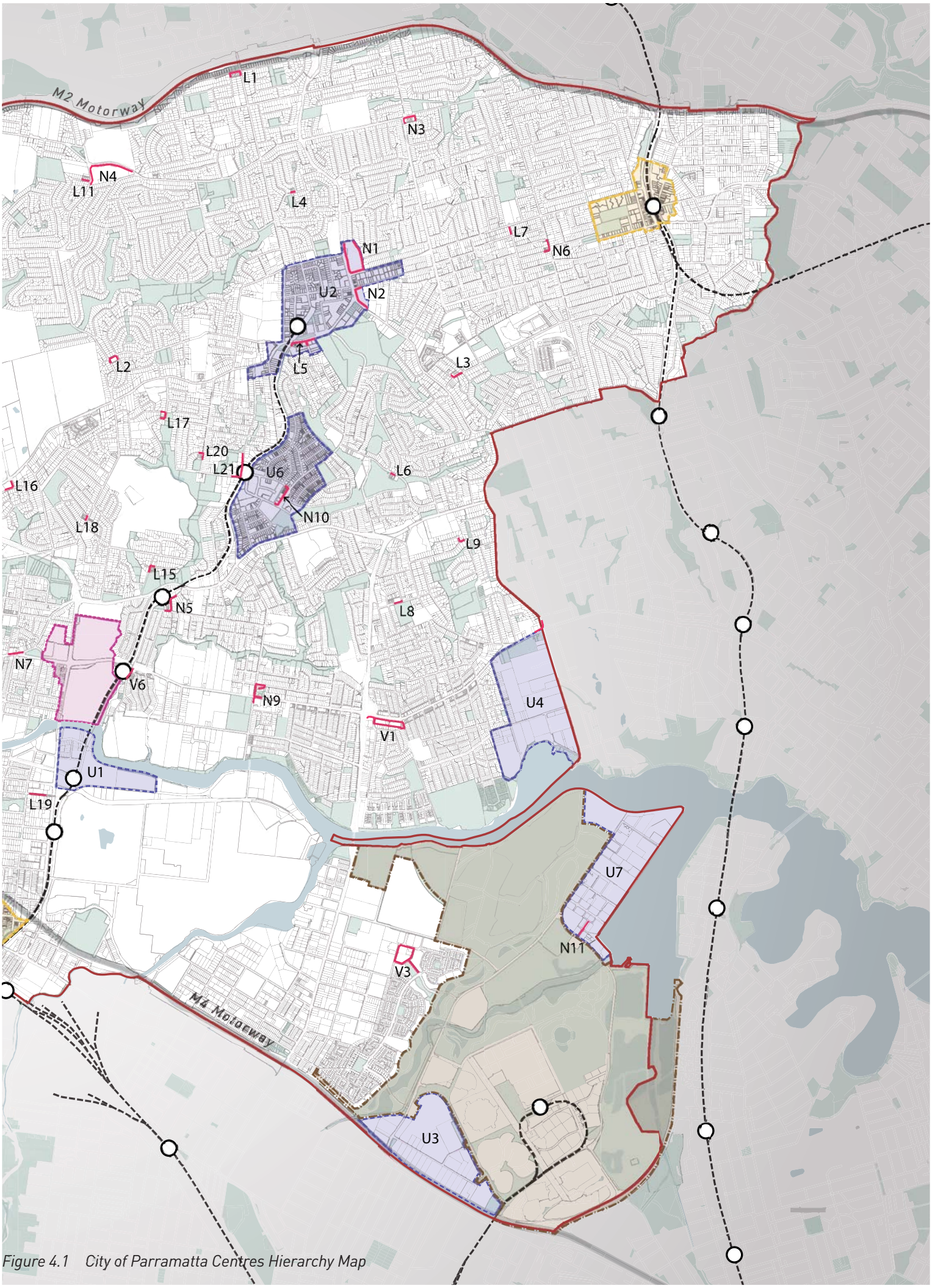


Figure 4.1 City of Parramatta Centres Hierarchy Map

PARRAMATTA CBD

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4.1 PARRAMATTA CBD

The NSW Government's MEtropolitan Strategy - 'A Plan for Growing Sydney' identifies Parramatta as a dual CBD with the same status as the City of Sydney.

The CBD is the main business and commercial centre for the Parramatta LGA. It services the highest levels of pedestrian use in a hub of commercial, retail, mixed use and business development. A high quality, durable palette of streetscape materials distinguishes the central city core and responds to the rich cultural mix of heritage buildings and new development, day and night time trading, culture and the arts.

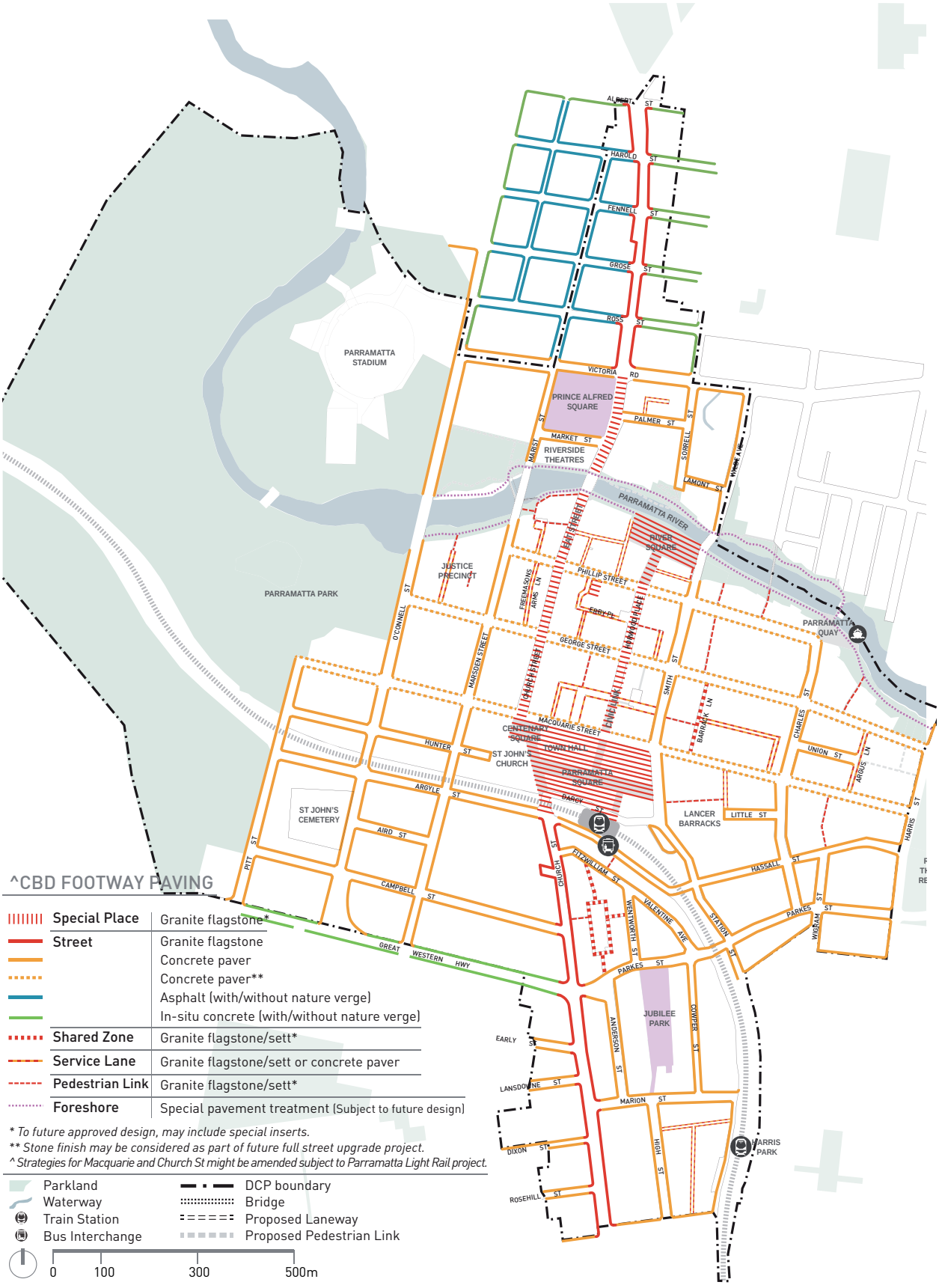
Strategies and Materials Palettes

The City has nominated materials and finishes requirements for all public domain components in the CBD including:

- paving
- street trees
- overhead power
- street furniture
- lighting levels
- light poles
- banners

Proposed strategy maps and materials palettes for the CBD are as follows:

Figure 4.2 CBD - Paving Strategy



^CBD FOOTWAY PAVING

Special Place	Granite flagstone*
Street	Granite flagstone
	Concrete paver
	Concrete paver**
	Asphalt (with/without nature verge)
	In-situ concrete (with/without nature verge)
Shared Zone	Granite flagstone/sett*
Service Lane	Granite flagstone/sett or concrete paver
Pedestrian Link	Granite flagstone/sett*
Foreshore	Special pavement treatment (Subject to future design)

** To future approved design, may include special inserts.*
*** Stone finish may be considered as part of future full street upgrade project.*
^ Strategies for Macquarie and Church St might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.3 CBD - Paving Materials Palette

	Use	Material		
Street Footway Granite	**Main body** - uniform dark grey granite flagstones in a variety of sizes and finishes. **Vehicle crossing, kerb ramp** - granite flagstones to match the footpath treatment. Use smaller stone sizes on vehicle crossings as required to suit vehiclar load.	 **Main body** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 600x300x50, 400x300x50mm* *Finish: exfoliated*	 **Vehicle crossing** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 400x300x50, 200x300x50mm* *Finish: exfoliated*	 **Kerb ramp** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 400x300x50, 200x300x50, 600x300x50mm* *Finish: exfoliated*
Concrete Paver	**Main body** - continued use of concrete pavers for consistency of appearance, high quality finish and durability. **Vehicle crossing, kerb ramp** - concrete pavers to match the footpath treatment. Use smaller unit sizes on vehicle crossing.	 **Main body** *Supplier: Pebblecrete* *Product: PPX:544:35D* *Size: 300x300x60mm* *Finish: honed*	 **Vehicle crossing** *Supplier: Pebblecrete* *Product: PPX:544:35D* *Size: 150x150x60mm* *Finish: honed*	 **Kerb ramp** *Supplier: Pebblecrete* *Product: PPX:544:35D* *Size: 300x300x60mm* *Finish: shotblast*
Asphalt	**Main body** - asphalt footpath in key heritage conservation areas. Subject to location and site conditions, full width pavement may be required. **Vehicle Crossing, Kerb Ramp** - in-situ concrete to suit grades and vehicle load.	 **Main body** *Material: asphalt concrete of AC10 and AC5 (wearing course)* *Colour: natural*	 **Vehicle crossing** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*	 **Kerb ramp** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*
In-situ Concrete	**Main body** - in-situ concrete for high durability and easy maintenance. Subject to location and site conditions, full width pavement may be required. **Vehicle crossing, kerb ramp** - in-situ concrete to suit grades and vehicle load.	 **Main body** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*	 **Vehicle crossing** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*	 **Kerb ramp** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*

Figure 4.3 CBD - Paving Materials Palette

	Use	Material		
Shared Zone	**Standard** - granite setts to the full width of the shared zone subject to RMS & Council approval. **Special applications** - designs can consider different paving materials subject to special design and RMS & Council approval.	 **Standard** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 90x90x50mm* *Finish: natural split/ exfoliated*	 **Special application** *Mixed paving materials subject to individual design and RMS&Council approval*	
Pedestrian Lane	**Standard** - small granite flagstones or setts. **Special Applications -** designs can consider different paving materials subject to special design and Council approval.	 **Standard** *Material: granite* *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 200x100x50mm* *Finish: exfoliated*	 **Standard** *Material: granite* *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 90x90x50mm* *Finish: varied*	 **Special application** *Special inlays subject to site-specific design and Council approval*
Service Lane	**Carriageway** - asphalt. **Footpath** - small concrete pavers, grey granite flagstones or setts, or asphalt to approved design.	 **Footpath** *Material: granite* *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 90x90x50mm* *Finish: varied*	 **Footpath** *Material: granite* *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 200x100x50mm* *Finish: exfoliated*	 **Footpath** *Material: concrete paver* *Supplier: Pebblecrete* *Product: PPX:628:120.D* *Size: 150x150x60mm* *Finish: honed*
Kerb & Gutter	**Standard** - standard concrete barrier kerb and gutter. **Heritage Kerbs** - subject to heritage advice. **Special applications -** granite kerbs to the streets surrounding Parramatta Square to City's approval.	 **Kerb** *Material: concrete*	 **Kerb & gutter** *Material: concrete*	

Figure 4.3 CBD - Paving Materials Palette

	Use	Material
TGSI's	Type 316 Standard Stainless Steel Discrete Tactile Ground Surface Indicators (TGSI) and Directional Indicators to be manufactured and installed to AS1428: Design for Access and Mobility. Minimum slip resistence of R12.	 **Warning tactile**  **Directional tactile**
Service Pit Lids	Continuous use of paving units to match adjoining area treatment.	 **Granite infill** *Match granite flagstone used in surrounds*  **Concrete paver infill** *Match concrete paver used in surrounds*
Traffic Devices	Ensure sufficient visual contrast between the road and edge of the traffic devices, and use comparable materials for the infills to the surrounding footway finishes.	 **Porphyry setts infill**  **Granite setts infill** *Product: "Adelaide Black"*

Figure 4.4 CBD - Street Tree Strategy

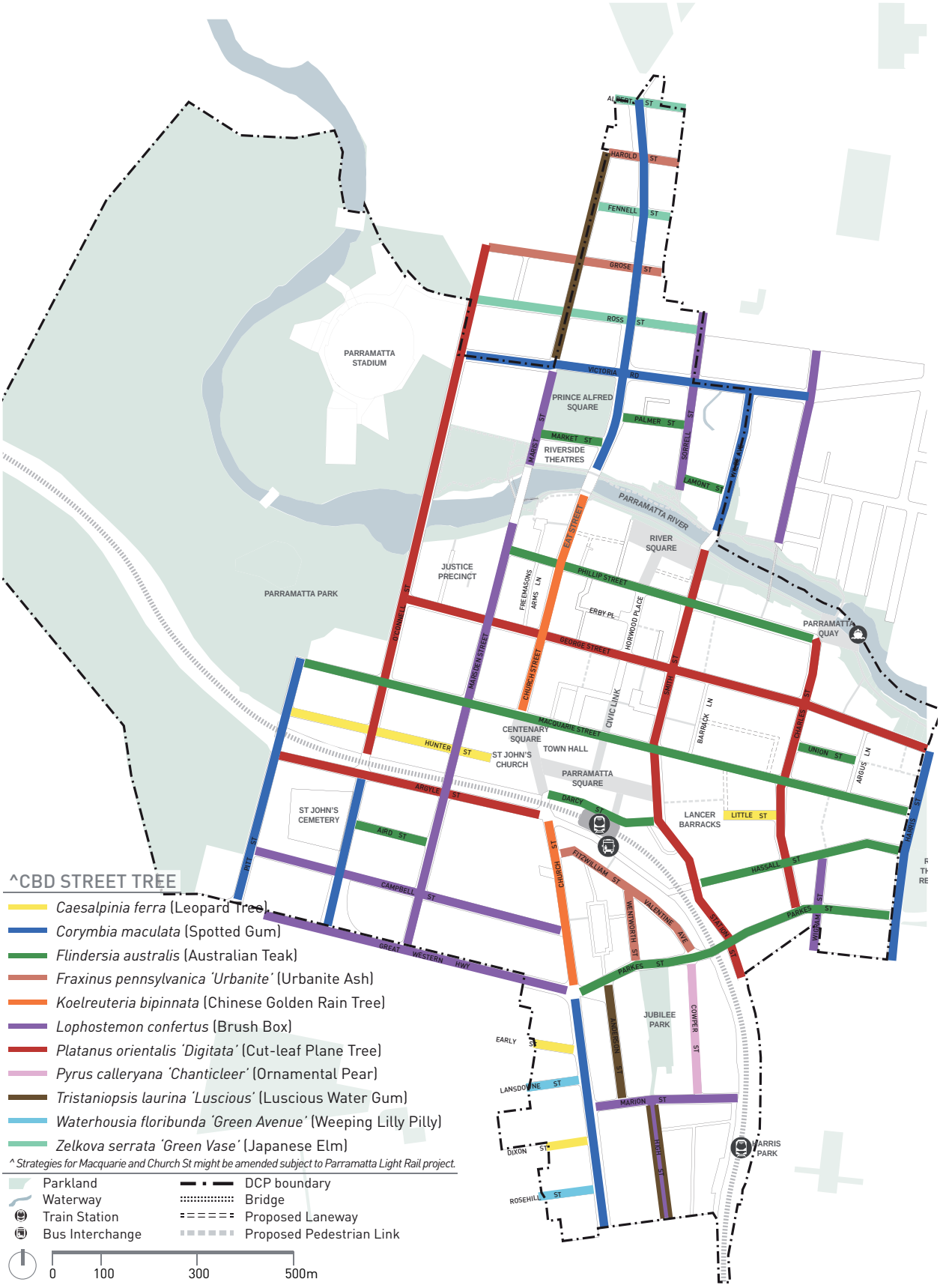


Figure 4.5 CBD - Street Tree Material Palette

Church Street

Koelreuteria bipinnata

Corymbia maculata

Heritage Cultural Precinct

Fraxinus pennsylvanica 'Urbanite'

Zelkova serra 'Green Vase'

Fraxinus griffithii

River Foreshore

Refer to future Foreshore Master Plan

Commercial/ Retail Core

Platanus orientalis 'Digitata'

Flindersia australis

Lophostemon confertus

Caesalpinia ferra

Auto Alley

Lophostemon confertus

Caesalpinia ferra

Tristaniopsis laurina 'Luscious'

Waterhousia floribunda 'Green Avenue'

Figure 4.6 CBD - Tree Surround Finishes Strategy

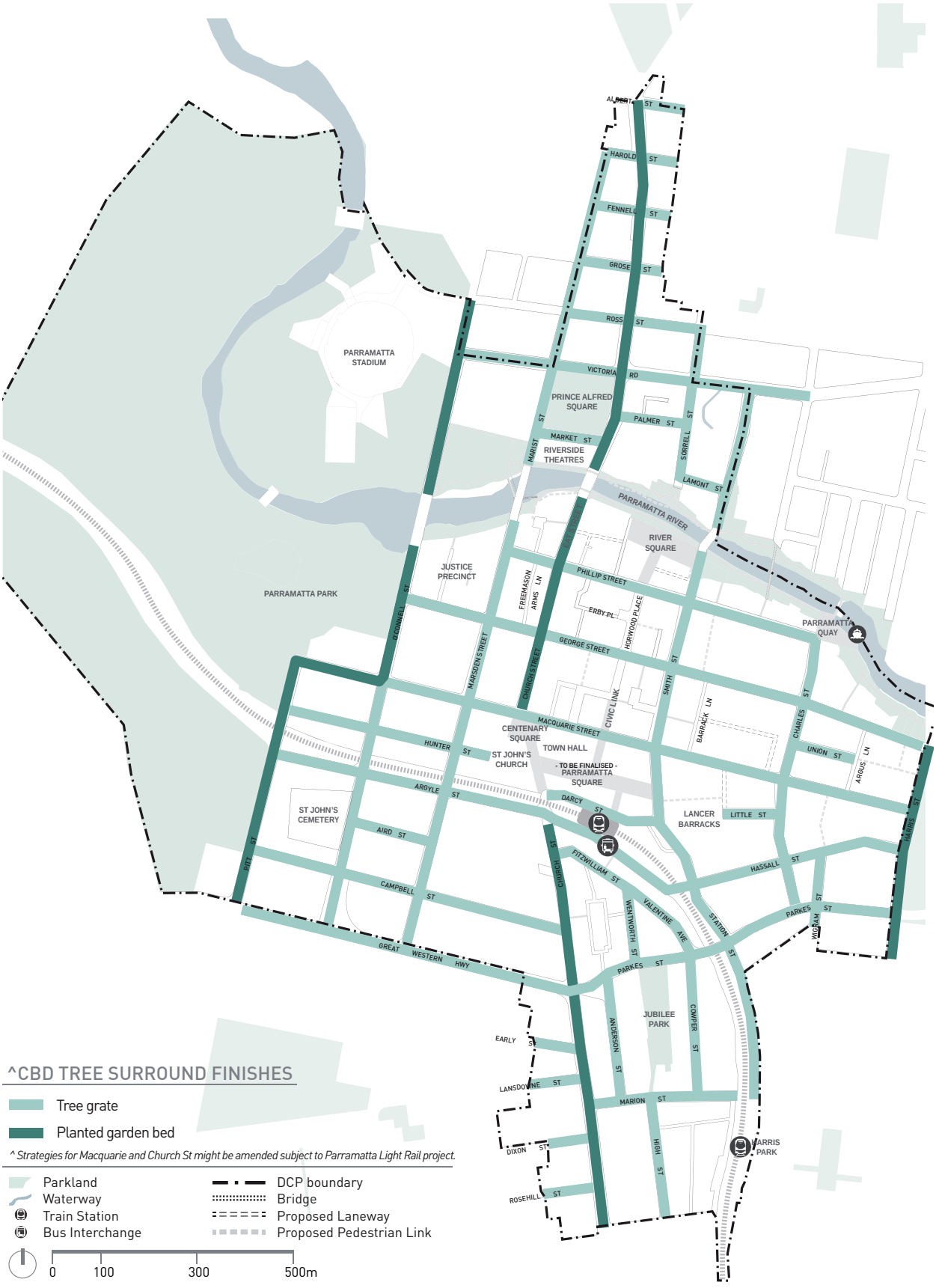


Figure 4.7 CBD - Undergrounding Overhead Wire Strategy

Figure 4.8 CBD - Furniture Strategy

^CBD FURNITURE

Category		Location	Type
	High Profile Suite	- Special places; - Pedestrian links & shared zones; - Publicly accessible places in building front setback areas along George St. -Foreshore	Semi-bespoke or off shelf products with high quality and aesthetic value to highlight the identities and characters of the high pedestrian amenity places.
	Bespoke Items	All High Profile locations. Subject to design approval.	Flexibility is allowed for custom-de-signed items to suit special designs in high profile locations.
	Utility Suite	- City streets; - Transport facilities, e.g. bus stop, taxi rank.	Off shelf products with durable and functional design and quality to accommodate public needs.
	Recreation Suite	- Parks & reserves	Requirements refer to Council's Open Space team.

^ All strategies for Macquarie and Church St will subject to Parramatta Light Rail project

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.9 CBD - Furniture Materials Palette

Seat

High Profile

Material: mild steel frame and hardwood slats
Finish: powdercoated and oiled
*PCC Currently Used Model: HUB S3 Modified**

Utility

Material: cast aluminium frame and panel and seat
Finish: powdercoated
Colour: Dulux Precious® Silver Pearl
*PCC Currently Used Model: SFA Concourse 3 Seater**

Bin & Cigarette Butt Bin (stand alone)

Material: mild steel frame, Rimex metal panels and stainless steel chute
Capacity: 120L
Lock assembly: PCC key-alike system
*PCC Currently Used Model: HUB S2 Modified**

Bin -
Material: mild steel frame, gal panels and stainless steel chute
Finish: powdercoated
Colour: black
Capacity: 120L
Lock assembly: PCC key-alike system
Cigarette Butt Bin -
Material: mild steel and stainless steel cover

Drinking Fountain

Material: stainless steel
Extras: water filter unit, bottle filler, sub-surface drain
*PCC Currently Used Model: Aqualfil Refill Station & Drink Fountain**

N/A

Bike Rack

Material: stainless steel
Finish: polished
*PCC Currently Used Model: SFA Semi Hoop**

Material: stainless steel
Finish: polished
*PCC Currently Used Model: SFA Semi Hoop**

Bollard

High Profile

Material: stainless steel or aluminium body
Finish: brushed or powdercoated
Size varies to suit traffic requirements

Utility

Material: stainless steel or aluminium body
Finish: brushed or powdercoated
Size varies to suit traffic requirements

Pedestrian Fence

N/A

RMS Pedestrian Barrier Type 1 (refer to www.RMS.nsw.gov.au)

Bus Shelter

Supplier: Adshel

Supplier: Adshel

Tree Grate

Material: cast aluminium
Finish: shot blast
Size: 1.5 x 1.5m
Supplier: Furphy

Material: cast aluminium
Finish: shot blast
Size: 1.5 x 1.5m
Supplier: Furphy

** Where models/brand names are nominated, they are indicated only. CoP wishes to maintain consistency in the public domain but does not wish to restrict or endorse any one brand.*

Figure 4.10 CBD - Pedestrian Lighting Level Strategy

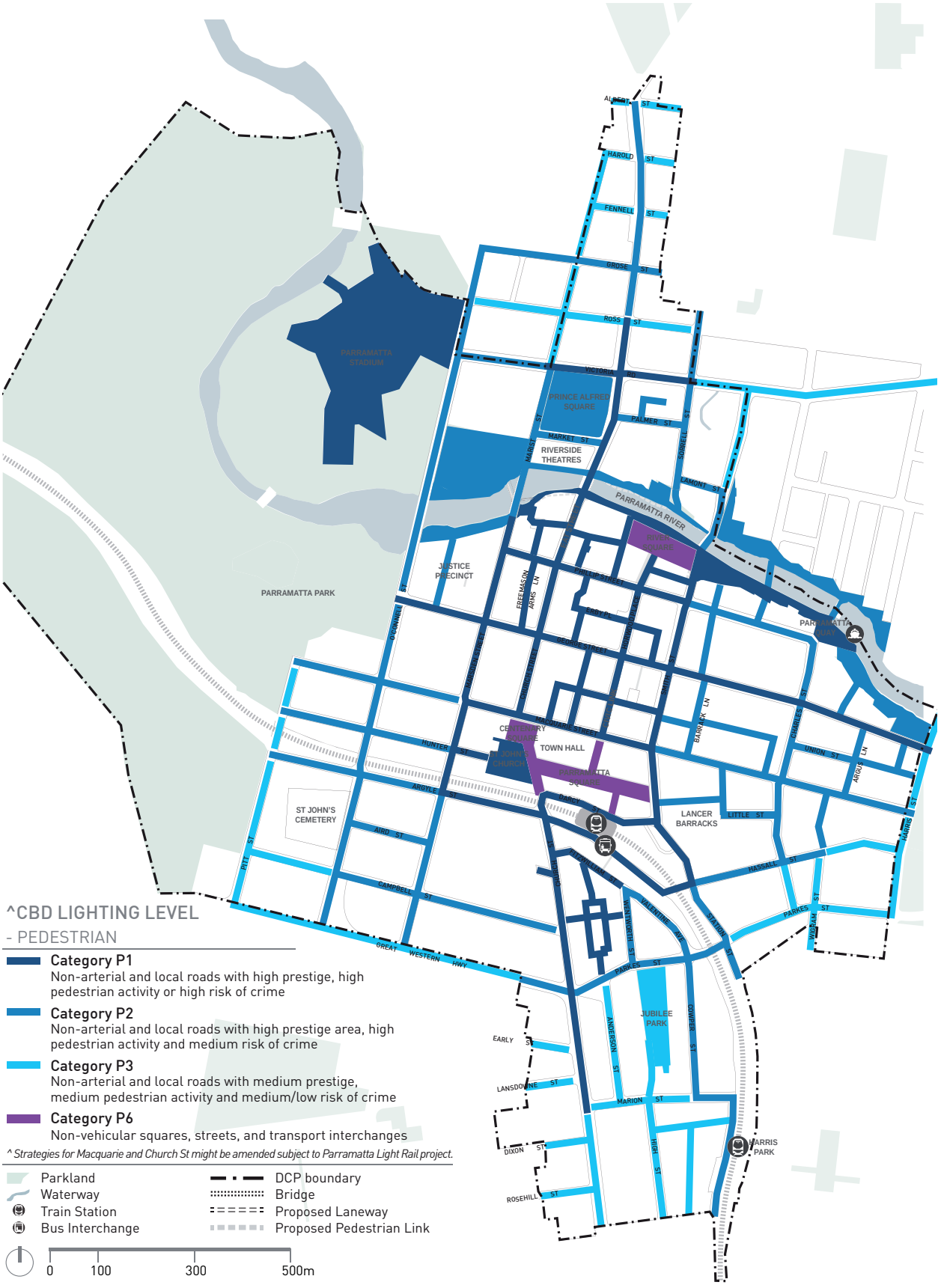


Figure 4.11 CBD - Vehicular Lighting Level Strategy

Figure 4.12 CBD - Street Light Pole Strategy

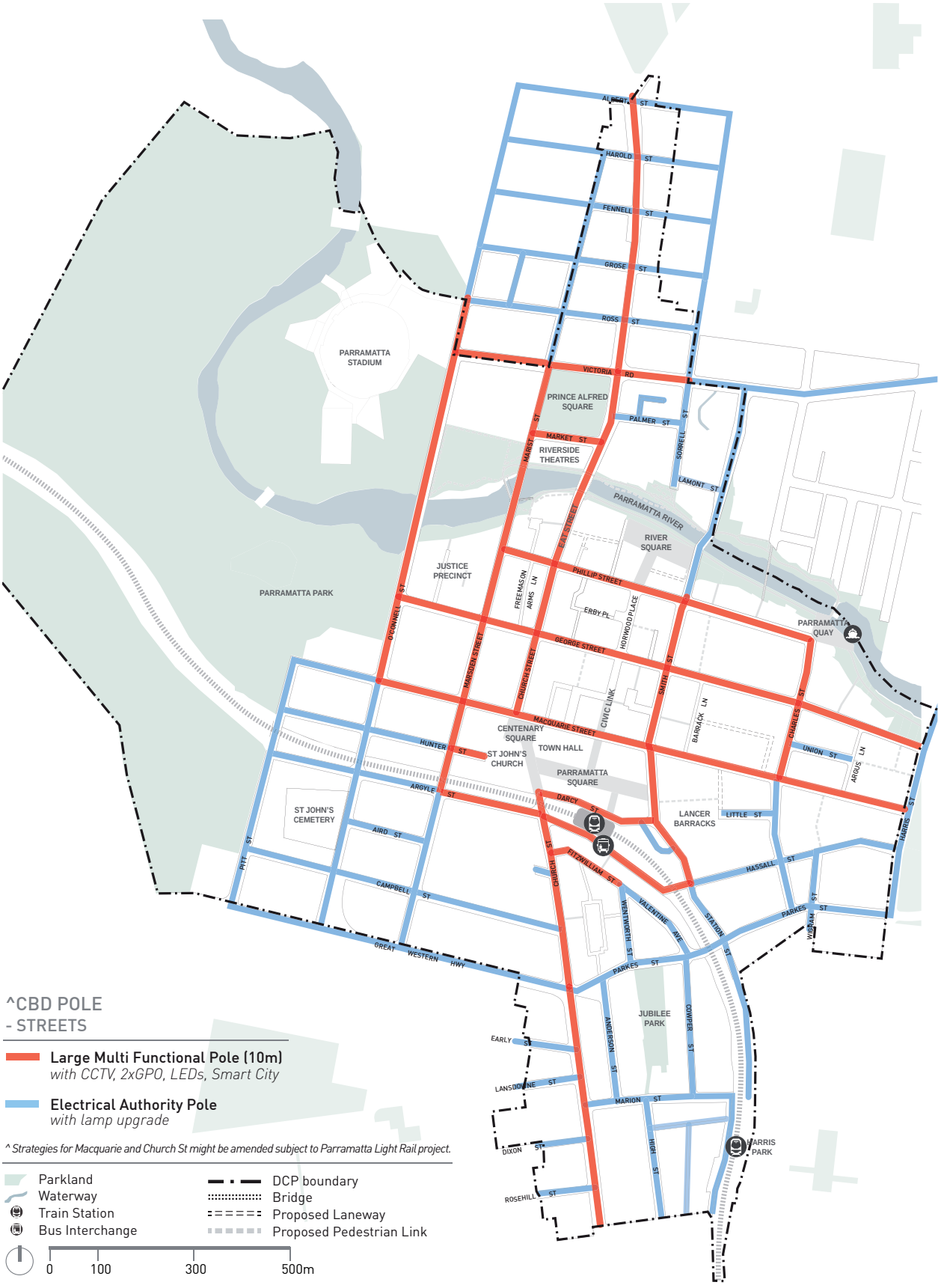
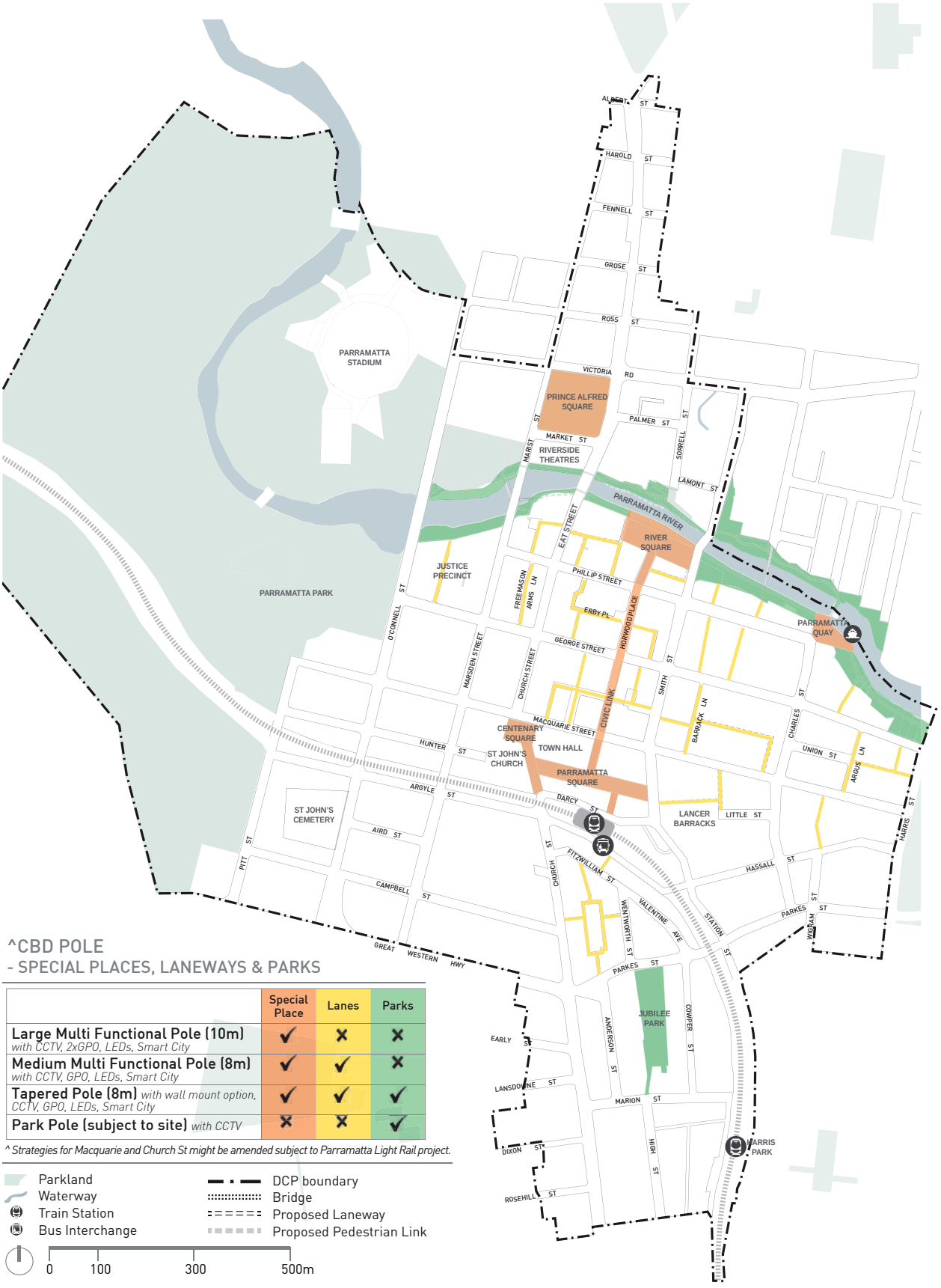


Figure 4.13 CBD - Park, Plaza & Lane Light Pole Strategy



^CBD POLE
- SPECIAL PLACES, LANEWAYS & PARKS

	Special Place	Lanes	Parks
Large Multi Functional Pole (10m) *with CCTV, 2xGPO, LEDs, Smart City*	✓	✗	✗
Medium Multi Functional Pole (8m) *with CCTV, GPO, LEDs, Smart City*	✓	✓	✗
Tapered Pole (8m) *with wall mount option, CCTV, GPO, LEDs, Smart City*	✓	✓	✓
Park Pole (subject to site) *with CCTV*	✗	✗	✓

^ Strategies for Macquarie and Church St might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.14 CBD - Banner Strategy

Figure 4.15 CBD - Pole & Banner Materials Palette

Light Pole

Multi Functional Pole

Large Multi Functional Pole (10m)

Medium Multi Functional Pole (8m)

Electrical Authority Pole

Steel Street Pole by Endeavour Energy

Banner

4500x1500mm Banner (double sided)

STRATEGIC CENTRE

SPECIALISED CENTRE

4.2 STRATEGIC CENTRE

Sydney Olympic Park (SOP) is the only Strategic Centre located in City of Parramatta LGA. It is defined in the Metropolitan Strategy for Sydney to 2031 - 'A Plan for Growing Sydney' (the Plan) published in December 2014.

4.2.1 SYDNEY OLYMPIC PARK

In accordance with the Plan, SOP will be transformed into a healthy lifestyle education and innovation centre based on its sports heritage and creating a vital education, commercial and residential hub. The Sydney Olympic Park Authority is responsible for managing and developing the 640 hectares that comprise Sydney Olympic Park and maintaining it as a lasting legacy for the people of New South Wales.

A series of planning controls and guidelines are published in SOPA website:

http://www.sopa.nsw.gov.au/resource_centre/publications

and, a series of urban design and public domain controls and guidelines - *the Sydney Olympic Park Urban Elements Design Manual* in Cumberland Council website:

http://www.auburn.nsw.gov.au/Develop/PlanPolicies/Pages/DevelopmentControlPlans.aspx

4.3 SPECIALISED CENTRE

Westmead Health Precinct and Rydalmere Education Precinct are two Specialised Centres defined in the Plan.

4.3.1 WESTMEAD HEALTH PRECINCT

The Westmead Health Precinct is one of the largest health, education, research and training precincts in Australia and a key provider of jobs for the greater Parramatta and western Sydney region.

According to the Plan, the State Government will:

- expand and build on the existing strengths of the Westmead Health Precinct by improving public spaces and renewing the precinct.
- facilitate improved public transport, cycling and walking connections between Westmead and Rydalmere through the Parramatta CBD, investigate improved connections to Macquarie Park, and investigate options to enhance a Parramatta City Ring Road.

The Precinct is currently undergoing a major transformation, with more than $3 billion committed by government, universities and the private sector to upgrade and expand the Precinct's health services, education and medical research facilities and undertake urban transformation over the coming years. A precinct-wide master planning has been initiated by the Western Sydney Local Health District. More information can be found in below link:

http://www.westmeadproject.health.nsw.gov.au/

4.3.2 RYDALMERE EDUCATION PRECINCT

The Rydalmere Education Precinct is located east of the Parramatta CBD and will be built upon the strong and growing sector based in Western Sydney University (WSU).

Apart from the public transport, cycling and walking connections, the Plan states that the State Government will:

- encourage higher education facilities to develop Rydalmere as Western Sydney's premier university precinct.
- grow knowledge jobs in Western Sydney and encourage innovation by investigation the potential for a new business park.

TOWN CENTRES

4.4 TOWN CENTRES

Three town centres are located at Epping, Granville and Westmead. These are the major commercial centres outside the CBD . They are characterised by a similar mix of commercial, retail and business developments centred around major railway stations and transport interchanges. They have a high level of pedestrian use and are a focus for local shopping, business and social interactions. They contain place making, community and landmark buildings, historic architecture, statues and public spaces.

As for the CBD the City has nominated materials and finishes requirements for all public domain components for the town centres including:

- paving
- street trees
- overhead wire
- street furniture
- lighting levels
- light poles
- banners

4.4.1 EPPING

Epping Town Centre is a compact and vibrant town centre area focussed around Epping Railway Station. The area is experiencing significant development uplift following adoption of the DCP 2011. Significantly improved public domain facilities are envisaged for Epping to address new development.

Proposed strategies and materials palettes for Epping are as follows:

4.4.2 GRANVILLE

Granville Town Centre will continue to be a vibrant centre focussed around Granville Railway Station. This area is also experiencing significant uplift following adoption of DCP 2011. New pedestrian connections and laneways and a significantly improved public domain setting is envisaged to address the expanded retail and mixed use development zones.

Proposed strategies and materials palettes for Granville Town Centre are as follows:

4.4.3 WESTMEAD

Westmead Town Centre is located to the west of the CBD, adjacent to the Specialised Centre - Westmead Health Districts, with access to Westmead Rail Station.The introduction of light rail along Hawkesbury Road, Hainsworth and Bridge Streets will have a significant impact on the function and vitality of this town centre. The implications of light rail in Westmead are subject to future light rail projet outcomes.

Significantly improved public domainoutcomes are envisaged to support these important changes and address the needs of existing residents in the area.

Proposed strategies and materials palettes for Westmead Town Centre are as follows:

Figure 4.16 Epping Town Centre - Paving Strategy

EPPING TOWN CENTRE FOOTWAY PAVING

IIIIIIIII	**Special Place**	Granite flagstone*
———	**Street**	Granite flagstone
———		Existing paving finish to be reinstated
———		In-situ concrete (full width)
- - -		In-situ concrete (1.5/1.8m wide)
▪▪▪▪▪	**Shared Zone**	Granite flagstone/sett*
-------	**Service Lane**	Granite flagstone/sett
———	**Pedestrian Link**	Granite flagstone/sett*

* *To future approved design, may include special inserts.*

Parkland	DCP boundary
Waterway	Bridge
Train Station	Proposed Laneway^
Bus Interchange	Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to the final Epping Town Centre Master Plan and future DCP.

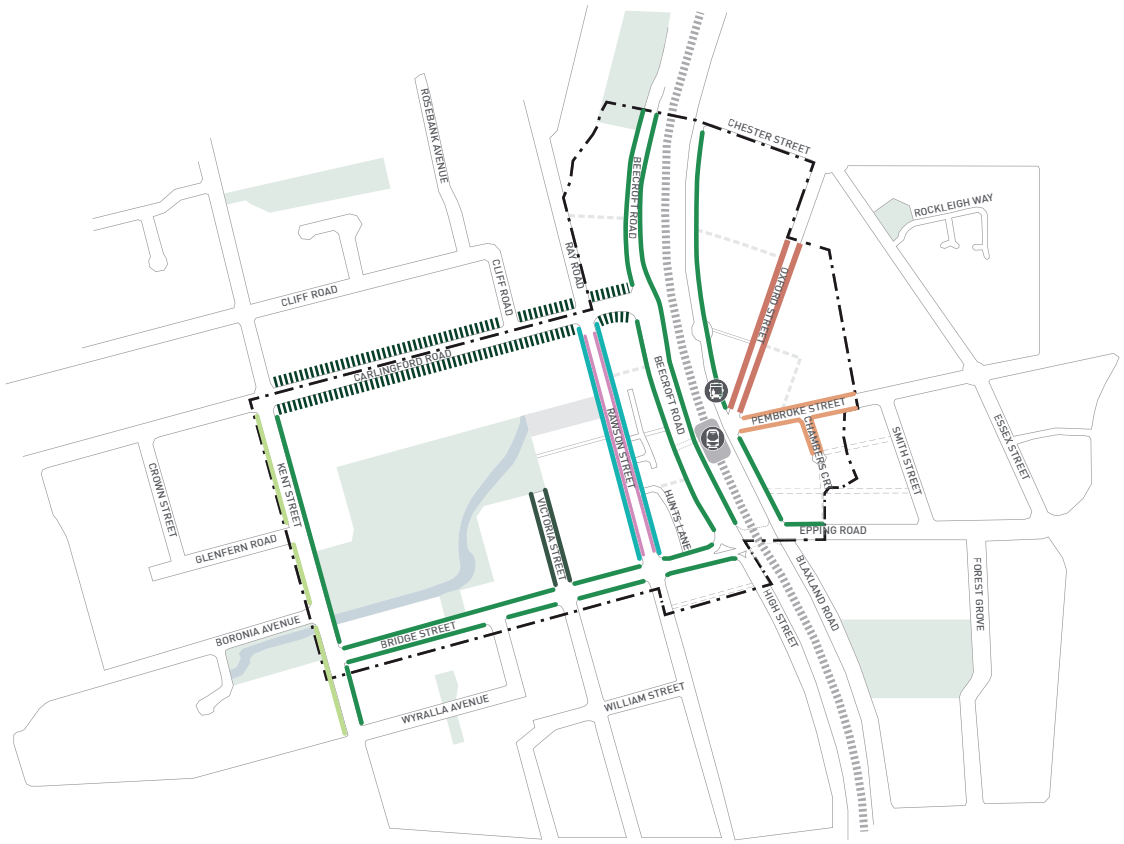
0 100 300 500m

Figure 4.17 Epping Town Centre - Paving Material Palette

	Use	Material
Street Footway Granite	**Main body** - range of grey granite flagstones in a variety of sizes, colours and finishes. **Vehicle crossing, kerb ramp** - granite flagstones to match the footpath treatment. Use smaller stone sizes on vehicle crossings as required to suit vehicle load.	 **Main body** *Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black"* *Size: 600x300x50, 400x300x50mm* *Finish: exfoliated/bush hammered*  **Vehicle crossing** *Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black"* *Size: 400x300x50, 200x300x50mm* *Finish: exfoliated*  **Kerb ramp** *Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black"* *Size: 400x300x50, 200x300x50, 600x300x50mm* *Finish: exfoliated*
In-situ Concrete *(full width)* *(with nature verge)*	**Main body** - in-situ concrete in local streets and Beecroft Road for high duribility and easy maintenance. Full width pavement or footpath with nature (planting/ turf) verge may be required subject to location and site conditions. **Vehicle crossing, kerb ramp** - in-situ concrete to suit grades and vehiclar load.	 **Beecroft Rd** *(full width)* *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*  **Local streets** *(with nature verge)* *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*  **Vehicle crossing** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*  **Kerb ramp** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*
Shared Zone	**Standard** - granite setts to the full width of the shared zone subject to RMS & Council approval. **Special applications** - designs can consider a mix of paving materials subject to special design and RMS & Council approval.	 **Standard** *Product: "Sesame Grey"* *Size: 90x90x50mm* *Finish: natural split/ exfoliated*  **Special application** *Mixed paving materials subject to site-specific design and RMS&Council approval*
Pedestrian Link	**Standard** - small granite flagstones, or setts. **Special Applications** - designs can consider a mix of paving materials subject to site-specific design and Council approval.	 **Standard** *Product: "Sesame Grey"* *Size: 200x100x50mm* *Finish: exfoliated*  **Standard** *Product: "Sesame Grey"* *Size: 90x90x50mm* *Finish: exfoliated*  **Special Application** *Special inlays subject to individual design and Council approval*

	Use	Material
Service Lane	**Carriageway** - asphalt **Footpath** - small grey granite setts to match with surrounding streets.	 **Footpath** *Product: "Sesame Grey"* *Size: 90x90x50mm* *Finish: exfoliated*
Kerb & Gutter	**Standard** -standard concrete barrier kerb and gutter.	 **Kerb & Gutter** *Material: concrete*
TGSI's	Type 316 Standard Stainless Steel Discrete Tactile Ground Surface Indicators (TGSI) and Directional Indicators to be manufactured and installed to AS1428: Design for Access and Mobility. Minimum slip resistence of R12.	 **Warning Tactile**  **Directional Tactile**
Service Pit Lids	Continuous use of paving units to match the adjoining area treatment.	 **Granite Infill** *Match granite flagstone used in surrounds*
Traffic Devices	Ensure sufficient visual contrast between the road and edge of the traffic devices, and use comparable materials for the infills to the surrounding footway finishes.	 **Porphyry setts infill**  **Granite setts infill** *Product: "Adelaide Black"*

Figure 4.18 Epping Town Centre - Street Tree Strategy



EPPING TOWN CENTRE STREET TREE

- *Bunckinghamia celsissima* (Ivory Curl Flower)
- *Fraxinus pennsylvanica 'Urbanite'* (Urbanite Green Ash)
- *Lophostemon confertus* (Brush Box)
- *Lagerstroemia indica 'Natchez'* (Crepe Myrtle)
- *Syncarpia glomulifera* (Turpentine Tree)
- *Tristaniopsis laurina 'Lucious'* (Lucious Water Gum)
- *Waterhousia floribunda 'Green Avenue'* (Weeping Lilly Pilly)
- *Zelkova serrata 'Green Vase'* (Japanese Elm)
- Planting within Setbacks
  - *Brachychiton acerifolius; Jacaranda mimosifolia*

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway^
- Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.19 Epping Town Centre - Street Tree Materials Palette

Retail Streets


Waterhousia floribunda 'Green Av'


Lagerstroemia indica 'Natchez'


Fraxinus pennsylvanica 'Urbanite'


Zelkova Serrata 'Green Vase'

Residential Streets

(non wire)


Angophora floribunda


Lophostemon confertus


Syncarpia glomulifera

Residential Streets

(under wire)


Prunus cerasifera 'Nigra'


Bunckinghamia celsissima

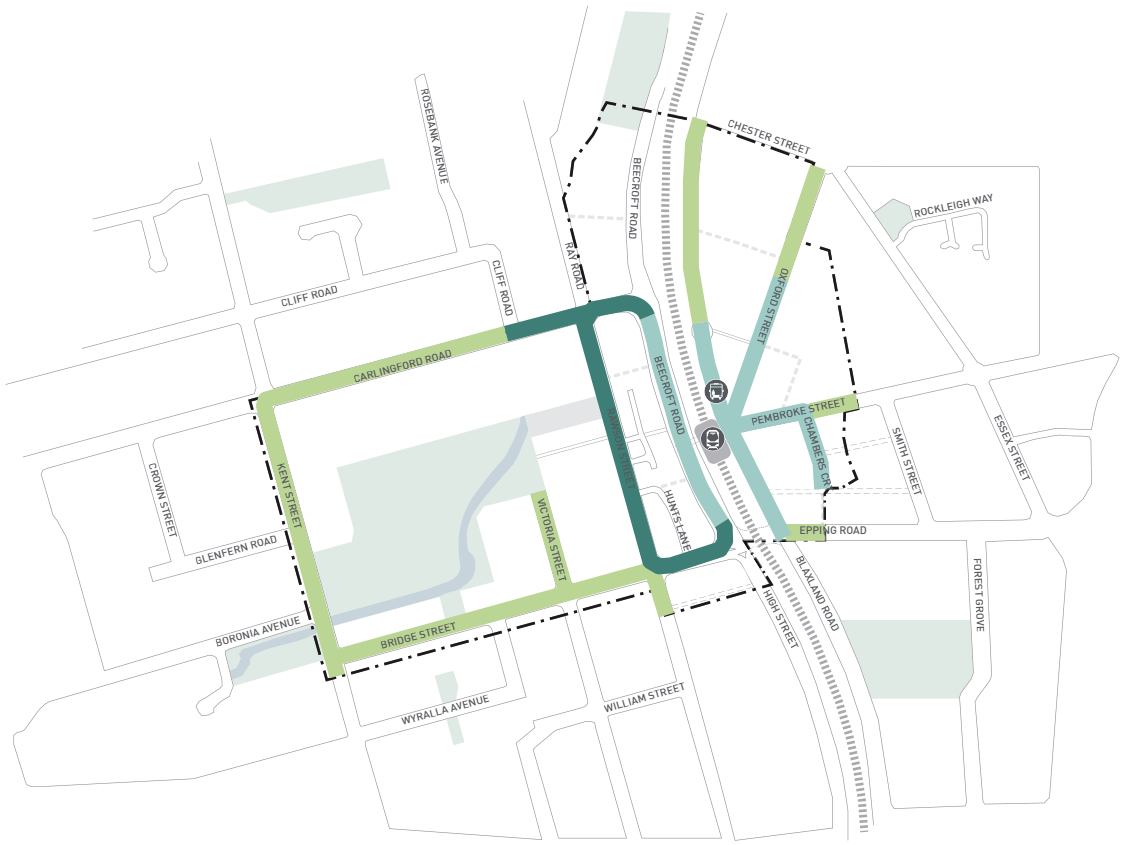
Building Setbacks

(Carlingford Rd)


Jacaranda mimosifolia


Brachychiton acerfolius

Figure 4.20 Epping Town Centre - Street Tree Surround Finishes Strategy



EPPING TOWN CENTRE TREE SURROUND FINISHES

- Tree grate / permeable paving material
- Planted garden bed
- Turf verge

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway^
- Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.21 Epping Town Centre - Overhead Power Strategy

EPPING TOWN CENTRE OVERHEAD WIRE

- Existing overhead power lines
- Proposed underground power lines
- Proposed Aerial Bundled Cable (ABC)
- Potential development lots to contribute undergrounding power lines

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway^
- Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.22 Epping Town Centre - Furniture Strategy

EPPING TOWN CENTRE FURNITURE

Category		Location	Type
	High Profile Suite	- Special places	Semi-bespoke or off shelf products with high quality and aesthetic value to highlight the identities and characters of the high pedestrian amenity places.
	Bespoke Items	All High Profile locations. Subject to design approval.	Flexibility is allowed for custom-designed items to suit special designs in high profile locations.
	Utility Suite	- City streets; - Transport facilities, e.g. bus stop, taxi rank.	Off shelf products with durable and functional design and quality to accommodate public needs.
	Recreation Suite	- Parks & reserves	Requirements refer to Council's Open Space team.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.23 Epping Town Centre - Furniture Palette

Seat

High Profile

Material: mild steel frame and hardwood slats
Finish: powdercoated and oiled
*PCC Currently Used Model: HUB S3 Modified**

Utility

Material: cast aluminium frame and panel and seat
Finish: powdercoated
Colour: Dulux Precious® Silver Pearl
*PCC Currently Used Model: SFA Concourse 3 Seater**

Bin & Cigarette Butt Bin (stand alone)

Material: mild steel frame, Rimex metal panels and stainless steel chute
Capacity: 120L
Lock assembly: PCC key-alike system
*PCC Currently Used Model: HUB S2 Modified**

Bin -
Material: mild steel frame, gal panels and stainless steel chute
Finish: powdercoated
Colour: black
Capacity: 120L
Lock assembly: PCC key-alike system
Cigarette Butt Bin -
Material: mild steel and stainless steel cover

Drinking Fountain

Material: stainless steel
Extras: water filter unit, bottle filler, sub-surface drain
*PCC Currently Used Model: Aqualfil Refill Station & Drink Fountain**

Material: stainless steel and aluminium grate
Extras: bottle filler, dog bowl, sub-surface drain
*PCC Currently Used Model: Botton + gardiner Prospect Drink Fountain**

Bike Rack

Material: stainless steel
Finish: polished
*PCC Currently Used Model: SFA Semi Hoop**

Material: stainless steel
Finish: polished
*PCC Currently Used Model: SFA Semi Hoop**

Bollard

High Profile

Material: stainless steel or aluminium body
Finish: brushed or powdercoated
Size varies to suit traffic requirements

Utility

Material: stainless steel or aluminium body
Finish: brushed or powdercoated
Size varies to suit traffic requirements

Pedestrian Fence

N/A

RMS Pedestrian Barrier Type 1 (refer to www.RMS.nsw.gov.au)

Bus Shelter

Supplier: Adshel

Supplier: Adshel

Supplier: Adshel

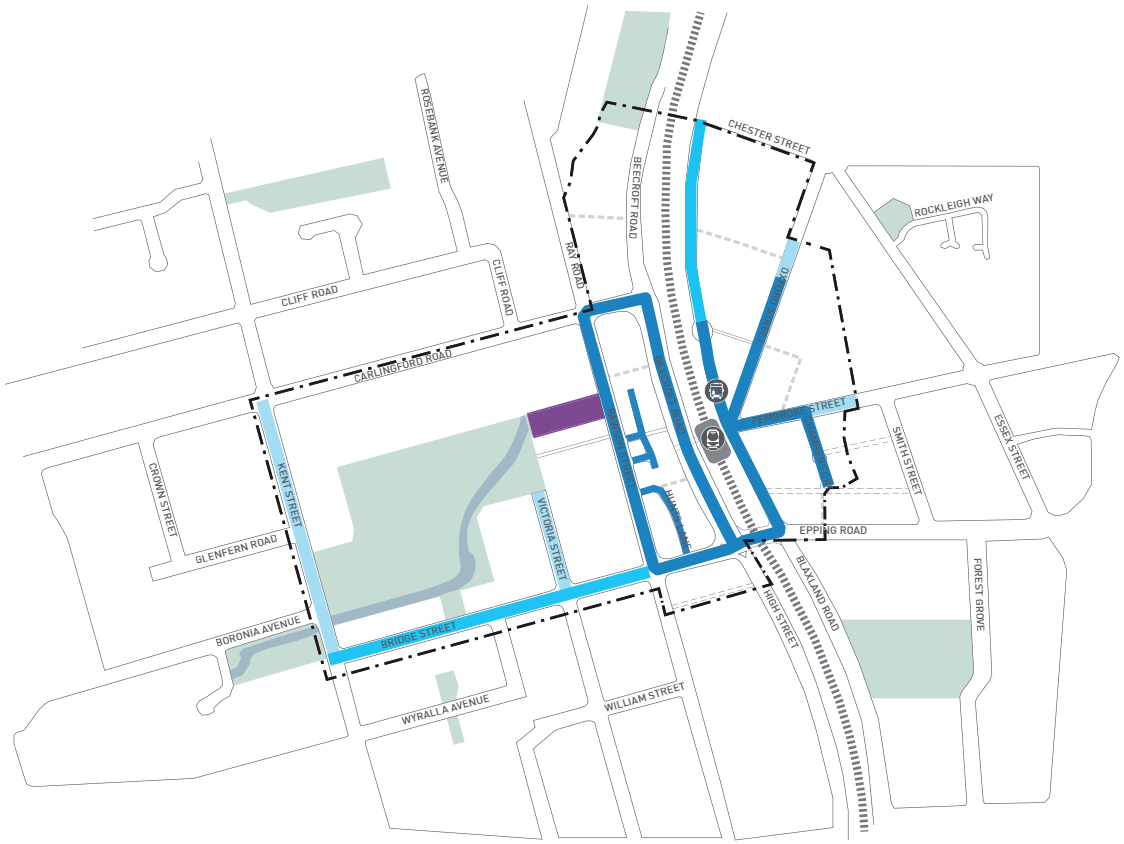
Tree Grate

Material: cast aluminium
Finish: shot blast
Size: 1.5 x 1.5m
Supplier: Furphy

Material: cast aluminium
Finish: shot blast
Size: 1.5 x 1.5m
Supplier: Furphy

**Where models/brand names are nominated, they are indicated only. CoP wishes to maintain consistency in the public domain but does not wish to restrict or endorse any one brand.*

Figure 4.24 Epping Town Centre - Pedestrian Lighting Level Strategy



EPPING TOWN CENTRE LIGHTING LEVEL - PEDESTRIAN

Category P2
Non-arterial and local roads with high prestige area, high pedestrian activity and medium risk of crime

Category P3
Non-arterial and local roads with medium prestige, medium pedestrian activity and medium/low risk of crime

Category P4
Local or collector roads with low pedestrian/cycle activity and low risk of crime

Category P6
Non-vehicular squares, streets, and transport interchanges

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.25 Epping Town Centre - Vehicular Lighting Level Strategy

EPPING TOWN CENTRE LIGHTING LEVEL
- VEHICLE

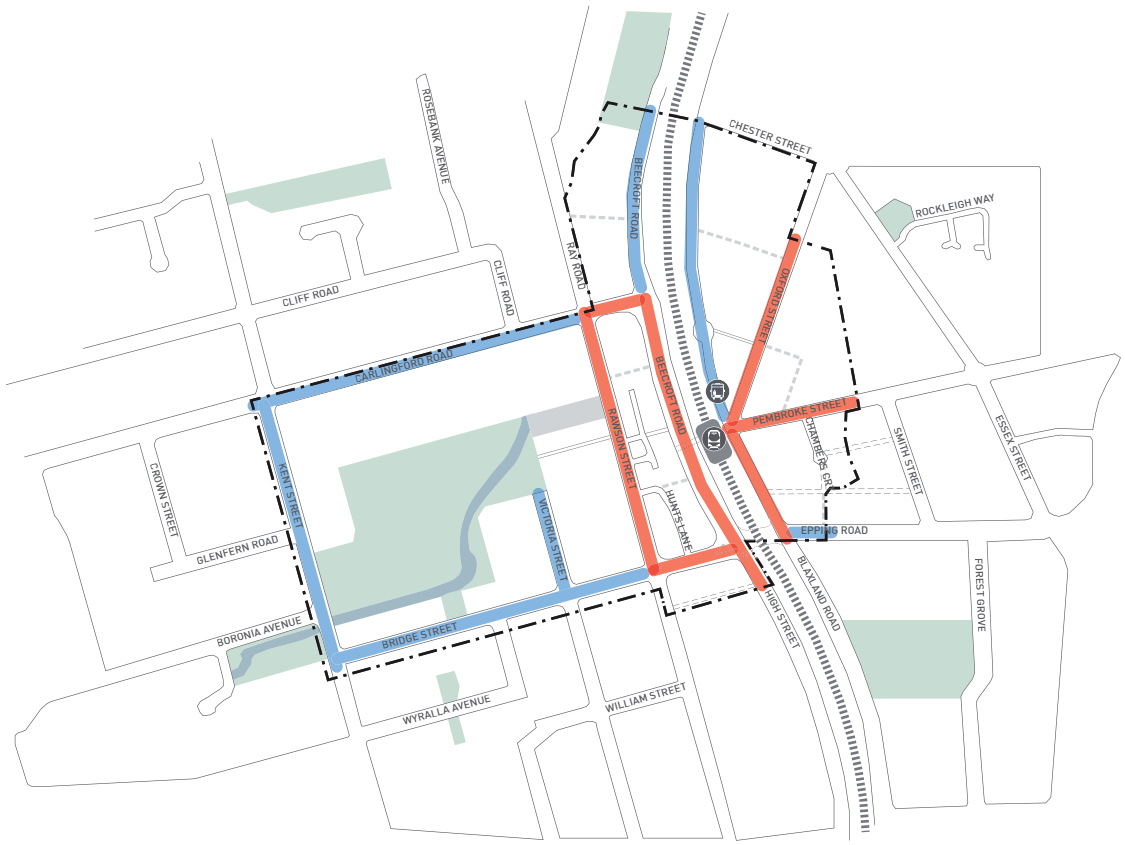
Category V3
Arterial roads with mixed vehicle/pedestrian traffic, moderate/high vehicle volume; high pedestrian volume; and moderate/low vehicle speeds

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.26 Epping Town Centre - Street Pole Strategy



EPPING TOWN CENTRE POLE - STREETS

Large Multi Functional Pole (10m)
with CCTV, 2xGPO, LEDs, Smart City

Electrical Authority Pole
with lamp upgrade

Parkland
Waterway
Train Station
Bus Interchange

DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.27 Epping Town Centre - Park, Plaza & Lane Pole Strategy

EPPING TOWN CENTRE POLE - SPECIAL PLACES, LANEWAYS & PARKS

	Special Place	Lanes	Parks
Large Multi Functional Pole (10m) *with CCTV, 2xGPO, LEDs, Smart City*	✓	✗	✗
Medium Multi Functional Pole (8m) *with CCTV, GPO, LEDs, Smart City*	✓	✓	✗
Tapered Pole (8m) *with wall mount option, CCTV, GPO, LEDs, Smart City*	✓	✓	✓
Park Pole (subject to site) *with CCTV*	✗	✗	✓

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.28 Epping Town Centre - Banner Strategy

EPPING TOWN CENTRE BANNER

Banners

No Banners

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway^
Proposed Pedestrian Link^

^ All the proposed links and lanes are subject to final Epping Town Centre Master Plan and future DCP.

0 100 300 500m

Figure 4.29 Granville Town Centre - Paving Strategy

GRANVILLE TOWN CENTRE FOOTPWAY PAVING

|||||||	**Special Place**	Granite flagstone*
———	**Street**	Granite flagstone
———		Secondary granite treatment
———		Asphalt
———		In-situ concrete (full width)
- - - -		In-situ concrete (1.5/1.8m wide)
———	**Service Lane**	Granite flagstone/sett
———		In-situ concrete
- - - -	**Pedestrian Link**	Granite flagstone/sett*
- - - -		In-situ concrete

** To future approved design, may include special inserts.*

Parkland
Waterway
Train Station
Bus Interchange

DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.30 Granville Town Centre - Paving Materials Palette

	Use	Material
Street Footpath Granite	**Main body** - unified dark grey granite flagstones in a variety of sizes. **Vehicle crossing, kerb ramp** - continued use of granite flagstones to match the footpath treatment. Use smaller stone sizes on vehicle crossings as required to suit vehicle load.	 **Main body** *Product: "Adelaide Black (Veined)" or "Austral Black" Size: 600x300x50, 400x300x50mm Finish: exfoliated/bush hammered*  **Vehicle crossing** *Product: "Adelaide Black (Veined)" or "Austral Black" Size: 400x300x50, 200x300x50mm Finish: exfoliated*  **Kerb ramp** *Product: "Adelaide Black" Size: 400x300, 200x300 Thickness: 50mm Finish: exfoliated*
Secondary Stone Treatment	**Main body** - smaller granite flagstones or setts in kerbside strip and asphalt pavement in foot traffic areas. **Vehicle crossing, kerb ramp** - continue use of small granite flagstones or setts to suit grades and vehicle load.	 **Kerbside strip** *Product: "Adelaide Black (Veined)" or "Austral Black" Size: 200x100x50mm Finish: exfoliated*  **Foot traffic zone** *Material: asphalt concrete of AC10 and AC5 (wearing course) Colour: natural*  **Vehicle crossing & kerb ramp** *Product: "Adelaide Black (Veined)" or "Austral Black" Size:600x300x50mm Finish: exfoliated*
Asphalt	**Main body** - asphalt footpath in low foot traffic areas. Subject to the location and site conditions, full width pavement may be required. **Vehicle crossing, kerb ramp** - in-situ concrete to suit grades and vehiclar load.	 **Railway corridor** *Material: asphalt concrete of AC10 and AC5 (wearing course) Colour: natural*  **Vehicle crossing** *Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*  **Kerb ramp** *Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*
In-situ Concrete *(full width)* *(with nature verge)*	**Main Body** - in-situ concrete in fringe streets and Parramatta Road for high durability and easy maintenance. Subject to the location and site condition, full width pavement may be required. **Vehicle crossing, kerb ramp** - in-situ concrete to suit grades and vehicle load.	 **Parramatta Rd** *(full width) Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*  **Local streets** *(with nature verge) Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*  **Vehicle crossing** *Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*  **Kerb ramp** *Material: in-situ concrete Colour: natural grey (no oxide colour) Finish: broom finish*

	Use	Material
Pedestrian Link Granite	**Standard** - small granite flagstones or setts. **Special Applications -** designs can consider different paving materials and sizes, subject to special design and Council approval.	 **Standard** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size/Finish: varied*  **Standard** *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size:90x90x50mm* *Finish: varied*  **Special Application** *Mixed paving materials subject to site-specific design and Council approval*
Asphalt	**Standard** - asphalt in pedestrian links outside core area.	 **Railway corridor** *Material: asphalt concrete of AC10 and AC5 (wearing course)* *Colour: natural*
Service Lane	**Carriageway** - asphalt. **Footpath** - use of in-situ concrete for high durability and easy maintenance. Granite or different materials can be used subject to Council's advice and approval.	 **Footpath** *Material: granite* *Product: "Adelaide Black (Veined)" or "Austral Black"* *Size: 200x100x50mm* *Finish: exfoliated*  **Footpath** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*
Kerb & Gutter	**Standard** - standard concrete barrier kerb and gutter.	 **Kerb & gutter** *Material: concrete*
TGSI's	Type 316 Standard Stainless Steel Discrete Tactile Ground Surface Indicators (TGSI) and Directional Indicators to be manufactured and installed to AS1428: Design for Access and Mobility. Minimum slip resistence of R12.	 **Warning tactile**  **Directional tactile**
Service Pit Lids	Continuous use of paving units to infill service pits on footpath areas to match adjoining area treatment.	 **Granite infill** *Match the stone material used on footpath*

Figure 4.31 GranvilleTown Centre- Street Tree Strategy

GRANVILLE TOWN CENTRE STREET TREE

- *Angophora floribunda* (Rough Barked Apple)
- *Bunckinghamia celsissima* (Ivory Curl Flower)
- *Koelreuteria bipinnata* (Chinese Rain Tree)
- *Lophosternon confertus* (Brush Box)
- *Melaleuca linarifolia* (Snow in Summer)
- *Tristaniopsis laurina 'Lucious'* (Lucious Water Gum)
- *Pistacia chinesis* (Chinese Pistache)
- *Ulums parvifolia* (Chinese Elm)
- *Waterhousia floribunda 'Green Avenue'* (Weeping Lilly Pilly)
- Planting within Setback

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.32 Granville Town Centre - Street Tree Materials Palette

Retail Streets


Koelreuteria bipinnata


Lophostemon confertus


Waterhousia floribunda 'Green Avenue'

Residential Streets

(non wire)


Angophora floribunda


Lophostemon confertus


Melaleuca linarifolia


Glochidian ferdinandii


Fraxinus pennsylvanica

Residential Streets

(under wire)


Tristaniopsis laurina


Bunckinghamia celsissima


Pistacia chinensis

Figure 4.33 Granville Town Centre - Street Tree Surround Finishes Strategy

GRANVILLE TOWN CENTRE TREE SURROUND FINISHES

- Tree grate / permeable paving material
- Planted garden bed
- Planted garden bed in setbacks
- Turf verge

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.34 Granville Town Centre - Overhead Power Strategy

GRANVILLE TOWN CENTRE OVERHEAD WIRE

- Existing overhead power lines
- Proposed underground power lines
- Proposed Aerial Bundled Cable (ABC)
- Potential development lots to contribute undergrounding power lines

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.35 Granville Town Centre - Furniture Strategy

GRANVILLE TOWN CENTRE FURNITURE

Category		Location	Type
	High Profile Suite	- Special places	Semi-bespoke or off shelf products with high quality and aesthetic value to highlight the identities and characters of the high pedestrian amenity places.
	Bespoke Items	All High Profile locations. Subject to design approval.	Flexibility is allowed for custom-de-signed items to suit special designs in high profile locations.
	Utility Suite	- City streets; - Transport facilities, e.g. bus stop, taxi rank.	Off shelf products with durable and functional design and quality to accommodate public needs.
	Recreation Suite	- Parks & reserves	Requirements refer to Council's Open Space team.

Parkland
Waterway
Train Station
Bus Interchange

DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.36 Granville Town Centre - Furniture Palette

	High Profile	Utility
Seat	 *Material: mild steel frame and hardwood slats* *Finish: powdercoated and oiled* *PCC Currently Used Model: HUB S3 Modified**	 *Material: cast aluminium frame and panel and seat* *Finish: powdercoated* *Colour: Dulux Precious® Silver Pearl* *PCC Currently Used Model: SFA Concourse 3 Seater**
Bin & Cigarette Butt Bin (stand alone)	 *Material: mild steel frame, Rimex metal panels and stainless steel chute* *Capacity: 120L* *Lock assembly: PCC key-alike system* *PCC Currently Used Model: HUB S2 Modified**	 *Bin -* *Material: mild steel frame, gal panels and stainless steel chute* *Finish: powdercoated* *Colour: black* *Capacity: 120L* *Lock assembly: PCC key-alike system* *Cigarette Butt Bin -* *Material: mild steel and stainless steel cover*
Drinking Fountain	 *Material: stainless steel* *Extras: water filter unit, bottle filler, sub-surface drain* *PCC Currently Used Model: Aqualfil Refill Station & Drink Fountain**	 *Material: stainless steel and aluminium grate* *Extras: bottle filler, dog bowl, sub-surface drain* *PCC Currently Used Model: Botton + gardiner Prospect Drink Fountain**
Bike Rack	 *Material: stainless steel* *Finish: polished* *PCC Currently Used Model: SFA Semi Hoop**	 *Material: stainless steel* *Finish: polished* *PCC Currently Used Model: SFA Semi Hoop**

	High Profile	Utility
Bollard	 *Material: stainless steel or aluminium body* *Finish: brushed or powdercoated* *Size varies to suit traffic requirements*	 *Material: stainless steel or aluminium body* *Finish: brushed or powdercoated* *Size varies to suit traffic requirements*
Pedestrian Fence	N/A	 *RMS Pedestrian Barrier Type 1 (refer to www.RMS.nsw.gov.au)*
Bus Shelter	 *Supplier: Adshel*	 *Supplier: Adshel*  *Supplier: Adshel*
Tree Grate	 *Material: cast aluminium* *Finish: shot blast* *Size: 1.5 x 1.5m* *Supplier: Furphy*	 *Material: cast aluminium* *Finish: shot blast* *Size: 1.5 x 1.5m* *Supplier: Furphy*

**Where models/brand names are nominated, they are indicated only. CoP wishes to maintain consistency in the public domain but does not wish to restrict or endorse any one brand.*

Figure 4.37 Granville Town Centre - Pedestrian Lighting Level Strategy

GRANVILLE TOWN CENTRE LIGHTING LEVEL - PEDESTRIAN

Category P2
Non-arterial and local roads with high prestige area, high pedestrian activity and medium risk of crime

Category P3
Non-arterial and local roads with medium prestige, medium pedestrian activity and medium/low risk of crime

Category P4
Local or collector roads with low pedestrian/cycle activity and low risk of crime

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.38 Granville Town Centre - Vehcilular Lighting Level Strategy

GRANVILLE TOWN CENTRE LIGHTING LEVEL
- VEHICLE

Category V1
Arterial roads with high/very high vehicle volume; high/very high pedestrian volume; and moderate/low vehicle speeds

Category V3
Arterial roads with mixed vehicle/pedestrian traffic, moderate/high vehicle volume; high pedestrian volume; and moderate/low vehicle speeds

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.39 GranvilleTown Centre- Street Pole Strategy

GRANVILLE TOWN CENTRE POLE - STREETS

Large Multi Functional Pole (10m)
with CCTV, 2xGPO, LEDs, Smart City

Electrical Authority Pole
with lamp upgrade

Parkland
Waterway
Train Station
Bus Interchange

DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.40 Granville Town Centre - Park, Plaza & Lane Pole Strategy

GRANVILLE TOWN CENTRE POLE - SPECIAL PLACES, LANEWAYS & PARKS

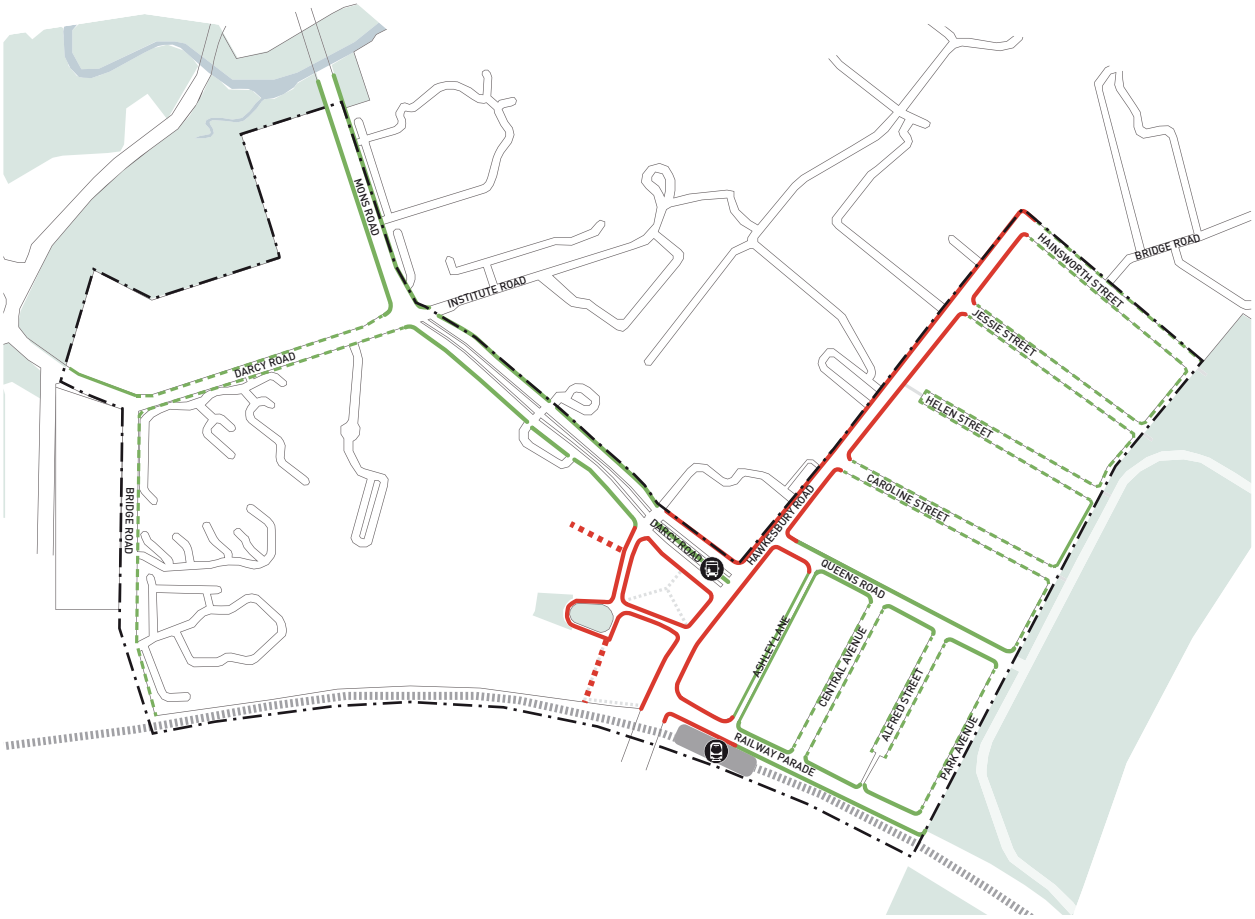
	Special Place	Lanes	Parks
Large Multi Functional Pole (10m) *with CCTV, 2xGPO, LEDs, Smart City*	✓	✗	✗
Medium Multi Functional Pole (8m) *with CCTV, GPO, LEDs, Smart City*	✓	✓	✗
Tapered Pole (8m) *with wall mount option, CCTV, GPO, LEDs, Smart City*	✓	✓	✓
Park Pole (subject to site) *with CCTV*	✗	✗	✓

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.41 Granville Town Centre - Banner Strategy

Figure 4.42 Westmead Town Centre - Paving Strategy



^WESTMEAD TOWN CENTRE FOOTWAY PAVING

Street	Granite flagstone
	In-situ concrete (full width)
	In-situ concrete (1.5/1.8m wide)
Shared Zone	Granite flagstone/sett*
Service Lane	In-situ concrete

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.
** To future approved design, may include special inserts.*

Parkland	DCP boundary
Waterway	Bridge
Train Station	Proposed Laneway
Bus Interchange	Proposed Pedestrian Link

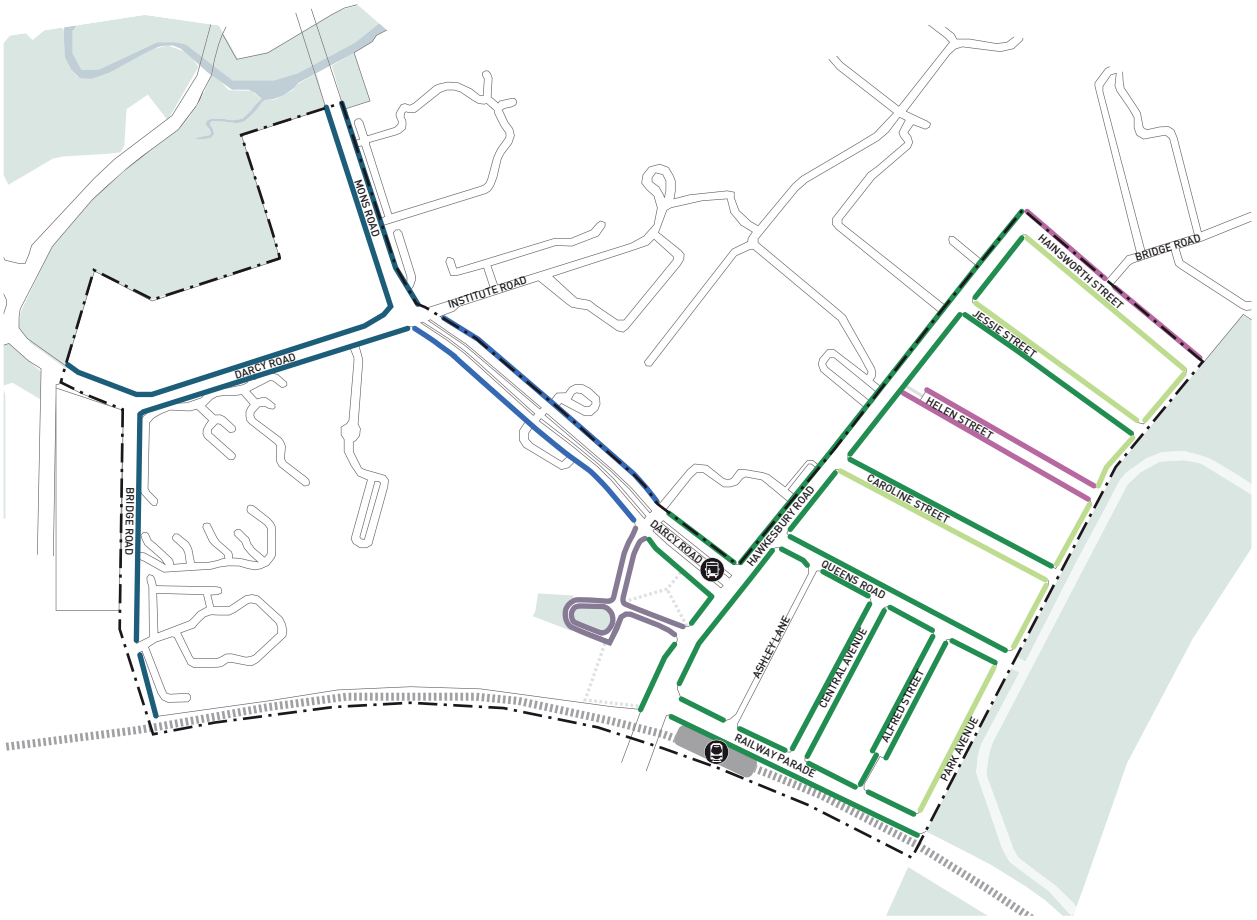
0 100 300 500m

Figure 4.43 Westmead Town Centre - Paving Materials Palette

	Use	Material
Street Footpath Granite	**Main body** - range of grey granite flagstones in a variety of sizes, colours and finishes. **Vehicle crossing, kerb ramp** - granite flagstones to match the footpath treatment. Use smaller stone sizes on vehicle crossings as required to suit vehiclar load. ** Granite depth subject to engnieer's design*	 **Main body** *Product: "Silver Black" & "Sesame Grey"* *Size: 600x300x50, 400x300x50mm* *Finish: exfoliated/bush hammered*  **Vehicle crossing** *Product: "Silver Black" & "Sesame Grey"* *Size: 400x300x50, 200x300x50mm* *Finish: exfoliated*  **Kerb ramp** *Product: "Silver Black" & "Sesame Grey"* *Size: 400x300x50, 200x300x50. 600x300x50mm* *Finish: exfoliated*
In-situ Concrete *(full width)* *(footpath with nature verge)*	**Main body** - in-situ concrete in fringe streets and regional road for high durability and easy maintenance. Subject to location and site conditions full width pavement may be required. **Vehicle crossing, kerb ramp** - in-situ concrete to suit grades and vehicle load.	 **Main Body** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*  **Vehicle Crossing** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*  **Kerb Ramp** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*
Shared Zone	**Standard** - granite setts to the full width of the shared zone subject to RMS & Council approval. **Special applications** - designs can consider different paving materials subject to site-specific design and RMS & Council approval.	 **Standard** *Material: "Sesame Grey"* *Size: 90x90x50mm* *Finish: natural split/ exfoliated*  **Special Application** *Mixed paving materials subject to site-specific design and RMS&Council approval*
Service Lane	**Carriageway** - asphalt **Footpath** - use of in-situ concrete for high duribility and easy maintenance	 **Footpath** *Material: in-situ concrete* *Colour: natural grey (no oxide colour)* *Finish: broom finish*
Kerb & Gutter	**Standard** - standard concrete barrier kerb and gutter.	 **Kerb & Gutter** *Material: concrete*

	Use	Material
TGSI's	Type 316 Standard Stainless Steel Discrete Tactile Ground Surface Indicators (TGSI) and Directional Indicators to be manufactured and installed to AS1428: Design for Access and Mobility. Minimum slip resistence of R12.	 **Warning Tactile**  **Directional Tactile**
Service Pit Lids	Continuous use of paving units to infill service pits on footpath areas to match adjoining area treatment.	 **Granite Infill** *Match the stone material used on footpath*

Figure 4.44 Westmead Town Centre - Street Tree Strategy



^WESTMEAD TOWN CENTRE STREET TREE

- *Buckinghamia celsissima* (Ivory Curl Flower)
- *Corymbia macalata* (Spotted Gum)
- *Eucalyptus sideroxylon 'Rosea'* (Red Flowering Ironbark)
- *Jacaranda mimosifolia* (Jacaranda)
- *Lophostemon confertus* (Brush Box)
- *Magnolia grandifolia* (Bull Bay Magnolia)

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.45 Westmead Town Centre - Street Tree Materials Palette

Retail Streets


Lophostemon confertus


Magnolia grandifolia


Eucalyptus sidweroxylon 'Rosea'

Residential Streets

(non wire)


Lophostemon confertus


Melaleuca linariifolia

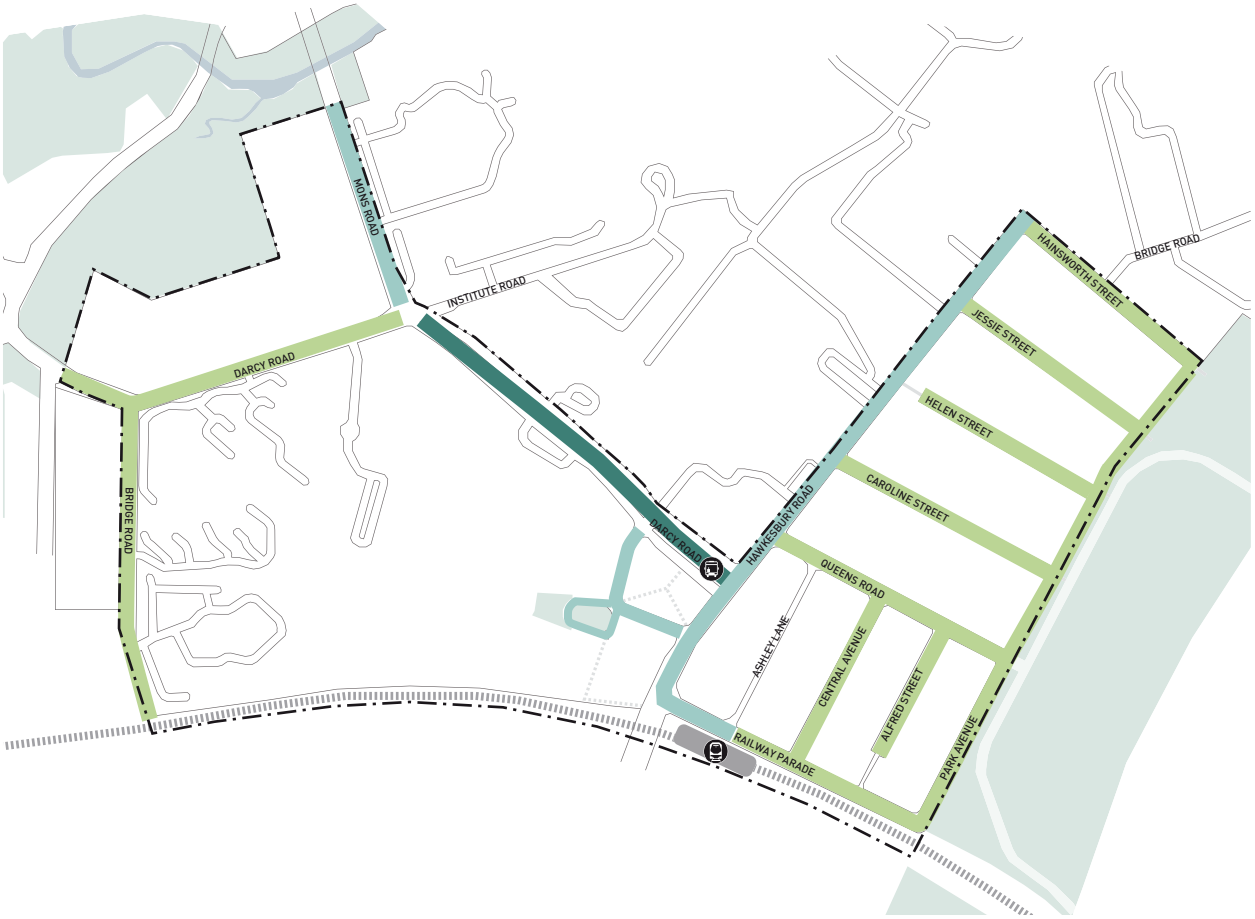

Harpullia pendula

Residential Streets

(under wire)


Bunckinghamia celsissima

Figure 4.46 Westmead Town Centre - Street Tree Surround Finishes Strategy



^WESTMEAD TOWN CENTRE TREE SURROUND FINISHES

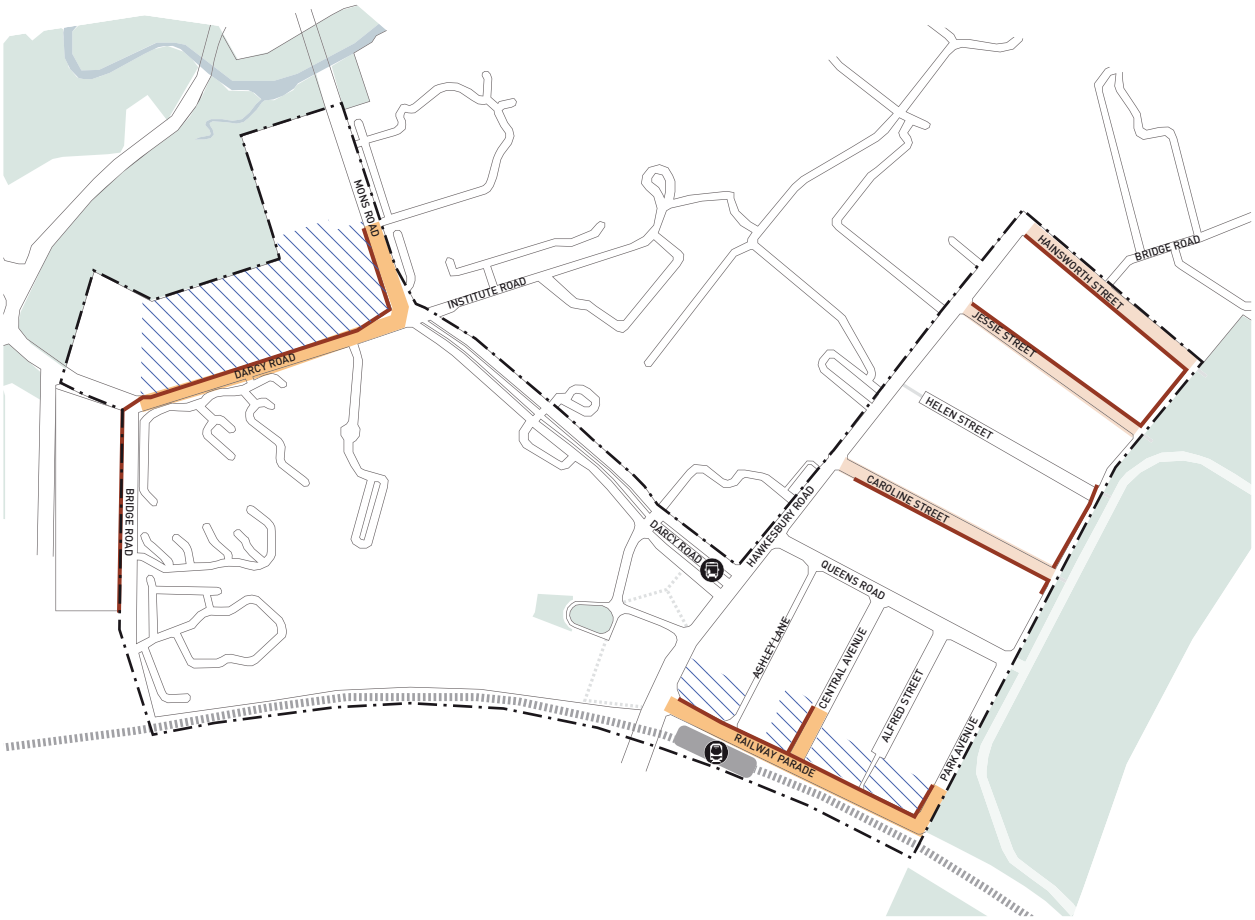
- Tree grate / permeable paving material
- Planted garden bed
- Turf verge

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.47 Westmead Town Centre - Overhead Power Strategy



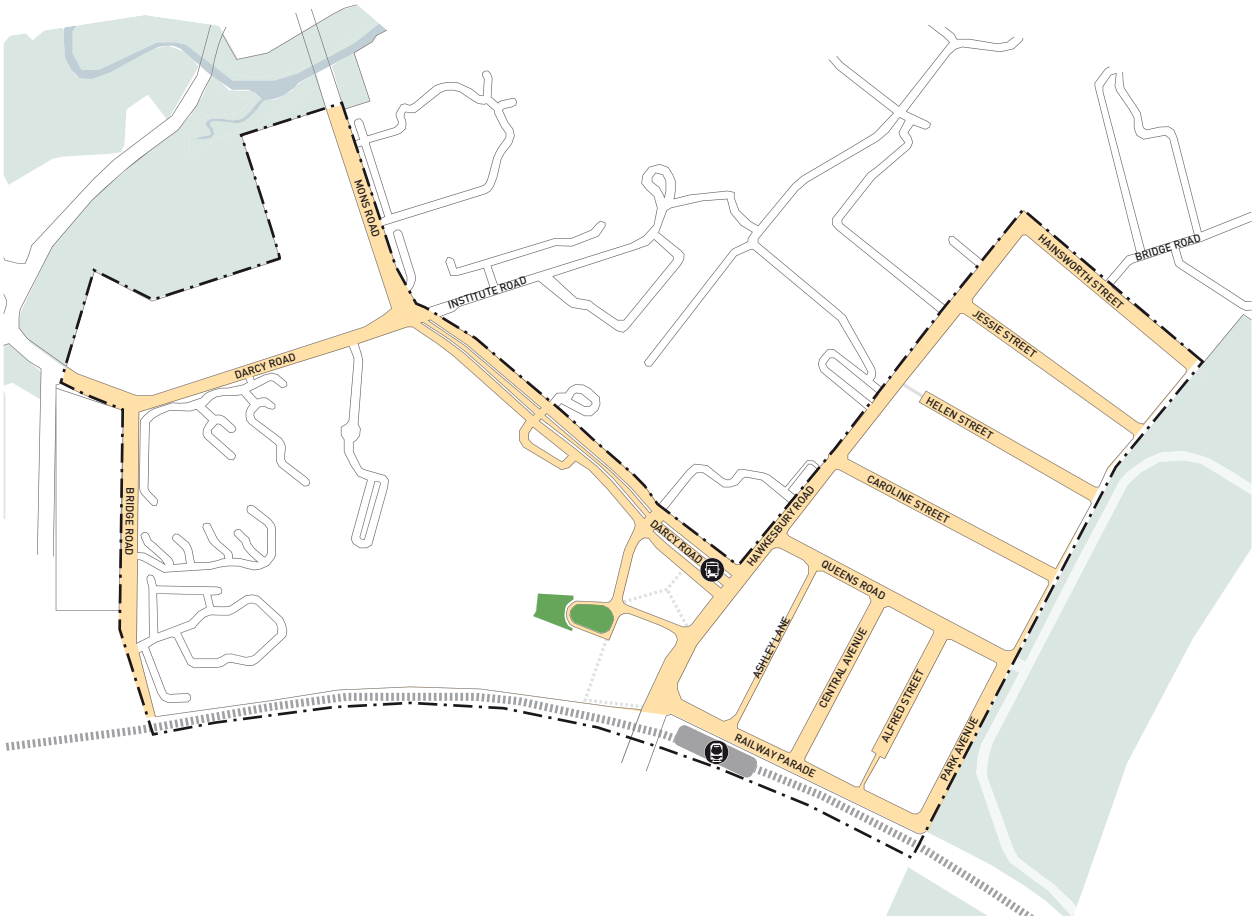
WESTMEAD TOWN CENTRE OVERHEAD WIRE

- Existing overhead power lines
- Proposed underground power lines
- Proposed Aerial Bundled Cable (ABC)
- Potential development lots to contribute undergrounding power lines

- Parkland
- Waterway
- Train Station
- Bus Interchange
- DCP boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.48 Westmead Town Centre - Furniture Strategy



^WESTMEAD TOWN CENTRE FURNITURE

Category		Location	Type
	High Profile Suite	- Special places	Semi-bespoke or off shelf products with high quality and aesthetic value to highlight the identities and characters of the high pedestrian amenity places.
	Bespoke Items	All High Profile locations. Subject to design approval.	Flexibility is allowed for custom-de-signed items to suit special designs in high profile locations.
	Utility Suite	- City streets; - Transport facilities, e.g. bus stop, taxi rank.	Off shelf products with durable and functional design and quality to accommodate public needs.
	Recreation Suite	- Parks & reserves	Requirements refer to Council's Open Space team.

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

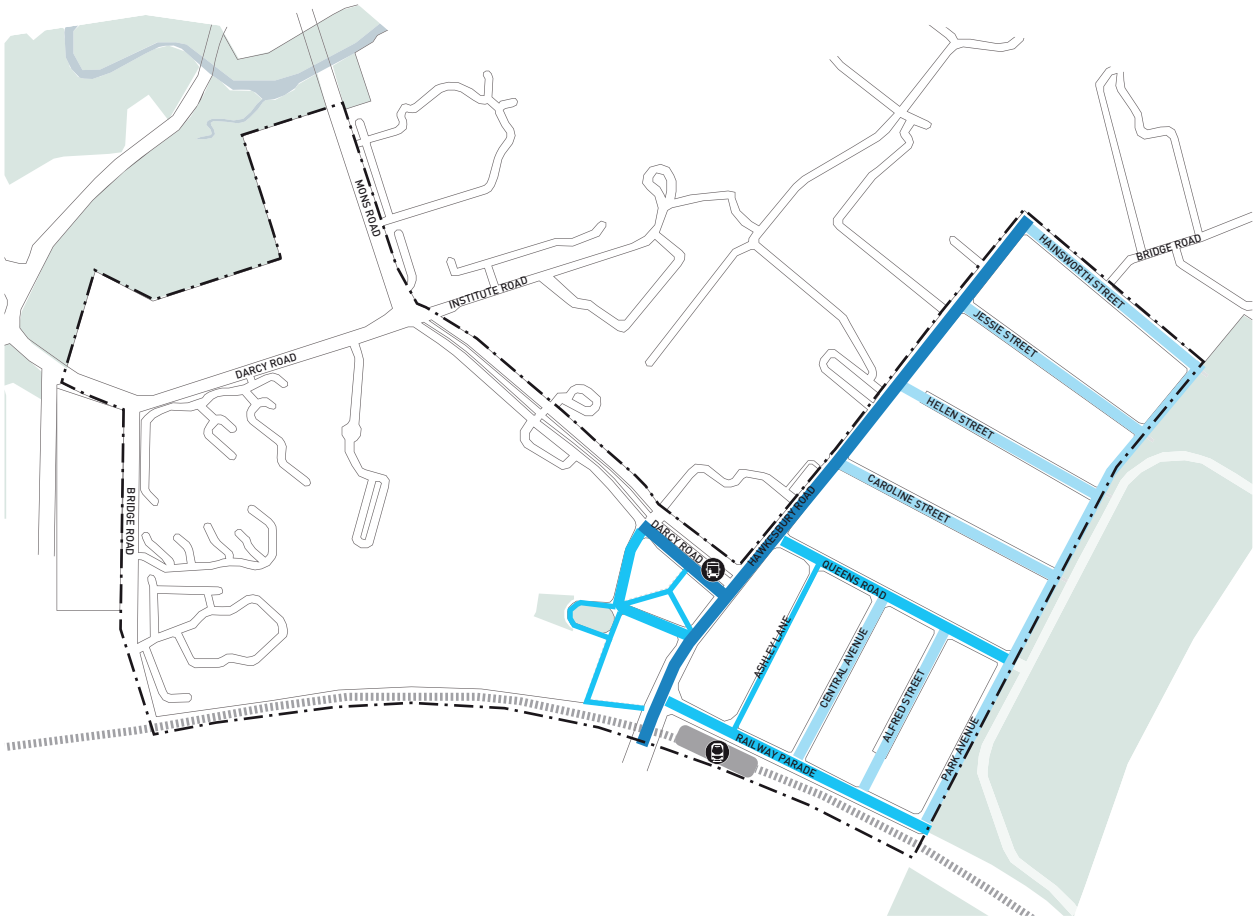
Figure 4.49 Westmead Town Centre - Furniture Palette

	High Profile	Utility
Seat	 *Material: mild steel frame and hardwood slats* *Finish: powdercoated and oiled* *PCC Currently Used Model: HUB S3 Modified**	 *Material: cast aluminium frame and panel and seat* *Finish: powdercoated* *Colour: Dulux Precious® Silver Pearl* *PCC Currently Used Model: SFA Concourse 3 Seater**
Bin & Cigarette Butt Bin (stand alone)	 *Material: mild steel frame, Rimex metal panels and stainless steel chute* *Capacity: 120L* *Lock assembly: PCC key-alike system* *PCC Currently Used Model: HUB S2 Modified**	 *Bin -* *Material: mild steel frame, gal panels and stainless steel chute* *Finish: powdercoated* *Colour: black* *Capacity: 120L* *Lock assembly: PCC key-alike system* *Cigarette Butt Bin -* *Material: mild steel and stainless steel cover*
Drinking Fountain	 *Material: stainless steel* *Extras: water filter unit, bottle filler, sub-surface drain* *PCC Currently Used Model: Aqualfil Refill Station & Drink Fountain**	 *Material: stainless steel and aluminium grate* *Extras: bottle filler, dog bowl, sub-surface drain* *PCC Currently Used Model: Botton + gardiner Prospect Drink Fountain**
Bike Rack	 *Material: stainless steel* *Finish: polished* *PCC Currently Used Model: SFA Semi Hoop**	 *Material: stainless steel* *Finish: polished* *PCC Currently Used Model: SFA Semi Hoop**

	High Profile	Utility
Bollard	 *Material: stainless steel or aluminium body* *Finish: brushed or powdercoated* *Size varies to suit traffic requirements*	 *Material: stainless steel or aluminium body* *Finish: brushed or powdercoated* *Size varies to suit traffic requirements*
Pedestrian Fence	N/A	 *RMS Pedestrian Barrier Type 1 (refer to www.RMS.nsw.gov.au)*
Bus Shelter	 *Supplier: Adshel*	 *Supplier: Adshel*  *Supplier: Adshel*
Tree Grate	 *Material: cast aluminium* *Finish: shot blast* *Size: 1.5 x 1.5m* *Supplier: Furphy*	 *Material: cast aluminium* *Finish: shot blast* *Size: 1.5 x 1.5m* *Supplier: Furphy*

**Where models/brand names are nominated, they are indicated only. CoP wishes to maintain consistency in the public domain but does not wish to restrict or endorse any one brand.*

Figure 4.50 Westmead Town Centre - Pedestrian Lighting Level Strategy



^WESTMEAD TOWN CENTRE LIGHTING LEVEL - PEDESTRIAN

Category P2
Local or collector roads with high prestige, high pedestrian/cycle activity and medium risk of crime

Category P3
Local or collector roads with medium prestige, medium pedestrian/cycle activity and low risk of crime

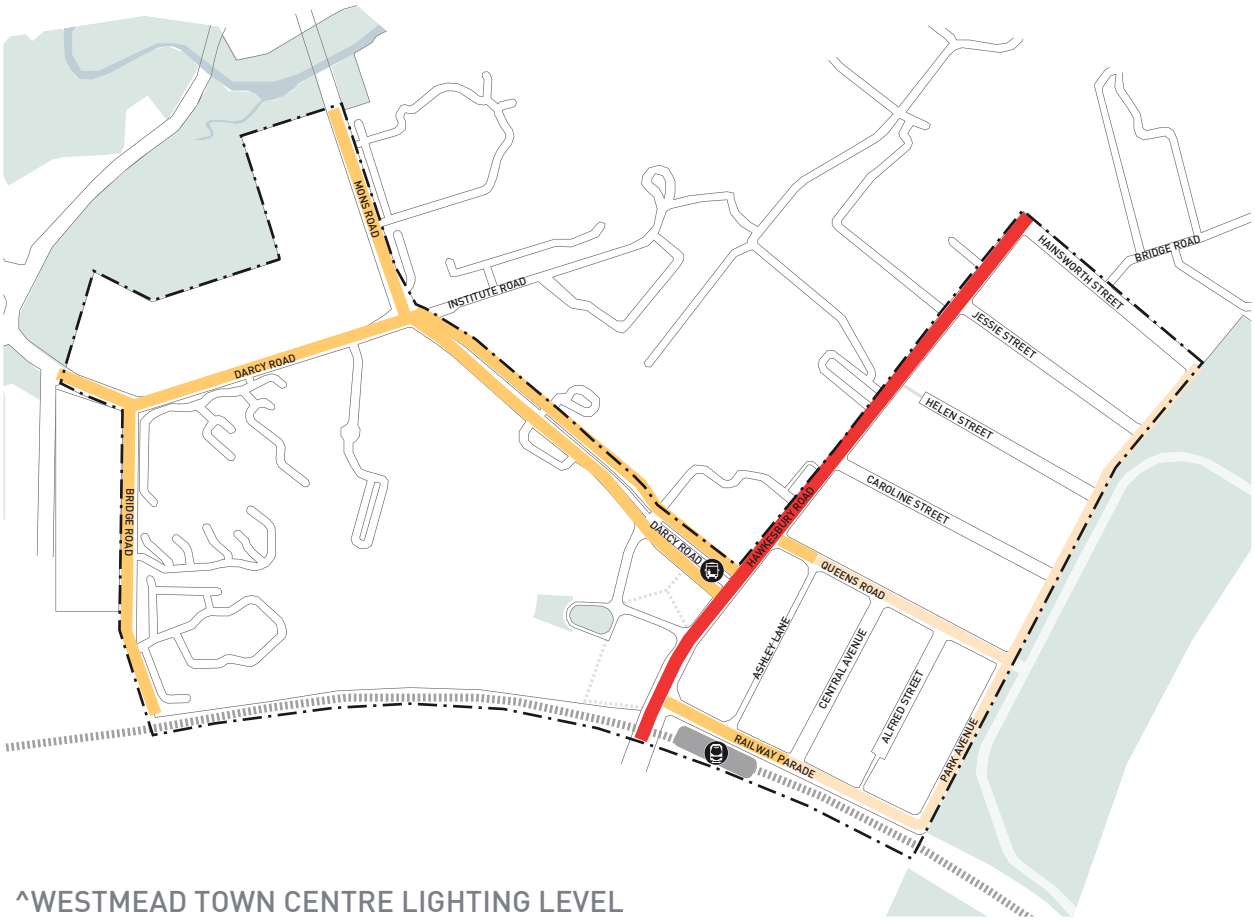
Category P4
Local or collector roads with low pedestrian/cycle activity and low risk of crime

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.51 Westmead Town Centre - Vehicular Lighting Level Strategy



^WESTMEAD TOWN CENTRE LIGHTING LEVEL
- VEHICLE

Category V1
High/very high vehicle volume; high'very high pedestrian volume; and moderate/low vehicle speeds

Category V3
Arterial roads with mixed vehicle/pedestrian traffic, moderate/high vehicle volume; high pedestrian volume; and moderate/low vehicle speeds

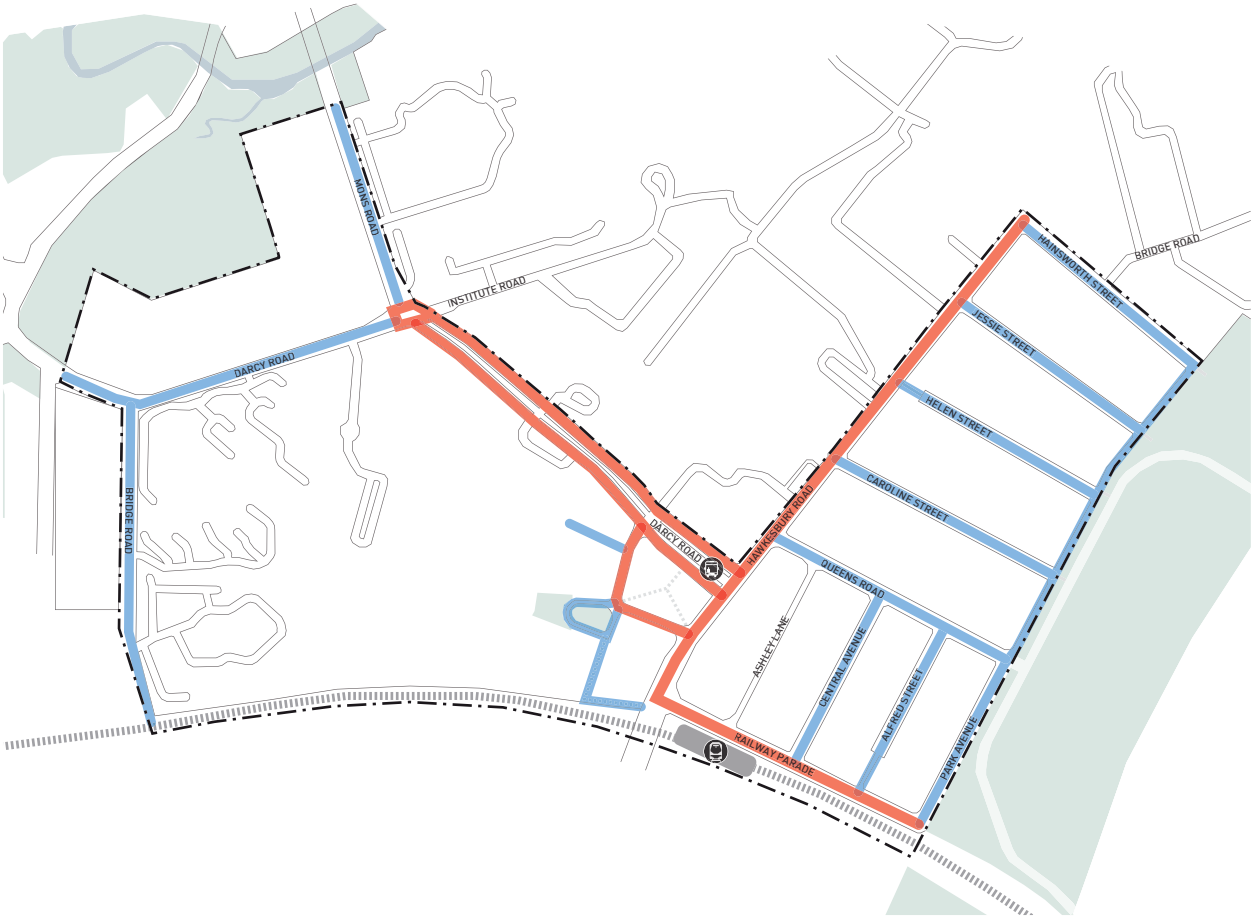
Category V4
Mixed vehicle and pedestrian traffic; moderate traffic volume; low pedestrian volume; moderate to low vehicle speeeds

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.52 Westmead Town Centre - Street Pole Strategy



^WESTMEAD TOWN CENTRE POLE - STREETS

Large Multi Functional Pole (10m)
with CCTV, 2xGPO, LEDs, Smart City

Electrical Authority Pole
with lamp upgrade

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange

DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.53 Westmead Town Centre - Park, Plaza & Lane Pole Strategy

^WESTMEAD TOWN CENTRE POLE - SPECIAL PLACES, LANEWAYS & PARKS

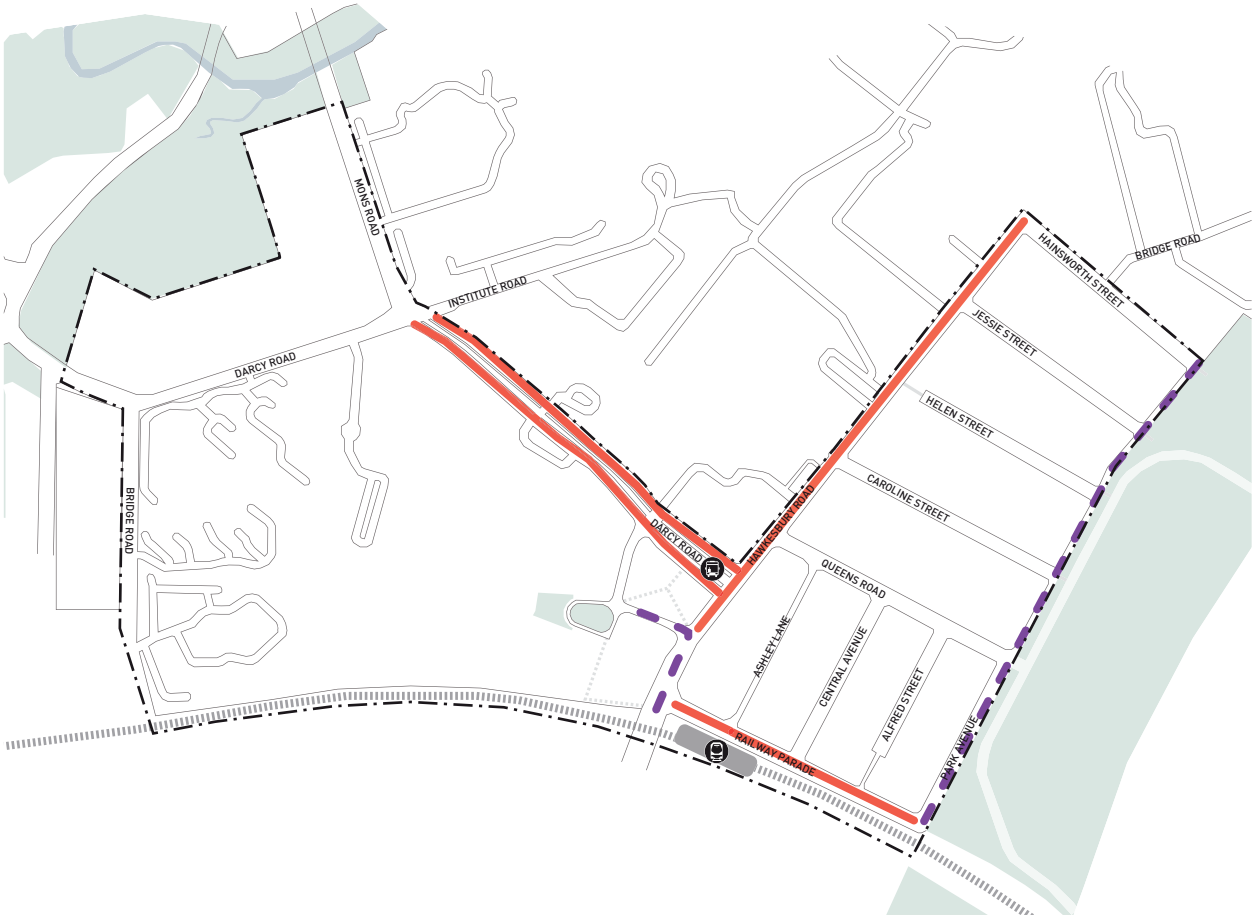
	Special Place	Lanes	Parks
Large Multi Functional Pole (10m) *with CCTV, 2xGPO, LEDs, Smart City*	✓	✗	✗
Medium Multi Functional Pole (8m) *with CCTV, GPO, LEDs, Smart City*	✓	✓	✗
Tapered Pole (8m) *with wall mount option, CCTV, GPO, LEDs, Smart City*	✓	✓	✓
Park Pole (subject to site) *with CCTV*	✗	✗	✓

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.54 Westmead Town Centre - Banner Strategy



^WESTMEAD TOWN CENTRE BANNER

Banners

No Banners

^ Strategies for Hawkesbury Rd might be amended subject to Parramatta Light Rail project.

Parkland
Waterway
Train Station
Bus Interchange
DCP boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

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FUTURE URBAN VILLAGES

4.5 FUTURE URBAN VILLAGES

A future urban village is an urban development typically characterized by medium-high density housing, mixed use zoning, good public transit and an emphasis on pedestrianisation and public space.

In the Parramatta LGA urban villages are typically brown field developments in former industrial precincts surrounded by low density residential developments. Development is often the subject of large-scale land re-zoning and holistic master planning.

A significantly improved public domain setting is required to address anticipated increases in resident and worker populations in these areas. Urban villages in the Parramatta LGA include the following:

- Camellia
- Carlingford
- Carter St Precinct
- Melrose Park
- Parramatta North Urban Transformation Precinct
- Telopea
- Wentworth Point

4.5.1 CAMELLIA

The Department of Planning and Environment has developed a Land Use and Infrastructure Strategy for the Camellia Precinct. It is located around the existing Camellia heavy rail station which is proposed for upgrade to light rail as part of the Parramatta Light Rail project by Transport for NSW. The Camellia Urban Village covers the area adjacent to the railway station and is proposed to support vibrant mixed use development and up to 10,000 new dwellings.

Details of the Strategy and latest project information can be found in below link:

http://www.planning.nsw.gov.au/camellia

4.5.2 CARLINGFORD

The Carlingford Urban Village is a business and high density residential zone. It is located around the existing Carlingford heavy rail station which is proposed for upgrade to light rail as part of the Parramatta Light Rail project by Transport for NSW. The area is undergoing rapid transformation from low to high density residential development.

Following council amalgamations in May 2016 a range of inherited public domain plans and strategies applied to the Carlingford Town Centre. The City has consolidated a coordinated set of strategies for Carlingford to guide future public domain works.

Proposed strategies and materials palettes for Carlingford are as follows:

Strategy/Map	Figure No.	Title	Page
Paving	Figure 4.55	Carlingford Urban Village - Paving Strategy	153
Street Tree	Figure 4.56	Carlingford Urban Village - Street Tree Strategy	154
Underground Wire	Figure 4.57	Carlingford Urban Village - Overhead Power Strategy	155

4.5.3 CARTER ST PRECINCT

The rezoning for the Carter St Precinct was finalised by the Department Planning & Environment in November 2015. The plan transforms the industrial area south of the Sydney Olympic Park into a new high density urban living community with retail streets, a primary school, parks and sports fields.

The DCP for Carter St Precinct can be found in below link:

http://www.auburn.nsw.gov.au/Develop/PlanPolicies/Pages/DevelopmentControlPlans.aspx

The DP&E is currently undertaking a re-masterplanning process to balance the needs of traffic, transport, social and environment and achieve a more balanced urbanism in the precinct.

4.5.4 MELROSE PARK

Melrose Park Urban Village is the most recent urban renewal precinct located in City of Parramatta. It will transform the existing industrial area into another large mixed use and residnetial precinct. The rezoning process is currently at master plan stage and is subject to the usual development approval process. The City of Parramatta website will update the latest information about the precinct in due course.

4.5.5 PARRAMATTA NORTH URBAN TRANSFORMATION PRECINCT

Parramatta North is a significant heritage listed site which covers Cumberland Hospital (East Campus) and the former Norma Parker Correctional Centre for Women. The NSW Government proposes to rezone the area for public use and to sensitively integrate residential and mixed use development into the heritage precinct.

The approved land use plans and the latest development information can be found in NSW Urban Growth website:

http://www.urbangrowth.nsw.gov.au/projects/parramatta-north/

4.5.6 TELOPEA

A draft masterplan for Telopea has been developed, including plans to upgrade existing parks, deliver new parks and plazas, and improve streets with lighting, footpaths, street furniture and trees. It is located around the existing Telopea heavy rail station which is proposed for upgrade to light rail as part of the Parramatta Light Rail project by Transport for NSW. Further master planning is still ongoing and subject to the usual development approval process.

The details of the draft master plan and latest project information can be found in below link:

http://www.communitiesplus.com.au/major-sites/telopea

4.5.7 WENTWORTH POINT

The rezoning for the Wentworth Point Precinct was finalised by the Department of Planning and Environment in June 2014.

A series of Development Control Plans (DCP) and Master Plans can be found in Cumberland Council website:

http://www.auburn.nsw.gov.au/Develop/PlanPolicies/Pages/DevelopmentControlPlans.aspx

Figure 4.55 Carlingford Urban Village - Paving Strategy

CARLINGFORD URBAN VILLAGE FOOTWAY PAVING

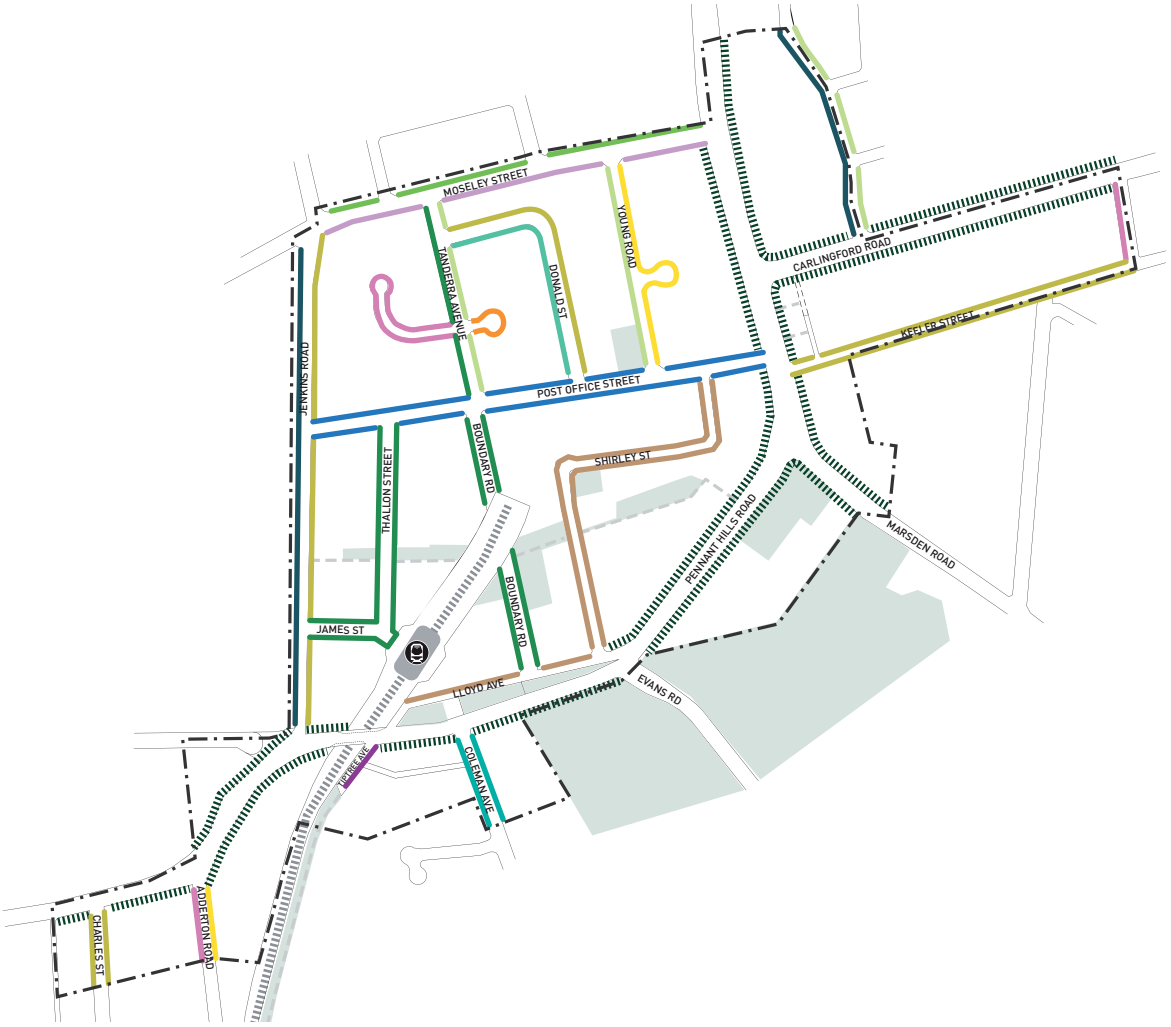
Street		In-situ concrete with porphyry insert (full width)
		In-situ concrete with porphyry insert (with nature strip)
		In-situ concrete (full width)
		In-situ concrete (1.5/1.8m wide, shared path excepted)
Service Lane		In-situ concrete
Pedestrian Link		In-situ concrete

Parkland
Waterway
Train Station
Bus Interchange

Precinct Boundary
Bridge
Proposed Laneway
Proposed Pedestrian Link

0 100 300 500m

Figure 4.56 Carlingford Urban Village - Street Tree Strategy



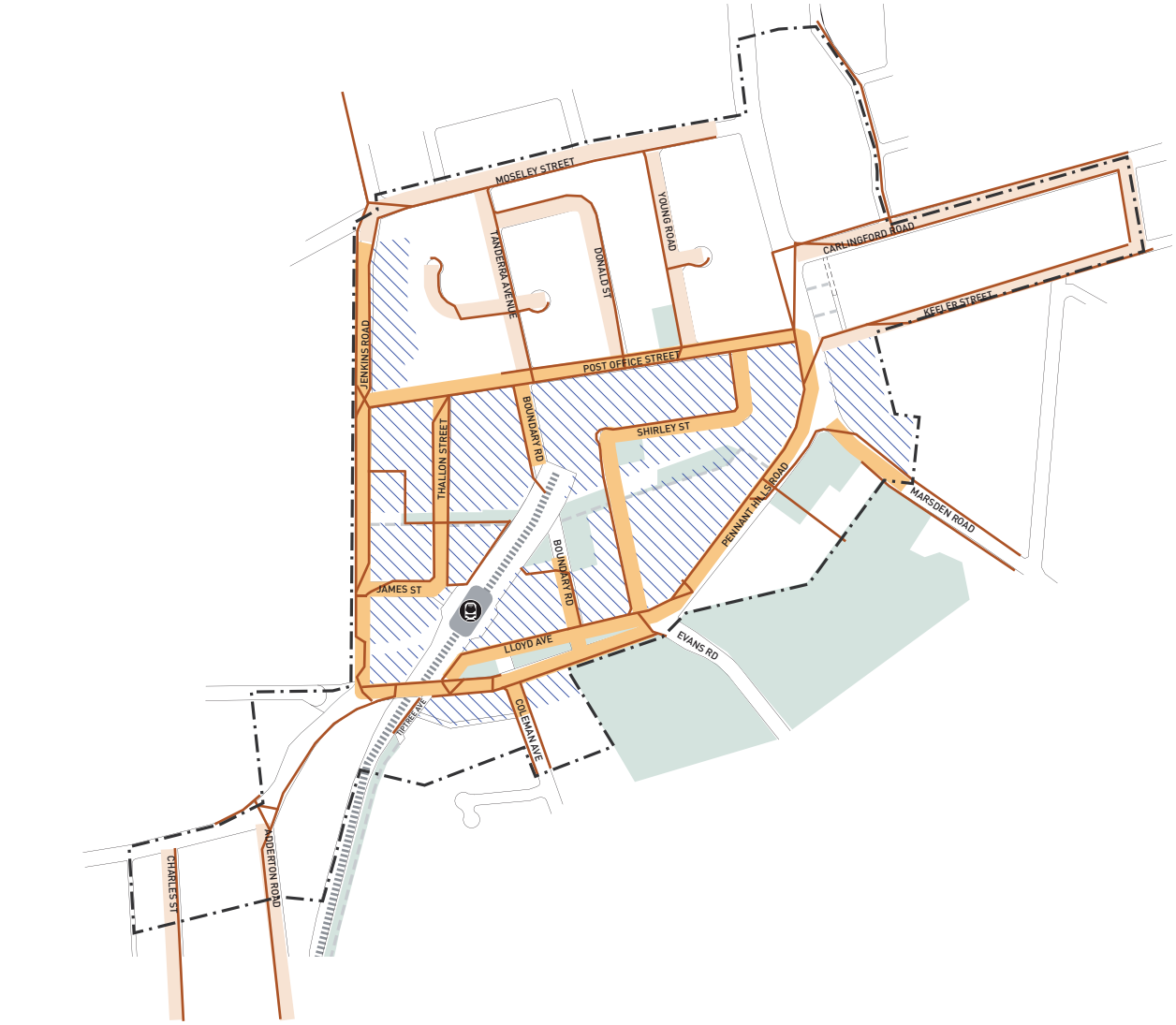
CARLINGFORD URBAN VILLAGE STREET TREE

- *Alphitonia excelsa* (Red Ash)
- *Angophora floribunda (Roughed Bark Apple)*
- *Buckinghamia celsissima* (Ivory Curl Flower)
- *Elaeocarpus reticulatus* (Blueberry Ash)
- *Eucalyptus punctata* (Grey Gum)
- *Eucalyptus microcorys* (Tallowwood)
- *Lagerstroemia indica 'Natchez'* (Crepe Myrtle)
- *Lophostemon confertus* (Brush Box)
- *Magnolia grandiflora 'Exmouth'* (Magnolia Exmouth)
- *Melaleuca linariifolia* (Snow in Summer)
- *Pistacia chinensis* (Chinese Pistachio)
- *Tristaniopsis laurina/T.laurina "Luscious"*(Water Gum)
- Planting within setbacks
  - Eucalyptus scoparia; Brachychiton acerifolius; Jacaranda minosifolia; Angophora floribunda

- Parkland
- Waterway
- Train Station
- Bus Interchange
- Precinct Boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

Figure 4.57 Carlingford Urban Village - Overhead Power Strategy



CARLINGFORD URBAN VILLAGE OVERHEAD WIRE

- Existing overhead power lines
- Proposed underground power lines
- Proposed Aerial Bundled Cable (ABC)
- Potential development lots to contribute undergrounding power lines

- Parkland
- Waterway
- Train Station
- Bus Interchange
- Precinct Boundary
- Bridge
- Proposed Laneway
- Proposed Pedestrian Link

0 100 300 500m

ACTIVE NEIGHBOURHOOD & LOCAL STRIPS

LOCAL STREETS

4.6 ACTIVE NEIGHBOURHOOD AND LOCAL STRIPS

Forty-six (46) active neighbourhood and local strips of local retail and commercial activities are located throughout the City outside the CBD and main Town Centres and Urban Villages. These strips typically service a high volume of local pedestrian activities and are included on local public transport routes. They have varied local characters and may contain cultural and/or natural value assets.

Active Neighbourhood and Local Strips are typically defined by busy ground floor retail and commercial development with access to local public transport routes. They support a high level of pedestrian use and are a focus for local community connectivity.

A high quality palette of materials is historically used to respond to high pedestrian use and amenity in local activity strips. Paving treatment is typically delivered by City's Capital Works team as part of major streetscape upgrades guided by local consultation with retailers and users. A range of selected materials have been used to suit local character and aspirations. Paving layouts have typically comprised a secondary style of treatment mixing unit pavers in a banding pattern with in-situ concrete or asphalt infill. This consultative process and practice of mixing of materials in response to a well-considered, comprehensive and Council led design process continues to be Council's preferred approach.

Major new streetscape upgrades in the activity centres will continue to be led by Council's design team. Development proposals that affect the public domain should allow to reinstate the original pavement finish unless instructed otherwise by Council.

4.7 LOCAL STREETS

Local streets include a variety of street types servicing industrial and low-medium density residential development. Local streets need to address areas of high and low pedestrian activity. Some local streets form part of the pedestrian green grid and the cycleway networks. A leafy green character is sought for all local areas to promote shade, comfort and amenity for people.

Local streets comprise a simple verge treatment of concrete footpath and grass or planted verge. Footpath widths vary according to development type and are prescribed as follows:

R2 Residential, Industrial Zones

Verge Width	Footpath Width
less than 2m	full width concrete footpath
all other widths	1.5 concrete footpath

R3 & R4 Residential Zones

Verge Width	Footpath Width
less than 2m	full width concrete footpath
2.0-3.0m	1.5m concrete footpath
all other widths	1.8m concrete footpath

In all cases:

- Footpath widths are to be consistent along any given street as much as practicable. This may result in minor variations to the above prescriptions and should be negotiated with Council.
- New footpaths should be located abutting the property boundary line for new R3 and R4 development unless unachievable because of topographical or other constraints. Where this is results in odd footpath alignments, design should be negotiated with Council.
- The *Parramatta Ways Walking Strategy*, promoting the creation of a strong network of walkable green connections through local neighbourhoods, affects many local streets. Refer to the Strategy for the scope and special requirements for these streets.

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