



Moore Point Masterplan

Urban Design Study

Prepared for
Coronation and Leamac

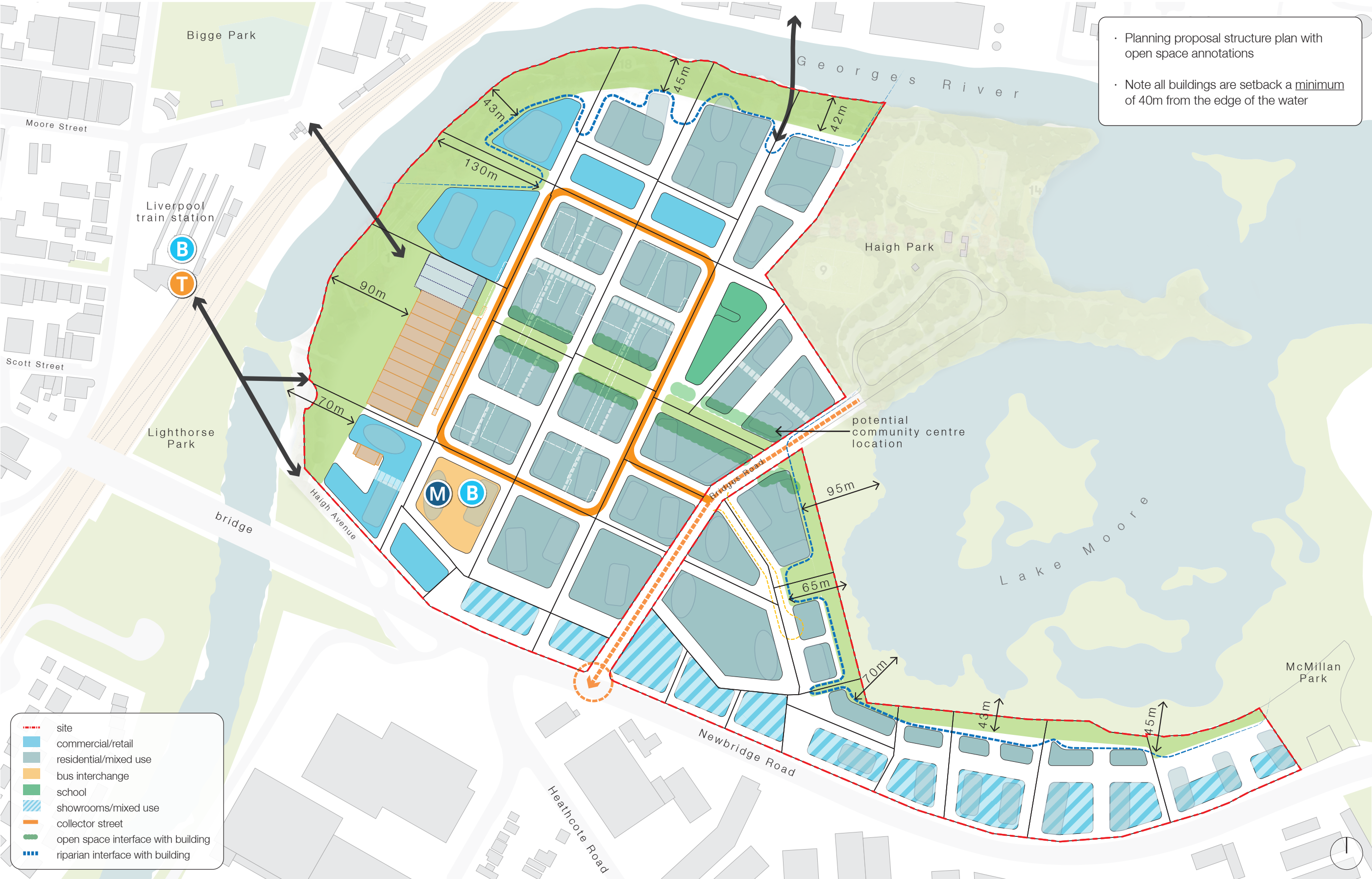
Issued
2 September 2020

Level 2, 490 Crown Street
Surry Hills NSW 2010
Australia
T. 61 2 9380 9911
architects@sjb.com.au

1.1 Liverpool City Centre and Moore Point

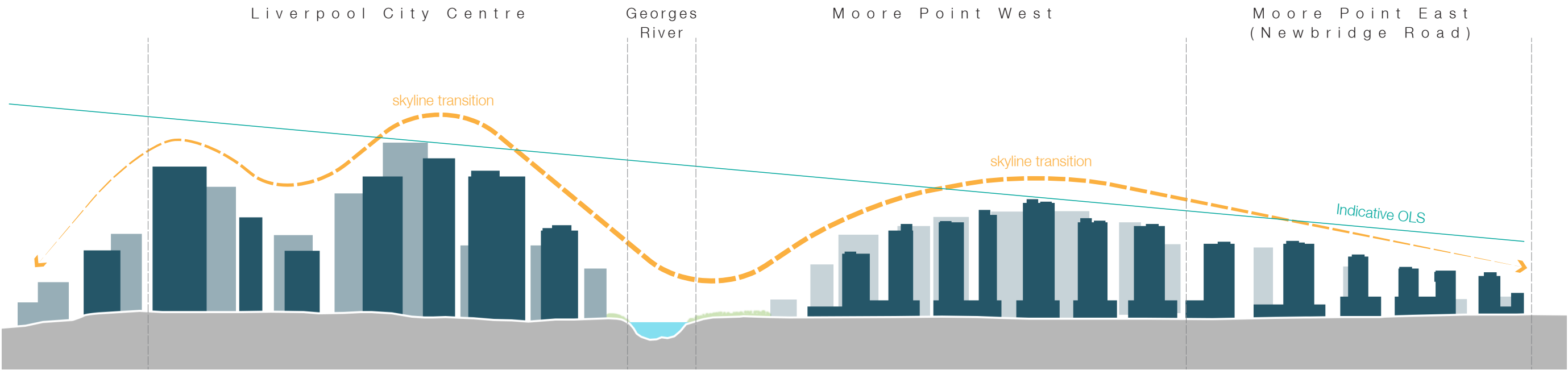


1.2 Structure plan



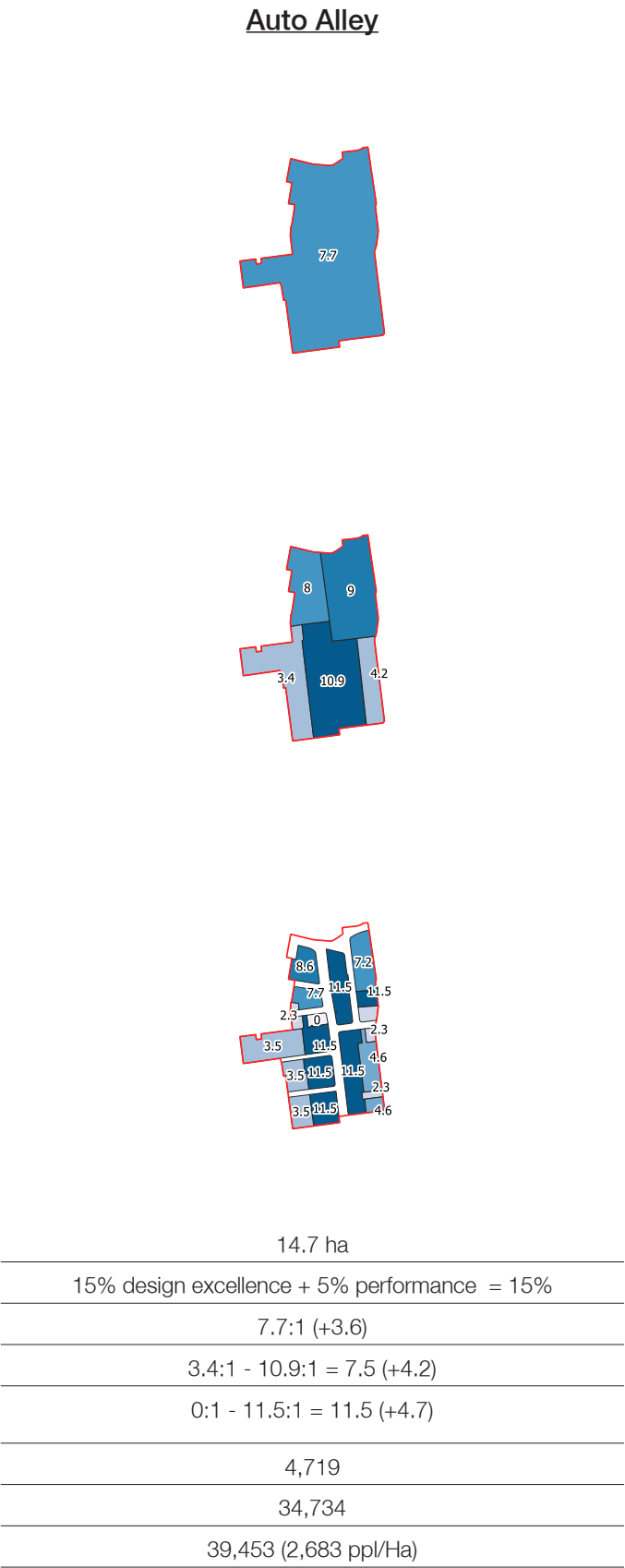
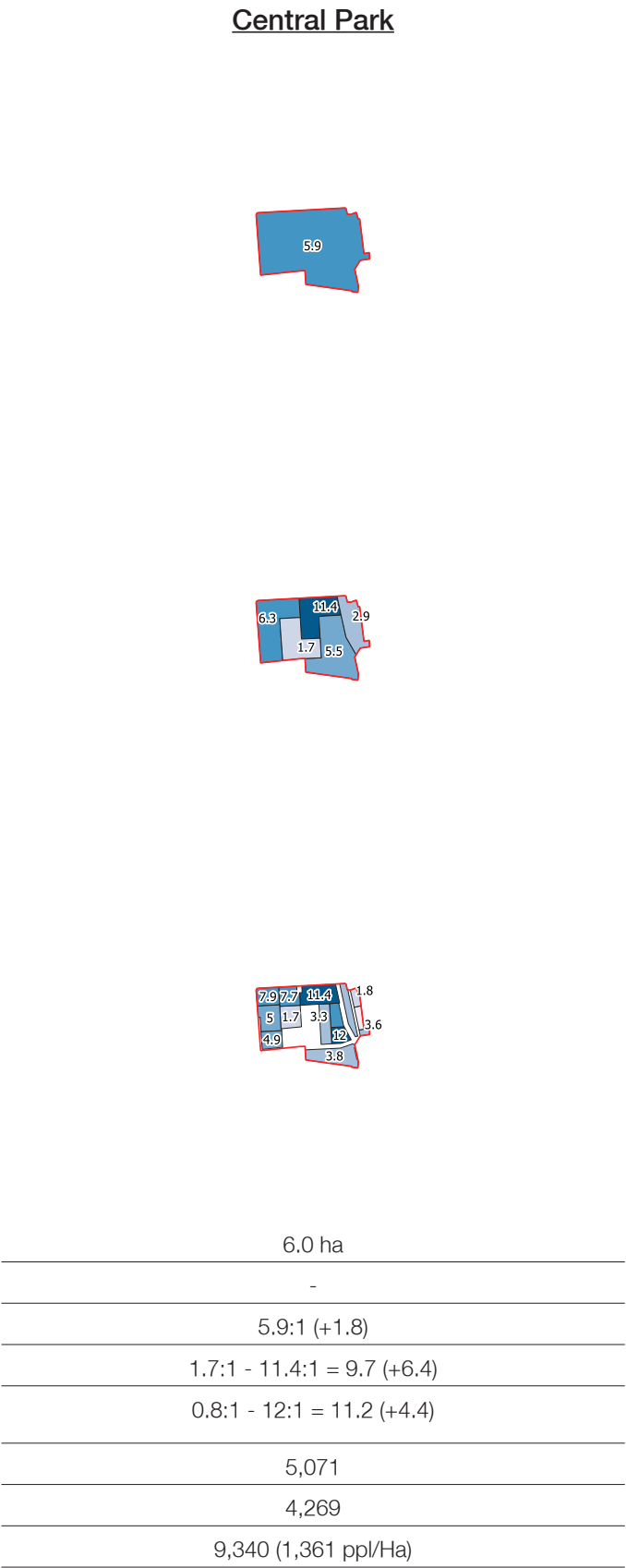
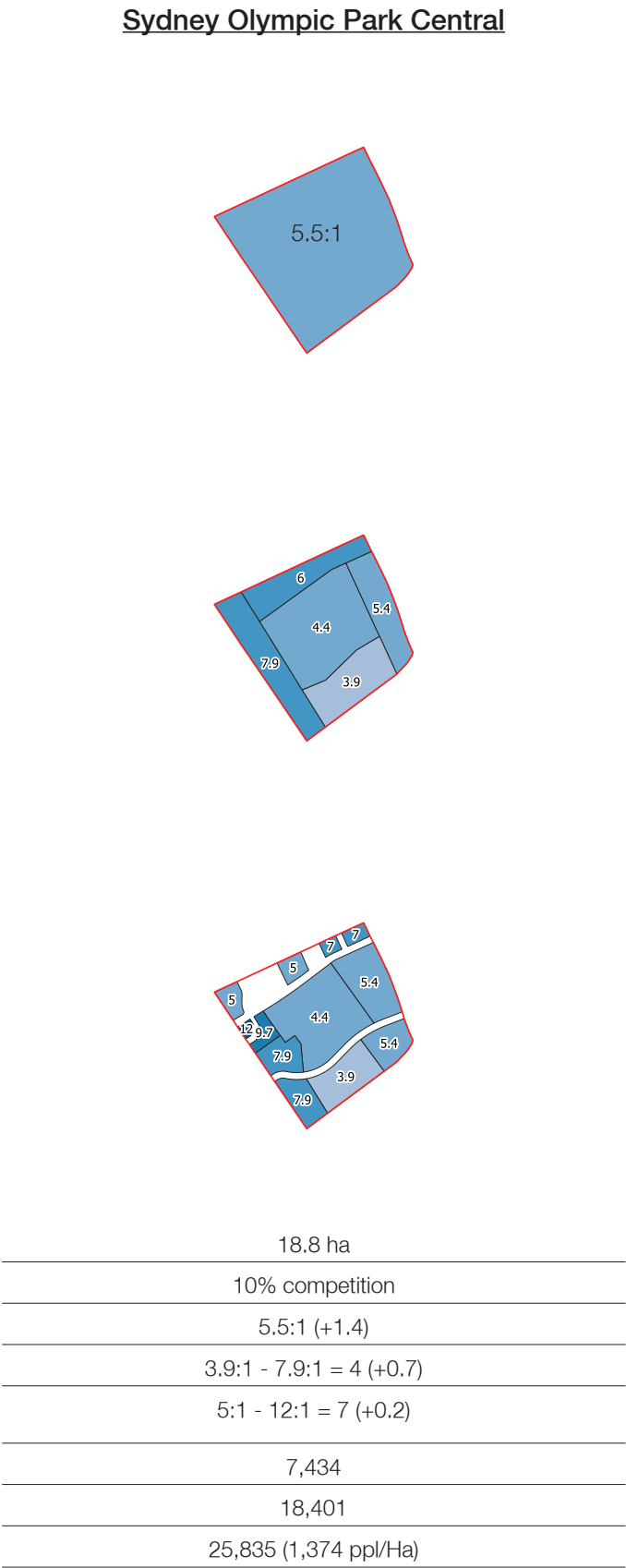
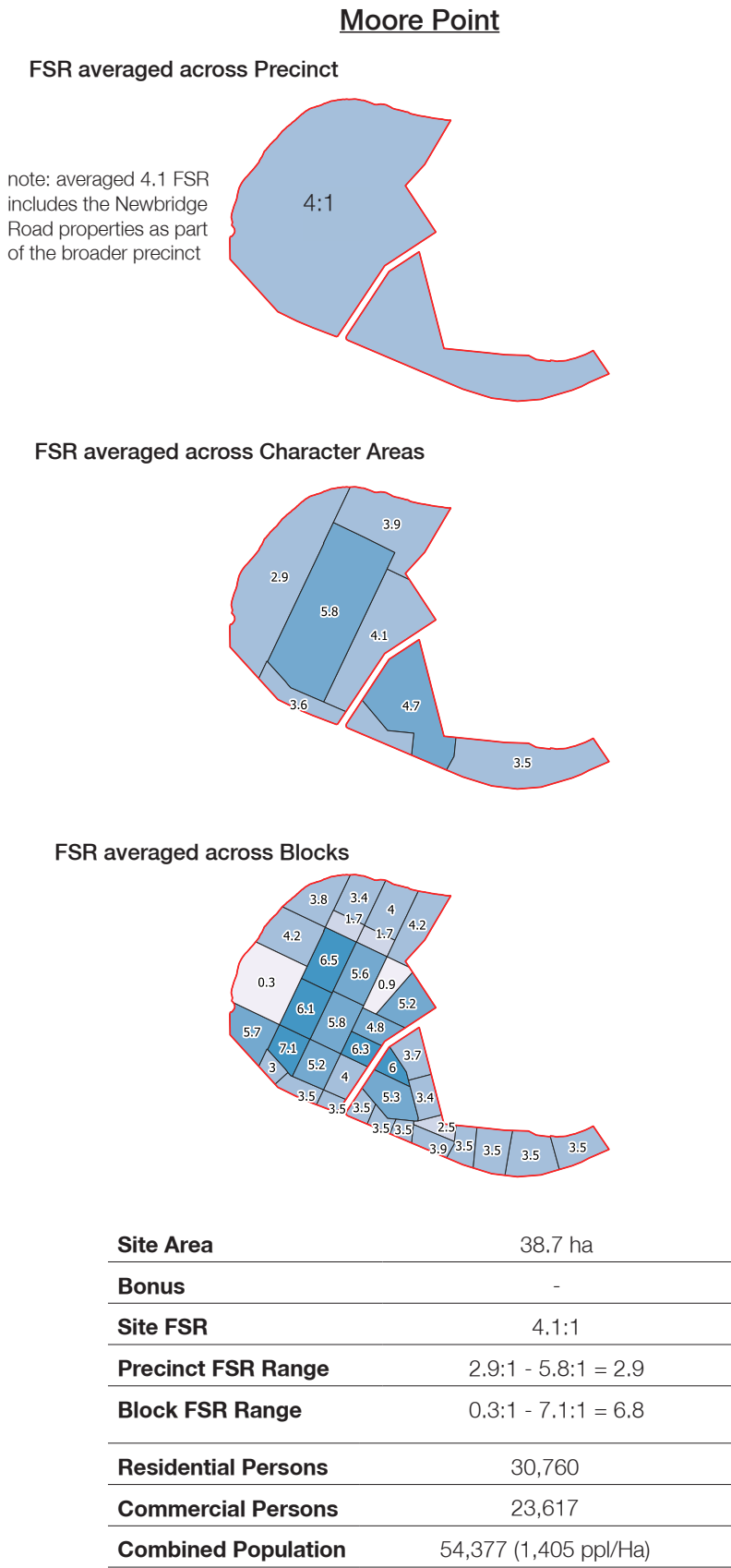
1.4 Indicative section

- This indicative section illustrates the envisaged skyline of Liverpool and Moore Point.
- It demonstrates the transition in height eastwards and the subsidiary character of Moore Point to the City Centre
- Liverpool City Centre building heights are indicatively represented with FSR bonus



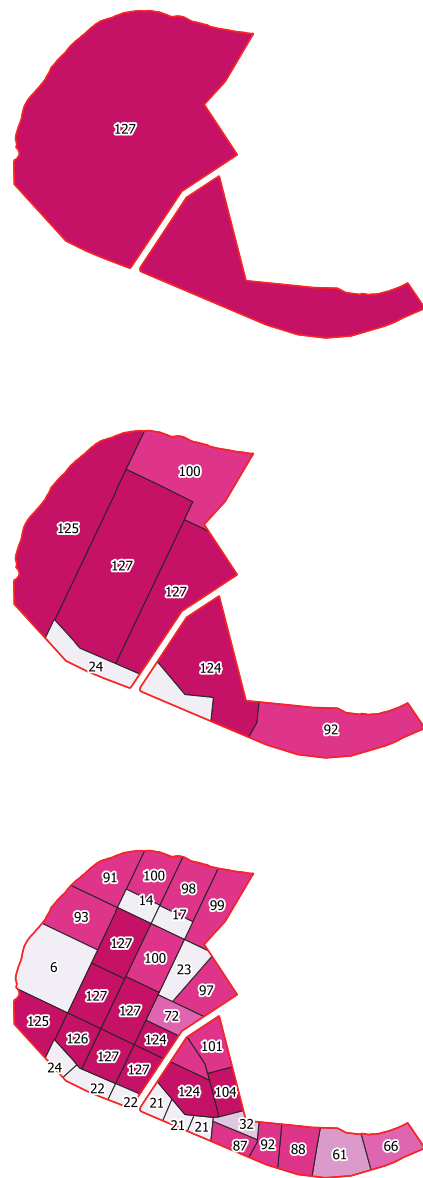
1.5 Density comparison

The diagrams below illustrate FSRs at three scales; precinct, character areas, and blocks for Moore Point and three other dense urban areas (>10Ha) across Sydney. The comparison includes FSR bonuses and also benchmarks population densities when considering both residential and employment land uses.

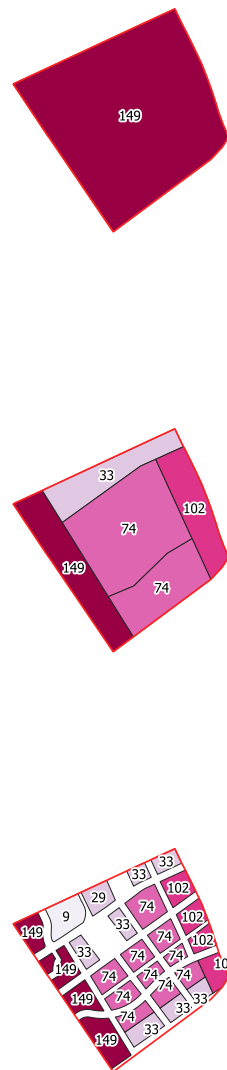


1.6 Building heights

Moore Point

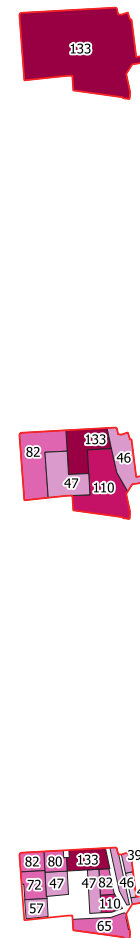


Site Area	38.7 ha
Site Max Height	127 m
Precinct Max Ht Range	88 m - 127 m = 39
Block Height Range	6 m - 128 m = 122

Sydney Olympic Park Central

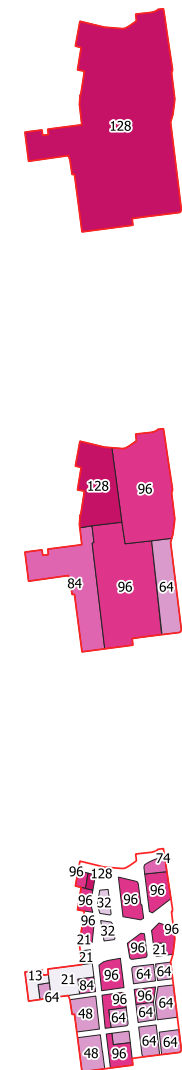
18.8 ha
149 m (+21)
33 m - 149 m = 116 (+76)
9 m - 149 m = 140 (+18)

Central Park



6.0 ha
133 m (+5)
46 m - 133 m = 87 (+47)
30 m - 133 m = 103 (-19)

Auto Alley



14.7 ha
128 m (=)
64 m - 128 m = 64 (+24)
13 m - 128 m = 115 (-13)

1.7 Open space provision & benchmarking

Issue no. 04 — 2020
Draft for discussion

DRAFT

GREENER PLACES DESIGN GUIDE

Open Space for Recreation
Urban Tree Canopy
Bushland and Waterways

GOVERNMENT ARCHITECT
NEW SOUTH WALES

1.2
Planning for recreation opportunities

Towards a performance-based approach

With increasing densities and declining land supply, the typical approach of setting aside a quantum of land as part of every development is no longer effective. With urban infill, brownfield development, and higher density development, urban growth is no longer about low-density sprawl and no longer comes with additional land to be apportioned to residential, commercial, and community uses.

Evidence from around the world for building cities and regional areas around public open space, active recreation areas, green streets, and walking and cycling infrastructure, has repeatedly demonstrated this approach will deliver improved health, social cohesion, vibrant local economies, productivity, and environmental benefits.

Planning that relies on a spatial standard such as 2.8 ha / 1000 people is only effective with high levels of quality control and often works against opportunities for multiple use and innovative solutions. Equally, past approaches such as specifying a percentage of land did not have any direct link to the demand arising from a development, as densities can vary greatly yet the percentage stayed fixed.

Moving towards a performance-based approach encourages planners to look beyond spatial standards or percentages of land area. It encourages consideration of the range of recreation opportunities required and what strategies are available to achieve them. The aim of the performance-based approach is to allow more innovation in planning, more efficient use of land for recreation, and a focus on the quality of the outcome rather than just the quantity.

The Draft Greener Places Design Guide was released for public comment in June 2020. It addresses the provision of public open spaces that supports outdoor recreation, climate change and urban heat mitigation through tree canopy and ecological sustainability through bushland and waterways preservation and enhancement.

The draft guide indicates that State Government Policy is moving towards a performance based approach to address the provision of open space in opposition to specifying a rigid metric of land. The guide outlines evidence which shows built environments connected to public open space, recreational areas, green streets, and walking and cycling infrastructure have improved economic, social and physical outcomes for people.

The draft guide identifies 9 key strategies for providing open space for recreation that are supported by 6 core criteria that can help guide the performance outcomes which drive the planning outcomes for open space. The diagrams on the following pages demonstrate how the core criteria at Moore Point can be satisfied with the proposed open space network that is proposed as part of the Planning Proposal.

1.2
Strategies for providing open space for recreation

1.
Improve the provision and diversity of open space for recreation

The public open space network should include a broad range of spaces and settings including formal parks, undeveloped spaces, natural areas, buffers, linear systems, riparian and waterfront areas, sports fields and gardens within public institutions, and undeveloped land around public infrastructure.

2.
Understand the demands on existing open space, and plan for open space in new and growing communities

While effective use of existing parks and other open space areas is encouraged, all parks have a capacity. New demand for open space from increased density or new housing development can impact existing functioning parks. Planning should account for the capacity of an existing asset and set limits on its ability to accommodate new demand.

3.
Improve the quality of open space for better parks and facilities

Providing adequate quantities of open space based on demand should be understood in relation to the quality of the spaces provided. Open space improvements should be considered especially in urban renewal areas where increases in capacity are possible. Providing quality spaces that are diverse, usable, and accessible can be achieved through better planning and design of the existing network of spaces.

4.
Use open space to connect people to nature

Providing recreation opportunities in outdoor settings that are green and connected to nature is still a primary driver of planning. Predominantly this is about public open space, but public plazas and developed urban open spaces provide a range of opportunities for connection to nature, not the least of which is a softening of the interface between public and private space.

5.
Link to the network of green infrastructure

Developing vibrant towns and streetscapes with a pedestrian-friendly laneway network that connects to open space is essential for usability and access. Defining a pedestrian, cycle, and green network can connect urban centres to local and regional open space.

6.
Encourage physical activity by providing better parks and better amenity

Providing a public open space network that encourages residents to be physically active and connect with the natural environment is an overriding objective of planning.

7.
Provide open space that is multifunctional and fit for purpose

Multiple use of open space is strongly supported in this approach, particularly where local opportunities can be provided that meet important outcomes such as proximity of access. However, the performance criteria that support this approach aim to ensure that any space used for multiple recreation opportunities is "fit for purpose" and the maintenance and management of that space can be achieved efficiently.

8.
Design versatile, flexible spaces

Public parks are best provided in a way that allows the space to be versatile, flexible, adaptable, and resilient. Community needs can change rapidly and the most effective parks can be reconfigured in design and function to accommodate changing participation, activities, trends, needs, and preferences.

9.
Consider life-cycle costs, management, and maintenance

Planning needs to consider "life-cycle" costs as well as the community's return on the investment. The development cost of public open space should be considered as part of the up-front cost of the infrastructure. This means that sometimes the cost of developing suboptimal land should be balanced against a lower development cost for better quality land for open space, and these considerations tempered with the likely maintenance costs of alternative options.

Criteria for Open Space

Accessibility and connectivity

Ease of access is critical for the community to be able to enjoy and use public open space and recreation facilities.

Distribution

The ability of residents to gain access to public open space within an easy walk from home, workplaces, and schools is an important factor for quality of life. The geographic distribution of open space is a key access and equity issue for the community.

Size and shape

Size and shape of open space has a direct bearing on the capacity of that open space to meet and accommodate recreation activities and needs.

Quantity

In low- and high-density areas, good provision of public open space is essential to compensate for the lack of private open space to support active living and contribute to a more liveable neighbourhood.

Quality

The quality of design and ongoing maintenance and management is critical to attracting use and activating the open space network.

Diversity

The range of open space setting types within an urban area will determine the diversity of recreation opportunity for communities.

Local

200m

Performance indicators

High-density areas (0.15–0.5 ha public open space)

200 m from most houses

Distance of open space from schools

400 m

Distance of open space from workplaces

400 m

Local distribution (0.3–2 ha public open space)

400 m from most houses

District distribution (2–5 ha public open space)

2 km from most houses

Regional/metropolitan distribution (> 5 ha public open space)

5–10 km from most houses

1,500 - 3,000m²

Invest in increasing existing capacity - Number of open space programs available

— visual and physical access

— landscape setting

— demographic, cultural, and community demand

— condition of facilities and equipment

— maintenance

— number of activations within the space

— size, shape, and topography

— adjacent land uses

— amount of vegetation and shade

— biodiversity outcomes

— safety

— sustainability.

— local play for the very young (LPY)

— local children's play (LPC)

— older children's activity space (OCA)

— youth recreation space (YRS)

— local recreation space (LRS)

— active recreation space (ARS)

— large community outdoor recreation area (LCOR)

— fitness and exercise space (FES)

— trail and path-based recreation (TPR)

— organised sport and recreation (OSR)

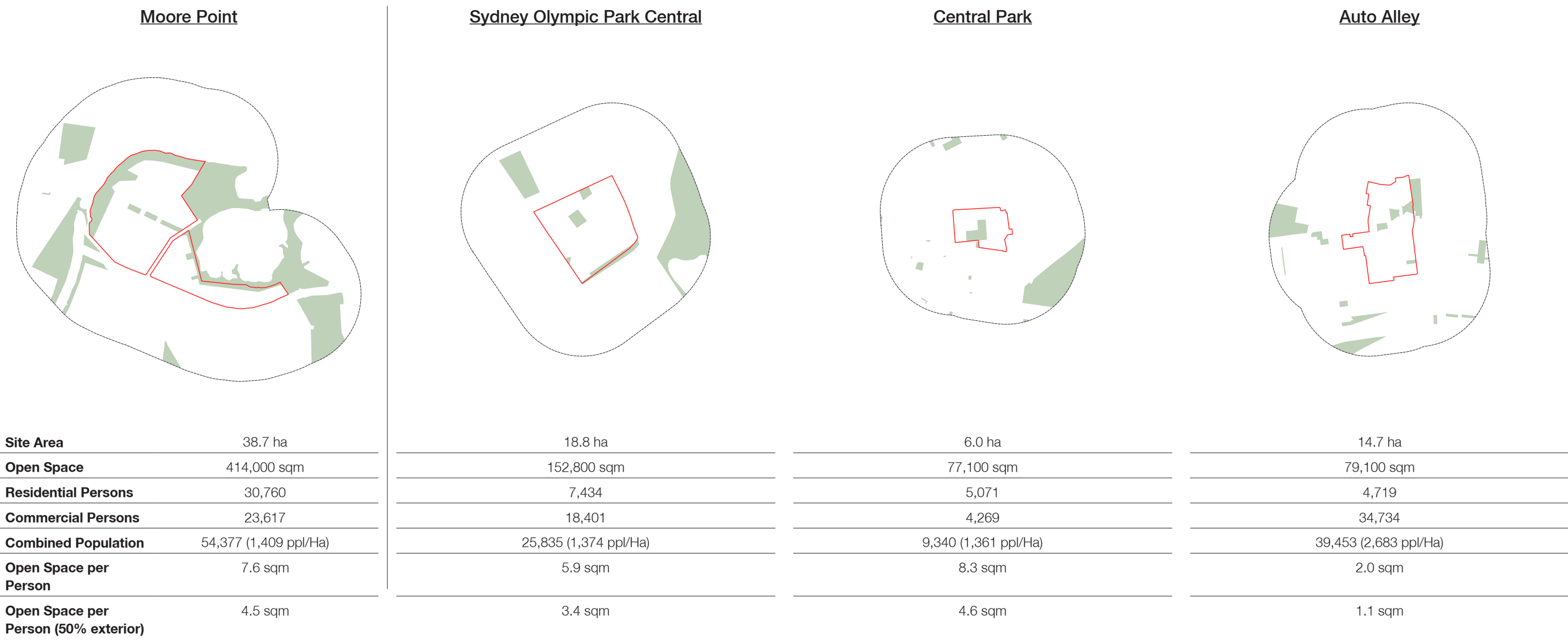
— off-leash dog exercise area (DEA).

SJB

Moore Point Masterplan

7

1.8 Open space benchmarking



The Draft Greener Places Design Guideline suggests that every home should be within 200m from local space in high density areas. The analysis above benchmarks the available open space within a 200m walking catchment from each precinct boundary to understand the quantum of open space available to the future population that the existing planning controls accommodate. It is understood that open space outside of the precinct is shared with other communities so two calculations have been provided, the first is the open space p/ person including all open space out side of the precinct, and open space people/person if only 50% of the area all parks outside of the precinct is considered. In both instances the quantum of open space at more point is comparable to other high density precincts across Sydney. It should also be noted that an additional 47,228 sqm will be delivered as communal open space.

note: the guide suggesting moving away from this measure of open space but the exercise has been undertaken to understand how the proposed planning controls relate to other recently planned precincts across Sydney

1.9 Public domain and landscape structure plan

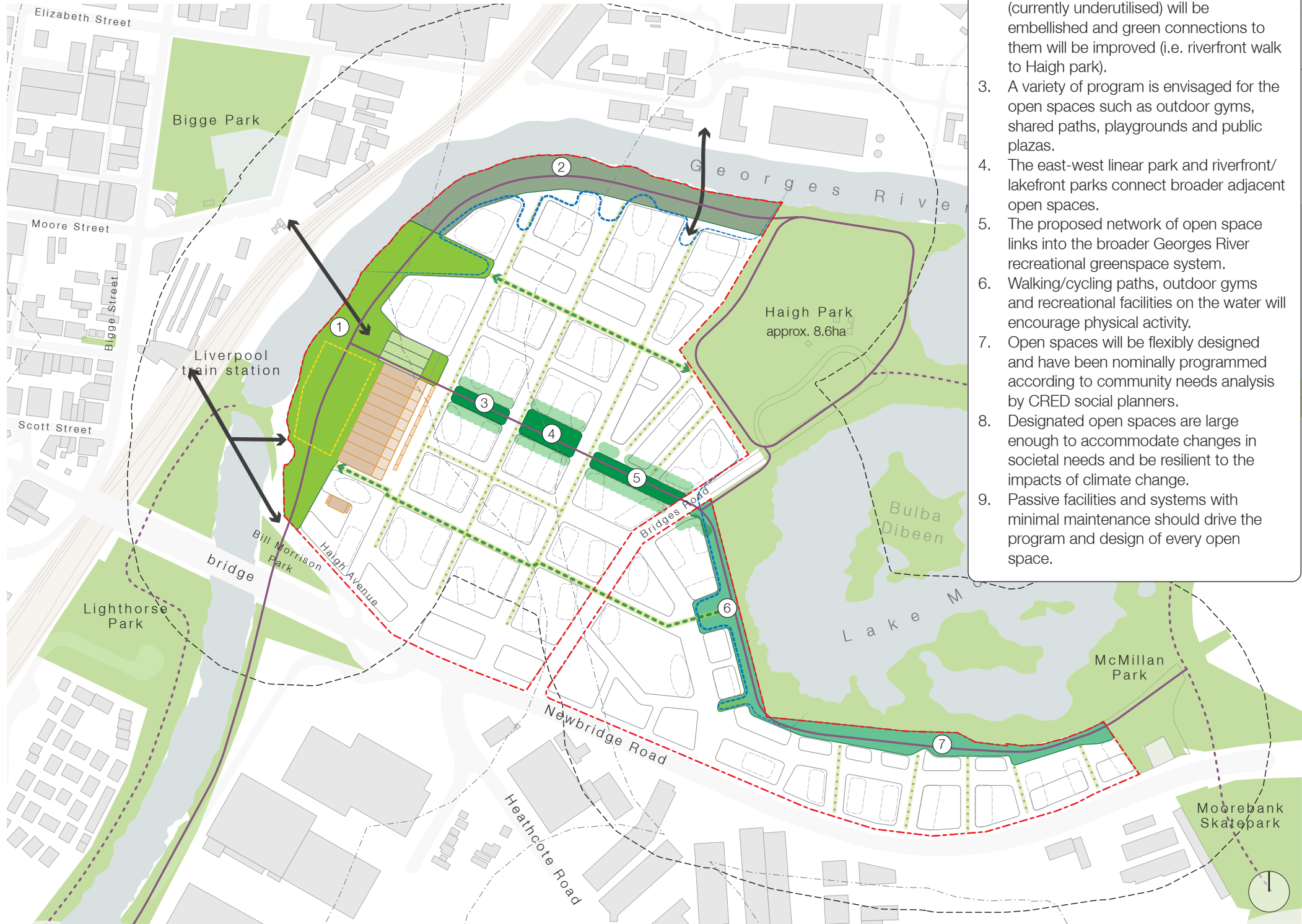
Moore Point is defined by the Georges River, Haigh Park and Lake Moore. Thus the landscape and public domain network of the site aims to connect these unique assets while reinforcing the urban grid of the site. Key open spaces include:

①	Georges riverfront park A	19,850m ²
②	Georges riverfront park B	33,651m ²
③	Linear park A	1,671m ²
④	Linear park B	2,672m ²
⑤	Linear park C	2,720m ²
⑥	Lakefront park A	8,151m ²
⑦	Lakefront park B	8,419m ²

It is envisaged that Moore Point uses and embellishes Haigh Park (approximately 8.6ha) for active open space for the following reasons:

- The vision for Moore Point as outlined in Liverpool LSPS is for an extension to the CBD with no mention of additional need for new large active open spaces
- Open Space and recreation needs study summary by CRED can be flexibly accommodated within proposed open space
- Haigh Park is currently underutilised and isolated from Liverpool City Centre with no easy pedestrian access
- Proposed open space network greatly improves connectivity to Haigh Park along Georges River
- As stated in the GANSW draft greener places design guide Haigh Park is a 'district open space' and Moore Point is well within the nominated 2km catchment

- site
- active Georges riverfront park
- passive Georges riverfront park
- linear park
- lakefront park
- riparian interface with building
- open space interface with building
- major east-west swale
- north-south swale
- key recreational paths (walking and cycling)
- surrounding open space (RE1)
- sun access protection area
- proposed pedestrian bridge
- potential vehicular bridge



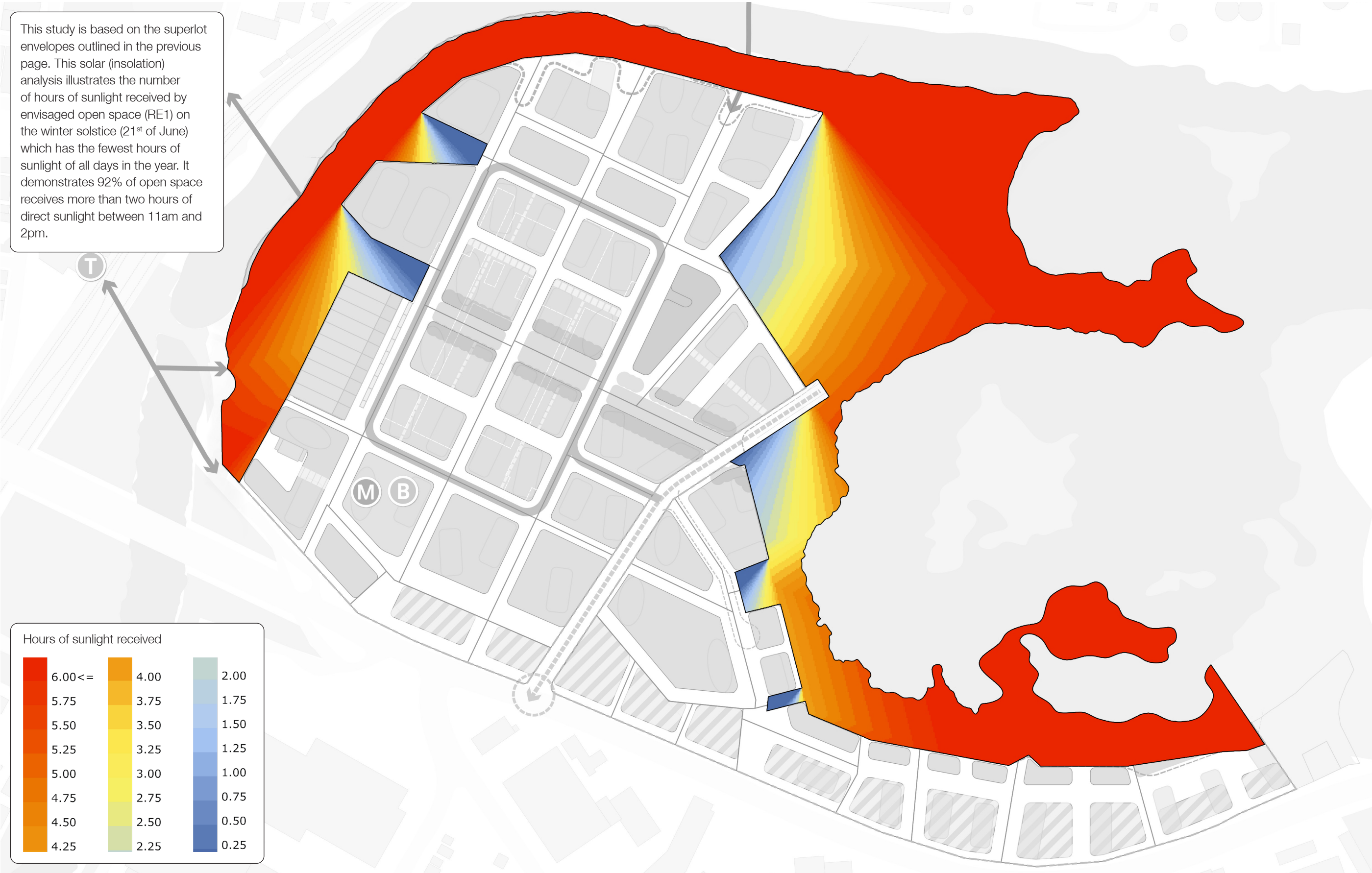
- The points below outline how the structure plan conforms to the nine open space strategies specified in the Draft Greener Places Design Guide (p.12).
- 1. The overall quantity of open space is significantly increased (7.6ha) with a diversity of spaces such as riverfront walks, landscaped plazas and embellished Haigh Park.
- 2. Existing surrounding open spaces (currently underutilised) will be embellished and green connections to them will be improved (i.e. riverfront walk to Haigh park).
- 3. A variety of program is envisaged for the open spaces such as outdoor gyms, shared paths, playgrounds and public plazas.
- 4. The east-west linear park and riverfront/ lakefront parks connect broader adjacent open spaces.
- 5. The proposed network of open space links into the broader Georges River recreational greenspace system.
- 6. Walking/cycling paths, outdoor gyms and recreational facilities on the water will encourage physical activity.
- 7. Open spaces will be flexibly designed and have been nominally programmed according to community needs analysis by CRED social planners.
- 8. Designated open spaces are large enough to accommodate changes in societal needs and be resilient to the impacts of climate change.
- 9. Passive facilities and systems with minimal maintenance should drive the program and design of every open space.

1:6000 @A3

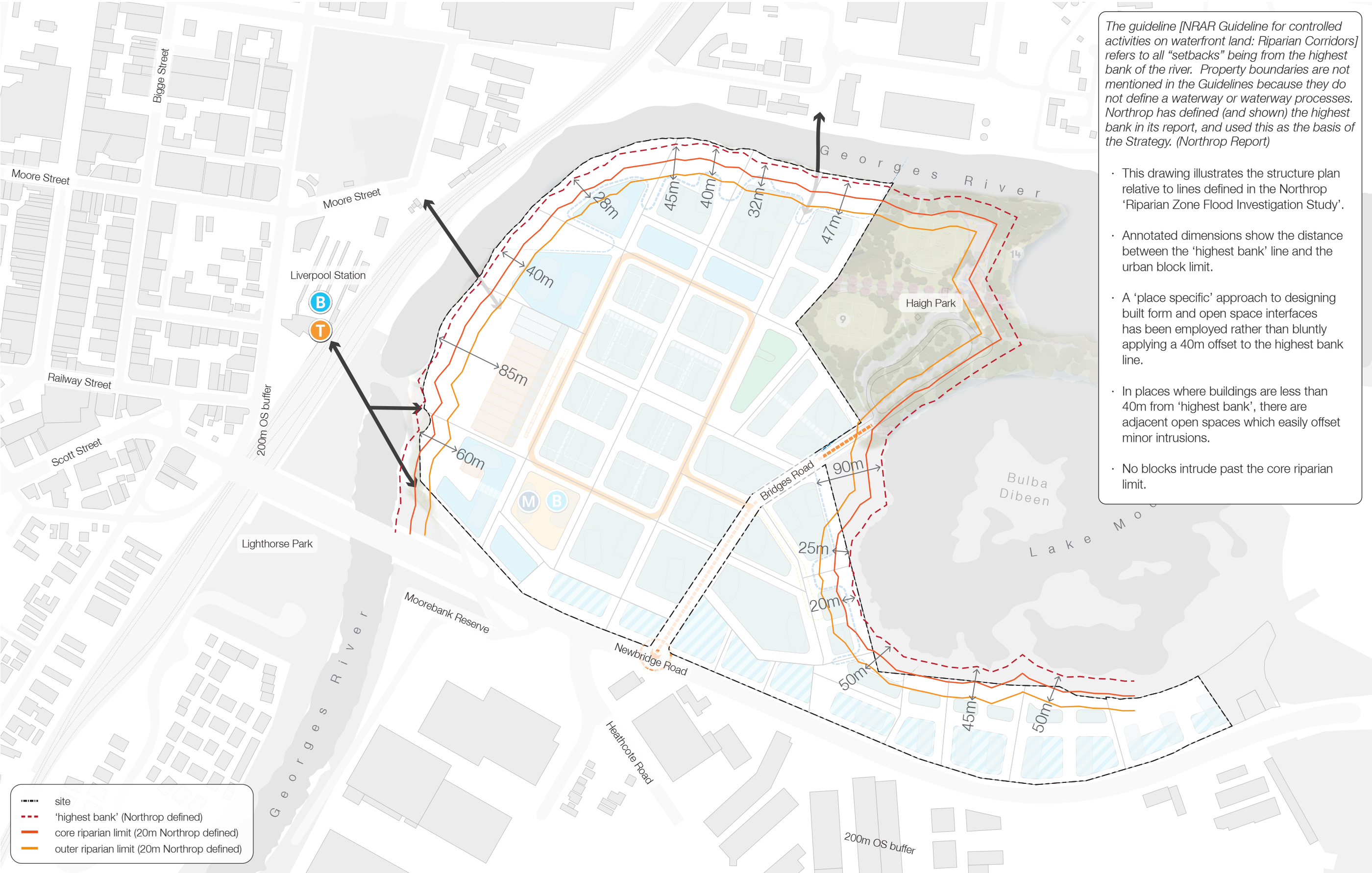
1.10 Open space design criteria and performance indicators - GPDG



1.11 Open space solar analysis



1.12 Riparian zone study



1.13 Movement and access structure plan

The proposed movement network of Moore Point is defined by an internal loop road which provides access from Newbridge Road. Several smaller primary streets also offer access to the site including the existing underpass access to the east of the site, existing entrance on Bridges Road and other access points along the lakefront portion of the site.

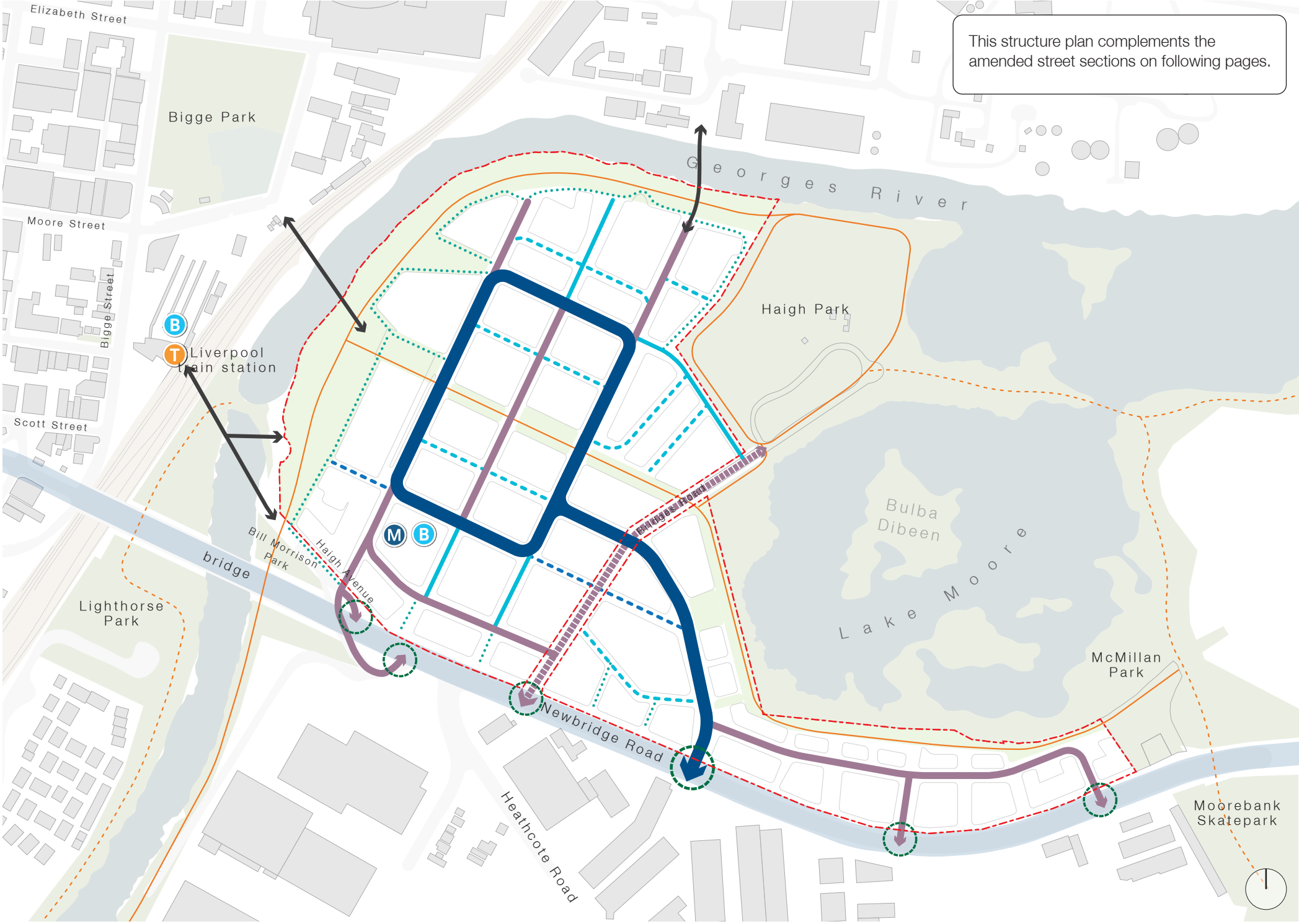
The central urban grid has north-south primary streets with smaller east-west oriented tertiary streets providing pedestrian through-site links, servicing and parking entrance access. Smaller shared serviceways are located along sensitive edges between open spaces to provide servicing access at slow speeds and can be opened at specific times of the day.

Two pedestrian bridges connect the western riverfront to Liverpool train Station and Bigge Park respectively. Another potential bridge connects over the Georges River subject to further study. Key recreational paths along the waterfront, park and lakefront link to the broader pathway network through Moorebank and Liverpool.

Every street has a 2m setback to accommodate a range of uses and activities, ensure adequate separation between buildings to maximise solar access, provide space for landscaping and privacy. The street hierarchy includes the following street types:

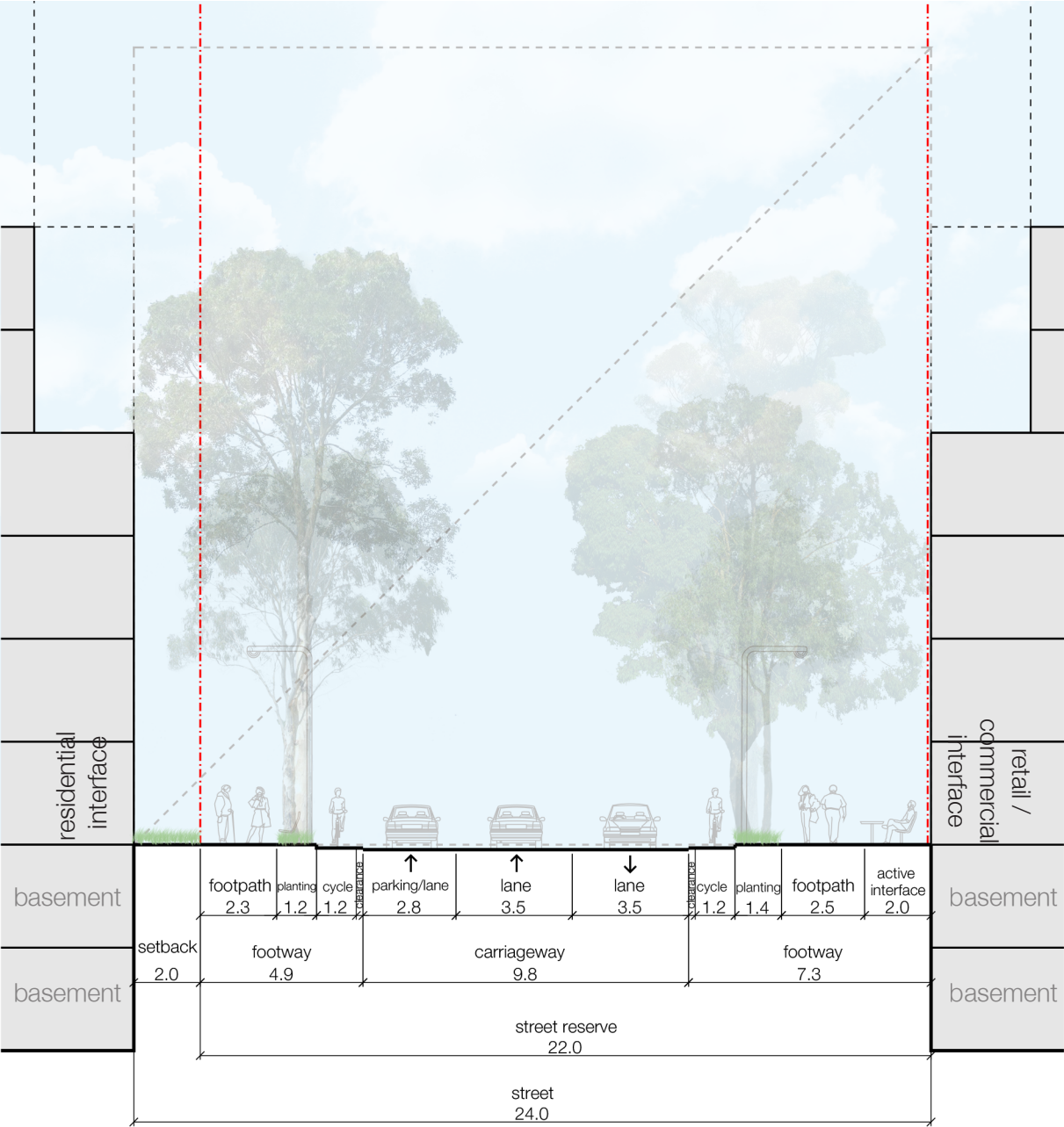
- Main road width is minimum 20m
- Primary street width is minimum 16m
- Secondary street width is minimum 16m
- Tertiary street width is minimum 12m (up to 16m)
- Shared serviceway width is variable

- site
- main road
- primary street
- secondary street
- - - tertiary street (public)
- - - tertiary street (private)
- ... shared serviceway
- key recreational paths (walking and cycling)
- > site access
- traffic light junction
- ⓑ bus terminus (layover and stops)
- Ⓣ train station
- Ⓜ potential future metro



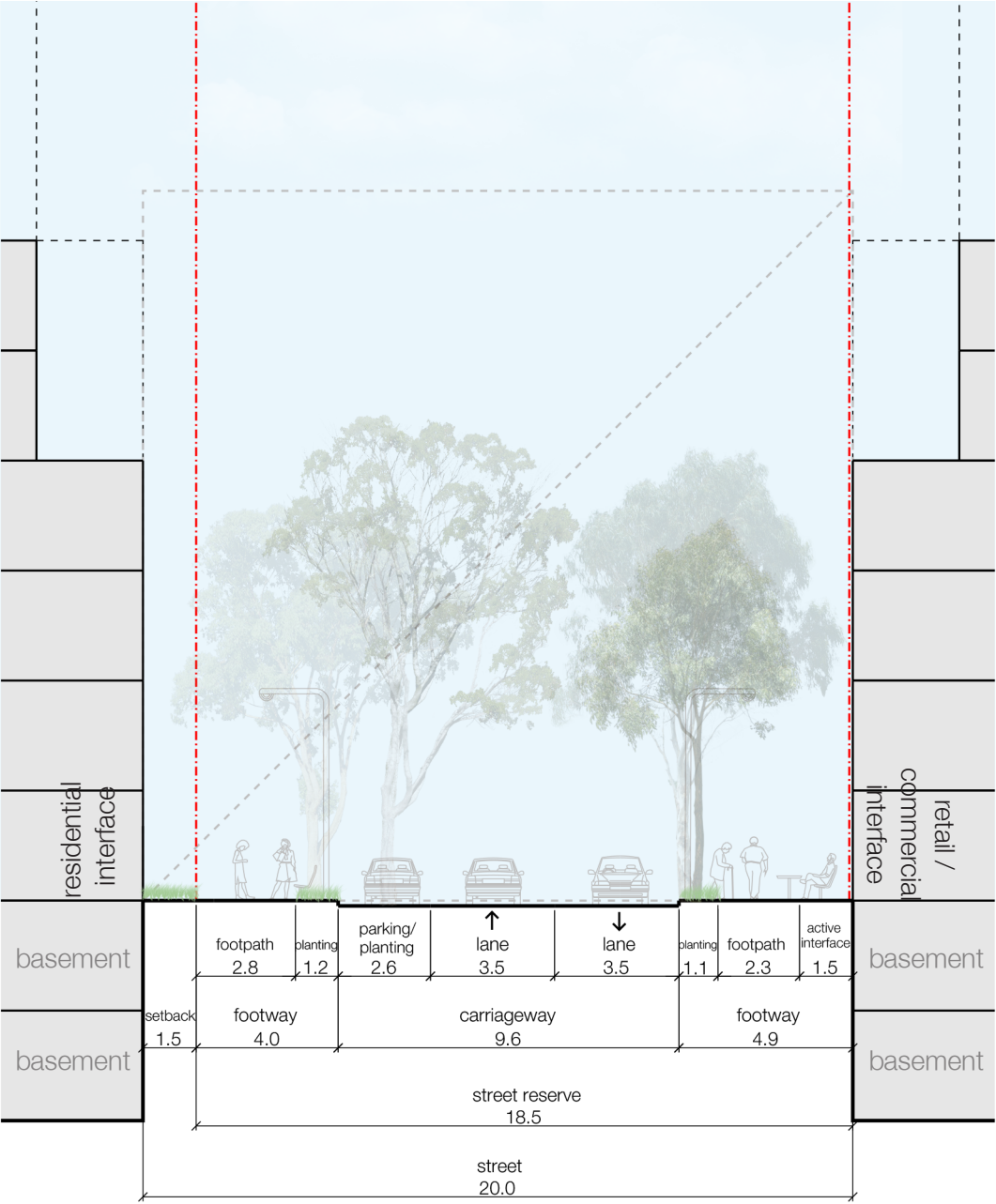
1.13.1 Street types 1

These sections have been amended to ensure a minimum of 4m for each footway. The left side of the section illustrates the typical residential interface while the right side of the section illustrates the typical retail/commercial interface



● Main road
0.6 : 1 : 0.6

The main collector road for the precinct provides access from Newbridge road and carries the most vehicular traffic, the streetwall height is proportionally smaller than the perceptual street width.

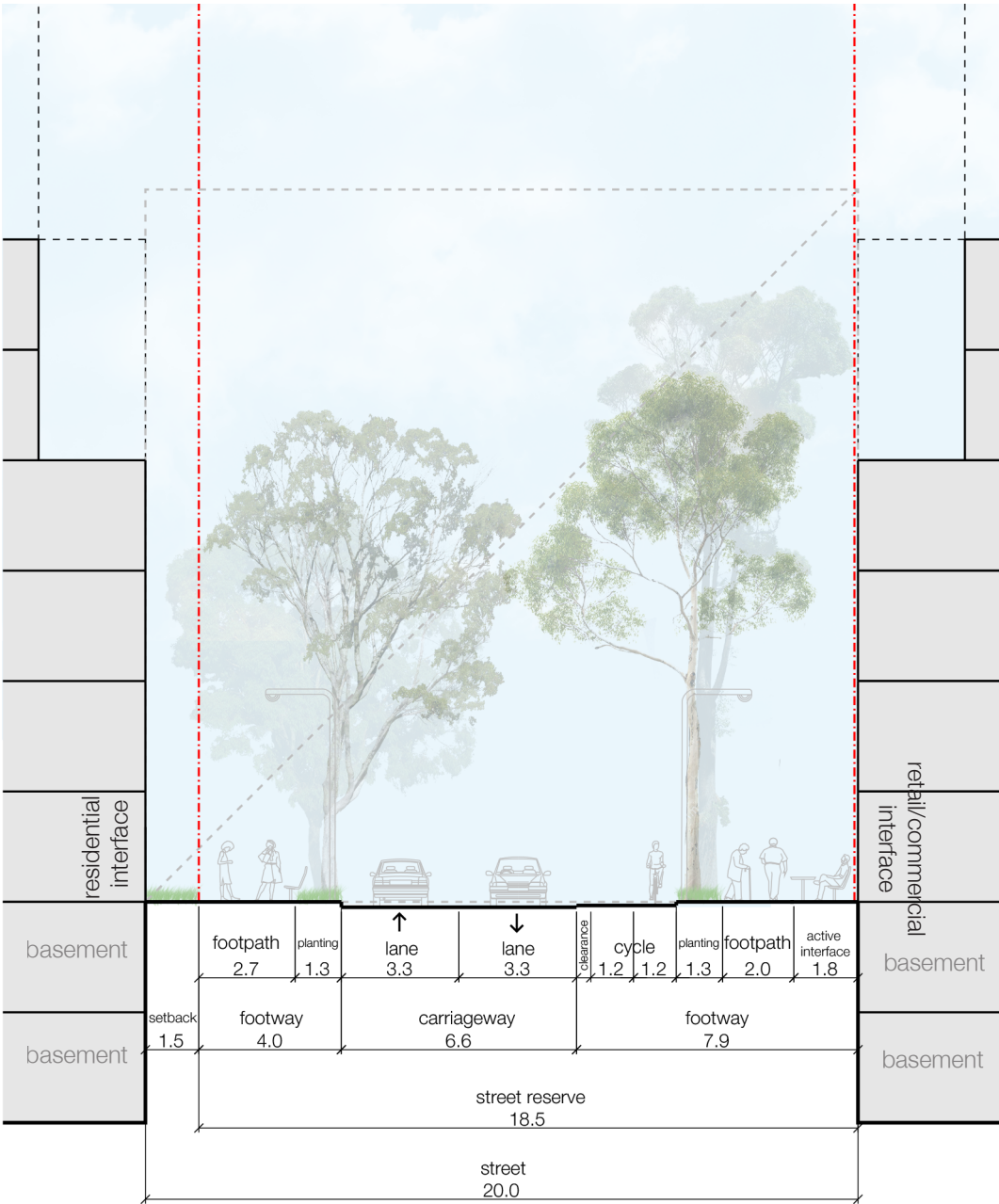


● Primary street (two way)
0.6 : 1 : 0.6

Primary two way streets are typical for the core of the precinct. The streetwall height is approximately equal to the perceptual street width which is common throughout Sydney.

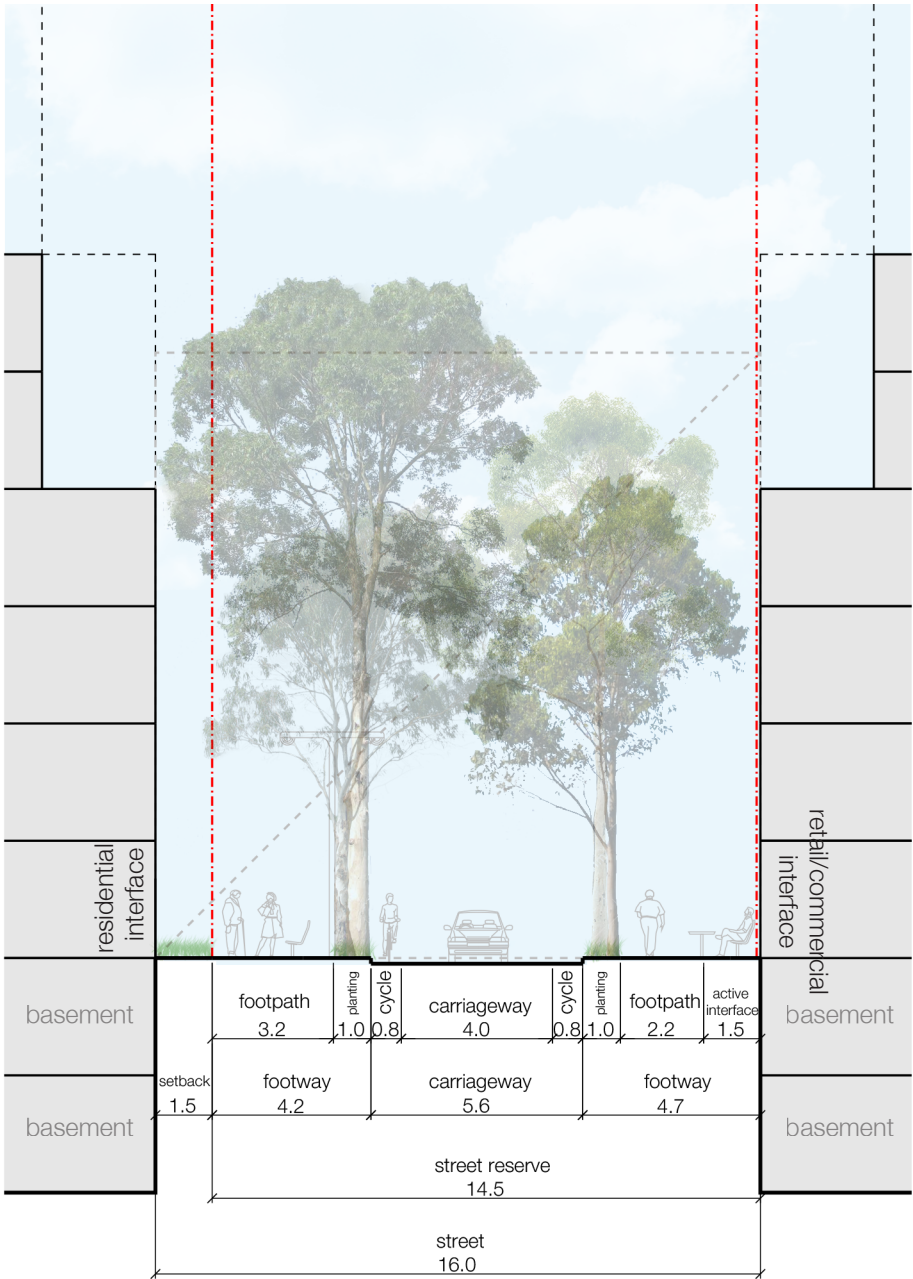
1.13.2 Street types 2

These sections have been amended to ensure a minimum of 4m for each footway. The left side of the section illustrates the typical residential interface while the right side of the section illustrates the typical retail/commercial interface



● Primary street (one way)
0.6 : 1 : 0.6

This is a one way version for some primary streets which are intended to be more pedestrian and cyclist oriented. The streetwall height is approximately equal to the perceptual street width which is common throughout Sydney.

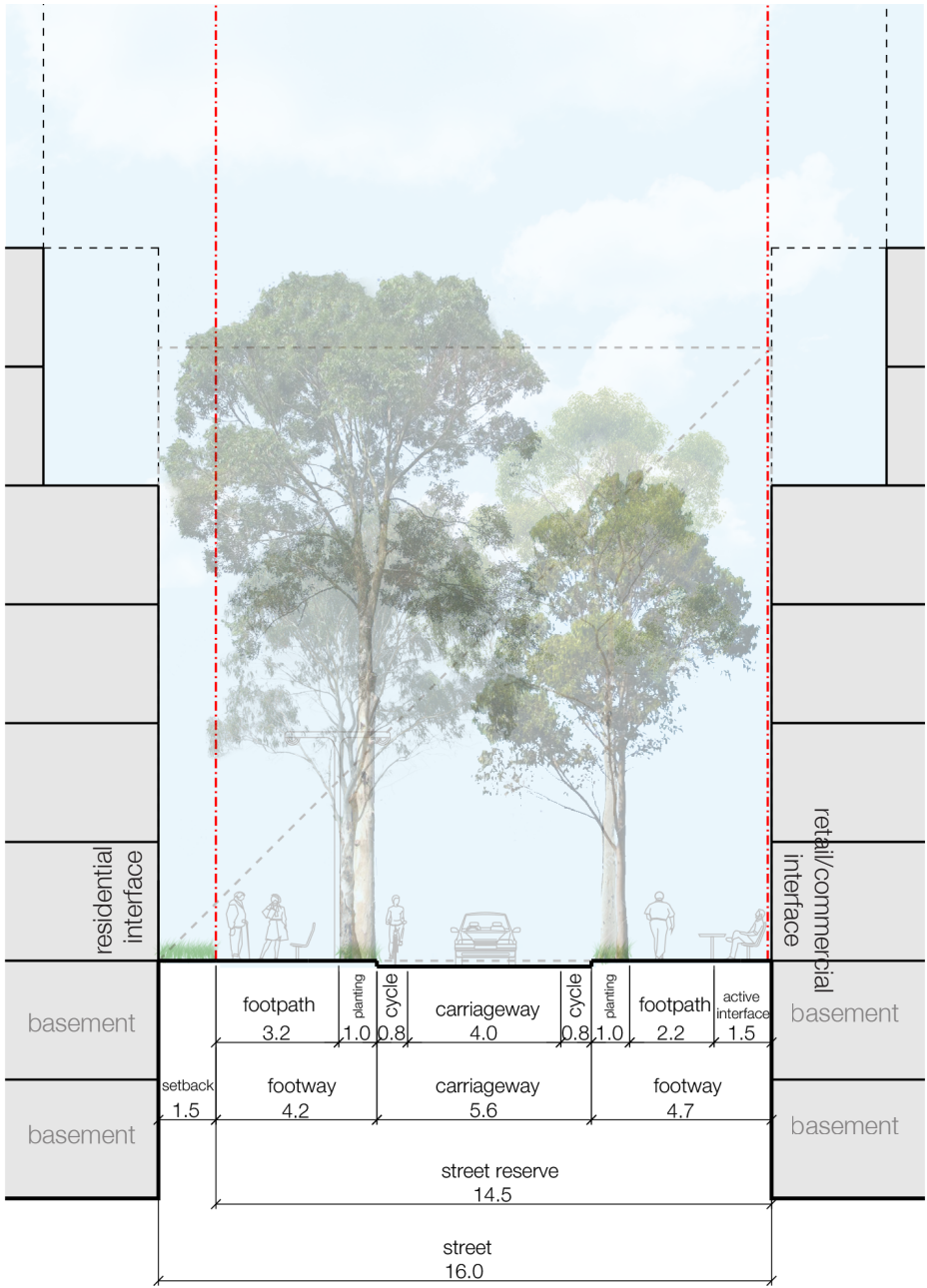


● Secondary street
0.6 : 1 : 0.6

Secondary streets are typical for the core of the precinct especially at streets which terminate at open space. The streetwall height is approximately equal to the perceptual street width which is common throughout Sydney.

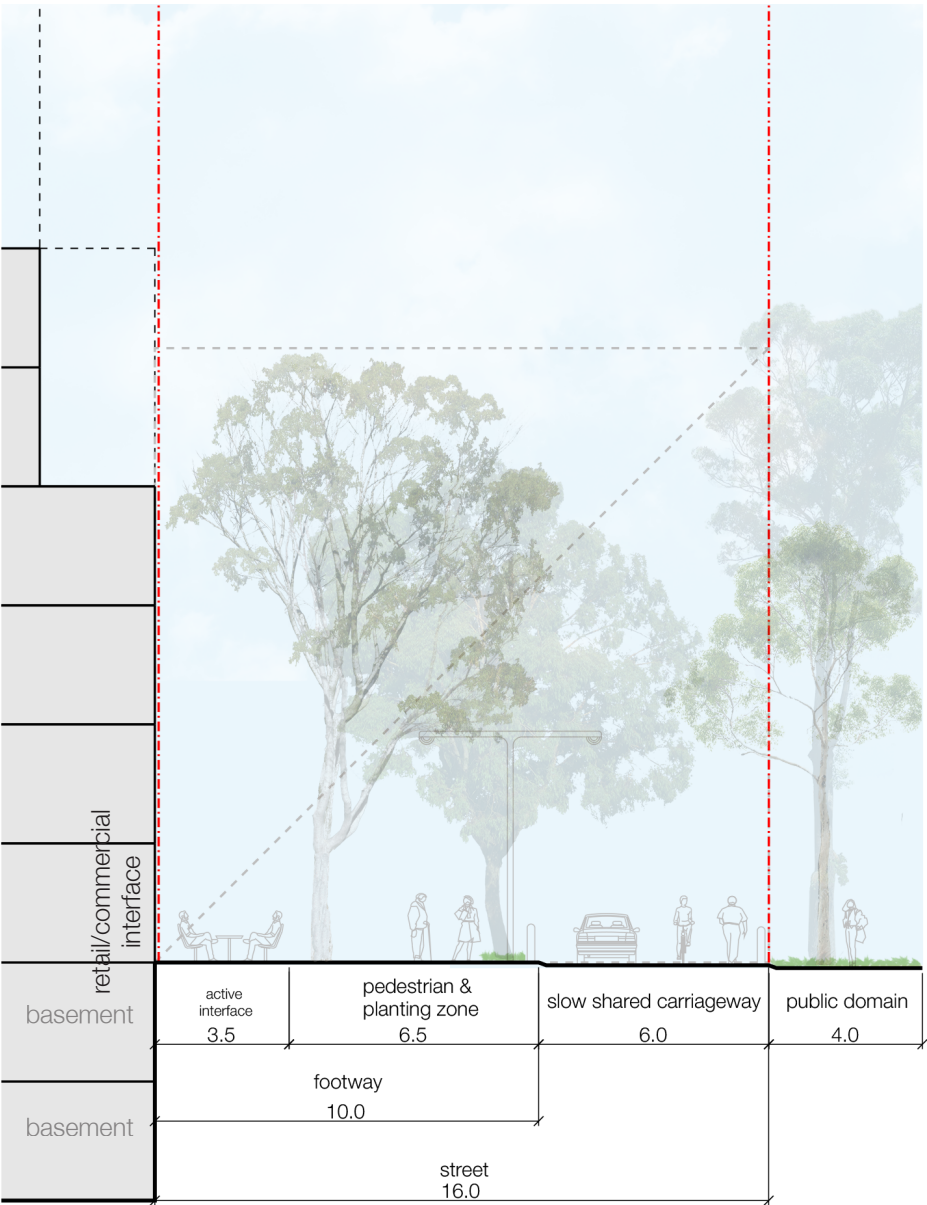
1.13.3 Street types 3

These sections have been amended to ensure a minimum of 4m for each footway. The left side of the section illustrates the typical residential interface while the right side of the section illustrates the typical retail/commercial interface



● Tertiary street (often private)
0.8 : 1 : 0.8

Tertiary streets range in width from 12m to 16m in the plan and are often private through-block links. They provide a range of functions such as servicerways, pedestrian laneways or combinations of both. Often the south side of the street is screened podium parking.

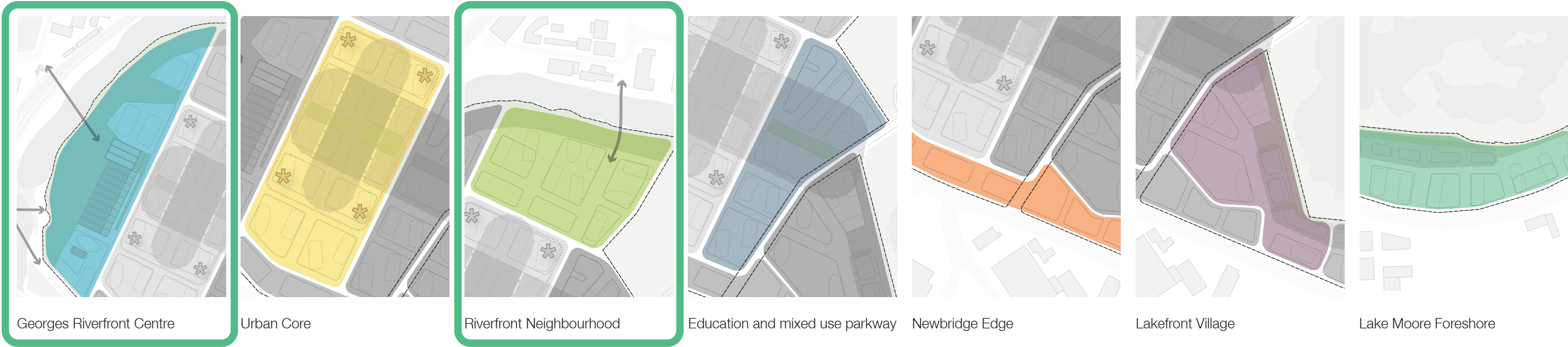


● Shared street servicerway

Shared street servicerways are along public space interfaces. They allow timed and managed access for vehicles but are predominantly pedestrian oriented throughout the day.

1.14 Character areas overview

Moore Point is structured around seven unique character areas. They build on existing environmental features and the relationships between The Georges River, Lake Moore, Haigh Park and Newbridge Road. Where heritage fabric is retained, opportunities to integrate built form and reinterpret the history of the site have been embedded. These character areas will be further refined in parallel with the precinct vision through a Placemaking Working Group who will collaboratively explore and assess place-led opportunities, ensuring the precinct vision is delivered based on world’s best practice. The Georges Riverfront Centre and Riverfront Neighbourhood have been selected for analysis because these two character areas of the overall precinct are the most critical to delivering on Council’s vision for Liverpool as a true river city. They are vital to deliver a connected green and blue grid with substantial open space and pathways as well as built form and land uses which complement the Liverpool CBD.



1.15 Georges Riverfront Centre precinct plan

The Georges Riverfront Centre will complement the Liverpool City Centre and be a key employment area for Moore Point. It will capitalise on new bridge connections and access to public transport. A new large riverfront park will host opportunities for recreation, events community gatherings and fitness. The industrial history of Moore Point will be showcased through the adaptive reuse of heritage fabric and warehouse buildings for markets, arts, culture and community events. New buildings will connect through to this existing built form, referencing their scale and seeking to activate shared edges.

- site
- bus interchange
- train station
- residential/mixed use
- retail/commercial
- landscape/open space
- open market
- transport interchange
- heritage items
- gateway
- cross-river connection
- green link
- trees
- flooding impact
- landscape buffer
- foreshore building line
- active frontage
- urban marker

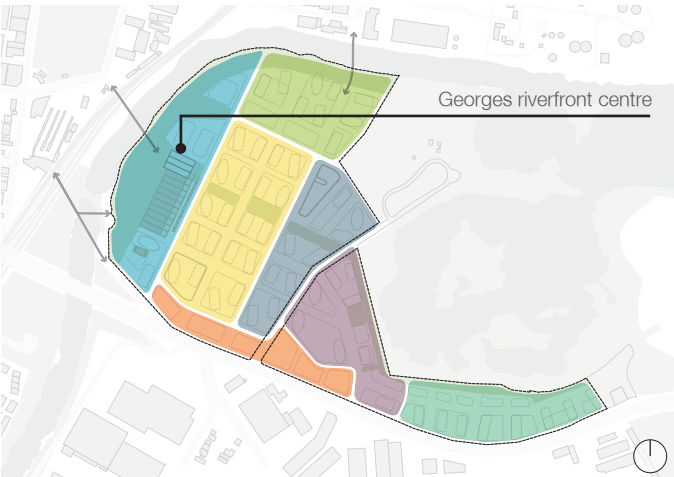


Figure 04: key plan

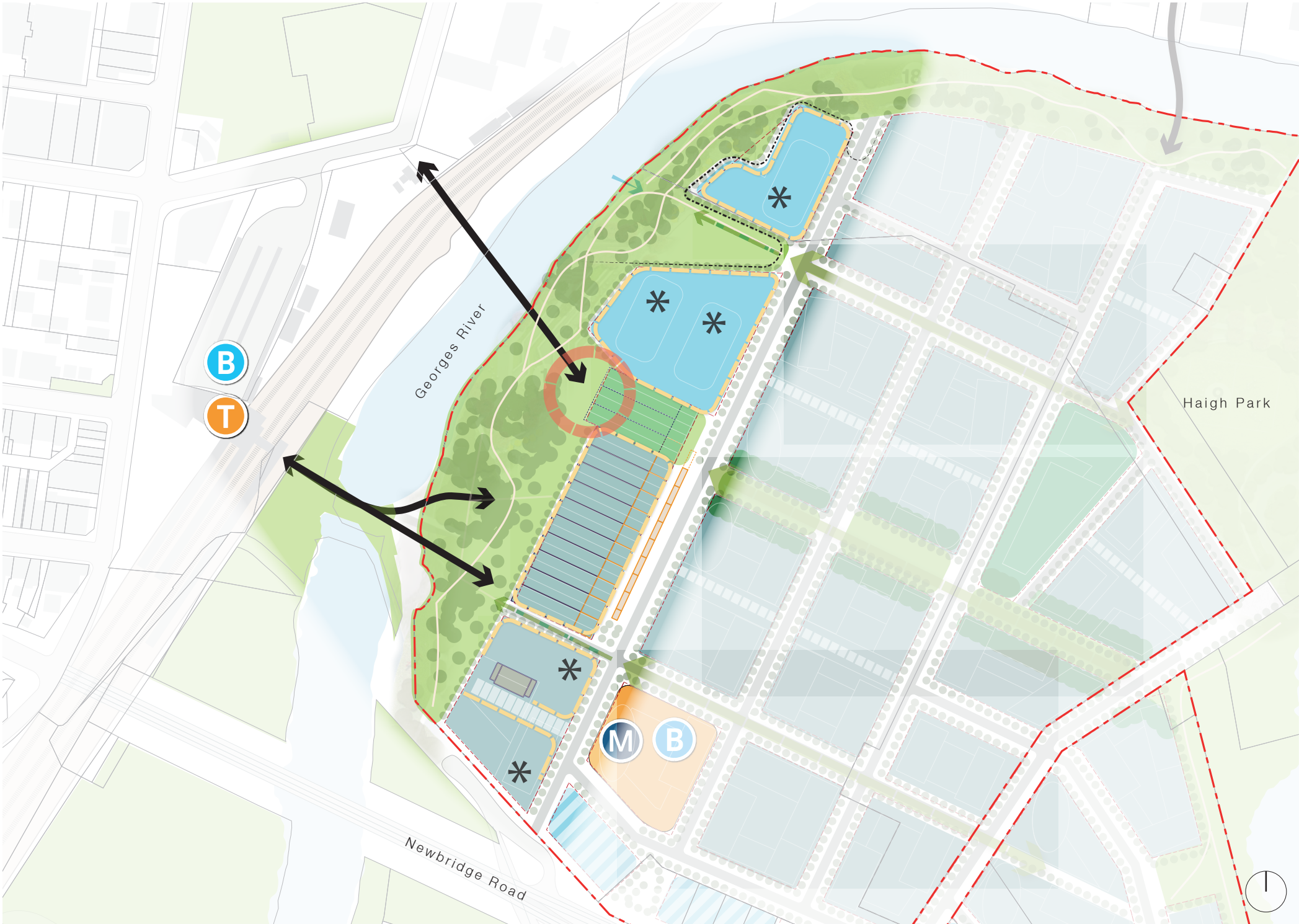
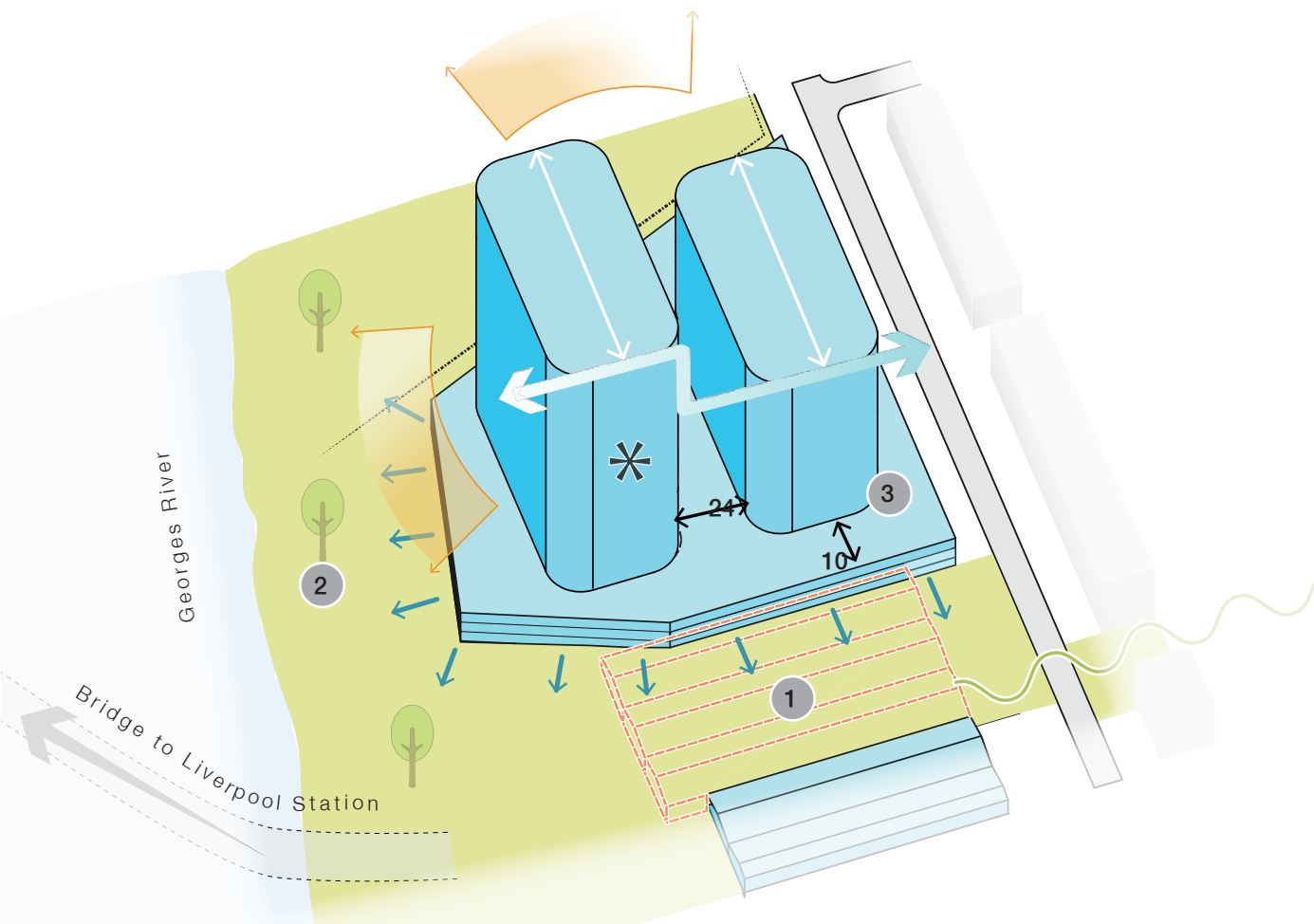


Figure 05: precinct plan

1.16 Built form

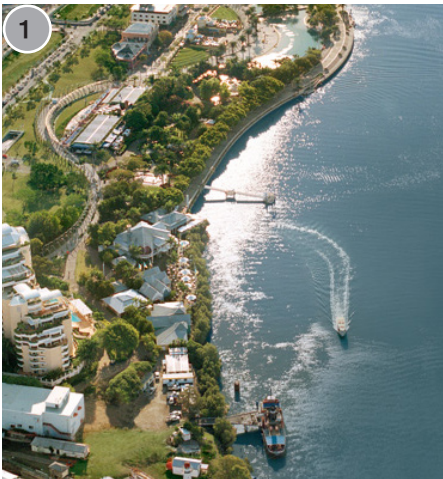


Key objectives

- The key objectives for this precinct include:
- unlocking public access to the Georges River
 - adaptive reuse of existing heritage buildings and incorporation of heritage interpretation
 - deliver commercial and retail uses in areas well connected to Liverpool City Centre
 - seek opportunities for activation along the edges of open space and streets
 - locate and orient buildings to take advantage of regional views

- site
- retail/commercial
- landscape/riparian zone
- heritage item
- Georges river
- adjacent built form
- active frontage
- green corridor
- urban marker
- views
- foreshore building line

Figure 06: example block



Riverfront Park

The Riverfront Park will be Moore Point’s pre-eminent park and contribute to increased community accessibility to the Georges River. Pedestrian and cycle paths established here will connect through to Liverpool City Centre in the west through new cross-river connections. This park will also be connected to a new foreshore park in the north, Haigh Park and Lake Moore to the east. Tree canopy and soft landscaping across the park will be key in creating cool and comfortable spaces for the public to enjoy.

The riverfront park will support a range of uses from community events, playgrounds, barbeques and seating for picnics and gatherings and fitness stations. Areas adjacent to buildings will support opportunities for outdoor dining.



Adaptive Reuse

Warehouse buildings in the south of the Precinct will house markets, retail and community events. The existing large spans and generous ceiling heights make these structures perfect for large gatherings. To enable the extension of the east-west green connection through to the riverfront, public access is proposed to continue through part of the existing buildings. This will also increase accessibility to new cross-river connections from Moore Point to Liverpool City Centre.

Heritage interpretation integrated into the design of buildings and the public domain will offer a window into the history of the site.

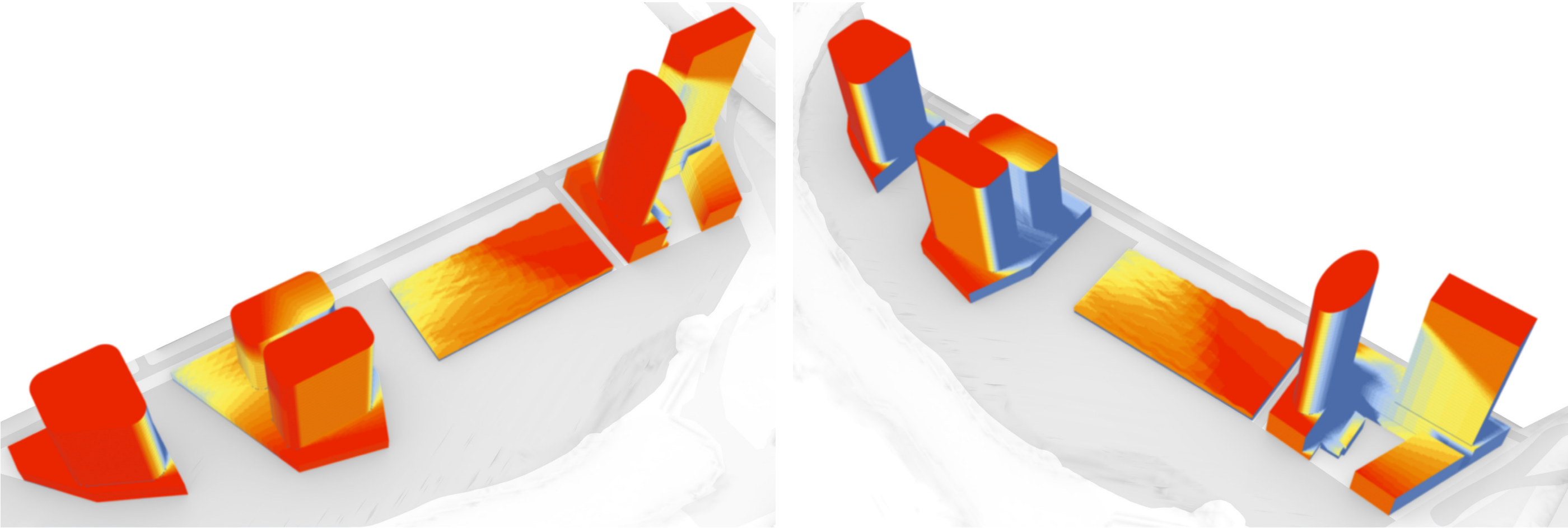


Built Form

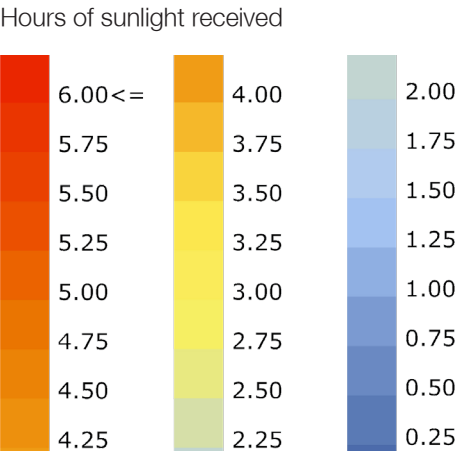
The precinct will include a range of building typologies supporting predominantly commercial and retail uses. Some residential towers will be located in the south of the precinct. Buildings within this precinct have been located and oriented to maximise solar and daylight access to building façades as well as the public domain. Height variation has been used to reduce the visible bulk of tower forms across the landscape.

Buildings will be designed to address the street and provide active frontages to adjacent open spaces and streets. Podium heights connecting onto existing warehouse structures will seek to remain generally consistent with the street wall established by those buildings.

1.17 Built form solar analysis



This solar (insolation) analysis is for the Georges Riverfront Centre character area. It illustrates the number of hours of sunlight received by building facades on the winter solstice (21st of June) which has the fewest hours of sunlight of all days in the year.

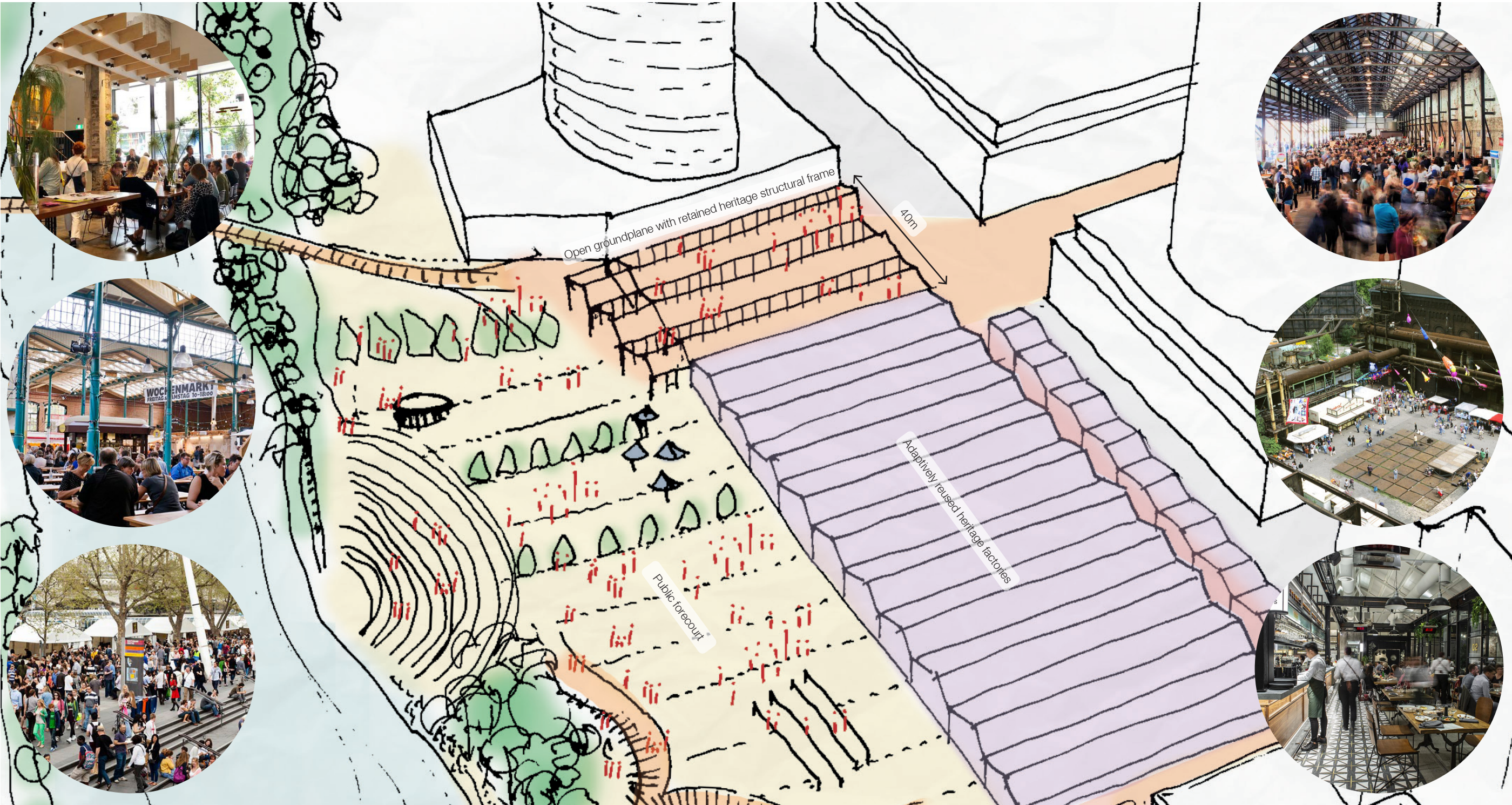


1.18 Open space solar analysis



1.19 Georges River waterfront and adaptively reused heritage factories

This sketch and accompanying precedent photos clarifies the indicative character of the heritage factories. The northern section of the heritage factories is a 40m wide open groundplane with retained structural heritage elements. This allows people to walk through the remnant industrial fabric along the east-west linear park.



1.20 Daytime Georges River waterfront



1.21 Nighttime Georges River waterfront



1.22 Riverfront Neighbourhood precinct plan

This precinct is characterised by its unique landscape setting with direct access to the Georges River foreshore and Haigh Park. Built form lined at ground with active edges along open space, will takes advantage of sweeping regional views and solar access afforded by its location. Areas in the south of the Precinct feature smaller scale commercial buildings which are less reliant of direct solar access. Diversity in land use and typology in this precinct will support opportunities for diverse engagement

- site
- residential/mixed use
- retail/commercial
- landscape/riparian zone
- gateway
- green link
- cross-river connections
- new tree planting
- flooding impact
- landscape buffer
- foreshore building line
- active frontage
- urban marker

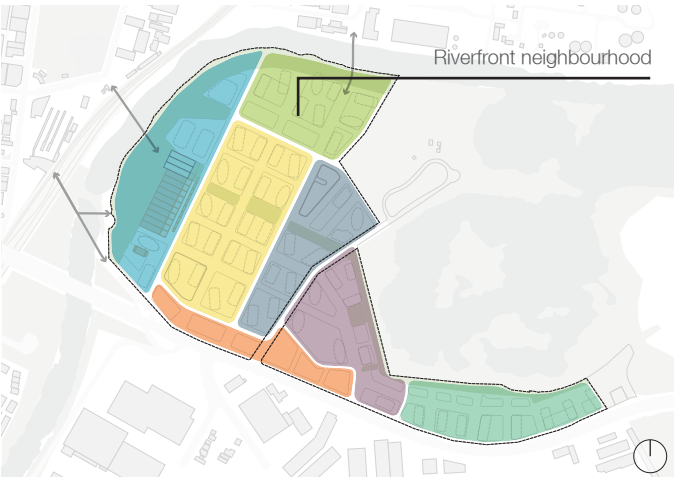
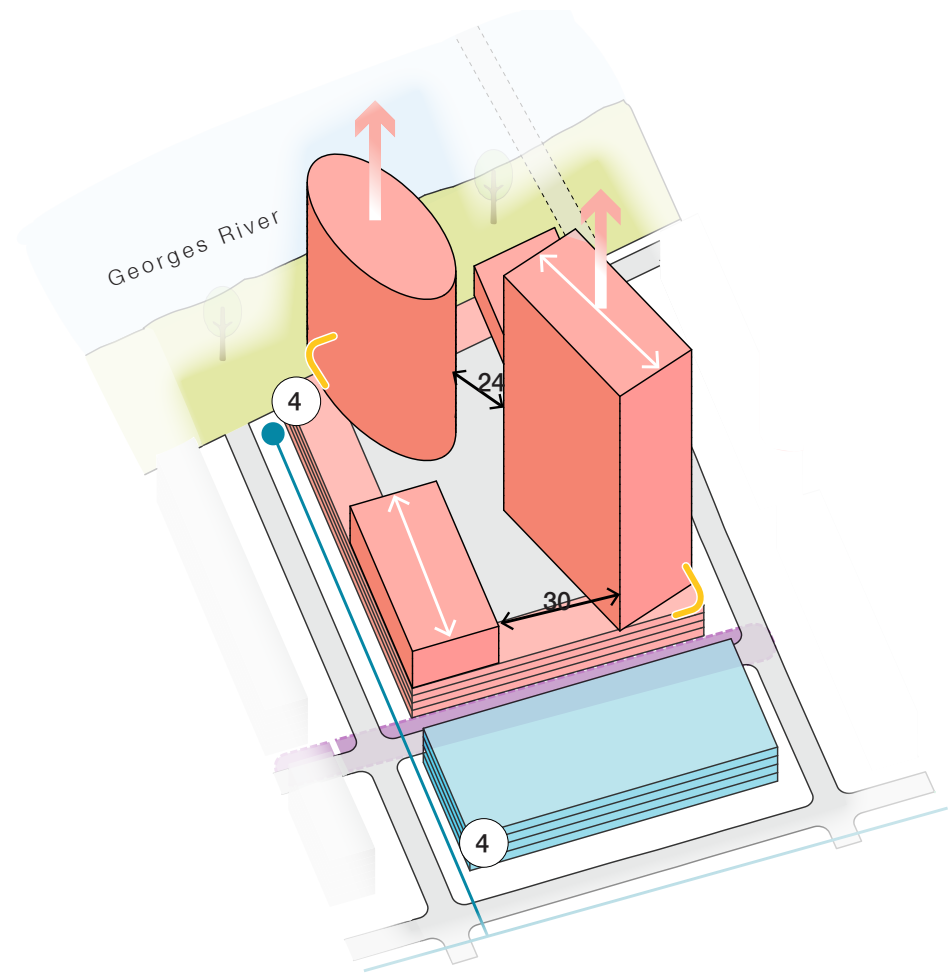


Figure 07: key plan



Figure 08: precinct plan

1.23 Built form

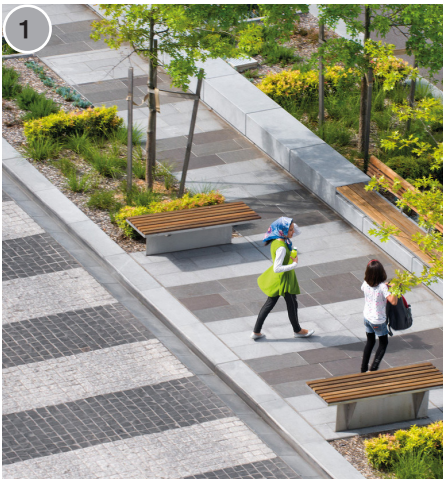


Key objectives

- The key objectives for the precinct include:
- shape built form and height to maximise solar access to the public domain and buildings to the south
 - take advantage of regional views
 - engage with interfaces to public open space by activating frontages at key locations
 - deliver a diversity of land use and residential typologies
 - manage flooding from the Georges River through integrated water sensitive urban design and landscape features

- site
- residential
- retail/commercial
- landscape/riparian zone
- pedestrian focused street
- adjacent built form
- proposed WSUD element
- variation in height

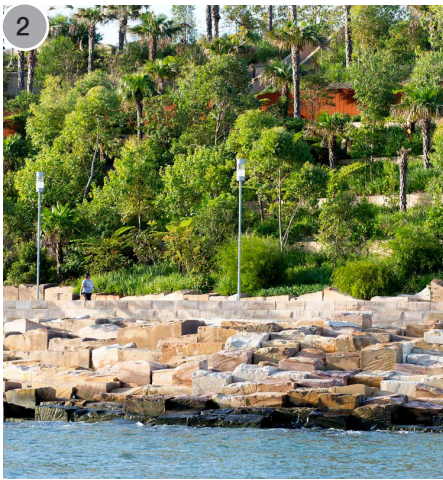
Figure 09: example block



Streets

Streets will undertake a myriad of functions including supporting movement, spaces for the public to dwell, servicing and managing the effects of flooding and stormwater on the precinct. Opportunities for water sensitive urban design will be integrated into key streets to enable stormwater filtration and water retention during flood events.

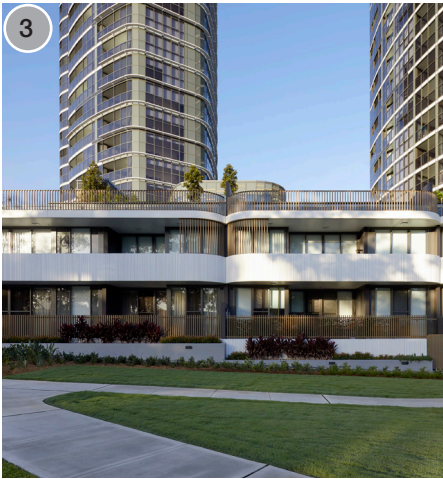
A pedestrian focussed street will be established between residential buildings in the north and commercial buildings in the south of the precinct. This street will prioritise pedestrian movement through the provision of a shared surface, soft landscaping and seating which promotes use across the day.



Foreshore Park

The foreshore park will be important in mediating the effects of flooding and providing important recreation space to support residents, workers and visitors. It will include pedestrian and cycle paths that connect into the Riverfront Park to the south-west and Haigh Park to the east.

The park will include significant tree canopy to ameliorate the intensity of direct solar access provided by the park's northern aspect. Soft landscaping will also contribute to creating a cool and comfortable space for the public.

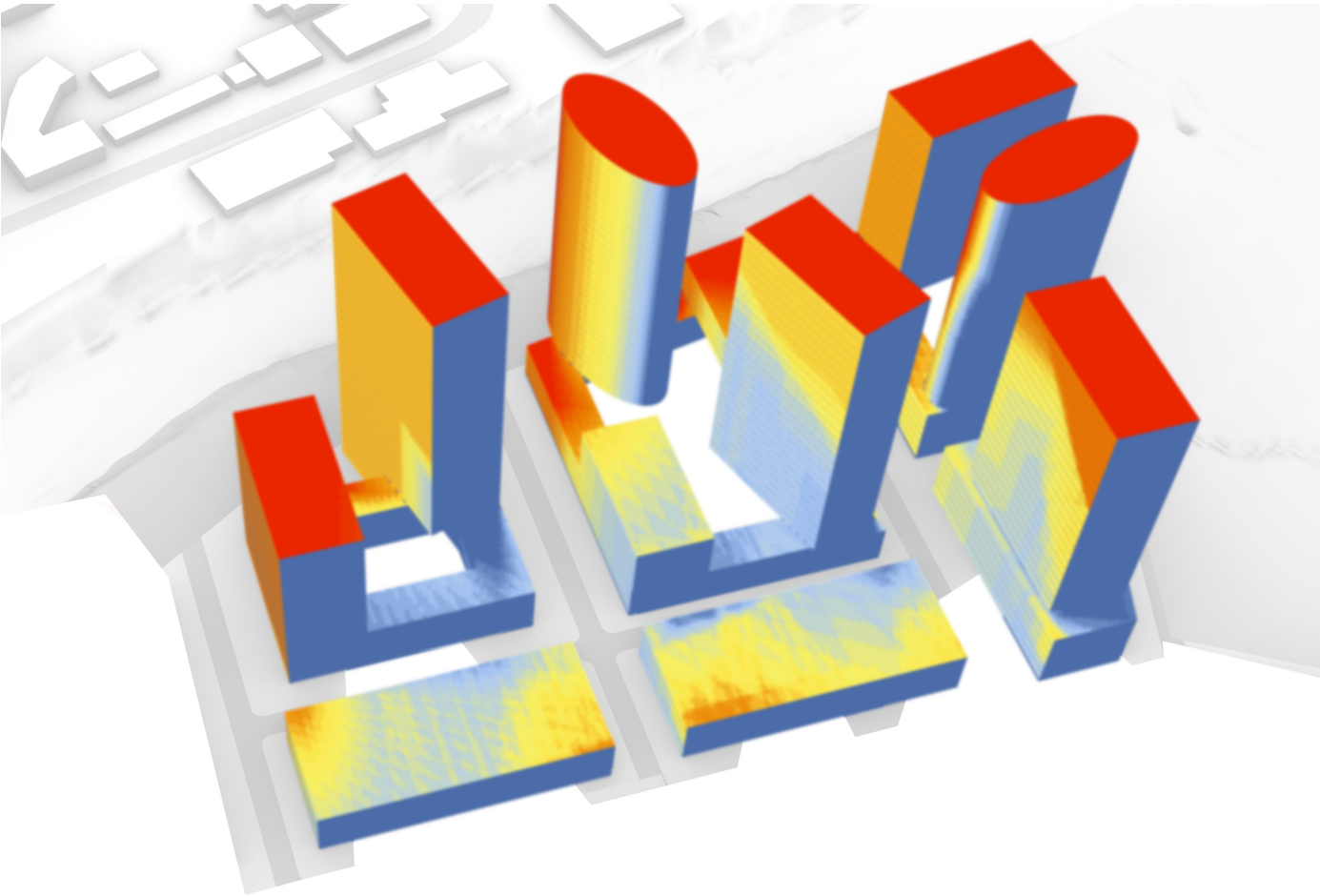
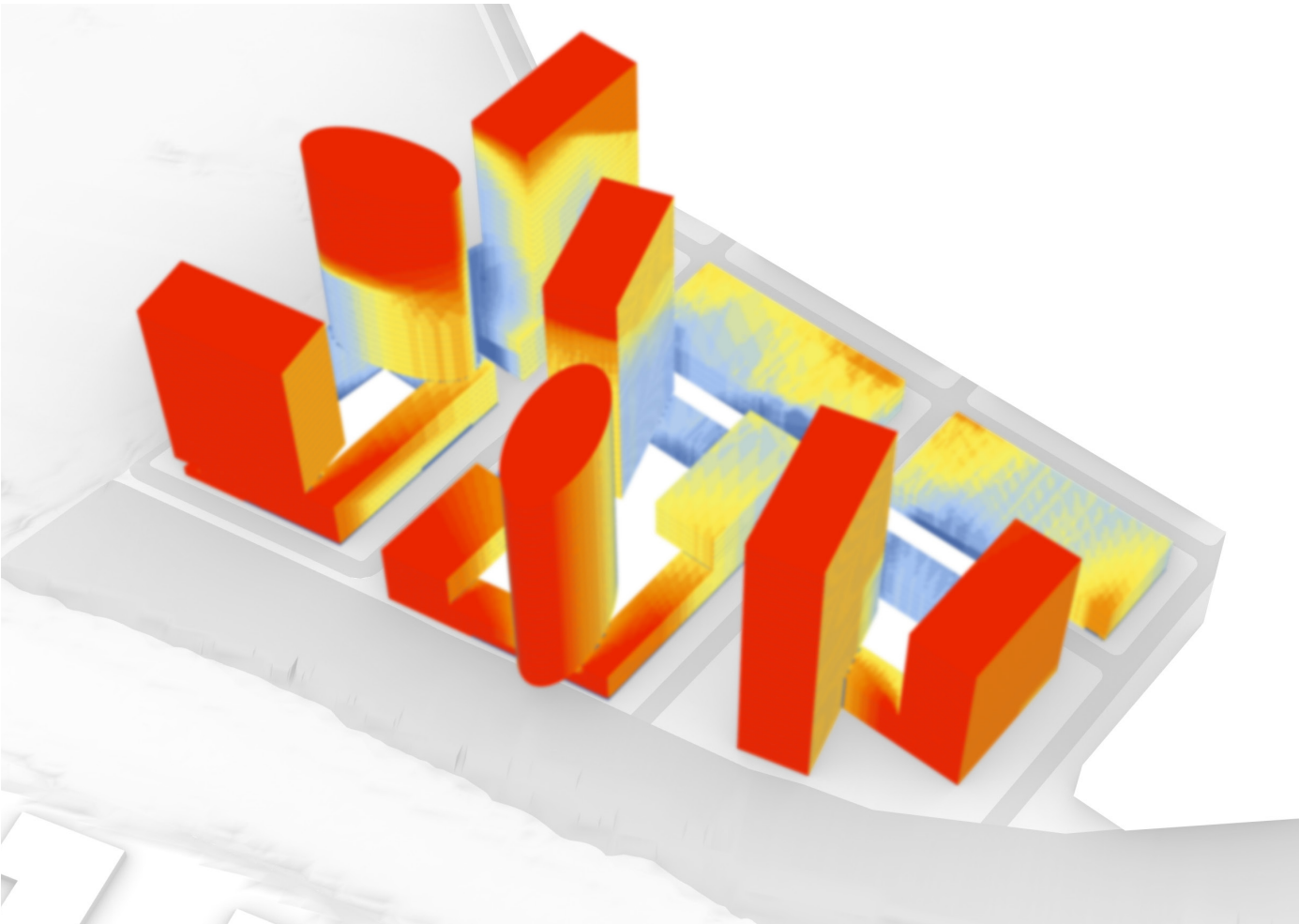


Built Form

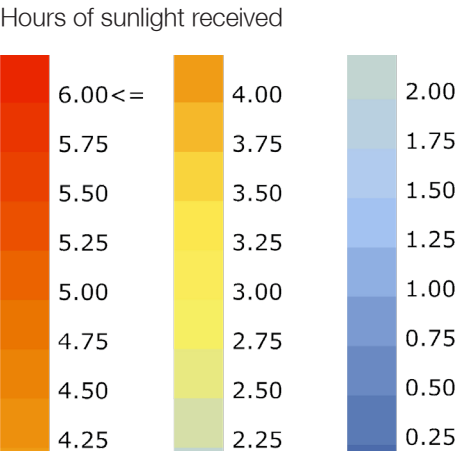
A diversity of building typologies are proposed for this precinct to attract a range of residents and businesses. This includes residential towers of varying heights, residential uses skinning parking podiums and a smaller-scale commercial building in the precinct's south.

Smaller commercial buildings in the south of the precinct will attract more commercial tenants seeking a more "boutique" offering with smaller buildings and a closer relationship to the ground plane.

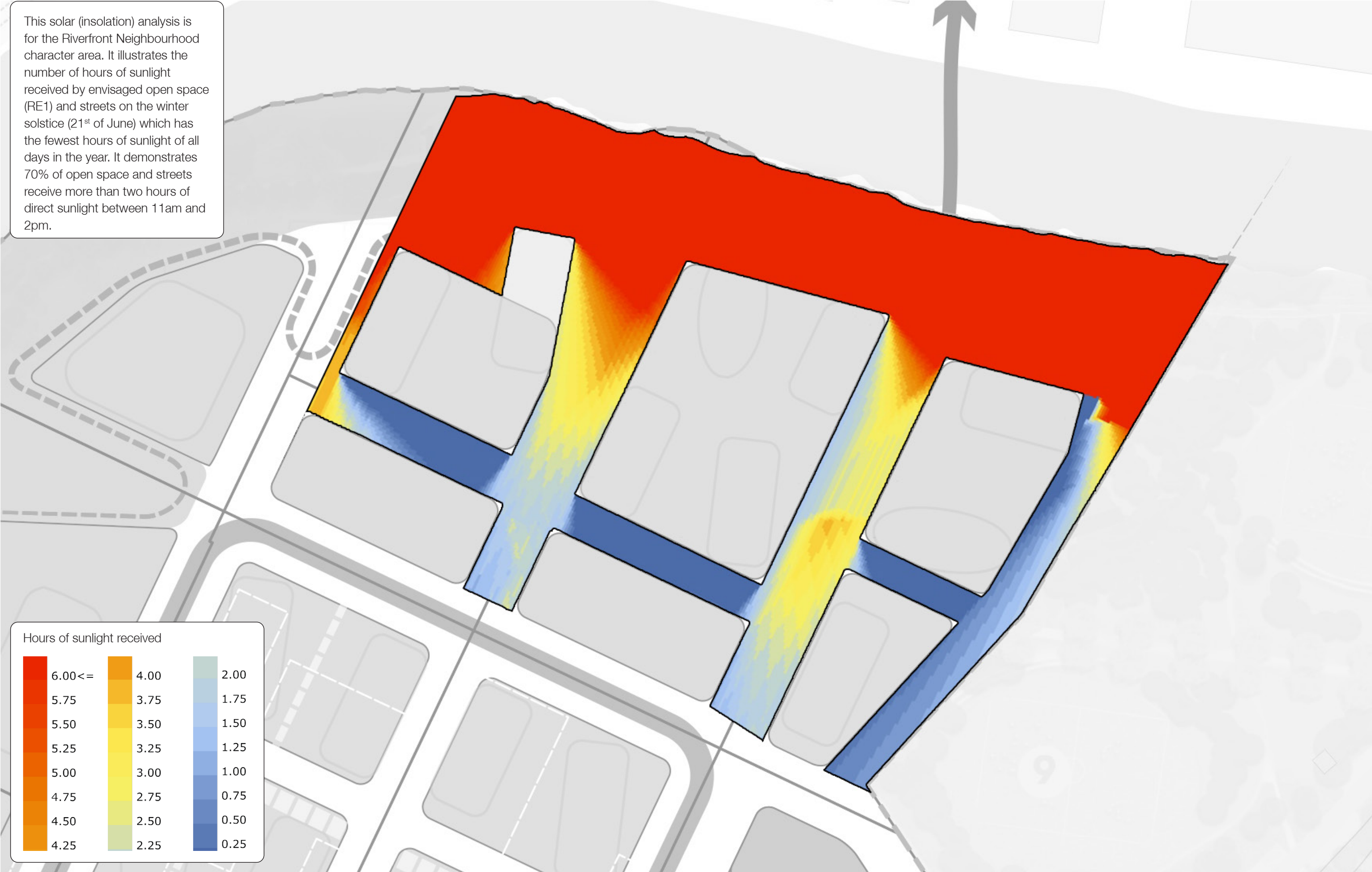
1.24 Built form solar analysis



This solar (insolation) analysis is for the Riverfront Neighbourhood character area. It illustrates the number of hours of sunlight received by building facades on the winter solstice (21st of June) which has the fewest hours of sunlight of all days in the year.



1.25 Open space solar analysis



1.26 Riverfront Neighbourhood indicative massing



Figure 10: artistic impression of the Georges Riverfront park with Haigh Park in the distance (SJB)

SJB Urban

sjb.com.au

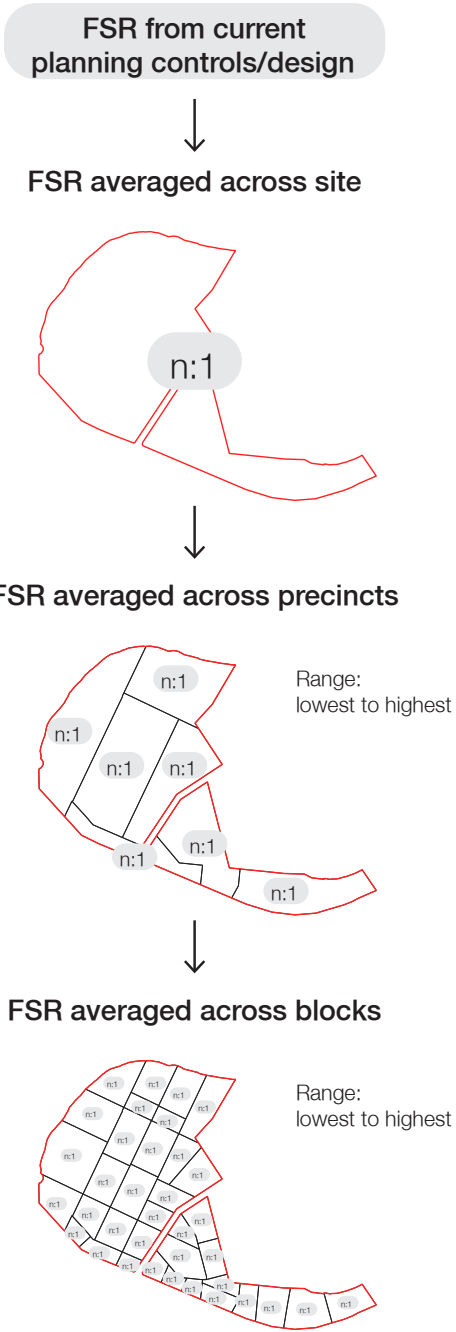
We create spaces people love.
SJB is passionate about the possibilities
of architecture, interiors, urban design
and planning.

Let's collaborate.

Level 2, 490 Crown Street
Surry Hills NSW 2010
Australia
T. 61 2 9380 9911
architects@sjb.com.au
sjb.com.au

1.27 Density Benchmarking - Methodology

Floor Space Ratio



Open Space

