

APPENDIX 1

LOT 6 NEWBRIDGE ROAD, MOOREBANK RESIDENTIAL DEVELOPMENT

URBAN DESIGN STUDY

March 2020

Project no. 4474-00

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1.0 EXECUTIVE SUMMARY

DEM has been engaged by EQ Riverside to prepare this Urban Design Study for the development of Lot 6 Newbridge Road Moorebank to support a Planning Proposal for the site.

The purpose of the study is to establish a planning and urban design framework and to identify the statutory planning controls of height and floor space ratio to guide the future development of this 21.32 ha site. The urban design principles established as part of the study aim to achieve design excellence and the creation of a distinctive, resilient and vibrant residential neighbourhood located along the banks of the Georges River.

As part of the study the following has been undertaken: a review of the current planning framework including statutory and non statutory planning controls; a site analysis; and an assessment of the site opportunities and constraints that may impact the development of the site.

Based on the information identified in the site assessment, the Masterplan has been developed illustrating the proposed road network, site levels and building form and siting aimed to accommodate the future population for the site. Urban design principles have been established to create a residential neighbourhood that provides pedestrian linkages and a public domain which embraces key characteristics of the Georges River and the Wurrungwuri Reserve environment.

The site is comprised of Lot 6 DP 1065574 and has a total site area of 21.32 ha. and is located approximately 4.5 km south-east of Liverpool CBD and 1.5 km from the Moorebank local shopping centre.

It is situated on the banks of the Georges River. Brighton Lakes Golf Club lies immediately south of the site and to the west is an area of bushland known as Wurrungwuri Reserve. The area north of the site is subject to redevelopment for residential and commercial uses including a marina.

Former commercial and underutilised land north of Lot 6 Newbridge Road is currently undergoing transformation to create new high density residential neighbourhoods with a focus on recreational open space along the Georges River.

Development of the site offers the following opportunities:

- Provision of public open space along the Georges River that is directly linked to green space to the north and south of the site.
- Provision of strong vehicular and pedestrian linkages between the development and existing residential areas of Moorebank providing public access to the riverfront open space corridor.
- Incorporation of retail / commercial activities adjacent to the riverfront to provide community focus areas and activation of the public open space.
- Provision of an urban plaza for use by local residents and the wider community.
- Provision of community recreation open space located adjacent to the riverfront park.
- Building orientation to capitalise upon views to Georges River frontage, adjoining open space and recreation areas.
- Provision of a strong visual connections from the residential community to the waterfront and the Wurrungwuri Reserve.
- Provision of cycle path connection between Brickmaker's Drive and the Georges River frontage.

The vision for the development of Lot 6 Newbridge Road Moorebank is to provide a diverse, vibrant, active and accessible residential neighbourhood, bound by the banks of the Georges River and surrounding river woodland, to create an attractive place to live and play.

The vision is to create a place of inclusion and opportunity that is to be open, integrated and diverse and a place that supports and encourages opportunities and programs to improve social and community outcomes for Moorebank.

To ensure a positive outcome, the masterplan is to be designed in accordance with the urban design principles of integration, connectivity, legibility, amenity and safety.

The masterplan will accommodate twenty five buildings with a total built upon area of approximately 40,500 sqm, an FSR of 1:1 and 81% of the site will contribute to open space.

This unique site has excellent open space amenity which includes ,the Wurrungwuri Reserve, the Georges River foreshore, the Brighton Lakes Golf Club and a proposed marina to the north, which supports the proposal for a high density residential neighbourhood in lieu of a low density urban outcome.

The 400m wide Wurrungwuri Reserve will provide a good transition between the existing low density housing located west of Brickmaker's Drive and the proposed high density residential neighbourhood.

The magnitude of the site provides the opportunity to deliver a variety of residential experiences that take advantage of their respective settings including: riverbank promenade; a neighbourhood plaza; neighbourhood parks; a community recreation park; and residential streets.

The riverbank promenade is designed to be integrated with the proposed public foreshore walk along the banks of the Georges River as illustrated in the design proposals for Lot B 124 Newbridge Road and Lot D 146 Newbridge Road.

The neighbourhood plaza is to be located on the edge of the Georges River and within the centre of the site and will provide a vibrant centre activated with retail and community uses.

Five 'neighbourhood parks' are proposed within the development each offering the opportunity for passive and active recreation and all sited to receive good solar access, and to have an extensive area of deep soil planting to provide the opportunity for medium and large trees at a height and density to enhance the environmental and visual quality of the site.

Two ecological parklands are proposed to be located along the northern and southern boundaries and are to incorporate existing and reconfigured creeklines with a series of raingardens to provide passive cleaning of stormwater before runoff enters the Georges River.

A recreation park is proposed to provide the opportunity for a playing field with associated facilities for public use. It is assumed that the uses for this park will be established through a collaborative design process with Liverpool City Council and other stakeholders.

The proposed masterplan will provide a robust framework to ensure that apartment buildings can be designed to achieve better than compliance on SEPP 65 requirements.

Building heights are arranged so that the taller buildings will be located towards the centre of the site and adjacent to large areas of open space.

Heights have been determined based on minimising solar access impacts and maximising solar access to communal, public, streets and private open space.

Buildings of a height of six storeys or more will have the top two levels recessed to provide a human scale.

Large compact apartment building footprints will provide the opportunity to create sizeable and meaningful communal and public accessible open space in lieu of low-density buildings which would occupy more land and reduce the opportunity for communal and public realm.

Buildings are to be articulated and modulated to reduce bulk and scale to assist in minimising visual impact from properties and public realm surrounding the site and to provide a human scale when viewed from streets and adjacent open space.

A high level of ground level activation will enhance public security and passive surveillance whilst improving the amenity of the public domain by encouraging pedestrian activity.

Buildings are to be located and orientated to ensure that public domain and communal open space have good solar access and can be designed to provide excellent natural light, ventilation and view amenity for occupants.

Access and egress to the site will be via a raised road located along the southern boundary of the Wurrungwuri Reserve linking Brickmaker's Drive and the site. A raised shared pedestrian and cycle path is to be constructed above the PMF level of RL12 and will follow the same route across the Wurrungwuri reserve as the primary access road.

The masterplan has been arranged to provide a legible hierarchy of roads that create a network of circulation routes for vehicles and pedestrians consisting of a primary access road, local streets, and neighbourhood roads.

A bicycle path is proposed to link Brickmaker's Drive to the Georges River Foreshore Park via the access road through the Wurrungwuri Reserve and the primary access street.

Street tree planting is to support the greening of the road corridors to provide shade and enhanced pedestrian amenity.

Three view corridors are proposed east to west across the site to visually link the Wurrungwuri Reserve to the George's River and buildings are sited to create view corridors from within the public realm such as the Riverbank Promenade towards prominent buildings that will be visual markers for residents and visitors to orientate themselves around the site.

The masterplan has been designed to maximise ground level street activation with apartment lobby entries addressing roads and retail and community uses fronting the Neighbourhood Plaza and Riverbank Promenade.

The proposed masterplan concept illustrated in this report demonstrates that redevelopment of the site as a high density residential neighbourhood is capable of achieving design excellence with an amenity which will exceed compliance with SEPP 65 requirements. (Refer to table on page 5).

EXECUTIVE SUMMARY

21.32ha

site area

1:1

proposed FSR

213,200m²

proposed GFA



≈2000

total yields

(1B-10%, 2B-70%, 3B-20%)



1,700m²

total retail & restaurant



800m²

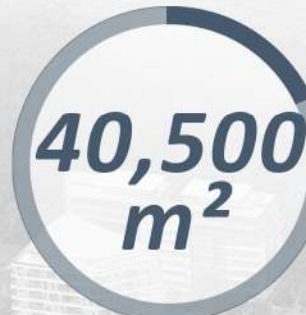
total community facility/centre

(plus associated outdoor facilities & open space)



3740

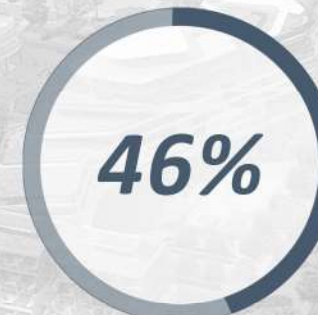
total car parking number



built upon area
19% of the site area



open space
81% of the site area



landscape area



deep soil planting



foreshore length

≥70%
solar access

≥60%
cross ventilation

≥30%
deep soil

≥25%
communal open space

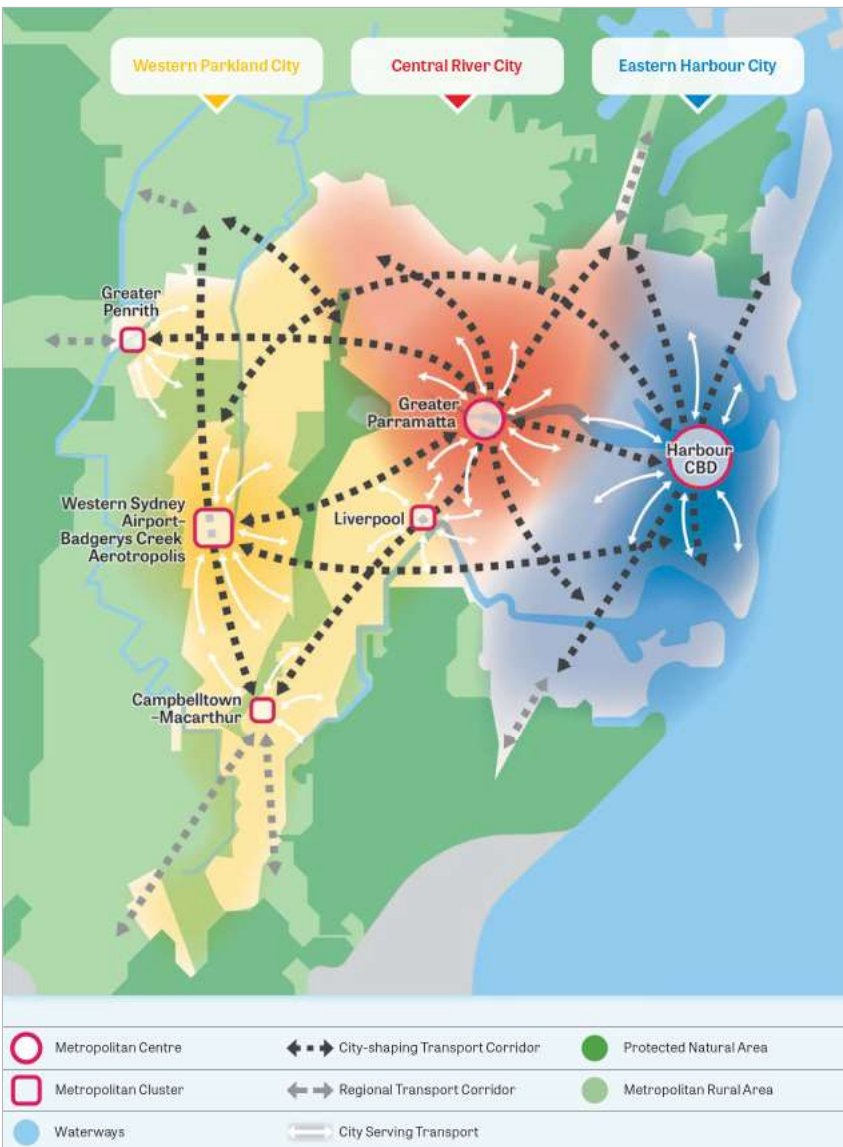
18-24m
building separation

2.0 INTRODUCTION

This report has been prepared by DEM (Aust) Pty Ltd on behalf of EQ Riverside as part of a submission to Liverpool City Council in support of a proposed residential development at Lot 6 Newbridge Road, Moorebank.

The report establishes a desirable urban design response for building massing, siting, open space and connections based on current planning strategies and an analysis of the strategic context, local context and desired future character.

In the Metropolis of Three Cities Plan, prepared by the Greater Sydney Commission, Moorebank falls within Sydney's Western Parkland City which is characterised by "a mix of well-established suburban and rural communities, emerging neighbourhoods and new centres". A key objective for the Western City is improving liveability through "new great places, with well-connected communities which have access to a range of jobs and services."



source: Greater Sydney Region Plan (Greater Sydney Commission)

2.1 LOCATION AND CONTEXT

The site is comprised of Lot 6 DP 1065574 and has a total site area of 21.32 ha. The site is located approximately 4.5 km south-east of Liverpool CBD and 1.5 km from the Moorebank local shopping centre. It is situated on the banks of the Georges River. Brighton Lakes Golf Club lies immediately south of the site and to the west is an area of bushland known as Wurrungwuri Reserve. The area north of the site is subject to redevelopment for residential and commercial uses including a marina.

The area surrounding the site is characterised by a mix of housing, industrial precincts and open space.

In addition to established residential areas, there are a number of recently completed and planned residential communities including the Georges Fair residential estate to the west of the site.

The neighbouring area also incorporates extensive recreational open space including areas east of the Georges River within the Canterbury Bankstown local government area.



SITE ANALYSIS

2.2 EXISTING AND PROPOSED DEVELOPMENTS ADJOINING THE SITE

Former commercial and underutilised land north of Lot 6 Newbridge Road is currently undergoing transformation to create new residential neighbourhoods with a focus on recreational open space along the Georges River. The area comprises:

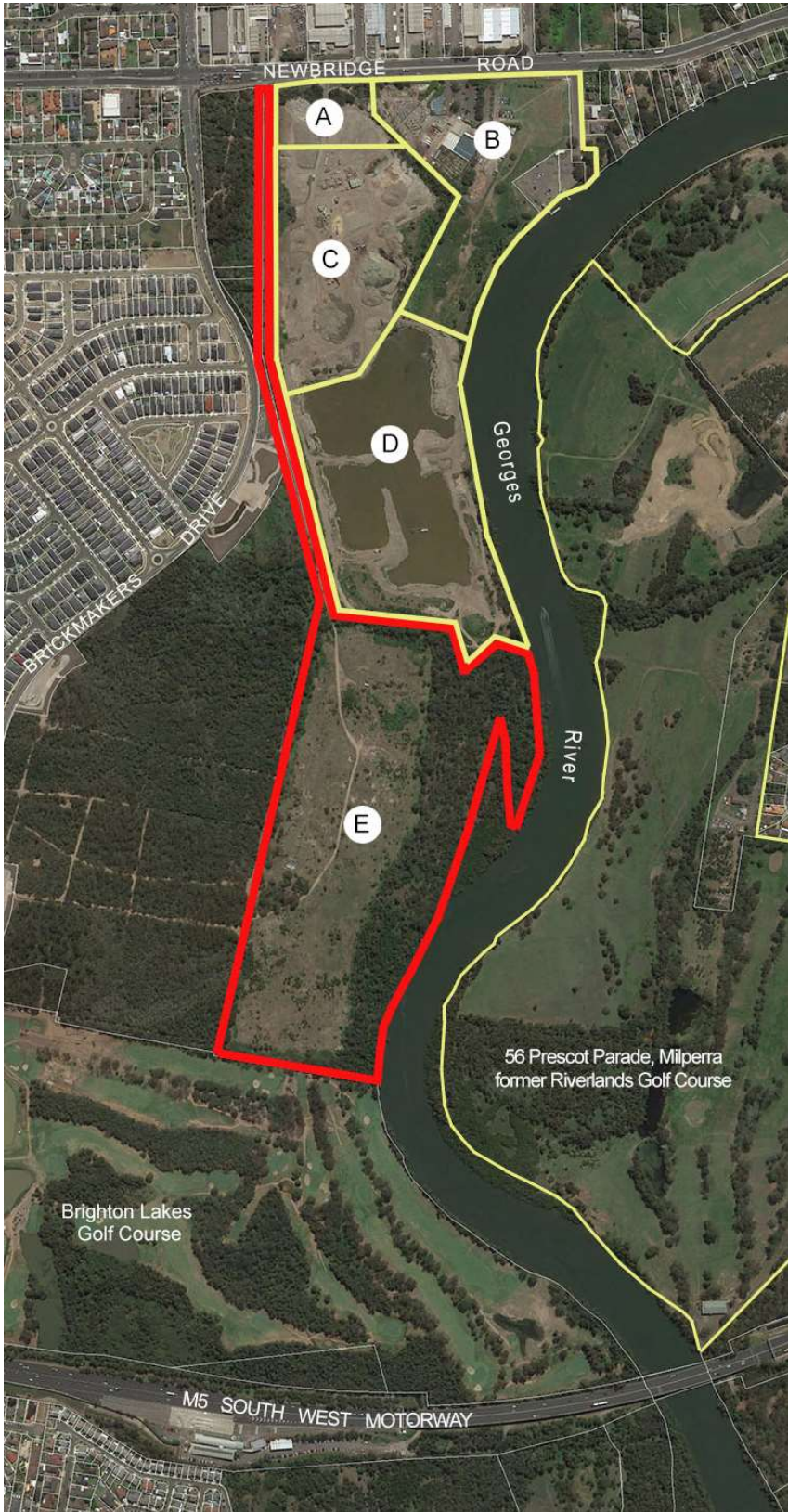
- (A) **Application Number: RZ-9/2017**
146 Newbridge Road, Moorebank – Georges Cove Village, a mixed use development incorporating a village centre adjacent to Newbridge Road.
Building Height: 5~8 Storeys
Status: Preliminary Assessment
- (B) **Application Number: RZ-4/2017**
124 Newbridge Road, Moorebank - a mixed use development incorporating housing and commercial uses along Newbridge Road, as well as an open space network to support the future residential population.
Building Height: 5~8 Storeys
Status: Preliminary Assessment
- (C) **Application Number: DA-580/2018**
(demonstrating the subdivision of the site)
146 Newbridge Road, Moorebank – Georges Cove Residential - *Mirvac Development*
Building Height: 2 Storeys
Status: Application Under Assessment
- (D) **Application Number: DA-611/2018**
146 Newbridge Road, Moorebank – Marina - *Mirvac Development*
Building Height: 3~8 Storeys
Status: Application Under Assessment
- (E) Lot 6 Newbridge Road, Moorebank

Other recent housing developments in the area surrounding the site include:

- Brighton Lakes Estate adjoining the Brighton Lakes Golf Course.
- Georges Fair Estate to the west of Brickmakers Drive.

The former Riverlands Golf Course on the eastern side of the Georges River is also subject to redevelopment for housing.

There are no buildings or structures currently located on the site.



124 Newbridge Road, Moorebank - AE Design Partnership



146 Newbridge Road, Moorebank - Rothelowman Pty Ltd

3.0 STRATEGIC PLANNING CONTEXT

This section provides an overview of the strategic planning context in relation to the Moorebank site.

3.1 OUR GREATER SYDNEY 2056 ... A METROPOLIS OF THREE CITIES

In March 2018 the Greater Sydney Commission released its independently prepared Greater Sydney Region Plan "A Metropolis of Three Cities".

The Plan is built on a vision of three cities – Western Parkland City, Central River City and Eastern Harbour City - where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.

The Western Parkland City incorporates the established centres of Liverpool, Greater Penrith and Campbelltown-Macarthur, which form a metropolitan cluster.

3.2 WESTERN CITY DISTRICT PLAN

Greater Sydney's three cities incorporate five districts: the Western City District, Central City District, Eastern City District, North District and South District. Moorebank is located within the Western City District – urban area south.

The NSW Department of Planning and Environment's projections of population and household growth in the Western City District translate to a need for an additional 184,500 homes between 2016 and 2036. The Western City District Plan highlights specific planning priorities for centres including -

Planning Priority W5 – the provision of housing supply, choice and affordability, with access to jobs, services and public transport.

Planning Priority W5 emphasises that new housing must be in the right places to meet demand for different housing types, tenure, price points, preferred locations and design. Housing supply must also be coordinated with local infrastructure to create liveable, walkable and cycle-friendly neighbourhoods.

Planning Priority W12 - Protecting and improving the health and enjoyment of the District's waterways.

The Georges River is one of the major waterways located within the Western City District. Planning Priority 12 highlights the opportunity for new development to improve the necessary health and quality of the District's waterways and riparian

corridors through improving public access to, and along, the foreshores; providing connected green space around the foreshores; conserving and celebrating cultural heritage; and protecting and enhancing flora, fauna, and urban bushland.

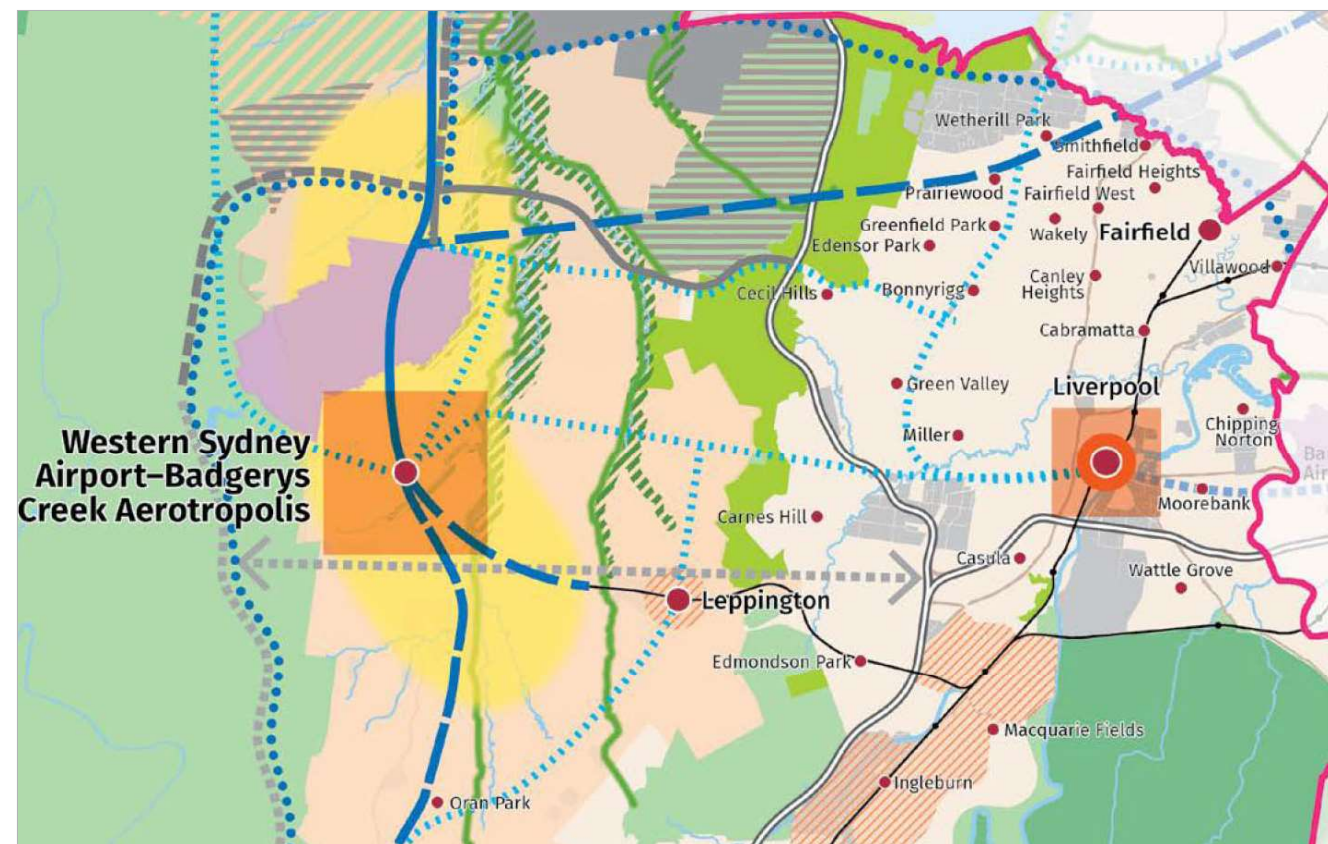
Planning Priority W15 - Increasing urban tree canopy cover and delivering Green Grid connections.

Enhancement of the Georges River as a regional open space and walking and cycling corridor is regarded as a priority.

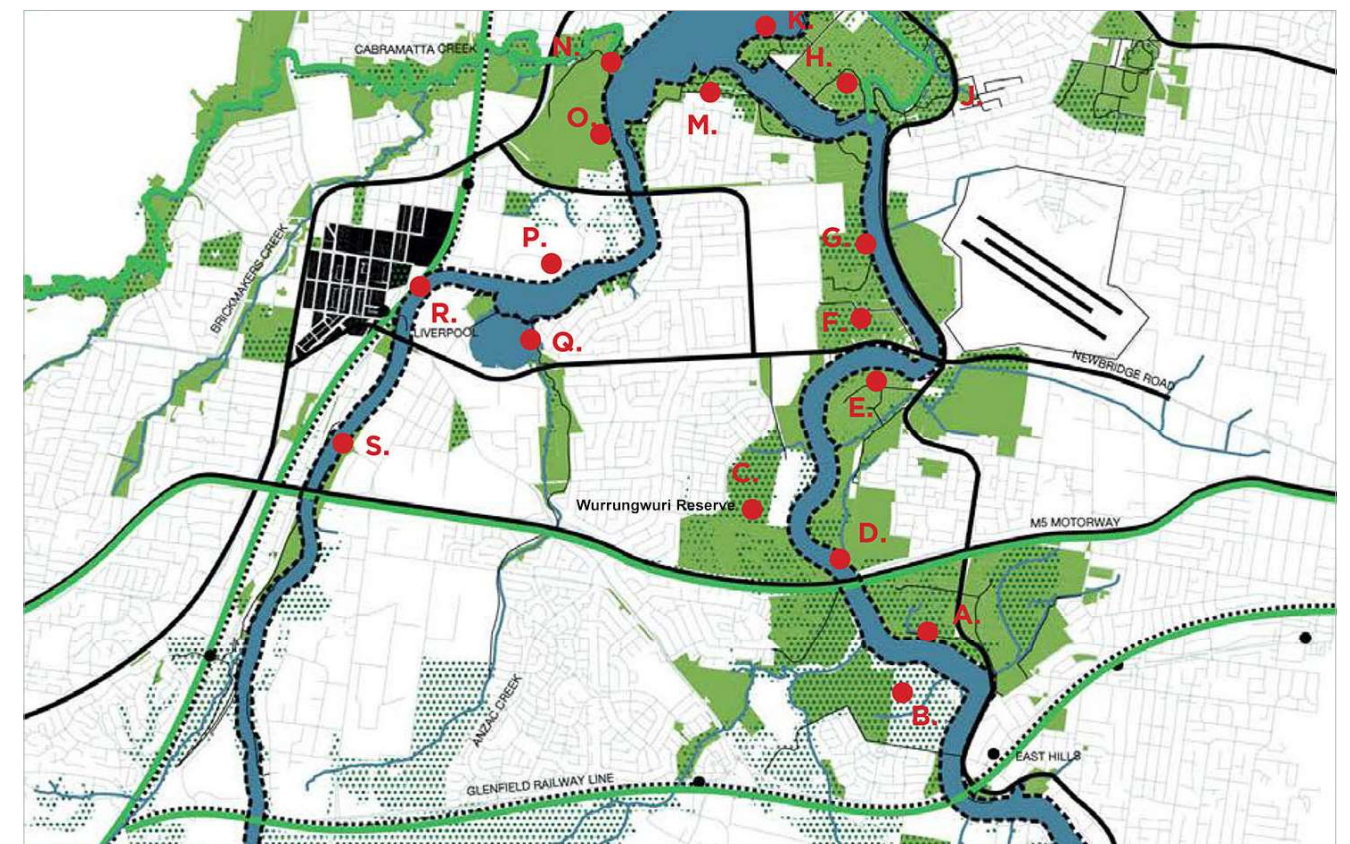
3.3 SYDNEY GREEN GRID – SOUTH-WEST DISTRICT

A network of high-quality green space, proposed by the Government Architect NSW, that connects town centres, public transport hubs, and major residential areas. The Sydney Green Grid is an integral part of the Greater Sydney Region and District Plans.

The strategic framework provides an overview of regional open space opportunities including enhancement of the Georges River. As a regionally significant open space corridor, the parklands offer "the opportunity to contribute greatly to density increases in the surrounding suburbs" and to improve access to the river foreshores and to centres including Moorebank.



Western City District Plan source: Greater Sydney Commission



Sydney Green Grid source: Government Architect NSW

4.0 PLANNING CONTROLS

4.1 LIVERPOOL LEP 2008

ZONING E2 – Environmental Conservation

MAXIMUM FSR A1 – 0.01:1

MINIMUM LOT SIZE AB2 - 40ha

ENVIRONMENTALLY SIGNIFICANT LAND Environmentally Significant Land

FORESHORE BUILDING LINE Land below Building Foreshore Line

FLOOD PLANNING AREA Flood Planning Area and Flood Prone Land

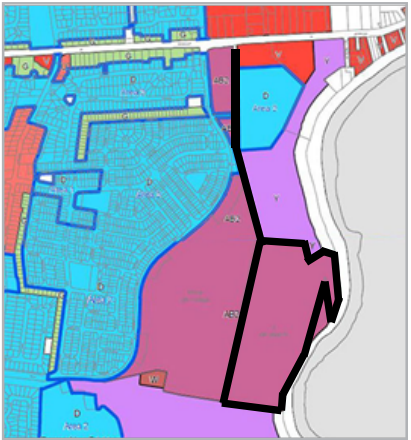
ACID SULPHATE SOIL Class 2 and Class 4



Zoning



Floor Space Ratio



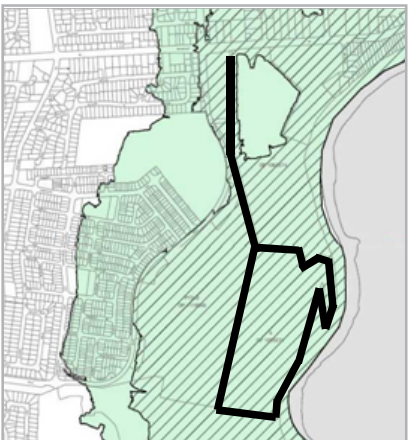
Minimum Lot Size



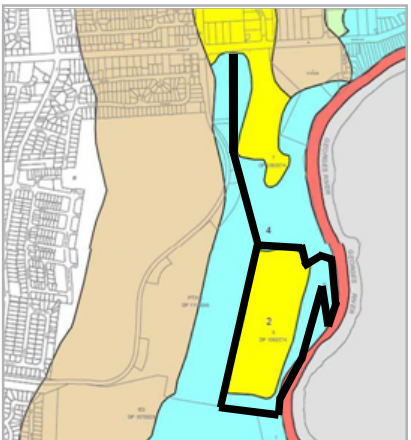
Environmentally Significant Land



Foreshore Building Line



Flood Planning Area



Acid Sulphate Soil

Adjoining Sites

LAND RESERVATION ACQUISITION MAP Local Open Space (RE1) along Georges River foreshore north and south of the site

FLOOD PLANNING AREA Flood Planning Area and Flood Prone Land



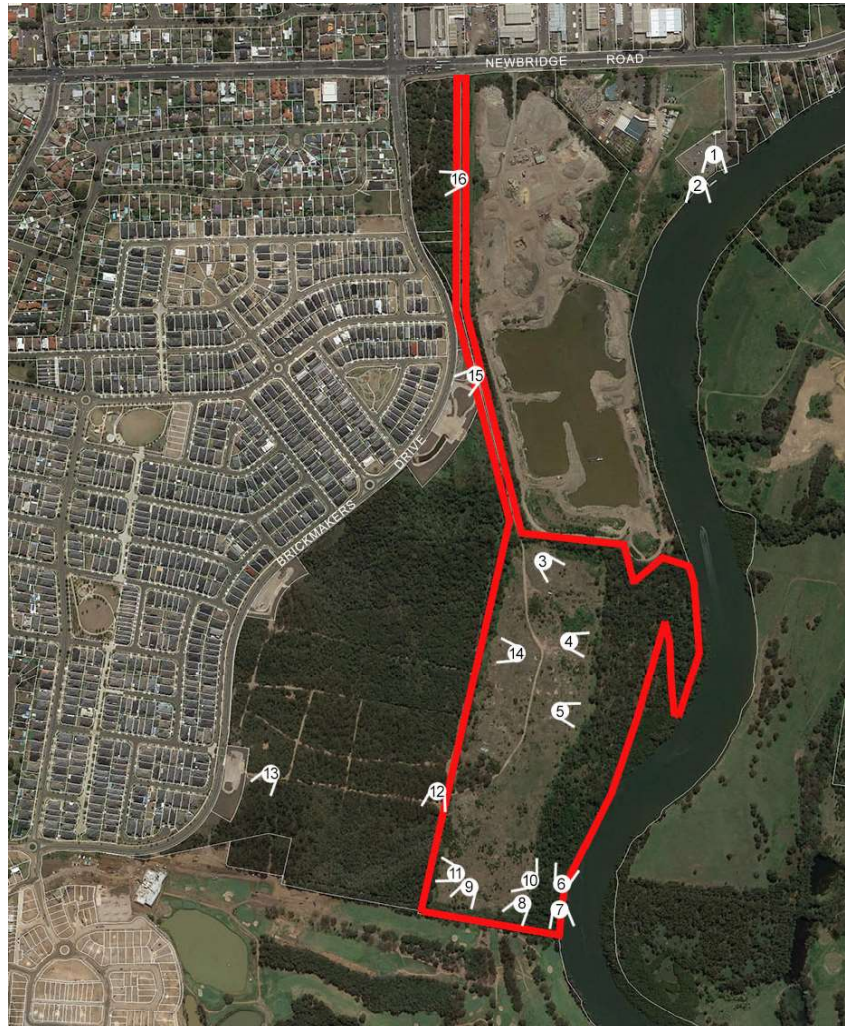
Land Reservation Aquisition Map



Urban Release Area

5.0 SITE ANALYSIS

5.1 EXISTING CONTEXT



The western section of the site consists primarily of open grassland while the eastern portion of the site is covered by woodland.

The site features a vegetated frontage to the Georges River.

Wurrungwuri Reserve is located to the west of the site. The reserve incorporates shrubby, open forest and is crossed by a number of tracks and drainage lines.

One and two storeys detached residential houses are located west of Brickmakers Drive.

Extensive earthworks associated with a new development are located to the north of the site.

Existing vegetation partially screens views of Brighton Lakes Golf Course which adjoins the southern boundary of the site.



1 View south towards site from Davy Robinson Reserve; boat ramp and pontoon in foreground.



2 View across the Georges River towards the site which is visible in the distance beyond earthworks in the adjoining lot.



3 View south-east across the cleared western section of the site from the northern boundary



4 Woodland in the eastern section of the site incorporating Forest Red Gum (*Eucalyptus tereticornis*).



5 Stand of *Casuarina*; weeds present in foreground.



6 View north along the banks of the Georges River.



7 View south of the Georges River and river bank adjoining the Brighton Lakes Golf Club.



8 Vegetation along the southern boundary of the site.



9 Brighton Lakes Golf Course to the south of the site.

SITE ANALYSIS



10 Panoramic view across the cleared, open central section of the site toward adjoining forest vegetation.



11 Wurrungwuri Reserve west of the site.



12 Existing track located within Wurrungwuri Reserve.



13 Detention basin and drainage line east of Brickmakers Drive and low density housing to the west.



14 Forest vegetation west of the site.



15 Bank of detention basin visible in foreground with housing west of Brickmakers Drive visible in distance.

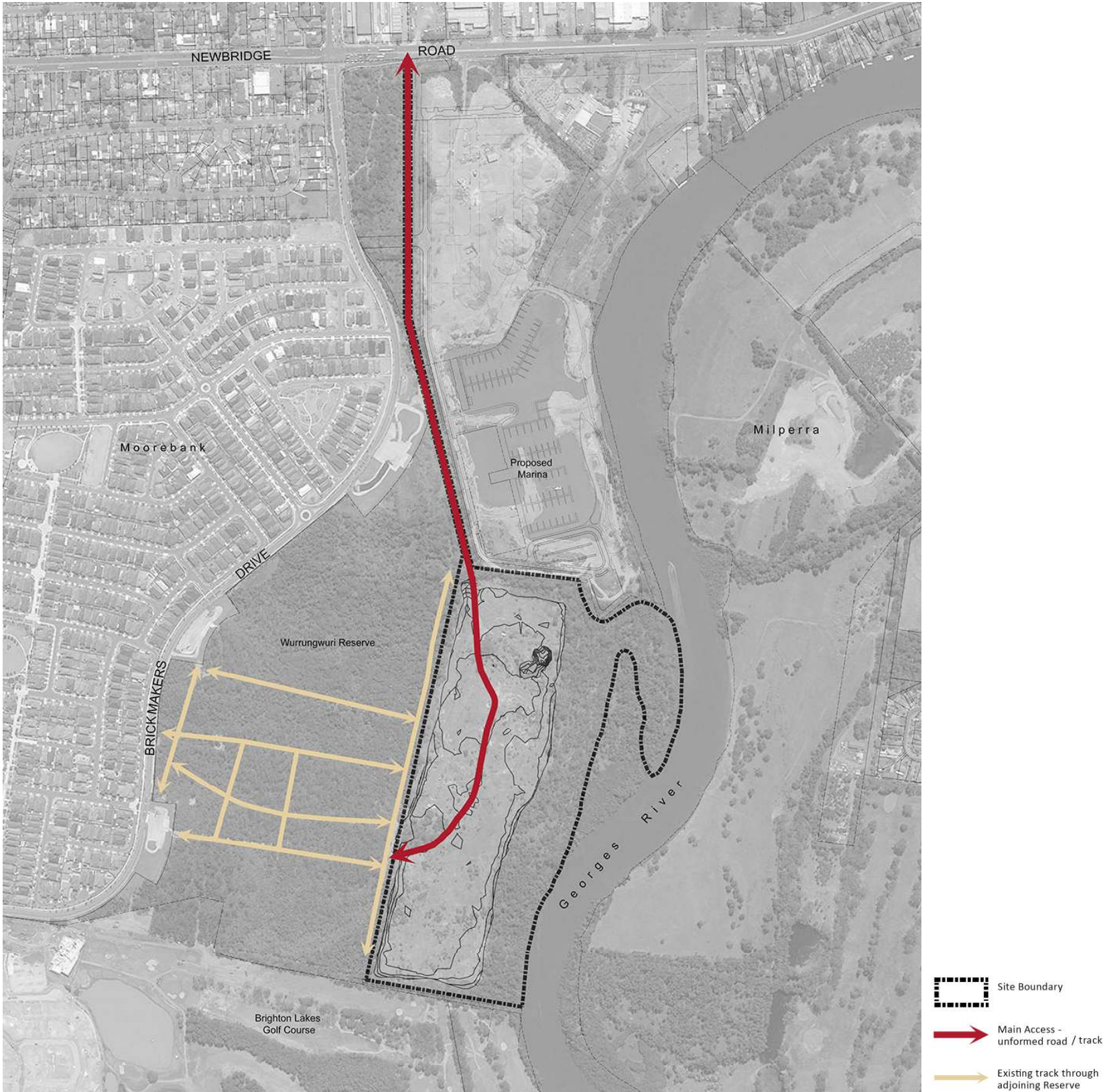


16 Vegetation along drainage line located west of the site.

SITE ANALYSIS

5.2 VEHICULAR ACCESS

Primary access to the site is from Newbridge Road along an unformed road. Several tracks are located within Wurrungwuri Reserve primarily running east – west but also adjacent to the western boundary of the site. The tracks do not connect directly to Brickmakers Drive as the level of the road is raised above the Reserve.



SITE ANALYSIS

5.3 VEGETATION

In accordance with the NSW National Parks and Wildlife Service's listing of Native Vegetation of the Cumberland Plain, the following vegetation communities are located within the site:

Endangered Ecological Community

Sydney Coastal River-flat Forest
11 – Alluvial Woodland with canopy cover > 10% and < 10%

Ecological Community not listed as Threatened Species

34 – Mangrove/Saltmarsh Complex

Vegetation located immediately west of the site includes:

Endangered Ecological Communities

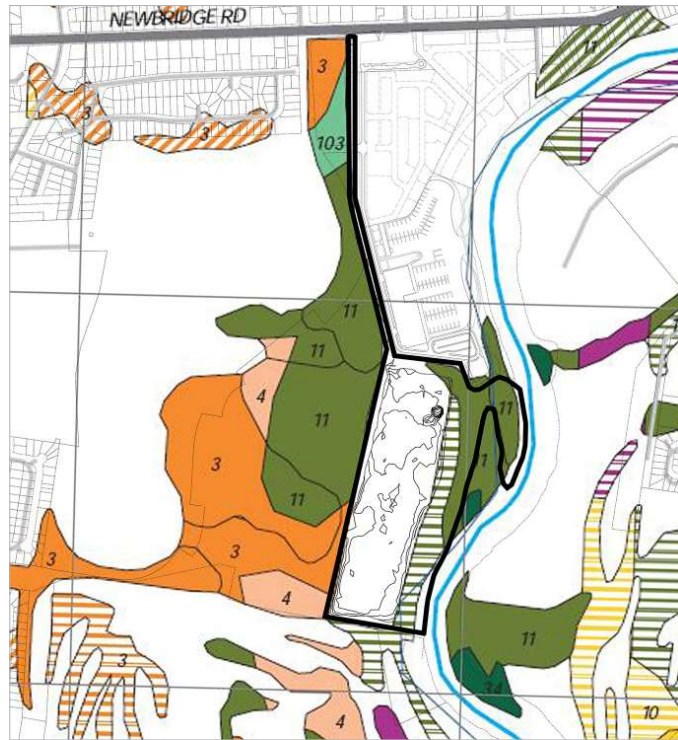
Cooks River/Castlereagh Ironbark Forest
3 – Cooks River/Castlereagh Ironbark Forest

Castlereagh Swamp Woodland
4 – Castlereagh Swamp Woodland

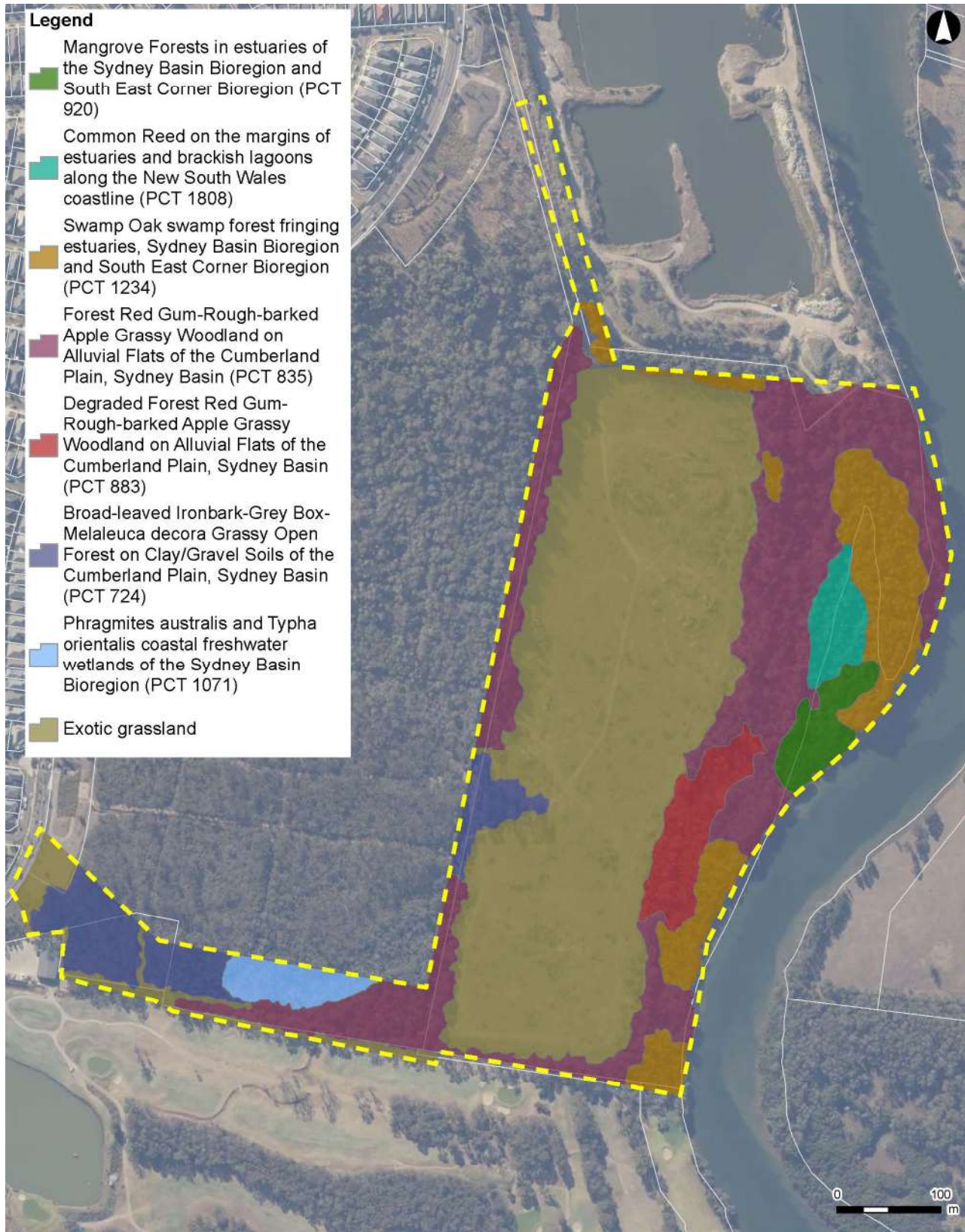
Sydney Coastal River-flat Forest
11 – Alluvial Woodland with canopy cover > 10%

Shale Gravel Transition Forest
103 – Shale Gravel Transition Forest

Further vegetation mapping has been undertaken by Arcadis. Refer to map on the right.



source: NSW National Parks and Wildlife Service



source: Arcadis, 2019

SITE ANALYSIS

5.4 TOPOGRAPHY

The western and central sections of the site have been subject to cover with fill which has raised the level of those zones to approximately RL 5.00. This is generally 2 – 4 metres above adjoining areas.

There are moderately steep to gentle falls along the eastern section of the site to the banks of the Georges River.

There is minimal variation in levels along the access track from Newbridge Road which is generally at RL 2.00.

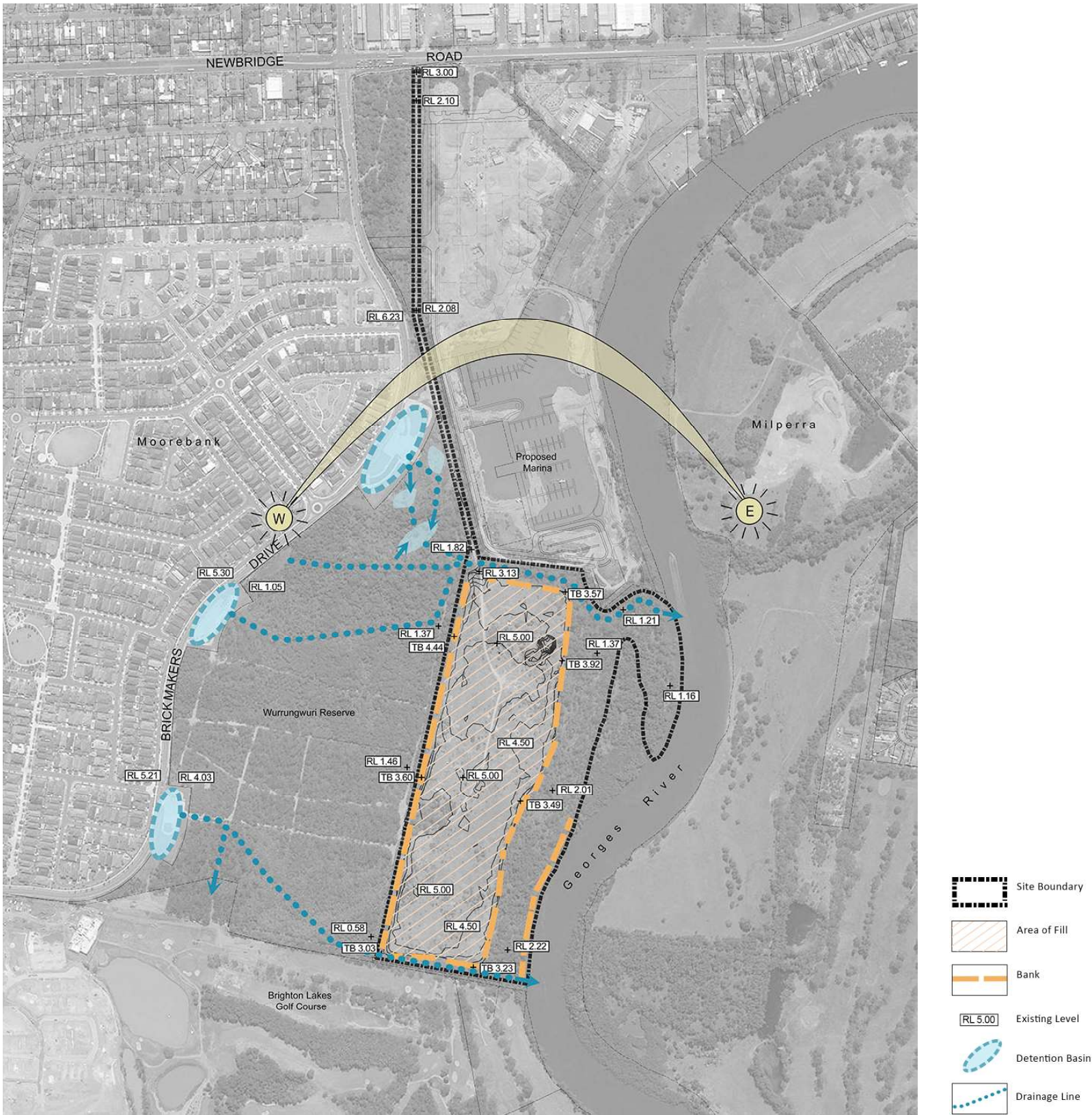
5.5 SOLAR ORIENTATION

There is minimal overshadowing of the site and it is exposed to high levels of sunlight from the north, east and west.

5.6 DRAINAGE

Generally the land drains from west to east towards the Georges River.

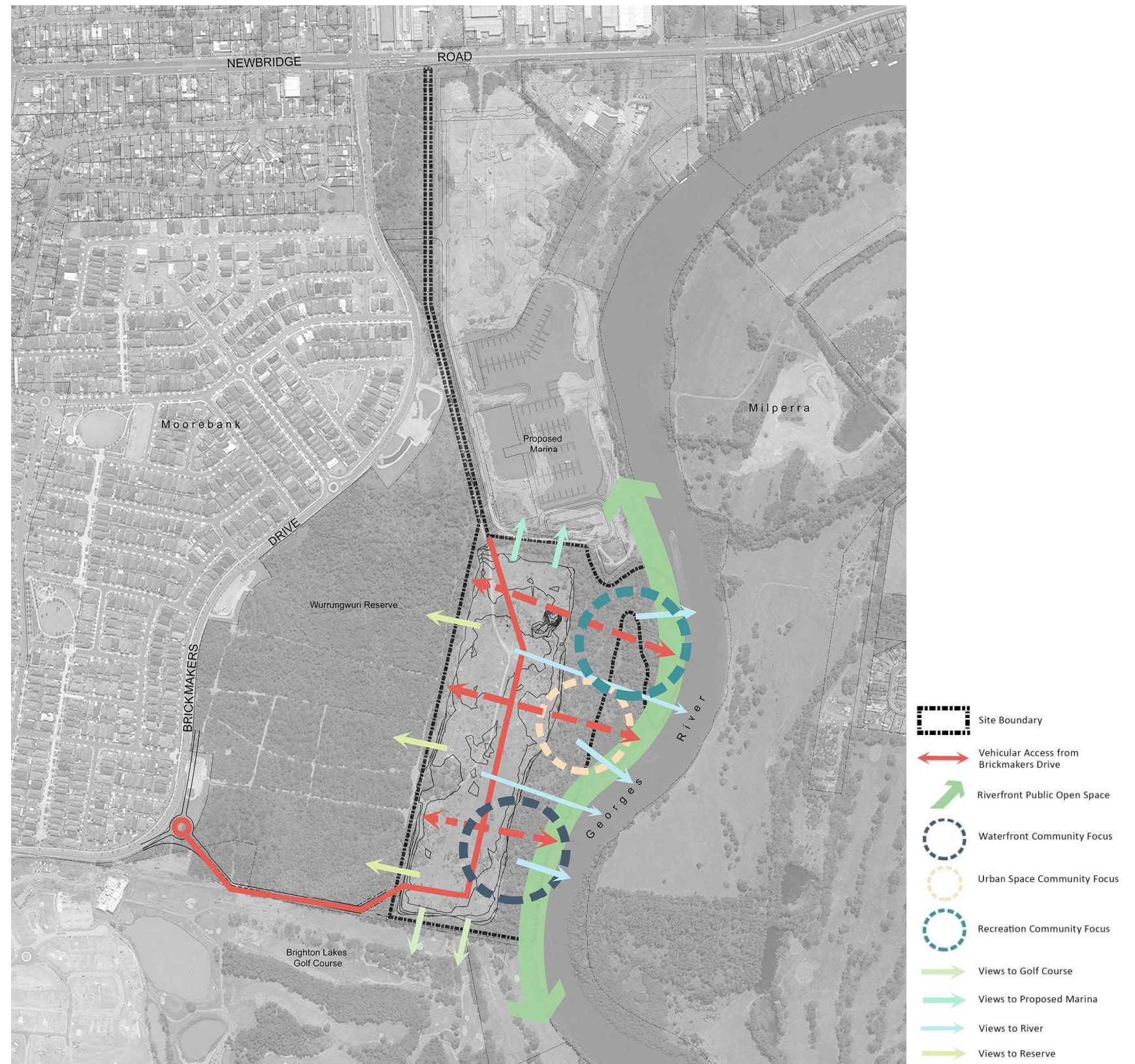
Several detention basins are located along Brickmakers Drive. Infiltration of water from the basins occurs within Wurrungwuri Reserve and drainage lines also run eastwards through the Reserve and along the northern and southern boundaries of the site.



6.0 OPPORTUNITIES AND CONSTRAINTS

6.1 OPPORTUNITIES

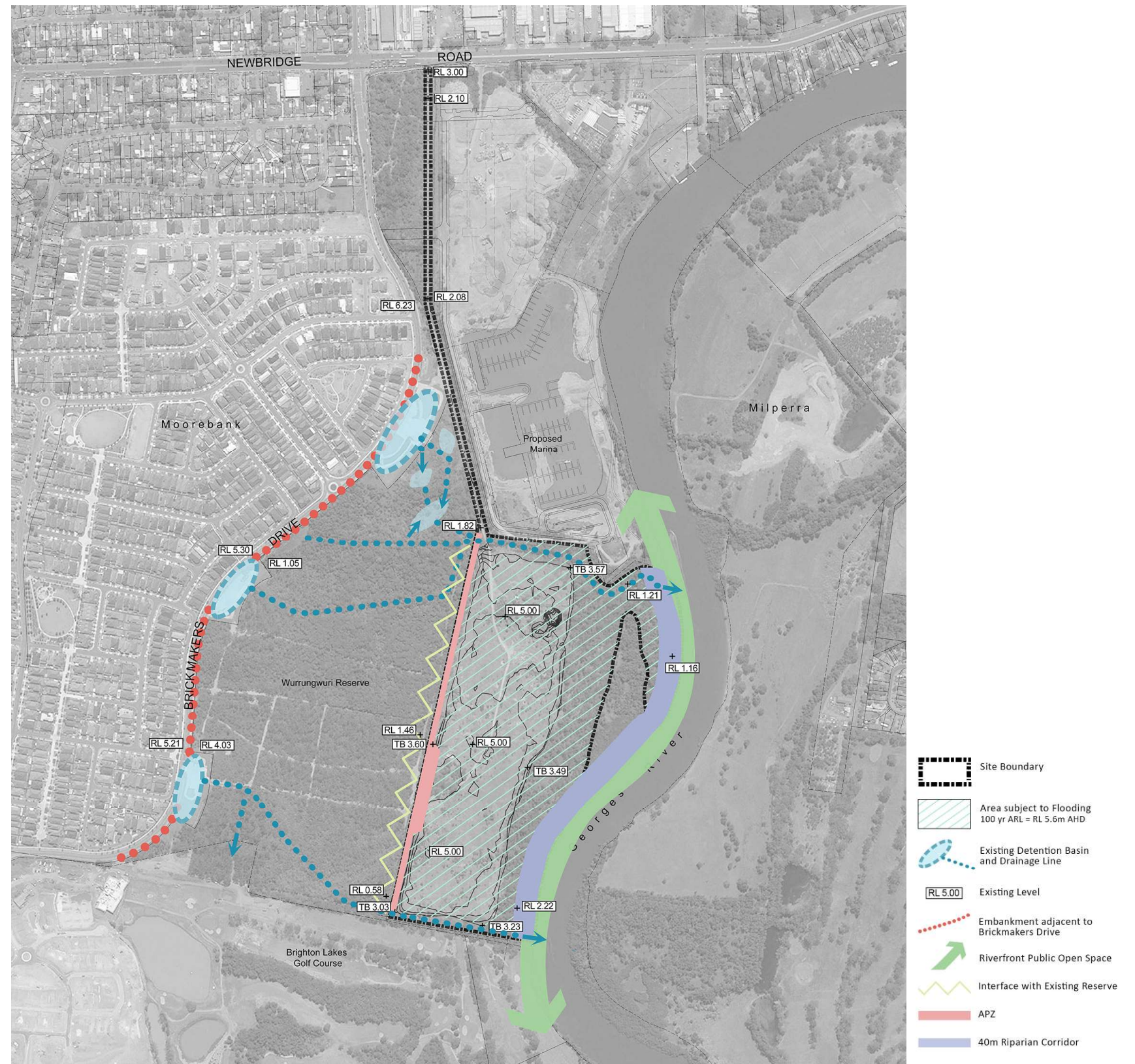
- Provision of mixed use development that responds to its residential context as well as its riverfront location.
- Provision of public open space along the Georges River that is directly linked to green space to the north and south of the site.
- Provision of strong vehicular and pedestrian linkages between the development and existing residential areas of Moorebank providing public access to the riverfront open space corridor.
- Incorporation of retail / commercial activities adjacent to the riverfront to provide community focus areas and activation of the public open space.
- Provision of an urban plaza for use by local residents and the wider community.
- Provision of community recreation open space located adjacent to the riverfront park.
- Building orientation to capitalise upon views to Georges River frontage, adjoining open space and recreation areas.
- Provision of a strong visual connections from the residential community to the waterfront and the Wurrungwuri Reserve.
- Provision of cycle path connection between Brickmaker's Drive and the Georges River frontage.



OPPORTUNITIES AND CONSTRAINTS

6.2 CONSTRAINTS

- The site is subject to flooding with a 1:100 year average recurrence interval (ARI) flood level of RL 5.6m.
- A vehicle and pedestrian evacuation path above the PMF level of RL 11.5 -12 is required for redevelopment of the site.
- Drainage lines from detention basins, located adjacent to Brickmakers Drive, cross Wurrungwuri Reserve and drain to the Georges River north and south of the site.
- APZ varying in setback from 10m - 24 m is required along the western site boundary.
- 40m riparian corridor setback is required along the Georges River site boundary.
- 10m wide riparian corridor setback is required along the northern boundary from the centre line of the creek.
- Wurrungwuri Reserve is located immediately west of the site and Brighton Lakes Golf Course adjoins the site to the south.
- There is a level difference between Brickmakers Drive and Wurrungwuri Reserve of approximately one to 4.5 metres.



7.0 DESIGN VISION

7.1 VISION FOR THE SITE

The vision for the development of Lot 6 Newbridge Road Moorebank is to provide a diverse, vibrant, active and accessible residential neighbourhood, bound by the banks of the Georges River and surrounding river woodland, to create an attractive place to live and play.

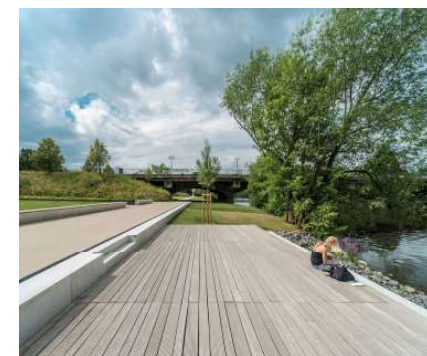
The magnitude of the site provides the opportunity to deliver a variety of residential experiences that take advantage of their respective settings including: water frontage; a neighbourhood plaza; neighbourhood parks; a community recreation park; and residential streets.

Retail and community uses will be located adjacent to the neighbourhood plaza and along the water frontage. Retail uses will be restricted to coffee shops, restaurants and small convenience shops to ensure that development does not compete with existing local and neighbourhood retail centres.

In addition to high quality residential accommodation, the vision for the site includes the provision of good quality public places such as the river frontage, the neighbourhood plaza, the community recreational park and neighbourhood parks.

The vision is to create a place of inclusion and opportunity that is to be open, integrated and diverse and a place that supports and encourages opportunities and programs to improve social and community outcomes for Moorebank.

- The masterplan is to be designed to provide the following:
 - Optimum development opportunity for the site, whilst ensuring robust urban design principles are adopted to achieve design excellence.
 - Flexibility for future development of the site, and staging of development.
 - Maximum opportunity for the broader community to engage with the development.
 - Excellence in environmental and social design outcomes.
- Landscaped open spaces will provide green links north / south and east / west across the site connecting residential areas to the Georges River waterfront. Open space is to be designed with high amenity to optimise greater community interaction and engagement and to provide environmentally sustainable outcomes for the site.
- Public accessible open space is to have a civic character and include broad footpaths, large canopy trees, public seating and formalised pedestrian crossings.
- The masterplan responds to the site's unique landscape features of the Wurrungwiri Reserve and the Georges River environs.
- The proposed sequence of public open space will provide a green link through the site connecting the surrounding woodland to the Georges River frontage.
- The street pattern and building orientation have been arranged to maximise solar access and view opportunities across a variety of open space experiences as well as the Georges River and proposed Riverbank Promenade.



DESIGN VISION

7.2 URBAN DESIGN PRINCIPLES

To ensure a positive outcome, the masterplan is to be designed in accordance with the following urban design principles:

Integration

- Incorporate a mix of retail and commercial activities at ground level within the Neighbourhood Plaza to increase activation of the public open space and through site link to the Georges River frontage.
- Provide active frontages by ensuring residential lobbies have strong visual and physical links to streets and public open spaces.
- Incorporate a sense of openness at interfaces with the surrounding public realm to provide an inviting and inclusive environment.
- Create high quality streetscapes.

Connectivity

- Provide through site links connecting open spaces.
- Provide publicly accessible open space along the Georges River riparian corridor.
- Provide safe and legible pedestrian paths.

Legibility

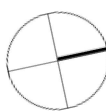
- Site buildings to assist in the physical definition of the landscape open space and streets.
- Design buildings to express functions such as residential or retail space.
- Provide a discrete threshold between public streets and private open space of ground floor apartments.
- Provide safe and legible building entries and pedestrian pathways.
- Ensure that building entry lobbies and pedestrian access points address public streets and open space.

Amenity

- Provide high quality communal open space to enhance residential and retail amenity.
- Maximise amenity of new streets and public open spaces to encourage usage.
- Articulate building massing and elevations to visually reduce the scale of buildings when viewed from surrounding streets and open spaces.
- Orientate apartment buildings to maximise solar access to building facades and open space.
- Utilise building materials and finishes that are robust and low maintenance.
- Ensure areas of deep soil are provided for the planting of large trees.
- Promote management of water and air quality.

Safety

- Minimise conflicts between vehicles and pedestrians
- Provide discrete, safe and secure transitions between the private and public domain to provide an open and inviting precinct.
- Maximise passive surveillance.

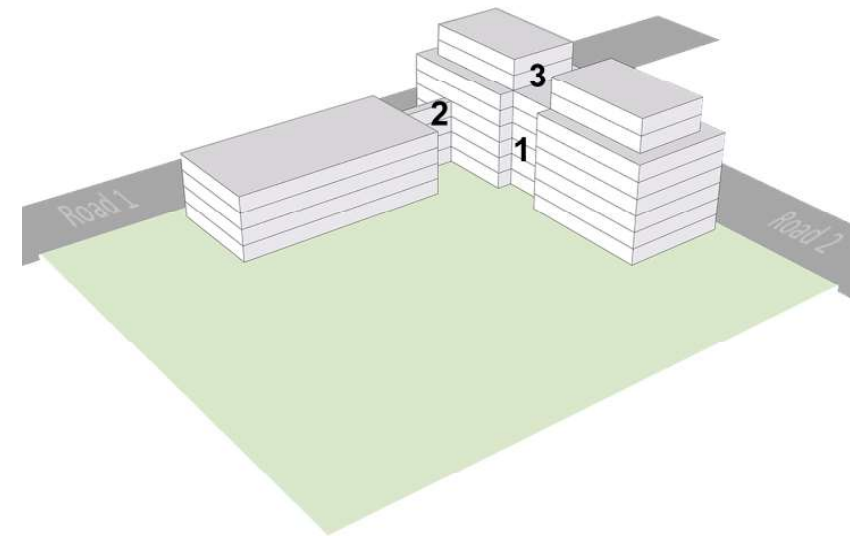


- (A) NEIGHBOURHOOD PLAZA
- (B) NEIGHBOURHOOD PARK
- (C) RIVERBANK PROMENADE
- (D) ECOLOGICAL PARKLAND
- (E) FIRE TRAIL

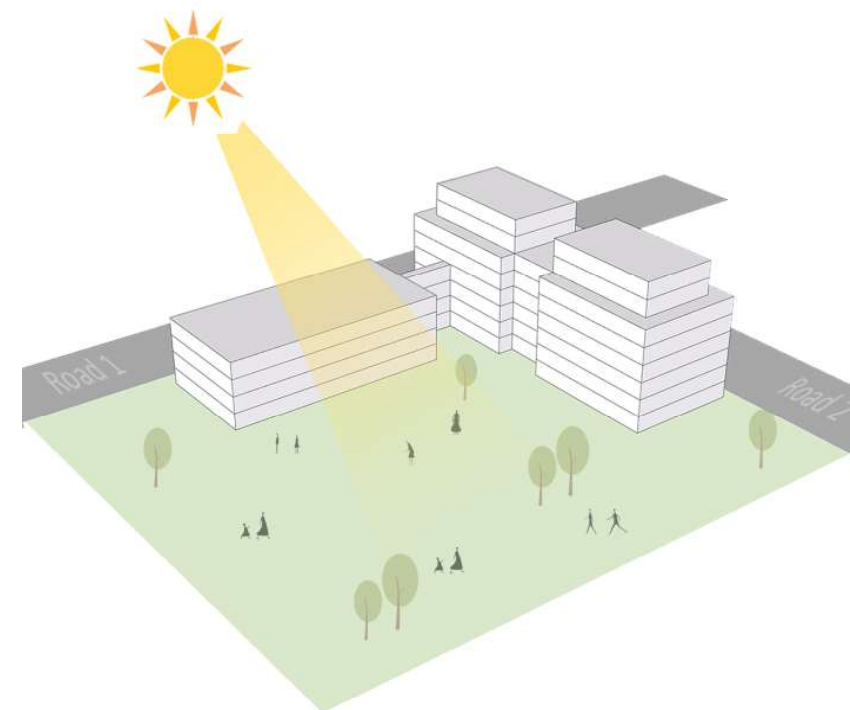
DESIGN VISION

7.3 BUILT FORM PRINCIPLES

- The masterplan will accommodate twenty five buildings with a total built upon area of approximately 40,500 sqm, an FSR of 1:1 and 81% of the site will contribute to open space.
- This unique site has excellent open space amenity which includes ,the Wurrungwuri Reserve, the Georges River foreshore, the Brighton Lakes Golf Club and a proposed marina to the north, which supports the proposal for a high density residential neighbourhood in lieu of a low density urban outcome.
- The 400m wide Wurrungwuri Reserve will provide a good transition between the existing low density housing located west of Brickmaker's Drive and the proposed high density residential neighbourhood.
- Buildings generally are to be of a rectangular form and to address streets and key public open spaces. Angled building forms will be introduced in areas to define the street pattern, open space or to maximise solar amenity and distance view opportunities.
- The proposed masterplan will provide a robust framework to ensure that apartment buildings can be designed to achieve better than compliance on SEPP 65 requirements.
- Large compact apartment building footprints will provide the opportunity to create sizeable and meaningful communal and public accessible open space in lieu of low density buildings which occupy more land and reduce the opportunity for communal and public realm.
- Apartment buildings will generally range between 55m to 60m in length which is considerably less than the proposed building length of the marina apartments proposed on the neighbouring property to the north ,which range between 75m to 80m in length.
- To reduce visual bulk and scale buildings are to be designed with a defined base, middle and top.
- Building length is to be articulated with recessed components, breezeways and modulation to reduce the visual bulk and scale of the building elevation.
- To reduce visual bulk and scale, cross flow units are to be introduced to provide recessed portions of elevations whilst providing good cross ventilation and dual aspect amenity for apartment occupants.
- To reduce visual bulk and scale, buildings eight storeys and above and buildings located adjacent to the Georges River and Recreation Park will have their top two storeys recessed.
- The top two storeys will be separated into two distinct elements each having its own roof. This will assist in visually breaking down lengthy roof eaves and avoiding a institutional character.



1. Recessed components,
2. Breezeways
3. Top two storeys separated into two distinct elements



Buildings of rectangular form and will address streets and key public open spaces.
Building form and massing to maximise solar amenity of neighbourhood parks.

DESIGN VISION

HEIGHT DISTRIBUTION

- Building heights are arranged so that the taller buildings will be located towards the centre of the site and adjacent to large areas of open space.
- Heights have been determined based on minimising solar access impacts and maximising solar access to communal, public, streets and private open space.

SECTION 1:

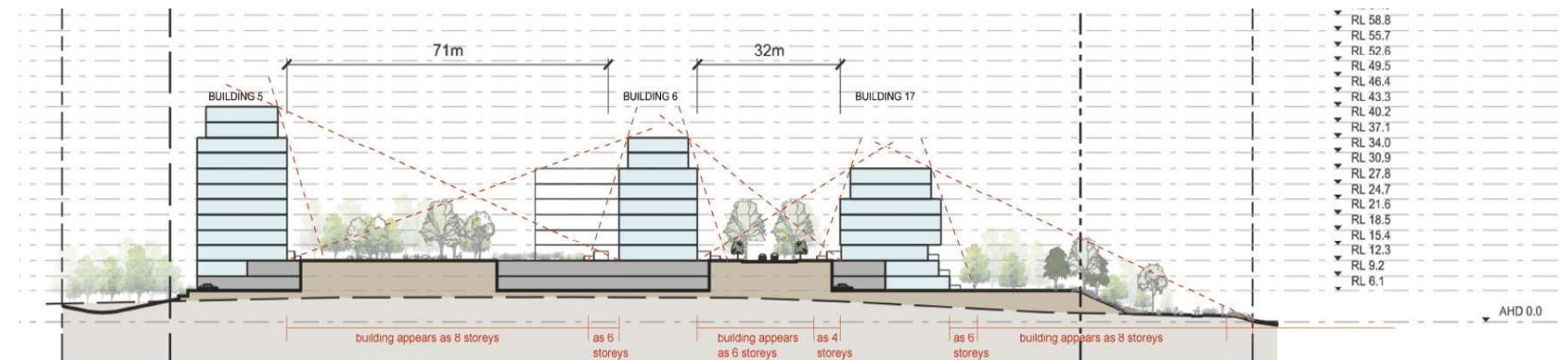
- Buildings to be located adjacent to the Riverbank Promenade are to range in height between 4 to 8 storeys. Six storey buildings will have the top two levels recessed to provide a human scale along the Riverbank Promenade
- Residents and visitors within the 40m landscaped riparian setback will experience these buildings as 6 storeys in height when located close to the buildings where visual impact is greater and 8 storeys when further away from the buildings.
- Buildings to be located along the Primary Road are to range in height between 4 to 12 storeys. Buildings of a height of six storeys or more will have the top two levels recessed to provide a human scale along the Primary Road.
- Residents and visitors within the 20m road corridor will experience these buildings as 4 - 6 storeys in height when located close to the buildings where visual impact is greater and 6 - 8 storeys when further away from the buildings.
- Buildings to be located adjacent the Neighbourhood Parks are to range in height between 4 to 10 storeys. Buildings of a height of six storeys or more will have the top two levels recessed to provide a human scale along the Primary Road.
- Residents and visitors within these ample landscape parks will experience these buildings as 4 - 8 storeys in height when located close to the buildings where visual impact is greater and 6 - 10 storeys when further away from the buildings.
- Buildings located along the western boundary will range between eight to ten stories in height and will address the 400m wide Wurrungwuri Reserve.

SECTION 2:

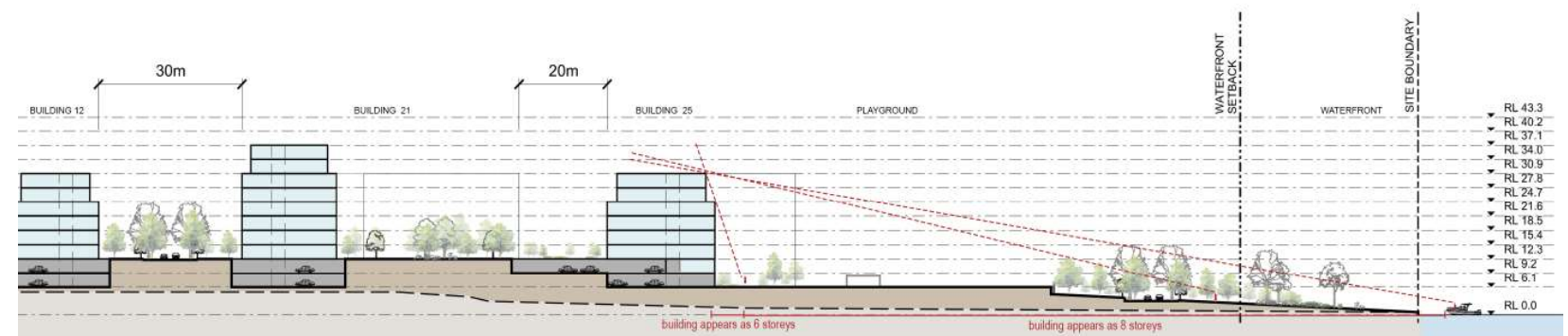
- Buildings to be located adjacent to the Recreation Park are proposed to be six storeys in height. These six storey buildings will have the top two levels recessed to provide a human scale along the Recreation Park.
- Residents and visitors within the Ecological Parkland or golf course will experience these buildings as 4 - 6 storeys in height. When located close to the buildings where visual impact is greater the buildings will appear as 4 storeys and 6 storeys when further away from the buildings.

SECTION 3:

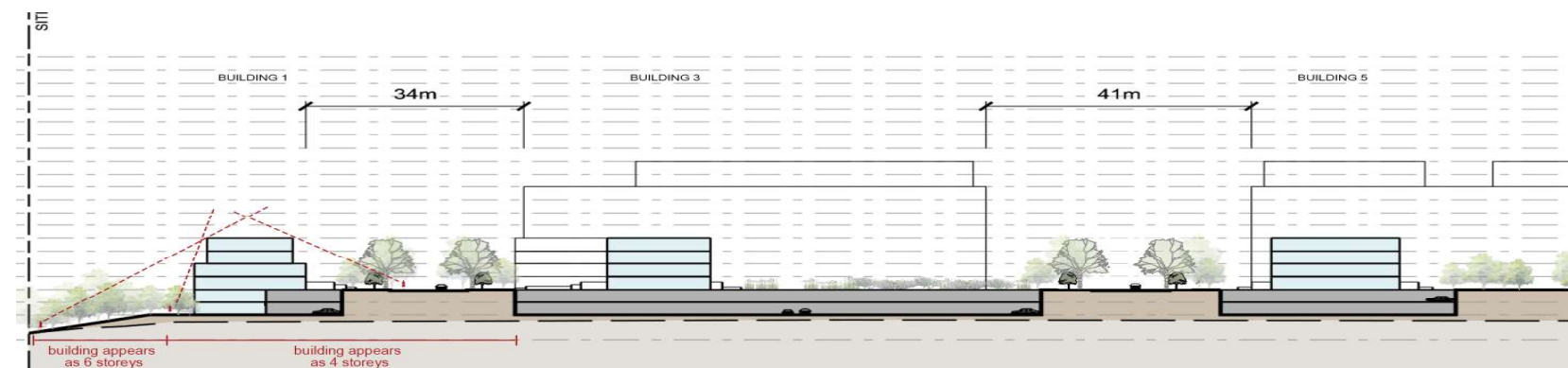
- Buildings located along the southern boundary adjacent to the Brighton Lakes Golf Club are proposed to be six storeys in height with distance views over the golf course.
- Residents and visitors within the Ecological Parkland or golf course will experience these buildings as 4 - 6 storeys in height. When located close to the buildings where visual impact is greater the buildings will appear as 4 storeys and 6 storeys when further away from the buildings.



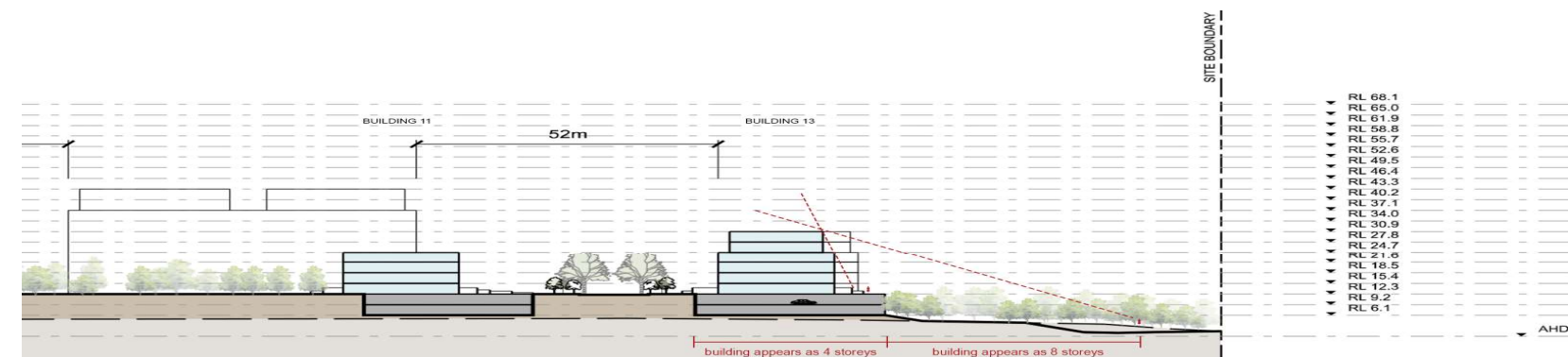
SECTION 1 - Section through , Neighbourhood Park, Primary Road and Riverbank Promenade



SECTION 2 - Section through Recreation Park



SECTION 3 - Section through buildings adjacent to Southern boundary.



SECTION 4 - Section through buildings adjacent to Northern boundary.

DESIGN VISION

HEIGHT DISTRIBUTION

SECTION 4

- Buildings located along the northern boundary will range in height from four to eight storeys which would be compatible to the eight storey marina apartment buildings proposed on the property adjacent to the northern boundary of the site.
- Residents and visitors within the Ecological Parkland will experience these buildings as 4 - 6 storeys in height. When located close to the buildings where visual impact is greater the buildings will appear as 4 storeys and 6 storeys when further away from the buildings.
- The two tallest buildings proposed, both 12 storeys are to be located within the centre of the site surrounded by ample open space with a Neighbourhood Park to the north and south and the Neighbourhood Plaza to the east.



DESIGN VISION

BUILT FORM PRINCIPLES

Podiums and building base elements.

- Building podiums of two to four storeys in height are proposed with a unique architectural language to reinforce and define areas of open space whilst providing a strong sense of place.
- Podiums assist in moderating the urban scale of taller buildings to more human scale.
- Podiums adjacent to the neighbourhood plaza:
 - Are proposed to have building forms which will provide a strong visual and acoustic separation between commercial / retail uses at the lower levels and residential uses above.
 - Will provide flexible commercial floor plates that will allow for a variety of uses such as offices, professional suites, retail, early childhood learning, dining and community facilities.
 - Are to be designed with colonnades lined with a fine grain of retail and commercial frontages.
- The podium forms are proposed in accordance with the following design principles:
 - To provide a strong base for each building.
 - To provide an appropriate human scale to streets and surrounding open space.
 - To provide legibility of building uses.
 - To incorporate colonnades and balconies to reinforce pedestrian circulation and connectivity in areas adjacent to public open space.
 - To ensure that the podium is designed to encourage public engagement.
 - Entries to residential towers and commercial space are to be separated and clearly articulated from surrounding streets and open space.
- Building frontages are to be activated by locating commercial, retail and lobby entries to address pedestrian footpaths and open spaces creating active, people oriented street frontages.
- A high level of activation will enhance public security and passive surveillance whilst improving the amenity of the public domain by encouraging pedestrian activity.
- An active street frontage will enhance the economy of the precinct by promoting uses that attract pedestrian traffic in areas of retail.



DESIGN VISION

BUILT FORM PRINCIPLES

BUILDING FORMS

- Buildings are to be located to ensure that public domain and communal open space have good solar access.
- Opportunities are to be provided for views of open space between apartment buildings to enhance a sense of openness.
- Excellent natural light, ventilation and view amenity are to be provided for occupants.
- Facade articulation is to enhance the vertical form of buildings to provide an appearance of reduced building bulk and scale.
- Top two storeys of each tower are to be recessed to provide a visually identifiable top to the building.
- Roofs are to be flat with large overhangs.
- Roof overhangs should be broken up reflecting the recesses of tower massing to visually reduce the bulk of the building when viewed from the public realm.

MATERIALS

- The selection of materials proposed for the will be high quality, robust and timeless with integral colours and finishes.
- To mitigate visual impact materials should have low reflectivity or gloss finish for the exterior of buildings.
- Contrasting materials and colours are to be used to assist in the articulation of building elements such as podiums and building tops.
- To mitigate visual impact base building colours are to be in earthy, neutral tones with minimal colour intensity (or hue).
- Top two storey elements adopted darker colours to visually recess building bulk.



DESIGN VISION

7.4 BIRDSEYE VIEW TOWARDS THE WEST



DESIGN VISION

7.5 VIEW EAST ACROSS PLAZA TOWARDS GEORGES RIVER FRONTAGE



DESIGN VISION

7.6 VIEW NORTHWEST ACROSS PLAZA TOWARDS NEIGHBOURHOOD PARK 3



DESIGN VISION

7.7 VIEW WEST ACROSS RECREATION PARK



DESIGN VISION

7.8 VIEW OF RIVERBANK PROMENADE



8.0 CONCEPT DESIGN PROPOSAL

8.1 SITE PRECINCTS

THE RIVERBANK PROMENADE

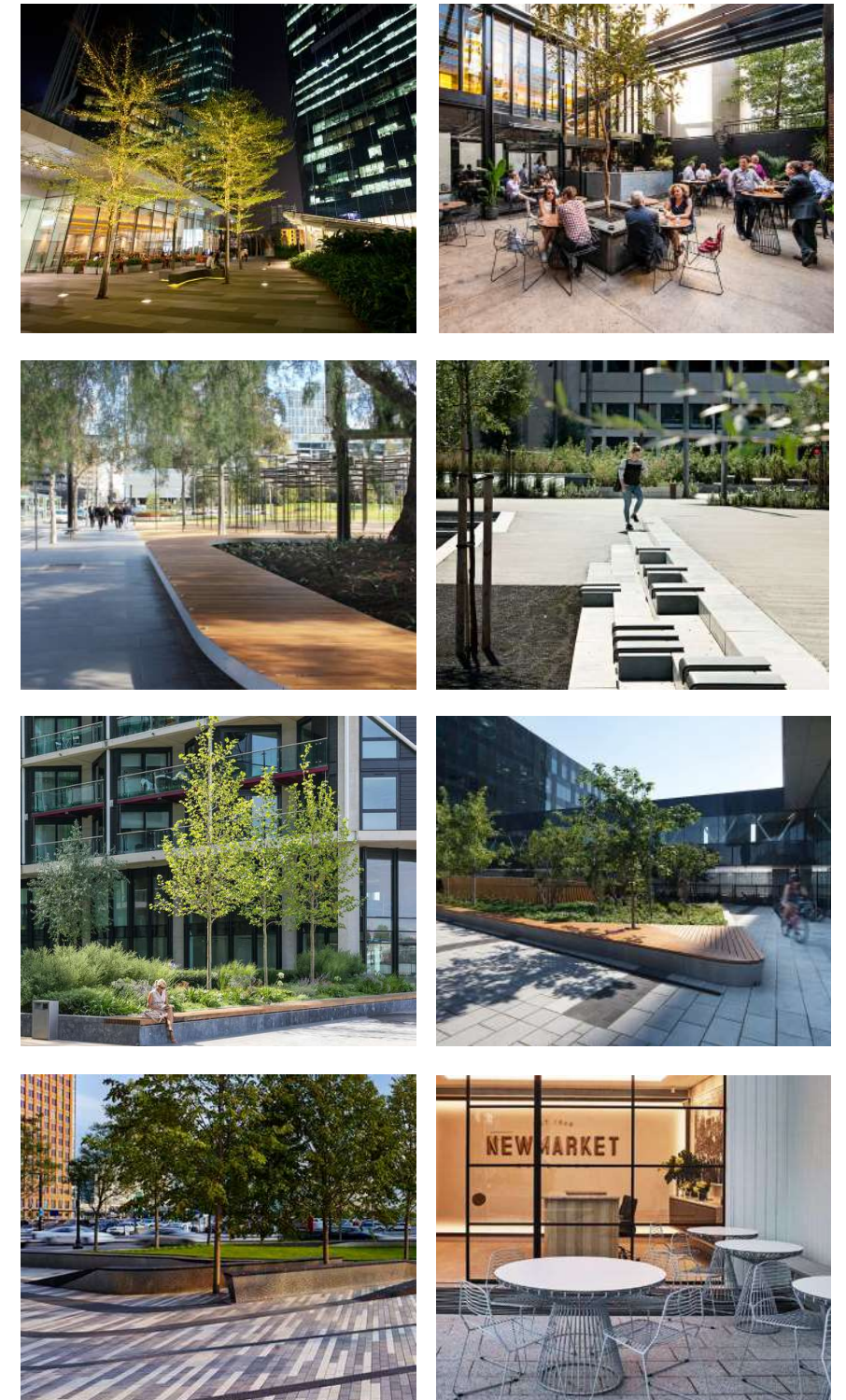
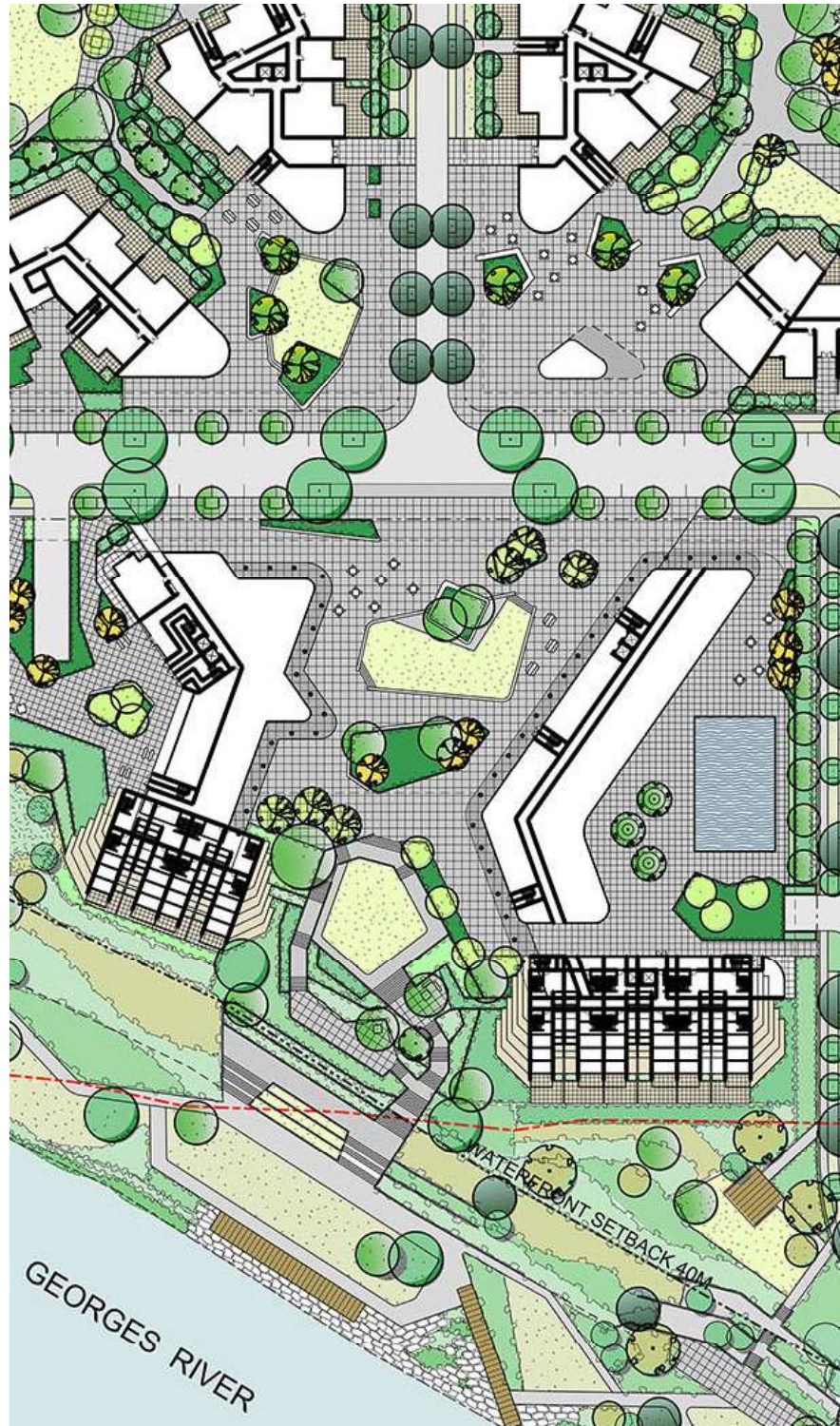
- The river frontage is designed to be integrated with the proposed public foreshore walk along the banks of the Georges River as illustrated in the design proposals for Lot B 124 Newbridge Road and Lot D 146 Newbridge Road.
- To accommodate the 6 metre level change between flood level and water level, the river frontage is designed as a planted embankment and series of terraces which includes hard and soft landscape to provide a riverside walk and linear park.
- The promenade will provide places to sit, walk and take in views of the Georges River.
- The promenade is to be activated with a mix of residential and retail uses. Cafes and restaurants will be located midway along the promenade adjacent to the Neighbourhood Plaza and landscaped terraces will provide the opportunity for outdoor seating with views of the river and boardwalk activities.
- A local road is proposed adjacent to the northern end of the Riverbank Promenade providing public parking and direct pedestrian and cycle access.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PLAZA

- Located on the edge of the Georges River and within the centre of the site, the Neighbourhood Plaza will provide a vibrant centre for the development.
- The plaza is designed as a predominately hard paved pedestrian space activated with retail, community uses and residential lobby entries.
- The plaza will include large forecourt spaces to surrounding residential buildings and extend east to the Riverbank Promenade.
- The area is to provide multi-functional space catering for both short and long stay activities as well as organised events.
- The Neighbourhood Plaza is to incorporate a high degree of visibility and openness to the surrounding area to provide an inviting and inclusive environment.
- The plaza is to provide an extension to the functions of the adjoining buildings and allow for activation with restaurants, cafés and retail.
- It is proposed that casual outdoor dining be incorporated to provide a drawcard and in turn enliven plaza.
- Clear sight lines to building lobbies are to be provided to promote safe access.
- Planters with integrated seating are to provide informal short stay seating and gathering and to allow for pedestrian movement to and from the Riverside Promenade to the residential buildings and streets.
- A series of steps and planters are to accommodate the level change between plaza level and the Riverside Promenade.
- Buildings adjoining the Neighbourhood Plaza are to incorporate community facilities such as a multi-purpose hub; a childcare centre; community service centre e.g. library; as well as related open space.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARKS

- Five 'neighbourhood parks' are proposed within the development each offering the opportunity for passive and active recreation.
- With multiple street frontages the parks will provide green links across the development.
- Each park has been sited to receive good solar access, and to have an extensive area of deep soil planting to provide the opportunity for medium and large trees at a height and density to enhance the environmental and visual quality of the site.
- Each Neighbourhood Park is designed with a high degree of openness to the surrounding area and visibility from the streets to provide an inviting and inclusive environment.
- Each park will have extensive grassed areas and seating areas enhanced with shade trees and ornamental planting for use by residents and the wider community.
- A range of plants is to be provided including native and exotic species to:
 - promote biodiversity;
 - allow for winter sun and summer shade;
 - provide an enhanced visual aesthetic;
 - promote a connection with nature;
 - provide screening and buffers at critical private to public areas; and
 - provide a low maintenance and drought tolerant landscape.
- In order to integrate the development with the surrounding area and bring the character of the adjoining woodland into the residential neighbourhood planting is to include species from the following plant communities:
 - Forest Red Gum-Rough-barked Apple Grassy Woodland.
 - Broad-leaved Ironbark-Grey Box-Melaleuca decora Grassy Open Forest.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARK 1

- Neighbourhood Park 1 incorporates seating areas for both individuals and groups and provides areas for eating and relaxation as well as meeting and social interaction.
- Facilities and elements in the park include:
 - A shade structure and deck for outdoor sitting and dining.
 - Facilities for outdoor eating.
 - Informal children's play elements.
 - Raised planting beds for residents to grow their own herbs and vegetables.
 - Areas of lawn for passive and active recreation.
 - A water feature and adjoining seating area.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARK 2

- Neighbourhood Park 2 has a central lawn as its focus providing an open space for casual gatherings or events. The open space has direct access from adjoining buildings and seating areas at its edges enhanced with colourful planting.
- The Park also includes:
 - Large shade trees.
 - A shade structure and paved area providing an area for meeting and social interaction.
 - Facilities for outdoor eating.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARK 3

- Neighbourhood Park 3 features a children's play area incorporating urban furniture and play equipment in configurations to encourage interaction and provide a variety of experiences to facilitate learning, socialisation and recreation.
- Terraced seating is located adjacent to the play area to allow people to sit and watch activities in the play space.
- The park also includes additional more intimate seating areas and a shade structure and paved area for groups to congregate.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARK 4

- Planting and paving are utilised within Neighbourhood Park 4 to reinforce movement zones particularly between the Recreation Park and the rest of the residential community.
- The park also includes:
 - Small garden spaces enhanced with colourful, seasonal planting.
 - A water feature and adjoining seating area.
 - A shade structure and facilities for outdoor eating.



CONCEPT DESIGN PROPOSAL

NEIGHBOURHOOD PARK 5

- Neighbourhood Park 5 incorporates a central lawn and paved area, with direct access from adjoining buildings, for casual gatherings or events.
- Landscaped terraces are located along the northern edge of the open space as well as an elevated paved seating area overlooking the adjoining Ecological Parkland.
- The Park also incorporates large shade trees and accent tree, shrub and groundcover planting to enhance amenity and passive recreation.



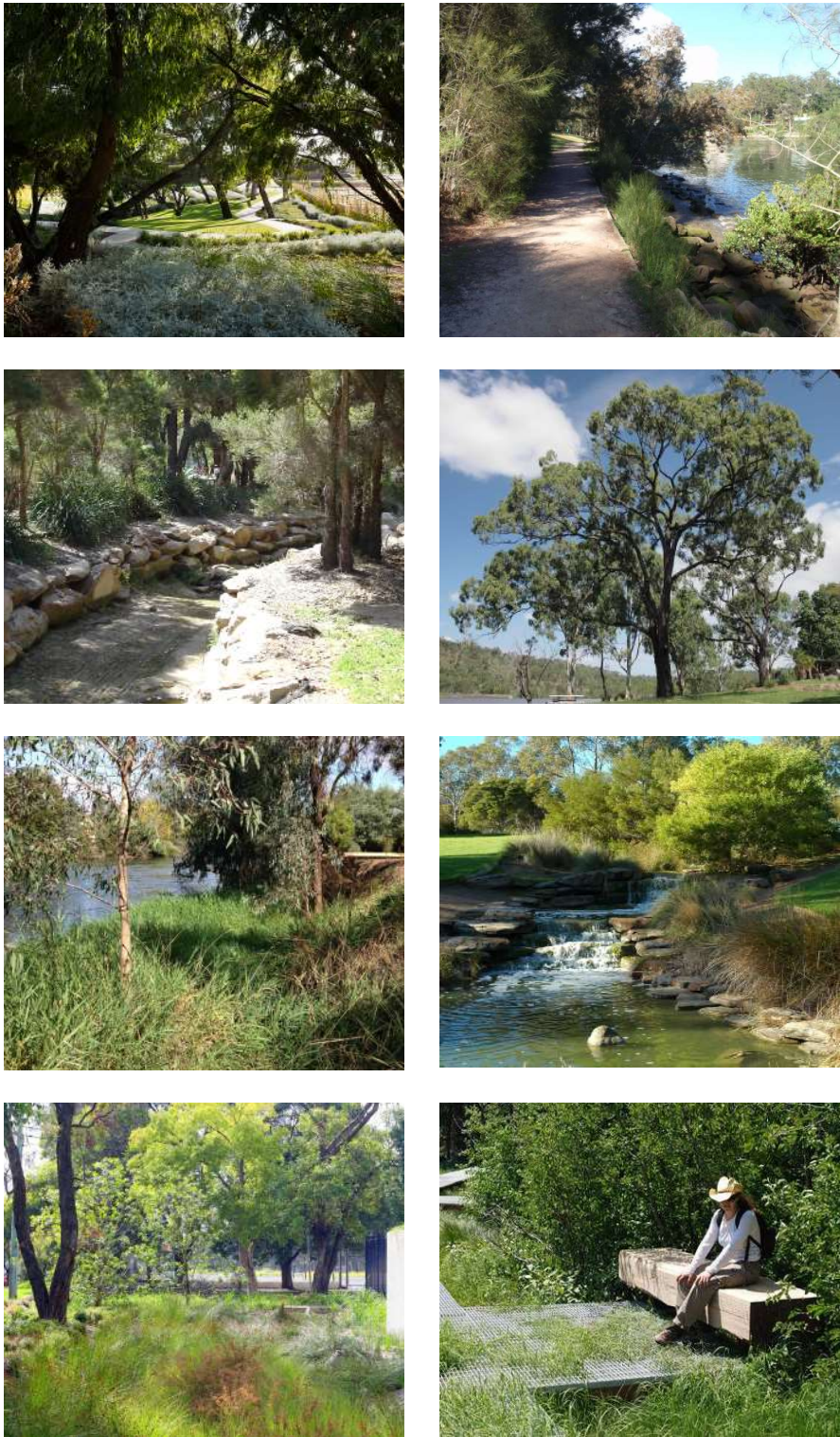
CONCEPT DESIGN PROPOSAL

ECOLOGICAL PARKLANDS

- The Ecological Parklands located along the northern and southern boundaries are to incorporate existing and reconfigured creeklines and a series of raingardens to provide passive cleaning of stormwater before runoff enters the Georges River.
- Existing trees are to be retained along the creeklines where possible and supplementary riparian vegetation is to be provided to strengthen the existing site character, promote biodiversity and provide habitat for native wildlife.
- Planting along the corridors is to incorporate species from the Forest Red Gum-Rough-barked Apple Grassy Woodland plant community and the Swamp Oak swamp forest community.
- A meandering path is to weave through each of the open spaces providing varied vegetation and water's edge experiences. Fixed seating and informal grassed seating areas are to provide opportunities for engagement with nature and quiet contemplation.



SOUTHERN ECOLOGICAL PARKLAND



CONCEPT DESIGN PROPOSAL

ECOLOGICAL PARKLANDS



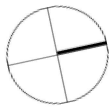
NORTHERN ECOLOGICAL PARKLAND



CONCEPT DESIGN PROPOSAL

RECREATION PARK

- The development proposal provides the opportunity for a recreation park which could include a playing field with associated facilities.
- A local road is proposed adjacent to the playing field to provide public parking for users of the Recreation Park and Riverbank Promenade.
- Landscape terraces are proposed to provide structured tiered spectator seating.



CONCEPT DESIGN PROPOSAL

FIRE TRAIL

- The development proposal provides the opportunity for a fire trail to be located adjacent to the Wurrungwuri Reserve along the western site boundary.
- The fire trail could be designed as a vegetated swale to assist with over land flow of storm water.
- The vegetated swale would assist with passive cleaning of stormwater before runoff enters creeks to the north and south of the site before flowing into the Georges River.
- The fire trail would be accessed directly from the primary access road at points to the north and south of the site and midway via the centrally located neighbourhood road.



MASTERPLAN

8.2 ACCESS ROAD THROUGH WURRUNGWURI RESERVE

A raised primary vehicle access road is proposed through the Wurrungwuri reserve at approximately RL 6.5, with two egress lanes from the development and a single access lane in.

- A proposed roundabout will provide the interchange between the access road and Brickmaker's Drive at approximately RL 6.5.
- A raised shared pedestrian and cycle path is to be constructed above the PMF level of RL12 and will follow the same route across the Wurrungwuri reserve as the primary access road with the intersection with the pedestrian path network at Brickmaker's Drive where Brickmaker's Drive is at currently at RL12. This pedestrian path will provide an emergency egress route for the site during any PMF event.

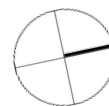
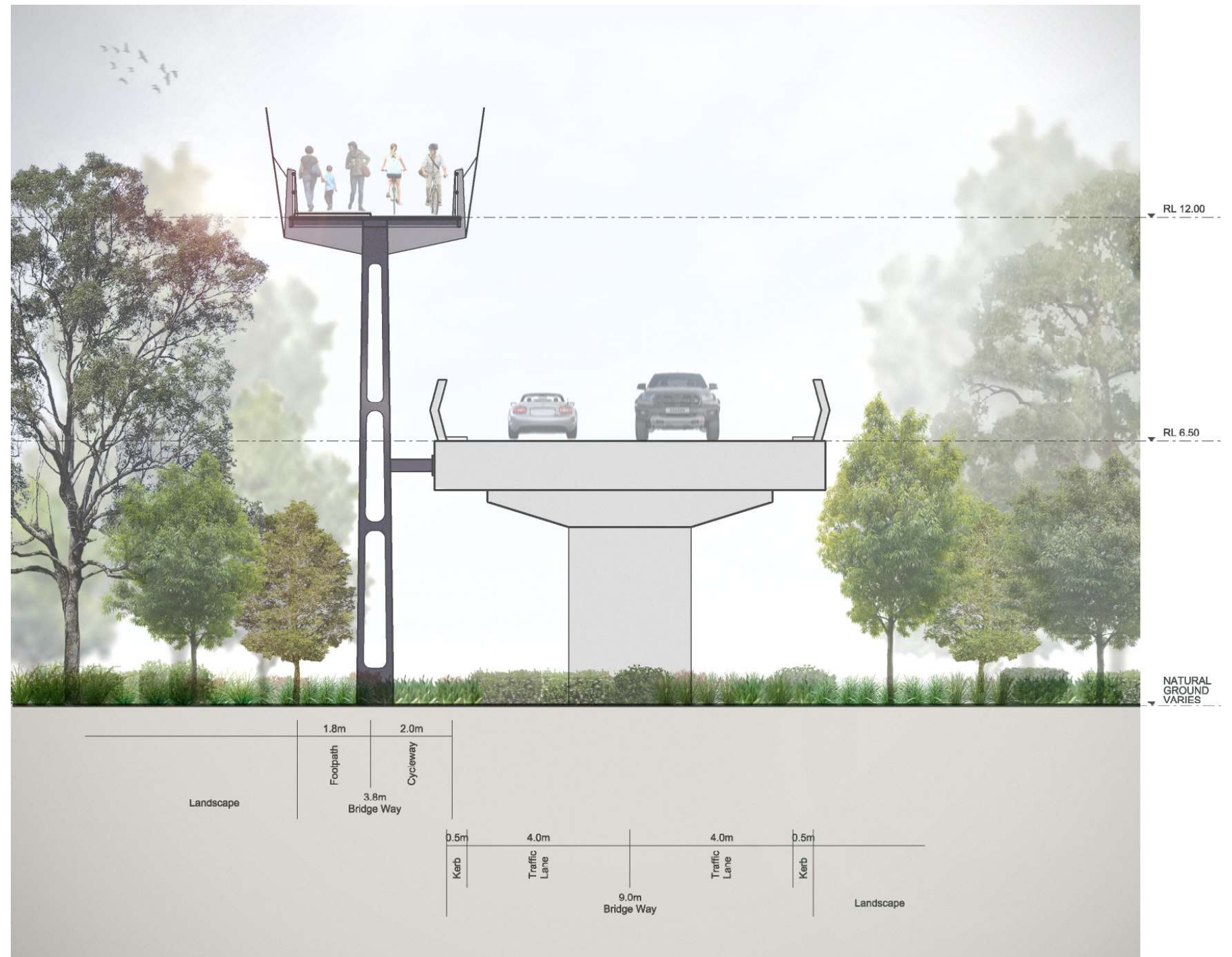


MASTERPLAN

ACCESS ROAD THROUGH WURRUNGWURI RESERVE

The raised primary road would be constructed using typical road engineering design elements.

- A single elliptical concrete pier arrangement will provide a more elegant structure.
- Headstock design will be integrated with piers and will be of a similar width.
- The girder section will be angled to provide a deep shadow effect and provide a more elegant road elevation.
- The raised shared pathway would be constructed in light weight steel and include a safety screen to prevent objects being thrown from the bridge and damaging vehicles or injuring people below.
- These screens will be designed as an integral part of the bridge design.



MASTERPLAN

8.3 ROAD HIERARCHY

The masterplan has been arranged to provide a legible hierarchy of roads that create a network of circulation routes for vehicles and pedestrians.

PRIMARY ACCESS ROAD

- The Primary Access Road provides a two way vehicle and pedestrian connection between the Wurrungwuri Reserve and the Neighbourhood Plaza and Riverbank Promenade.
- If public transport is to service the site in the future, then bus stops would be located along this road to service the Neighbourhood Plaza and Riverbank Promenade.
- This road will be designed with parking provided on both sides of the road.
- The Primary Access Road is designed at RL 12 which is above the PMF level and will be the emergency access route in a flood event.

LOCAL STREET

- The local street provide two way access between the Primary Access Road and the Recreation Park and Riverbank Promenade and provides a network of vehicle circulation to service building entries.
- This road will be designed with parking provided on both sides and public car parking adjacent to the Riverbank Promenade and Recreation Park.

NEIGHBOURHOOD ROAD

- Two way neighbourhood roads provide access for local residents to residential lobbies and car park entries.
- Car parking at grade is provided on both sides of the road pavement.

BICYCLE PATH

- A bicycle path is proposed to link Brickmaker's Drive to the Georges River Foreshore Park via the access road through the Wurrungwuri Reserve and the primary access street.

FIRE TRAIL

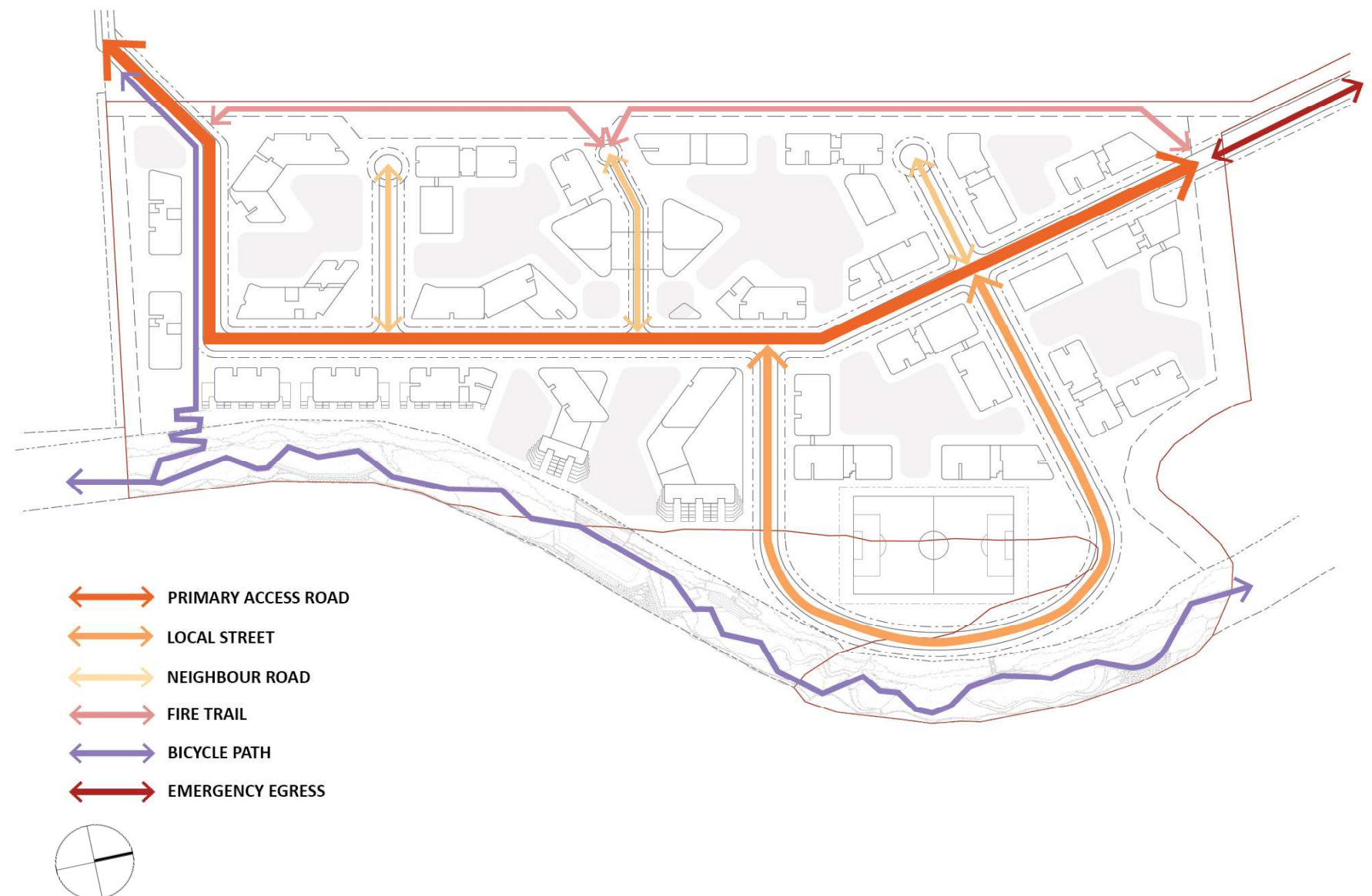
- A fire trail is to be located adjacent to the Wurrungwuri Reserve along the western site boundary with vehicle access from the Primary Access Road at the north and south of the site and from the central Neighbourhood Road.

GARBAGE & WASTE COLLECTION

- Garbage and waste collection is generally proposed within basement loading areas to minimise impact on the building frontages. The number of basement car park entries have been minimised and located to reduce potential pedestrian conflicts.

EMERGENCY EGRESS ROUTE

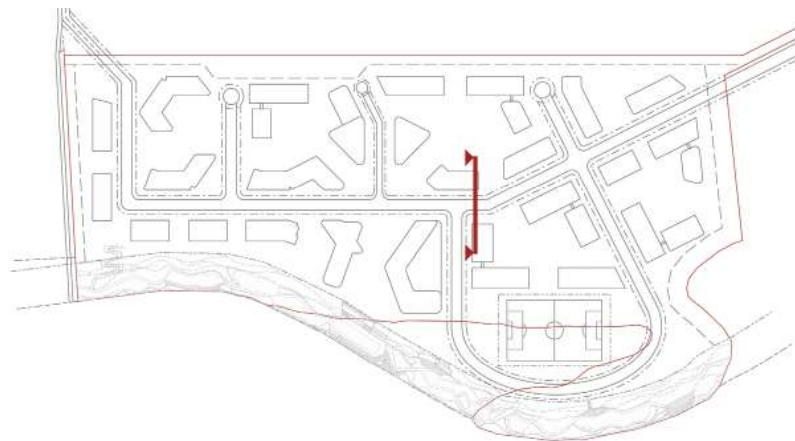
- An emergency egress route linking the site to Newbridge Road is to be provided as an extension of the Primary Road and will be located within the site boundary.



MASTERPLAN

ROAD NETWORK PLANT SPECIES

- Street tree planting is to support the greening of the road corridor to provide shade and enhanced pedestrian amenity.
- Large native trees are to be incorporated along the Primary Access Road and Local Street to provide continuity of treatment and to complement the existing landscape character.
- Proposed major street trees have been selected from the vegetation communities found in the Wurrungwuri Reserve.
- The Neighbourhood Roads are to incorporate a mix of smaller scale medium sized native and evergreen exotic trees.
- Additional native trees are to be incorporated in street verges where possible to further enhance the streetscapes.
- Broad canopy trees are proposed in open spaces adjoining the road corridor as well as feature species with foliage and flowers that provide seasonal interest and enhanced views and amenity.
- Drought tolerant native grasses are to be planted in kerb blisters, tree pits and along property boundaries.
- Paving and streetscape elements are to be robust and durable.



Eucalyptus tereticornis
Forest Red Gum
INDICATIVE PLANT SPECIES



Tristaniopsis laurina 'Luscious'
Water Gum



Elaeocarpus reticulatus
Blueberry Ash



Blueberry Ash flowers



Lomandra longifolia 'Tanika'
Tanika Mat Rush

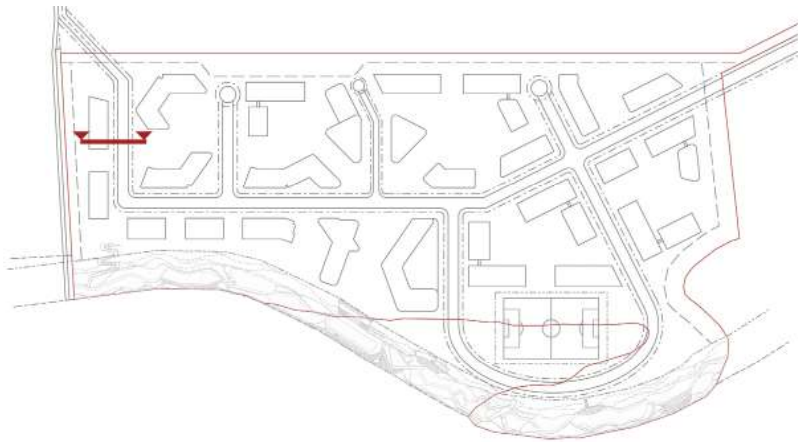


Dianella caerulea 'Little Jess'
Dianella Little Jess

MASTERPLAN

ROAD HIERARCHY

PRIMARY ACCESS ROAD WITH CYCLE PATH



Eucalyptus tereticornis
Forest Red Gum
INDICATIVE PLANT SPECIES



Tristaniopsis laurina 'Luscious'
Water Gum



Ulmus parvifolia
Chinese Elm



Acer platanoides 'Crimson Sentry'
Purple Norway Maple



Westringia fruticosa
Coast Rosemary

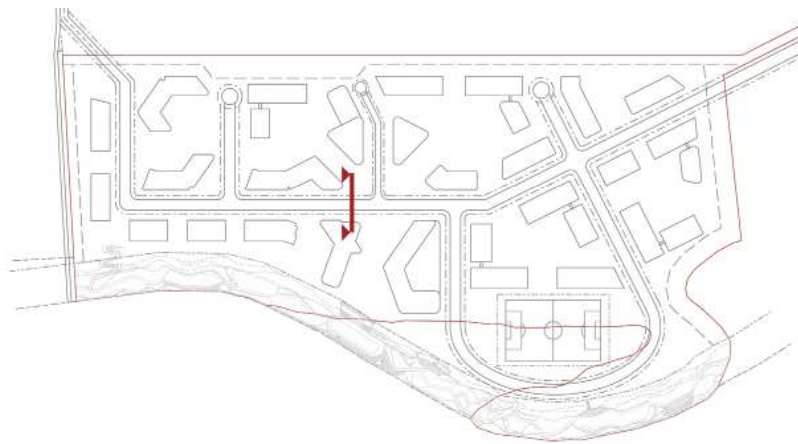


Lomandra 'Katrinus'
Katrinus Mat Rush

MASTERPLAN

ROAD HIERARCHY

PRIMARY ACCESS ROAD AND NEIGHBOURHOOD PLAZA



Eucalyptus tereticornis
Forest Red Gum
INDICATIVE PLANT SPECIES



Platanus digitalis
Plane Tree



Zelkova serrata 'Green Vase'
Japanese Elm



Liriope muscari 'Just Right'
Just Right Liriope



Lomandra longifolia 'Tanika'
Tanika Mat Rush

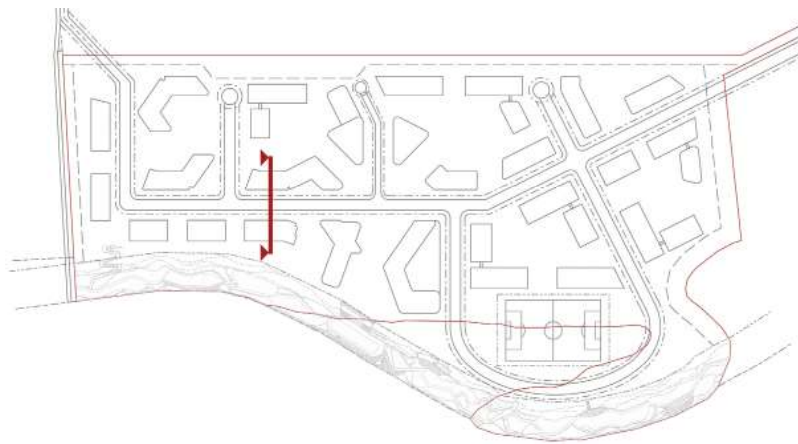
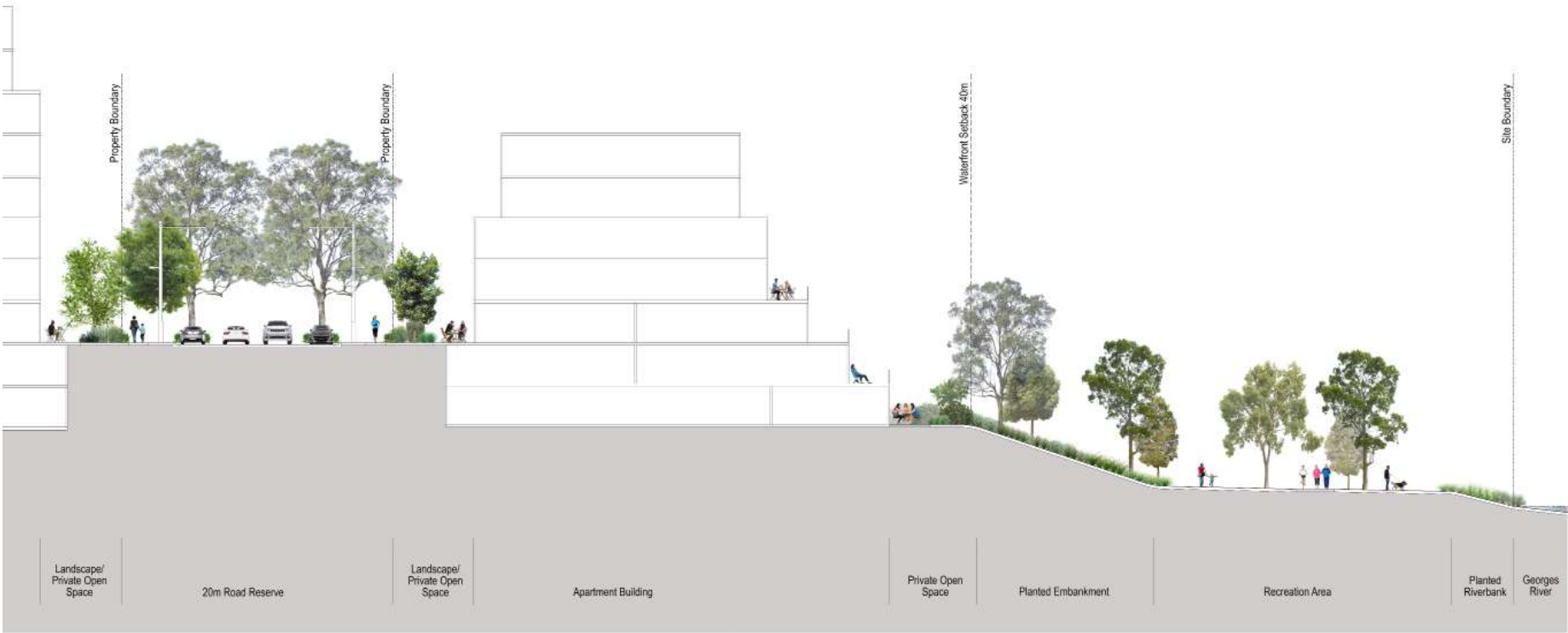


Dianella caerulea 'Little Jess'
Dianella Little Jess

MASTERPLAN

ROAD HIERARCHY

PRIMARY ACCESS ROAD AND RIVERSIDE PROMENADE



Eucalyptus tereticornis
Forest Red Gum
INDICATIVE PLANT SPECIES



Elaeocarpus reticulatus
Blueberry Ash



Eucalyptus crebra
Narrow Leaved Ironbark



Pennisetum alopecuroides 'Nafay'
Foxtail



Poa labillardieri 'Eskdale'
Fountain Grass

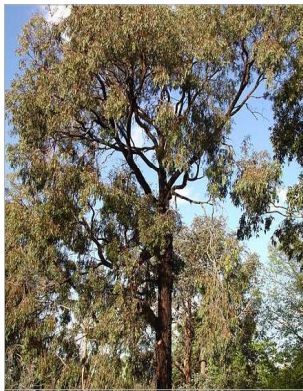
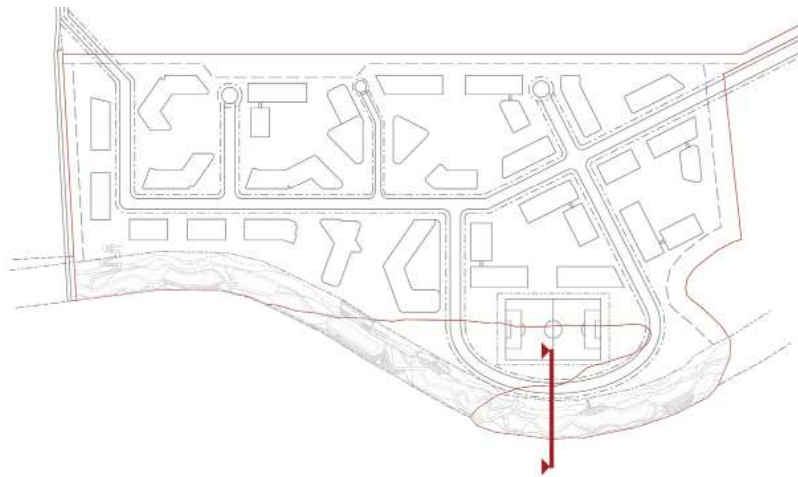


Lomandra longifolia
Mat Rush

MASTERPLAN

ROAD HIERARCHY

LOCAL STREET



Eucalyptus sideroxylon
Red Ironbark
INDICATIVE PLANT SPECIES



Elaeocarpus reticulatus
Blueberry Ash



Platanus digitalis
Plane Tree



Melaleuca quinquenervia
Broad-leaved Paperbark



Dianella caerulea
Blue Flax Lily



Lomandra longifolia
Mat Rush

MASTERPLAN

ROAD HIERARCHY

NEIGHBOURHOOD ROAD



Magnolia grandiflora 'Exmouth'
Bull Bay Magnolia
INDICATIVE PLANT SPECIES



Eucalyptus scoparia
Willow Gum



Hymenosporum flavum
Native Frangipani



Native Frangipani flowers



Liriope muscari 'Just Right'
Just Right Liriope



Lomandra tanika
Tanika Mat Rush

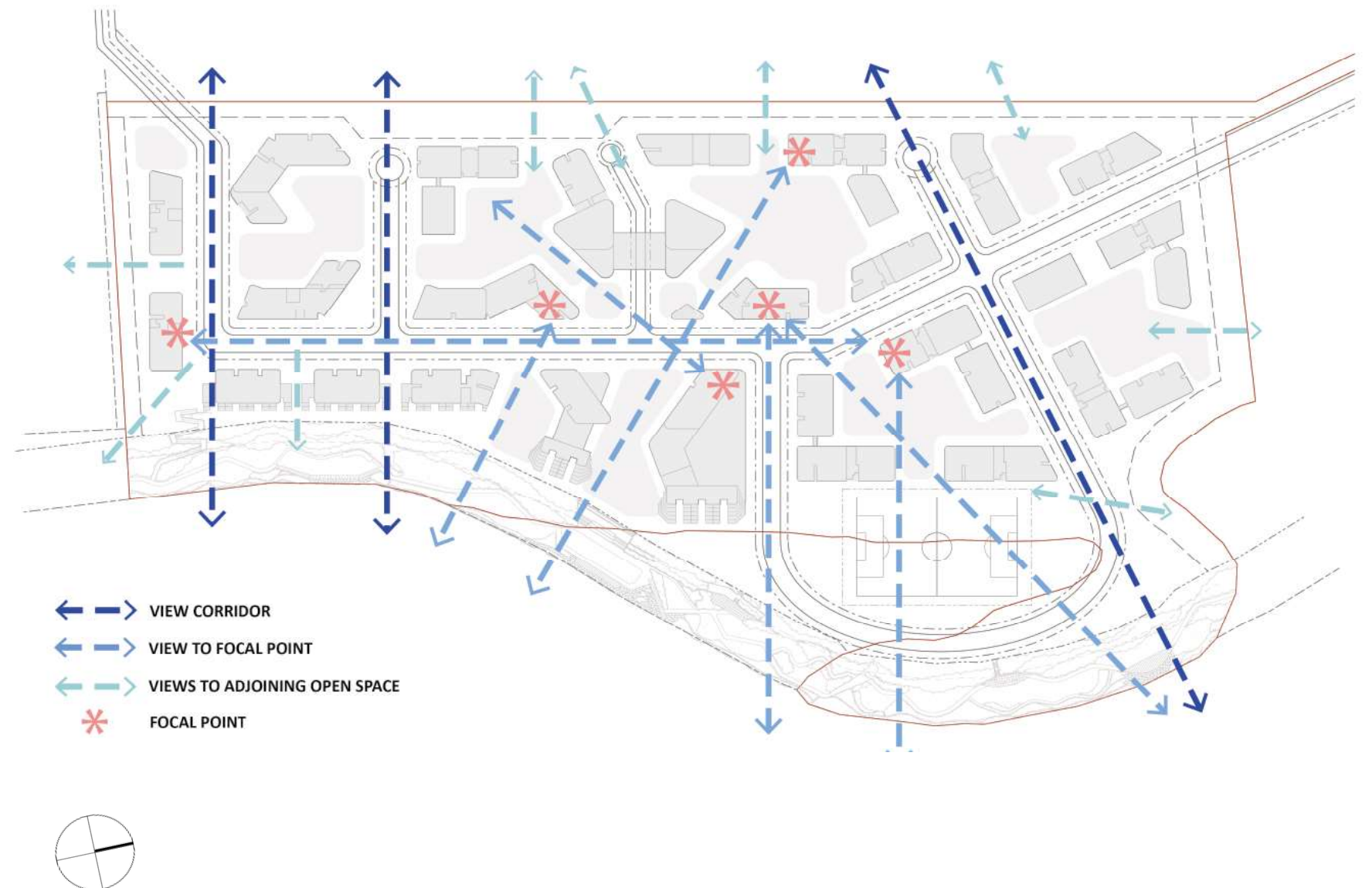


Dianella 'Little Jess'
Dianella Little Jess

MASTERPLAN

8.4 VIEW CORRIDORS

- The masterplan has been arranged to create three view corridors east to west across the site to visually link the Wurrungwuri Reserve to the George's River when viewed above ground level, buildings addressing these corridors will have oblique views of the Wurrungwuri Reserve or the Georges River.
- Buildings are sited to create view corridors from within the public realm such as the Riverbank Promenade towards prominent buildings that will be visual markers for residents and visitors to orientate themselves around the site.
- Buildings located adjacent to boundaries are positioned to provide views to adjoining open space.



MASTERPLAN

8.5 STREET ACTIVATION

- The masterplan has been designed to maximise ground level street activation with apartment lobby entries addressing roads and retail and community uses fronting the Neighbourhood Plaza and Riverbank Promenade.
- Clear sightlines to lobby entries from the streets, effective lighting, elimination of areas of concealment and entrapment and the careful location of activity generators will assist in the creation of a safer environment.
- Buildings will be designed to ensure that entries are clearly legible when viewed from streets.



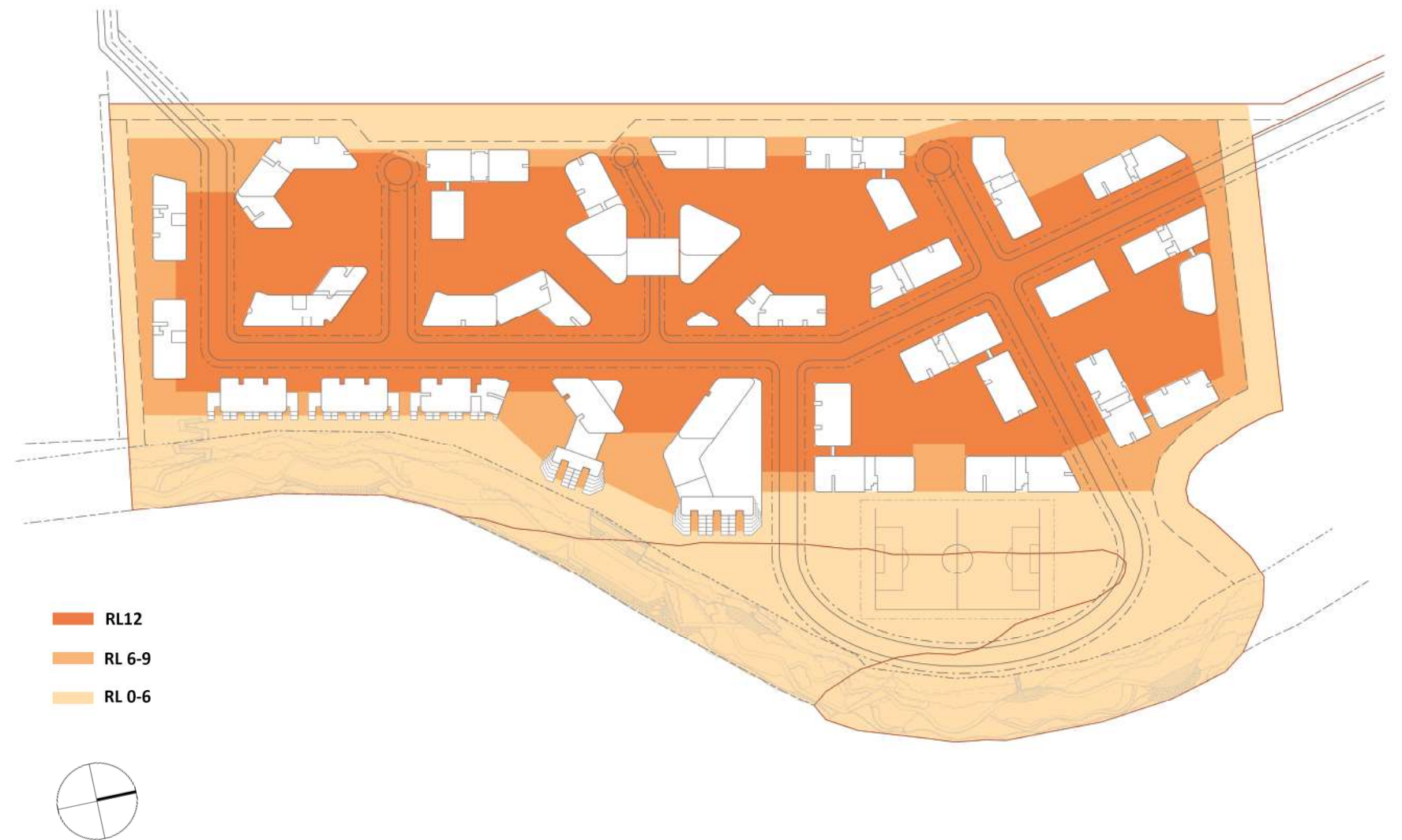
MASTERPLAN

8.6 SITE LEVELS

All apartment building floor levels, including basement carparking and retail tenancies, have been designed to comply with existing flood level constraints.

Final design levels will be arranged to provide the following:

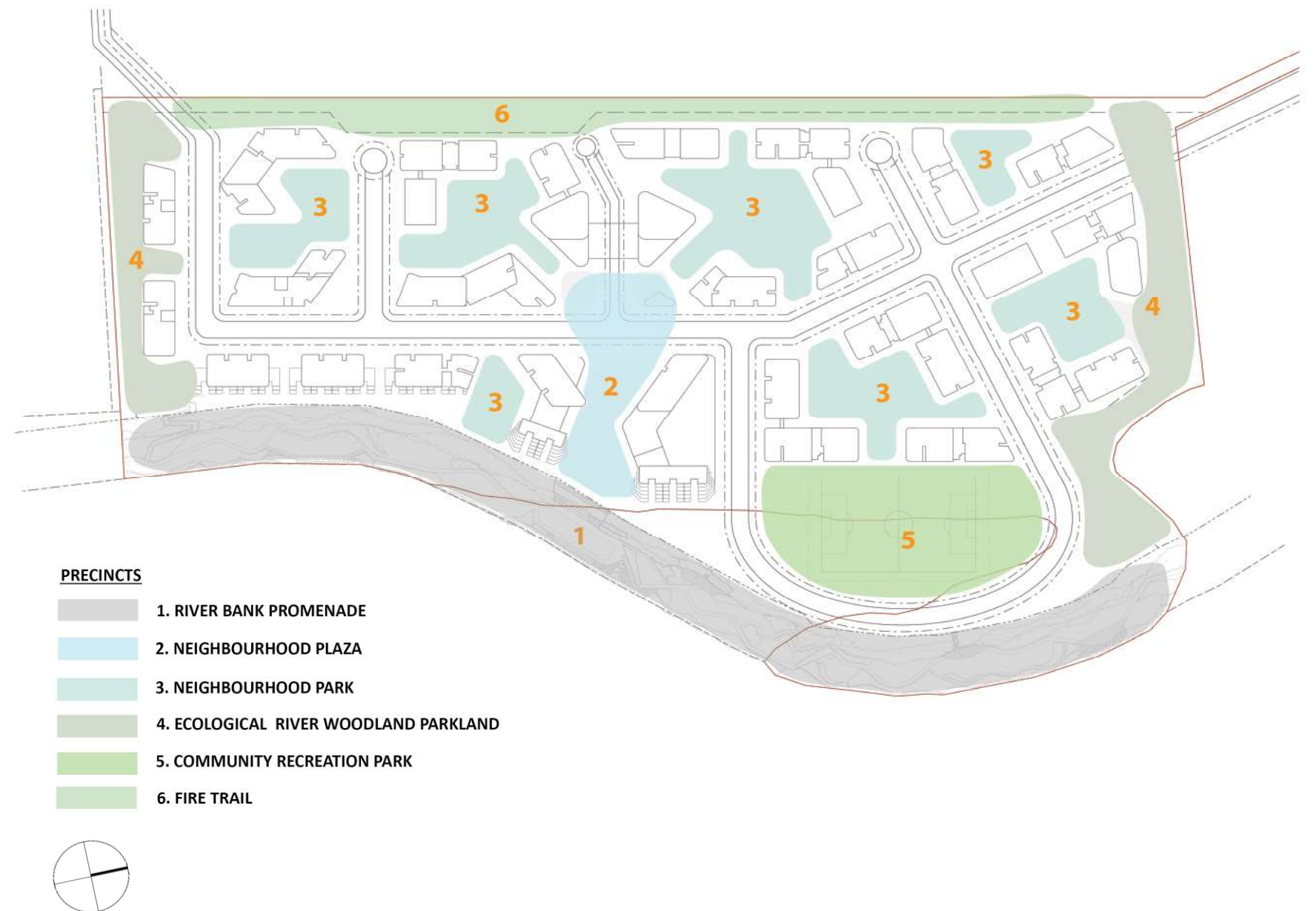
- The lowest level of basement carpark is to be at RL 6, with direct access to building cores.
- Retail uses fronting the Neighbourhood Plaza will be located at RL 12.
- A primary access road at RL 12 will provide an accessible route throughout the site with access to residential entry lobbies, neighbourhood parks, neighbourhood plaza and the Riverbank Promenade.
- Neighbourhood parks are connected with an accessible pedestrian route at RL 12 with direct access to surrounding building cores.
- Landscaped terraces will provide multiple pedestrian connections between the residential neighbourhood and the riverside promenade.



MASTERPLAN

8.7 OPEN SPACE FRAMEWORK

- The proposed urban design framework enhances the existing river environment character of the site, linking the established woodland and riverfront with a series of high quality public open spaces.
- Multiple green links consisting of Neighbourhood Parks will connect the residential community to the Neighbourhood Plaza and Riverbank Promenade.
- The Ecological River Woodland Parkland is to be upgraded adjacent to the northern and southern boundaries of the site.
- The Georges River riparian protection zone is to accommodate a foreshore park to be integrated with the proposed redevelopment of sites B & D.
- Neighbourhood Parks are located to enhance the outlook from apartments.



MASTERPLAN

8.8 DEEP SOIL PLANTING

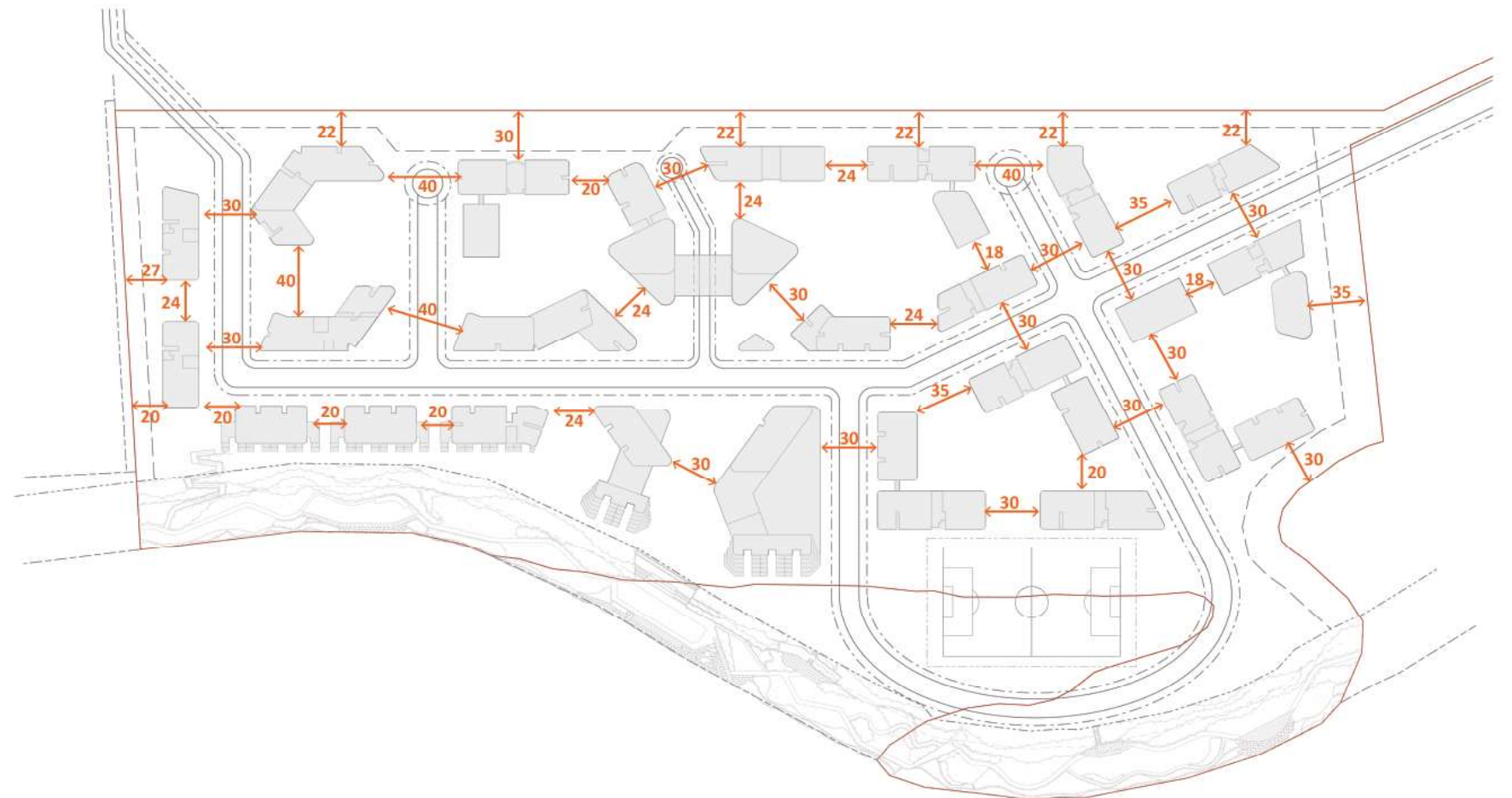
- The masterplan will ensure that 32% of the site is suitable for deep soil planting.
- This does not include areas of deep soil planting within road corridors.



MASTERPLAN

8.9 PERIMETER SETBACKS & BUILDING SEPARATION

- A minimum building setback of 21m from the southern boundary , 35m from the northern boundary and 22m from the western boundary has been provided.
- Upper levels of residential buildings will be setback to provide a more human scale when viewed from within the streetscape.
- Building separation will comply with the requirements of SEPP 65 Apartment
- Design Guidelines with a minimum building separation of 18m up to eight levels and 24m for building above eight storeys.
- Building separation across streets will be a minimum of 30m to accommodate the road corridor and private open space realms.



MASTERPLAN

8.10 BUILDING HEIGHT

- Building heights are arranged so that the taller buildings will be located towards the centre of the site and adjacent to large areas of open space.
- Heights have been determined based on minimising solar access impacts and maximising solar access to communal, public and private open space.



MASTERPLAN

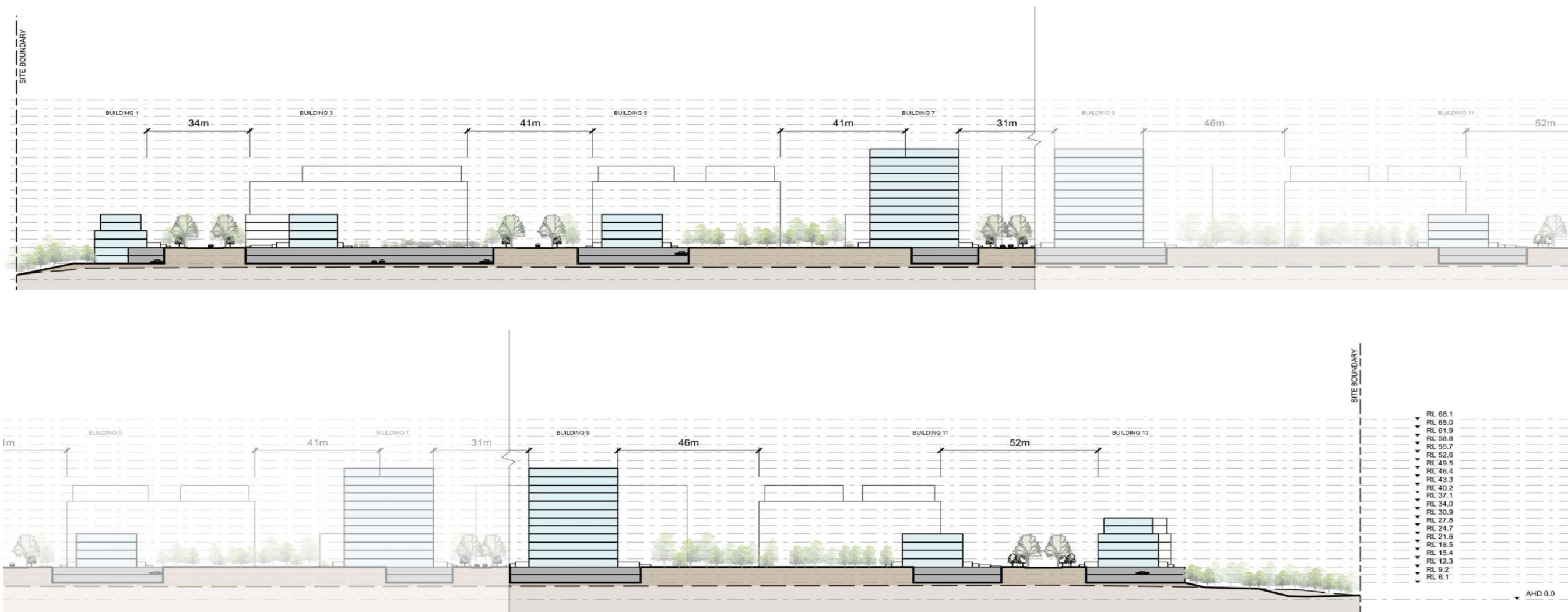
8.11 ROOF TOP COMMUNAL OPEN SPACE

- Roof gardens have been considered to contribute to the overall greening of the residential neighbourhood.
- Roof top communal space is proposed for buildings where there is an opportunity to maximise outlook towards the Georges River, Neighbourhood Parks, the Plaza, Riverbank Promenade and River Woodland Parkland.

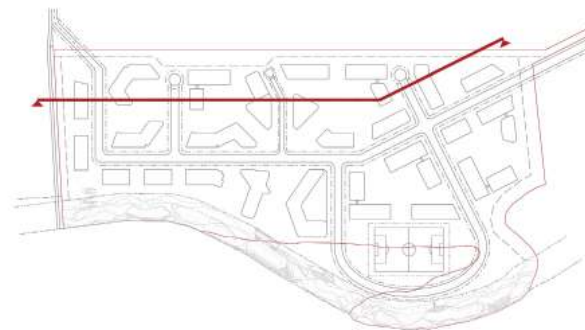


9.0 SITE SECTIONS

9.1 SECTIONS

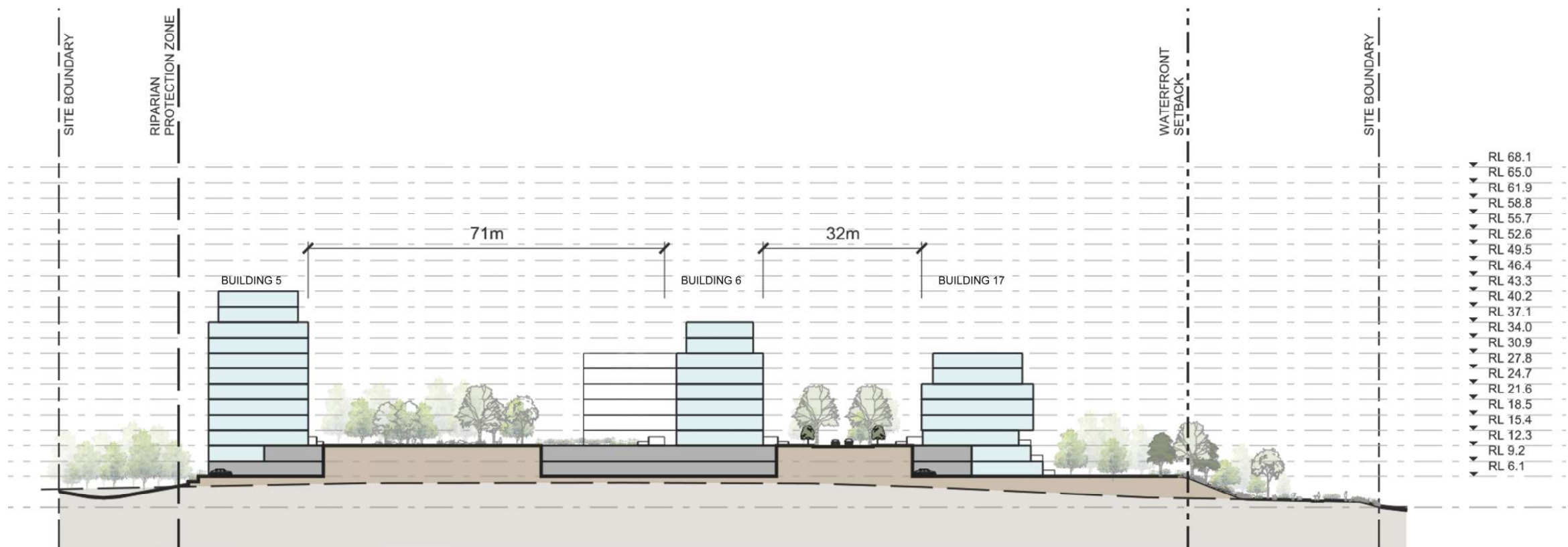


SECTION 1

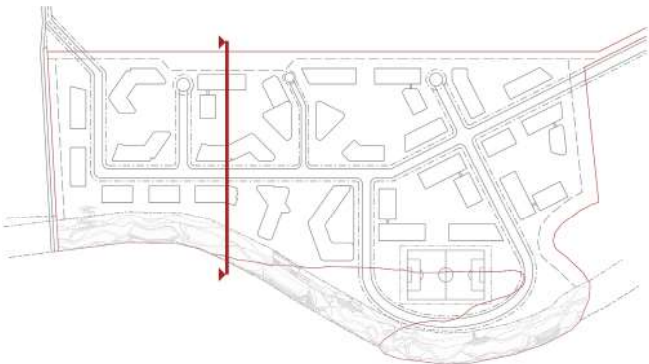


SITE SECTIONS

SECTIONS

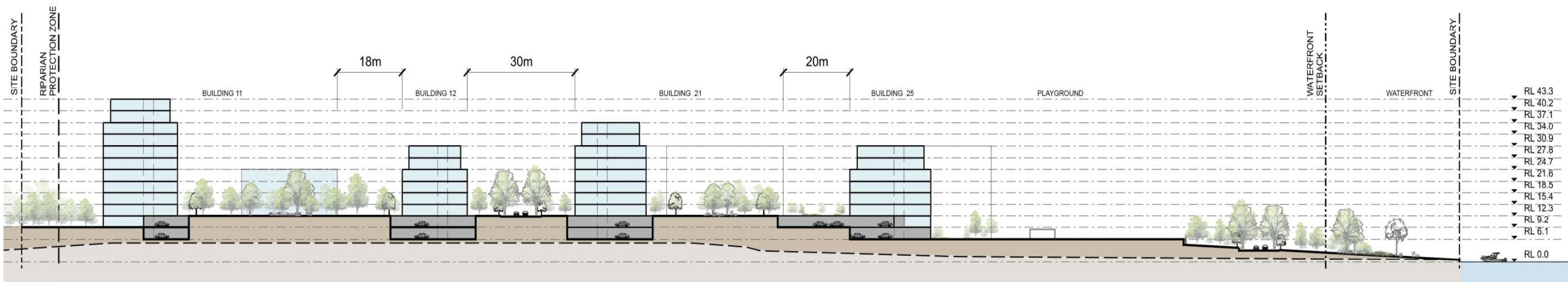


SECTION 2

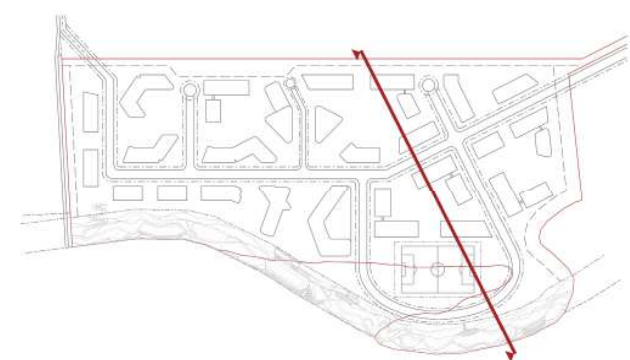


SITE SECTIONS

SECTIONS



SECTION 3



10.0 DRAWINGS

10.1 GROUND FLOOR LEVEL



DRAWINGS

10.2 FIRST FLOOR LEVEL



DRAWINGS

10.3 SECOND FLOOR LEVEL



DRAWINGS

10.4 THIRD FLOOR LEVEL



DRAWINGS

10.5 FOURTH & FIFTH FLOOR LEVELS



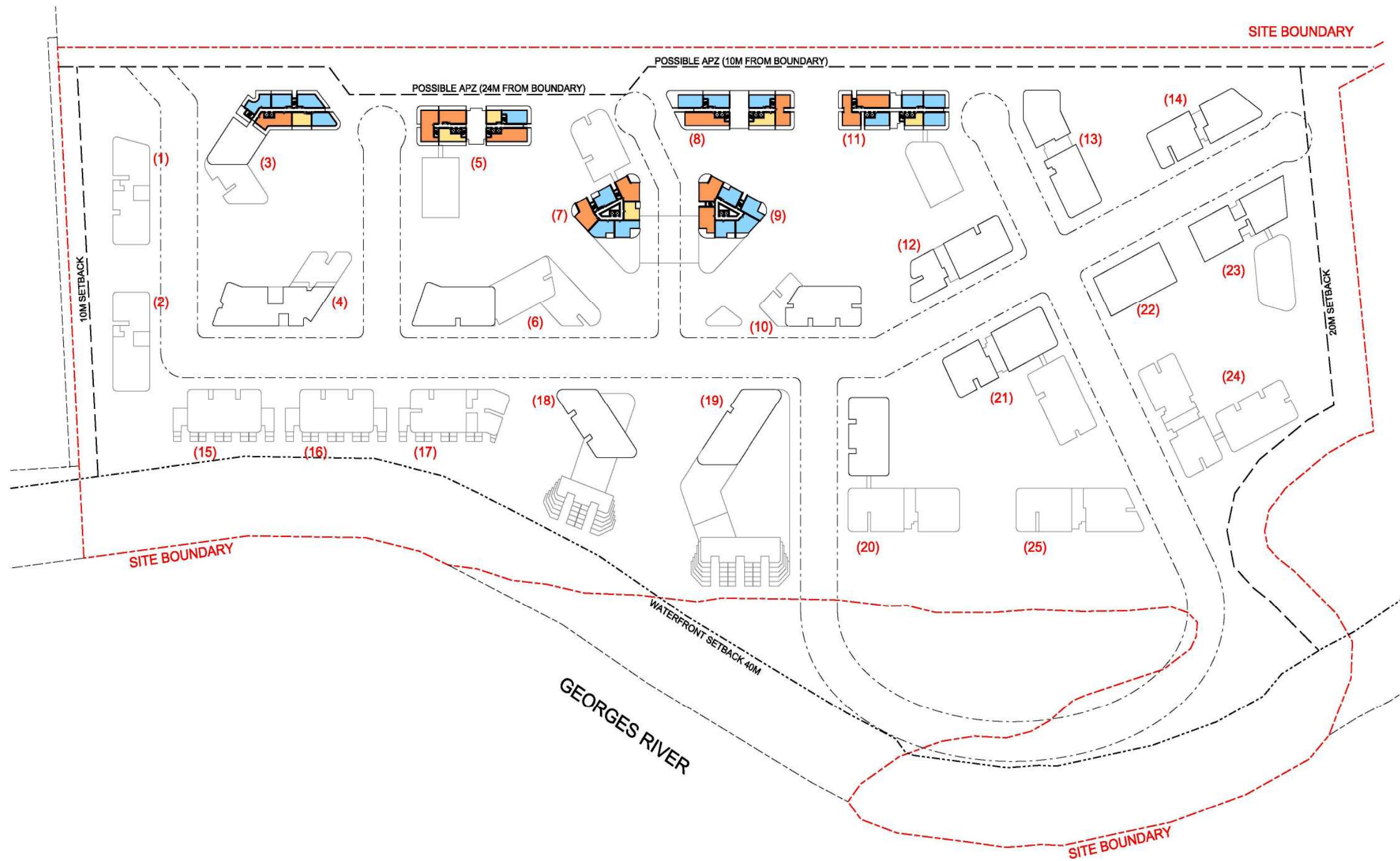
DRAWINGS

10.6 SIXTH & SEVENTH FLOOR LEVELS



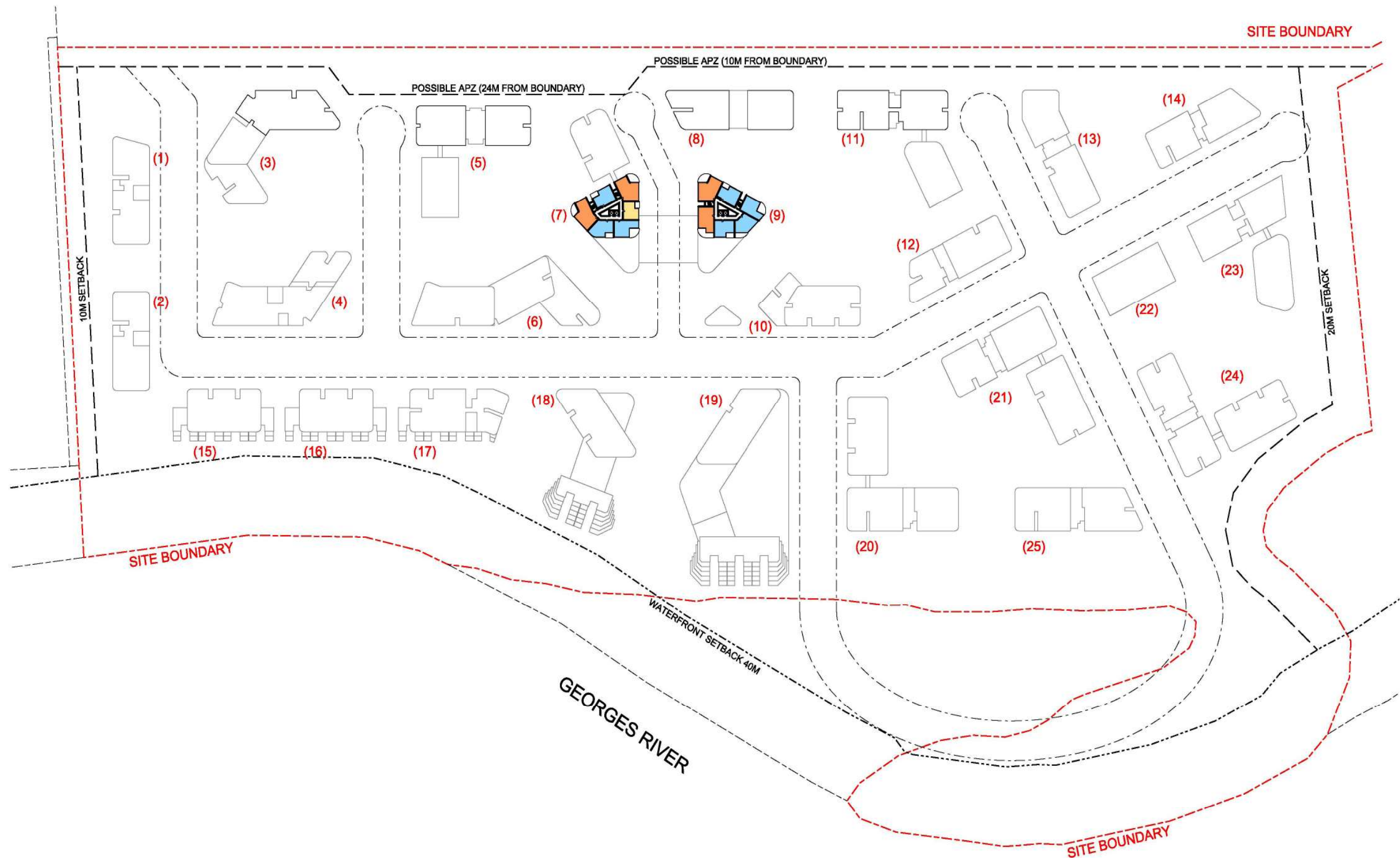
DRAWINGS

10.7 EIGHTH & NINTH FLOOR LEVELS



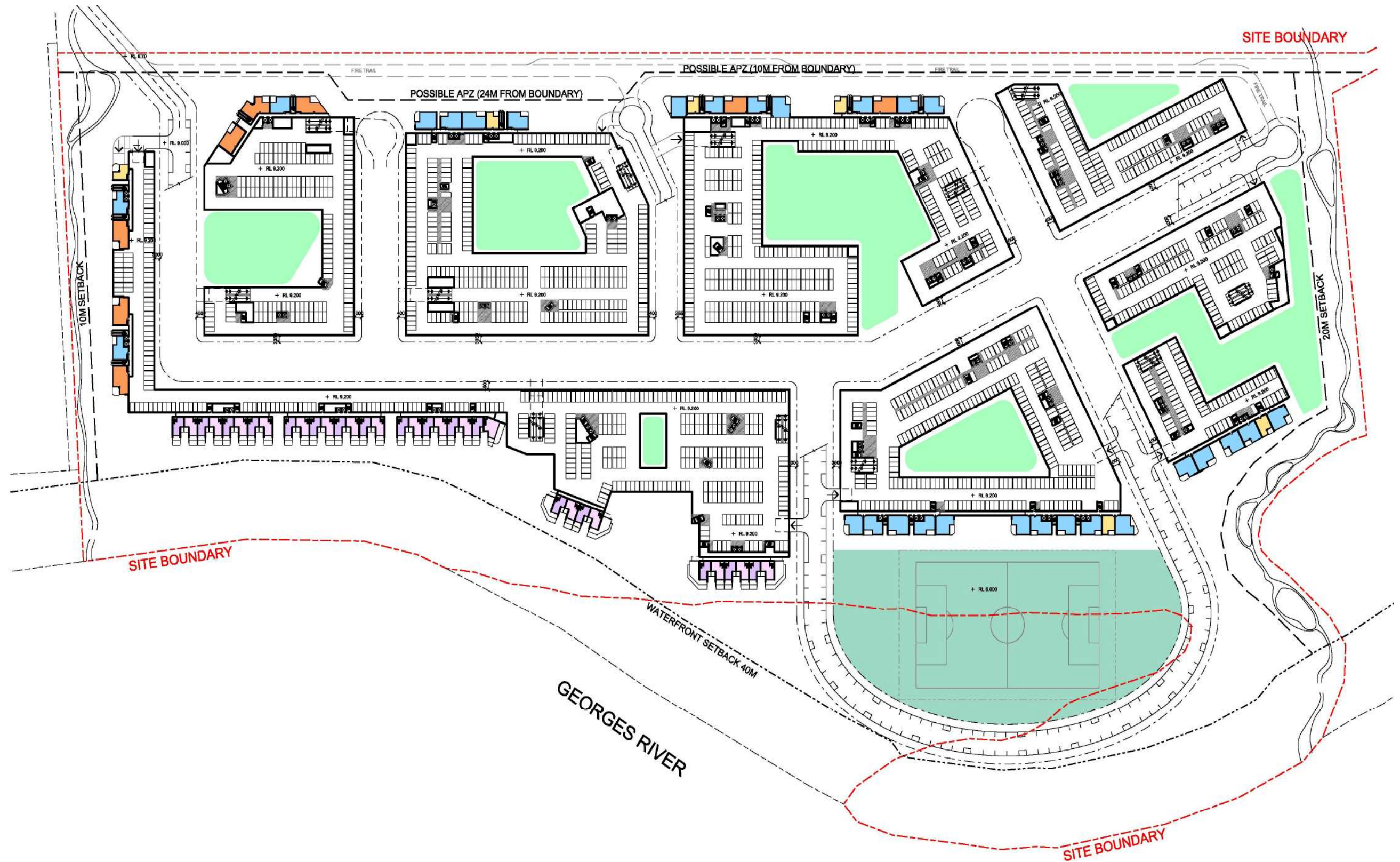
DRAWINGS

10.8 TENTH & ELEVENTH FLOOR LEVELS



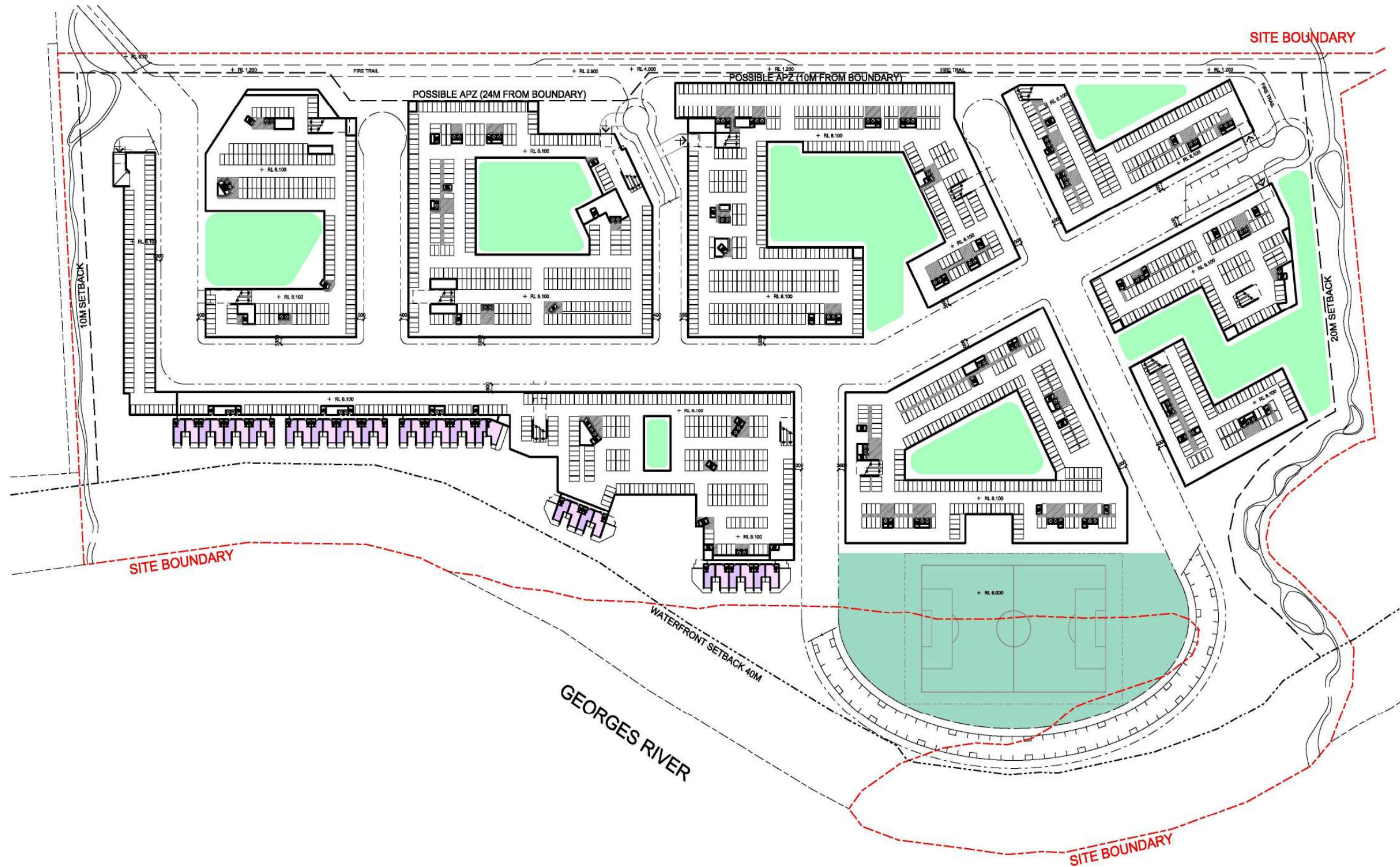
DRAWINGS

10.9 BASEMENT LEVEL 1



DRAWINGS

10.10 BASEMENT LEVEL 2



11.0 BUILDING AMENITY

11.1 SOLAR ACCESS

Solar amenity to communal and public open space will be in excess of the 50% SEPP 65 requirement which is unusual for high density planned communities.

On June 21st the following solar amenity will be provided:

- The Georges River riverbank promenade will have full sun until 3pm.
- The southern edge of the neighbourhood plaza will be in full sun from 11am onwards. This is particularly important during lunch time for cafes and restaurants to take advantage of out door dining.
- The recreation park will be in full sun until 3pm.
- All neighbourhood parks to have areas of sun and shade all day.
- The majority of buildings have an east west orientation to provide good solar amenity and to avoid south facing units.
- Apartment buildings facades addressing the Georges river foreshore have been orientated to achieve solar access between the hours of 9-11am.
- Apartment buildings facades addressing the Wurrungwiri Reserve are orientated to achieve good solar access between 1pm to 3pm.
- All building facades that are orientated to the north will received 2hour or more solar access .
- The masterplan will enable buildings to be designed that will exceed the SEPP 65 requirement requirement of 70% for solar access to private open space.



June 21st 9.00 am



June 21st 10.00 am



June 21st 11.00 am

BUILDING AMENITY



June 21st 12.00 pm



June 21st 13.00 pm



June 21st 14.00 pm



June 21st 15.00 pm

BUILDING AMENITY

11.2 SUN PATH DIAGRAM



June 21st 9.00 am



June 21st 10.00 am



June 21st 11.00 am



June 21st 12.00 pm

BUILDING AMENITY



June 21st 13.00 pm



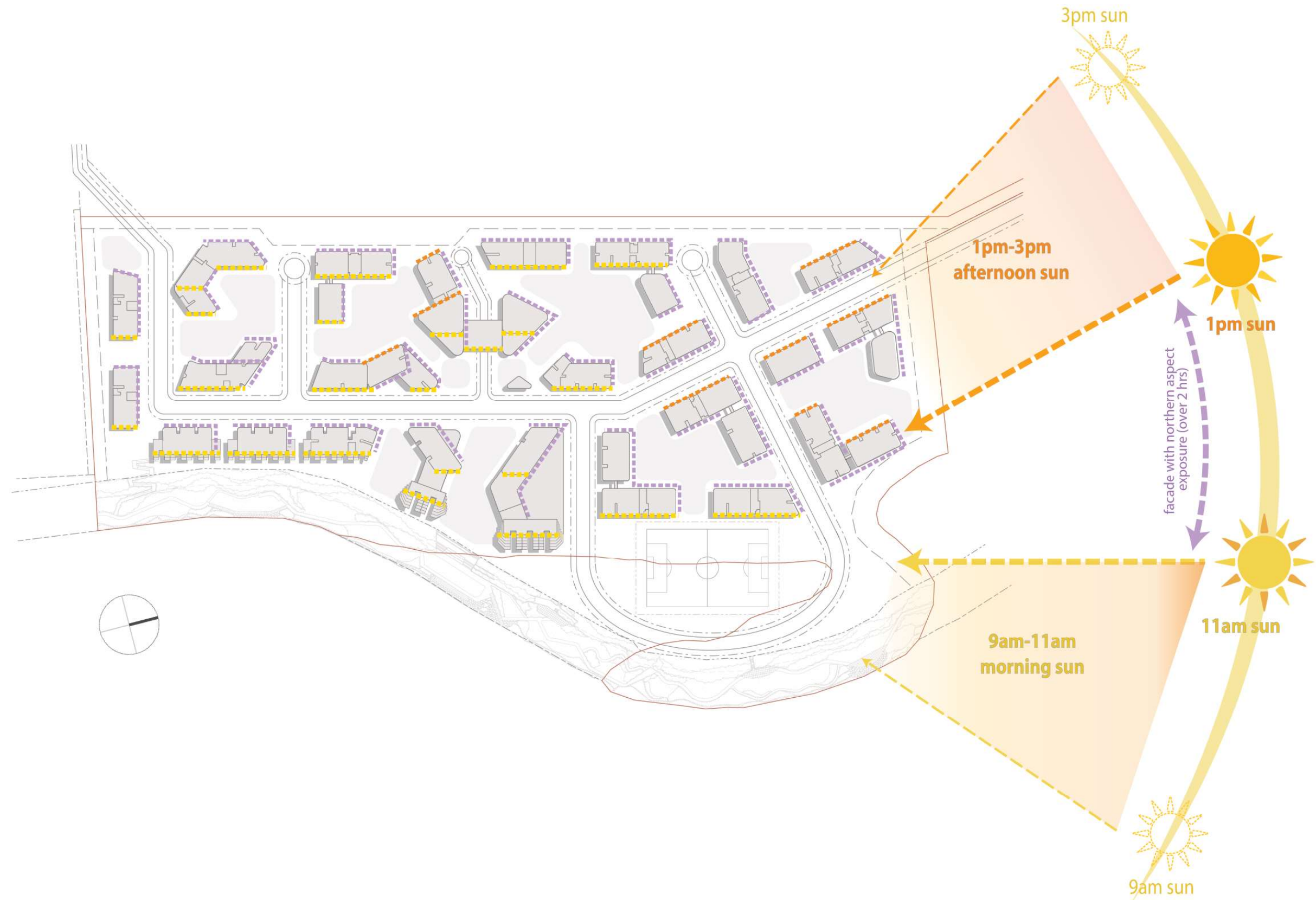
June 21st 14.00 pm



June 21st 15.00 pm

BUILDING AMENITY

11.3 BUILDING ORIENTATION



12.0 DEVELOPMENT STATISTICS

21.32ha
site area

1:1
proposed FSR

213,200m²
proposed GFA

 **≈2000**
total yields
(1B-10%, 2B-70%, 3B-20%)

 **1,700m²**
total retail & restaurant

 **800m²**
total community facility/centre
(plus associated outdoor facilities & open space)

 **3740**
total car parking number

**40,500
m²**

built upon area
19% of the site area

**172,740
m²**

open space
81% of the site area

46%

landscape area

32%

deep soil planting

732m

foreshore length

≥70%
solar access

≥60%
cross ventilation

≥30%
deep soil

≥25%
communal open space

18-24m
building separation