

45-61 WATERLOO
ROAD,
MACQUARIE PARK

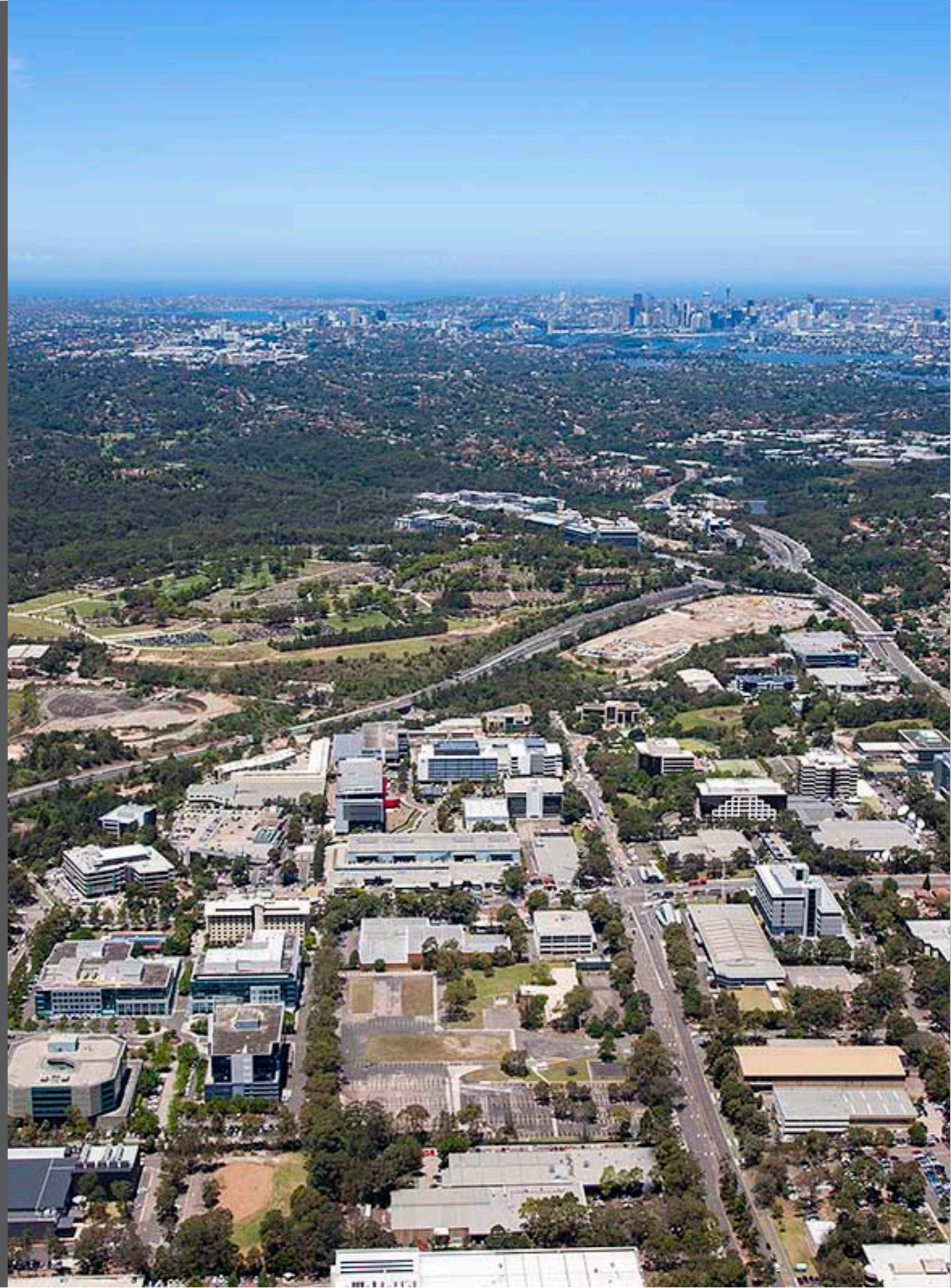
MASTERPLAN

10 FEBRUARY 2016

**WOODS
BAGOT**TM



Government
Property NSW



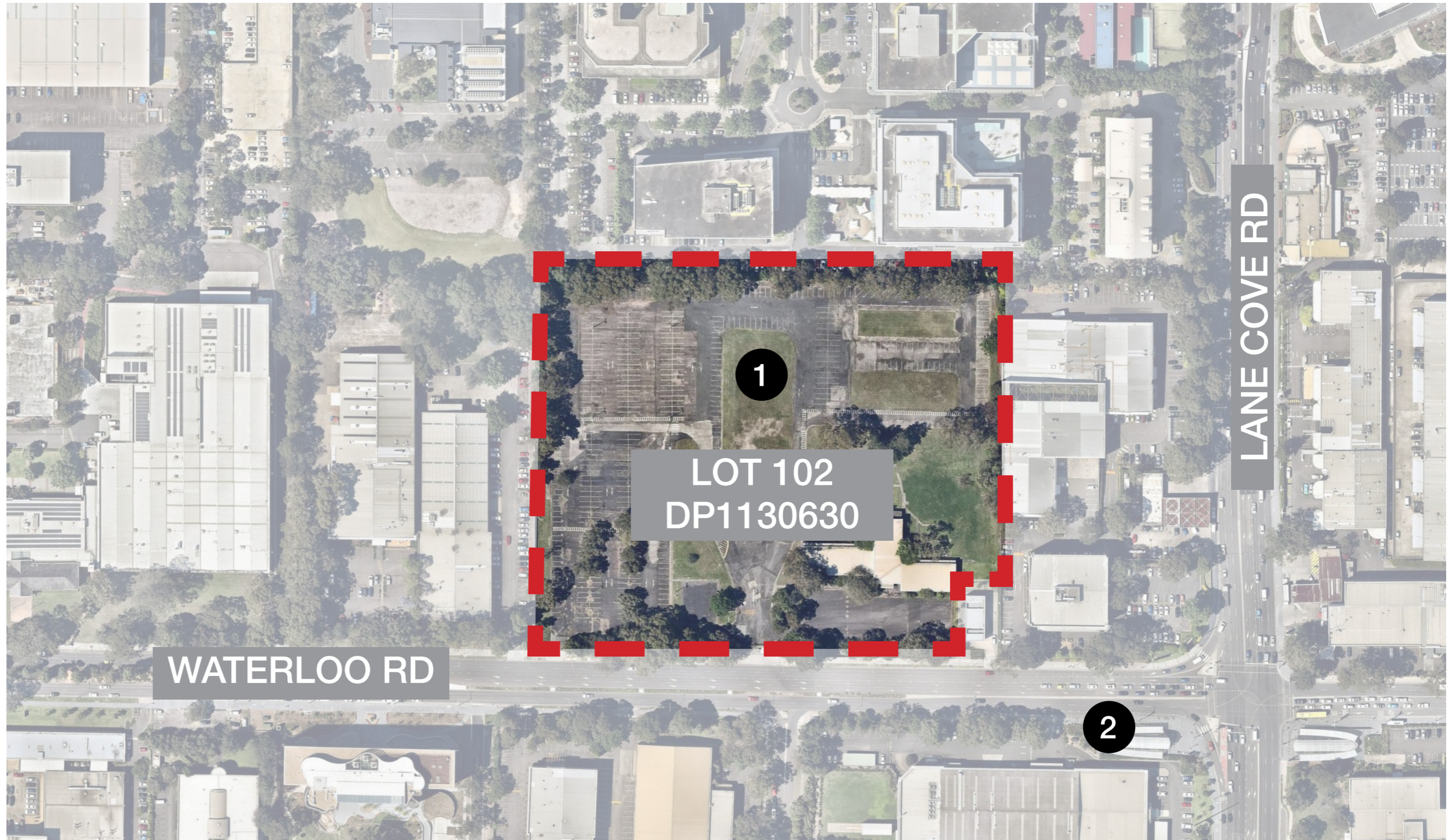
The Site

45-61 Waterloo Road, Macquarie Park is located on the Western side of Waterloo Road to the North of its intersection with Lane Cove Road.

The site is mostly rectangular in shape, with a site width of approximately 221m, and a site length of approximately 178m. The total site area is approximately 38,987 m².

There is close proximity to Macquarie Park Train Station and Lane Cove Road for means of public transportation.

- 1 Site (45-61 Waterloo Rd, Macquarie Park)
- 2 Macquarie Park Train Station



Base Planning Controls

Ryde City Council Local Environmental Plan (LEP) 2014 is a comprehensive Plan for the City of Ryde together with the Ryde Development Control Plan (DCP) 2014 which provides the necessary framework for how developments within the City of Ryde will advance. It also balances the needs of residents, businesses and investors today with those of future generations. Ryde City Council LEP 2014 is the current planning control document for the Macquarie Park Corridor which contains legislation maps for Floor Space Ratio (FSR) and Height of Building (HOB) controls.

FSR Controls:

- Ryde LEP 2014 shows a small portion (5,599m²) of the site FSR as 1:1 and a majority (33,388m²) as 2:1 (Figure 1.1)
- Maximum GFA = 72,375m²

HOB Controls:

- Ryde LEP 2014 shows HOB as 30m across the majority of the site, 9.5m at South West corner and 37m on South East corner (towards the street frontage of Waterloo Road); Figure 1.2

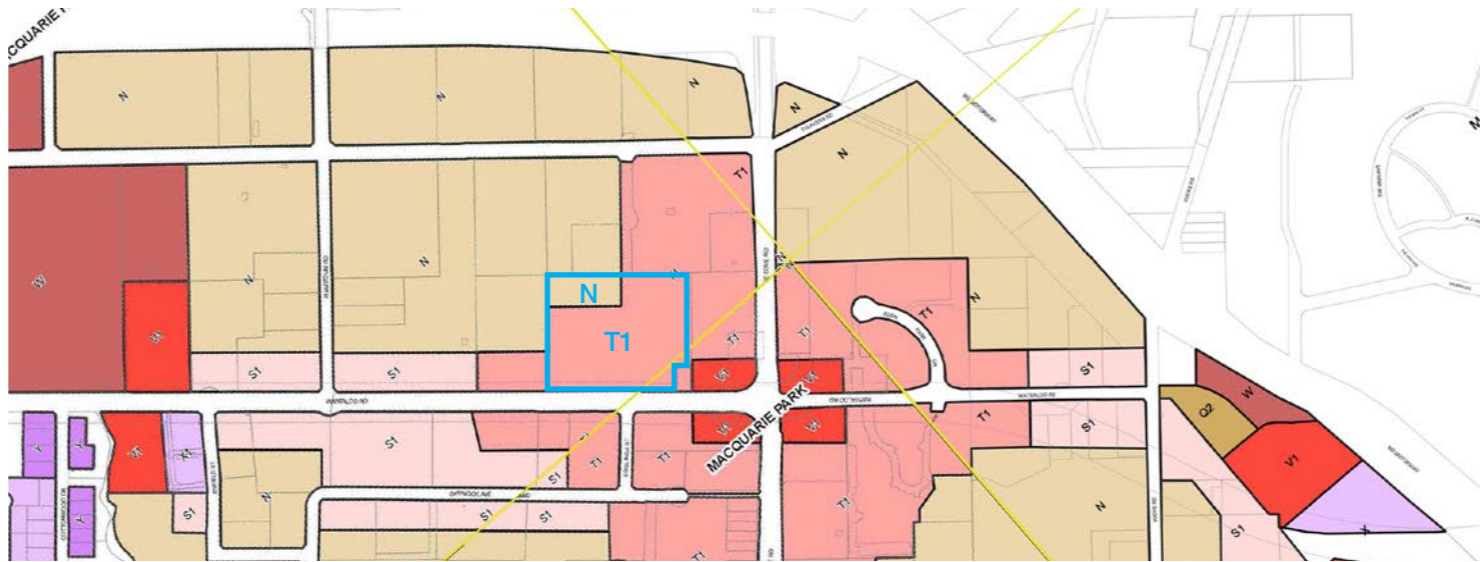


Figure 1.1 Ryde LEP 2014 FSR Map
(Source: Ryde LEP 2014)

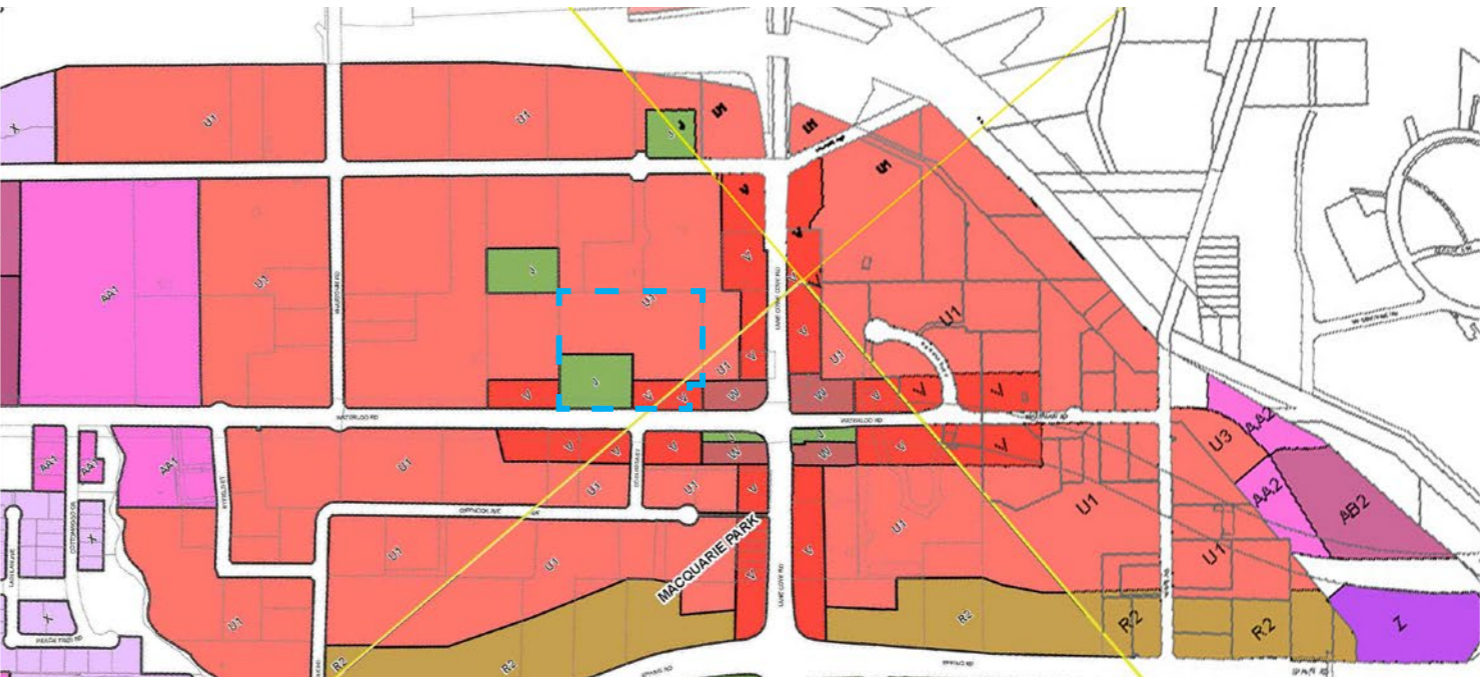


Figure 1.2 Ryde LEP 2014 HOB Map
(Source: Ryde LEP 2014)

Planning Controls - Amendment No. 1

Amendment No.1 is an incentive to add Height and Floor Space Ratio Controls for the Macquarie Park Corridor to enable the implementation of new roads and parks that will support employment growth and the **evolution of Macquarie Park Corridor** from Business Park to specialised employment centre with a continued focus on research and technology (refer Sydney's Metropolitan Strategy - City of Cities: A plan for Sydney's Future)

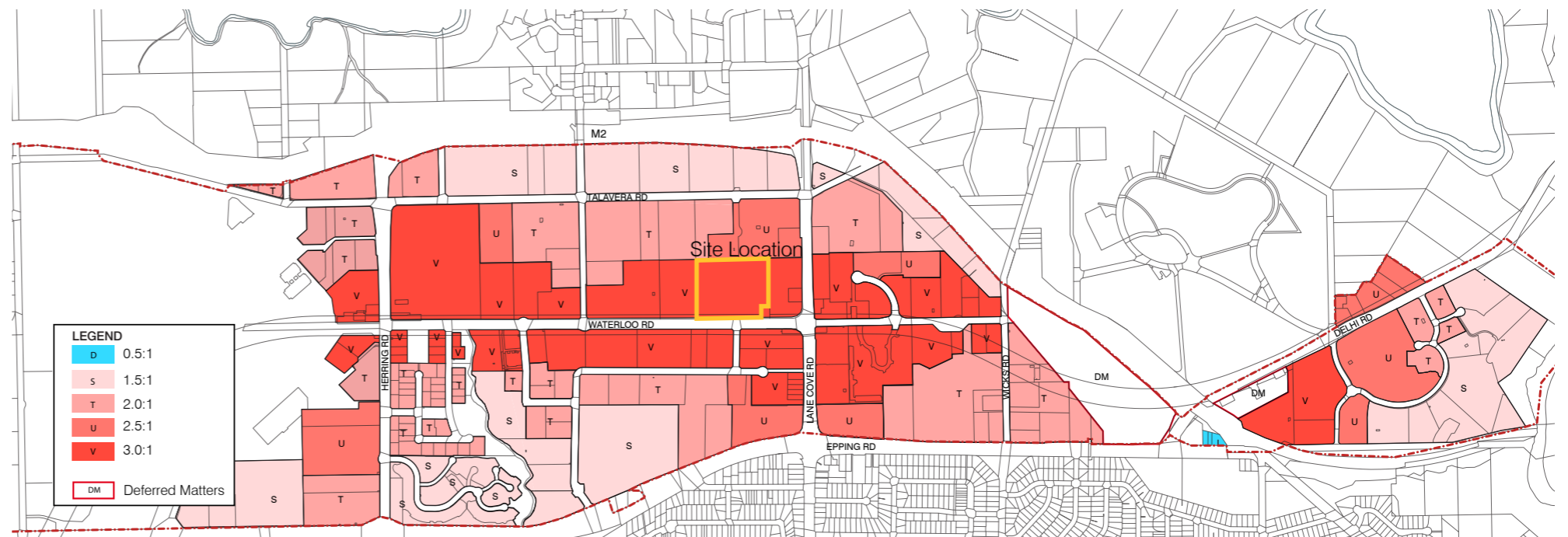


Figure 2.1 Amendment No.1 FSR Map (Source: Ryde LEP Amendment No. 1)

FSR Controls:

- Amendment No.1 applies an FSR 3.0:1 across the site, refer figure 2.1
- Maximum GFA = 116,961m² approx.

HOB Controls:

- Amendment No.1 stipulates a 65m Height of Buildings limit across the site, refer figure 2.2

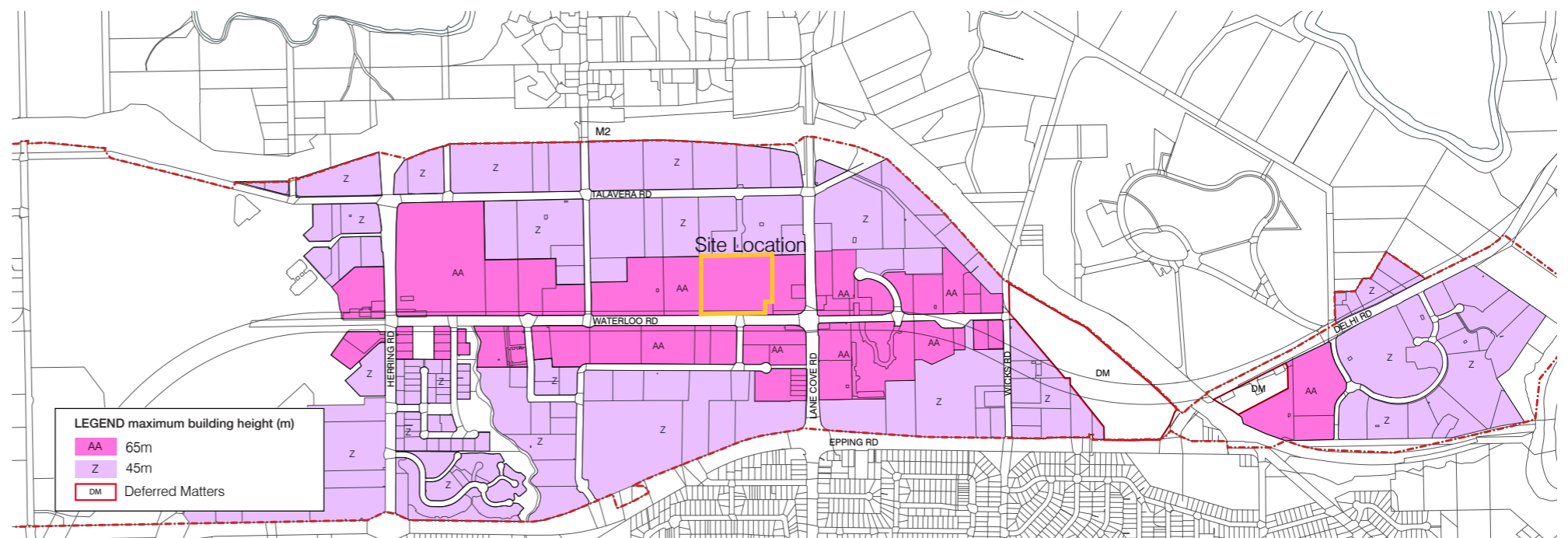


Figure 2.2 Amendment No.1 HOB Map (Source: Ryde LEP Amendment No. 1)

DCP 2014 Part 4.5 Macquarie Park Corridor

Ryde City Council Development Control Plan (DCP) 2014 Part 4.5 Macquarie Park Corridor is the more detailed planning framework used to guide future development in the Macquarie Park Corridor. The DCP sets in place urban design guidelines such as the Open Space Network Plan which includes Central Park and the new road Access Network Structure Plan, established to achieve the vision for Macquarie Park as a vibrant community, as a place to live, work and visit.

The Open Space Network Plan (Figure 3.1) is a Ryde City Council map indicating the open space networks proposed across the Macquarie Park Corridor.

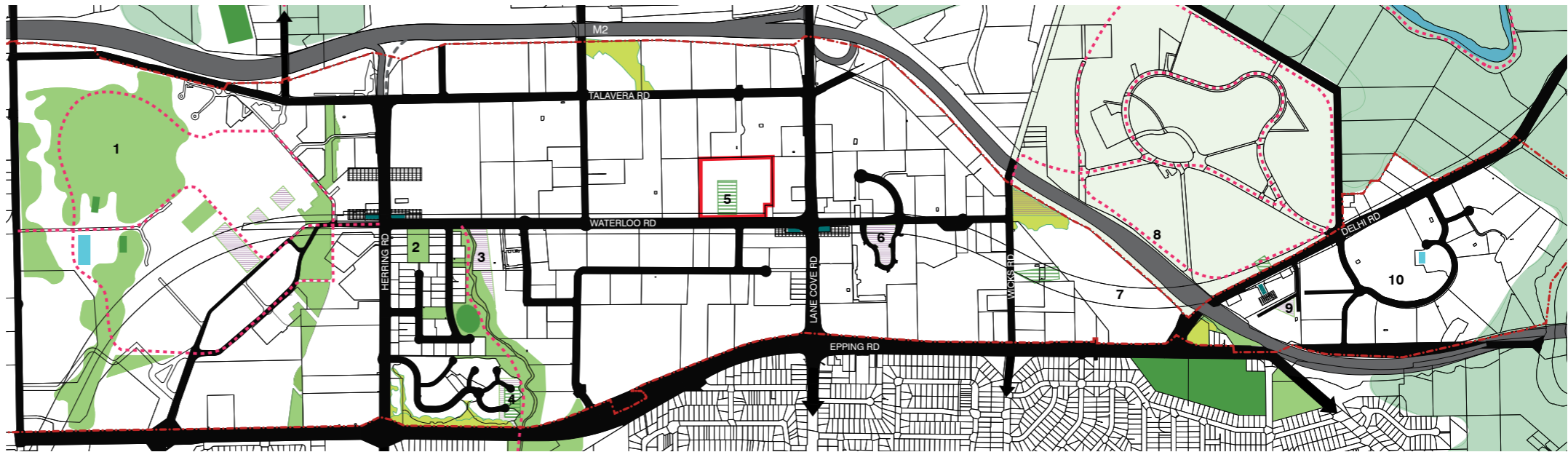


Figure 3.1: Open Space Network
(Source: Ryde Development Control Plan (DCP) 2014)

The Access Network Structure Plan (Figure 3.2) indicates the proposed street networks and activity centres aimed to enhance access throughout built environment.

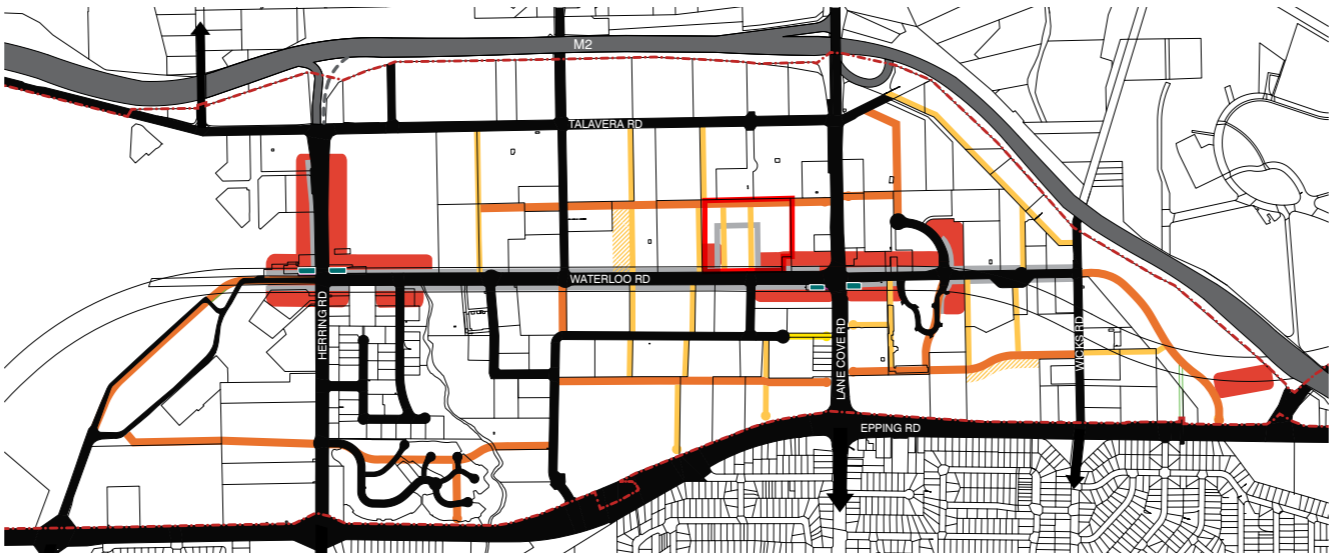


Figure 3.2: Access Network Structure Plan
(Source: Ryde Development Control Plan (DCP) 2014)

Legend

- | | |
|---|---|
| Study area boundary | 1. Macquarie University Open Space |
| Current street grid | 2. Elouera Reserve |
| M2 | 3. Shrimptons Creek Main Park |
| Cemetery | 4. Shrimptons Creek Linear Park Extension with oval |
| Existing passive open space | 5. Central Park |
| Railway station entry/exit | 6. Thomas Holt Drive Park |
| Existing significant trees to be retained | 7. TCA central open space |
| Urban plaza | 8. Fitness Trails |
| Proposed passive open space | 9. North Ryde Station Park |
| Proposed active open space | 10. Riverside Park |
| Lane Cove National Park | Proposed new 20m road |
| Fitness trail | Proposed new 16m road |
| | Proposed new 14.5m road |
| | Proposed future road (flexible location) |
| | Railway station entry/exit |
| | Activity Centre |
| | Active Frontages |

DCP 2014 Part 4.5 Macquarie Park Corridor - Street Typologies

New streets (indicated by the Access Network Structure Plan - see figure 3.2) are to be dedicated to Council as part of a VPA.

- 14.5m wide streets (refer figure 4.1)
- 20m wide streets (refer figure 4.2
- 8m pedestrian pathways between buildings (refer figure 4.3)

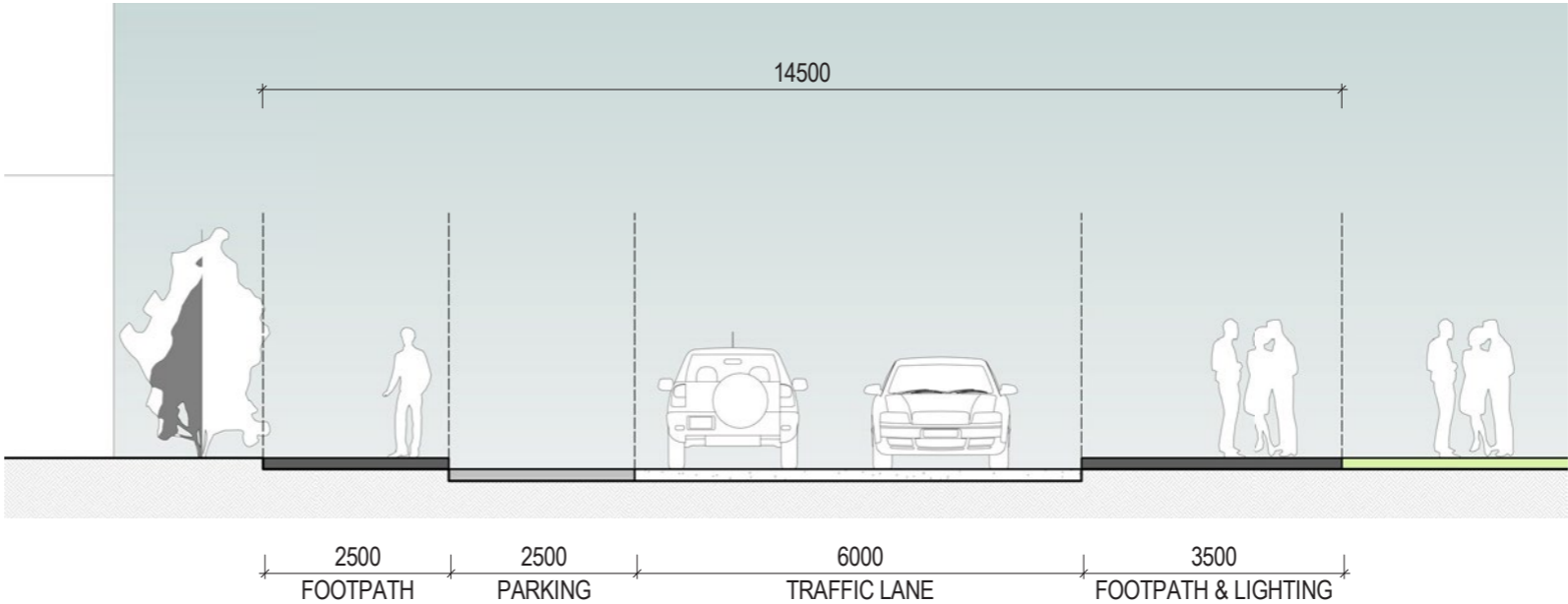


Figure 4.1: 14.5m Wide Streets - Typical Section
(Source: Ryde DCP 2014)

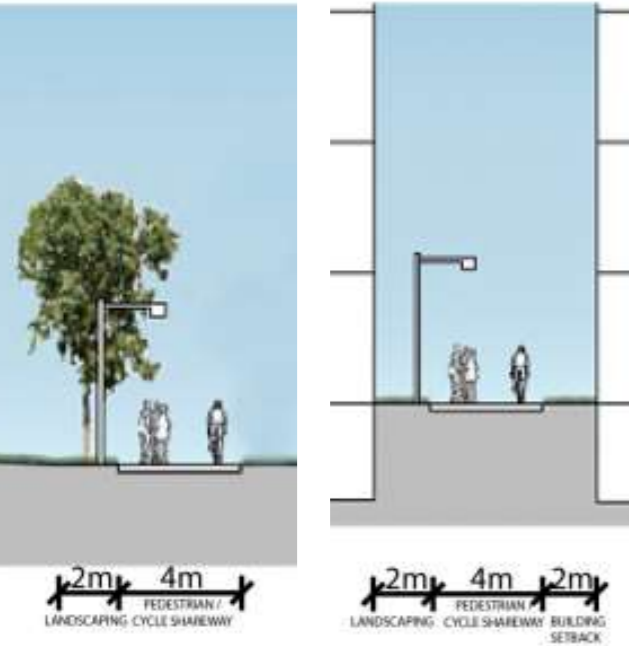


Figure 4.3: Pedestrian Ways - Typical Section
(Source: Ryde DCP 2014)

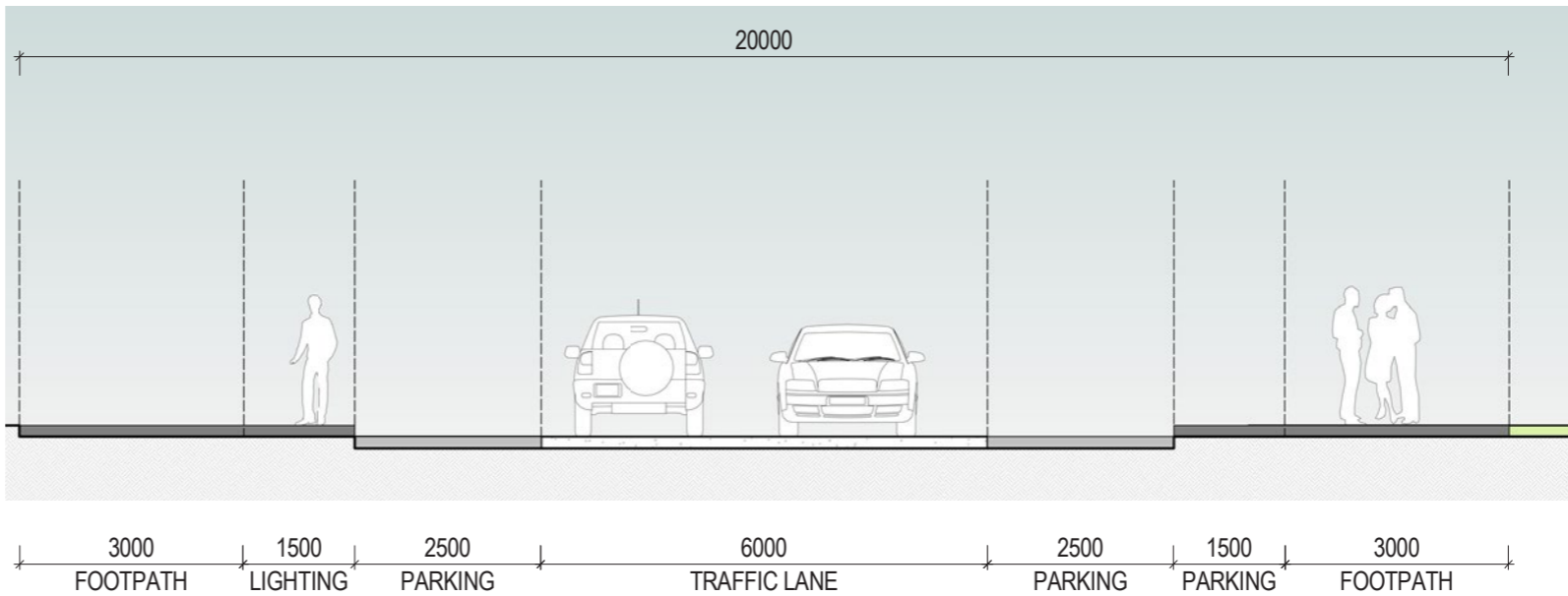


Figure 4.2: 20m Wide Streets - Typical Section
(Source: Ryde DCP 2014)

Park Planning Proposal

The Park Planning Proposal seeks to amend the existing planning controls to accommodate a 7,000m² public park (Central Park) on the site.

Amendments proposed to Base Planning Controls

FSR Controls:

- The Planning Proposal transfers FSR from the areas identified for Central Park to the remainder of the site to maintain the sites development potential (Figure 5.1). This results in an FSR of 2.26 across the remainder of the site
- Maximum GFA = 72,290m² approx.

HOB Controls:

- The Planning proposal amends the controls to 30m to most of the site and 37m along the frontage of Waterloo Road (Figure 5.2)

Amendments proposed to Incentive Planning Controls (Amendment No. 1):

- Similar to the Base Planning Controls, the Planning Proposal seeks to transfer FSR from the areas identified for Central Park to the remainder of the site to maintain the sites development potential (Figure 5.3). This results in an FSR of 3.66 across the remainder of the site
- Maximum GFA = 117,072m² approx.
- HOB is maintained at 65m, excluding Central Park

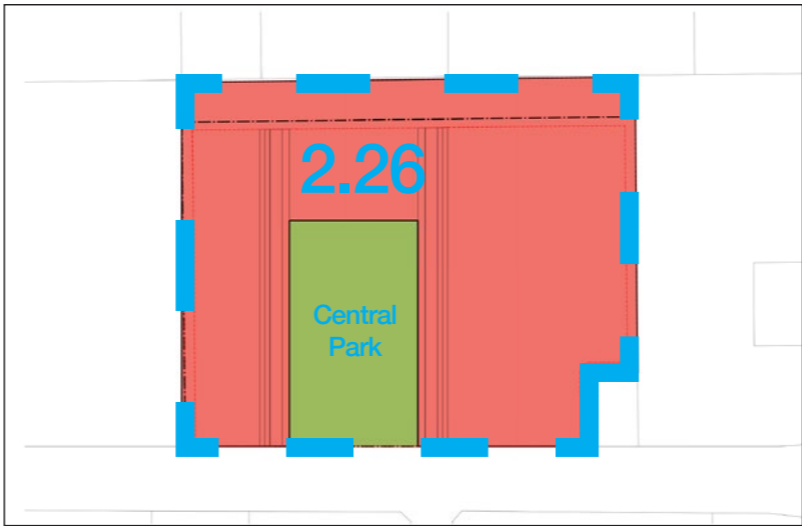


Figure 5.1 Ryde LEP FSR Map revised
(Source: JBA Planning Proposal)

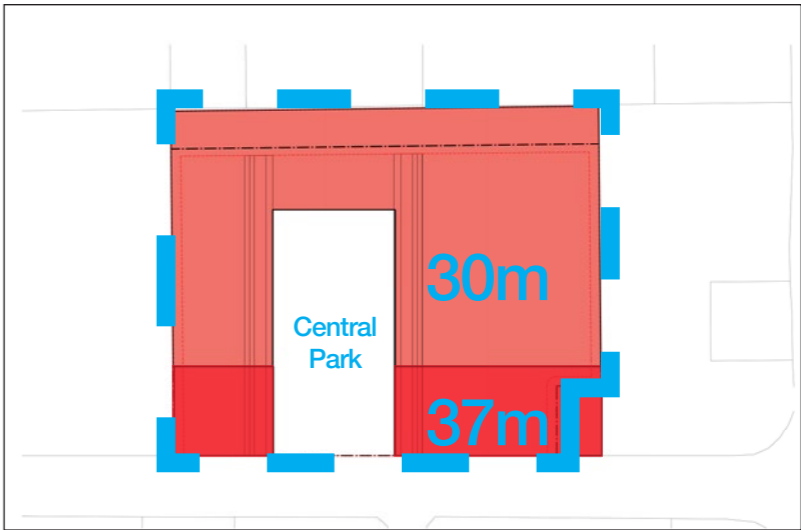


Figure 5.2 Ryde LEP HOB Map revised
(Source: JBA Planning Proposal)



Figure 5.3 Amendment No.1 LEP FSR Map revised
(Source: JBA Planning Proposal)

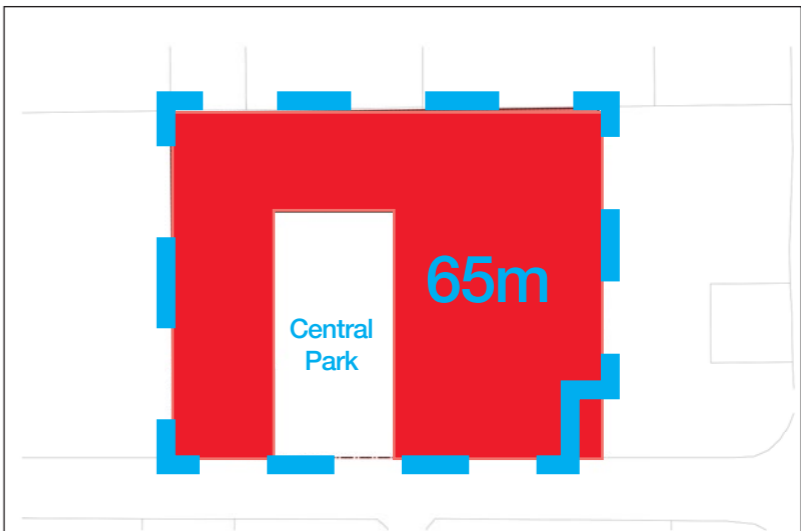
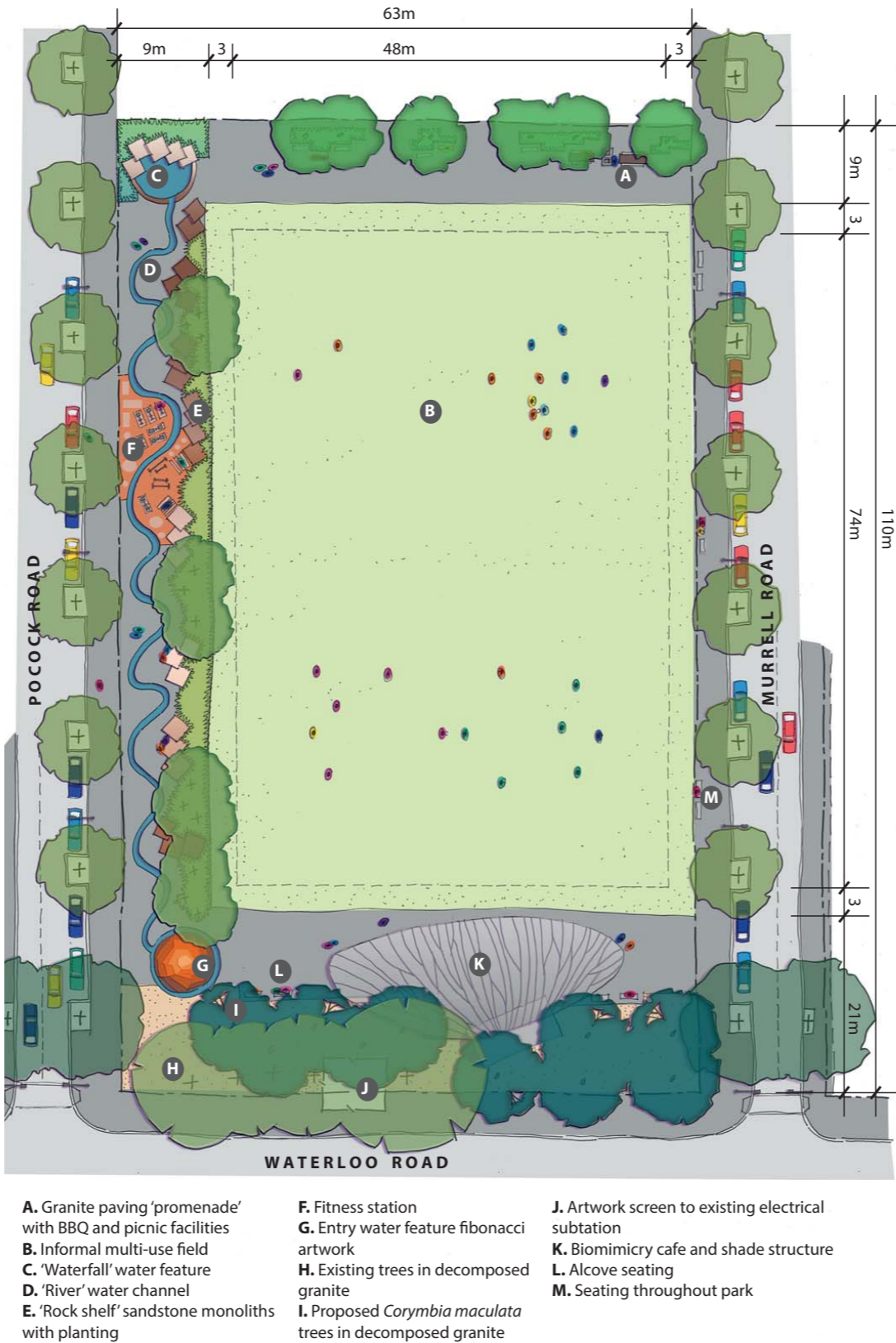


Figure 5.4 Amendment No.1 LEP HOB Map revised
(Source: JBA Planning Proposal)

Central Park

Specific controls for Central Park:

- Central Park is to be located abounding Waterloo Road
- Implement new roads in accordance with Figure 3.2 on both sides of the Central Park
- Provide 10 park benches and 10 bicycle parking spaces
- Where practicable provide turf detention basin to minimum 50% of park area as the Central Park is on the overland flow alignment
- A concept design for Central Park has been prepared by Ryde City Council, refer Figure 6.1



A. Granite paving 'promenade' with BBQ and picnic facilities
B. Informal multi-use field
C. 'Waterfall' water feature
D. 'River' water channel
E. 'Rock shelf' sandstone monoliths with planting
F. Fitness station
G. Entry water feature fibonacci artwork
H. Existing trees in decomposed granite
I. Proposed *Corymbia maculata* trees in decomposed granite
J. Artwork screen to existing electrical substation
K. Biomimicry cafe and shade structure
L. Alcove seating
M. Seating throughout park

Figure 6.1: Central Park Concept Design
(Source: Ryde City Council)

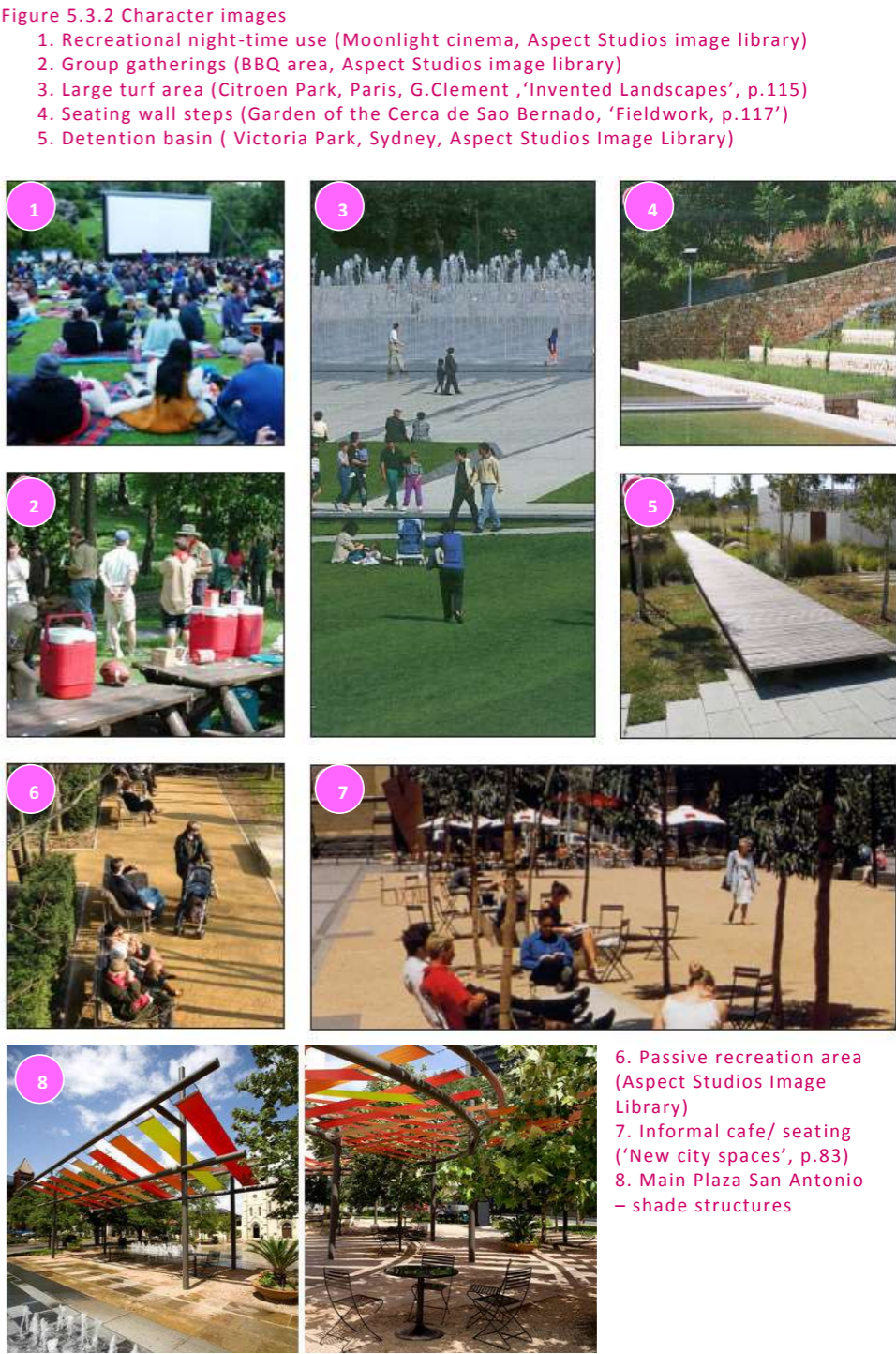


Figure 6.2: Central Park Concept Images
(Source: Ryde DCP 2014 Part 4.5)

Macquarie Park Site Map

The opportunity to improve the urban landscape in the precinct is strongly supported by the Ryde City Council. The proposal aims to enhance an activated realm of Central Park creating places for people to stop, sit and participate.

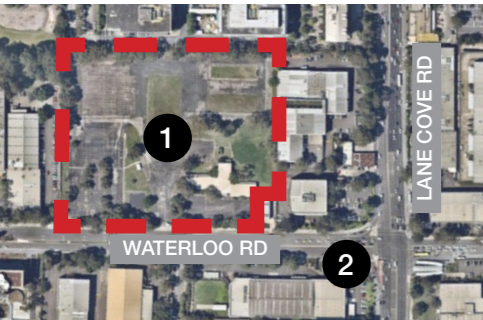


Figure 7.2: Site Map

- 1 Site (45-61 Waterloo Rd, Macquarie Park)
- 2 Macquarie Park Train Station



Figure 7.1: City of Ryde Macquarie Park map
(Source: Macquarie Park Public Domain Technical Manual)

- Green connection to Central Park - located in the open space network
- Pedestrian access prioritised in the 'Macquarie Park Public Domain Technical Manual'
- New road link through site (encouraged North to South intersection)
- Development of street network directly relates to open space network structure plan
- 7,000m² Central Park to be allocated on the proposed site
- The set out location of the park is determined by the new proposed streets
- Central Park to be 63m wide to the Waterloo Road street frontage

Legend

- | | |
|---|--|
| — Site Boundary | — Macquarie Park Corridor |
| — Public open space | — Existing public streets |
| ● New 20m Roads | — M2 Motorway |
| — New 14.5m Roads | Train Stations |
| ● Future 2.5m pedestrian link to Lane Cove Road Bus Stop (Flexible location) | ● Green Link |

Macquarie Park Site Map - Transport

The proximity to public transport and other amenities is within walking distance to the site promoting pedestrian access to transportation networks such as:

- Macquarie Park Train Station (less than a 5min walk)
- Macquarie Park Bus Interchange (less than a 15min walk)

Parking controls of 1 space / 46m² GFA and 1 space/ 80m² GFA apply to the site (Figure 8.2). These are maximum calculations which are not anticipated to be required for this site due to the site's close proximity to various public transportation options.

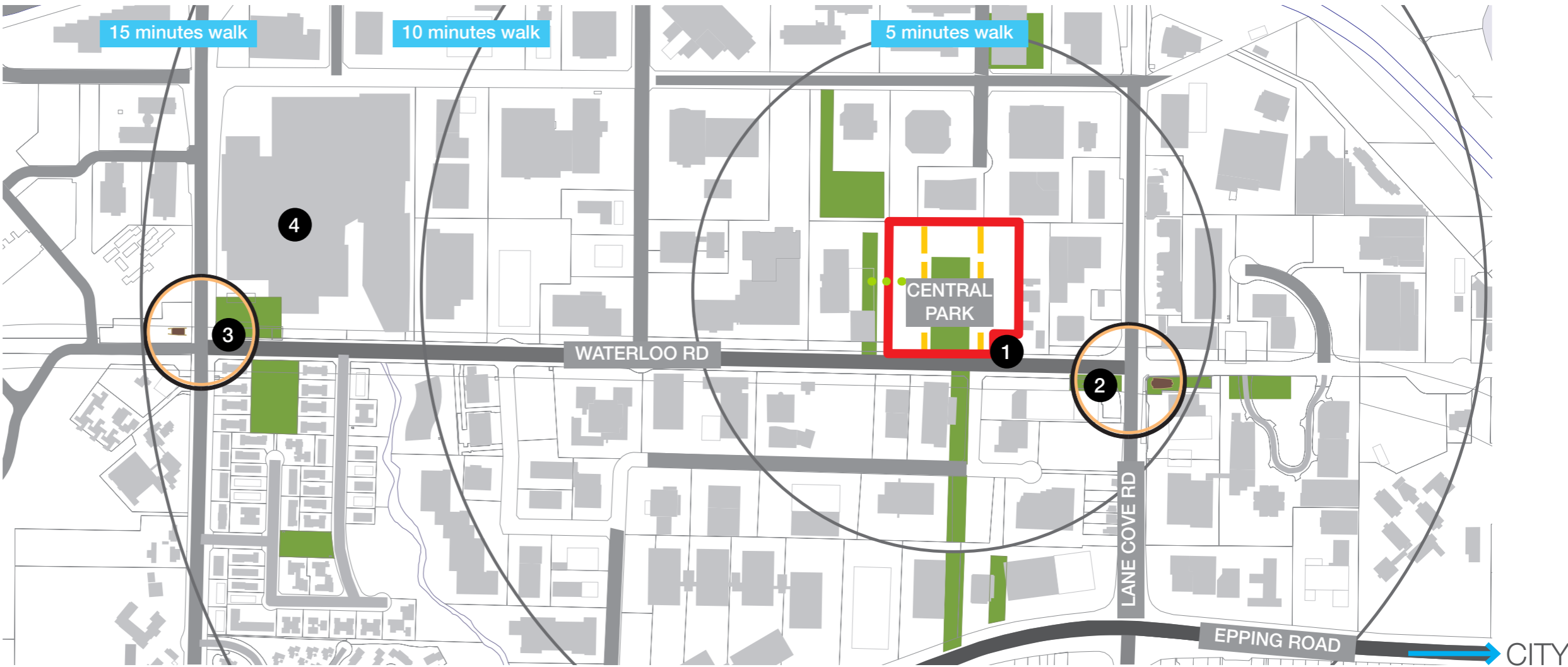


Figure 8.1: City of Ryde Macquarie Park map
(Source: Macquarie Park Public Domain Technical Manual)

- 1 Site (45-61 Waterloo Rd, Macquarie Park)
- 2 Macquarie Park Train Station
- 3 Macquarie University Train Station & Bus Interchange
- 4 Macquarie Shopping Centre



Figure 8.2: City of Ryde Macquarie Park Parking Restrictions map
(Source: Ryde LEP 2014)

Legend

- Site Boundary
- Public open space
- New 20m Roads
- New 14.5m Roads
- Future 2.5m pedestrian link to Lane Cove Road Bus Stop (Flexible location)
- Macquarie Park Corridor
- Existing public streets
- M2 Motorway
- Train Stations
- Green Link

DCP 2014 Part 4.5 Macquarie Park Corridor

- Zero setbacks / build-to lines to Primary Active Frontage
- 5m setback to all existing and new streets unless otherwise specified
- 10m setback to Waterloo Road and Talavera Road
- 5m built form setback to all parks
- Provide 2m setbacks to pedestrian pathways (unless within a building)

- 20m separation between buildings facing each other and 10m separation (perpendicular to each other) is preferred to maintain the DCP objectives, however this is flexible provided building separation principles are considered (refer figure 9.2) - solar access, deep soil planting, visual breaks, an outlook from buildings and visual privacy

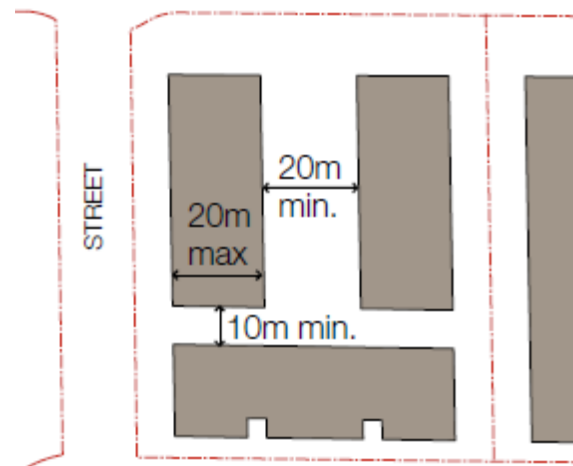


Figure 9.2: Commercial Building Separation Diagram
(Source: Ryde DCP 2014 Part 4.5 Macquarie Park Corridor)

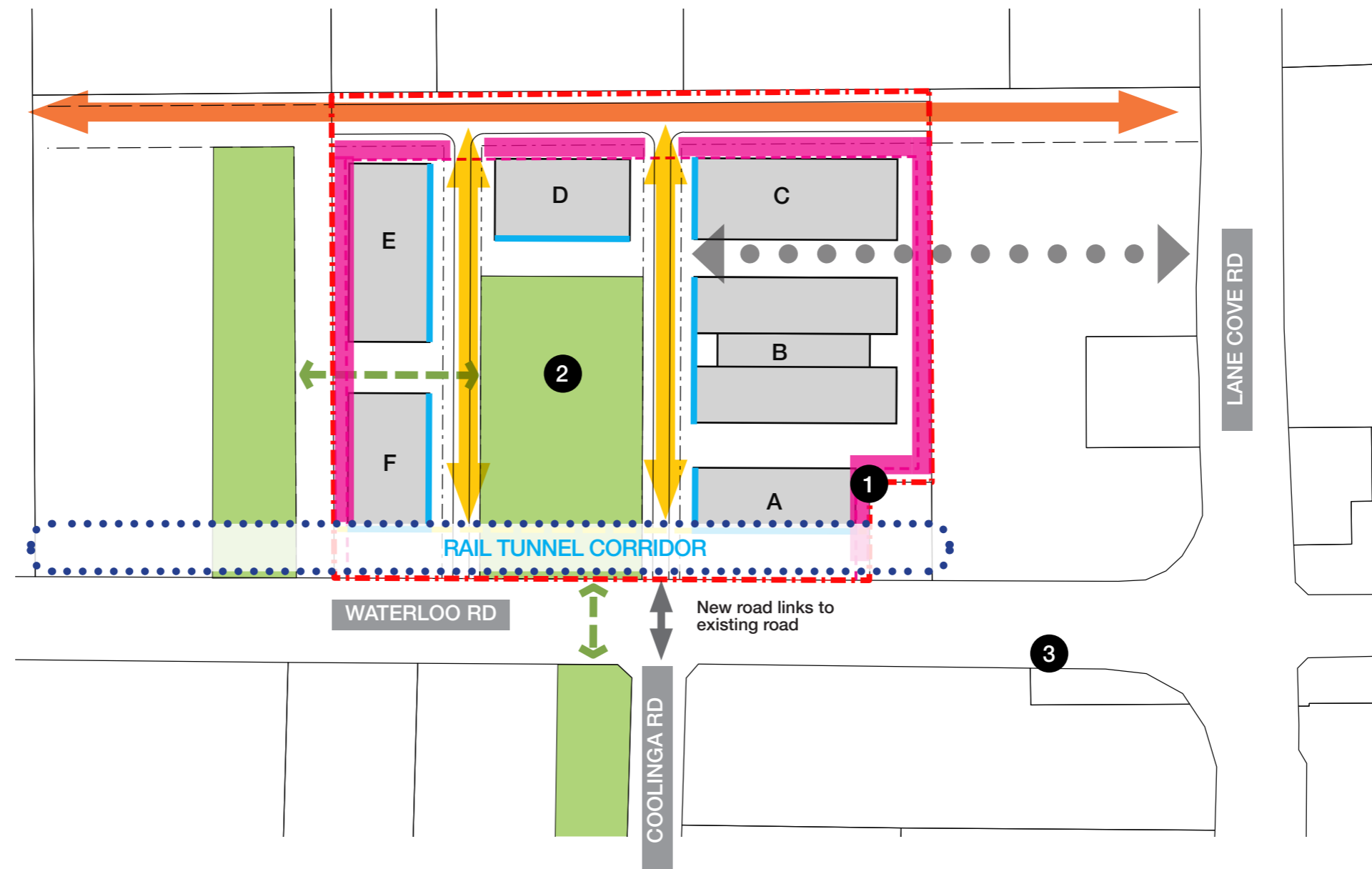


Figure 9.1: Site Controls Map

- Site
- 5m Setback to built form
- 0m Setback to Primary active Frontage

- Future 14.5m Road
- Future 20m Road
- Future Pedestrian link
(flexible location)
- Green link

- 1 Site
(45-61 Waterloo Rd, Macquarie Park)
- 2 Central Park
- 3 Macquarie Park Station



Urban Diagrams

Key Urban characteristics within the site:

- A traffic intersection at Waterloo Road would encourage the proposed road typologies to integrate with the existing road networks
- Building address to the park activates the street frontages for plazas and forecourts

Legend

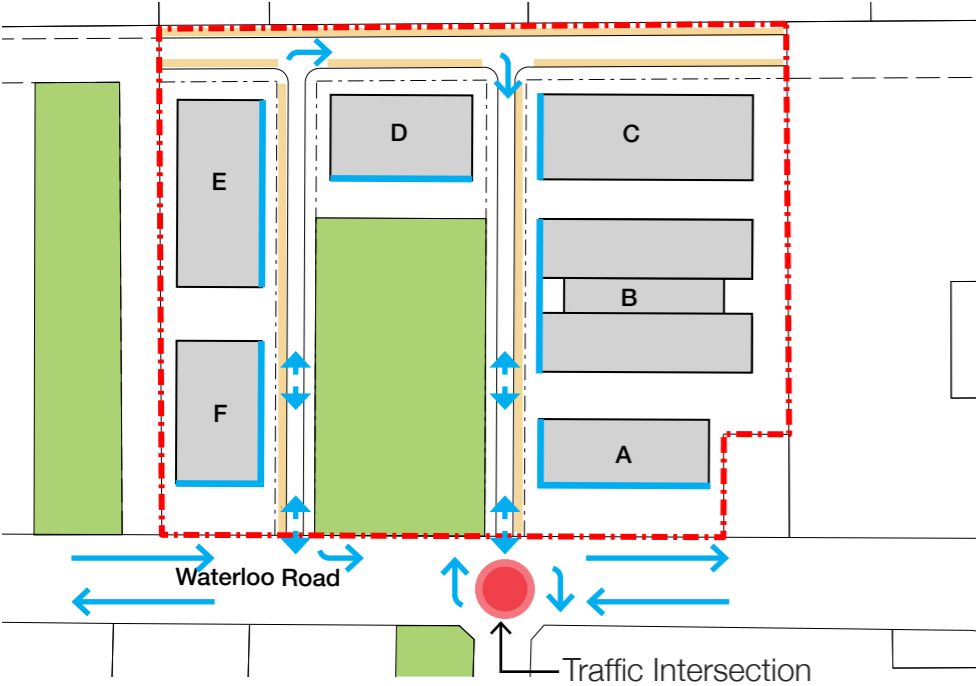
- Site

--- 5m Setback to built form

--- 10m Setback to Waterloo Road (Rail tunnel corridor)
- On grade street car parking

--- 0m Setback to Primary active Frontage

--- Green Link



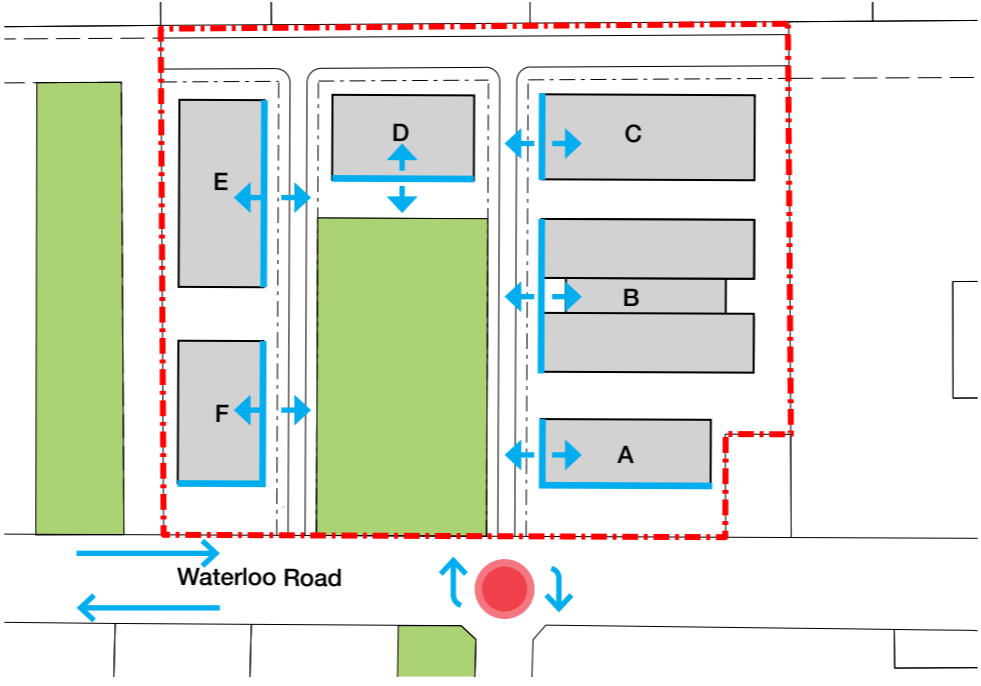
Vehicular Movement

- A new traffic circle would promote usage of the new road network
- The sites future roads promote circulation and areas for drop off locations
- On grade car parking will be integrated with the proposed new roads



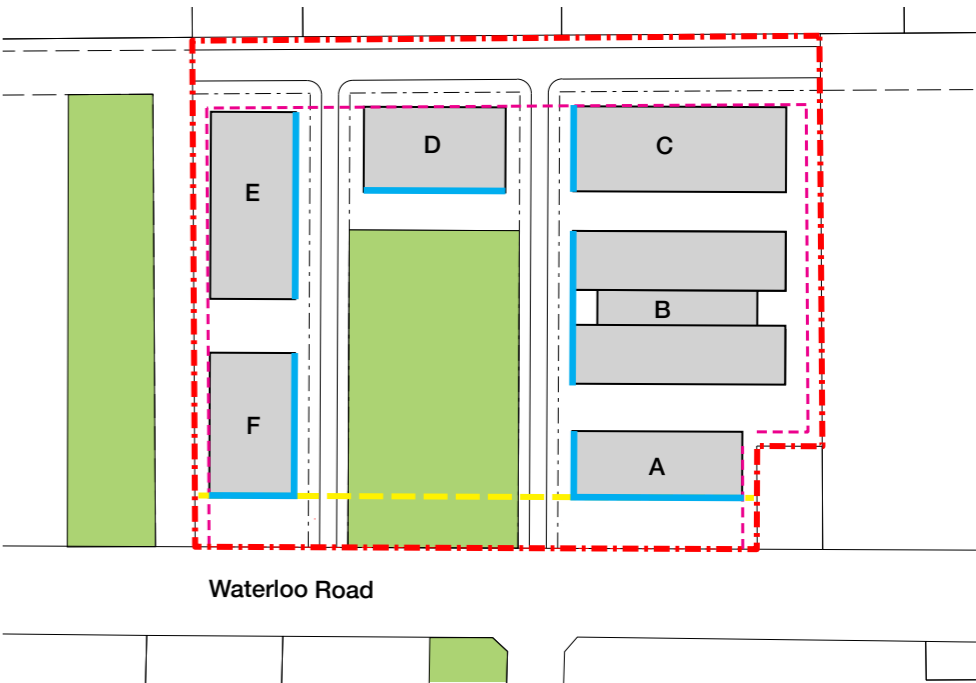
Open Spaces

- Central Park set out is determined by the new intersection at Coolinga Road
- The new 14.5m road is aligned to the centre of the new intersection
- Forecourts link to Central Park & Pedestrian link to Lane Cove road
- Plaza connectivity between buildings



Access Diagram

- Address to the park encourages activate street frontage
- Connected access via the park address



Primary Active Street Frontage

- Zero setback to primary active street frontage
- 10m setback to Waterloo Road



Site Characteristics

- 7m fall across the site
- Buildings A and F have hierarchy to the primary frontage on Waterloo Road
- The rail tunnel corridor setback creates an opportunity to activate the street frontage to Waterloo Road

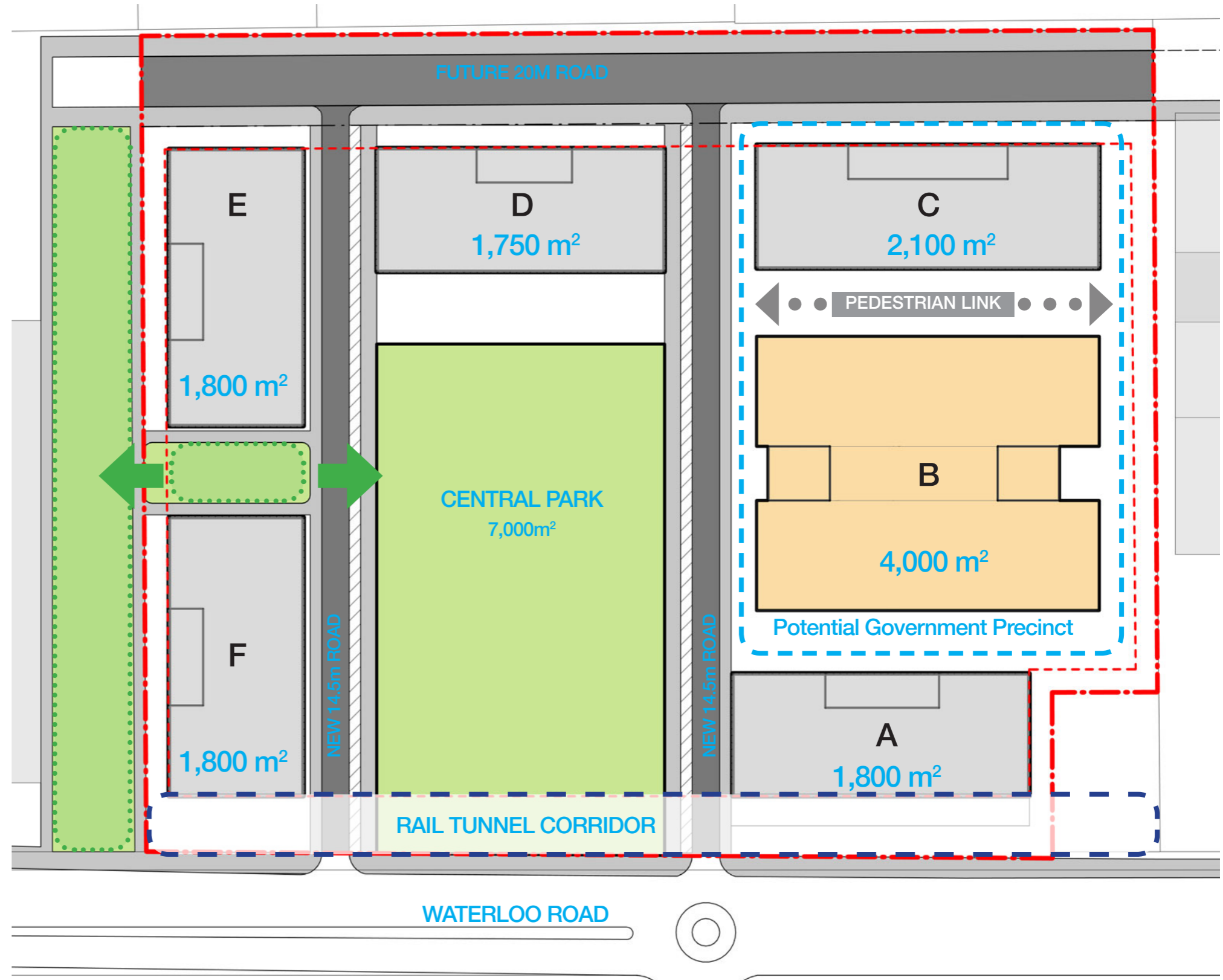
Proposed Masterplan

Masterplan key features:

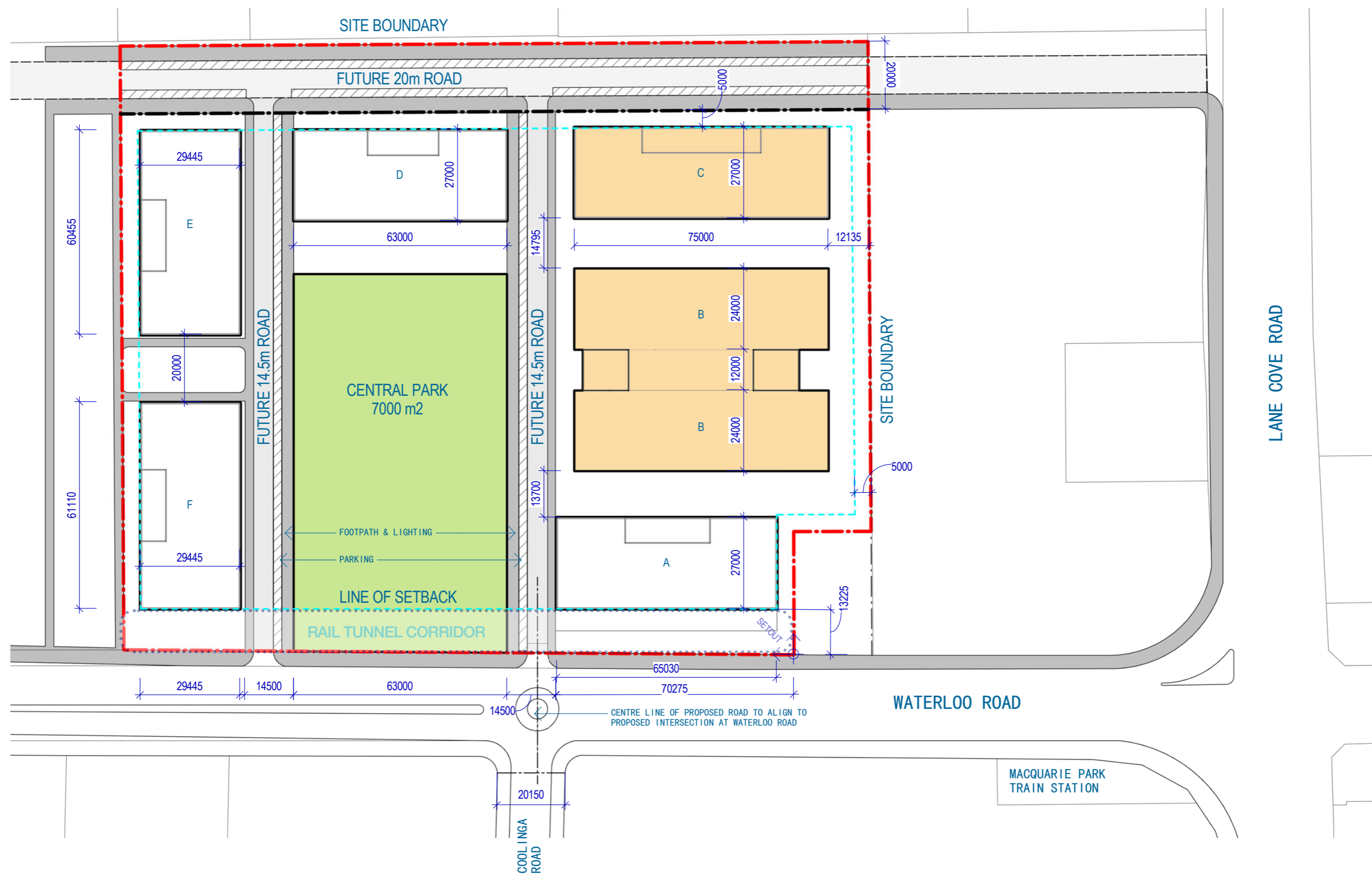
- Building B provides 25,000 m² NLA building for one tenant without triggering the planning incentive scheme
- 2,000 m² optimum floor plate (1500 m² min)
- Side core building with the exemption of Building B
- Active frontage to the park
- Opportunity for staged development
- Building orientation provides good solar access
- No land locked buildings
- Access to park from all buildings
- All buildings have an address
- Park width of 63m and area of 7,000m²

Proposed Masterplan Planning Principles:

- The Railway corridor setback depicts the building set out from Waterloo Road (approximately 13m)
- The proposed roads in the Ryde Access Network Plan (refer figure 3.2) determines the set out of the proposed Central Park
- The intersection of the future road to Coolinga Road aligns to the existing road network

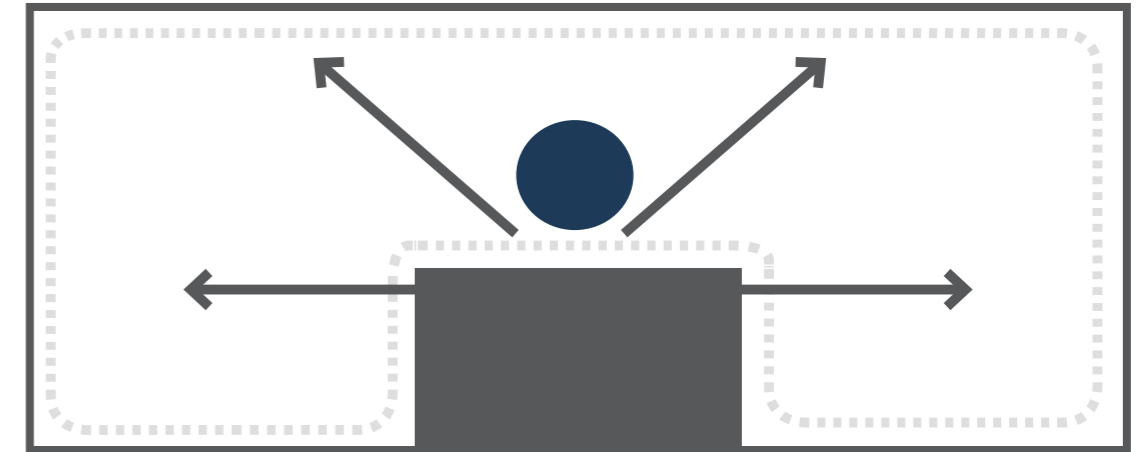
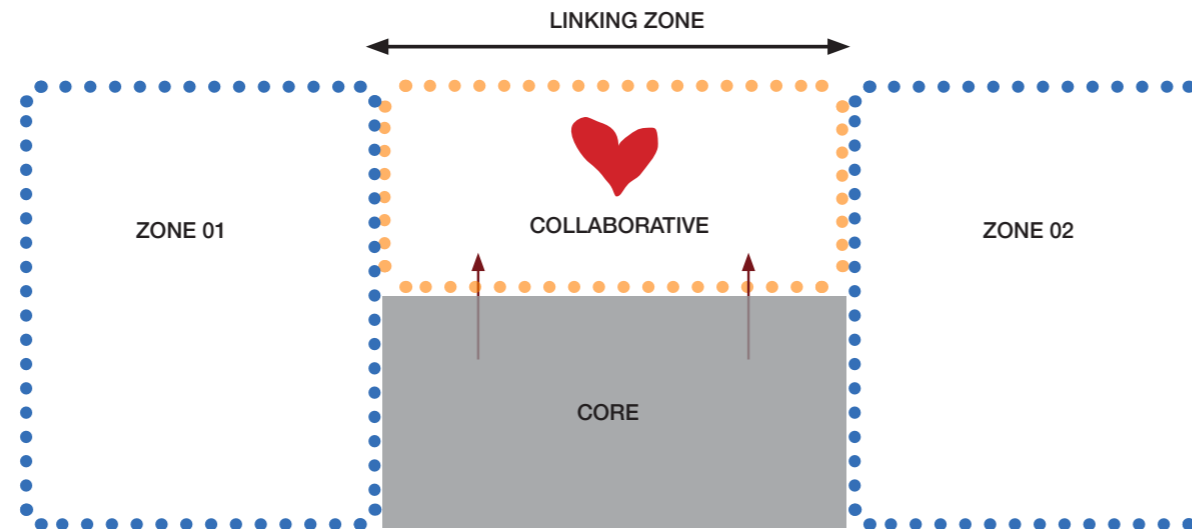


Masterplan Principles Diagram

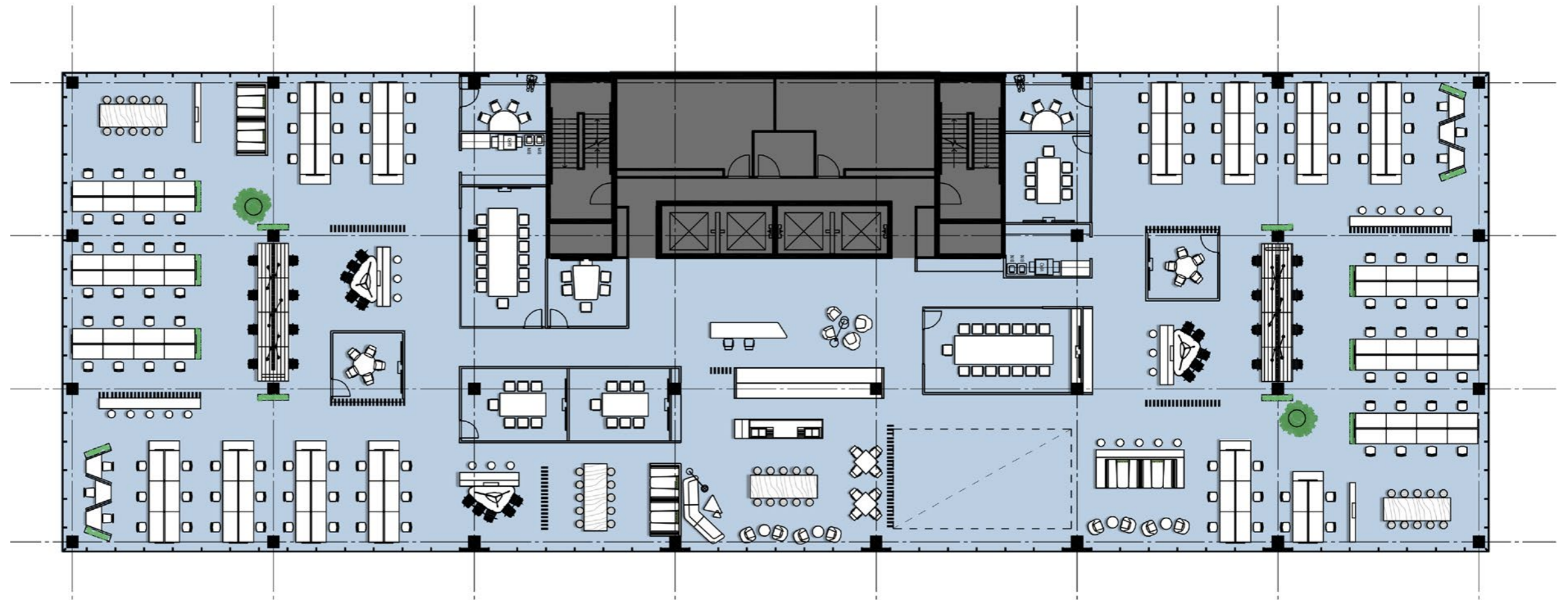


Office Floor Plate Guide

An embedded core incorporates a centralised floor plate to encourage efficiency and flexibility. A [connected workplace](#) is achieved by means of integrated accessibility to the central circulation of the building.



- Appropriate floor plate size for Ryde: 1500 – 2000 sqm NLA
- Grid based on 1500mm module
- Structural grid 9 x 12 or 9 x 10.5,
- Columns on perimeter or around 3m cantilevers
- Minimal columns on floor plate
- Maximum building depth 27m,
- Rectangular, simple floor plate, should be sub-dividable
- Side core arrangement ideal, core not on rectangular plate
- If 2 rectangular plate arrangement with centre atrium core elements should be located within atrium zone, not on the floor plate



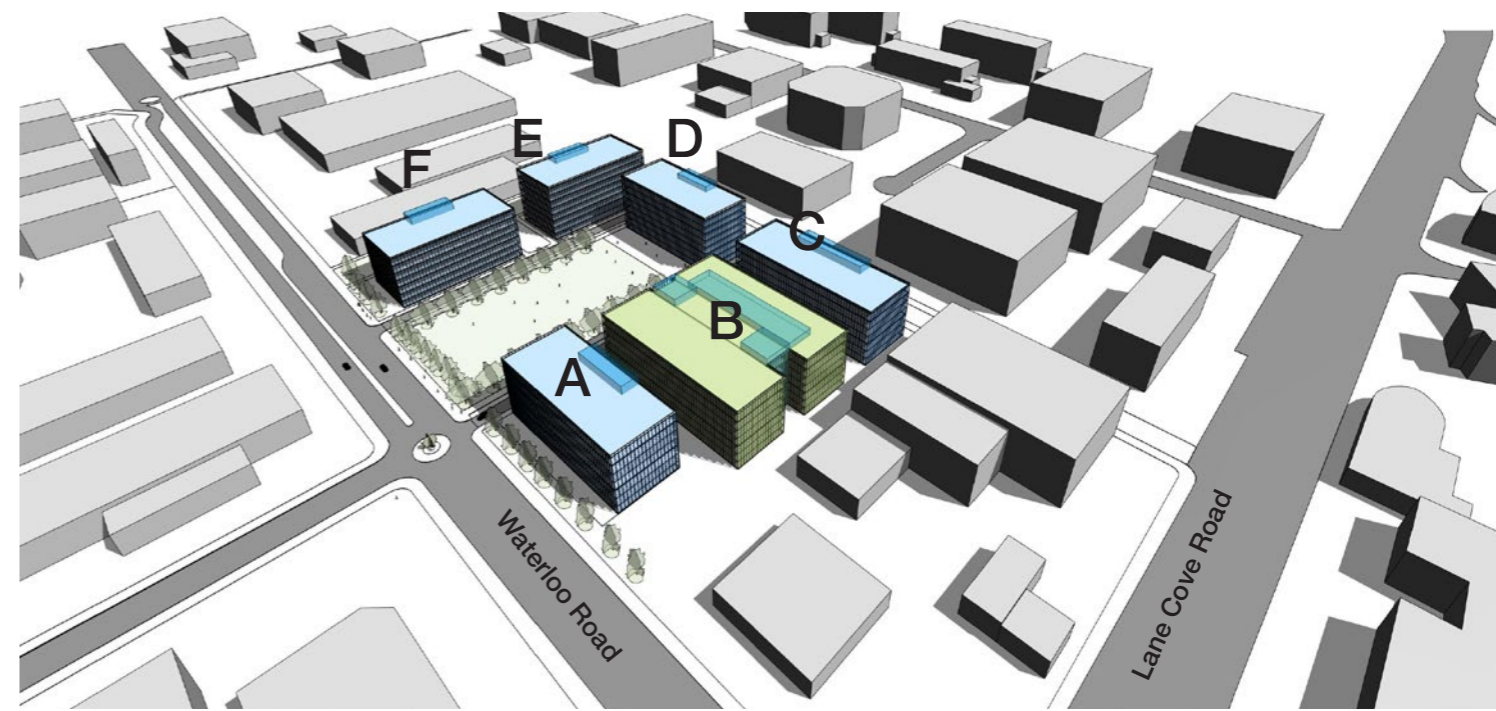
Base Planning Controls Yield

Table 2.1 - Masterplan - FSR 2.26 Maximum (base planning controls)

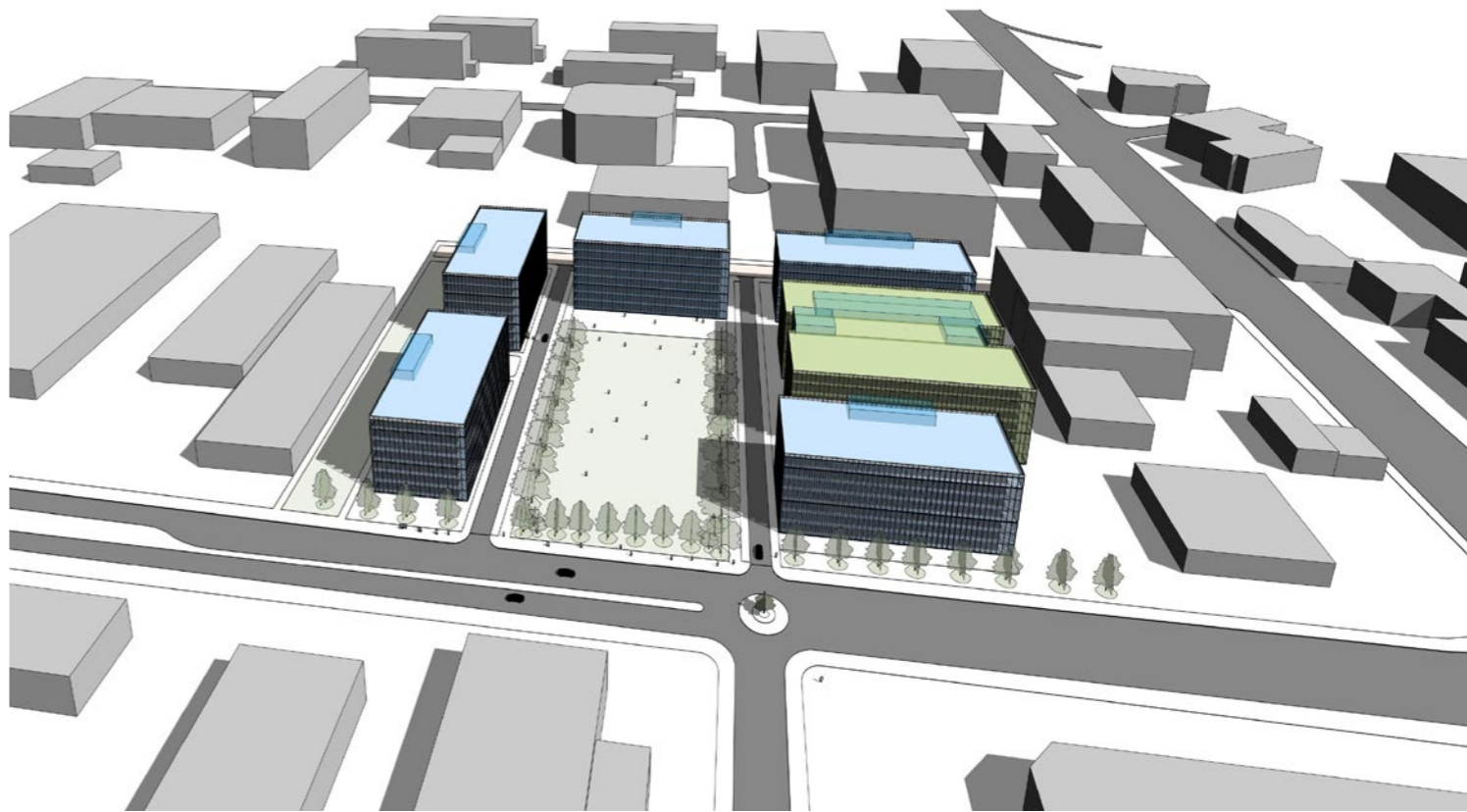
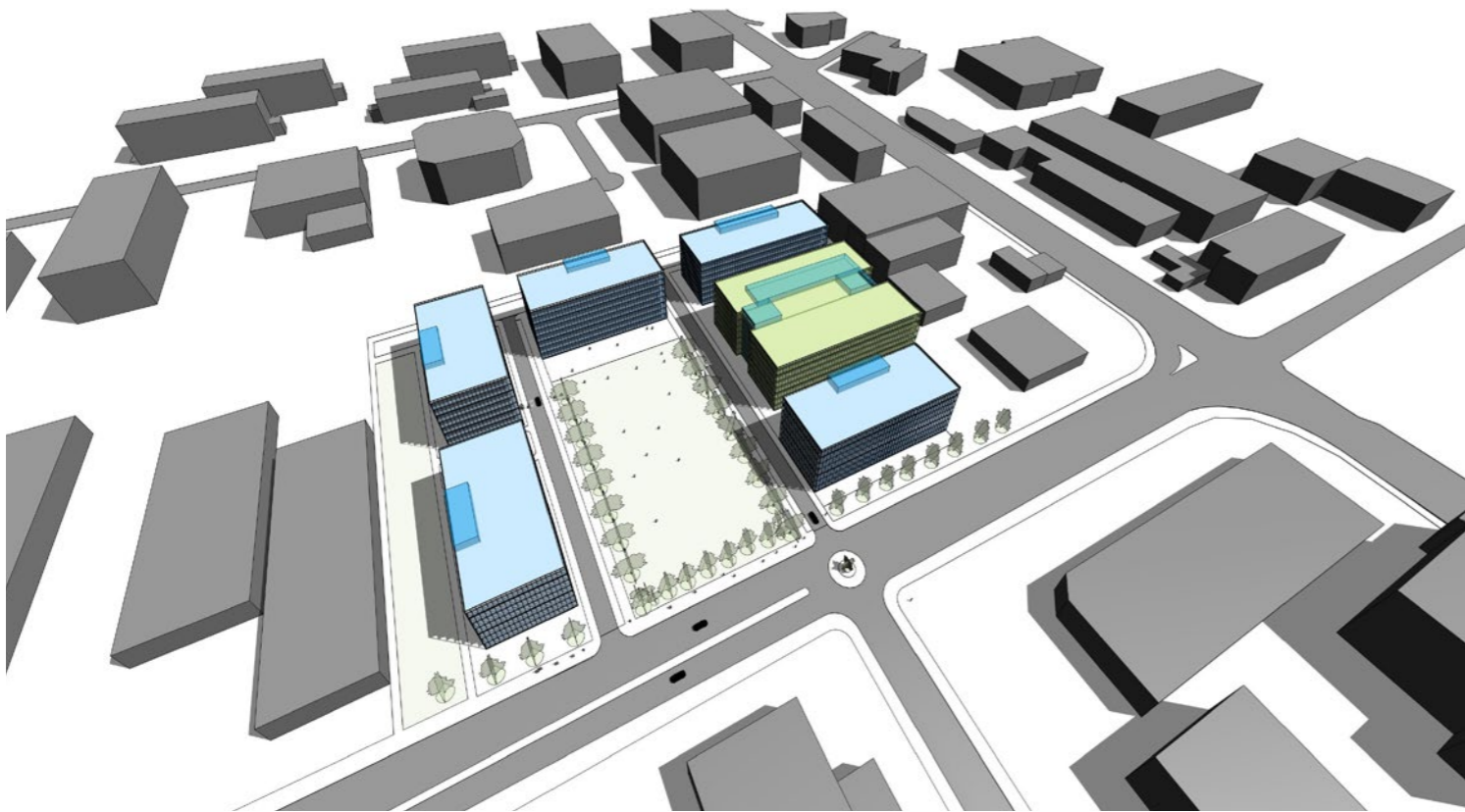
Building	GBA Floor plate	GFA/ floor (90% GBA)	Storeys	HOB (3.8m per floor)	GFA per building	NLA per building (90% GFA)	NLA / Floor**
A	1,800	1,620	5	19	8,100	7,290	1,458
B	4,000	3,600	8	30	28,800	25,920	3,240
C	2,100	1,890	6	23	11,340	10,206	1,701
D	1,750	1,575	5	19	7,785	7,088	1,418
E	1,800	1,620	5	19	8,100	7,290	1,458
F	1,800	1,620	5	19	8,100	7,290	1,458
Total					72,315*	65,084	
Site Area					31,987		
FSR					2.25		

*Maximum site GFA at FSR 2.26 = 72,291m²

**Note: NLA / Floor calculation is an average across whole building - actual ground level will be less NLA to account for common areas (e.g.. lobby), while other floors will be more efficient and so will have a higher NLA.



Proposed Masterplan



Amendment No. 1 Yield

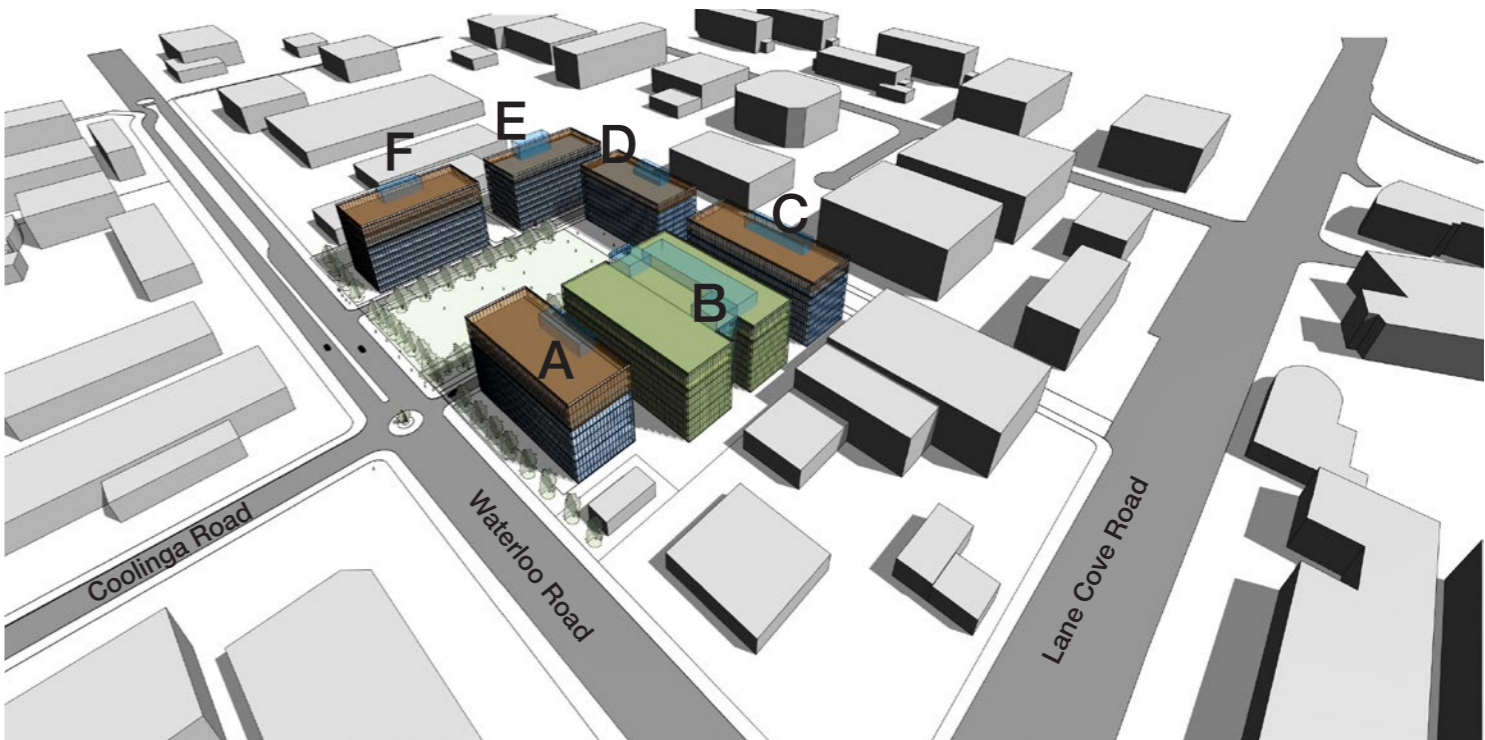
Masterplan layout remains the same under the Base Planning Controls & Amendment No. 1
Additional GFA is achieved through increased building height

Table 3.1 - FSR 3.66 Maximum (Amendment No.1)

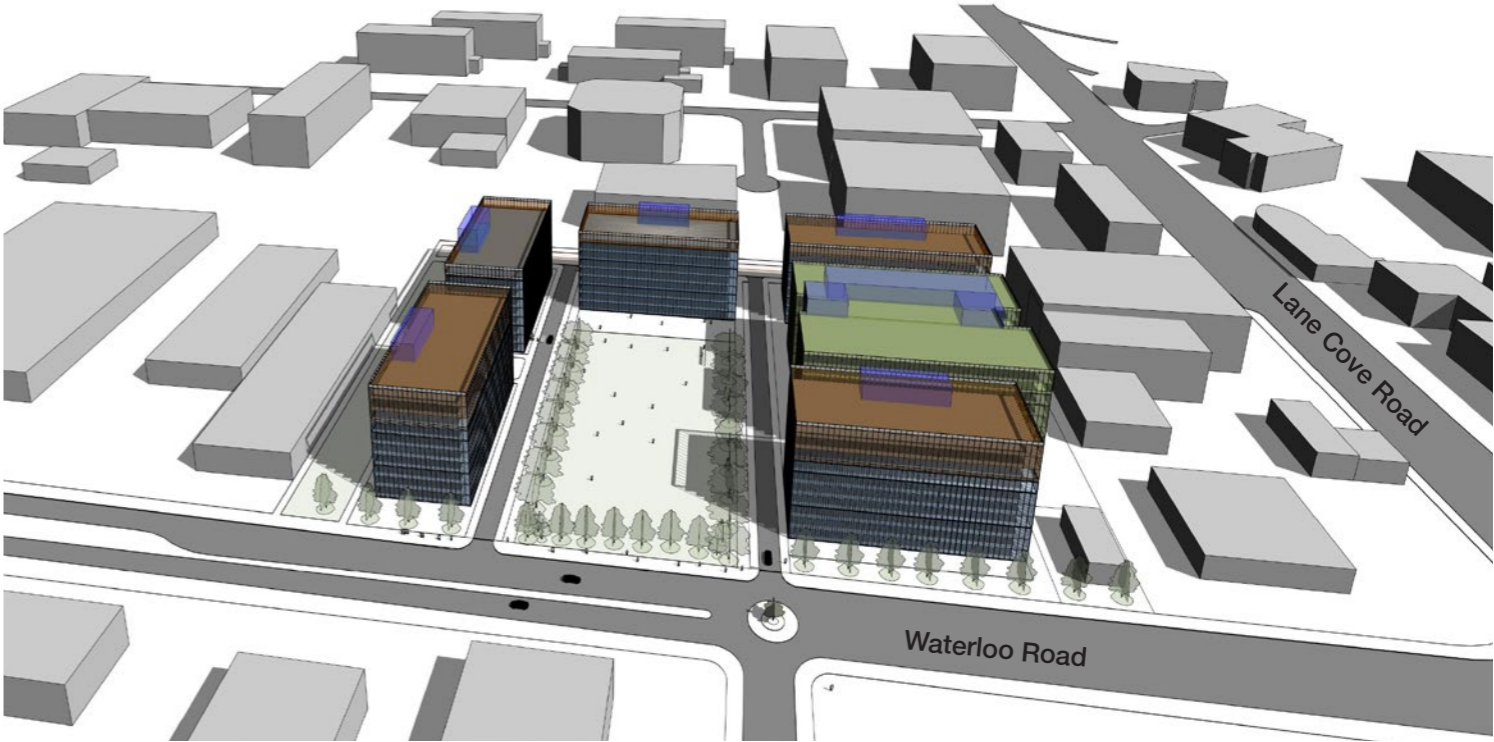
Building	GBA Floor plate	GFA/ floor (90% GBA)	Storeys	HOB (3.8m per floor)	GFA per building	NLA per building (90% GFA)	NLA / Floor**
A	1,800	1,620	10	38	16,200	14,580	1,458
B	4,000	3,600	10	38	36,000	32,400	3,240
C	2,100	1,890	10	38	18,900	17,010	1,701
D	1,700	1,530	9	34	13,770	12,393	1,377
E	1,800	1,620	10	38	16,200	14,580	1,458
F	1,800	1,620	10	38	16,200	14,580	1,458
Total					117,270*	105,543	
Site Area					31,987		
FSR					3.666		

*Maximum site GFA = 117,072m²

**Note: NLA / Floor calculation is an average across whole building - actual ground level will be less NLA to account for common areas (e.g.. lobby), while other floors will be more efficient and so will have a higher NLA.

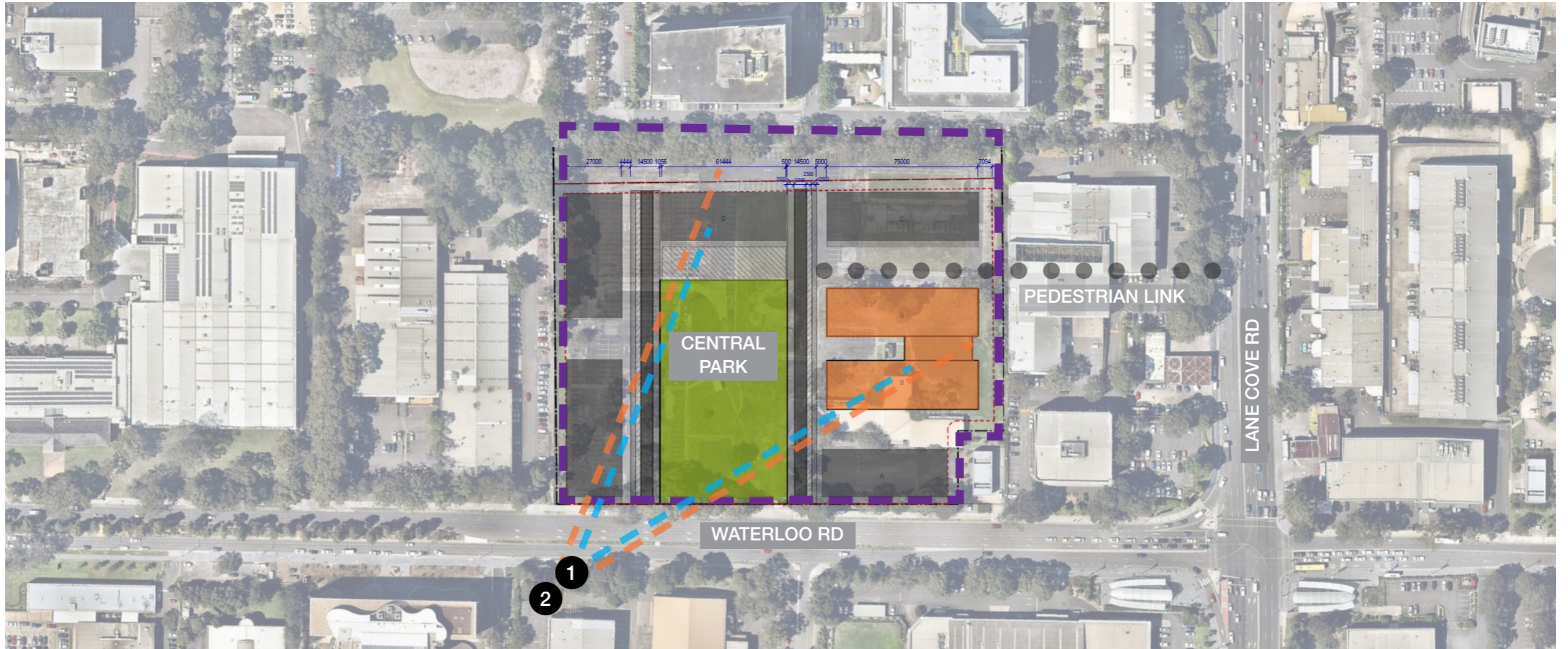


Proposed Amendment 1 (10 storeys)



Visualisation - Site map

- View 1 is taken from West looking from Waterloo Road (highlighted focus on the Government building shown in orange)
- View 2 is an similar view point but a higher level showing the higher yield achieved under Amendment No.1



View 1 - Base Planning Controls

West View from Waterloo Road



View 2 - Amendment No.1

Higher Level View from Waterloo Road

