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66 - 82 Talavera Road Macquarie Park Urban Design Report

Prepared for Holdmark Pty Ltd - Update
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1.0 Introduction and Analysis

1.1 Purpose of this report

This urban design report has been prepared by Architectus on behalf of Holdmark Property Group, for land at 66-82 Talavera Road, Macquarie Park. The primary purpose of this report is to accompany a Planning Proposal which seeks to:

– Amend the land use controls for the site. Currently the land is zoned B7 Business Park. It is proposed that a B4 Mixed Use Zone be applied to the site, to allow for the site's development for public open space, residential, retail and commercial uses. Through the development process, open space would be dedicated back to Council as a stratum lot above a commuter car park;

– Amend the current maximum building height controls from 30m to 120m, with a single tower of 154m; and

– Amend the current maximum FSR controls from 1.0:1 to 3.7:1.

This urban design report demonstrates the preferred master plan that the Planning Proposal seeks to enable, including the delivery of 6,100sqm of open space, 5,296sqm GFA of affordable housing for key worker housing, and an indoor recreation centre for the residents and workers of Macquarie Park.

Aerial view of Macquarie Park showing development proposal in relation to Herring Road Urban Activation Precinct
Source: Herring Road, Macquarie Park Urban Activation Precinct Proposal

1.2 The site

The subject site has an area of almost 3.8 hectares (37,832sqm), with a frontage of 254 metres to Talavera Road and 153 metres to Alma Road.

The site is bound by:

– The M2 Motorway to the north–east;

– The Macquarie Shopping Centre to the south-west, on the other side of Talavera Road;

– A 3-storey office/ warehouse directly adjoining the site to the south-east; and

– An 8-storey residential complex to the north-west, which is still under construction.

Current uses on the site include (with reference to site plan to the right):

– A 4-storey office building fronting Alma Road, which accommodates approximately 8,224sqm of office area (Label A);

– A single storey warehouse on Talavera Road with some mezzanine office space (Label C);

– A conference centre behind the warehouse, that is occasionally utilised by the employees of the Alma Road office only (Label D).

Other existing site features comprise (with reference to site plan to the right):

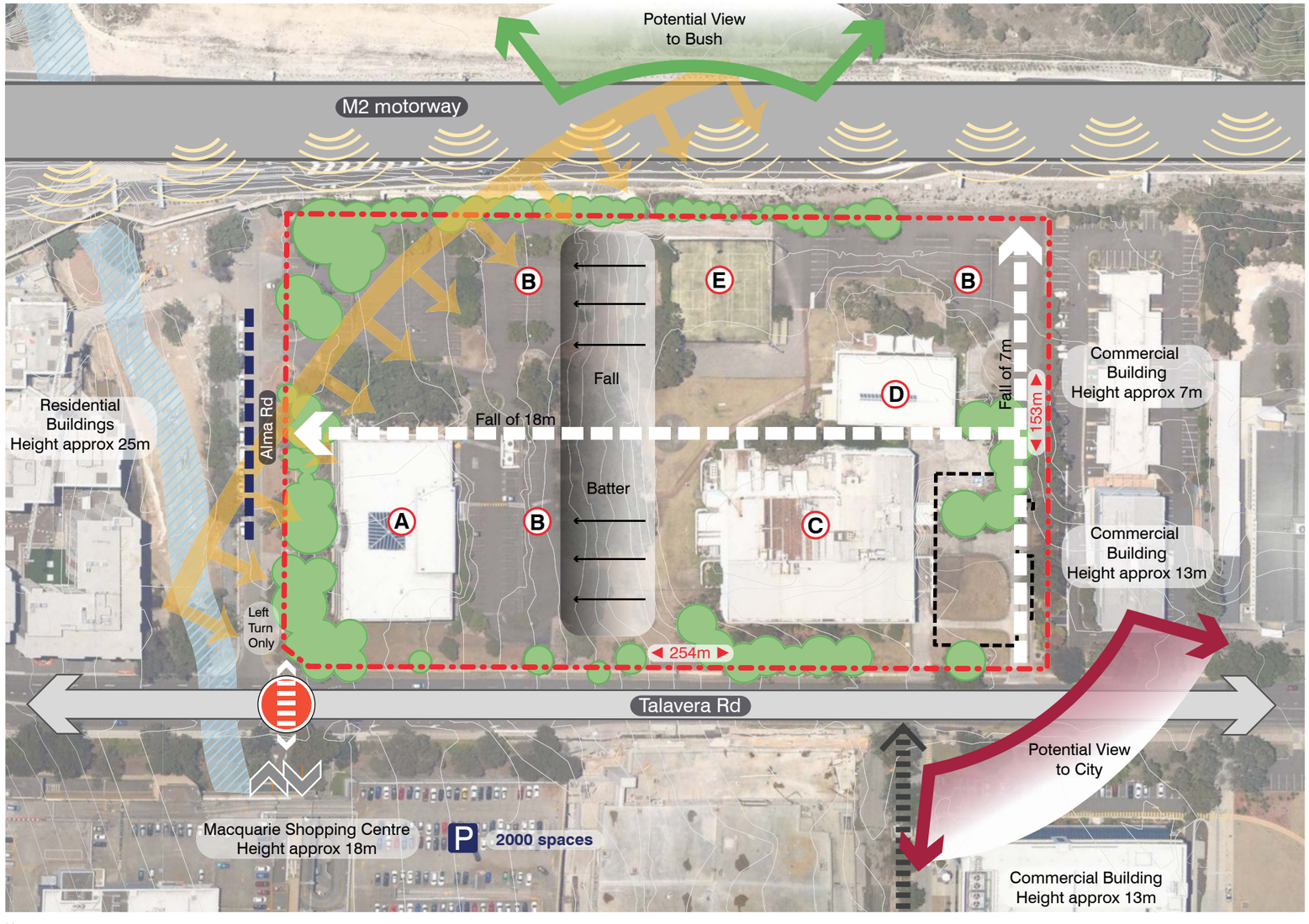
– Private tennis courts (Label E)

– Internal circulation areas and at-grade parking (Label B)

Refer to the plan to the right, which identifies other key features of the site.

Employment

Part of the site has been leased to AstraZeneca for use of the commercial building which is currently undergoing construction.



Key

- Site Boundary
- On-street Parking
- Proposed new road (for inclusion in new Ryde Council DCP)
- Existing vehicle entries/ exits
- Signalled intersection with Pedestrian Crossing
- Future Astra Zeneca Commercial Building (under approval)
- Flood corridor
- Noise pollution from M2 motorway
- Solar access pathway
- Significant Trees

0 10 25 50 85m

Site analysis plan

1.3 Metropolitan Context

1.3.1 A Plan for Growing Sydney

Macquarie Park is an employment centre of increasing metropolitan significance, with the Plan for Growing Sydney identifying Macquarie Park as a specialised centre in the Global Economic Corridor.

The Centre has a strong focus on technology and innovation, driven by Ryde Council and supported by Macquarie University and the Macquarie Hospital. Major private tenants, including international brands in Macquarie Centre, are driving growth in the area.

As at July 2014, the business centre of North Ryde/Macquarie Park offered a total office stock level of 866,961sqm (Preston Rowe Paterson, 2014). The North Ryde/Macquarie Park business centre is currently Sydney's second largest office market, behind only the Sydney CBD (Urbis, North Sydney Commercial Centre Study, 2015).

Whilst it is anticipated that the predominant uses within the Corridor will be Commercial/Business, the Plan for Growing Sydney identifies 'potential for urban renewal in and around centres with improved public transport links in cross-city corridors between:

– Macquarie Park and Parramatta;

– Macquarie Park and Hurstville via Sydney Olympic Park;

– Parramatta and Hurstville via Bankstown; and

– Parramatta to Sydney CBD via Ryde...' (pg. 72, Plan for Growing Sydney)

The Centre is within the North Subregion. Key priorities for the State in this region as identified in the plan for Growing Sydney include:

– Working with Council to retain a commercial core in Macquarie Park for long-term employment growth;

– Working with Council to concentrate capacity for additional mixed-use development around train stations, including retail, services and housing;

– Facilitating delivery of Herring Road Priority Precinct, Macquarie Park Priority Precinct, and North Ryde Station Priority Precinct;

– Investigating potential future opportunities for housing in areas within walking distance of train stations;

– Supporting education and health-related land uses and infrastructure around Macquarie University and Macquarie University Private Hospital

– Supporting the land use requirements of the Medical Technology knowledge hub.

– Investigating opportunities to deliver a finer-grain road network in Macquarie Park.

– Investigating opportunities to improve bus interchange arrangements at train stations.

– Working with council to improve walking and cycling connections to North Ryde train station. (pg. 127, Plan for Growing Sydney)

1.3.2 Dwelling projections

In June 2014, NSW Planning and Environment released new population and dwelling projections for NSW. The data indicates:

– 62,950 dwellings will be required to accommodate the projected population growth in Ryde, compared to 55,516 projected in 2011 - increase of 7,434 dwellings.

– Between 2016 and 2031, the projected demand is 14,950 dwellings for the Ryde Local Government Area.

– Between 2004 and 2011, the City of Ryde averaged 485 dwelling approvals per year. Dwelling approvals in the 12 months to June 2012 was 1,003 dwellings, and in the 12 months to June 2013 was 952 dwellings in the 12 months to June 2013. This indicates an average slightly under 1,000 dwelling approvals per year since 2012.

Based on the projected dwelling demand of 14,950 new dwellings between 2016 and 2031 for the Ryde LGA, and assuming that:

– In the year to June 2014, Council will approve an additional 1,000 dwellings,

– 3,000 new dwellings are to be provided in the North Ryde Urban Activation Precinct,

– 5,400 new dwellings are to be provided in the Herring Road Urban Activation Precinct,

There would be an underlying further demand for an additional 5,550 dwellings in the forecast period for the Ryde Local Government Area.

The subject site has the potential to accommodate approximately 1,200 dwellings.

Finalised Herring Road Priority Precinct master plan: Source: Herring Road, Macquarie Park Urban Activation Precinct Proposal

1.4 Regional context

The subject site is located adjacent to the Herring Road Priority Precinct within Macquarie Park.

The objectives of A Plan for Growing Sydney include the intensification of Macquarie Park for specialised business uses, and the delivery of infrastructure to support that growth. The maintenance of employment lands in Macquarie Park, and its success as an employment centre are priorities for both State government and the City of Ryde Council.

Macquarie Park is extremely well serviced by public transport and freeway connections to the City and a regional shopping centre (the Macquarie Shopping Centre, owned by AMP, adjoins the subject site).

Looking at the nearby centres, Macquarie Park is unique because of its employment function. Strategically, State Government and Council need to ensure that Macquarie Park has the right services and infrastructure, including open space, to ensure that Macquarie Park can continue to compete with Central Sydney and Parramatta as a place to locate business.

It is understood that Council and the Department of Planning and Environment are undertaking a strategic investigation into the wider Macquarie Park and that the outcomes of this work will be released late 2016.

Regional land uses plan: **Macquarie Park contains a mix of residential, employment, retail and education uses.**

Regional context plan: Macquarie Park is well served by rail and the M2 motorway

1.5 Local context

The City of Ryde Council has recently amended the controls for Macquarie Park to allow for additional incentive building height and FSR on all of the employment land in Macquarie Park. Similarly, the recent Macquarie University Master Plan has resulted in increased long term capacity for employment on the university site. These initiatives will go a long way to facilitate significant employment growth in Macquarie Park.

The subject site adjoins the indented north-eastern corner of the Herring Road Priority Precinct, which is identified for future high density mixed use development. The recently gazetted Herring Road amendment to the Ryde Local Environmental Plan 2014 recommends FSRs of up to 6.0:1 and maximum building heights of 120m for sites near Herring Road.

The subject site has the following important locational attributes:

– **Proximity to transport:** The site is 550m, measured along the footpath, from Macquarie University Train Station. A distance of 800m is generally accepted a comfortable walking distance from a rail station. The site is also within 400m of the future bus interchange on Herring Road by the Macquarie Shopping Centre (which is owned by AMP).

– **Highly-visible site:** The site is on a street corner and opposite the Macquarie Shopping Centre, which is a major attraction and soon to be the largest shopping centre in NSW. The site is one block away from Waterloo Road, which is the central spine of Macquarie Park. The site is also highly visible from the M2 Motorway.

– **Proximity to residential and employment uses:** The site is located between the high density residential Herring Road Priority Precinct and the employment lands. The site is within 800m of many workers and many existing and planned dwellings.

Local context plan

1.6 Strategic need for open space

Evidence continues to build across the world that the quality of the public domain in our parks and open spaces is central to our individual and collective health and well-being. Accessible, safe and appealing public open space directly affects our sense of the liveability of our working and home environment; it also influences our decisions on where we want to live and work.

1.6.1 Why open space is important for business

Traditionally, open space planning did not consider that employment land uses would generate any significant demand for recreation during the working day and in that same vein Local Governments would not generally levy Section 94 Contributions for Public Open Space for business precincts.

However, progressive trends in the planning and design of working environments over the last twenty years responding to employee demands, as well as more recent shifts in the times at which many in the working community are choosing to take exercise (increasingly early morning, lunchtimes and early evenings) is requiring a commensurate move in planning to match this demand. In the case of nationally significant specialised centres such as Macquarie Park, this response becomes all the more critical, as explained below.

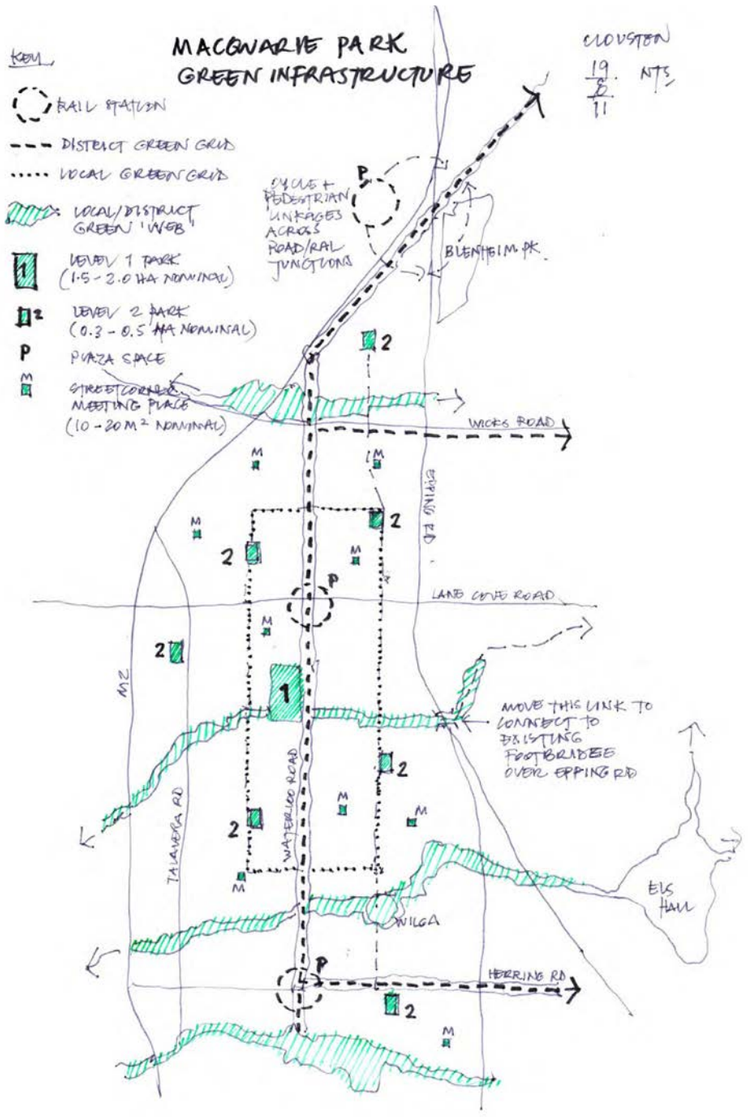
In preparing the Ryde Integrated Open Space Plan (IOSP) in 2012 CLOUSTON Associates was asked by Ryde City Council to provide an overview of likely requirements for public open space in the Macquarie Park Precinct (see Macquarie Park Green Infrastructure diagram). The following is a direct quote from that report, with respect to open space needs for major high technology employments areas:

Most major international corporations seek development environments in which landscape and open space play a core role in site selection criteria – high-end technology and science parks around the world have hosted major corporations and research organisations since the advent of business parks such as Silicon Valley in the 1980s. For these organisations a high quantum and quality of landscape and open space has a range of benefits that meet their corporate goals:

- *Inspiring work environments attracting top personnel and encouraging high productivity*
- *Raised corporate profile associated with benchmark design and an attractive business environment*
- *Commitment to ESD principles and high Green Star ratings in the built form and landscape*
- *Promotion of healthy lifestyles for staff through provision of recreation facilities and open space*
- *Opportunities to host/sponsor major events within the public domain.*

Typically, high-end business environments in contexts such as Macquarie Park generate needs for public open space during weekdays and working hours that cater for leisure and recreation uses such as:

- *Lunchtime team sports (e.g. touch football, basketball etc., often with inter-business competitions)*
- *Fitness training areas/facilities for personal training and fitness equipment/trails*
- *Shaded circuits and routes suitable for jogging, walking and cycling (not on major roads)*
- *Play spaces (especially associated with or adjoining crèches)*
- *Informal open space with trees, shade and shelter for lunchtime, breaks and working sessions (picnic tables, shelters, BBQ, wireless connectivity etc.)*
- *Natural creeks and formal or natural water bodies*
- *Corporate event and promotion spaces (often catering for significant numbers)*



Macquarie Park Green Infrastructure diagram, Source: Integrated Open Space Plan 2012 (Draft), City of Ryde

The recommendations report went on to observe that where such open space provision was inadequately supplied the impacts on the local Council and the community could be significant and might typically include:

– Major corporations choosing other locations offering a more extensive public domain

– Over-use of existing open space in the adjoining neighbourhoods with resulting cost impacts and negative community perceptions

– Lack of flexibility for open space provided for working communities to absorb additional residential demand by being available for use outside working hours

The net effect of such impacts can be a disjunction in social and economic integration between the working and adjoining residential neighbourhoods.

Current best practice in open space planning acknowledges that there is no single formula for the amount of open space required to meet the needs of a given working population; those needs vary greatly according to the mix of employment type, the local geography and the proximity and capacity of existing open space in the locality. Accordingly, any estimation of the quantum required must be based on site specific analysis of these and other factors.

The brief analysis undertaken for the Ryde IOSP recommended at minimum the following open space quantum for the employment area over and above any existing open space network (e.g. reserves on the Shrimptons Creek and Kikkaya Creek riparian corridors):

– A 2 Ha multi-use reserve close to the core of the employment area (where constraints on acquisition prevailed this could be a minimum of 1.5 Ha)

– A suite of local open spaces of 0.3-0.5 Ha in size evenly distributed across the locality (seven such reserves were illustrated for the whole Macquarie Park area)

– 3 plaza spaces, one near the core of the employment area and one on – or close to -the Herring Road and Waterloo Road junction and one north-west of Blenheim Park

– A number of street corner meeting places (typically 10-20m2 in size). None were illustrated for the whole Macquarie Park area

– Continuous green web connections integrating recreation corridors on all east-west creeks

– District and Local Green Grid streets, as illustrated below.

It should be noted here that this suggested provision was solely oriented to employment needs and did not address the needs of any additional residential population, such as may be generated by the Herring Road Priority Precinct, an initiative that post-dated the IOSP.

Active street and mixed use precinct: West End, Brisbane

Public grow gardens: Melbourne Docklands

Defined, landscaped internal streets: West End, Brisbane

1.6.2 Why open space is important for residential areas

The benefits to residential communities of a well-planned, accessible, safe and engaging public domain include environmental, cultural, social and economic values. In particular, the mental and physical health and well-being outcomes derived from the presence of a high quality public domain is being increasingly demonstrated by national and international research.

The NSW Department of Planning and Environment's guideline document, Open Space Planning Guidelines for Local Government, 2011 (OSPG 2011) provides research-based guidance on planning for open space in residential communities from rural to inner urban contexts with these values in mind. The following analysis draws on those guidelines.

For dense inner urban apartment living, such as will prevail in the Herring Road Priority Precinct the quantum, quality and accessibility of such open space becomes critical to social cohesion in such communities, particularly in the absence of private gardens and ground level living.

The generally accepted norm of 800m maximum distance (10-15 minutes slow walk) between any residential dwelling and some local open space becomes tested for those who may live on upper floors of a high rise apartment blocks, where the first 5 minutes may be taken up in leaving the building, much less crossing major roads.

Consequently, local open space or at minimum off-road corridors (e.g. creek lines) which give access to such open space need to be easily accessed. In such environments the size (preferably 0.5 hectares in size but at minimum 0.3 hectares) and multi-use nature of such spaces is also important, as is the need for larger district level spaces for unstructured recreation within at least 2kms of most residences.

The OSPG 2011 recommends that the default provision for local and regional open space in any new or redeveloping community is 9% of total development area (including district open space this rises to 16%) rather than a per capita quantum. However, the guidelines stress the need to evaluate the site itself in terms of the distribution and accessibility of such space.

The proposals for open space in the Herring Road Priority Precinct make reference to the IOSP 2102 (a document that pre-dated the Priority Precinct) and suggested the need for additional open space, but provides no analysis of the quantum required for the significant additional population (at least 11,000 new residents). The Priority Precinct does not specifically identify the total amount of open space to be provided for the life of the development and thus it is not possible to assess what percentage of the total development area is dedicated to public open space.

Rather, the open space provision appears to be principally based on the embellishment of three small existing reserves (Wilga, Elouera and Quandong) and the enhancing of the Shrimptons and Kikkaya Creek corridors, as well as the notional locations of some additional open spaces of unspecified size and setting type.

The largest of the existing spaces to be embellished is Wilga Reserve at approximately 0.3 hectares (when the creek area is deducted) and this also the only level space that would appear to be suited to easy access and multi-use for local recreation. The total amount of reserve space specifically identified for such embellishment appears to be in the order of 1.41 hectares (excluding the creek corridors) over three separate locations.

There is no provision identified for any larger district level reserves in the Priority Precinct, as such provision is generally deemed to be available within an 800m radius of the Priority Precinct boundaries.

The Priority Precinct report does not however describe, identify or analyse the settings and recreational functions of these nearby spaces nor does it state whether such space is currently below, at or over capacity from existing community use in those neighbourhoods. The Priority Precinct finalised report identifies four new open spaces, however delivery of these spaces is uncertain as they are subject to future development and offsetting against Section 94 contributions.

Joynton Park, Victoria Park

1.6.3 Supply analysis and Indoor Recreation Facility

While recognizing that the longstanding benchmark of 2.83 hectares of open space per 1000 persons is generally recognised as being simplistic and unsubstantiated (for the ultimate population of the Priority Precinct this would suggest the need for up to 30 hectares of new open space), the level of provision proposed at 1.41 hectares/1000 future population appears to fall well below the average existing local and district level provision across the whole Ryde LGA at 3.41 hectares/1000 persons and for the Macquarie Park planning precinct at 2.95 hectares/1000 persons.

From this brief overview, it appears therefore that there is definitely a significant under-provision of both local and district level open space for the quantum of population.

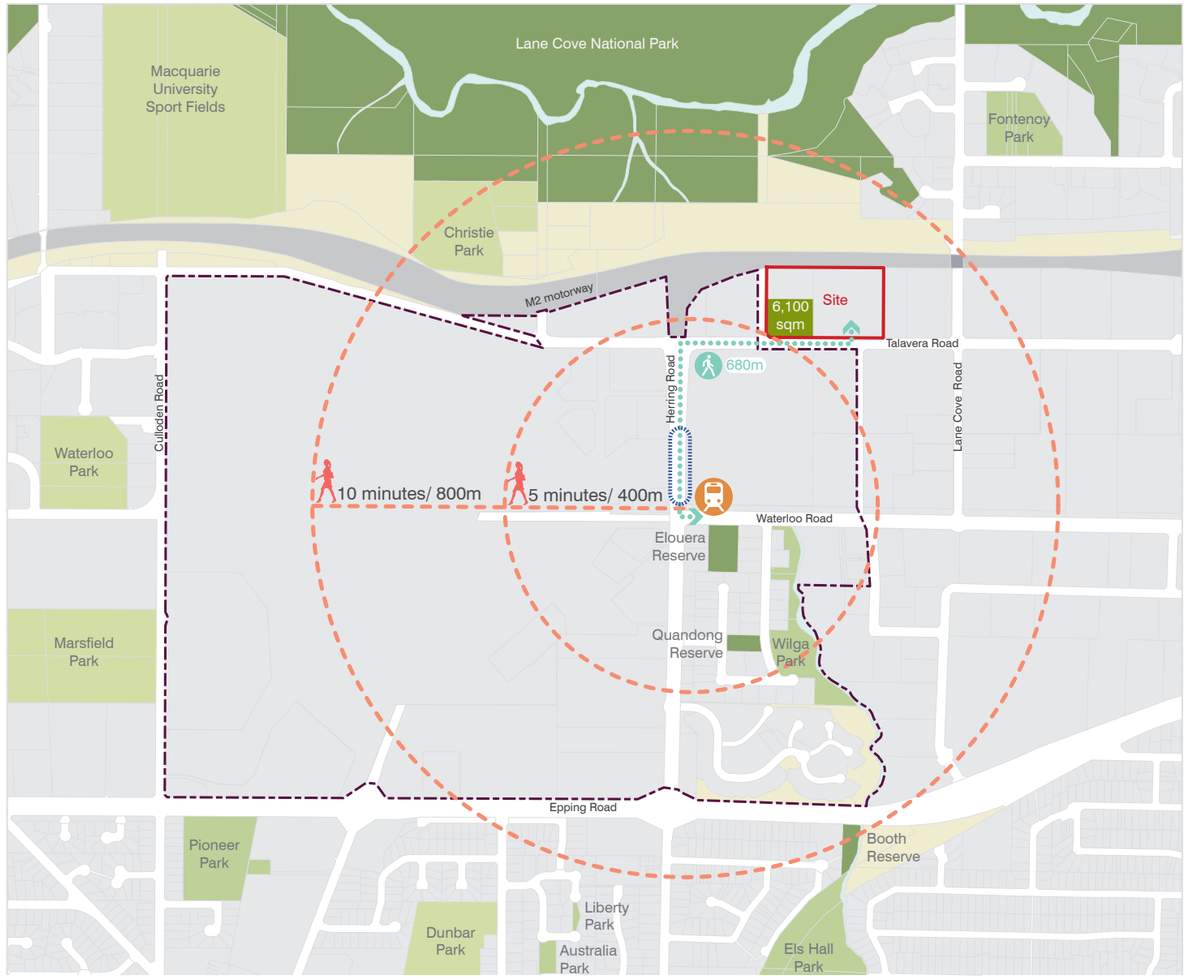
The plan to the right shows all of the existing and planned open spaces within 800m of the Macquarie University Train Station, highlighting this under-provision.

However, as a result of discussions with Council, it was identified that there was an existing need for an Indoor Recreation Centre of 3,500sqm for the use of residents and workers within wider Macquarie Park. This has resulted in the reduction of the total open space in order to provide this facility.

1.6.4 Proposed open space

The proposed 6,100sqm public open space at 66-82 Talavera Road and 3,500sqm Indoor Recreation Facility assists in meeting some of the apparent under-provision of open space in that precinct, as well as serving the adjoining employment precinct. This will support the ongoing development of Macquarie Park as a high quality commercial centre.

While the master plan provides convenient on-street parking for public use, the main access to the proposed park will be from the walking catchment.



Planned and existing open space within 800m and 400m of Macquarie University Station

1.7 Current and proposed planning controls

The primary planning instrument for the subject site is Ryde LEP 2014. This section of the report outlines the key land use and built form provisions for the site, from Ryde LEP 2014.

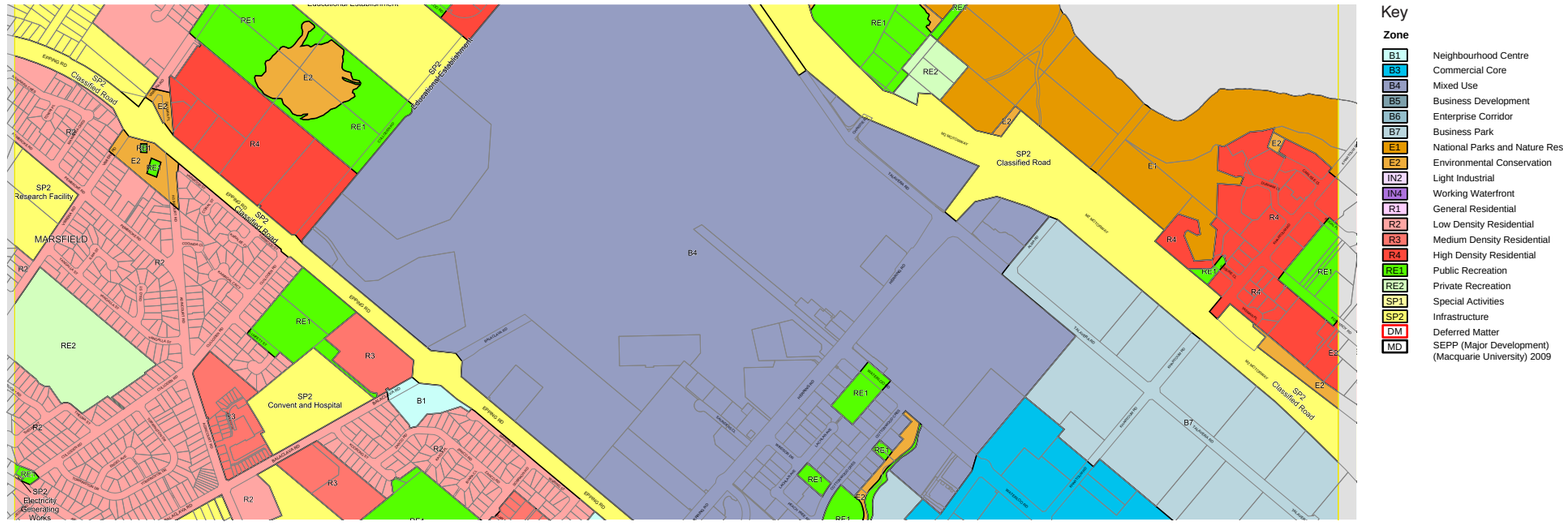
Ryde LEP 2014 - Draft Amendment No. 1 (Macquarie Park) was gazetted. This Amendment provides an increase in height and FSR controls for the site and the remainder of Macquarie Park as part of an incentive scheme.

The proposed Herring Road Priority Precinct controls have also been noted to contextualise the site. The Herring Road Priority Precinct Plan has been finalised but not yet translated into legislative controls.

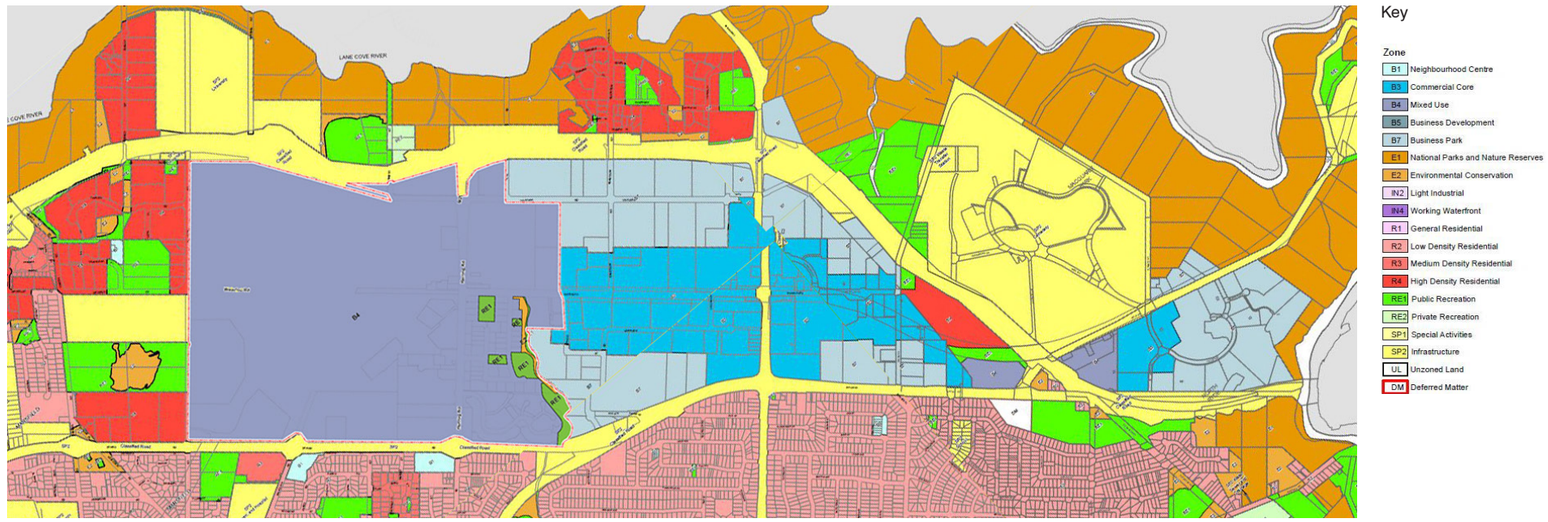
1.7.1 Land use/ zoning

Ryde LEP 2014 currently zones the site, and a large area of Macquarie Park, B7 - Business Park. This zones allows for a range of commercial and industrial uses, as well as some supporting retail and business uses. Residential uses and larger retail uses are prohibited in the zone.

The proposed Herring Road Priority Precinct controls would zone the land adjoining the subject site on two boundaries, B4 - Mixed Uses.



Current land use zoning, Ryde LEP 2014

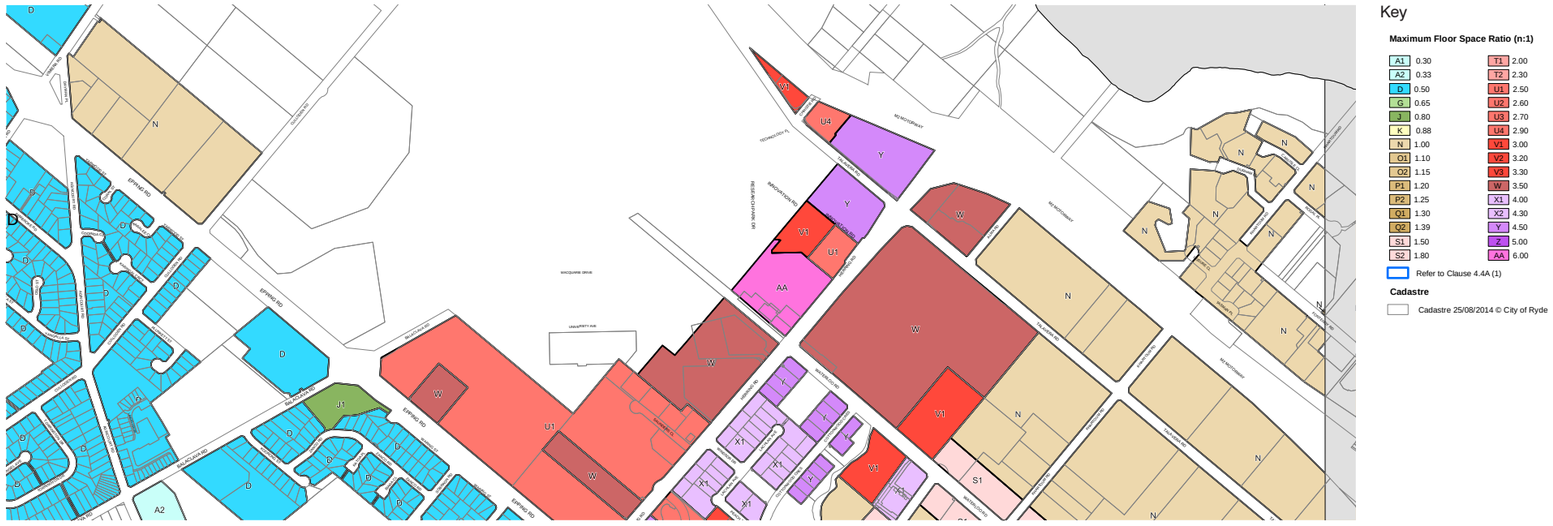


Composite plan showing Herring Road Priority Precinct and current land use zoning, Ryde LEP 2014

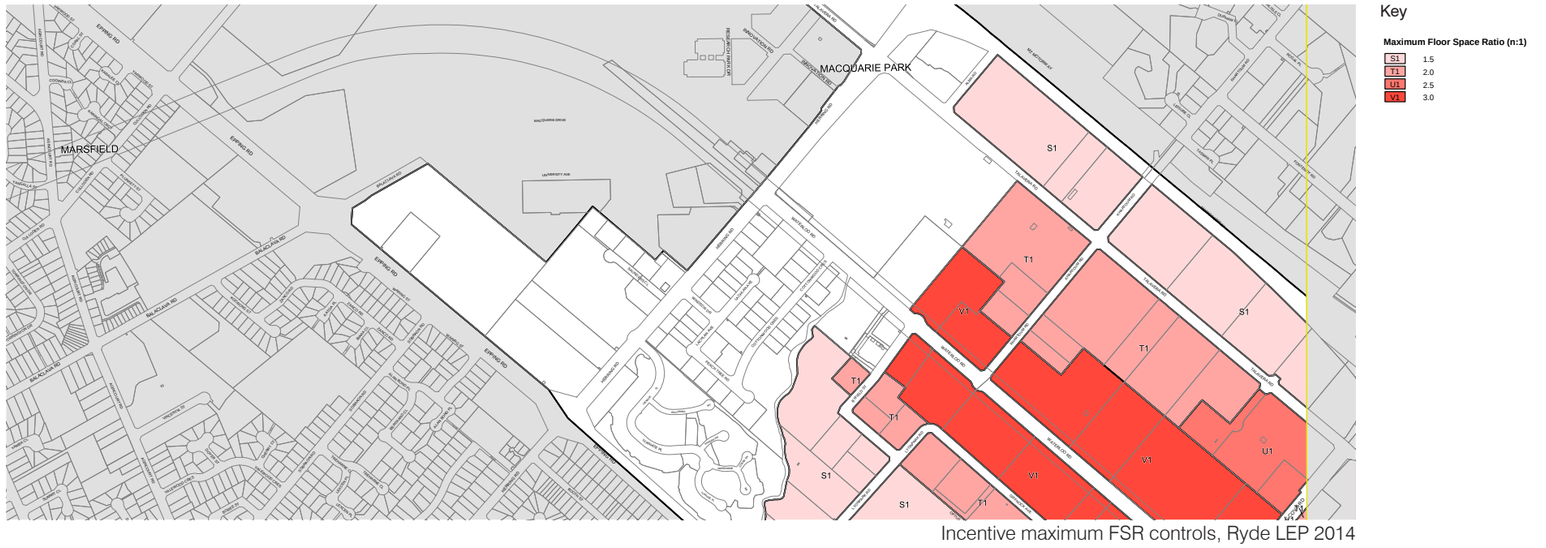
1.7.2 Floor Space Ratio (FSR)

Ryde LEP 2014 currently allows a maximum FSR on the subject site of 1:1. However in the areas to the west and north of the site, significantly greater FSRs have been introduced as part of the Herring Road Priority Precinct

As shown in the lower plan to the right, a maximum FSR to 1.5:1 applies to the site as part of an incentive scheme where new public domain, or a monetary contribution in lieu of public domain is provided.



Current FSR controls, Ryde LEP 2014



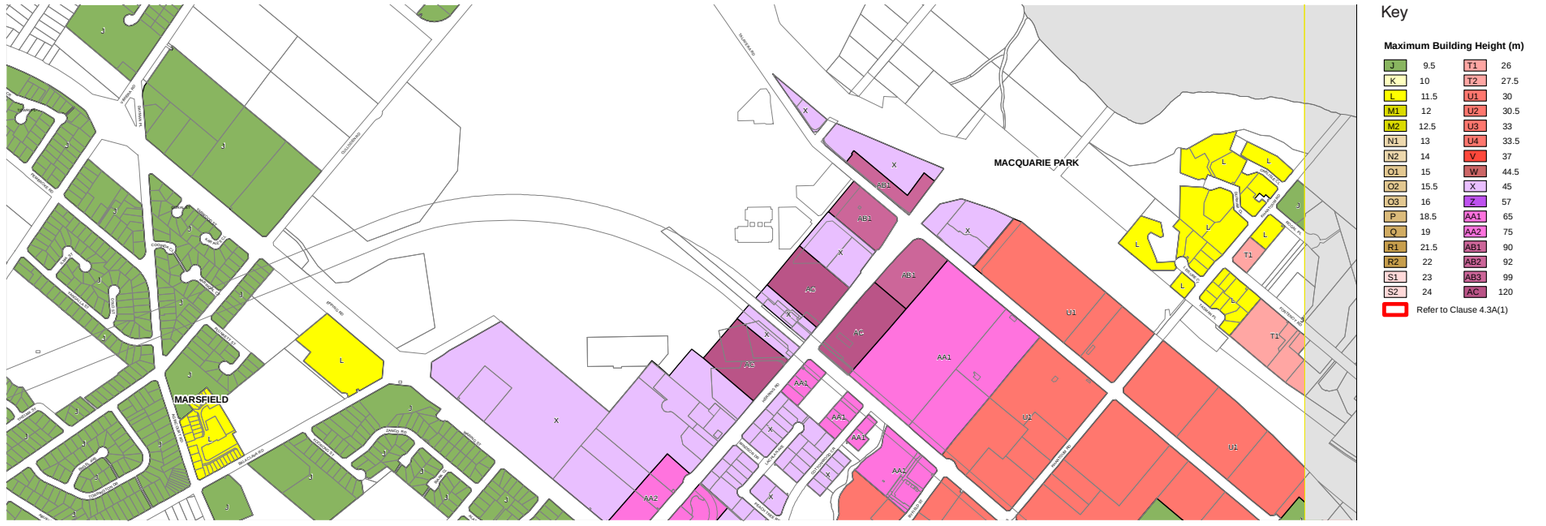
Incentive maximum FSR controls, Ryde LEP 2014

1.7.3 Maximum building height

Current controls

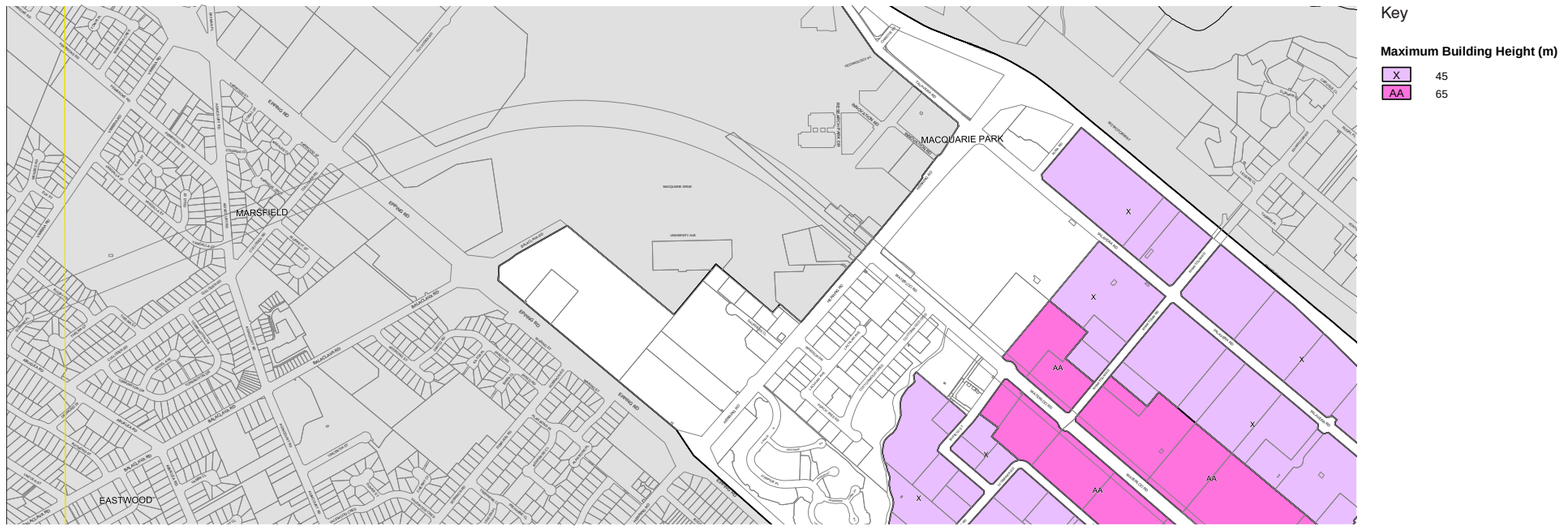
Ryde LEP 2014 currently allows a maximum building height on the subject site of 30 metres.

However as part of the Herring Road Priority Precinct, significantly greater heights have been introduced up to 120m in height. As shown in the lower plan to the right, a maximum height of buildings of 45m also applies to the site as part of an incentive scheme in the Macquarie Park Corridor.



Current maximum building height controls, Ryde LEP 2014

The proposal in the context of the proposed Herring Road Priority Precinct



Incentive maximum height of buildings under Ryde LEP 2014

1.7.4 Occupied Commercial Office Building

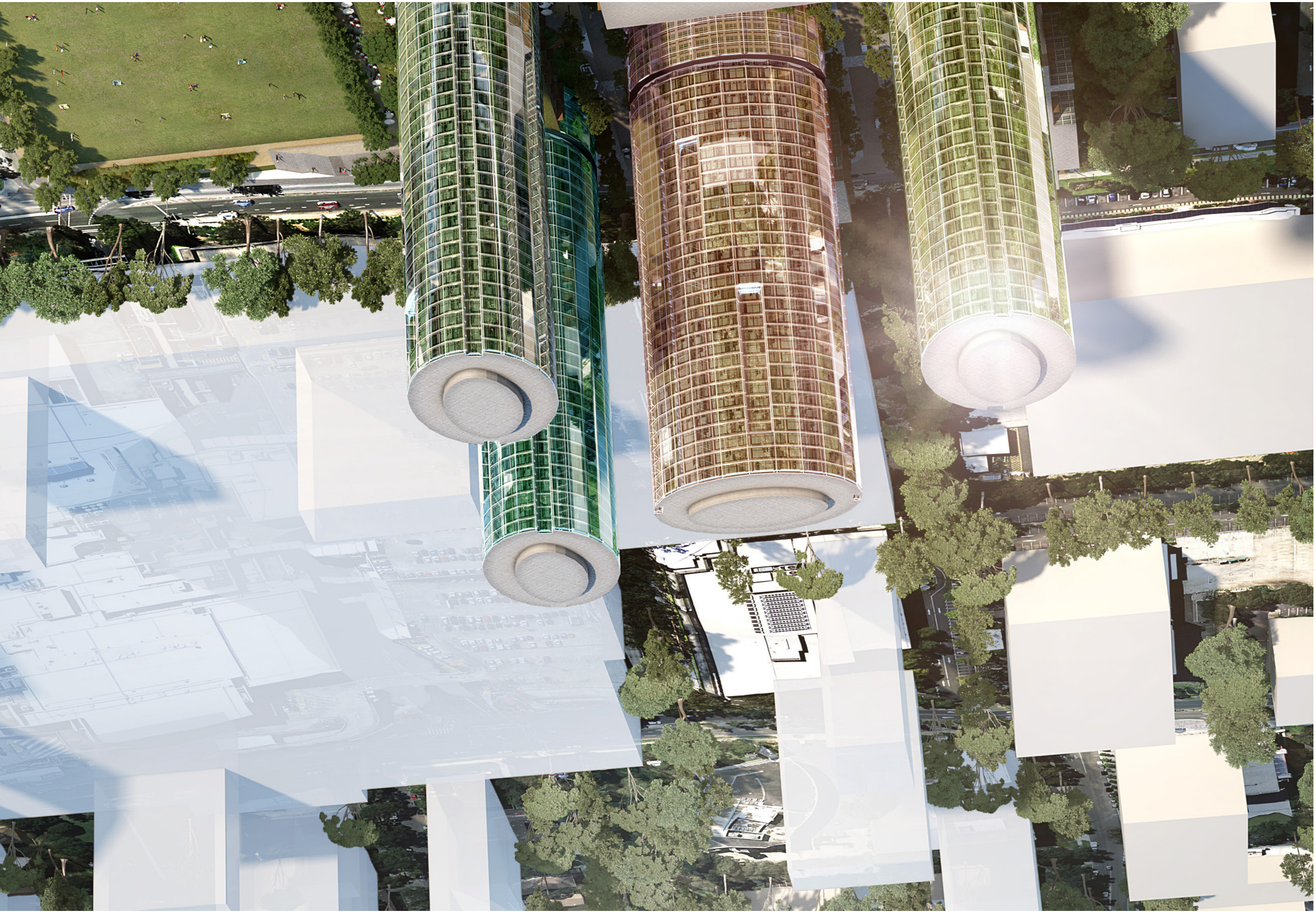
A commercial office building was approved by Council in June 2015. The building has since been completed and iis now occupied. It comprises:

– 8,982sqm commercial office GFA;

– 6 storeys;

– 178 total parking spaces, including vehicle and bicycle spaces.

Render - Approved AztraZeneca Commercial Office Building



2.0 The proposal

2.1 Design principles

2.1.1 Public domain and streets

– The new internal street should align with the new proposed street south of Talavera Road

– Internal streets should be designed as publicly accessible streets with similar dimensions, and section to public streets, and materials should give the streets more of a shared character

– New vehicle access points should be minimised, particularly near existing intersections and off Talavera Road.

– A suite of integrated and linked open spaces surrounding buildings that provide clear definition between public open space and residential community use

– Create amenity (optimal solar access, shelter from winds) and privacy for residents

– Design ground level to enhance sense of human scale

– Design walkable and cycle-friendly shared zone streets

2.1.2 Built form

– Generally, the built form should comprise street walls with tall, slender, well-spaced towers.

– Architectus' Tower slenderness study (see Appendix A) indicates the following floorplate sizes, inclusive of balconies;

  – Up to 25 storeys – 800sqm GBA maximum

  – 26-35 storeys - 950sqm GBA maximum

  – Above 35 storeys – 1,100sqm GBA maximum

– Maximum building heights similar to the maximum heights in the Priority Precinct should be available

– All envelopes must be capable of achieving SEPP 65 standards, in particular:

  – 70% apartments with minimum 2-3 hrs mid-winter solar access

  – 60% apartments with natural ventilation

  – 24m separation between tall buildings

  – 18m maximum building depth for residential uses (excluding balconies)

  – Minimise the visual bulk of the buildings from the new open space. Buildings should appear slender and maintain low-angle views to the sky between buildings

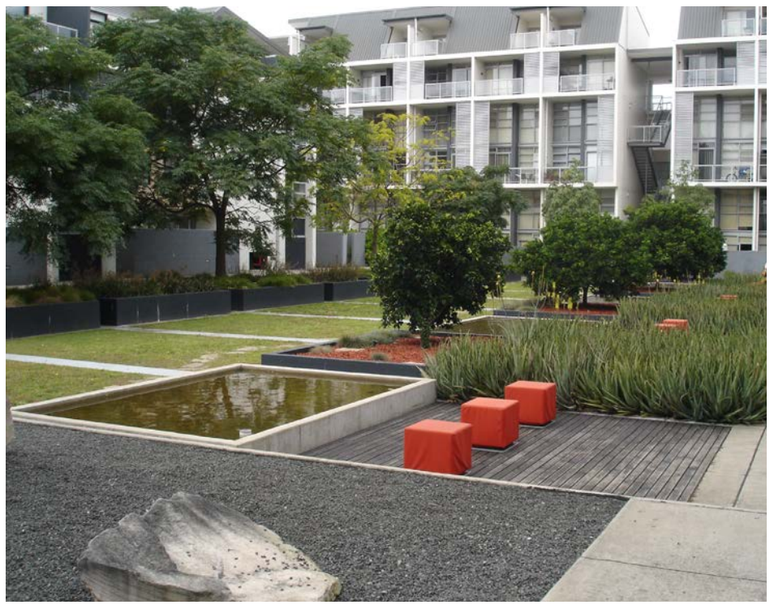
2.1.3 Land use

– Facilitate retention of the majority of jobs on the site and create opportunities for new jobs where appropriate

– Provide non-residential uses adjoining the park and other important public spaces

– Maximise residential densities in this well-serviced location

– maintain some commercial uses



Human scaled ground level and resident amenity: Power Street development, Erskineville

Slender tower forms, Sydney Olympic Park, Competition entry, Architectus for Ecove

Active frontage, St. Margarets residential development, Bourke Street Darlinghurst

2.1.4 Open space and Indoor Recreation Facility

The design, usability, orientation and location of the new district open space has been given priority for this master plan. The planning and design principles for the proposed open space should include:

– A consolidated form to a total of 6,100sqm (this may include terracing)

– A Indoor Recreation Facility of 3,500sqm GFA, providing multi-purpose sports courts and supporting commercial land uses

– A north/south orientation for optimal solar access (generally two hours between 11am and 3pm on 21June)

– Ready pedestrian access from adjoining streets and buildings in line with AS1428

– High visibility from adjoining streets, minimum two adjoining street frontages to ensure it has a public character

– High levels of passive surveillance from residential dwellings and other public domain

– Active façades fronting the space (e.g. community uses, cafés, amenities)

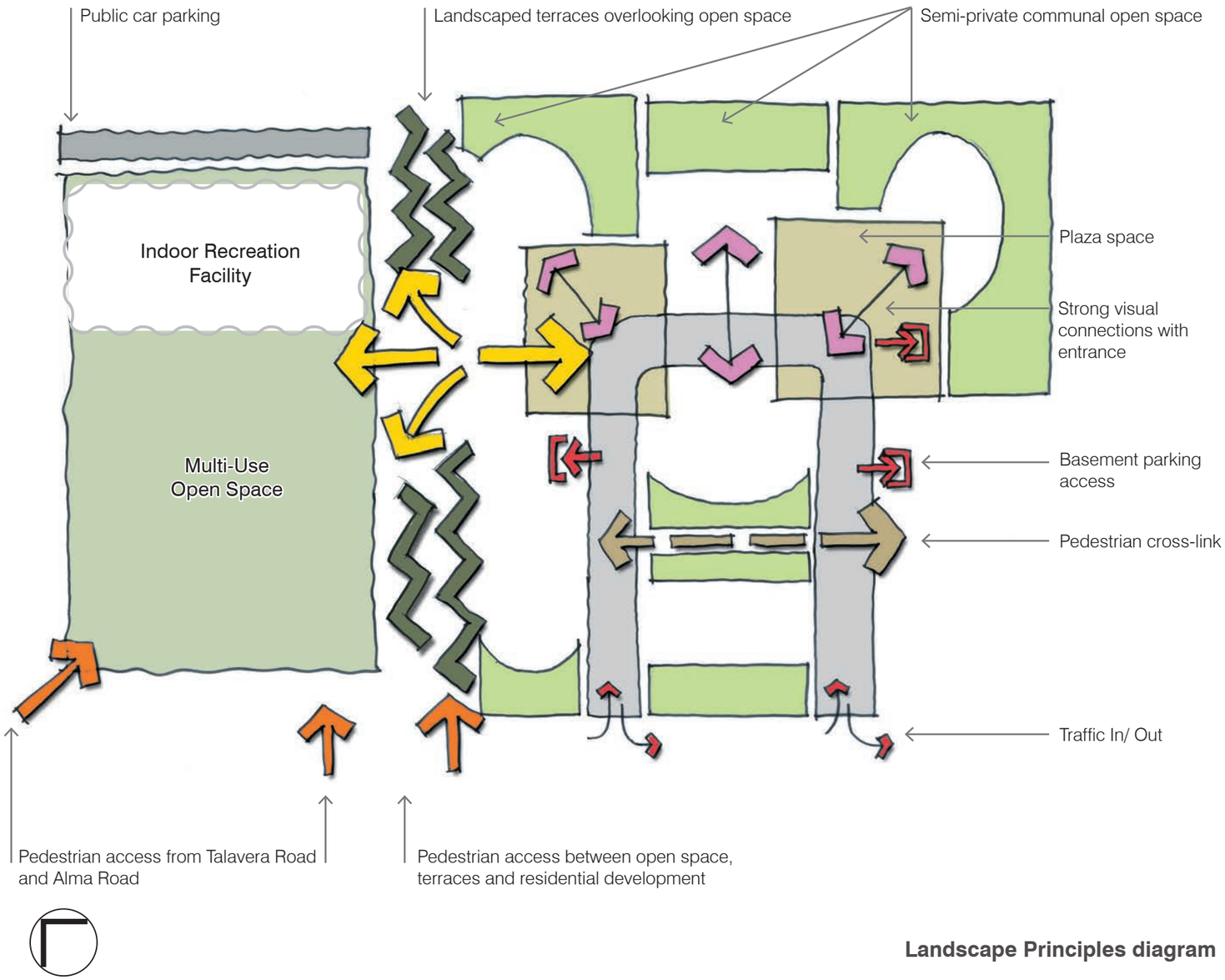
– Multi use layout and design to allow for general day to day recreation, fitness, special event field sports, community events, celebrations and performances

– Seating, shade (structures and trees) and play areas

– Layout and design for day and evening use, including events stage area

– 'Back-of-house' event support space and services

Given the high levels of potential use and the permeable nature of walking routes to and across the space, the central green space may best be constructed as a synthetic grass surface. There are a number of successful examples which use this surface.



Landscape Principles diagram

2.2 The master plan

Indicative Areas	
Site area	37,832m2
Total proposed GFA	139,978 m2
FSR	3.7:1
Total public open space	6,100 m2
Total residential GFA	119,978 m2
Number of apartments (average of 94 m2 each)	1,271
Total non-residential GFA (incl. existing office GFA)	20,000m2
Retained office building (Astra Zeneca) GFA	8,982m2

Illustrative view of proposed master plan looking south-east towards the Herring Road Urban Activation Precinct

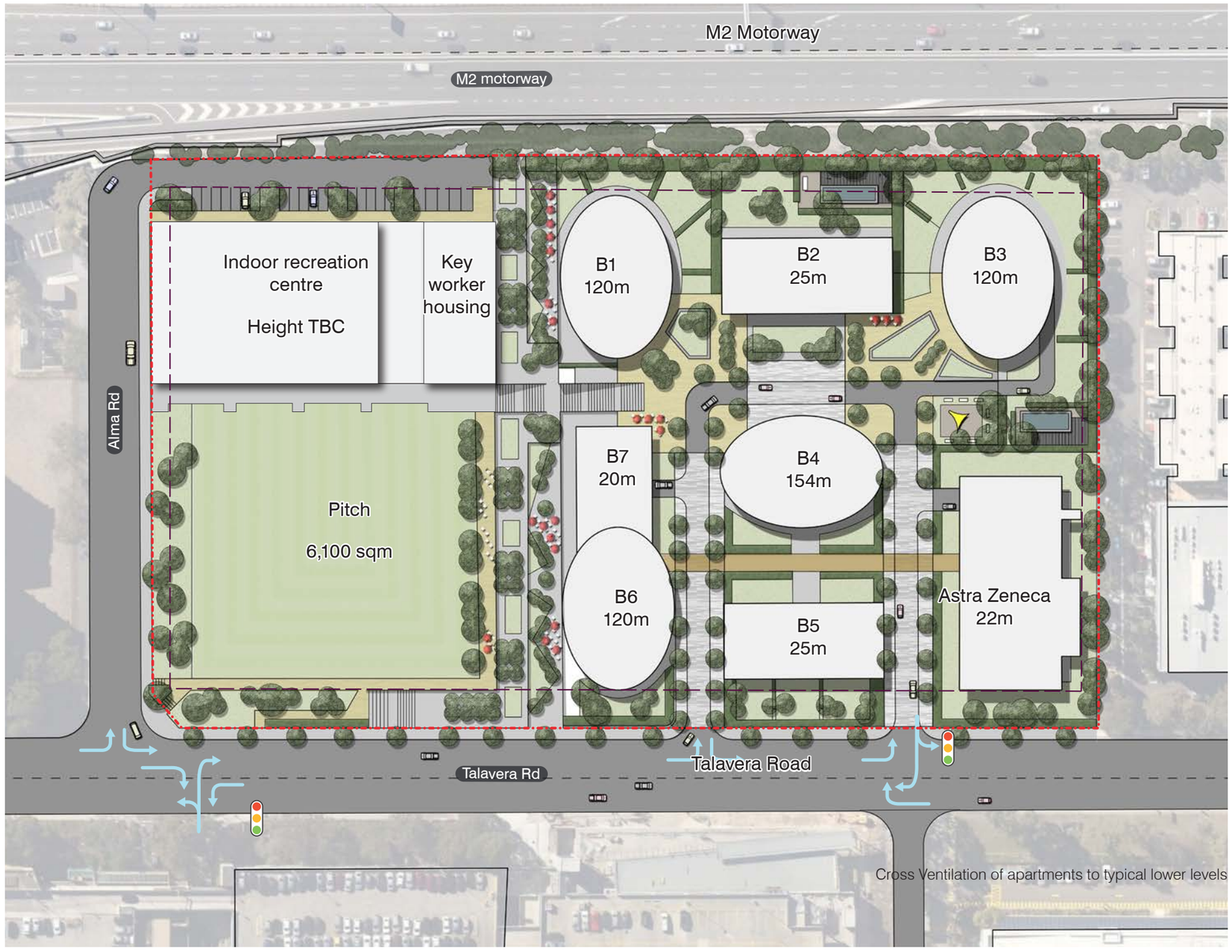
Affordable housing / Indoor Recreation Centre

Consultation with Council identified an opportunity to deliver affordable housing and an indoor recreation centre on site to serve the needs of residents and workers of the wider Macquarie Park. This has been formalised by an accepted Letter of Offer to enter into a Voluntary Planning Agreement endorsed by a Council resolution dated 2 August 2016.

The proposed indoor recreation centre will be 3,500sqm GFA and will include ancillary commercial facilities for compatible commercial uses such as cafés, sport focused medical facilities, and small scale retail spaces. This indoor recreation facility will be located along side approximately 6,100sqm allowing activation of open space.

A total of 5,296sqm GFA affordable housing will also be provided on the site above the recreation centre. This will equate to roughly 56 units at an average apartment size of 94sqm. This equates to approximately 4% of the total number of apartments to be delivered on the site.

The Indoor Recreation Centre and the affordable housing is proposed to be dedicated to Council. It is understood that Council will appoint a affordable housing provider who will be responsible for the management and maintenance of the affordable housing which will be leased to key workers within the wider Ryde LGA.



Indicative Master Plan (including key worker housing)

2.2.1 Basement car park

The car park to support the concept master plan would be located below grade and comprise three (3) levels. It would accommodate a total of 1,618 parking spaces, including spaces for non-residential uses. A breakdown of parking spaces is shown below:

– 1,113 residential spaces,

– 127 visitor spaces and 25 car share spaces,

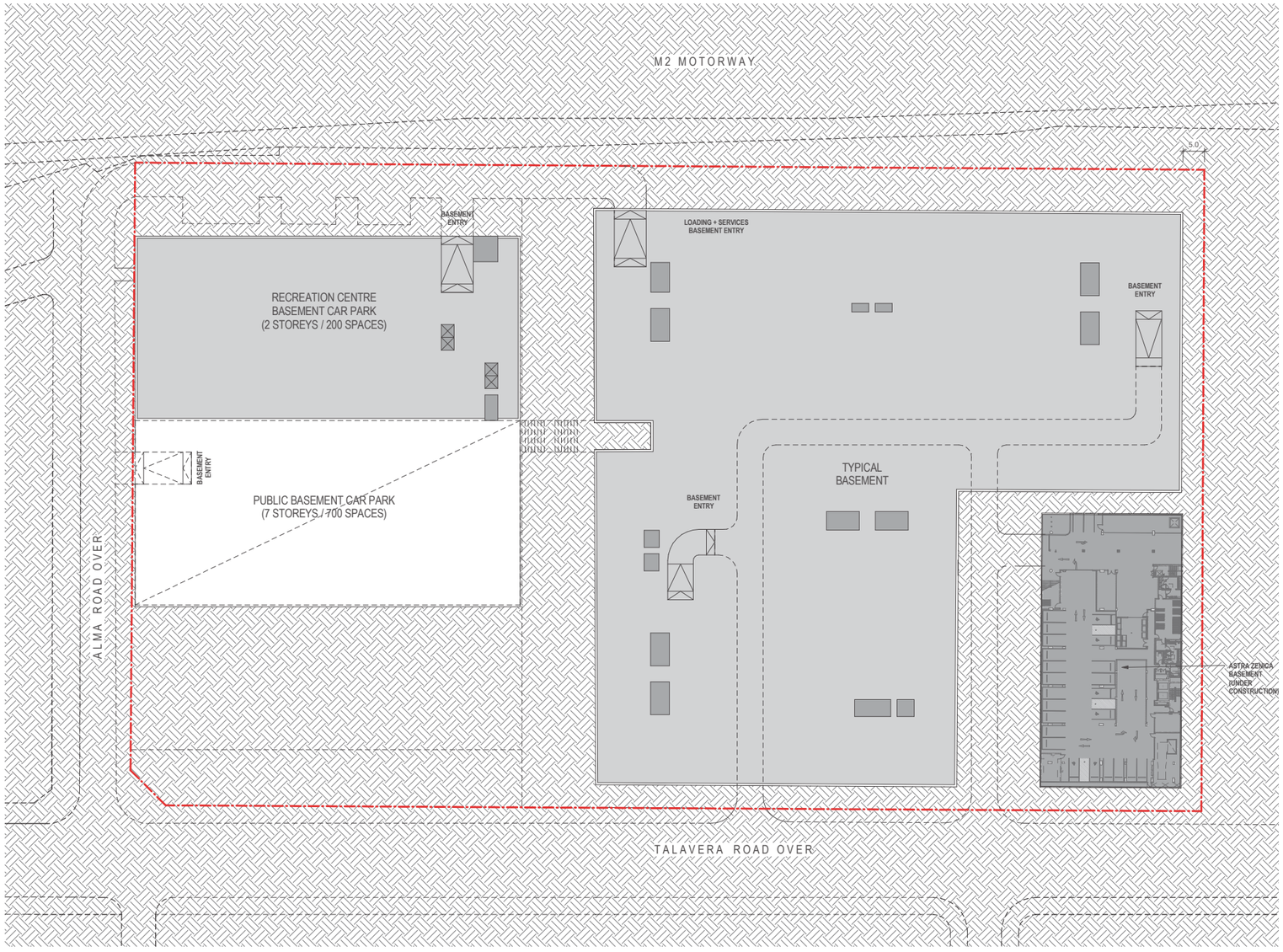
– Up to 333 commercial parking spaces (based on LEP parking rates); and

– 20 spaces for the use of the indoor recreation facility.

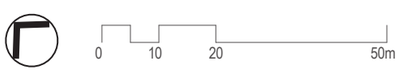
In addition:

– 1,030 commuter car parking spaces below park.

The basement would contain loading docks for retail and commercial tenancies and accommodate service vehicles. The plan to the right shows an indicative basement footprint and points of



Indicative basement footprint



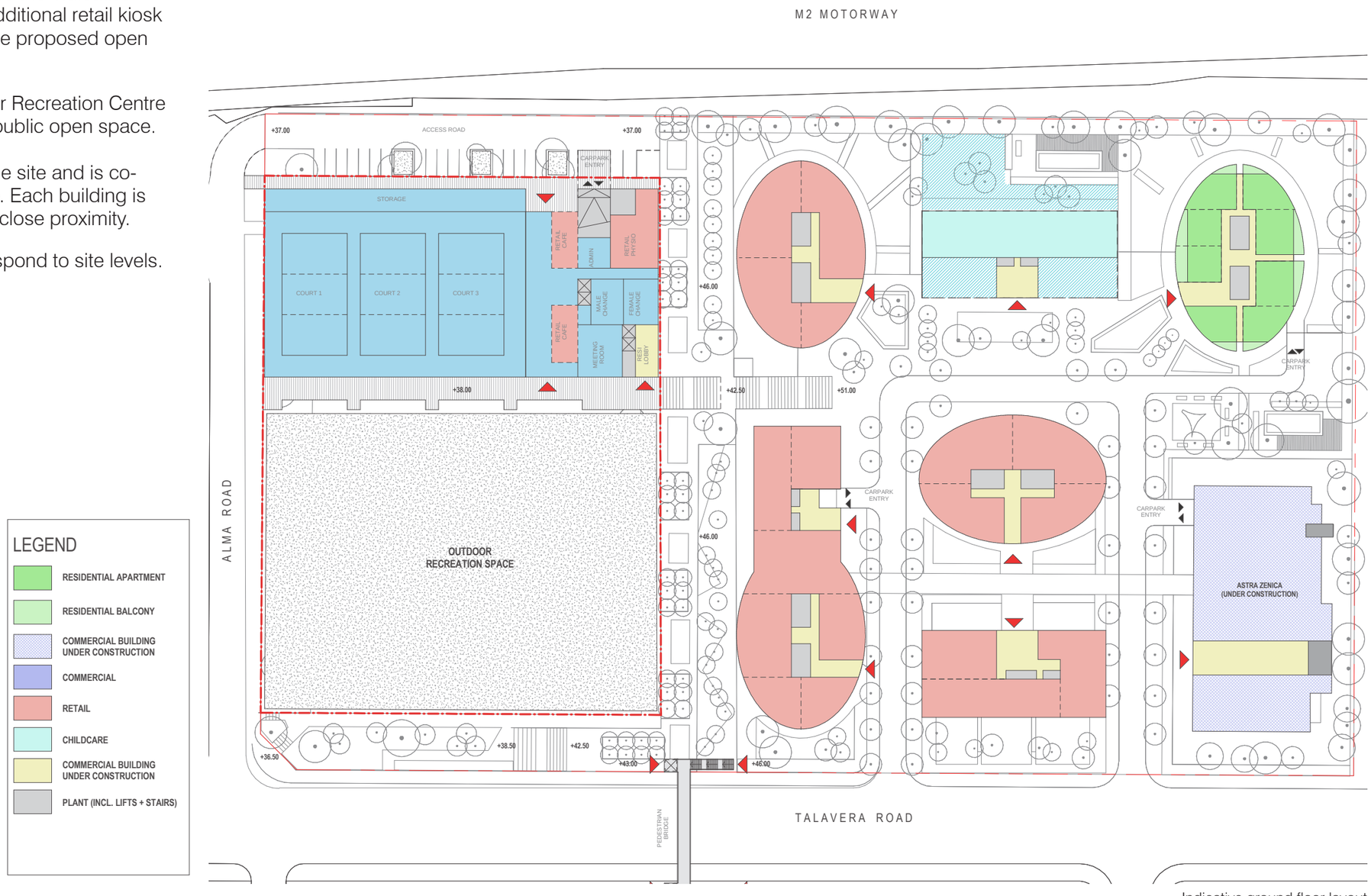
2.2.2 Ground floor level

The indicative ground floor plan to the right shows the indicative placement of retail uses along Talavera Road. Additional retail kiosk style tenancies have been located adjacent to the proposed open space to provide a new active edge.

It also provides an indicative layout for the Indoor Recreation Centre and how this could connect to and activate the public open space.

The childcare centre is located centrally within the site and is co-located where extensive open space is available. Each building is afforded a building entry which is on-street or in close proximity.

Detailed planning would further consider and respond to site levels.

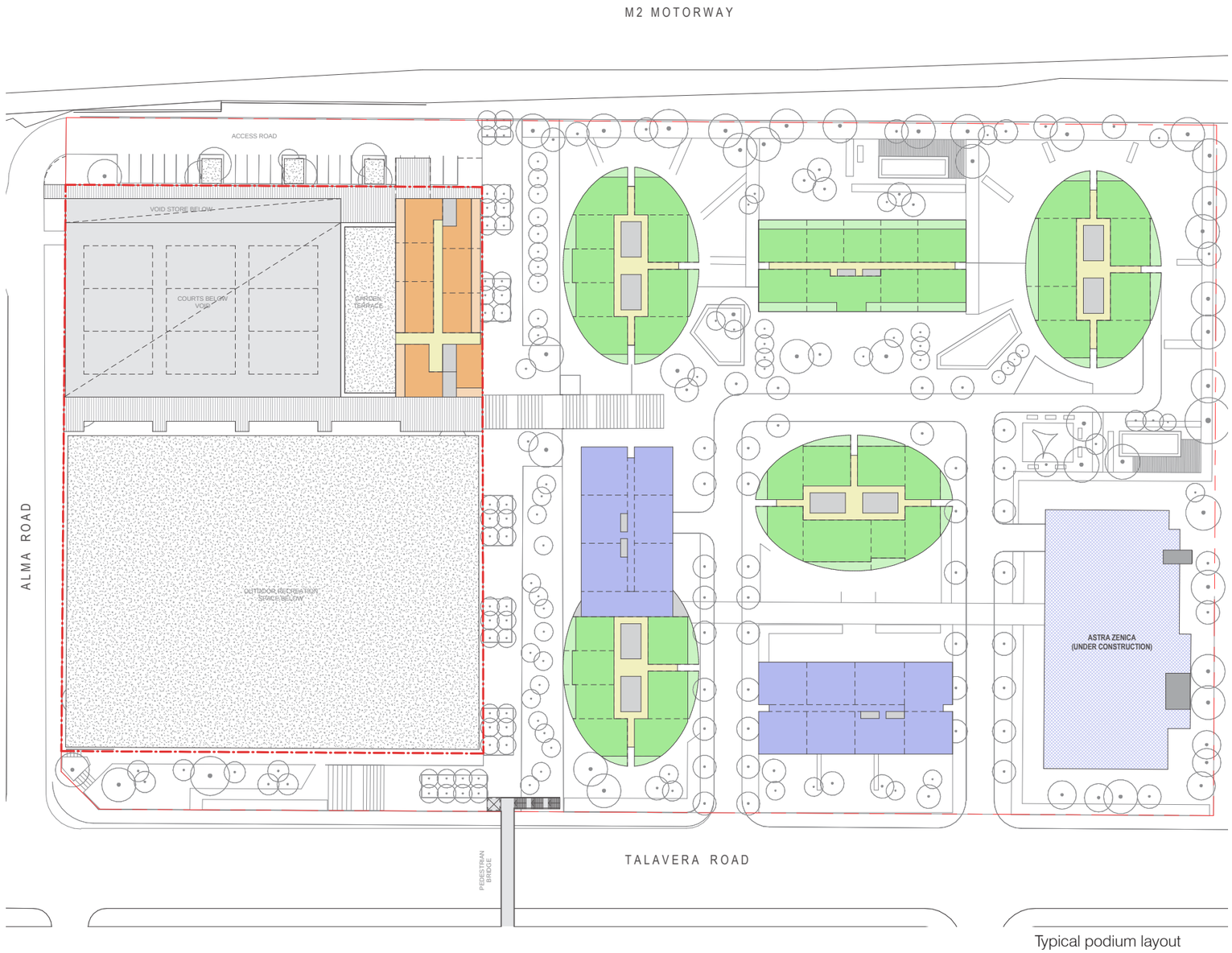


Indicative ground floor layout

2.2.3 Podium Level

The plan to the right shows an indicative layout of a typical podium level which consists of residential uses. This is with the exception of two podium buildings (B5 and B7) where commercial uses are included, but are able to function separately to the residential buildings adjacent.

An indicative layout for the future affordable housing units above the recreation centre is also provided. The indicative plan details how the affordable housing component could be constructed away from the indoor sports courts, allowing for a clear, open area with no support structures located in close proximity to the courts.



Typical podium layout

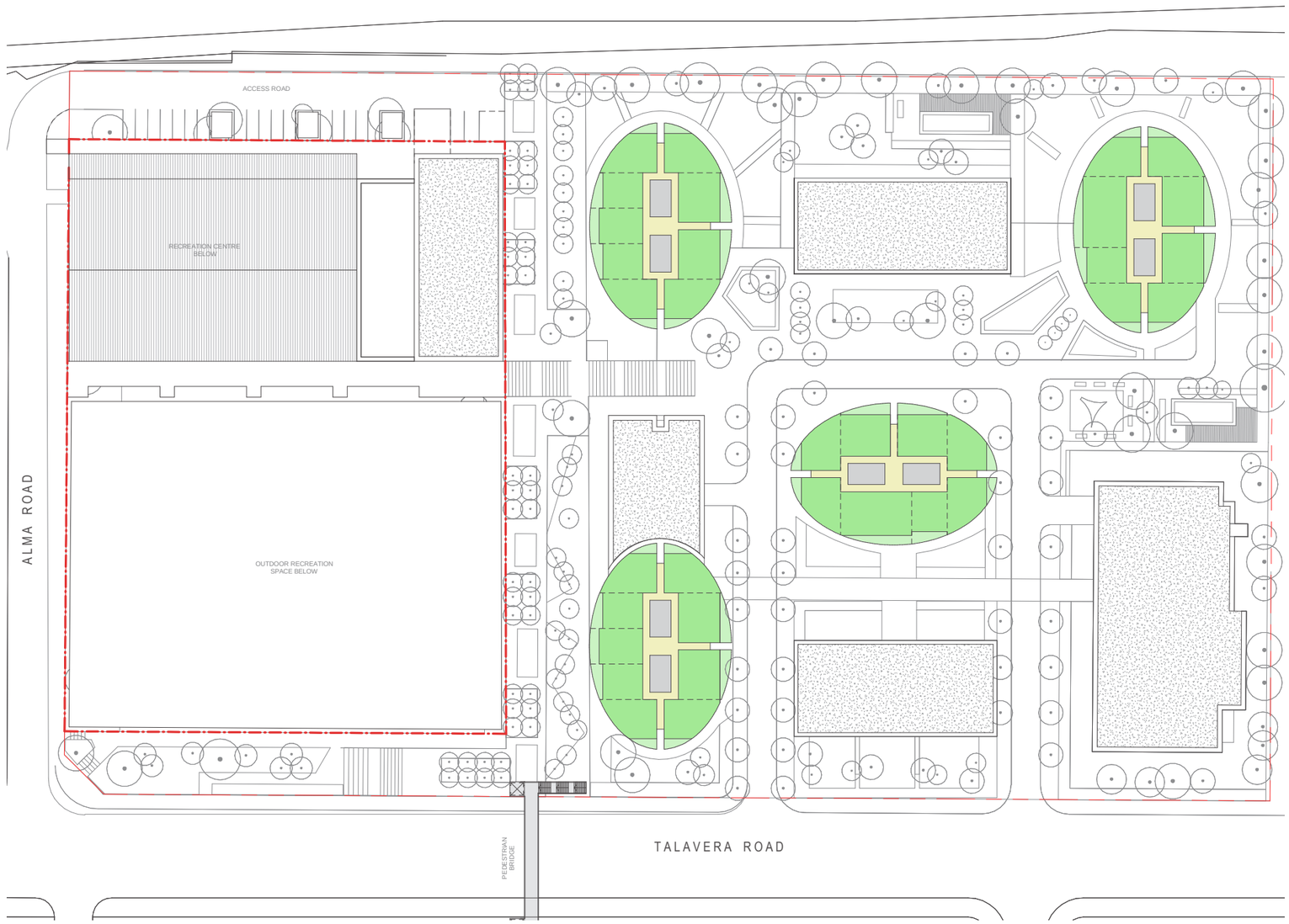
LEGEND

- RESIDENTIAL APARTMENT
- RESIDENTIAL BALCONY
- COMMERCIAL BUILDING UNDER CONSTRUCTION
- COMMERCIAL
- RETAIL
- CHILDCARE
- COMMERCIAL BUILDING UNDER CONSTRUCTION
- PLANT (INCL. LIFTS + STAIRS)

0 10 20 50m

2.2.4 Typical Tower Level

The plan to the right shows an indicative layout of the four tower floor plates that comprise an all residential component.



Typical tower layout

2.2.5 Height of Buildings

The plan to the right shows the building heights represented in storeys. The building envelopes indicate 3 towers which may support 38 storeys (120m) in height, plus an additional tower of 49 storeys (154m) inclusive of all mechanical plant and services, with adjacent podium building envelopes ranging from 5 - 7 storeys across the site.

Building envelopes that contain retail uses would have a 4.5m floor to floor height at ground level to maximise its flexibility of use, resulting in a slight variation to building height in storeys to B2 and B5. The proposed 120m incentive maximum height of buildings plus single tower of 154m is supported from an urban design perspective in that:

– The 120m / 154m height concentrates maximum heights and densities near the train station, university and shopping centre. This is intended to make the most efficient use of local infrastructure and services;

– The 120m / 154m height limit minimizes building footprint while delivering an FSR in line with adjoining Herring Road sites, enabling the delivery of more public domain;

– The 120m / 154m height is consistent with the Macquarie University Station (Herring Road) Priority Precinct controls which has heights up to 120m for large parts of the precinct, but also diversifies building height in the centre. This creates a distinctive skyline for Macquarie Park.

– The 120m / 154m height allows for slender building forms which provide better tower separation, slender shadows and residential amenity;

– The 120m / 154m height allows for the delivery of open space while preserving its solar access and amenity;

– The site is located near a key entry and exit point to Macquarie Park (from the M2 Motorway), and is larger than the majority of other sites within Macquarie Park. The site is therefore considered to be appropriate for additional height to signpost the entry to this key commercial centre through landmark buildings.

– This study has informed the overall heights and FSRs proposed under the Planning Proposal and will be used to inform the appropriate amendments to the Ryde DCP 2014 as required.