

Aland Leppington - Residential Core Masterplan Report





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Woods Bogot acknowledges the Traditional Owners of the land, sky and waters. We pay our respects to Elders past, present, and to the future leaders of our community.

We honour the ongoing deep spiritual connection that the Traditional Owners have with this country. With respect, we tread gently to help reconcile and pave the way for a united and harmonious future for all people.

01.01 Introduction

Project Introduction

This report has been prepared on behalf of the Aland (the Proponent) to support a Planning Proposal (PP) to amend the State Environmental Planning Policy (Precincts – Western Parkland City) 2021 (Parkland City SEPP), and DCP. Please confirm with Urbis or use their site description document for clarification.

The PP will facilitate the development of a well-designed, mixed-use precinct that builds upon the newly opened Leppington Station. This PP aims to contribute positively to the Leppington Strategic Centre.

This proposal is built around the public transport node, enabling the strategic center to grow with additional residential and retail uses; diversifying employment opportunities to attract new residents in the region. The proposal also seeks to address the shortage of residential options in the region through the introduction of high quality residences and diverse housing typologies; making Leppington an attractive home to a more diverse range of people with easier access to services and employment hubs.

The Aland Residential Core as the residential neighbourhood and The Aland Civic Centre as the mixed-use civic centre with retail, F&B, and community uses are designed to compliment each other, yet stand up on their own in terms of strategic and site-specific merit. Both proposals focus on improved streetscapes; enabling walkability, moments to dwell and ease of access. It will also provide the growing community with new public open space integrated with the improved pedestrian network.

The PP forms part of Aland's vision for a growing region spurred by the introduction of Leppington Station and guided through good design, improved urban outcomes and an attractive place for living, leisure and work.



01.02 Introduction

Aland Developments

The team at ALAND work tirelessly to maintain the highest quality standards for our community of clients, customers, co-workers and peers. Everyone who decided to purchase a gorgeous Sydney apartment from us, knows they are able to trust us to bring them the best quality home and buying process possible.

Through our experienced team of in-house architects, designers and project managers, we draw on our extensive knowledge, financial strengths and high standards to ensure success for each and every project we undertake.

Our expert team have constructed numerous acclaimed residential projects across Sydney, all to the highest quality standards. From the efforts our talented in-house architects, designers and project managers along with our wider team, we proud to have won awards for our work on various projects.

150+ ALAND employees

30+ Developments

In the Sydney region

5500 Apartments in Planning

20+ Years

Established in 2002

3800+ Apartments built

1200+ Apartments under construction



Strategic Context

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02	Key Strategic Documents
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05	Existing Planning Controls
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08	Proposed SEPP Mapping

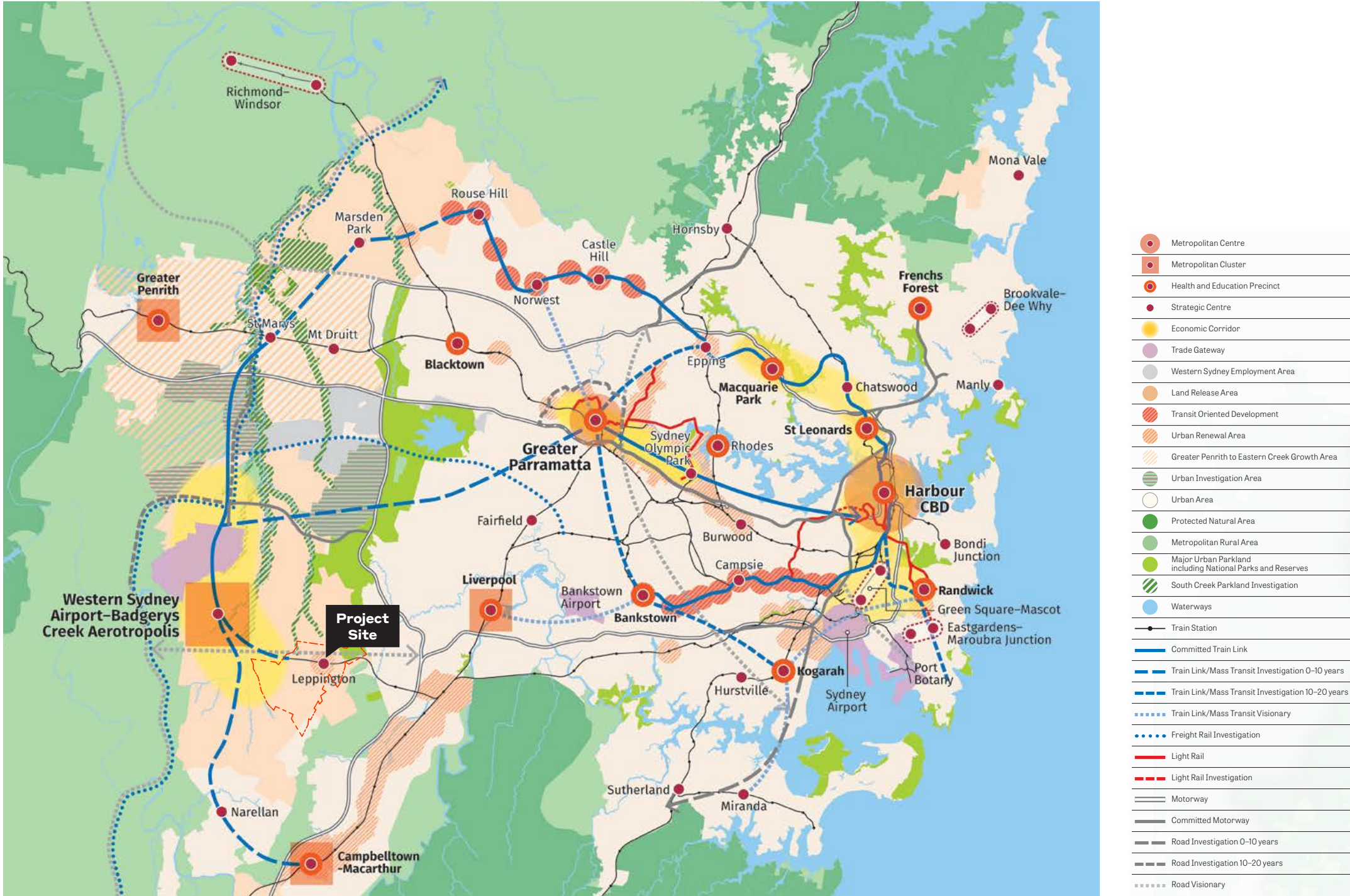
02.01 Strategic Context Regional

A Metropolis of Three Cities - the Greater Sydney Region Plan

The vision seeks to meet the needs of an evolving and growing population of Greater Sydney. The plan envisions Greater Sydney as a metropolis of three cities; the Western Parkland City, the Central River City and the Eastern Harbour City, where residents live within 30 minutes of their jobs, health facilities, education, services and great places.

The plan proposes new transport patterns and land use, with the aim to enhance the liveability, sustainability and productivity of Greater Sydney, through distributing the benefits of growth.

The plan will be realised through government collaboration with key stakeholders, community groups, businesses, organisations and industry groups.



02.01 Strategic Context Regional

Our Greater Sydney 2056 - Western City District Plan

The Western City District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It is a guide for implementing the Greater Sydney Region Plan, A Metropolis of Three Cities, at a district level and is a bridge between regional and local planning.

The plan proposes investment in city-scale infrastructure, the implementation of a new social framework including cultural and community facilities and the establishment of transport connections. This includes a South-West train link from Leppington to Western Sydney Airport –Badgerys Creek Aerotropolis train link.

Westmead health and education precinct will be transformed into an innovation district with a greater variety of knowledge-intensive jobs and urban and industrial services land will be retained.

Parks, bushland, playgrounds and waterways will be connected and improved to enable access to safe walking and cycling paths and natural amenities.

To manage the growth and change of the District's centres, a centres hierarchy has been established as outlined below:

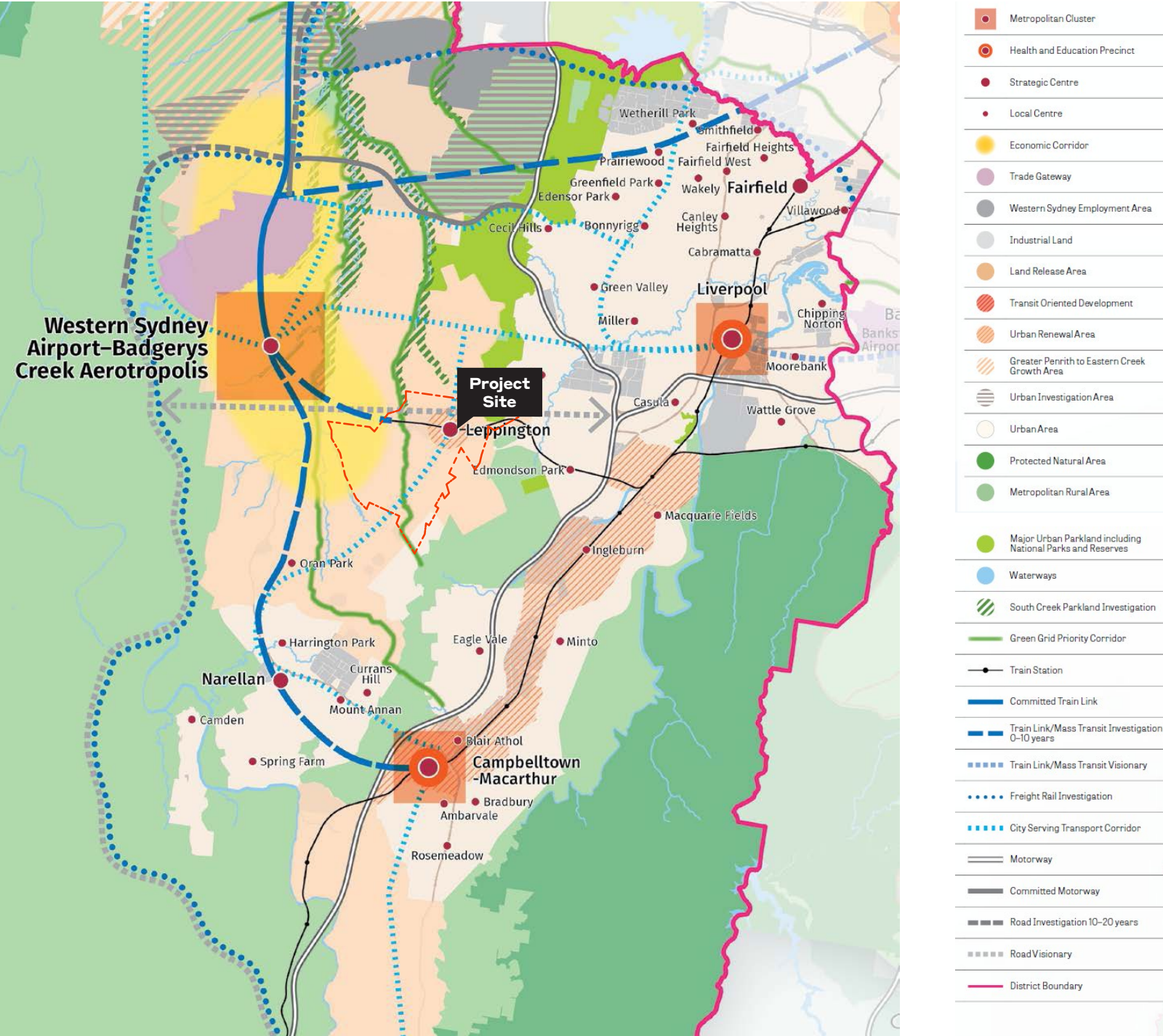
- Metropolitan cluster: Liverpool, Greater Penrith and Campbelltown-Macarthur, Western Sydney Airport and Badgerys Creek Aerotropolis (refer to Planning Priority W9)

- Strategic Centres: St Marys, Katoomba, RichmondWindsor, Fairfield, Leppington and Narellan local centres: (refer to Planning Priority W6).

As a strategic centre, the plan estimates 7000 jobs for Leppington's 2036 baseline target and 12,500 jobs for the 2036 higher target.

Actions to Strengthen Leppington are to:

1. Develop a masterplan for the Leppington town centre in collaboration with Camden and Liverpool City Councils, stakeholders and the community
2. Coordinate the release and rezoning of land for residential, employment and other urban development in Leppington town centre in accordance with the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 and to support the District's housing and job targets
3. Coordinate and deliver enabling infrastructure to support future development.

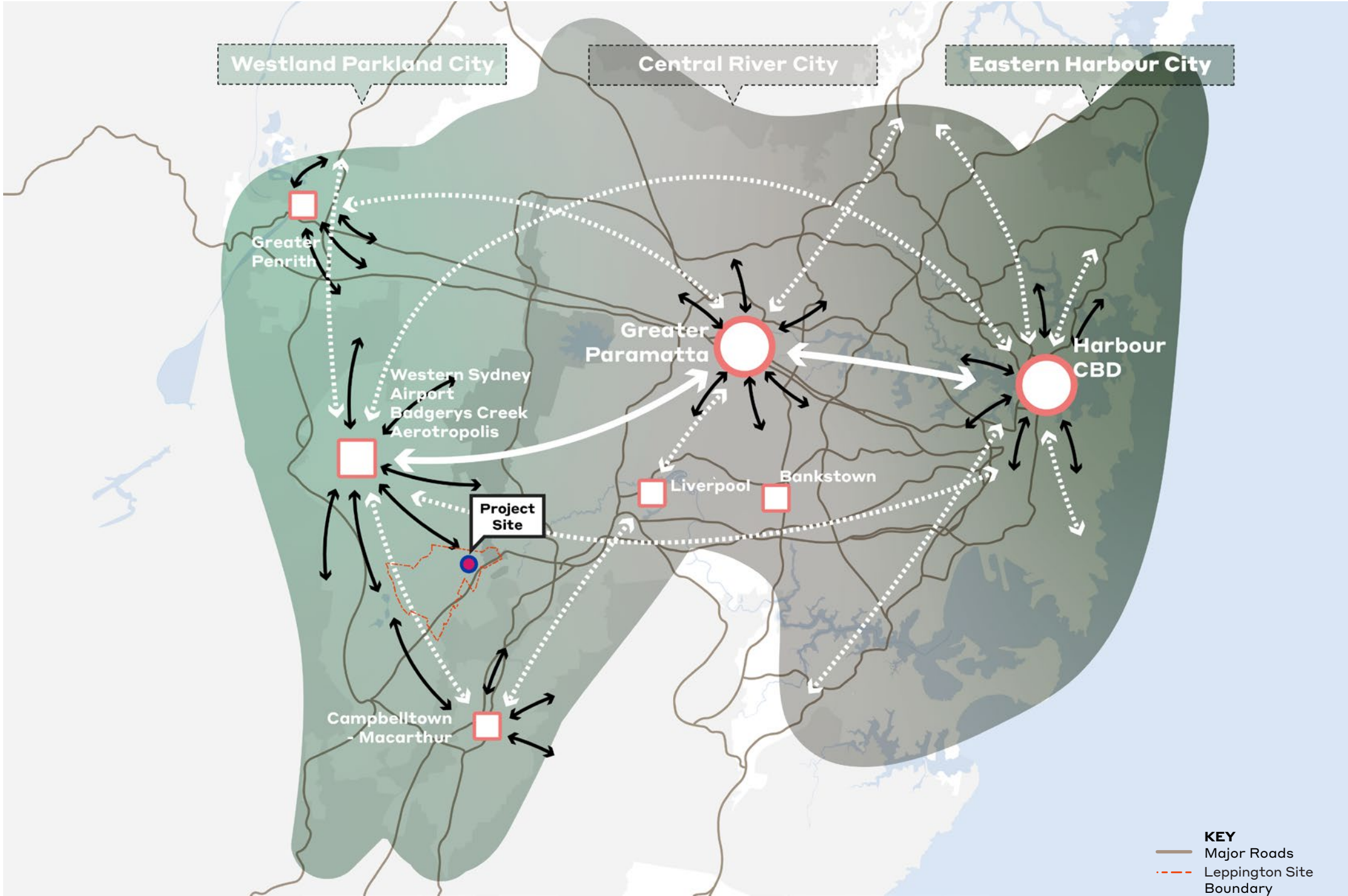


02.01 Strategic Context Regional

A Metropolis of Three Cities

The Greater Sydney Region Plan, a Metropolis of Three Cities is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.

- Key Directions:
- 1. A city supported by infrastructure
 - 2. A collaborative city
 - 3. A city for people
 - 4. Housing the city
 - 5. A city of great places
 - 6. A well connected city
 - 7. Jobs and skills for the city
 - 8. A city in its landscape
 - 9. An efficient city
 - 10. A resilient city

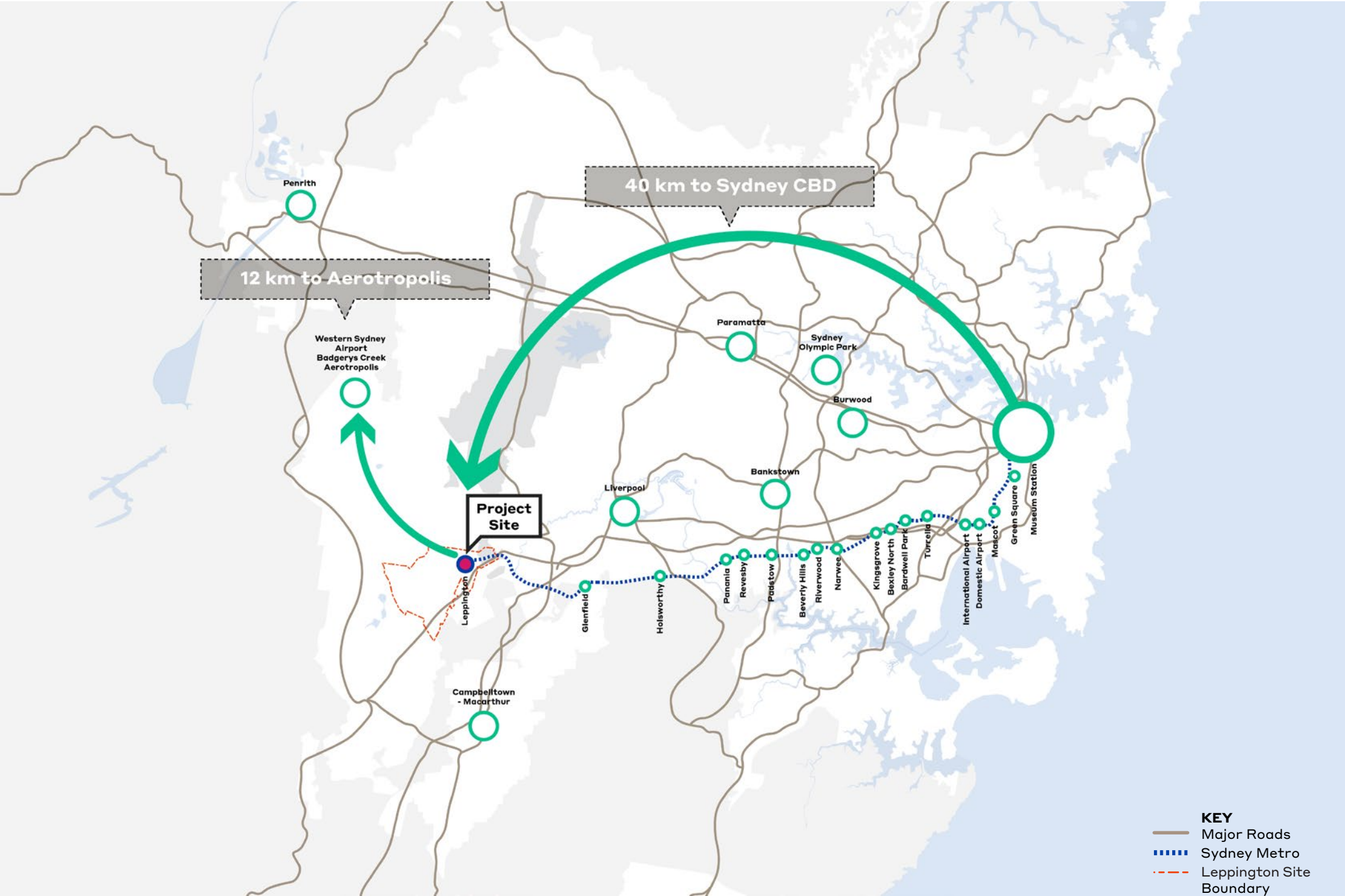


02.01 Strategic Context Regional

City of Camden

Leppington, as part Camden Council, is a New South Wales suburb situated approximately 40 km south-west of the Sydney CBD. This developing suburb has several newly opened, state-of-the-art facilities, and has proven especially popular with young families and retirees seeking a relaxed style of living.

Leppington is just South-East of Western Sydney Airport, approximately 18 km and about a 20-minute drive. A future rail connection between the Aerotropolis and Leppington Station has been earmarked for the future.

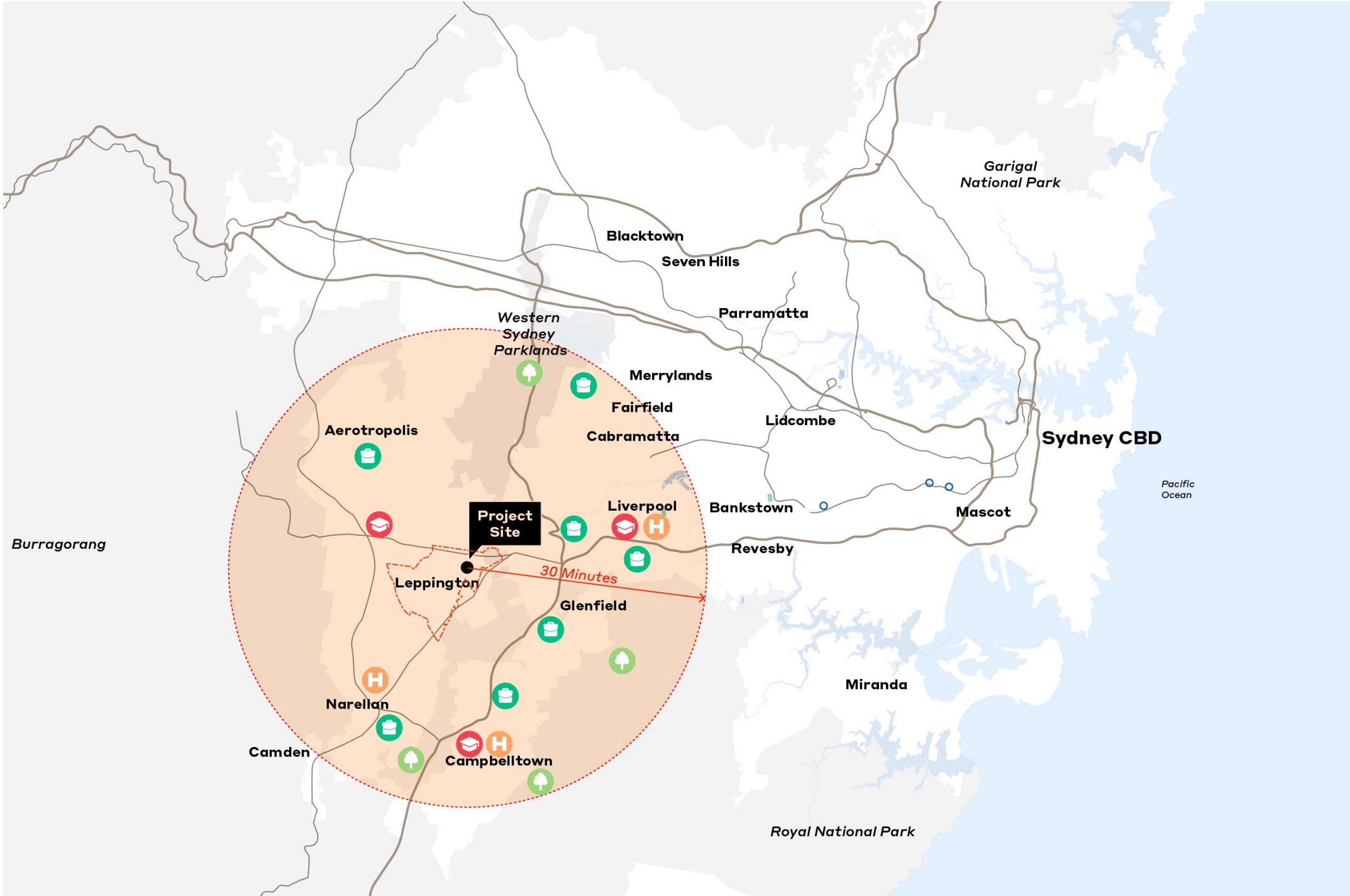


02.01 Strategic Context Regional

Essential Services under 30 minutes

Leppington is part of Westland Parkland City where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.

The project site has a privileged proximity with the Aerotropolis and other major developments in the Greater Sydney.



02.01 Strategic Context Regional

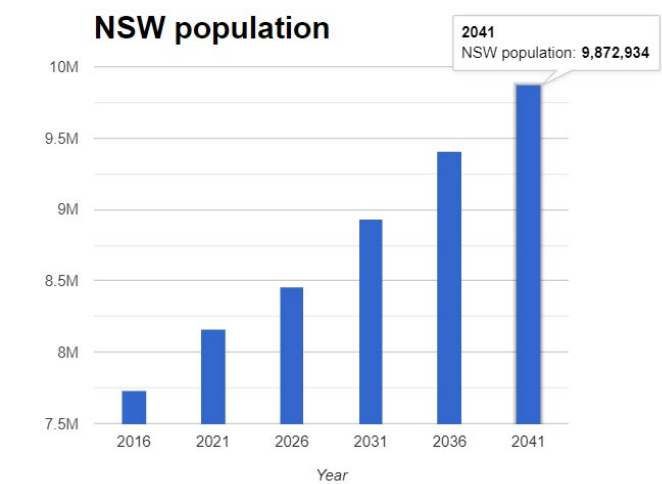
Future Growth

The next two decades will see a population increase from 5.3 million to 6.1 million in Greater Sydney.

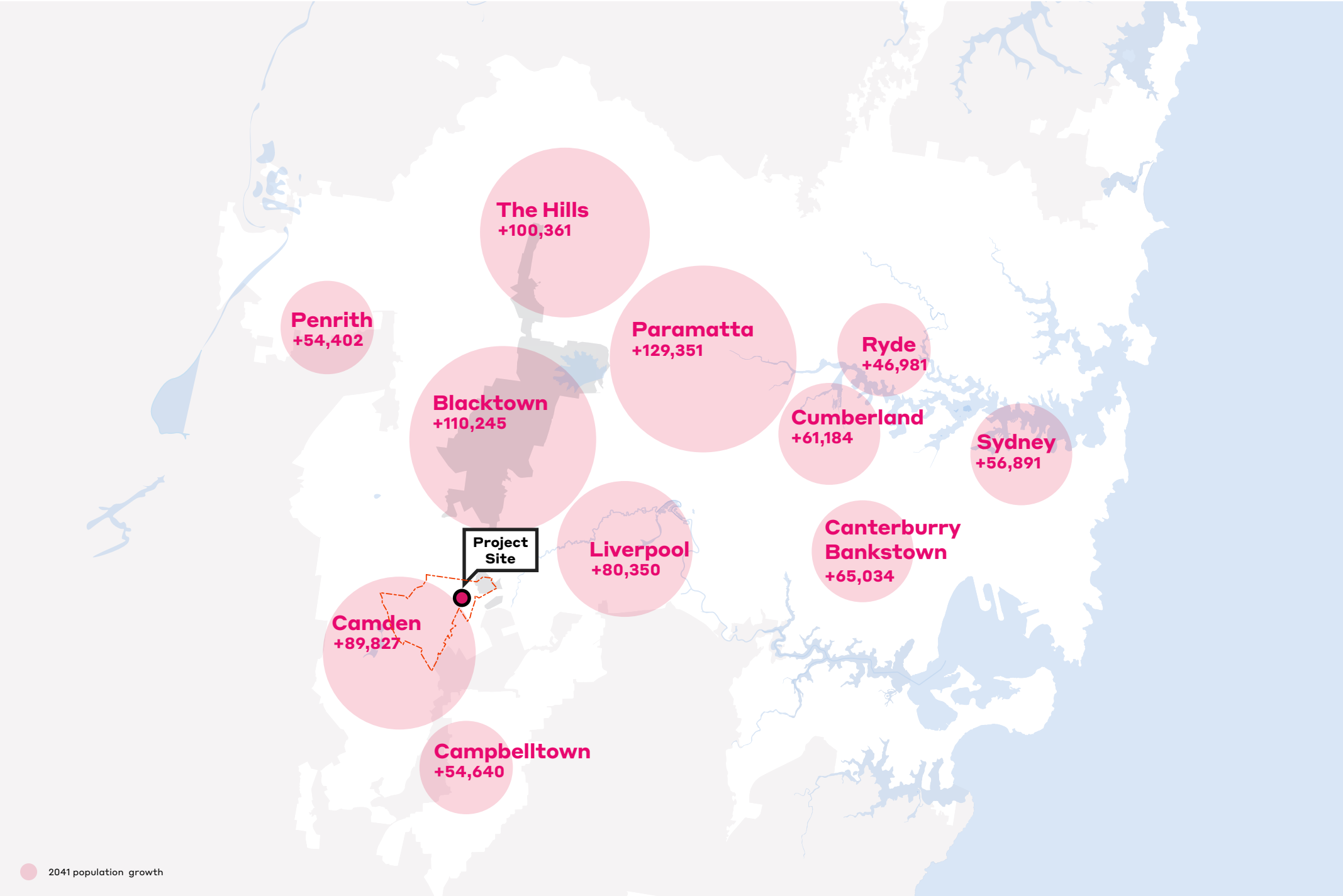
New satellite CBDs and new employment hubs will be planned in Camden where our project sites are located, Blacktown, the Hills Shire, Liverpool and Parramatta.

Camden will highly benefit from improved transport networks and the proximity of the planned Aerotropolis.

Camden will host around 90,000 new residents.



*Source: www.planning.nsw.gov.au

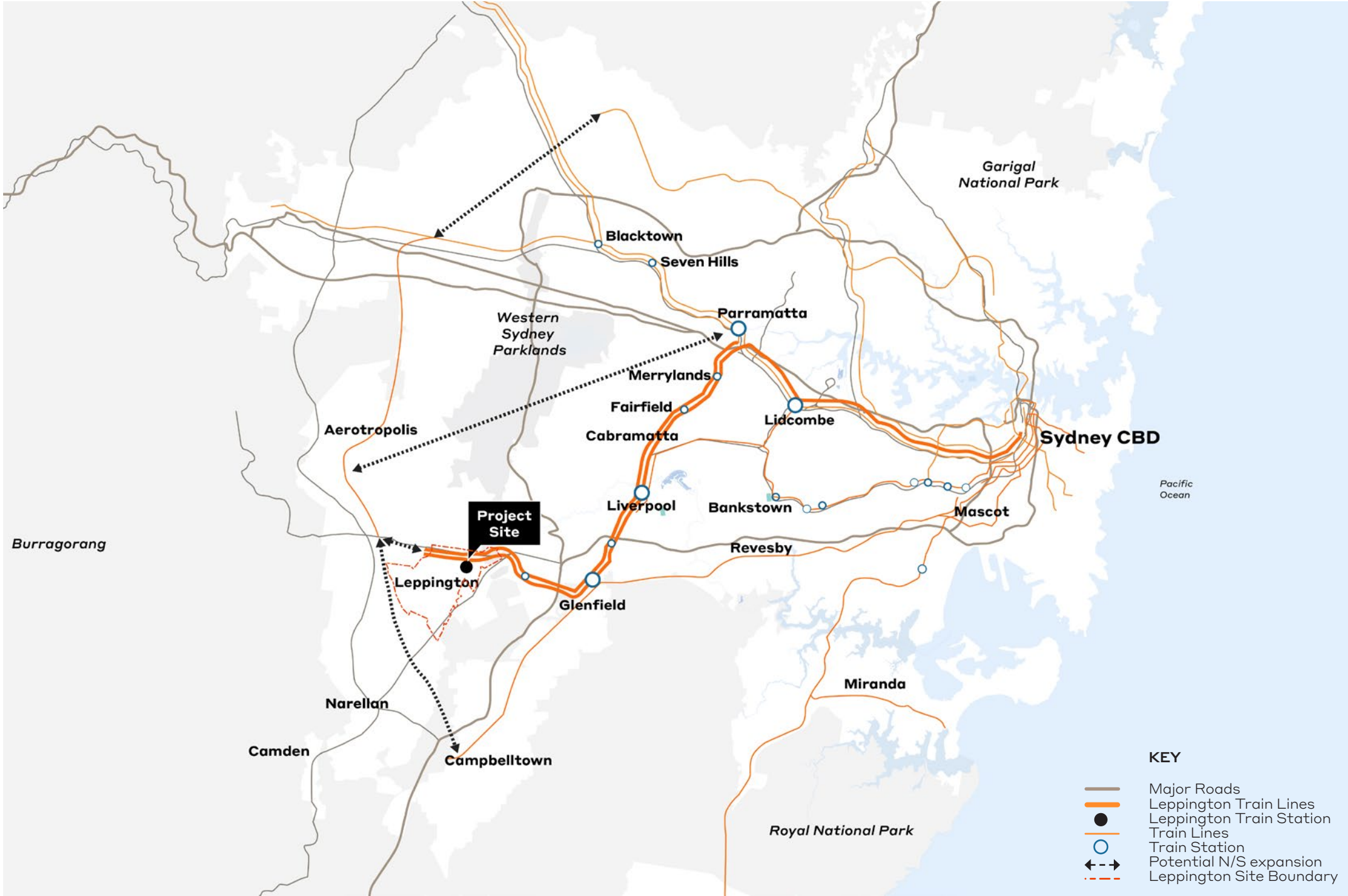


02.01 Strategic Context Regional

Transport Corridors

The area is largely serviced by Camden Valley Way and Bringelly Road, both of which connect the suburb to the Sydney CBD via the Western Motorway. While travel via car to the city is an approximate 50-min journey, transport via Train takes a slightly longer 75-90-mins.

Leppington and Edmondson Park Railway Stations are both closely located to the main areas of the suburb, with access to several different bus routes also available from there.

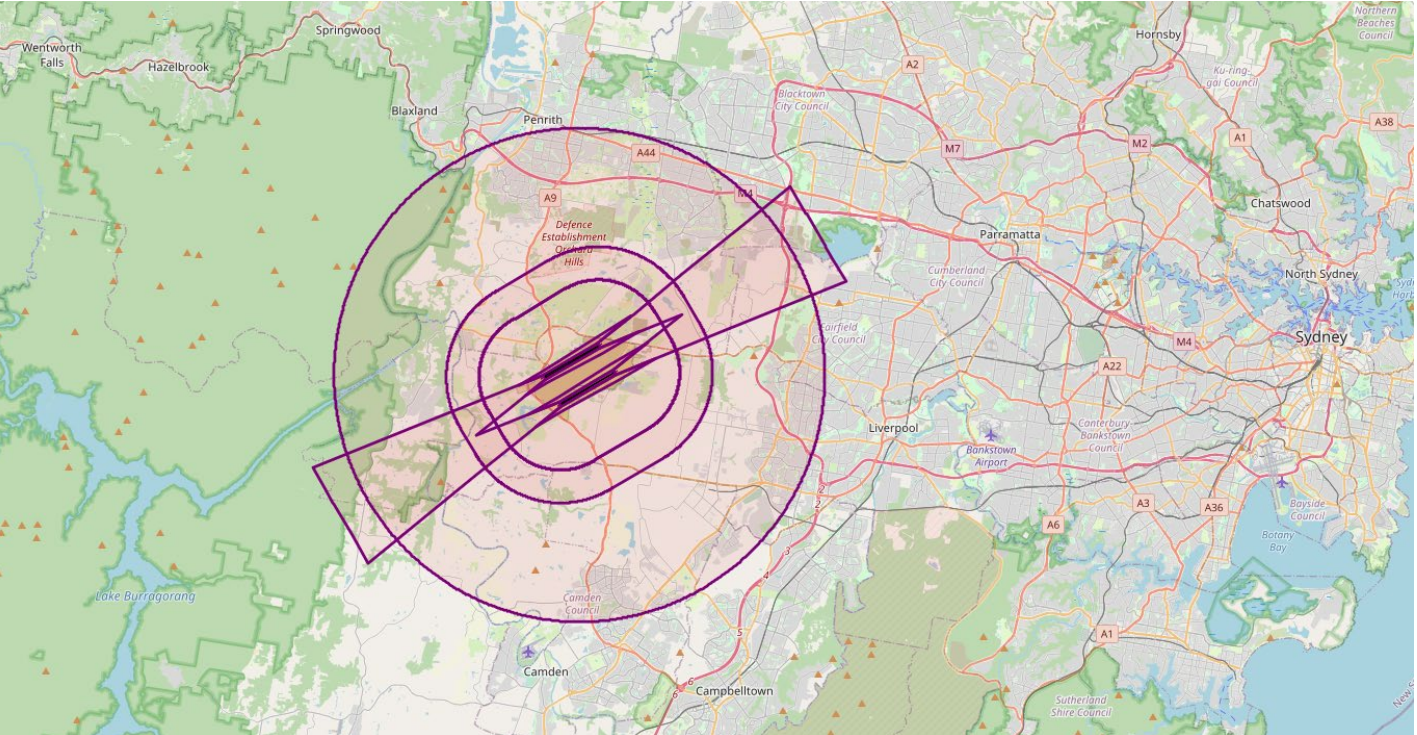


02.01 Strategic Context Regional

Western Sydney Airport

The Aerotropolis will create an innovation precinct and a home for technology, science and creative industries, ensuring the city has world class jobs that will sustain prosperity within the region, creating more than 100,000 new job opportunities - the biggest jobs boom in NSW history.

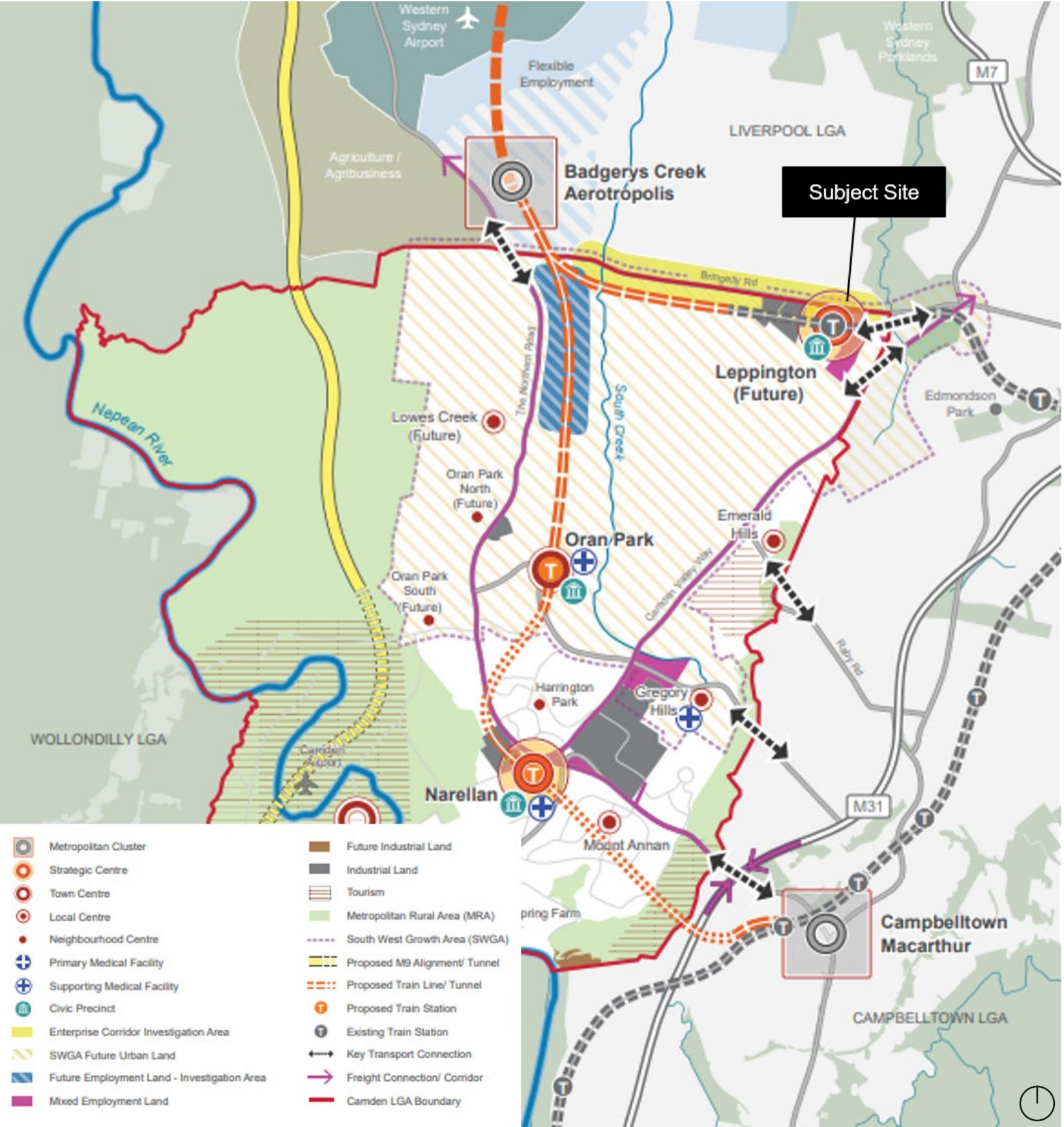
The Aerotropolis Core Precinct has the potential to deliver 50,000 – 60,000 jobs, with 19,000 – 21,000 jobs for the Northern Gateway Precinct and 9,000 –11,000 jobs for the Badgerys Creek Precinct.



02.01 Strategic Context Regional

Camden LSPS

- The LSPS identifies an Enterprise Corridor Investigation Area which connects Leppington to Bradfield City Centre.
- The LSPS identifies potential key transport corridor which will connect the town centre to the M7 Motorway
- Leppington will become a vibrant and connected town centre which reflects Camden's evolving character (Local Priority L4).
- The LSPS highlights the importance to achieve a suitable balance between commercial and residential floorspace within Leppington Town Centre, as we strengthen the centre (Local Priority P3).
- There is a significant amount of employment floorspace planned for the Aerotropolis, which will be staged over time.
- The site can help increase the residential catchment for not only Leppington Town Centre itself, but also to provide dwellings to support the growth of the Aerotropolis.



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02.02

Strategic Context

Key Strategic Documents

Better Placed policy for NSW



The Better Placed policy, written by Government Architect NSW, collates aspirations, expectations and requirements for the design of the built environment of NSW. The guide sees the potential that new development holds in impacting quality of life, stimulating the economy and improving the environment. It is envisioned that all aspects of our urban environment should be enhanced to create better places, spaces and buildings to achieve better cities, towns and suburbs. The plan states that good design needs to be at the centre of all development processes to achieve this and address the complexity of our rapidly changing social and economic environment. Better Placed asks industry to challenge their design thinking, problem solving and analysis to enhance the design quality of our built environment to ultimately create better environments that will define the future heritage of NSW.

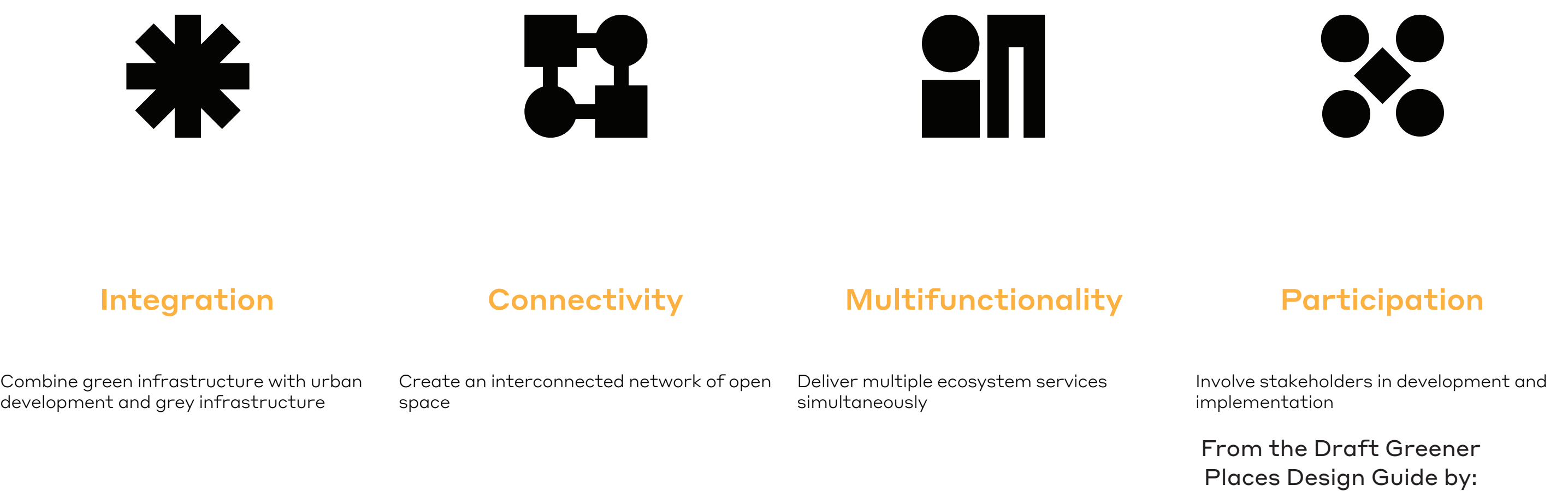
The seven distinct objectives above define the key considerations in the design of the built environment. Better Placed, depicts that achieving these objectives will ensure cities and towns, our public realm, landscapes, buildings and public domain will be responsive, healthy, integrated, resilient and equitable.

02.02

Strategic Context

Key Strategic Documents

Greener Places Design Guide Principles for NSW



The Draft Greener Places Design Guide, written by Government Architect NSW, provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The guide provides a methodology to help local and State government, as well as industry to create a system of green infrastructure. The guide explains green infrastructure and the benefits of implementing it. The major components fall into three categories: open space for recreation - green infrastructure for people, urban tree canopy - green infrastructure for climate adaption and resilience and bushland and waterways - green infrastructure for habitat and ecological health. The plan envisions improved public open spaces that are accessible, high quality and evolve with the growing population; increased urban canopies and improved connectivity between people and the natural environment. It is intended that the four principles above will help deliver green infrastructure in NSW.

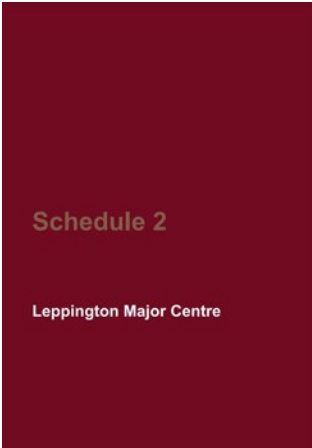
02.03 Strategic Context
Key Strategic Documents



Key Strategic Document
Local Strategic Planning Statement, March 2020, Camden Council



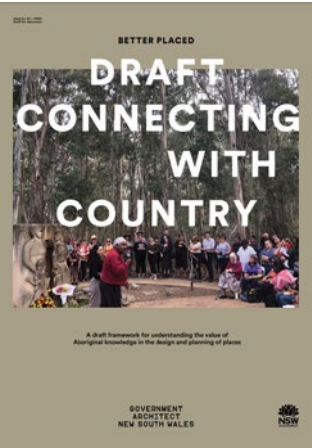
Key Strategic Document
Leppington Major Centre Public Domain Strategy, October 2012, AECOM



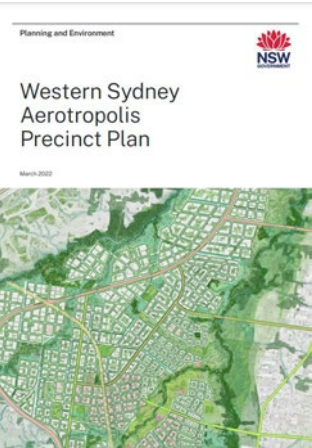
Key Strategic Document
Camden Growth Centre Precincts Development Control Plan, 2011, referred to as the DCP



Key Strategic Document
Draft Greener Places Design Guide, 2020, NSW Government



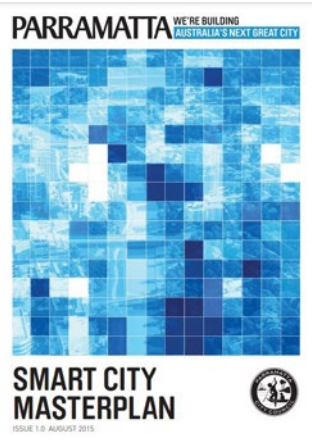
Key Strategic Document
Draft Connecting with Country framework, 2020, NSW Government



Key Strategic Document
Western Sydney Aerotropolis Precinct Plan, 2022, NSW Government



Surrounding Developments as Precedent
Liverpool City Centre Public Domain Master Plan, 2020, Liverpool City Council



Surrounding Developments as Precedent
Parramatta Smart City Masterplan, 2015, Parramatta City Council



Surrounding Developments as Precedent
Bankstown City Centre Master Plan, 2021, Canterbury Bankstown



Surrounding Developments as Precedent
Reimagining Campbelltown Masterplan, 2020, Campbelltown City Council



Surrounding Developments as Precedent
Sydney Olympic Park Master Plan 2030, 2016, CM+



Surrounding Developments as Precedent
Penrith City Centre Public Domain Masterplan, 2013, Place Partners, Spackman Mossop Michaels, Brecknock Consulting

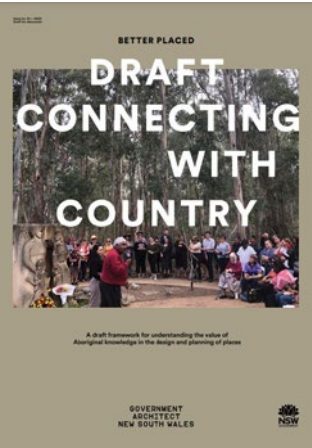
02.03 Strategic Context
Key Strategic Documents



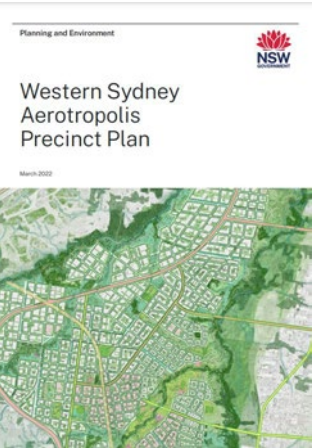
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Key Strategic Document
Western Sydney Aerotropolis Precinct Plan, 2022, NSW Government



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Bankstown City Centre Master Plan, 2021, Canterbury Bankstown



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Reimagining Campbelltown Masterplan, 2020, Campbelltown City Council



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Sydney Olympic Park Master Plan 2030, 2016, CM+



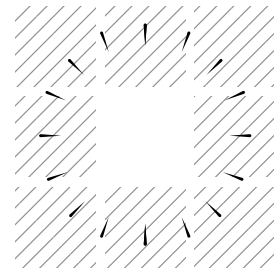
Surrounding Developments as Precedent
Penrith City Centre Public Domain Masterplan, 2013, Place Partners, Spackman Mossop Michaels, Brecknock Consulting

02.03 Strategic Context

Camden Urban Design Values

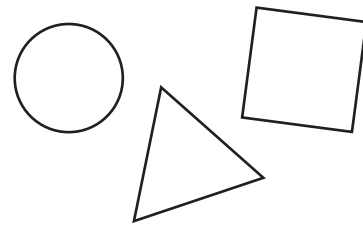
Camden Urban Design Values

Camden Council Website - 2023



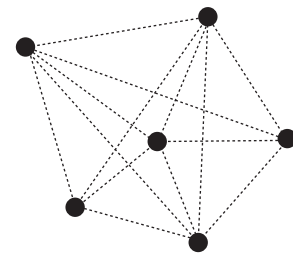
Character

sense of place and its history



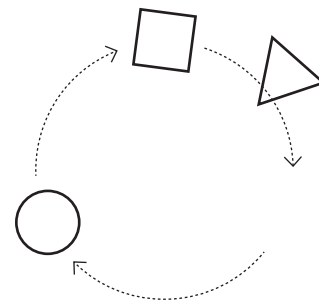
Diversity

an inclusive place with variety of uses and users



Connectivity

pedestrian oriented and easy to get to and move through



Adaptability

adaptable buildings and places to variety of uses and changes for future use

Key Considerations

Built Environment

_Urban layout – structure and grain

Relationship between the development and the nature and extent of the subdivision area, pattern, street scale, and building frontage

_Urban scale – building type, height, and massing

Building size and its relationship to its context and impact to the views and skyline

Public domain interface

streetscape, façade, and landscape Relationship between the building and the street

As more and more people live in densifying urban areas, the need and importance of open spaces and encountering natural environment increases. The everyday experience of connecting with nature is a key factor in health as well being of urban citizens. A good open space will encourage and enable healthy and sustainable travel choices and promote biodiversity. Also spending time outdoors provides opportunities to meet other people and have shared experiences to build stronger communities.

Public open spaces are one of our priorities in growth areas and creating a sustainable Camden.

Good urban design can reduce the impacts of extreme weather conditions and climate change through sustainable planning and practices to optimise energy and water efficiency and minimise waste and carbon emissions.

At Camden, sustainability is about creating urban environments that protect our rural heritage, protect and enhance our natural environment, while ensuring we are a resilient, healthy and connected community.

Changes in land-use (i.e. rural to urban) has the potential to double the temperature increases caused by climate change. As cities expand and land is redeveloped, urban microclimates change. Urban areas tend to be significantly warmer than its surrounding rural areas, when there is less green cover and more hard surfaces which absorb, store, and radiate heat. The urban heat island (UHI) effect defines urban areas become significantly warmer than surrounding vegetated areas, creating 'islands' of urban heat.

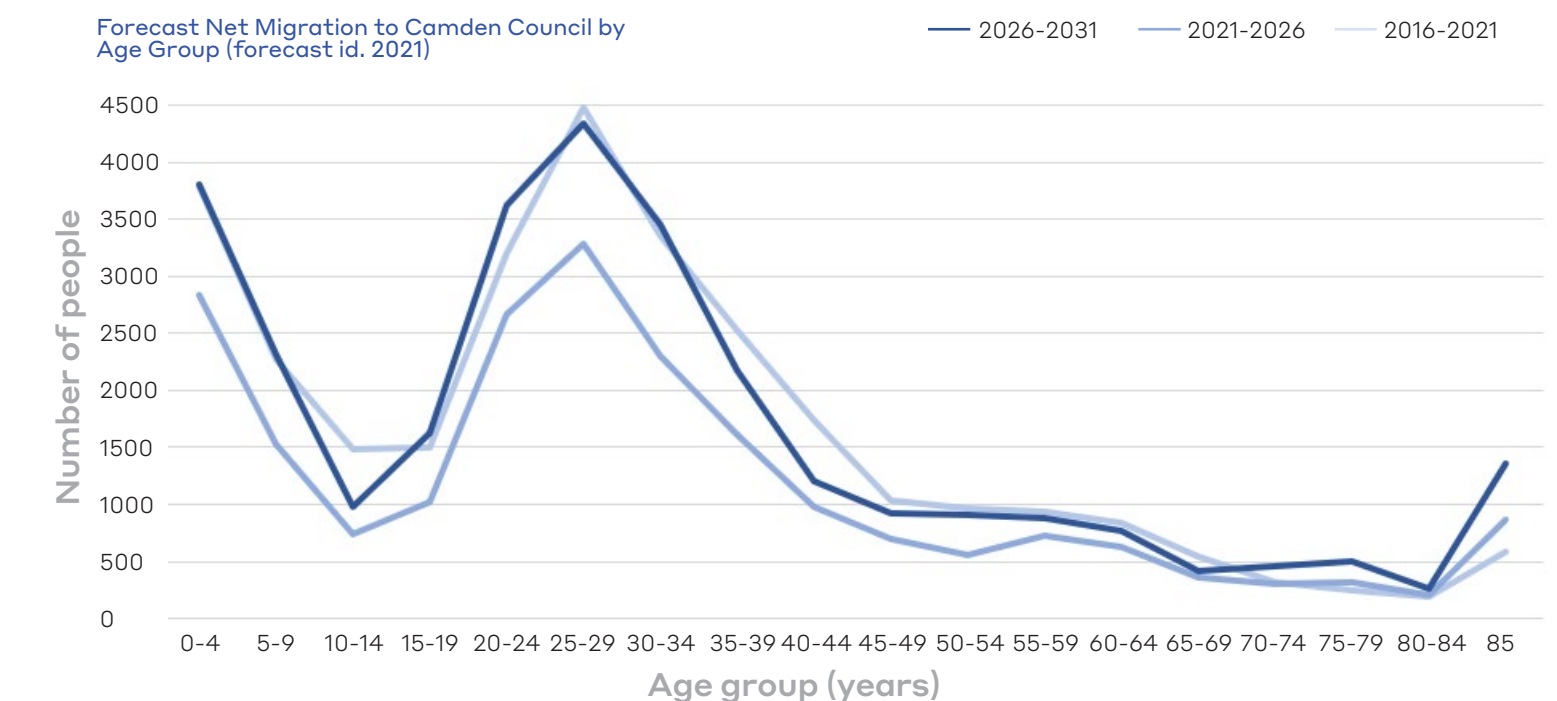
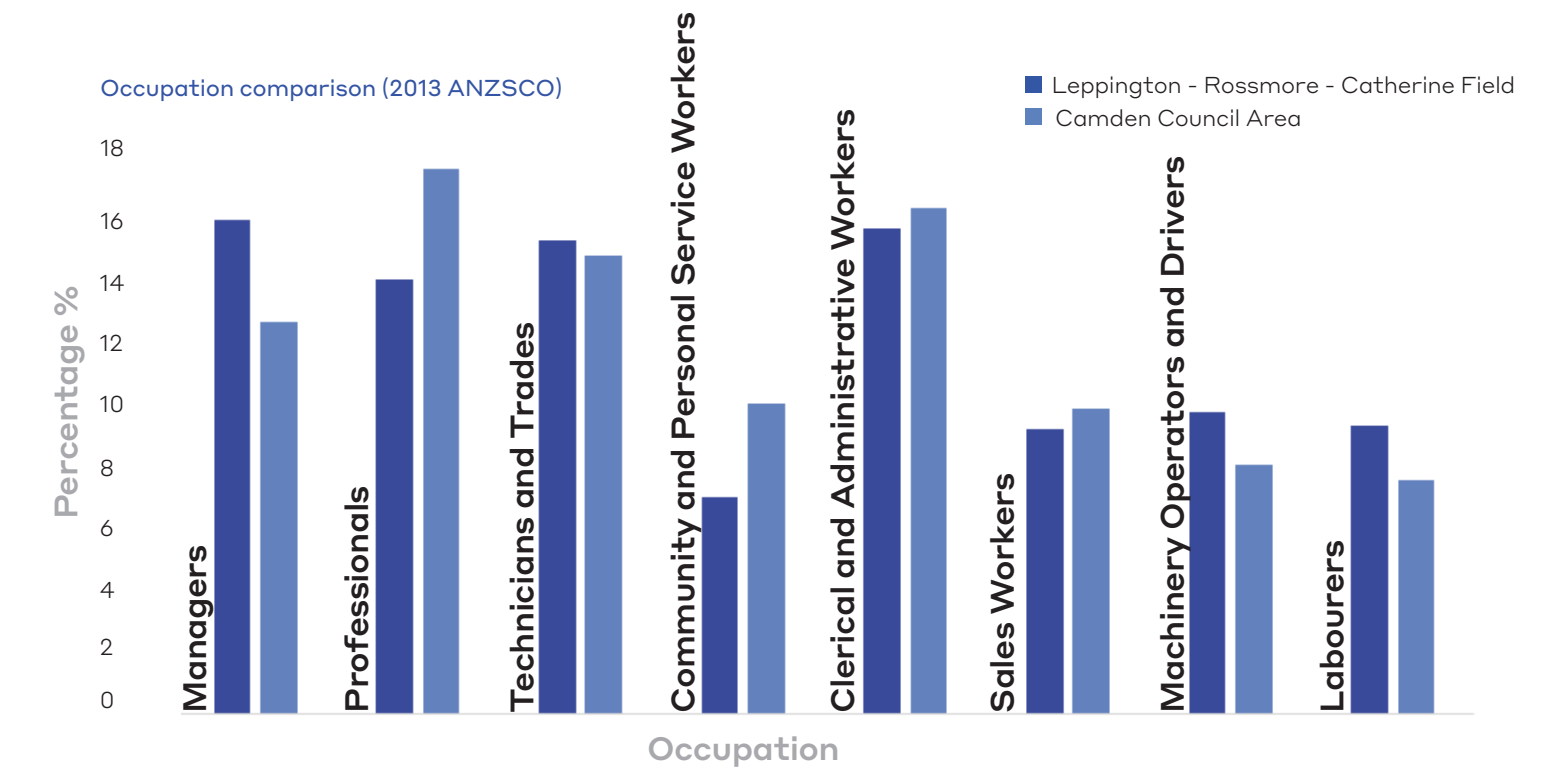
UHI is a significant and growing issue for urban areas in particular Western Sydney. Trees, green roofs, cool materials (i.e. high albedo materials for paving, cladding, etc.), and vegetation can mitigate the UHI effect.

02.04 Strategic Context

Camden Community Profile

Strengths and Opportunities

- Camden's rapidly growing population presents many opportunities. New centres to be delivered within the SWGA can promote sustainability and liveability from the very early stages, adopting best-practice planning and design principles.
- The population growth will also bring new skills and diversity to Camden, which will help to diversify the local employment opportunities and further strengthen the local economy.
- The same elements which create an attractive place to live and work, also have the potential to attract visitors in increasing numbers. As Sydney continues to urbanise, Camden's natural landscapes will be highly valued and sought after, introducing a visitors economy.
- The Western Sydney Airport and surrounding Aerotropolis, as well as the Western City Deal, will provide numerous opportunities for Camden. Investment in key transport infrastructure and a renewed focus from government to align infrastructure with growth will lead to a better connected Camden.



02.04 Strategic Context
Camden Community Profile

Today's Demographics



110,600 people
Camden Population 2021



Young Couples
(Young couple, no kids - Aged 25-34)

- Currently renting, new to the area
- Both working full time in Sydney's CBD
- Saving to buy a home together
- Enjoy entertaining but also love eating out
- Frequent users of the local gym and yoga studio



Active Singles
(Young Student - Aged 18-24)

- Currently living with housemates in a Build-to-Rent building
- Works casually at a local cafe whilst being a full-time student
- Looking for low-cost activities and places to socialise with friends
- Does not own a car, cycles frequently and relies on public transport



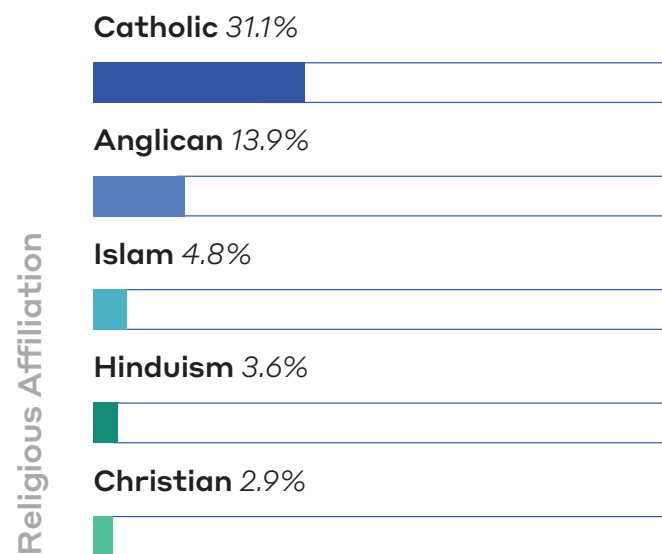
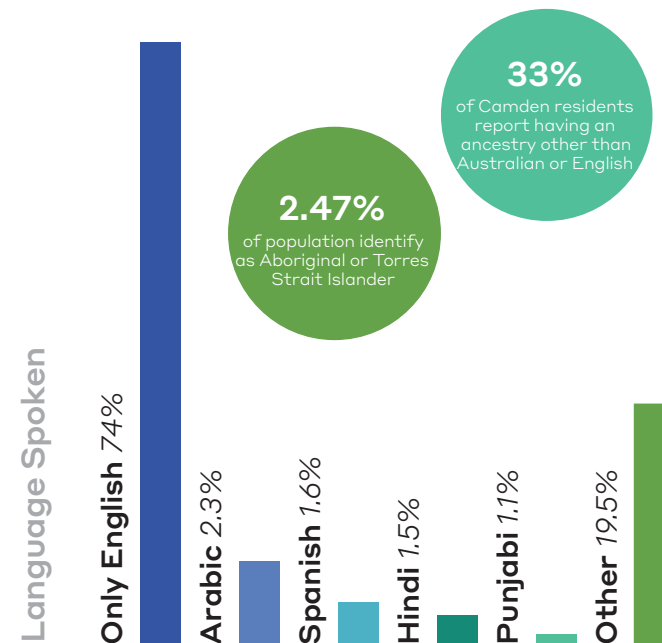
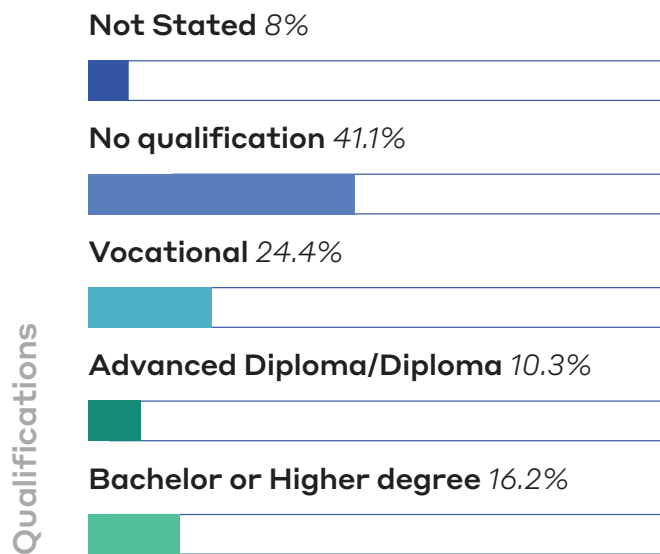
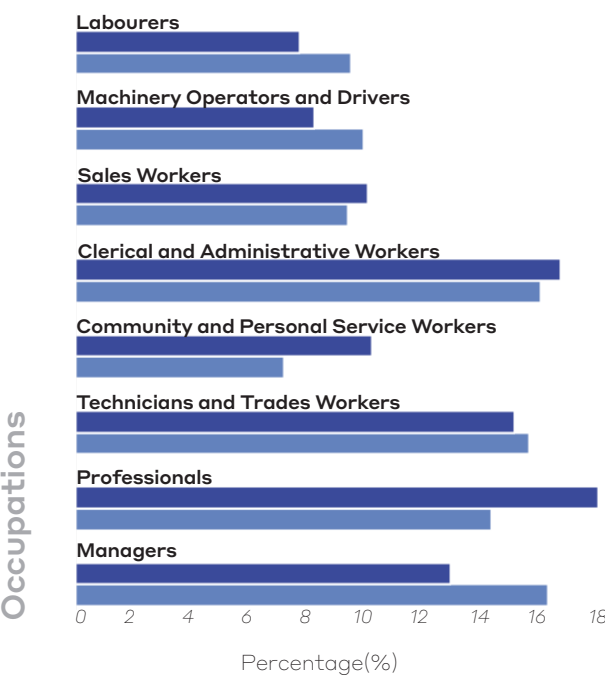
Families
(Young Family - Aged 35-44)

- Have children aged 0-10 years old
- Owners of their home
- Value community and child-friendly amenities such as the library and playgrounds
- Have two cars and will look to up-size their home as their family grows



Retirees
(Lone Living - Over 65)

- June is a well-known community member who frequents the local library and community centre
- Likes to shop locally
- Has a dog
- Walks to local shops, cafes, medical centre and amenities



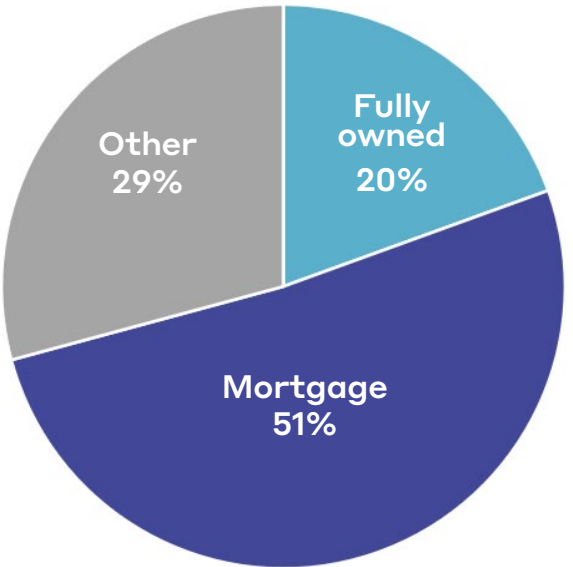
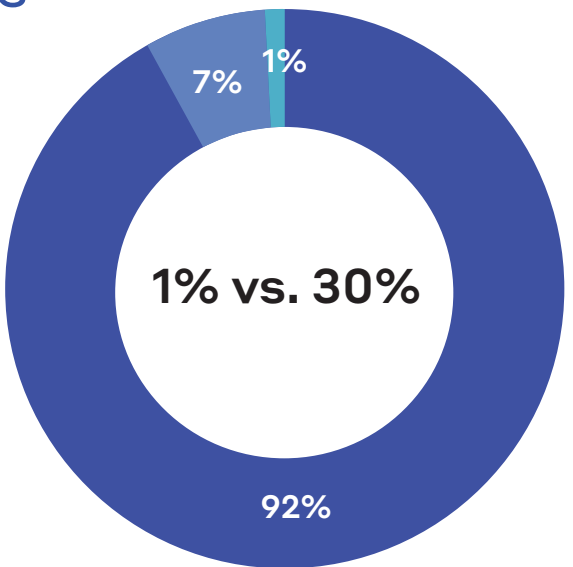
02.04 Strategic Context
Camden Community Profile

Tomorrow's Demographics



233,950 people (↑211%)
Camden Population 2036

CURRENT HOUSING STRUCTURE



The expected number of single dwellings and townhouses will not accommodate all new family households



1% Flat or Apartment

vs. 30.8% Greater Sydney



92% Single Dwelling

vs. 55.9% Greater Sydney



7% Semi-detached or townhouse

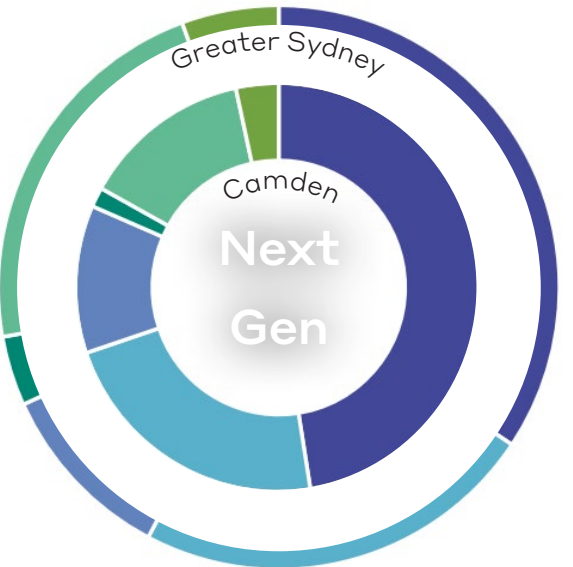
vs. 55.9% Greater Sydney

71% of households in Camden are owned outright or through mortgage

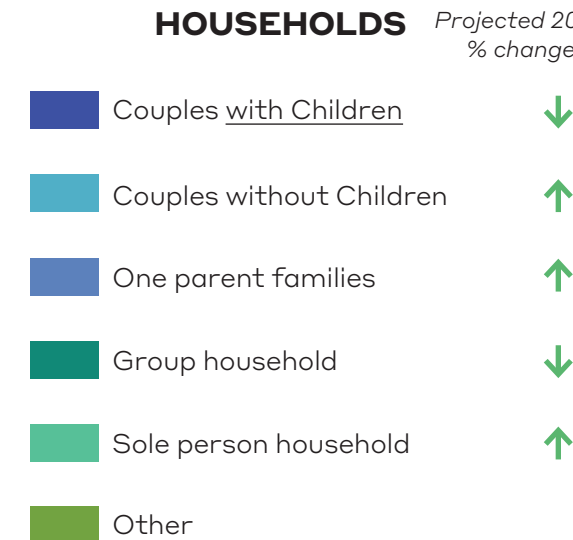
- By 2036, there will be 77,350 projected households, the largest housing growth of any Metropolitan Sydney Council.
- The largest group of people looking to reside in the area are families followed by mature adults.
- Housing typologies and supporting infrastructure will need to support the huge growth.
- Housing will need to be diverse and accessible to all, responding to the changing needs of the community while still reflecting the characteristics that make Camden so special.

Source: Population and household forecasts, 2016 to 2041, prepared by .id (informed decisions), October 2021.

FUTURE HOUSING STRUCTURE



There are a variety of needs and preferences of different groups that needs a diverse range of housing

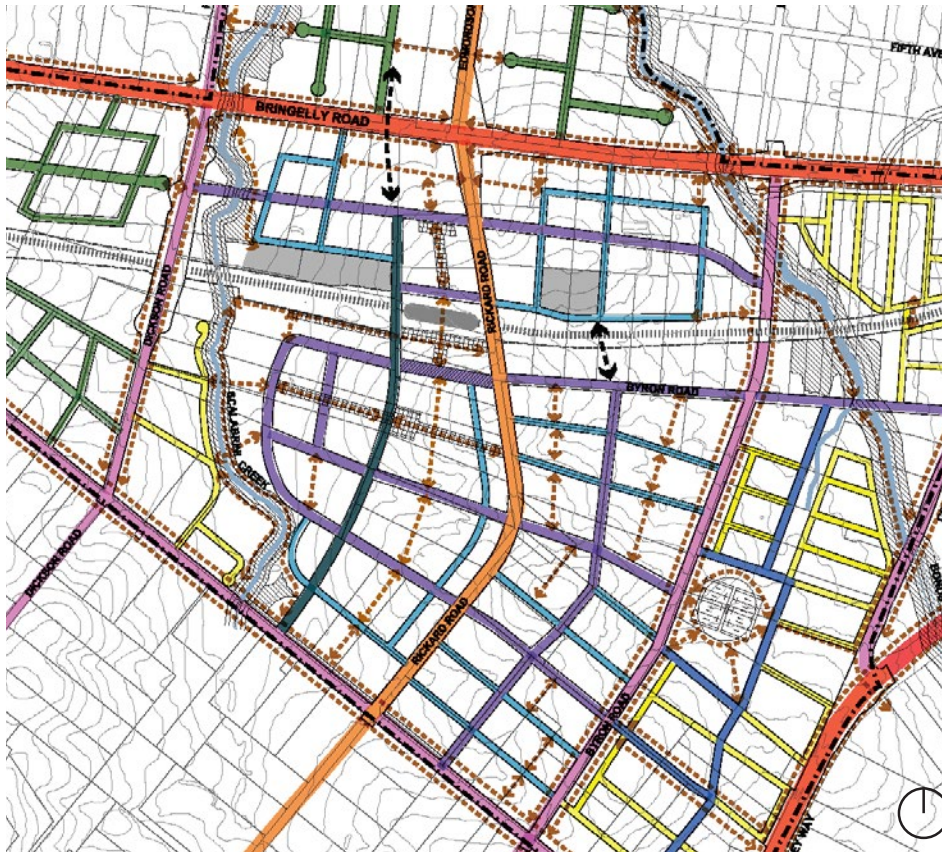
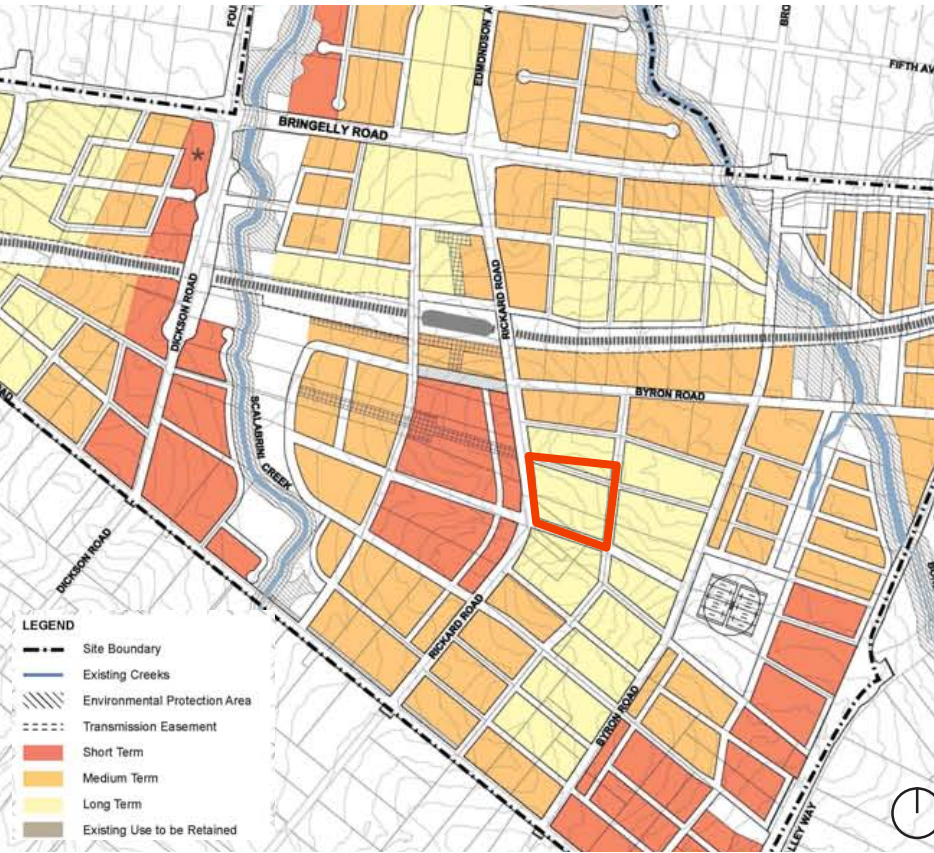


02.05 Strategic Context

Existing Planning Controls

Planning History

The Leppington Town Centre DCP was undertaken in July 2012 in anticipation of the growth around the WSA. In the years since its approval there was a lack of development [FIX]. The Council Planning Proposal Report Nov 2022 stated there was a "lack of significant uptake of commercial and residential development since the initial rezoning in 2013 via the former Sydney Region Growth Centres SEPP 2006." Council PP states that there is a "lack of a lead developer to establish a town centre with a range of retail services and amenity" (Camden Council - Leppington Planning Proposal - Local Panel Report August 2022) and thus was a reason for the lack of success of the 2013 rezoning and the need to revisit it in 2022.



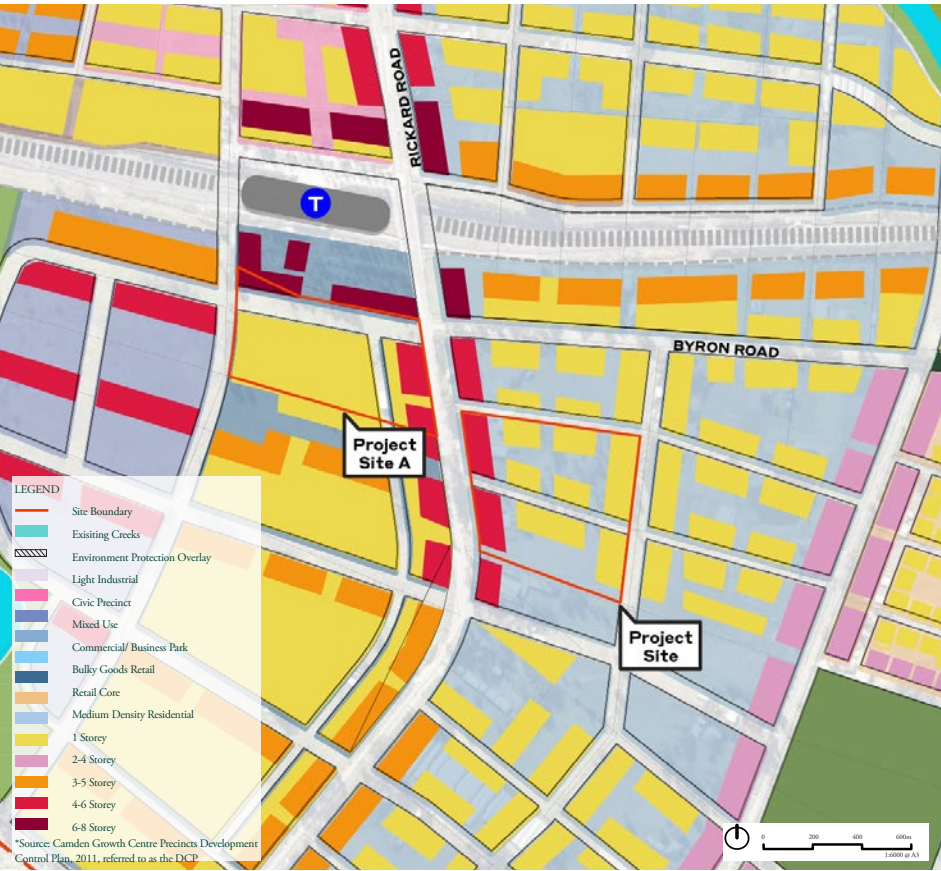
Leppington Town Centre Masterplan [2012]

Infrastructure plan [2012]

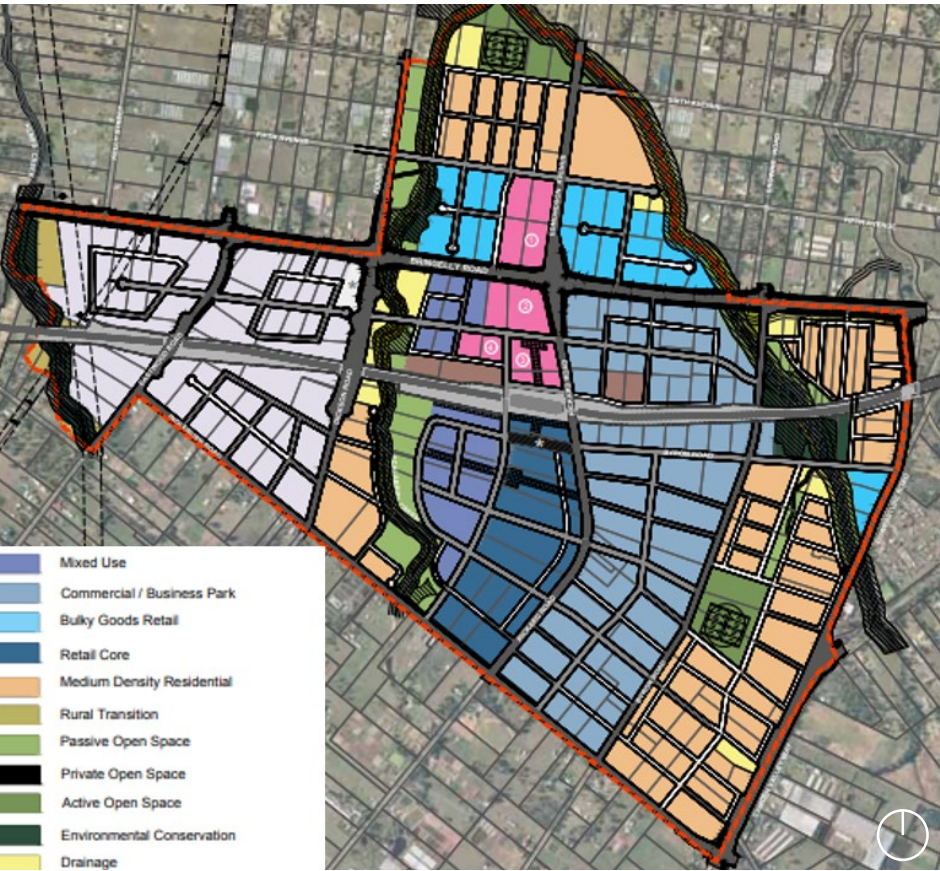
Future Growth [2012]

02.05 Strategic Context

Existing Planning Controls



Land Use and Heights



Indicative Layout Plan [2012]



Leppington Town Centre - Business Park Zoning

02.05 Strategic Context

Proposed Future Planning Controls

Camden Council, in collaboration with the NSW State government, decided to undertake a rezoning in 2017 due to the current controls not facilitating development. Council has recently submitted a planning proposal (2022) that aims to facilitate development within the Leppington Town Centre. Our Planning Proposal and Masterplan looks at a fine-grain scale within the Aland Leppington - Residential Core site to develop a masterplan that supports and compliments council's vision for Camden, with some site specific amendments that show our design response integrating into Councils Masterplan (pages 40-48).

We strongly support the proposed rezoning's emphasis placed on creating public spaces across the town centre. However, given the proximity to Leppington Station and potential for future growth that supports active movement and public life activity, we do not consider the proposed quantum and spatial arrangement of the open space to be appropriate. We raise the following concerns (next page):



Parks, Plazas, and Public Open Space

02.05 Strategic Context

Proposed Future Planning Controls



Indicative Layout Plan [2022]

Management and activation – the quantum of public space must enable the sustainable management of public spaces and the potential for a 'critical mass' of population that can successfully activate the quantum of open space being proposed. This ensures activation both at night and day, and limit 'dead spaces' which disengage the community from public life.



Road Hierarchy and Circulation [2022]

The roads proposed do not follow the lot cadastral boundaries of our site. The proposed railway square, civic park and east-west town centre street should correspond with lot ownerships to promote viable configurations and densities appropriate for a vibrant town centre with the 30-minute city.



Key Pedestrian Desire Lines [2022]

Configuration – the proposed linear park should support north-south pedestrian desire lines to support active movement from the south of the town centre to and from Leppington Station.

02.07

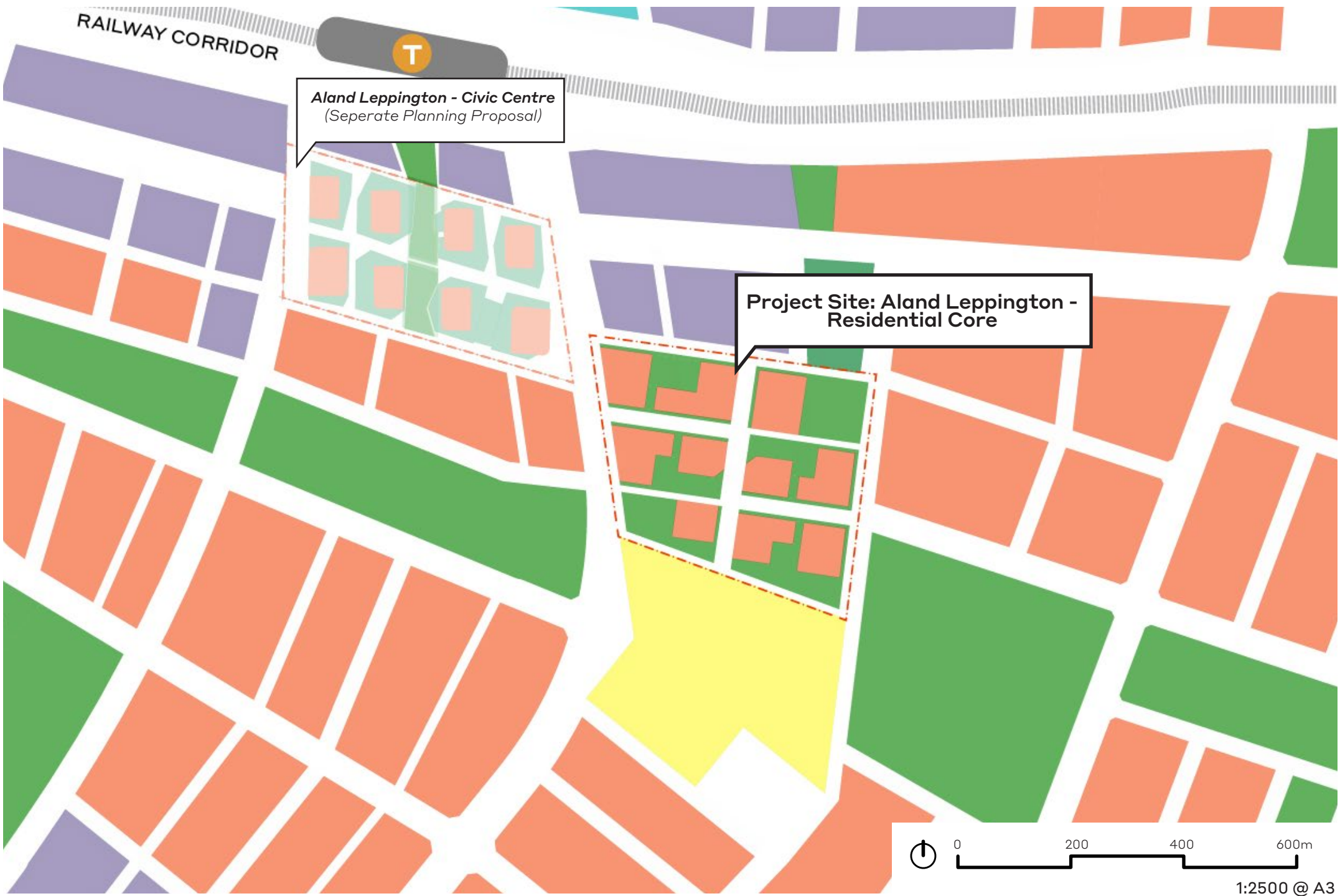
Strategic Context

Aland Masterplan Design Response & Integration

Indicative Layout Plan

Our contextually responsive Masterplan looks to integrate into Council's DCP while adapting to improve the outcomes of the Masterplan. The amendment seeks to provide a series of neighbourhood-scale parks that work with the natural topography of the site as well as achieving the intended outcomes of the east-west park link but with a more appropriate quantum of open space. This is to ensure that the parks are at a reasonable size to be activated; and in close distance of the school and the residential development to allow for passive surveillance and a better pedestrian experience.

- Legend
- Site Boundary
 - Mixed-Use
 - High Density Residential
 - Education
 - Community
 - Employment and Commercial
 - Leppington Train Station



02.07

Strategic Context

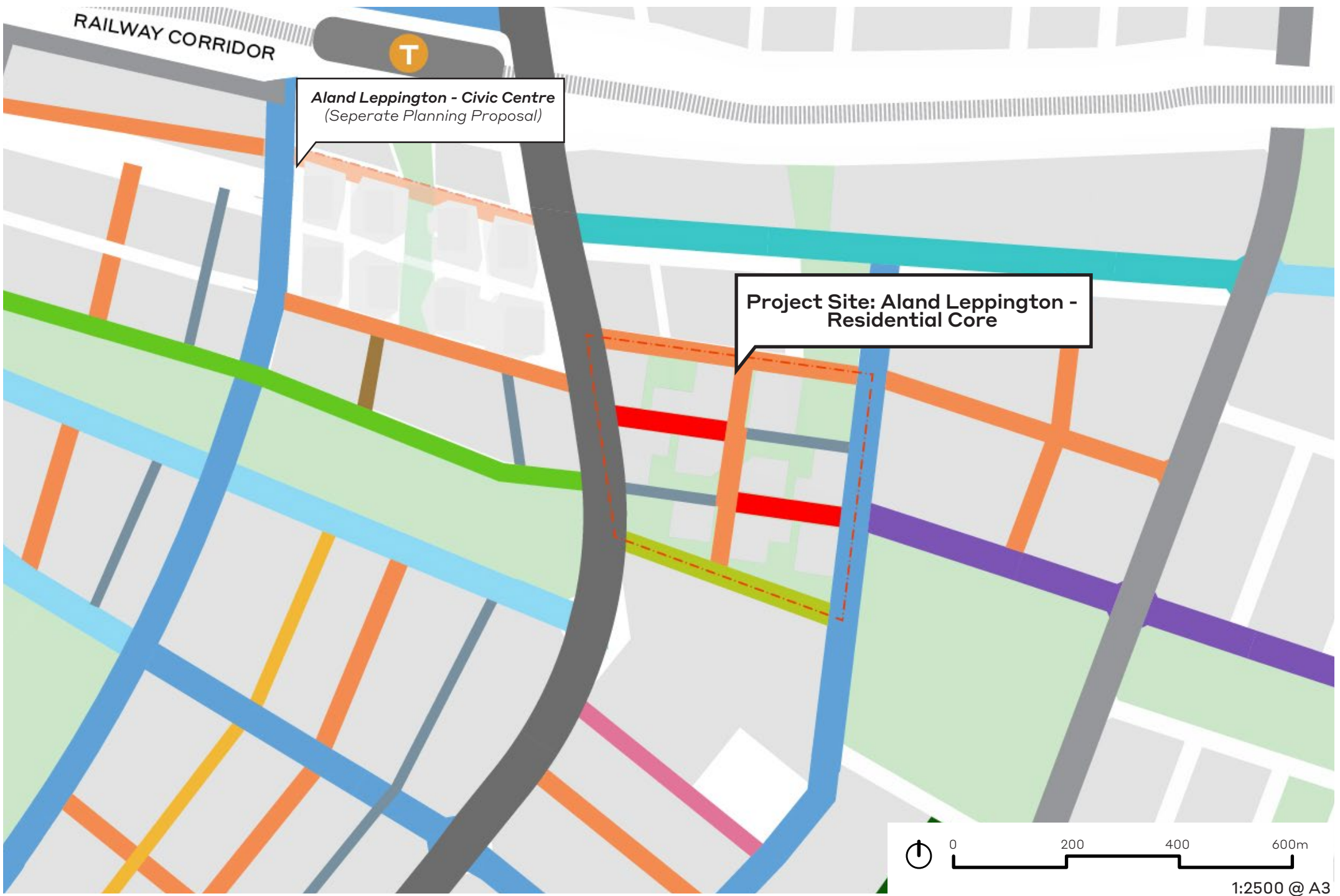
Aland Masterplan Design Response & Integration

Road Hierachy and Circulation

The roads have been altered to follow the lot cadastral boundaries to promote viable configurations. The Road has been placed to the North of the school with the park shifted to the North make room for a Kiss and Drop directly infront of the school. This will create efficient drop-offs during peak traffic hours and reduce traffic congestion. Pedestrian safety is increased as students can be within eyesight between drop-off and the school both from the drop-off zone and with the shortened park distance.

The roads east-west also connect with the wider planning grid to ensure an integrated design response with the wider urban fabric and create efficient cycle and vehicle movement networks.

- Legend
- Site Boundary
 - 6m One-way
 - 9m Shared laneway
 - 11.6m Through Park Link
 - 12m One-way
 - 12m Pedestrian Priority Street
 - 15m One-way School Side (South)
 - 16m Local Street
 - 16m One-way Parkside
 - 18m One-way School side (North)
 - 19m Pedestrian Priority Street with WSUD
 - 25m Town Centre Street
 - 25m Town Centre Street with 90 Parking
 - 25m Town Centre Street (with Linear Park)
 - 29.1m Boulevard
 - 23.5m Rickard Road



02.07 Strategic Context

Aland Masterplan Design Response & Integration

Parks, Plazas, and Open Space

The diversity of amenity and types of open space ranging from private residential gardens to public parks and nature reserves provides a range to suit the community's various needs. Lined with WSUDs, the parks and streets work with the topography of the site to protect the natural systems.

- Legend
- Site Boundary
 - Cycle Routes
 - Public Art/Water Feature
 - Playground
 - Town Centre Linear Plaza
 - Development Parcel
 - Public Recreation
 - Riparian Corridor & Drainage
 - Flood Prone and Major Creeks Land
 - Existing Creeks



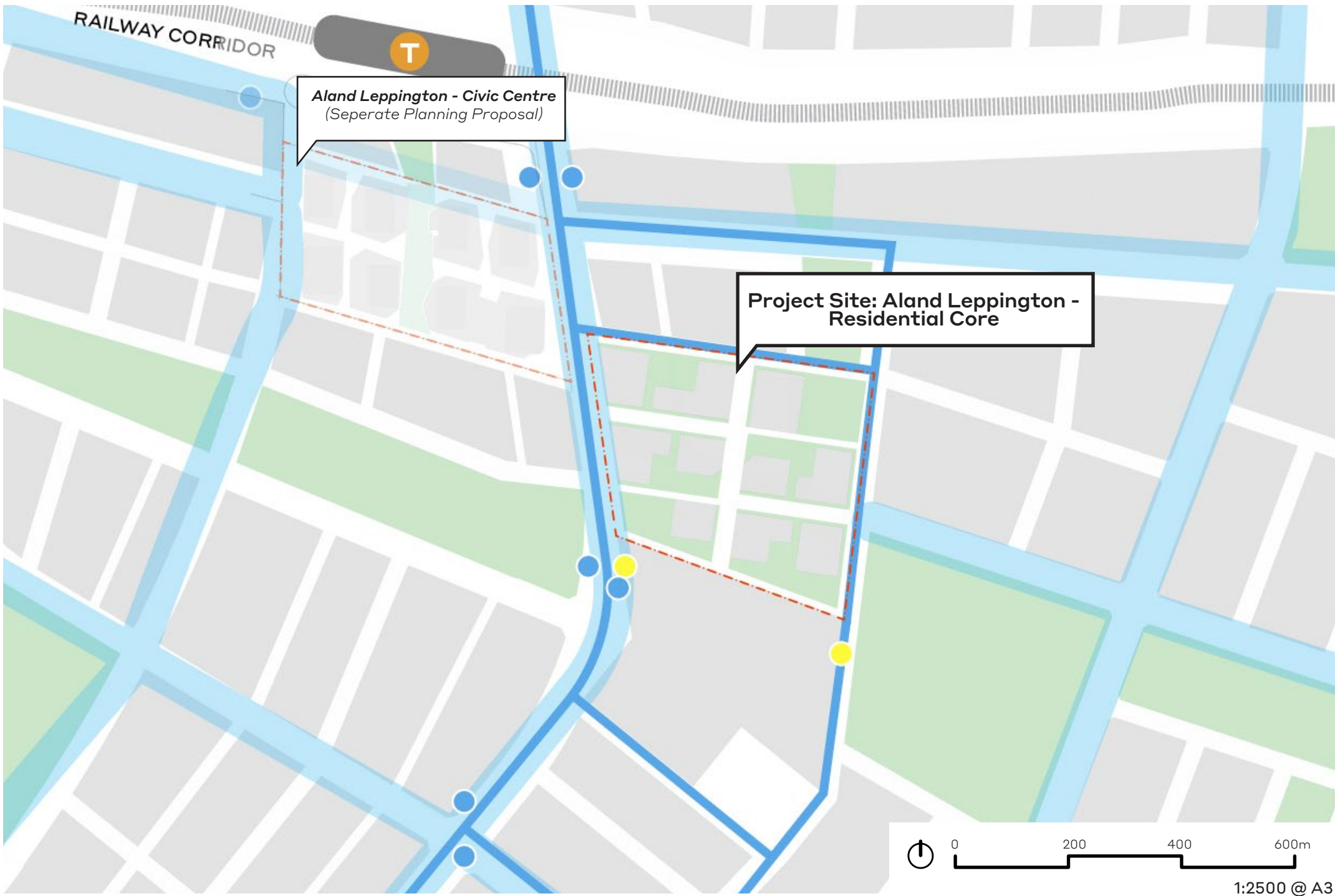
02.07 Strategic Context

Aland Masterplan Design Response & Integration

Public Transport Strategy

The site's proximity to Leppington Train Station and the proposed bus interchanges is supported through the grid of pedestrianised streets to promote walkability and use of public transport.

- Legend
- Site Boundary
 - Indicative Bus Routes
 - Indicative School Bus Stop
 - Indicative Proposed Bus Stop (requires shelter)
 - Bus Capable Road



02.07

Strategic Context

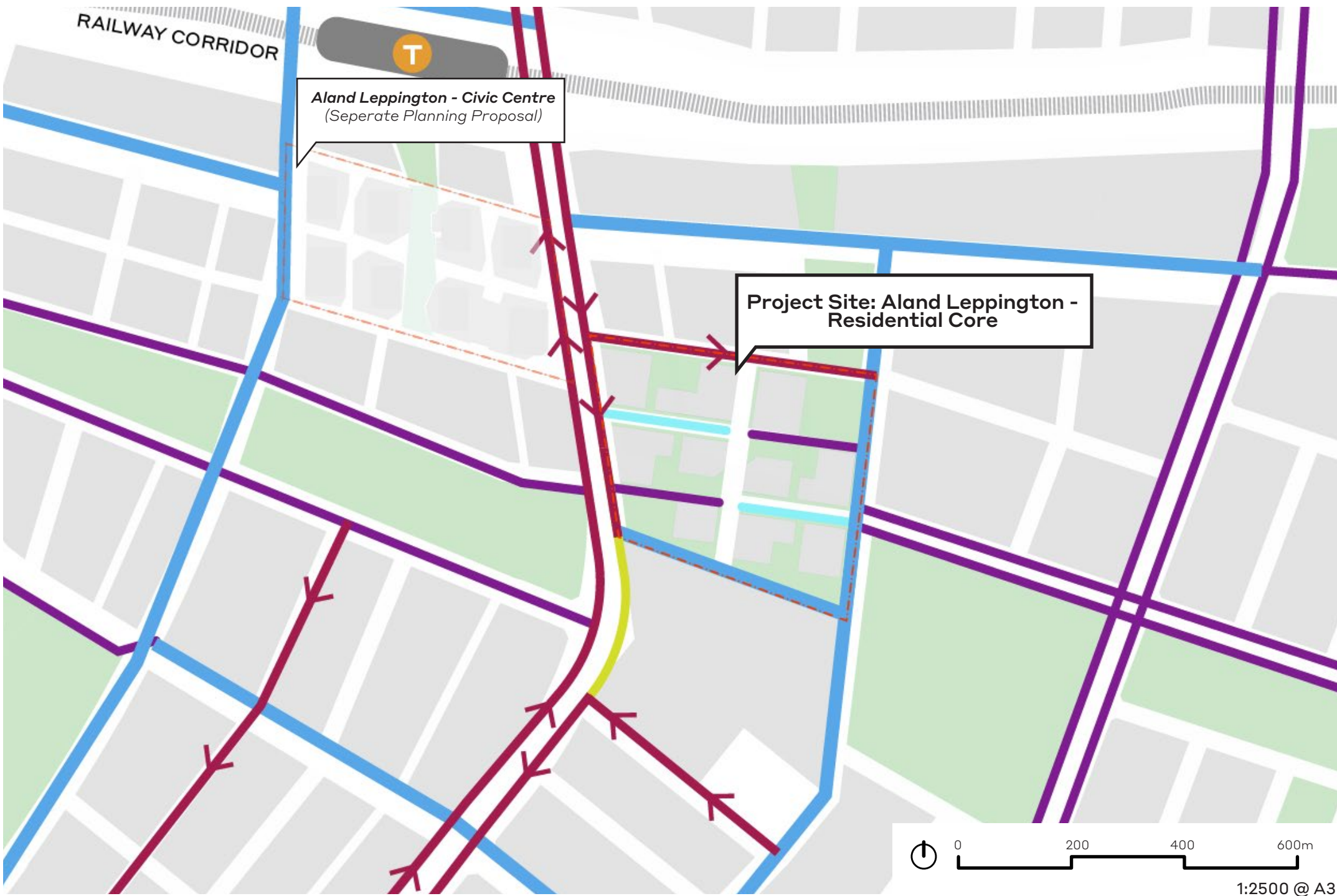
Aland Masterplan Design Response & Integration

Active Transport

Strategy

The slowed traffic within the site gives priority to pedestrians to promote safety especially for kids and parents walking near the school. Cyclists may use the bidirectional cycleway on the Site side of the interface with the school or take informal routes through the site's shared paths and quiet streets.

- Legend
- Site Boundary
 - Uni directional cycleway
 - Bi directional cycleway
 - Cycle on quiet street
 - Shared path
 - Cycle plaza



02.07

Strategic Context

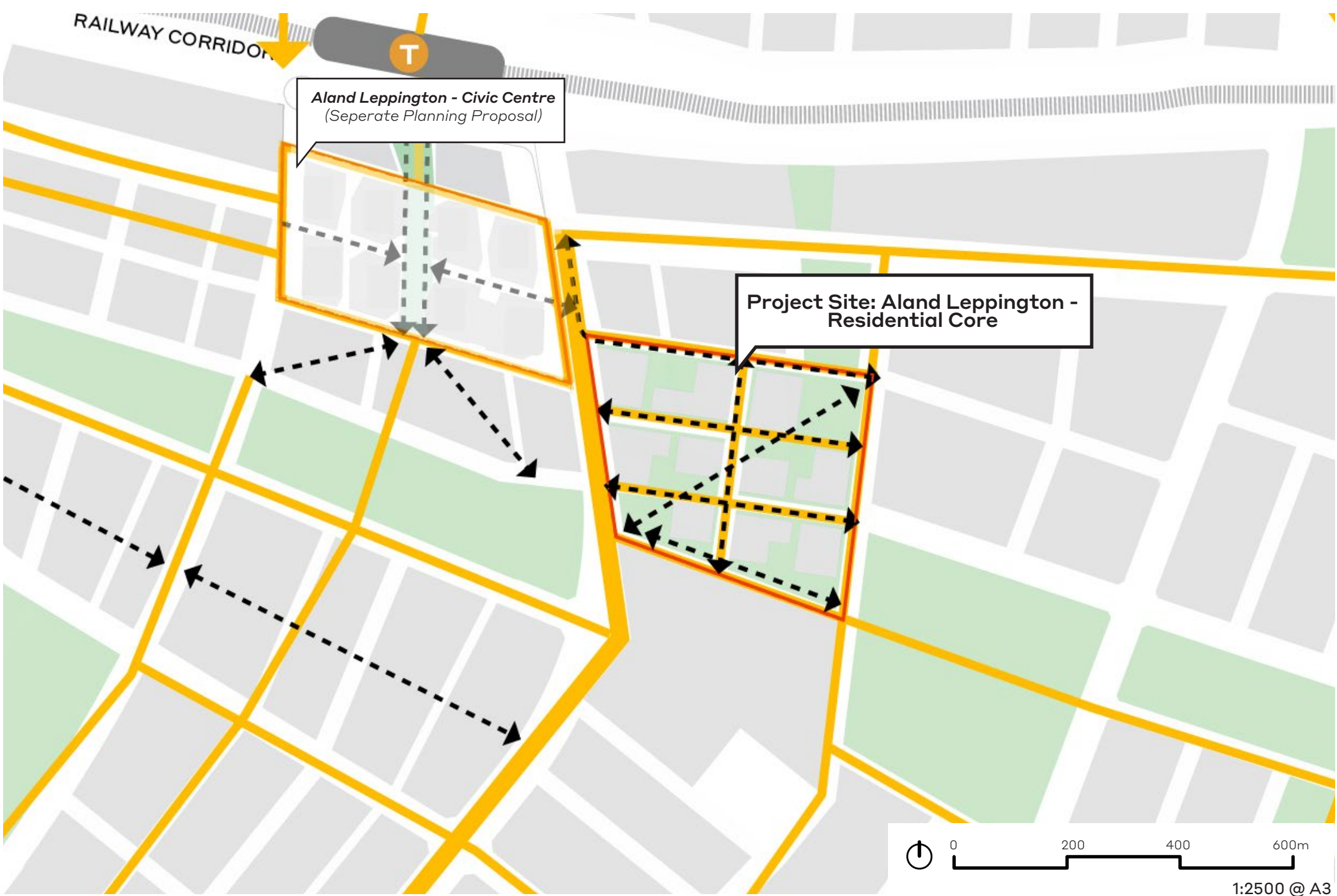
Aland Masterplan Design Response & Integration

Key Pedestrian Desire

Lines

Pedestrian links connect to the wider urban grid and provide a permeable membrane of efficient, activated, and safe connections in all directions.

- Legend
- Site Boundary
 - Key Pedestrian Desire Lines
 - Through Site Links



02.07

Strategic Context

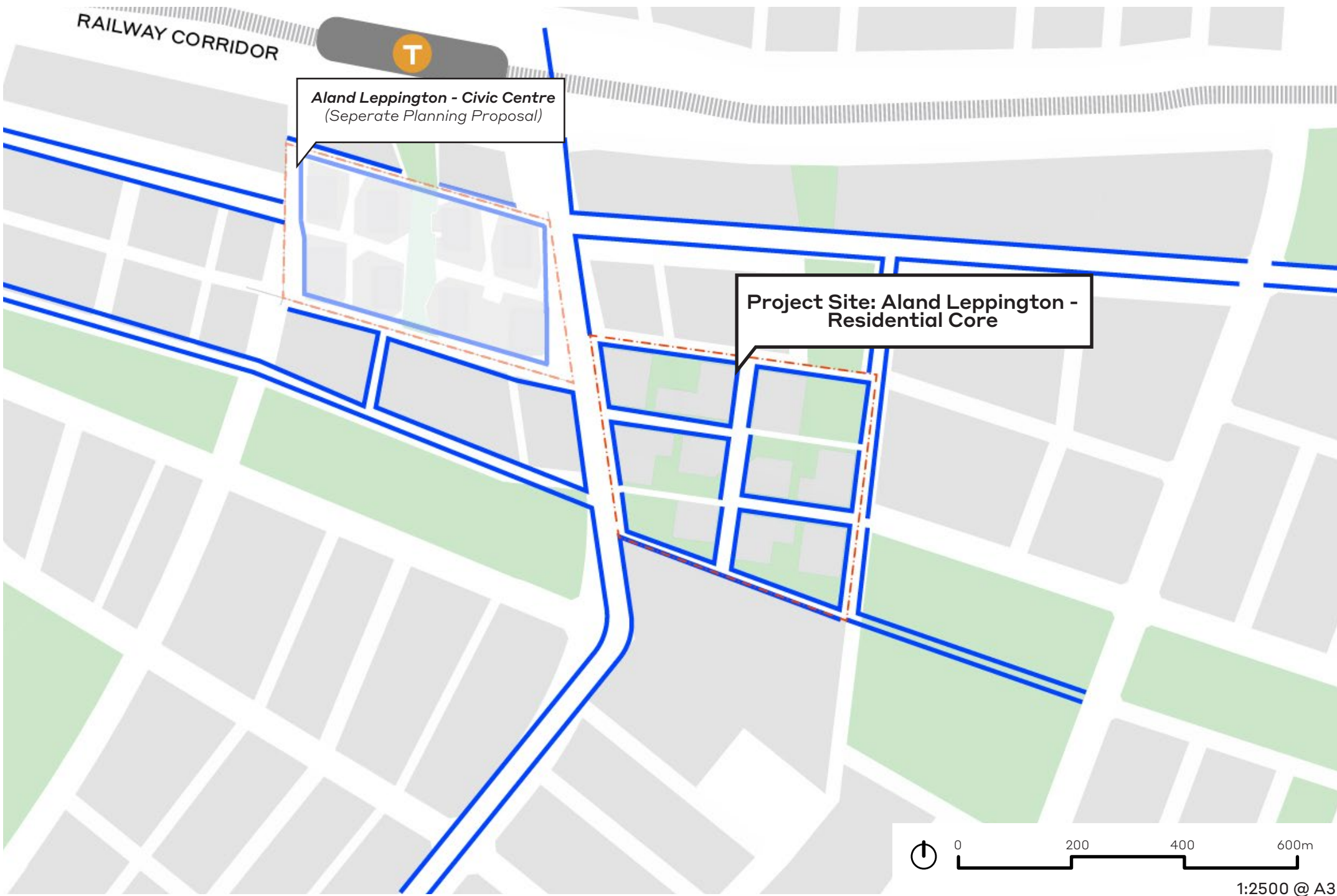
Aland Masterplan Design Response & Integration

Street Material

Treatments

All interfaces of the site have footpath paving or shared paths to foster walkability and ease of movement to and from the station, east-west, and towards the school.

- Legend
- Site Boundary
 - Town Centre Footpath Paving
 - Drainage and Riparian
 - Utilities Infrastructure
 - Open Space



02.07

Strategic Context

Aland Masterplan Design Response & Integration

Active Frontages

Large retail frontages along Rickard Road with smaller retail such as local cafes along the park interfaces to promote community and activation. The residential frontages of the Townhouses and podiums line the smaller pedestrianised streets with an activated human-scale interface.

- Legend
- Site Boundary
 - Commercial frontage encouraged on key corner
 - Active Commercial Frontage - Type A
 - Active Commercial Frontage - Type B
 - Active Commercial Frontage - Type C
 - Flexible Residential Frontage
 - Active Residential Frontage



02.07 Strategic Context

Aland Masterplan Design Response & Integration

Height Strategy

The height strategy involves 3-storey podium heights along the civic boulevard and 2-storey podiums on the secondary streets. The Tower heights have been informed from solar access and ventilation as well as minimal overshadowing to the School.

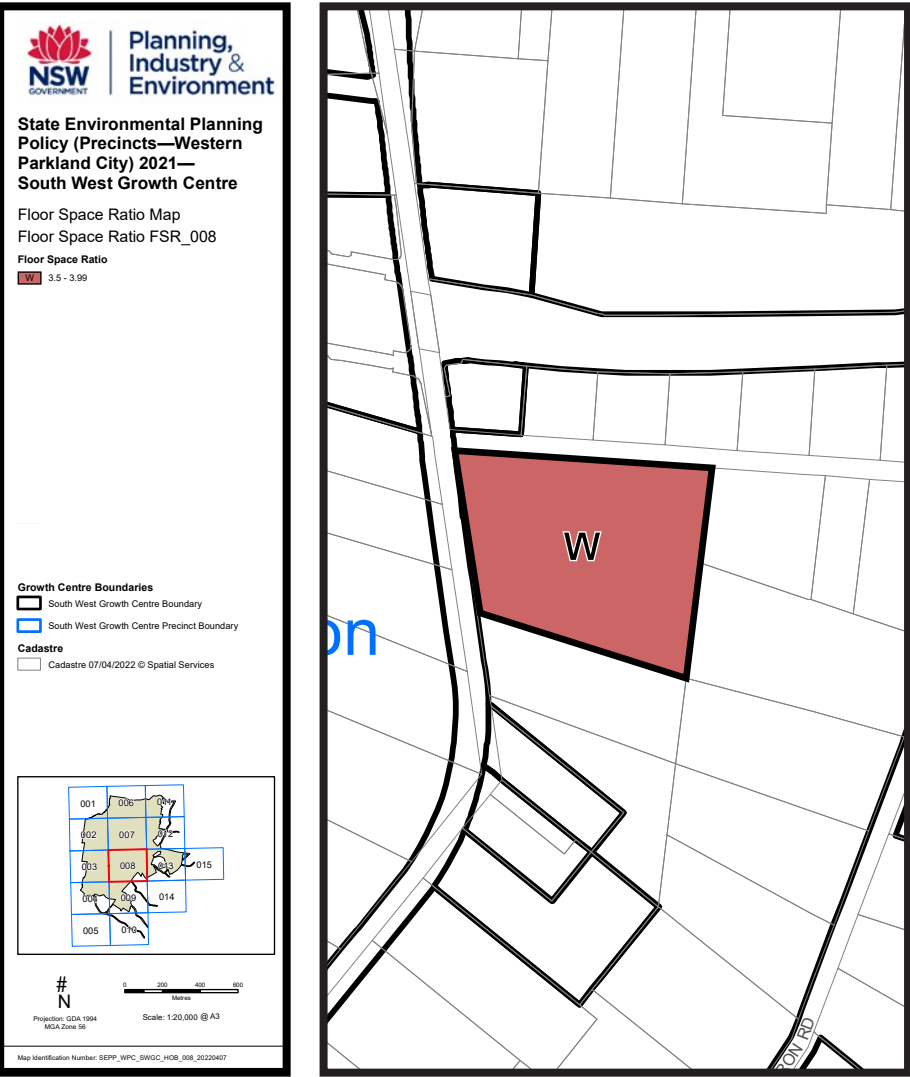
- Legend
- Site Boundary
 - Preferred Podium Heights
 - 2-4 Storeys
 - 4-6 Storeys
 - Preferred Tower Heights
 - 0-6 storeys
 - 7-10 Storeys
 - 11-12 Storeys
 - 13-15 Storeys
 - 16-18 Storeys
 - 19 - 22 Storeys
 - 23 - 37 Storeys



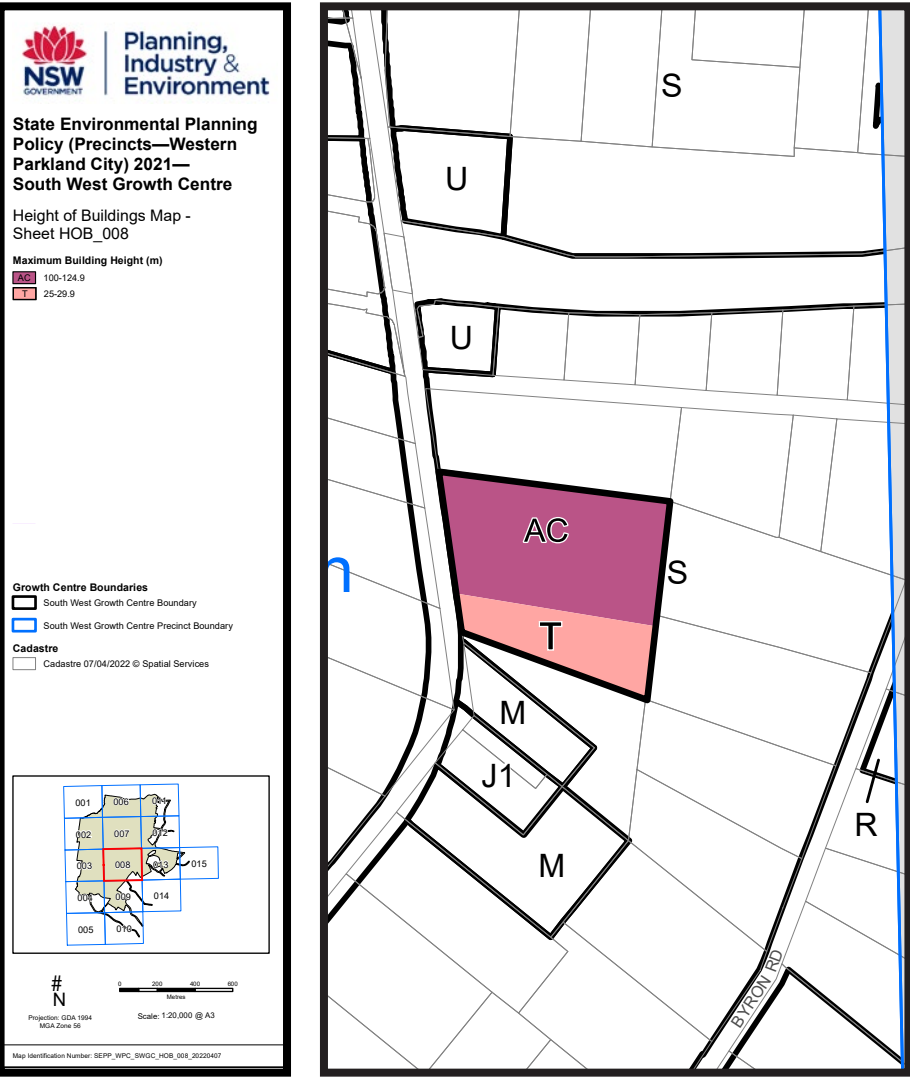
02.08 Strategic Context

Proposed SEPP Mapping

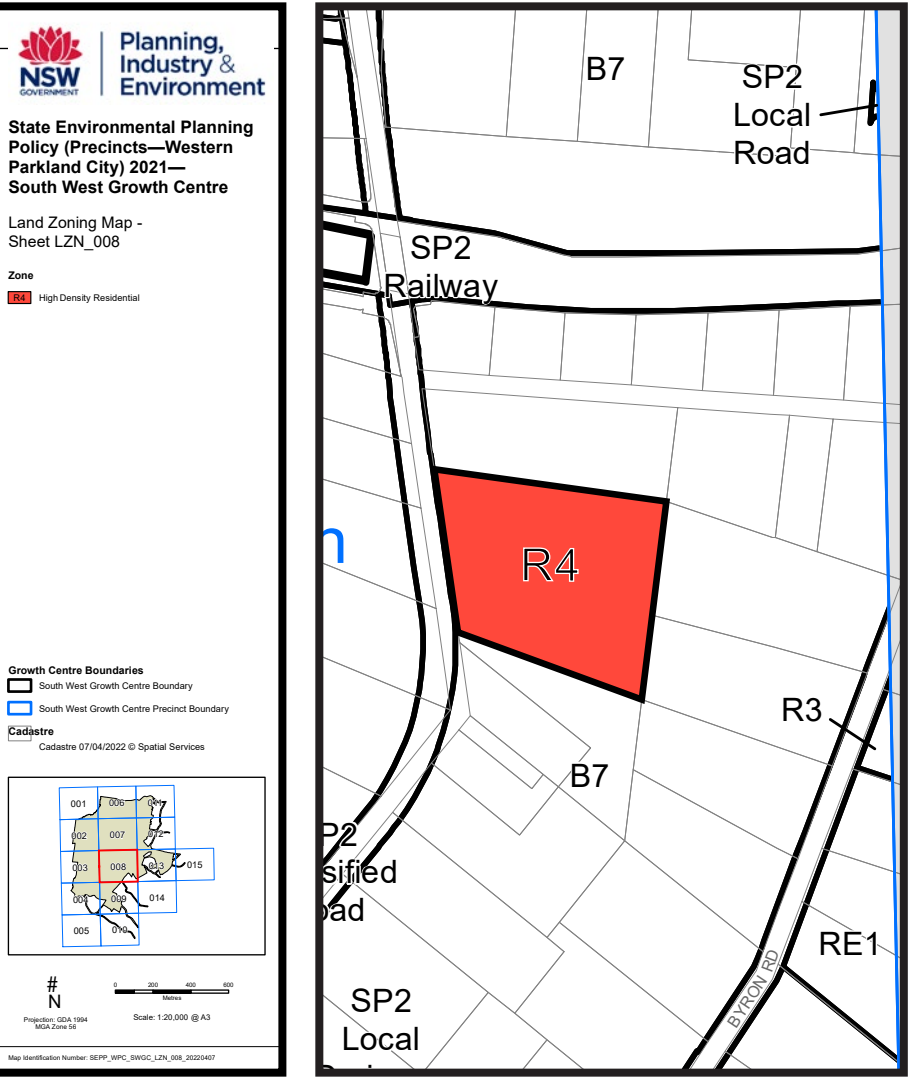
Floor Space Ratio



Height of Building



Land Zoning



Local Context

01	Historical Context
02	Local Morphology
03	Leppington Character
04	Site Photography

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03.01 Local Context
Historical Context



Hunting Kangaroos with fire - Joseph Lycett ~1817



Leppington Park House - National Trust NSW collection



Leppington Farm



Indigenous Origins

The Bicentennial project by Liston (1988) documents interactions between Europeans and the Tharawal people from the early 18th century.

Traditionally, this area was thought to be close to the intersection of a number of language group (tribal) boundaries. Language groups include the Dharug who inhabited much of the Cumberland Plain between the Blue Mountains and the coast, the Tharawal who ranged from the coast westwards towards Camden, and the Gandangara who inhabited areas westward and southwest of the Tharawal and into the Blue Mountains.

The Tharawal people and other Aboriginal groups continue to be active in the Campbelltown area.

European Settlement

The name Leppington comes from the property granted to William Cordeaux in 1821. Leppington Park House was a huge two storey home with its own private ballroom built by convict labour. It was destroyed by fire in the 1940s. The bricks at the base of the outdoor stage at Leppington School came from this building.

Subdivision

In 1914 an area of Leppington was subdivided as the Raby Estate, named after the property Raby some 3269 acres granted to Alexander Riley in 1810. The 1914. The subdivision was developed by Arthur Rickard & Co. People interested in buying a lot would be met by a sully either at Ingleburn or at the Coach crossing at the Water Canal Bringelly Road. Rickard Road in the estate was named after the developer.

The Post office, also on the Raby Estate was established in 1930 and remained on its original site until 1981. The Riley estate south of the Raby Estate was subdivided in 1956. The area has supported small farms and vegetable and flower market gardens.

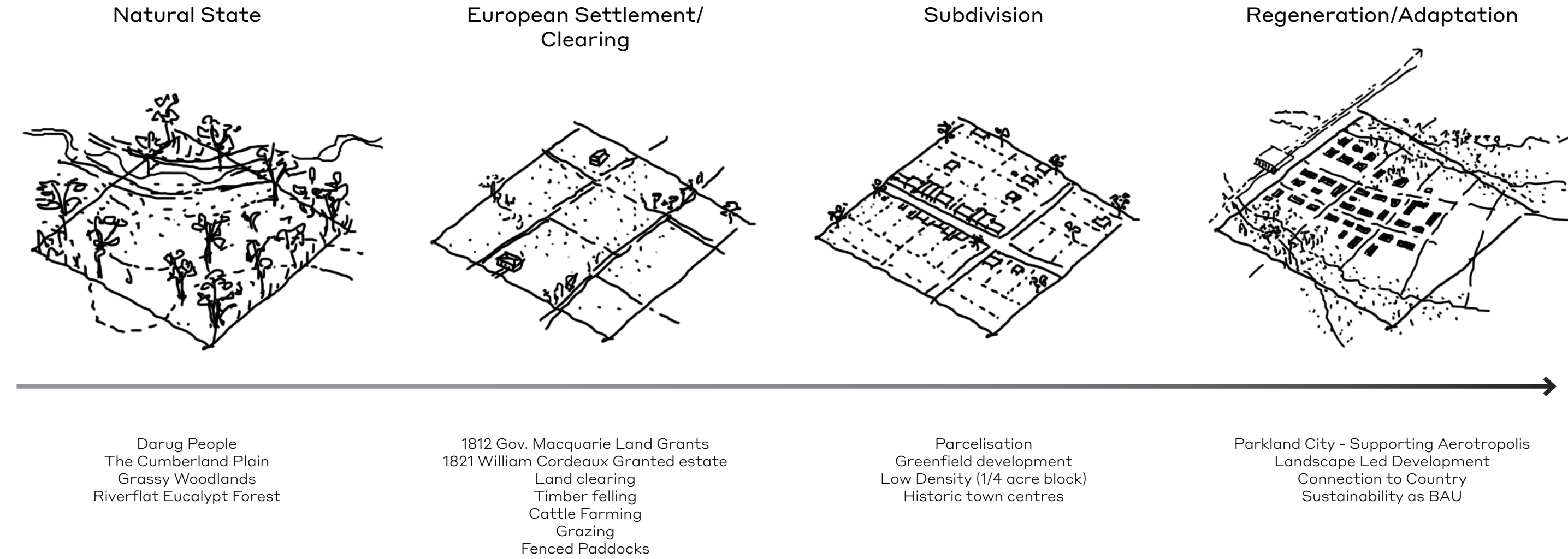
New Community

The area is subject to planned development as part of South West Sydney Growth Area. A corridor of land is being resumed by NSW State Government for an extension to the Liverpool rail line with a station in the north-eastern part of Leppington due to open by 2014.

Future

A new page to be written to accommodate growth and liveability. Leppington will benefit from nearby major employment hubs.

03.02 Local Context
Local Morphology



03.03 Local Context
Leppington Character

The history of the Camden district is as old as Australia itself and its unique heritage can be used as a foundation for this growing urban area surrounded by nature.



Heritage Foudations

Leppington and the Camden Sitrict generally have rich historic foundations, from the First Australians to the foundation of the town of Camden .

Camden sits at the intersection of three tribal boundaries. The people of the Camden town location, the western Cowpastures and the adjoining mountainous areas were Gundungurra. The eastern Cowpastures were Tharawal, and the people to the northeast of the Nepean River were Dharug.

European settlements and agriculture deeply transformed the area.



Connection to Flora and Fauna

The Australian Botanic Garden is a world class garden located in Mount Annan, approximately 20 minutes drive from the Leppington Station.

It showcases Australian flora amongst 416 hectares of rolling hills, lakes, lawns and gardens.



Blanket of Native Woodlands

Leppington was covered by Cumberlands Plain Woodlands until late 19th Cntury and agricultural land management severely altered this native ecosystem.

The project sites are bordered by a reminiscent and damaged sample of these woodlands.

The Cumberland Plain restoration program aims to reverse the decline. Saving our Species is working with NSW National Parks, local councils, Landcare and other community groups on this 7-year conservation project.

03.03 Local Context
Leppington Character

Leppington can build upon its lush green backdrop and become a strategic residential and retail centre of the Camden area.

The Western Suburbs have a strong connection with nature, being surrounded by outstanding National Parks.



Connected Infrastructure

Leppington station has connected the area to the rest of Greater Sydney with the aim to boost the region's accessibility and economy.

Leppington Station is a strategic centre for surrounding business, residential, and retail industries, thus the station is a major transport hub and public transport interchange.



Lush Landscape Setting

The rural areas and scenic green backdrops provide a contrasting experience to the urban environment of the surrounding Greater Sydney and CBD areas. Sight-lines extend to Sydney CBD and Basin as well as the Blue Mountains.



Fresh from the Source

Fresh Figs, Prickly Pears, local fruit and vegetables, Gourmet Fig Delicacies, Coffee bar and Cellar Doors!

Leppington has multiple farms where you have the opportunity to by direct.

03.04 Local Context
Site Photography

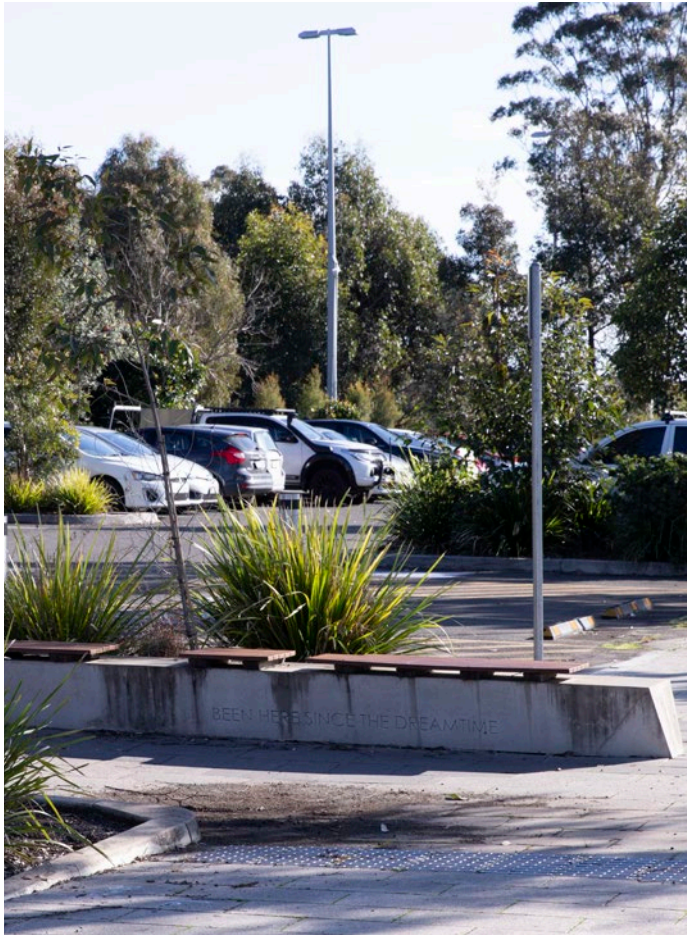
Public Infrastructure
and Amenities



Leppington Train Station



Railway Corridor



Commuter's Parking

03.04 Local Context
Site Photography

Surrounding
Amenities



Leppington Public School



Rickard Road Connection



Surrounding Nature

03.04 Understanding of Place
Site Photography

The Site



03.04 Understanding of Place
Site Photography

Biodiversity



Site Analysis

01	Scale Comparison
02	Area & Scale
03	Natural Systems
04	Challenges
05	Opportunities
06	Interfaces

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04.01 Site Analysis

Scale Comparison

Project Site

Site Area : 4.3 Ha

The project site sits on rural land, surrounding the sites is agriculture and farmland. Located to the north of the sites are rural residential properties and a train station. A school is located directly south. The area is yet to have a business district.



One Central Park, Sydney

Total Site Area: 0.6 Ha
Distance to Sydney CBD: 1.5 Km



Green Square, Sydney

Total Site Area: 0.7 Ha
Distance to Sydney CBD: 3.7 Km



Zoho, Rotterdam

Total Site Area: 0.6 Ha



04.02 Site Analysis

Area & Scale

- Establish a strong identity for Leppington
- Create mixed use developments rich in opportunity
- Making meaningful building contributions that shape the identity of Leppington into a sustainable and liveable place
- Increase walkability and access through generous additions to the public domain that provide safe pedestrian connectivity
- Capture the surrounding nature of the Camden area in newly greened streets that reconnect people to the environment

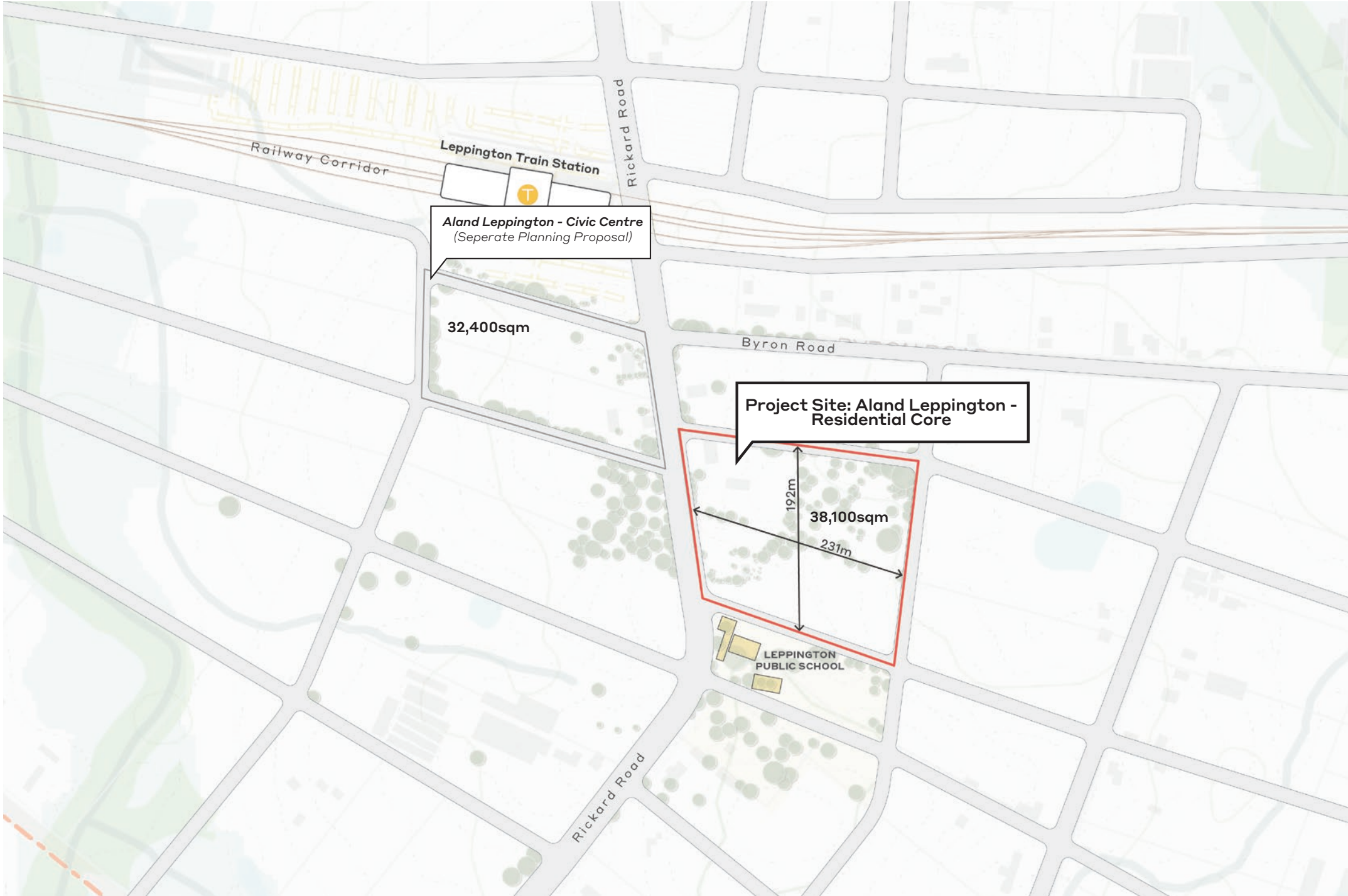
Site Area

43,085 sqm

Developable Site Area

38,100 sqm

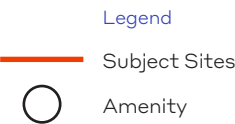
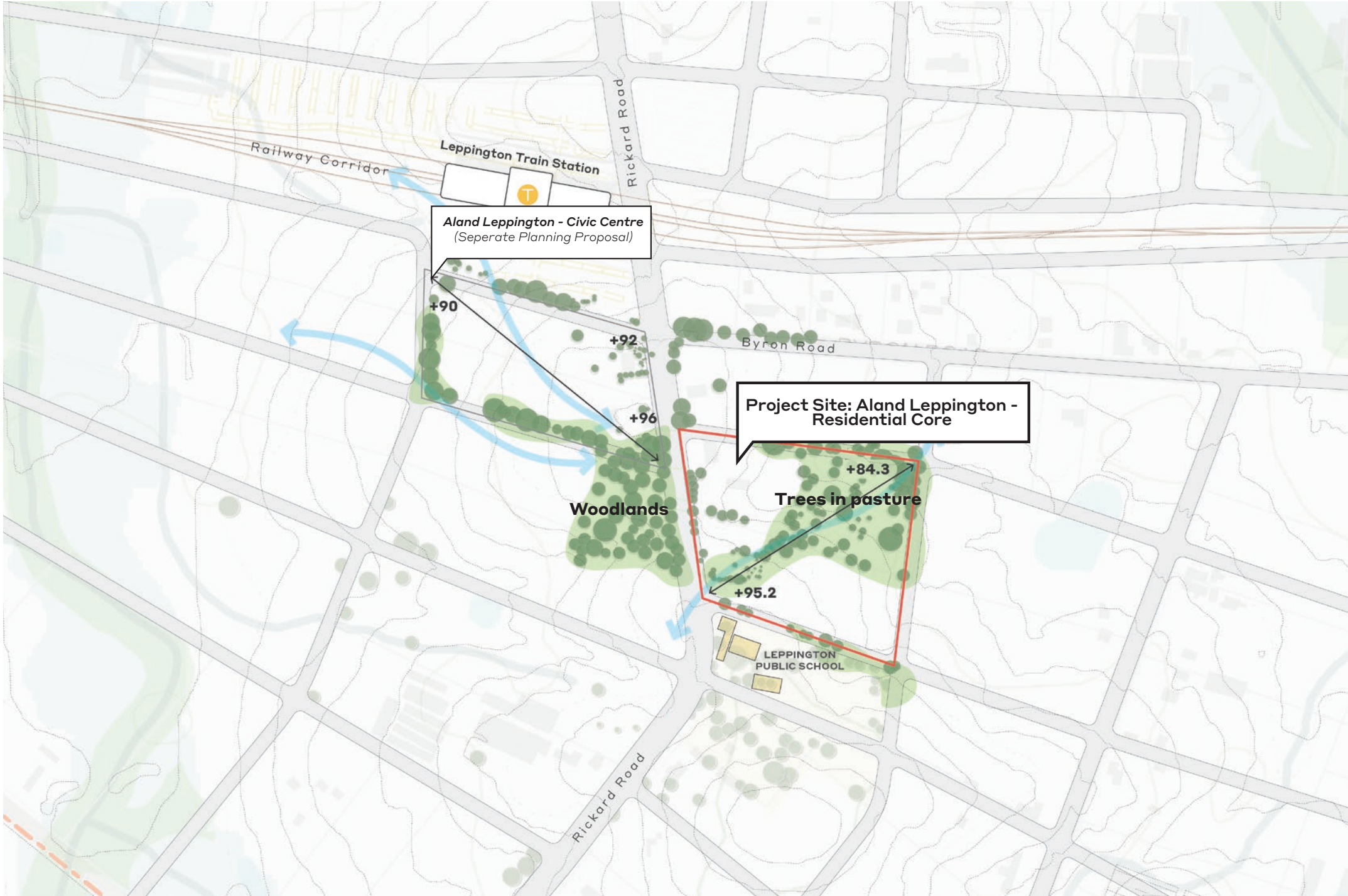
"Camden Council's 2023 lodged Leppington Town Centre Planning Proposal has earmarked 5,000sqm of the subject site to be rezoned to SP2 for roads (along the eastern side and western side of the site). The Developable Site Area is the total site area, minus the amount being proposed to be rezoned SP2 by Camden Council".



04.03 Site Analysis

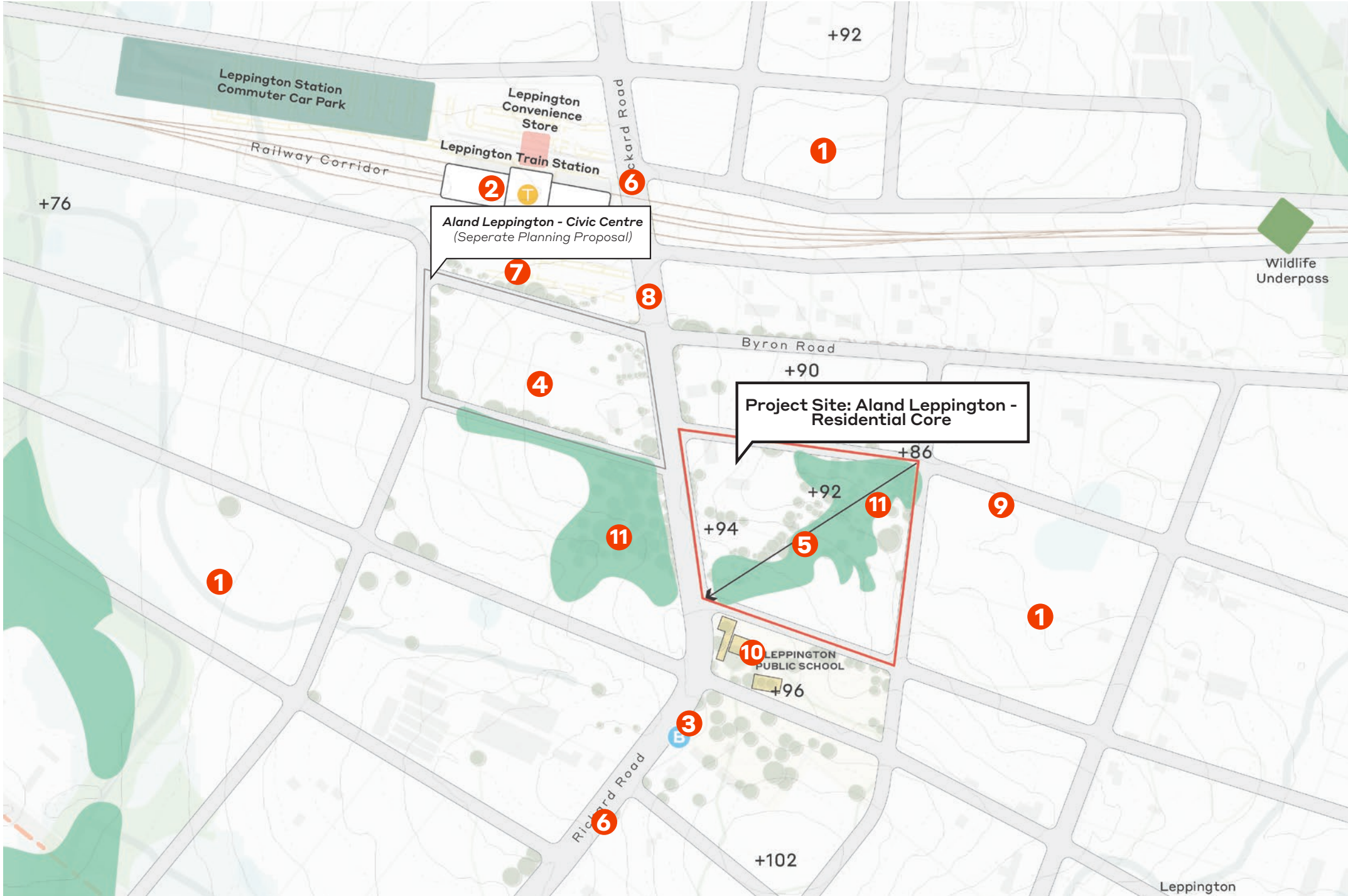
Natural Systems

- Understanding the natural dynamics and topography will inform a better design outcome
- Both sites are bordered with different vegetation systems and let the water flow downstream to Kemps Creek
- Site A has a high point culminating at +96m on its South-Eastern corner, whereas Site A culminates at +95.2m on its South-Western corner
- The newly opened Leppington Train station is a major asset that aims to connect the future neighbourhood with both the Aerotropolis and the Sydney CBD using public transport
- The Leppington Public School is bordering our site to the South and will need special attention to be incorporated within the masterplan



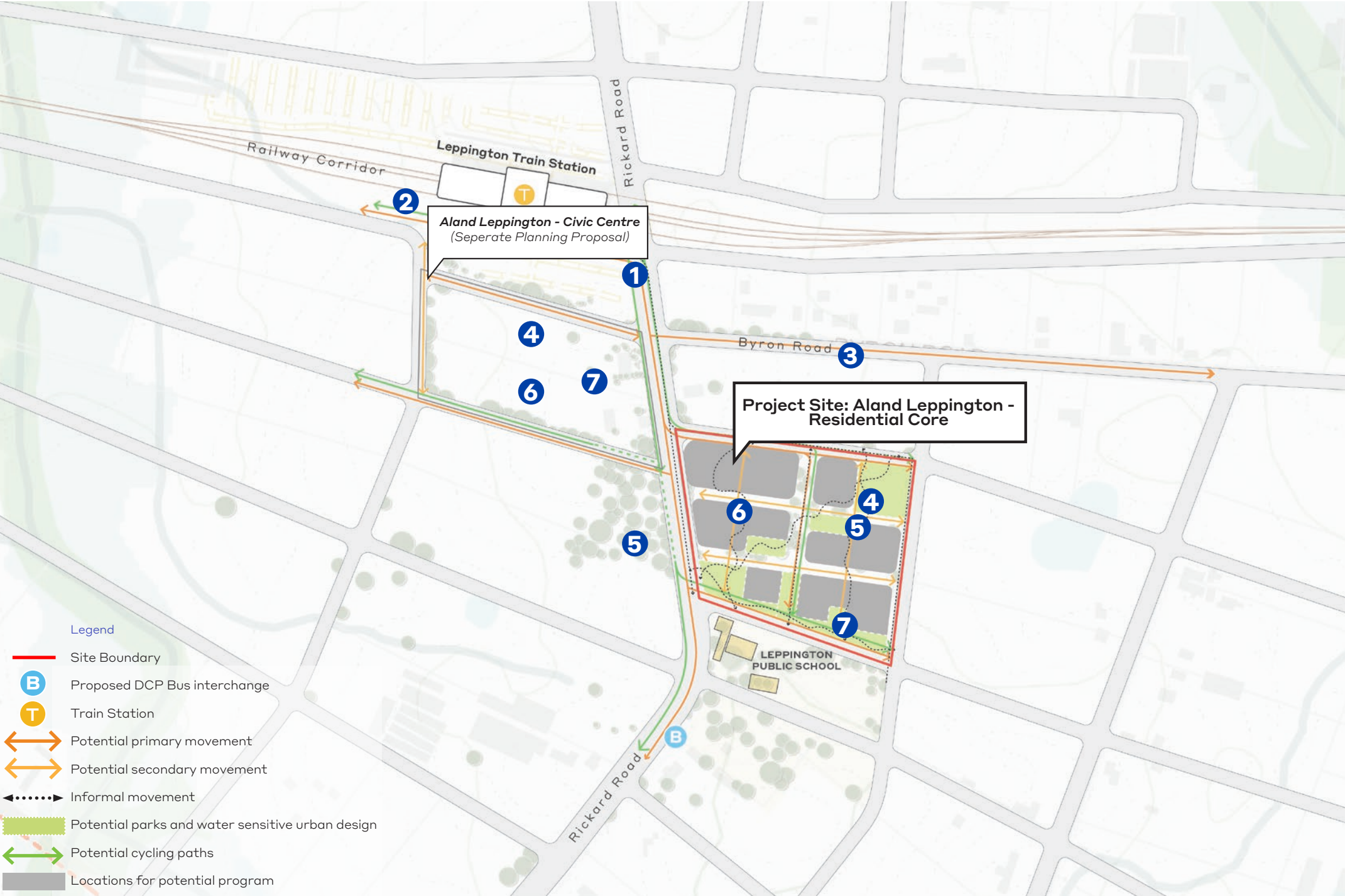
04.04 Site Analysis Challenges

- 1 Low density residential and rural function
- 2 The only established amenity is the train station, lacking public open space and public amenity
- 3 Bus services are very minimal
- 4 Fall of Aland Civic Centre Site, northwest to southeast
- 5 Fall of Residential Core Site, northeast to southwest
- 6 Predominately serviced by cars.
- 7 There is poor pedestrian connectivity with minimum footpaths to anywhere around the train station
- 8 There are no bike lanes
- 9 Roads are yet to be developed
- 10 The public school to the south is too small to service any future housing developments
- 11 How to retain the exisitng Woodslands? Woodlands have been extensively cleared across eastern Australia with less than five percent of the original extent remaining.



04.05 Site Analysis Opportunities

- 1 Increase bicycle paths. By creating a safe network of bike lanes, separated from roads, helps people gravitate towards bike-riding and reduces car traffic
- 2 Increase public transport accessibility encourages active movement. If bus routes were better considered, it would put less strain of vehicular usage.
- 3 Road and traffic design should be highly considered. Finding the right balance for vehicular access and pedestrian accessibility with the main arterial roads to capture vehicular movement. By moving pedestrians off the travel lanes, motorist operations are improved and capacity increased
- 4 The opportunity to integrate parks and plazas to the site to increase quality of life for those living in the area. They provide places of respite, where people may stop and take a few minutes to refresh themselves. They attract people to the neighbourhood and create a sense of place for the community
- 5 Tree canopy cover is another opportunity to improve local character of Leppington. Green canopy enhances the amenity of local parks and streets and is crucial in providing vital shade that reduces ambient temperatures and mitigates the urban heat island effect.
- 6 Increasing pedestrian connectivity through and around the train station by adding additional paths. Paths should be comfortable; flat and widened. Sidewalks and paths can increase the transportation options for individuals who may not be able to drive a car. By providing alternative paths can increase safety, mobility and create healthier communities.
- 7 Create fine grain retail spaces and increase mix use will provide closer alternatives for the community that is convenient and accessible



04.06 Site Analysis Opportunities

Leppington has a great potential for growth as a vibrant new major center in Western Sydney.



Local Character

Located at the fringe of active urban life and nature, Leppington has the potential to become a unique developed area grounded within its landscape.



An Emerging Precinct

The social, economic, and demographic changes in the Camden area are supported by new retail precincts and employment hubs, paving the way for Leppington to develop a new community.



New Connectivity

Leppington is ideally located near the Aerotropolis and multiple transport hubs allowing connections with the Sydney CBD and major employment hubs.

04.07 Site Analysis Opportunities

Connecting to Country and acknowledging original owners

The area now known as Camden was originally at the northern edge of land belonging to the Gandangara people of the Southern Highlands, who called it Benkennie, meaning 'dry land'. North of the Nepean River were the Muringong, the southernmost of the Darug people, while to the east were the Tharawal people.

With the introduction of new developments, it is important to value and respect Aboriginal cultural knowledge, include Aboriginal people in the design development and ensure that Country is cared for appropriately, by protecting sensitive sites and ensuring that Aboriginal people have access to their homelands to continue cultural practices.

Connecting with Country includes reducing impacts of natural events such as drought, fire and flooding. Sustainable land and water practices should be implemented in developments through the selection of structural frameworks and material choices where continual change can happen before its eventual deconstruction and returning to the earth for reuse.



Image Source: GML Heritage, Archaeology at Leppington

04.08 Site Analysis Interfaces

Rickard Rd

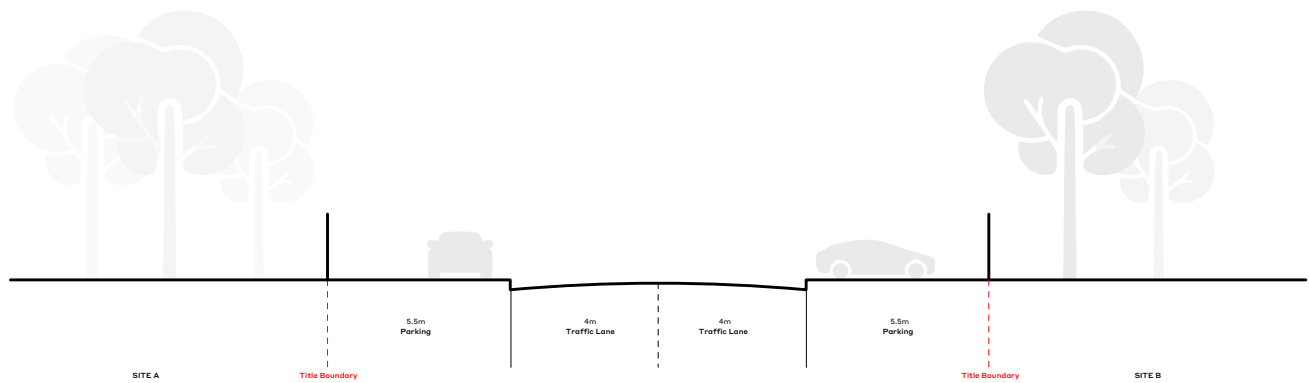
Rickard Rd is the main connecting spine towards the Town Center, and is set to be considerably widened with the growth of Leppington.

It currently displays semi-legal car parking on its Eastern and Western sides, with high traffic due to the school drop off at peak hours.

The new design allows for ample parking and safer pedestrian / bicycle connections.



Existing Design



Indicative Future Design



04.08 Site Analysis Interfaces

Station

The location of the station creates unique opportunities for a North facing public realm and pedestrian connections to public transport.

The project site has the potential to provide connections to the train station with serve as a community catalyst with residential and mixed-use amenities.



04.08 Site Analysis Interfaces

Cumberland Plains Woodlands

The project area contains zones with high biodiversity value, in particularly, patches of remnant Cumberland Plain Woodland, a listed TEC. It borders and encroaches the South-Eastern portion of the adjacent Aland Leppington - Civic Centre site on Rickard Rd, and is located opposite of the Western portion of our project site.

Future development could seek to retain native vegetation in open space areas, where feasible. This will also ensure consistency with the strategic plans by:

- _Delivering Green Grid connections
- _Increasing urban tree canopy cover
- _Protecting and enhancing bushland and biodiversity
- _Enhancing landscape connectivity



04.08 Site Analysis Interfaces

School

The site is bordering the Leppington Public School precinct. We see it as a potential to develop a new public open space to be used by the local community after school and potentially recreate a legible and safer entry for the school.



Project Benchmarks

01 Global Precincts

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05.01 Project Benchmarks

Global Precinct

Zoho Rotterdam - Echo

A stacked and intertwined city with flexible components designed to be a strong socially inclusive neighbourhood.

The masterplan transforms a low-rise business area with a strong creative identity into a mixed neighbourhood to meet densification challenges, whilst finding space to accommodate multiple ambitions and stand the test of long term development.

The proposal managed to stack all ambitions and preserve the ZoHo identity in a mixed use, inclusive city neighbourhood that is livable, while being dense.



Transferable Principles

- Brief and ambitions are stacked succesfully while maintaining a livable neighbourhood that is relatively dense.
- A mix of varied flexible uses intertwined with the city
- Collective spaces for social cohesion and inclusion.

Westerpark West - MVRDV

A grey isolated office location in Amsterdam-West is transformed into a green, lively neighbourhood of around 750 homes including 12 buildings.

The combination of park and urbanity is unique to Amsterdam. The masterplan has an emphasis on green space, architectural diversity where the proposal is a sustainable response to the ever-growing housing demand in Amsterdam.

By varying the building typologies and the character of the publice space, a striking neighbourhood arises in the middle of the city.



Transferable Principles

- Generous lush and green open space combined with urbanity
- Diverse building typologies

05.01 Project Benchmarks

Local Precinct

Green Square, Sydney

The CoS is responsible for delivering streets and primary public spaces. The City opened the new Green Square plaza and library ahead of the majority of development ensuring that new residents arrive to public amenity and infrastructure. Green Square is an exemplar of quality public domain and landscape design.

It employs quality materials, and carefully selected street furniture and fittings with pedestrian access given primacy. The Green Sqaure Town Centre DCP defines maximum shadow extents over the plaza, constraining development, particularly to the north, but allowing for innovation in built form.



Transferable Principles

- Early delivery of public domain and community facilities
- Quality public domain
- Share vehicle/pedestrain way integrated with public space
- Solar access to public space

Central Park, Sydney

Central Park delivers a significant quantum of mixed use floor space in buildings up to 30 storeys high. The use mix achieves a highly successful integration with the UTS campus and serves the needs of residents, students and visitors. Public domain and open space are central to the renewal philosophy. Central park visibly extends the green character of its public spaces vertically and has a strong sustainability agenda focused around local power generation and water reuse.



Transferable Principles

- Density done well
- Quality public domain and open space
- Successful mix of uses
- Vertical landscape and sustainability

Urban Framework

01	Leppington Station Precinct
02	Key Project Themes
03	Sustainability Approach
04	Design Strategy

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06.01 Urban Framework Leppington Town Centre Precinct

As a future growth area, Leppington is a suburb set to undergo significant change, in character, form, and function.

Leppington Town Centre is located within the South West Growth Area and offers the opportunity to provide more new homes close to great public transport links.

Leppington Town Centre is on the T2 Airport, Inner West and South train lines. It takes around 45 minutes to reach the Domestic Airport terminal, and around 15 minutes to reach the Liverpool CBD by train from this precinct, making it highly suitable for the location of new homes, jobs and community services.

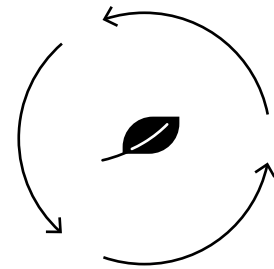
The proposed development will form one of the area's early developments and will foster transformation of the northern part of the Leppington Town Centre.

The concept development is seeking to establish road layouts, building envelopes, heights, gross floor area and uses on the site that will guide future detailed staged development applications for the individual mixed-use buildings.

Currently characterised by a low density residential and rural function, Leppington will transform into a major town centre in Sydney's south-west and become a pedestrian friendly centre with retail hubs, shopping, commercial and entertainment facilities that connect to the broader Sydney context with public transport links, current and future roadways.

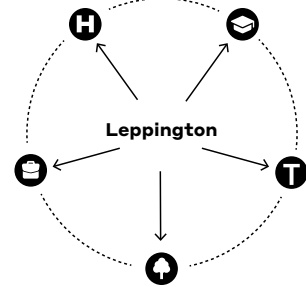


06.02 Urban Framework
Key Project Themes



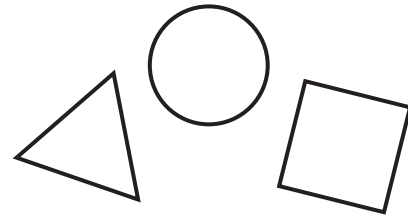
Resilience and Responsive

Future proofing the site by working with existing natural systems to foster resilient places for people



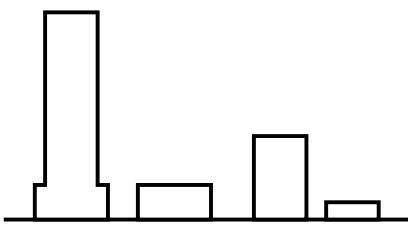
Networked Connectivity

Designing for a 15 minute centre with a legible network of connected places



A Set of Diverse Precincts

Developing key character zones that respond to context and local amenity



Flexible Urban Structure

Creating an flexible framework that allows for multiple typologies and staging scenarios

06.03 Urban Framework
Sustainability Approach



Reducing embodied carbon

Sourcing materials locally to reduce shipping and storage, naturally reduces carbon emissions and energy use



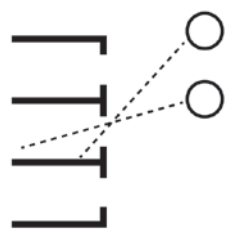
Favouring renewable energy

Renewable energy enhance energy security, lower risk of fuel spills, and reduce the need for imported fuels.



Reducing the heat island effect

Heat island increases energy costs, air pollution, and heat related illnesses including mortality



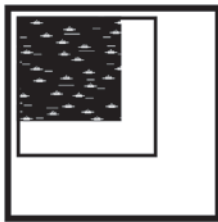
Solar responsive facades

They help control the interior environment within the building, and so minimise the energy consumption of building services systems.



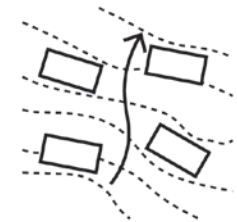
Shadow envelope

Ensure there is minimal overshadowing of neighbouring buildings during critical energy-receiving periods of the day and the season



Green ratio (Development vs Parks)

Parks provide several services, such as water and air purification, wind and noise reduction, carbon sequestration, microclimate regulation, wildlife habitat, and social and psychological well-being



Designing with the topography

Integrating the fall of the land into the design to reduce the unnecessary cutting and filling of soil



Water management

Consider grey water and rain water management



Designing with Country

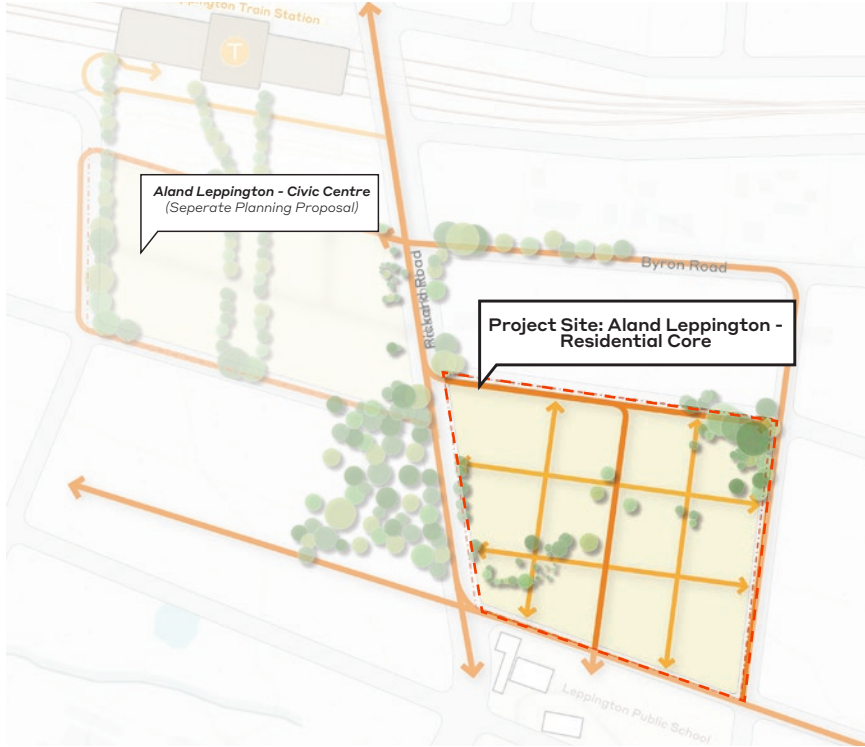
Aboriginal people know that if we care for Country, it will care for us. For tens of thousands of years they have managed, cultivated and cared for the landscape where our towns and cities were established and continue to grow



Energy Efficiency

Urban energy performance as a function of urban density, building compactness and orientation, building use and supply options

06.04 Urban Framework Design Strategy



Celebrate Natural Systems

Amongst beautiful streets sits generous outdoor spaces that activate the Leppington Major Center Core with a patchwork meadow of green. Increased tree canopy cover will mitigate heat island effects, improve biodiversity and protection from the sun. A chance to reconnect with the verdant land that surrounds the Camden district; and build community focused active outdoor spaces of play and rejuvenation.

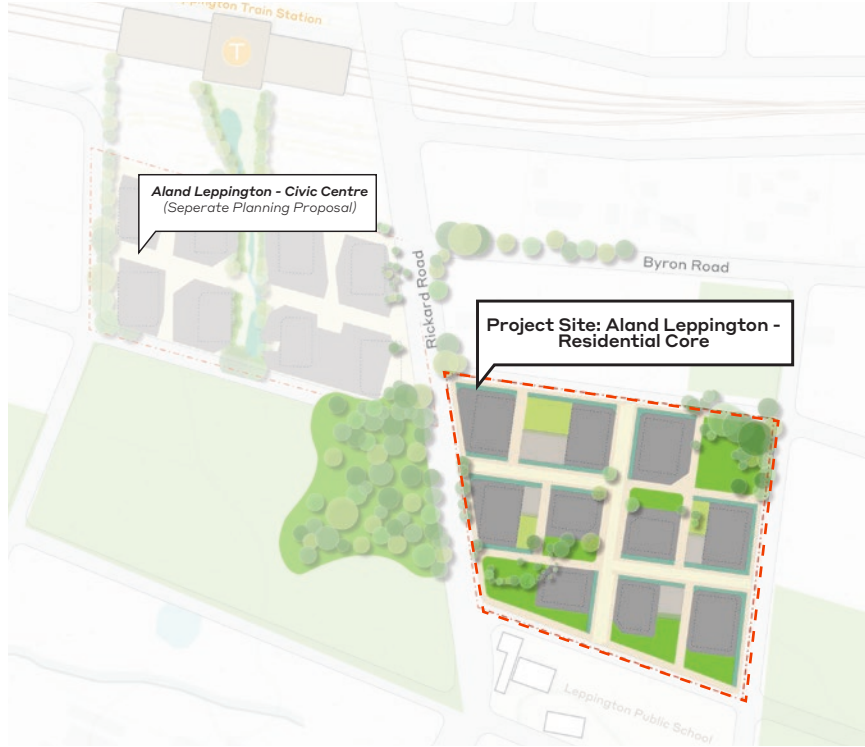
Foster A Networked Precinct

The project's site's proximity to Leppington Train Station creates opportunity for a transit oriented development that fosters connectivity through active and public transport. The Civic boulevard forms a spine in the heart of the site, this creates efficient movement between the station and wider urban framework while serving community needs through activated retail edges. The secondary paths east-west create shared path links for pedestrians to safely navigate in all directions.

A Connected Urban Structure

The Urban Structure provides an efficient grid of networks as well as informal passages through connecting open space. This form a diagonal through the site interacting with retail and cafe frontages to form a friendly neighbourhood environments between residents and the wider community. The linear park across the south forms an activated frontage for passive surveillance to Leppington Public school, creating a safe, walkable, and lively conditions for families of the town centre.

06.04 Urban Framework Design Strategy



Activate Precinct Character

Rickard Road is activated with large-scale retail while the inner open spaces and civic boulevard are activated with local-scale retail and cafes for an intimate neighbourhood atmosphere. This allows residents to get to know each other, creating a sense of community and friendship. This in turn enhances the pedestrian experience and provides amenity for the open spaces to ensure usability and success of the parks.

Diversity of Open Space

Marking growth around infrastructure; taller built forms rise near the train station as an aid for wayfinding and announce arrival in Leppington. These towers reflect the ambitions of a growing community and reflect a sustainable approach to design integrated with nature... uniquely Leppington. Lower envelopes respond to current public space, solar access to the School, and established entertainment/retail tenancies to create a beautiful diversity in built form. This diversity ensures Leppington develops with a character that is far from monotony of other city centres.

Future Propagation

The grids are designed to connect with the wider urban framework and surrounding infrastructure. This forms a permeable network with future developments to promote connectivity with adjacent sites. Each block within the development is proposed to have a multi-level mixed use building over basement car parking comprised of retail/commercial premises at the ground floor, and residential buildings proposed above. This serves a wide range of community needs for a growing population. The concept development is seeking to establish road layouts, building envelopes, heights, gross floor area and uses on the site that will guide future development.

06.04 Urban Framework Design Strategy

The proposal will form one of the area's early developments and will foster transformation of the northern part of the Leppington Town Centre. The framework forms a holistic approach to ensure its relevance for its wider urban presence as well as the local needs it seeks to serve.

The design strategically considers the safety of children walking to and from the school as well as the amount of families who will live within the Leppington Town Centre. This means the town centre should reduce the amount of large 50-100m in dimension open spaces and provide more usable scale neighbourhood parks that would respond to the adjacent school needs through passive surveillance, park amenities, and a friendly pedestrian streetscape. Space has also been allocated to provide a kiss-and-drop, thereby improving safety compared to the current conditions whereby parents park semi-illegally on the busy Rickard road to drop their kids off. This becomes very congested during peak hours, and unsafe for pedestrians and cyclists.

The site will address wider community needs by leveraging the surrounding natural and built assets, as well as delivering new high quality urban spaces that connect the wider precinct East-West. The site's rural character will be transformed into a vibrant and multifunctional community that facilitates urban living.

- Key
- Primary vehicle movement
 - Secondary vehicle movement
 - Informal pedestrian movement
 - Proposed intersection/crossing
 - Podiums
 - Towers
 - Townhouses
 - Public parks
 - Communal parks
 - Water sensitive urban design
 - Proposed water catchment





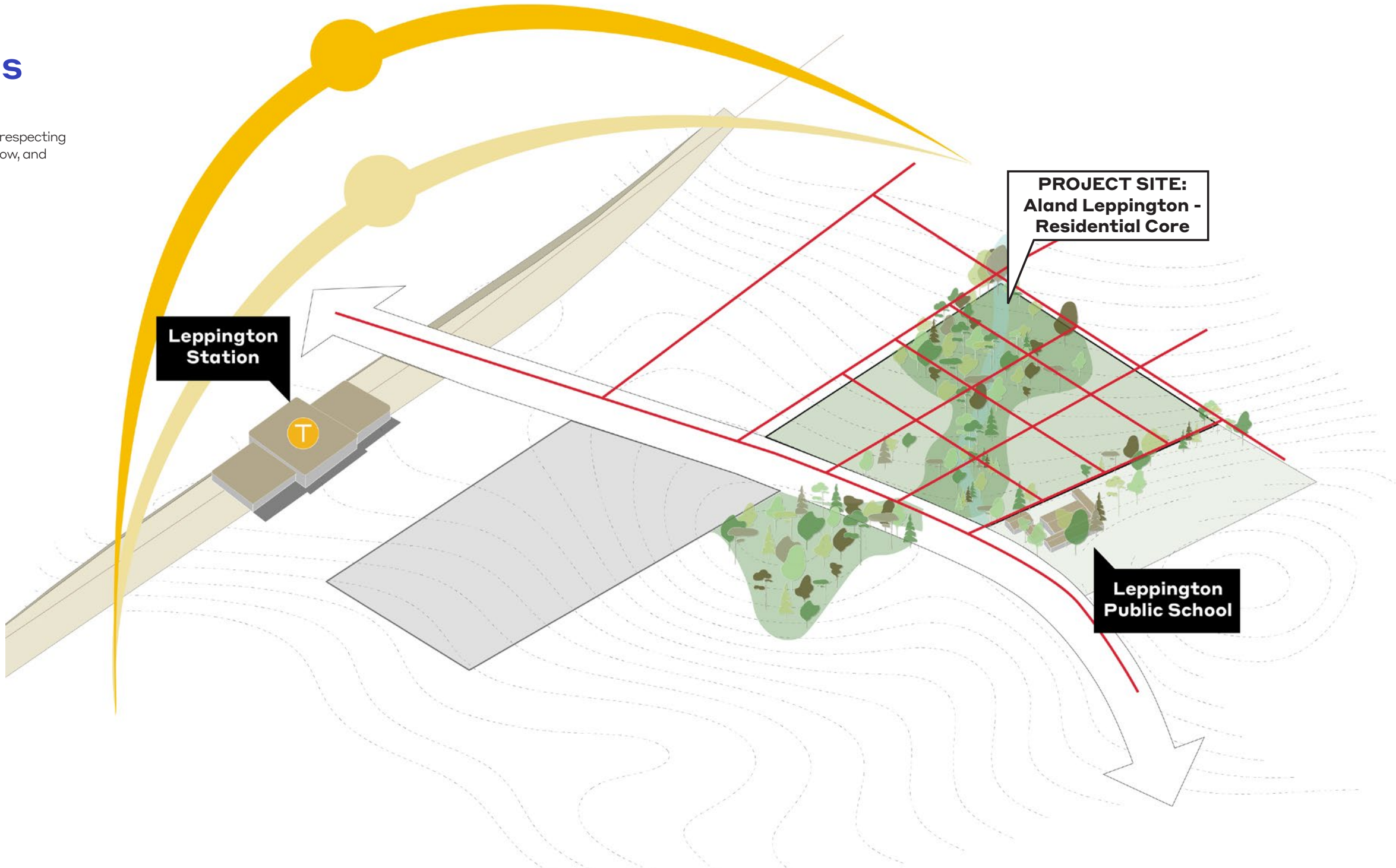
Precinct Masterplan

01 Urban Morphology
02 Masterplan
03 Precinct Plan
04 Sub Precincts
05 Development Summary
06 Appendix - Envelope Drawings

07.01 Urban Morphology

Urban Grid & Natural Systems

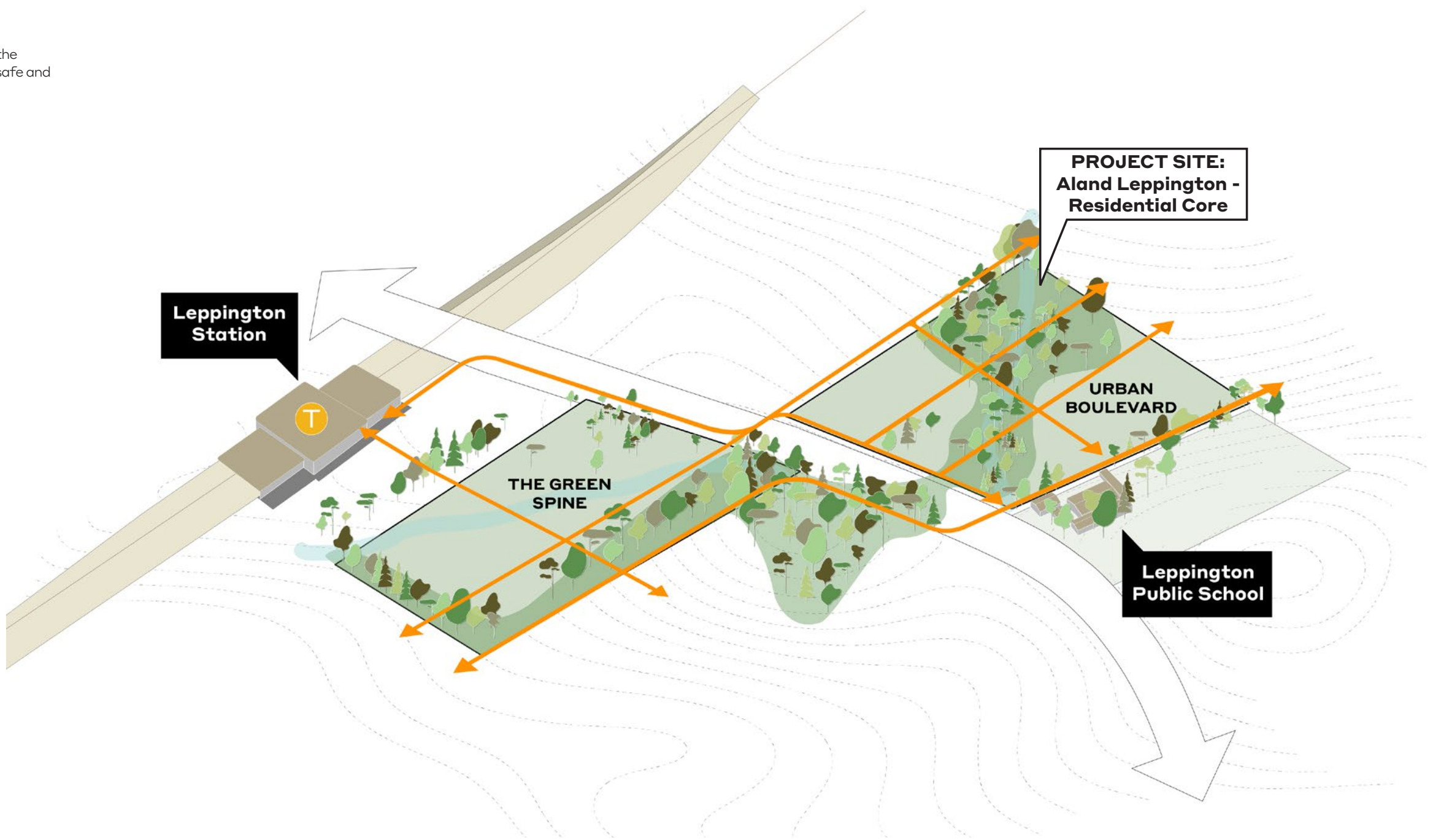
Setting new street networks and urban grid whilst respecting the site's natural systems, maintaining the water flow, and designing with existing trees as much as possible.



07.01 Urban Morphology

Key Connections

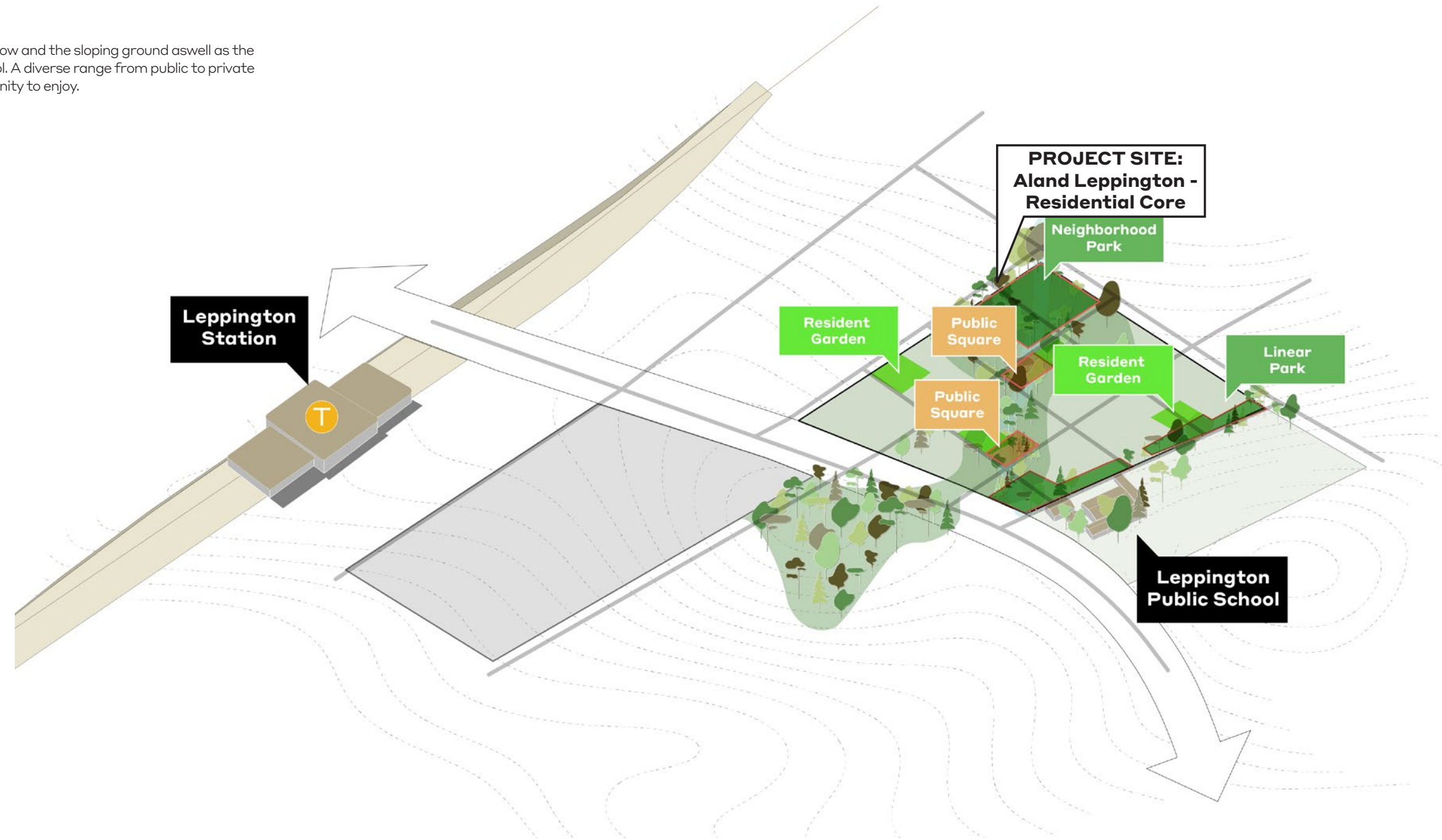
The masterplan aims to ease connections between the Leppington Station and the public school, providing safe and accessible pathways for all residents.



07.01 Urban Morphology

Open Space Typologies

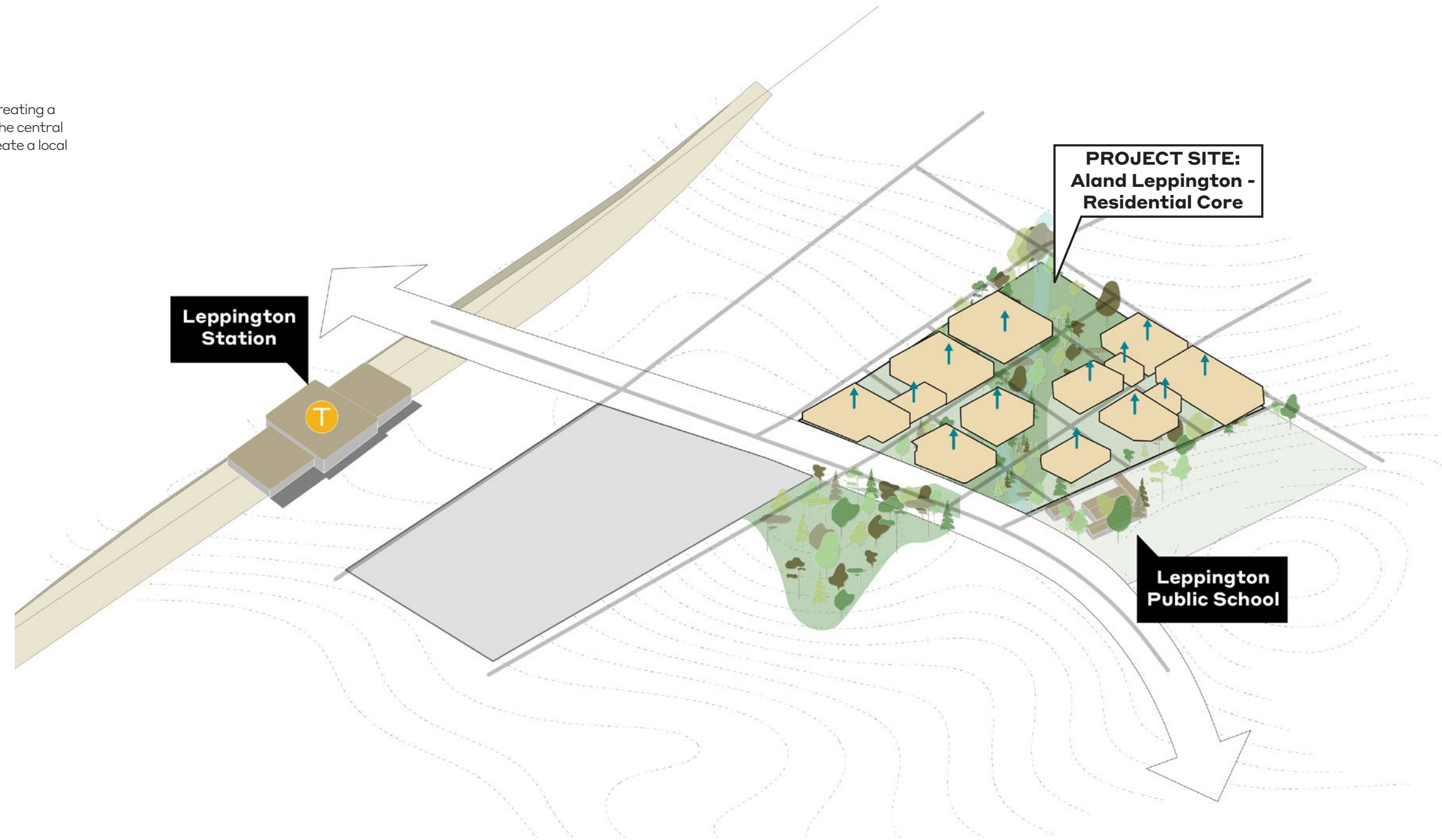
A sequence of community parks follow the water flow and the sloping ground aswell as the interface along the Northern frontage of the school. A diverse range from public to private spaces provides a variety of spaces for the community to enjoy.



07.01 Urban Morphology

Urban Structure & Street Walls

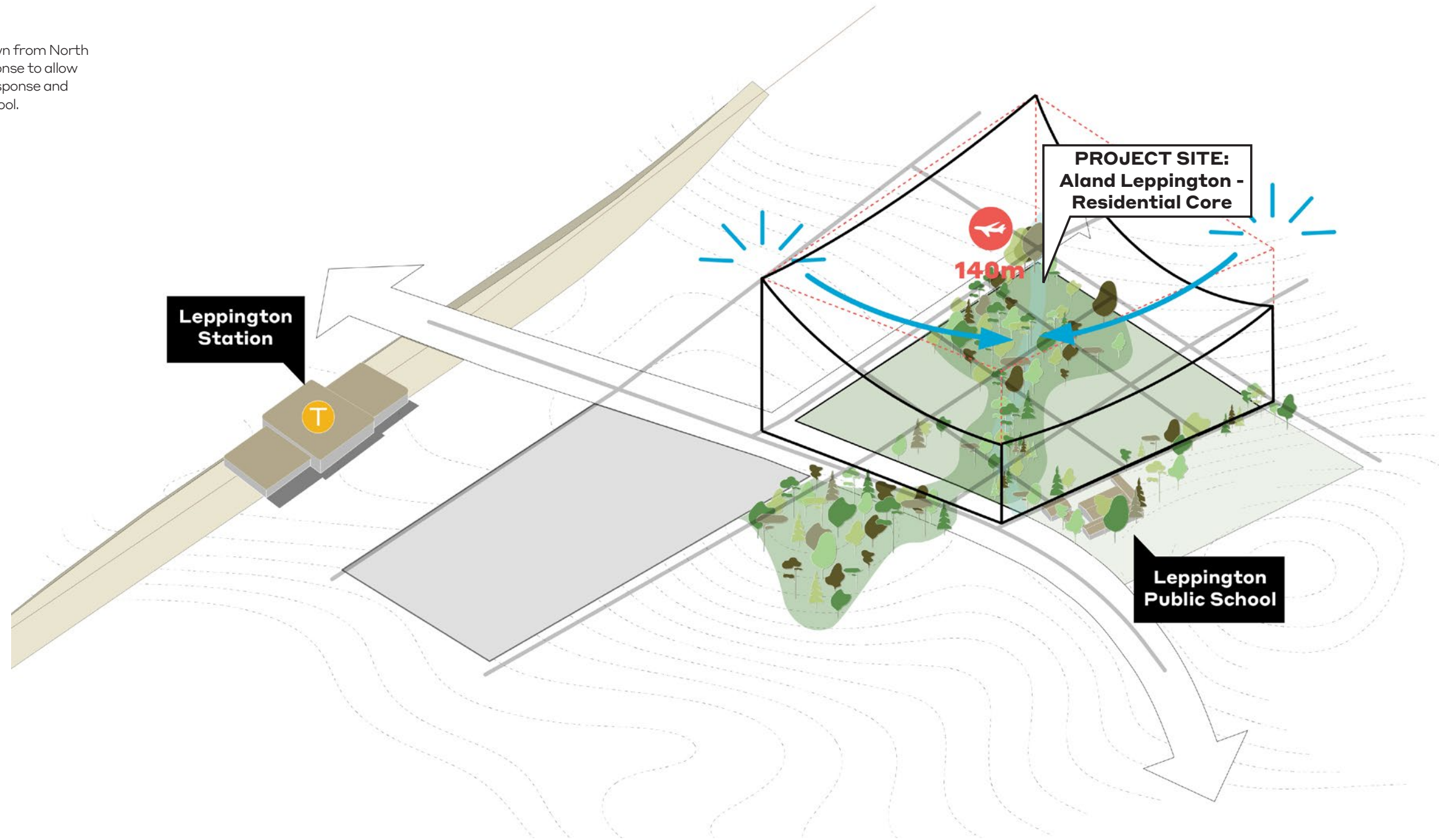
Modulated podium levels to accommodate retail, creating a diverse streetscape. Podiums are higher towards the central spine and lower to the outer edges and parks to create a local scale and pedestrian friendly interface.



07.01 Urban Morphology

Height Response

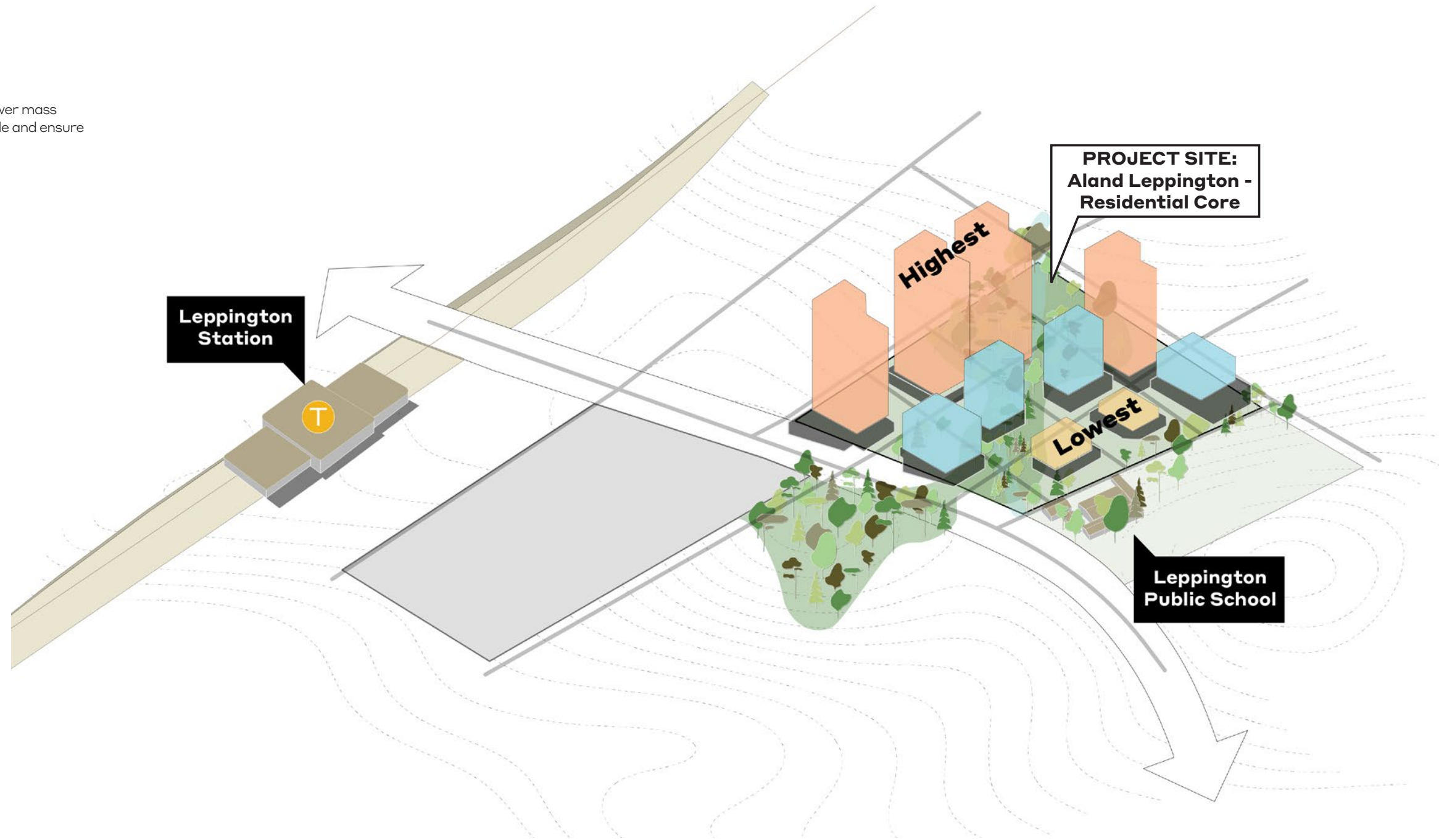
With a height limit of 140m, the builtform steps down from North to South and towards the centre of the site in response to allow for maximum solar access amenity, view impact response and ensuring 0 overshadowing to Leppington public school.



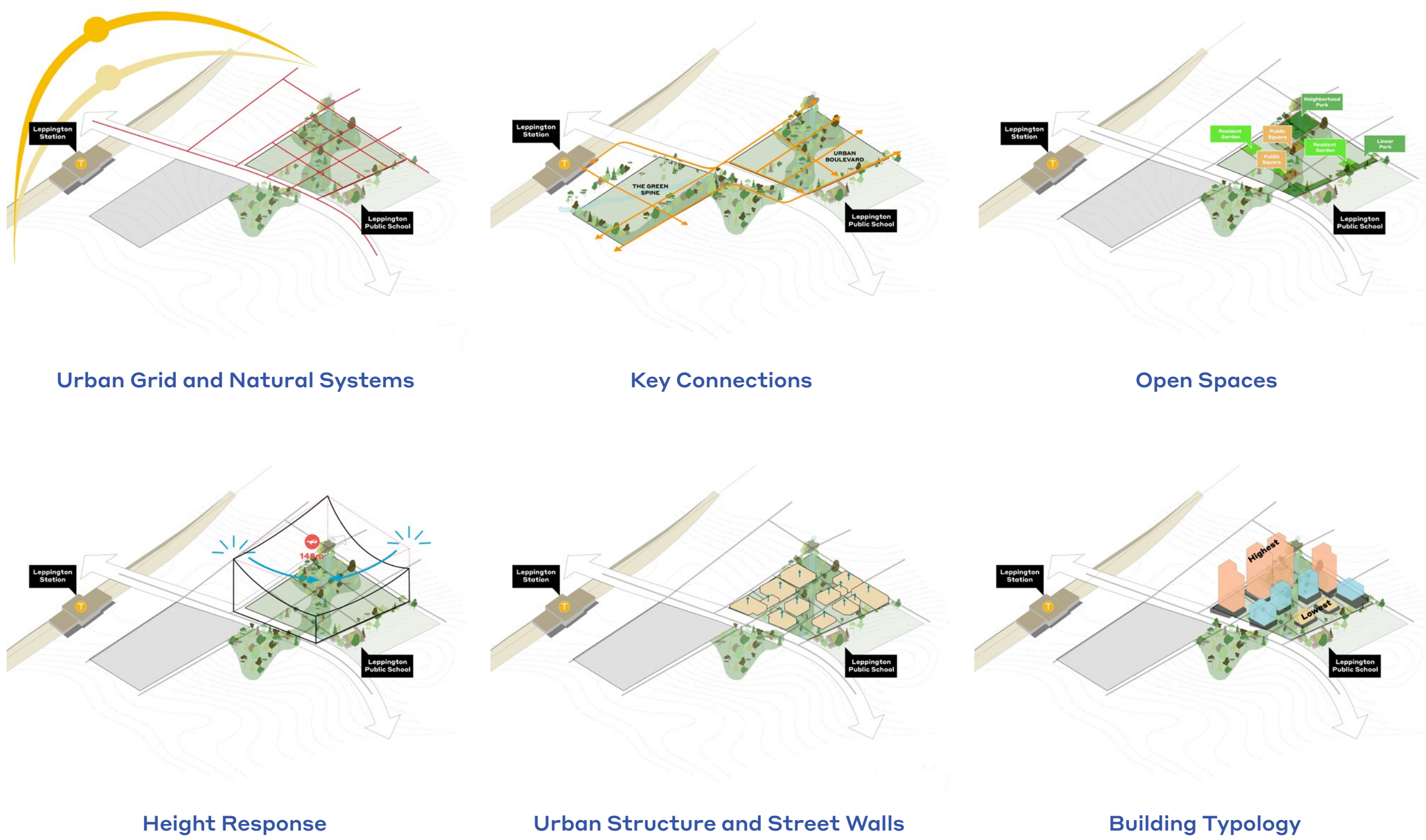
07.01 Urban Morphology

Building Typologies and Modulation

Diversity of heights, intensifies along Rickard Rd, lower mass towards the school to preserve a better human scale and ensure 0 overshadowing to the School Site.



07.01 Urban Morphology Summary



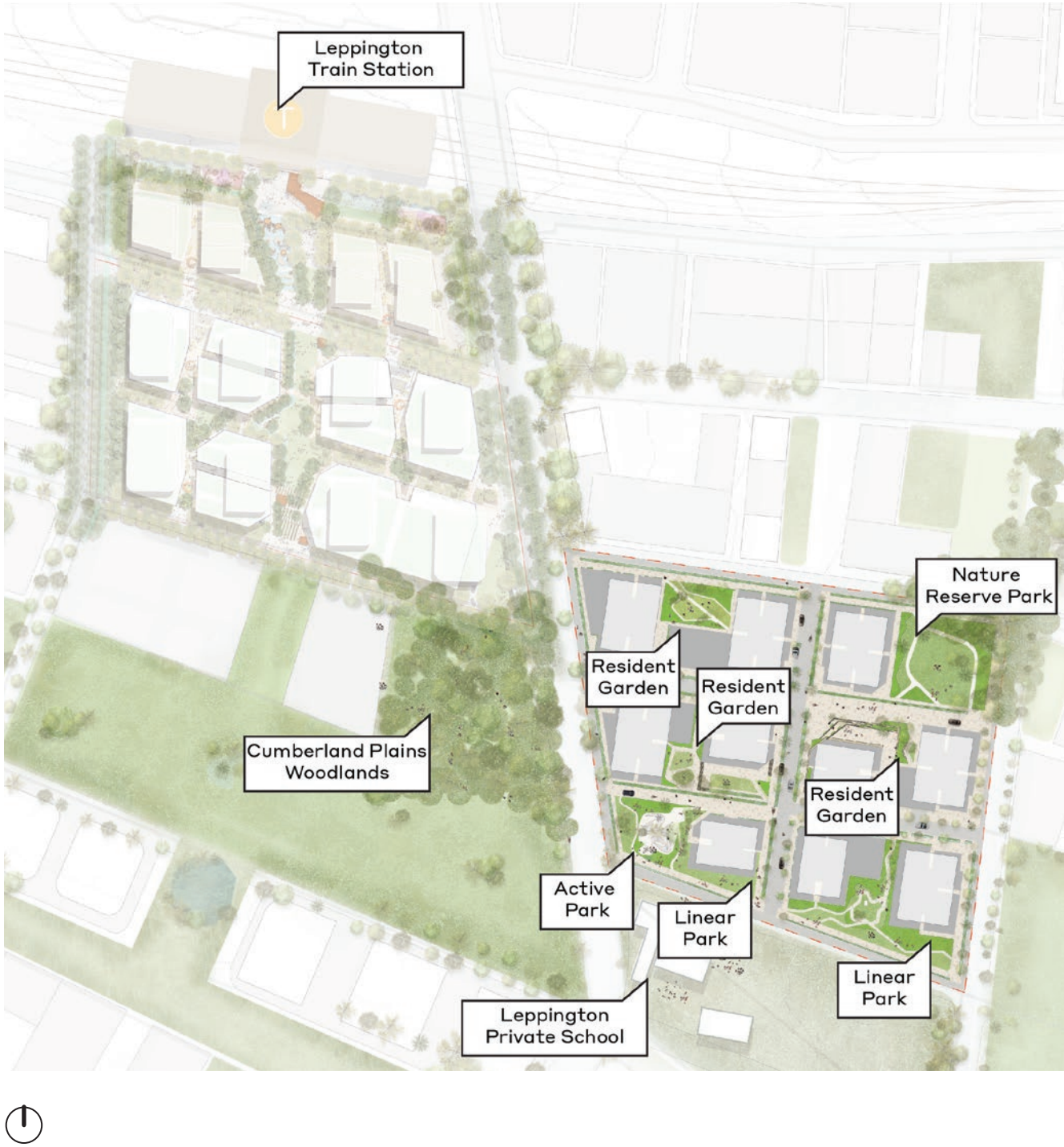
07.02 Illustrative Masterplan



07.03 Masterplan
Key Moves



Open Space Network & Civic Assets



07.03 Masterplan
Key Moves



Program & Use



07.04 B1 - Sub Precinct

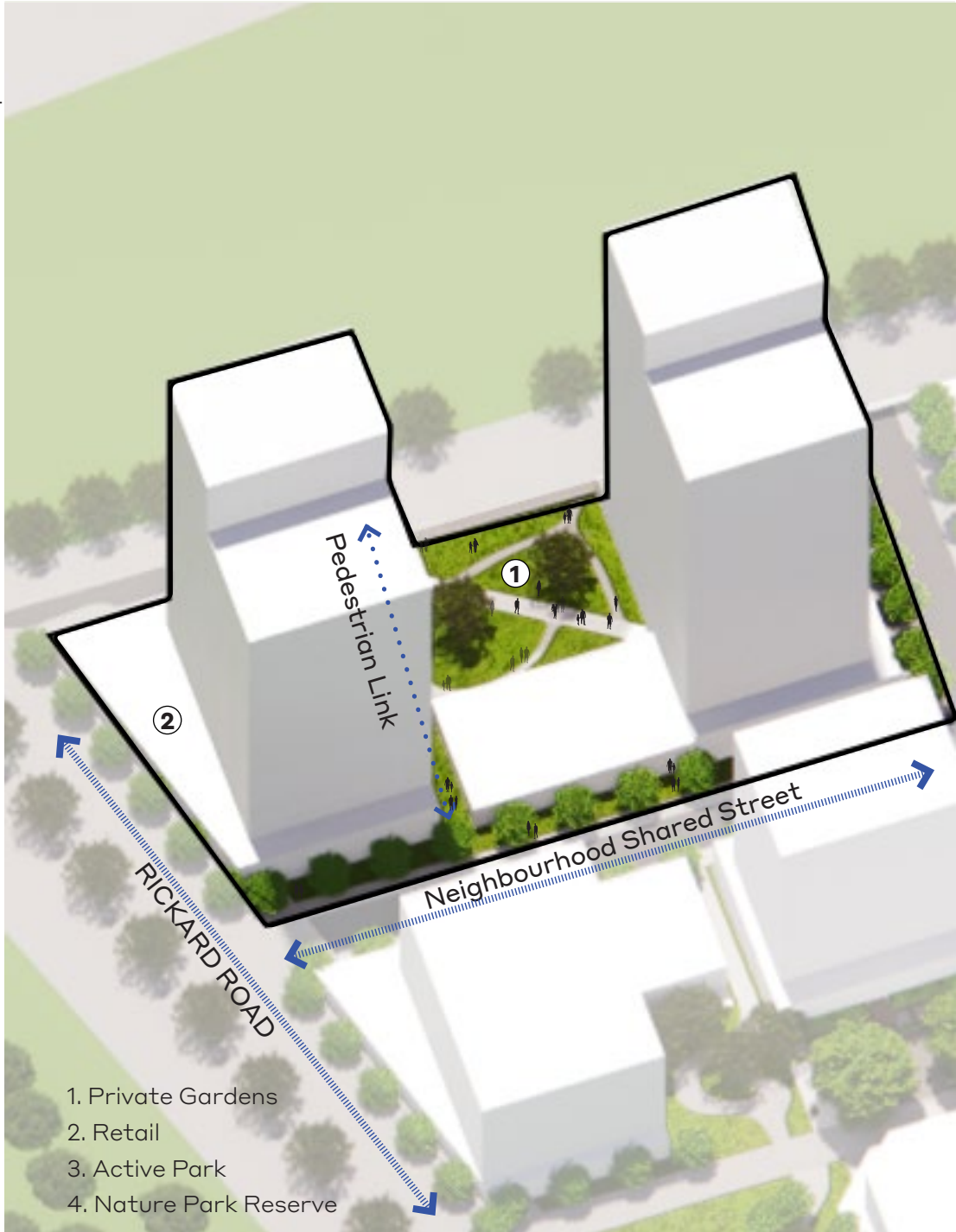
Precinct Connector, Residential Street and Private Gardens

Precinct Character

Located in the northwest of the site, the sub precinct is accessed by the precinct connector Rickard Road to the west providing accessible public transport and pedestrian movement from the station to the site.

At ground level, large retail spaces will activate the frontage to Rickard Road and invite pedestrian connections to the shared neighbourhood street providing a leafy suburb streetscape.

The private common open space will provide amenities to the residents of all ages to enjoy making it suitable for families.



07.04 B2 - Sub Precinct

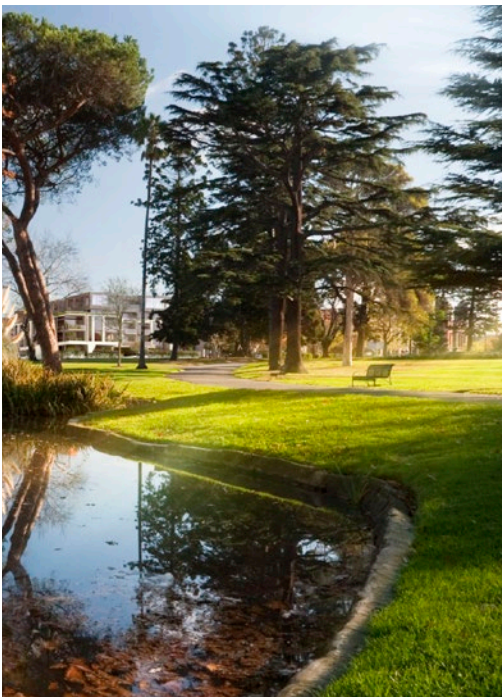
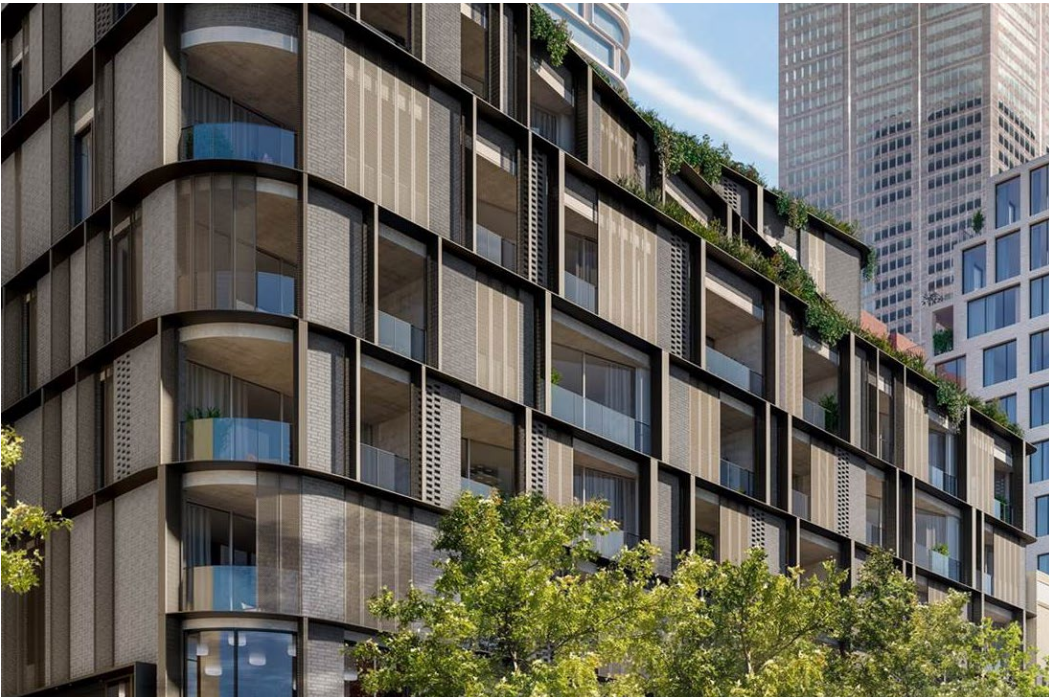
Boutique Residential, Retail and Nature Park Reserve

Precinct Character

Located in the northeast of the site, there is maximum solar access from the northeast to the nature park reserve providing an attractive healthy lifestyle to the residents.

A varied residential typology of townhouses, boutique apartments and high rise apartments with different view vantages creates a diverse offering to prospective residents.

At ground level, retail spaces fronting the civic boulevard will encourage more pedestrian activation through the site and offer residents and visitors a place to relax and unwind fronting the nature park reserve.



07.04 B3 - Sub Precinct

Boutique Residential, Retail and Active Park

Precinct Character

Directly accessible by public transport and pedestrian connections on Rickard road, the subprecinct offers convenience for residents to commute to and from places outside the major centre.

However at ground level, a balance between a neighbourhood community and civic place is achieved by an active park and retail frontages. The active park not only promotes healthy lifestyle but also additional canopy cover throughout the site that also mitigates urban heat.

A varied mix of residential typology including townhouses, boutique apartments and high rise apartments will be an attractive precinct for families of all sizes and needs.



07.04 B4 - Sub Precinct

Residential Street and Private Gardens

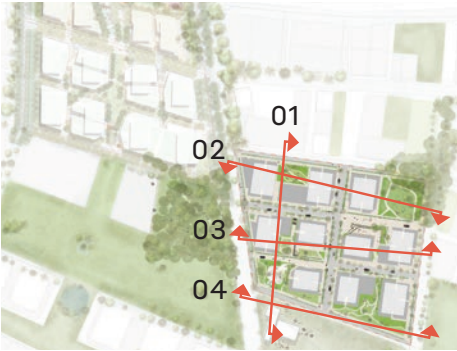
Precinct Character

Located in the southeast of the site, the sub precinct is tucked away from Rickard Road where it is accessible by shared neighbourhood street providing more privacy to residents.

The private common open space will provide amenities to the residents of all ages to enjoy making it suitable for families.

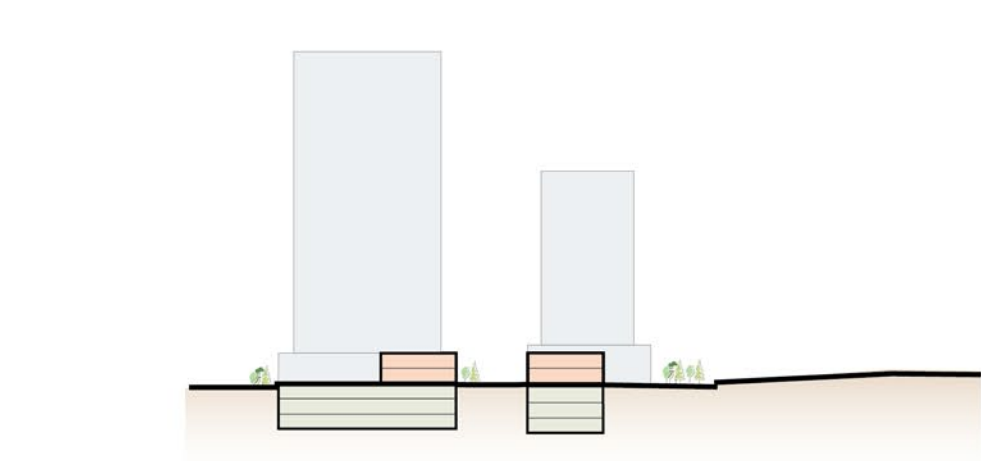


07.05 Masterplan
Sections (sc. 1:2000 @ A1)

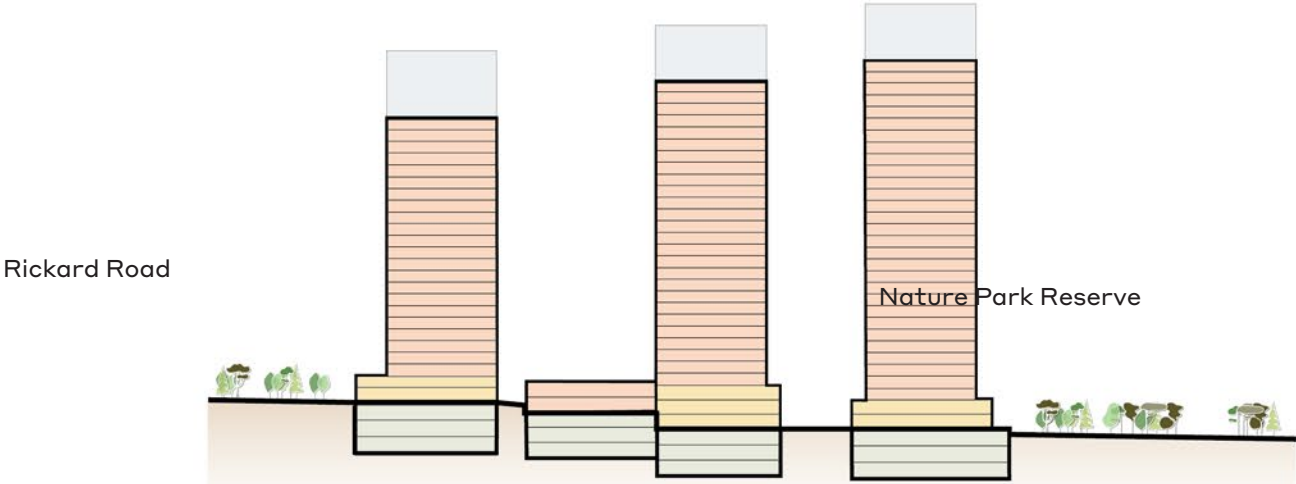


CIVIC

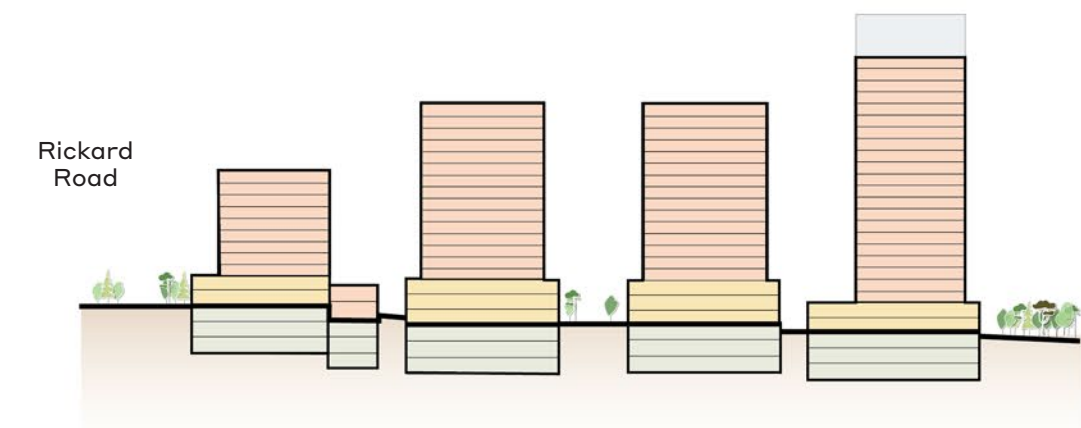
RESIDENTIAL



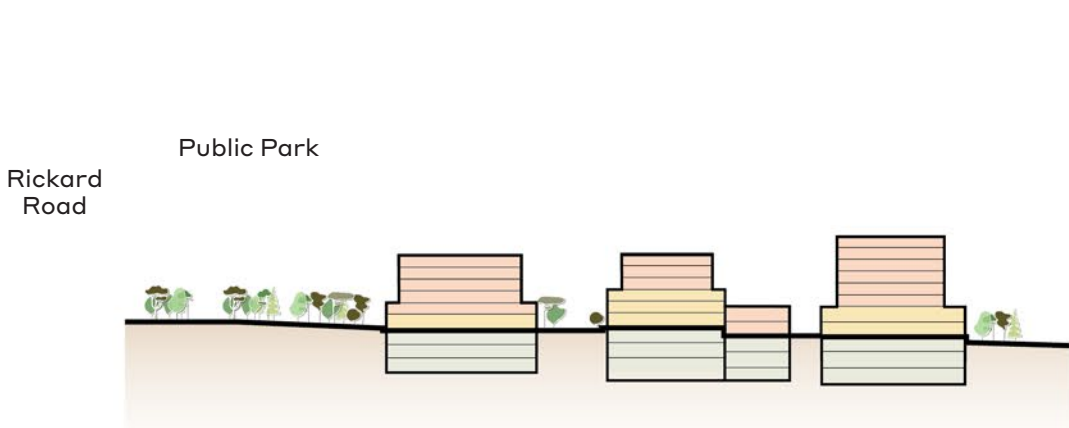
RESIDENTIAL CORE - Section 01



RESIDENTIAL CORE - Section 02



RESIDENTIAL CORE - Section 03



RESIDENTIAL CORE - Section 04



07.06 Development Summary

Sub Precinct	Envelope (Tower)	Type	Height (m)	Storeys	GFA Total (m2)	NSA Total (m2)	Basement Parking
B1	1	Residential	92.7	29	22,683	18,176	LOT A Buildings 1 & 3 321
	2	Residential	106.9	33	26,741	22,064	
B2	3	Residential	35.9	11	9,865	7,426	LOT B Buildings 2, 4, 5 443
	4	Residential	58.5	18	11,271	8,818	
	5	Residential	19.1	6	4,089	2,804	
B3	6	Residential	112.2	35	27,077	22,640	LOT C Buildings 6, 7, 9 453
	7	Residential	58.5	18	11,271	8,818	
	8	Residential	84.3	26	20,675	16,629	
B4	9	Residential	19.5	6	5,216	3,294	LOT D Buildings 8 & 10 291
	10	Residential	26.6	8	6,973	5,624	
Totals					145,861	116,293	

Total GBA	202,527	Retail NSA	2,873
Total GFA	145,860	Resi NSA	113,421
Total NSA	116,294	Retail GFA	3,603
Total FSR	3.83	Resi GFA	142,256
Total Apts	1,305		





A

Appendix

Architectural Layouts

Open Space Areas

Central to the development proposal is the continuum of public space throughout the site. Two public parks sit at opposite corners of the site according to the existing topography and trees; with two open spaces creating a link between. This allows for both natural flow of water and people down the existing terrain.

Each residential block is also centred around communal open space as for use by residents and outlook from surrounding apartments.

Further detail on each of the public spaces and the proposed streetscapes can be found in the landscape architect's statement.

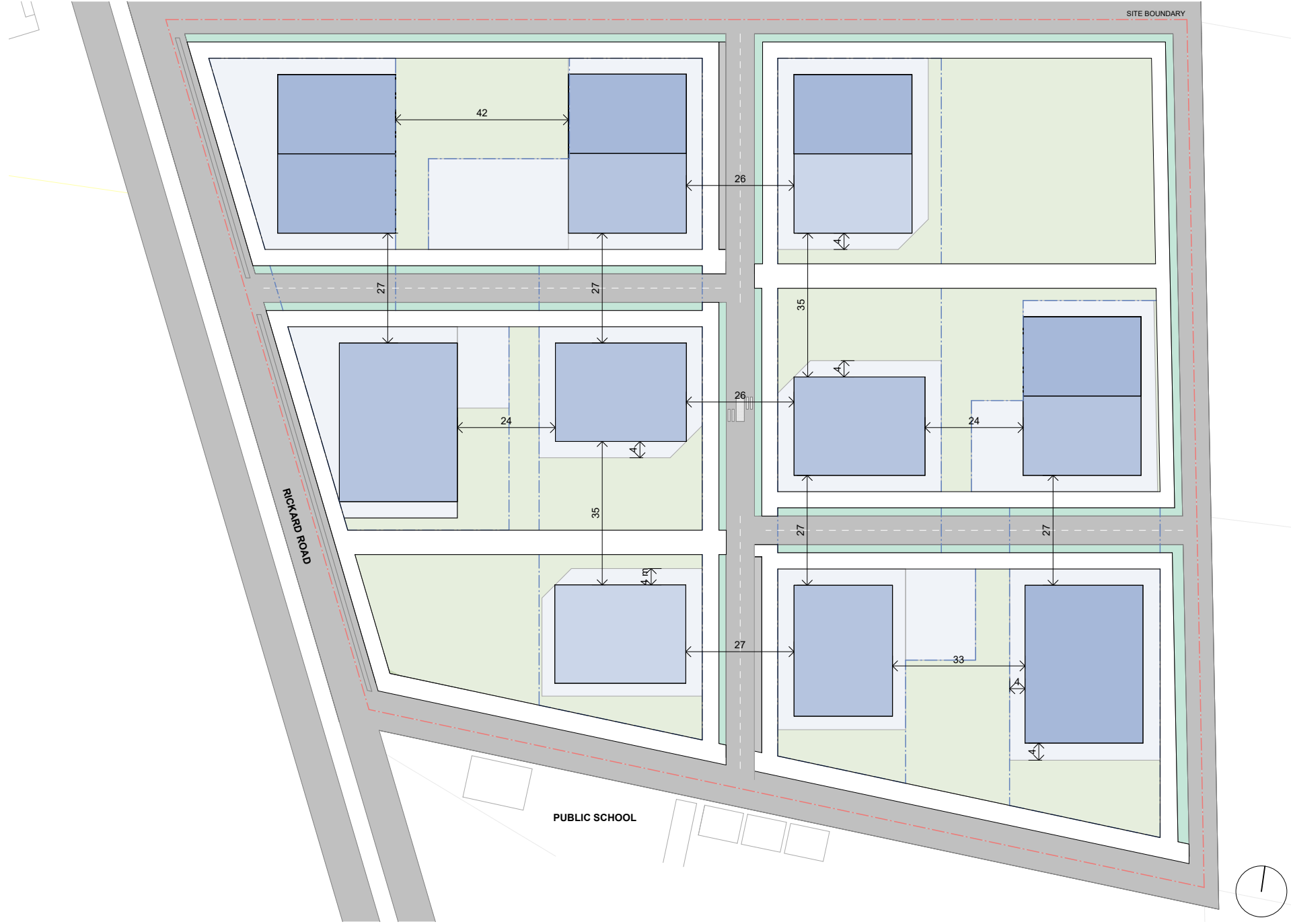
Collective public open space area	6,974m2
Collective private open space area	3,437m2
Percentage of public open space	18%
Percentage of private open space	9%



Envelope Building Separation

The building envelope plan in this page show the proposed building separation is at a minimum of 20m between lower level buildings on common lots, whilst the towers above maintain a minimum of 24m.

Tower masses have also been setback to 4m for the majority of the site. This allows for clear articulation from the lower levels to reduce the visual impact of the towers.



Overall Plan - Lower Levels

To maintain a residential scale of development; lower levels of the development envelopes vary between 2 and 4 storeys. This variety follows the arrangement of purely residential streets running east/west and a more civic street running north/south (central to the site). This ensures future development does not overwhelm the scale of pedestrians at street level, maintaining a residential scale.



Overall Plan - Upper Levels

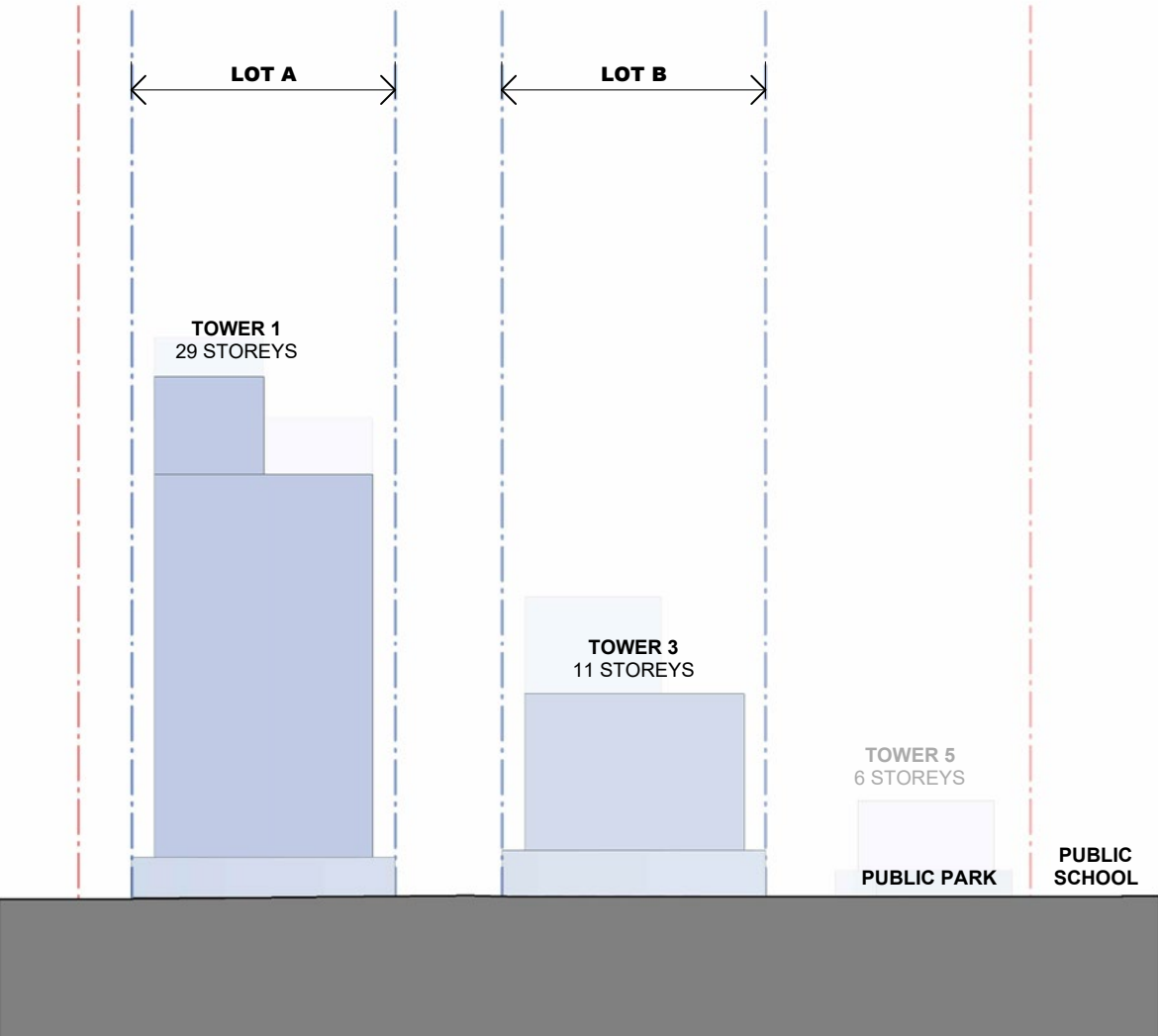
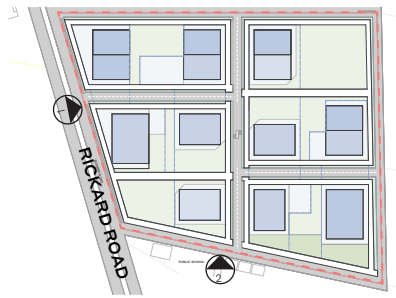
The height of the towers have been modulated to respond to conditions on site. Height has been maximised in only two corners to then step mass downward away from train line, toward the school and toward public parks.

Towers 5 and 6 envelopes have been reduced to 11 storeys to create a smaller boutique residential type directly facing the public parks. For additional variety of residential types, 2 different floor plate sizes have been included. For further detail of these types refer to the 'Floor Plate Test' attachment.

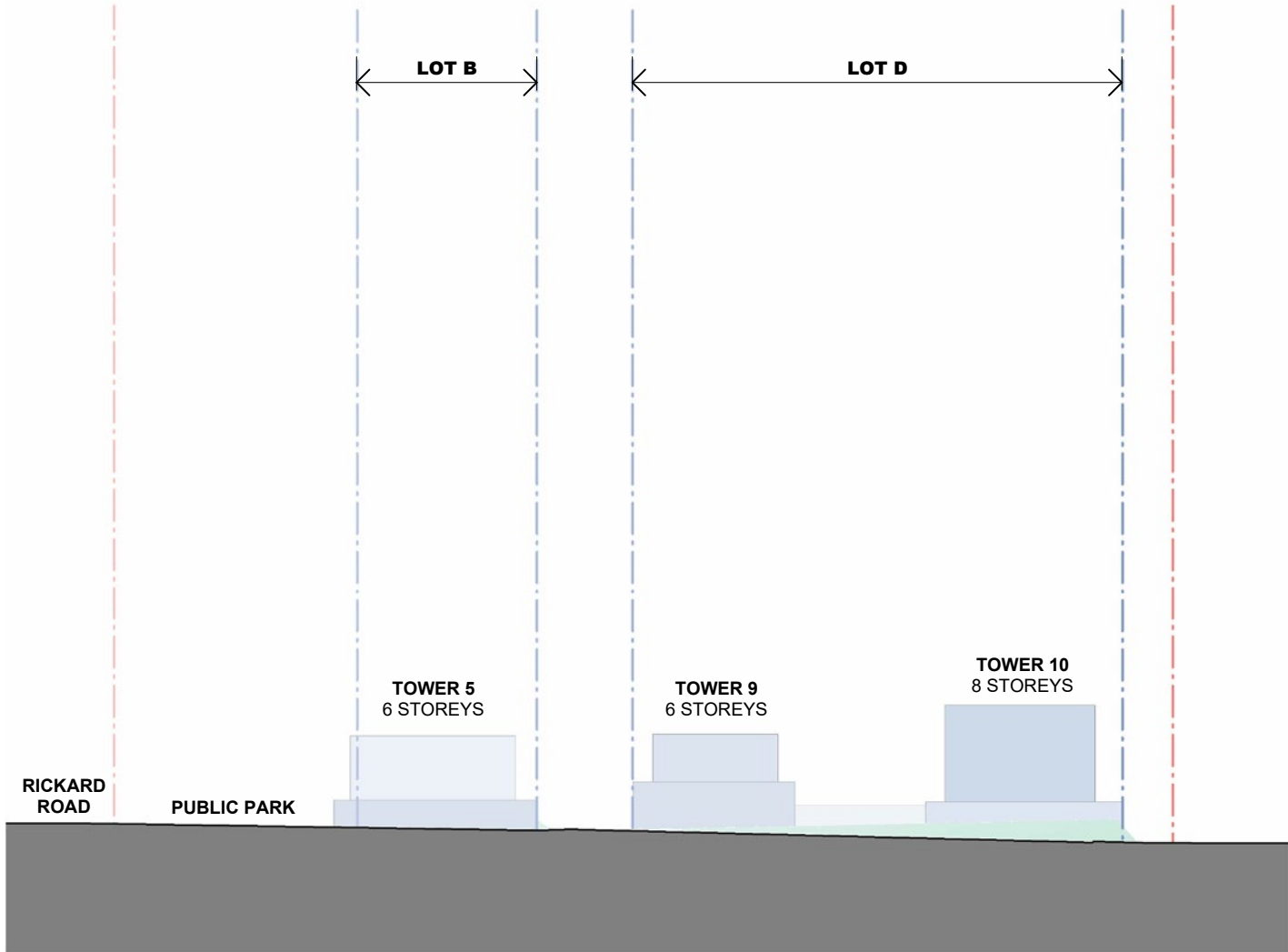


Envelope Street Elevations

The elevation diagrams illustrate the relationship between the buildings, the streets, the public parks and the public school with consideration of the fall of the site. They show the step-down of forms toward open spaces and the primary school with scale growing toward the north along Rickard Road.

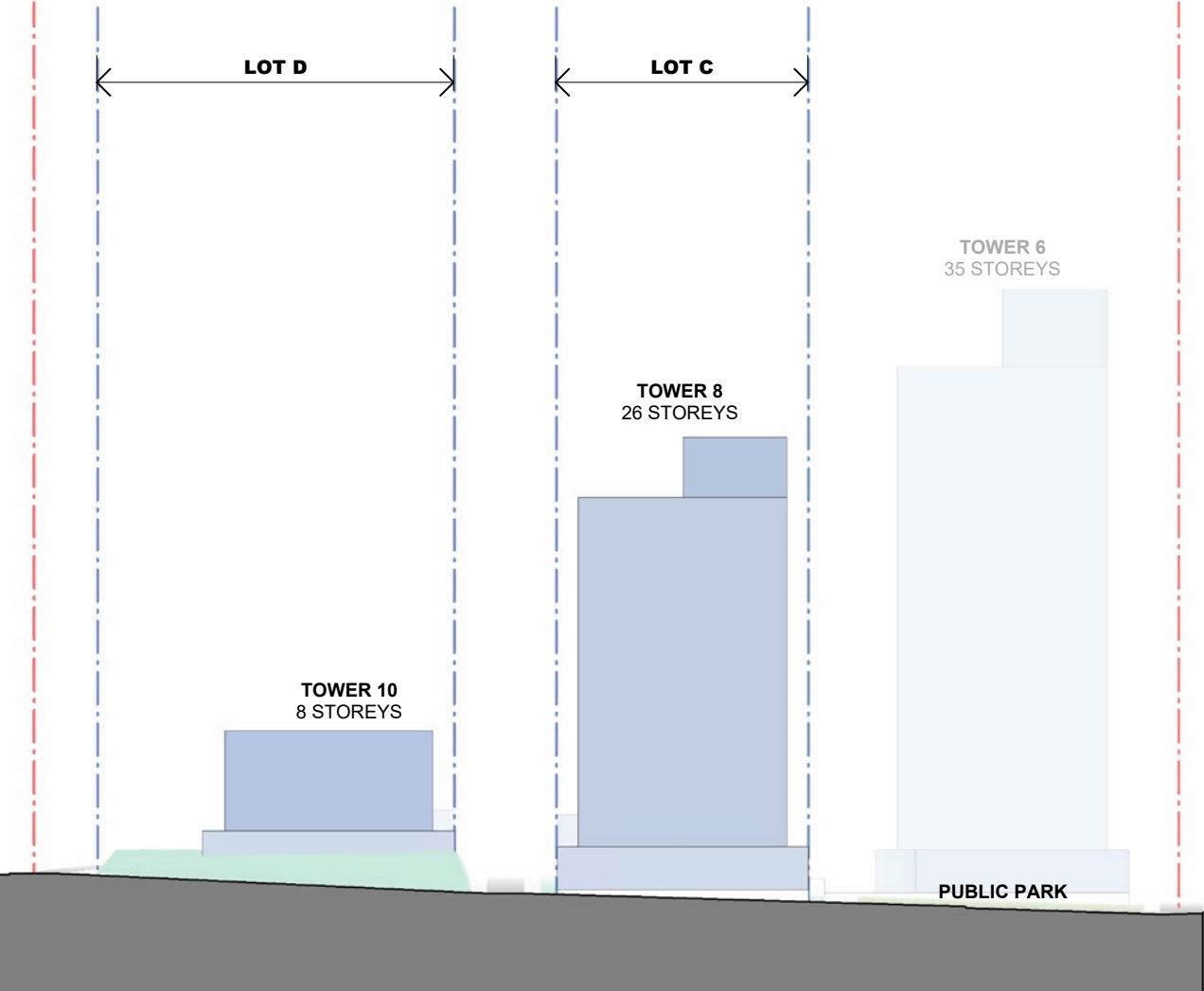
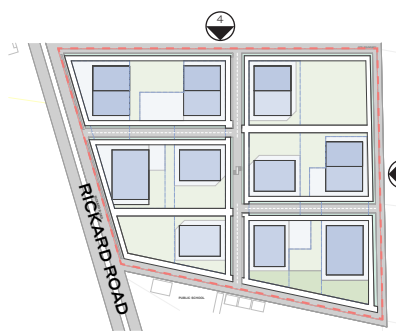


1. RICKARD ROAD ELEVATION

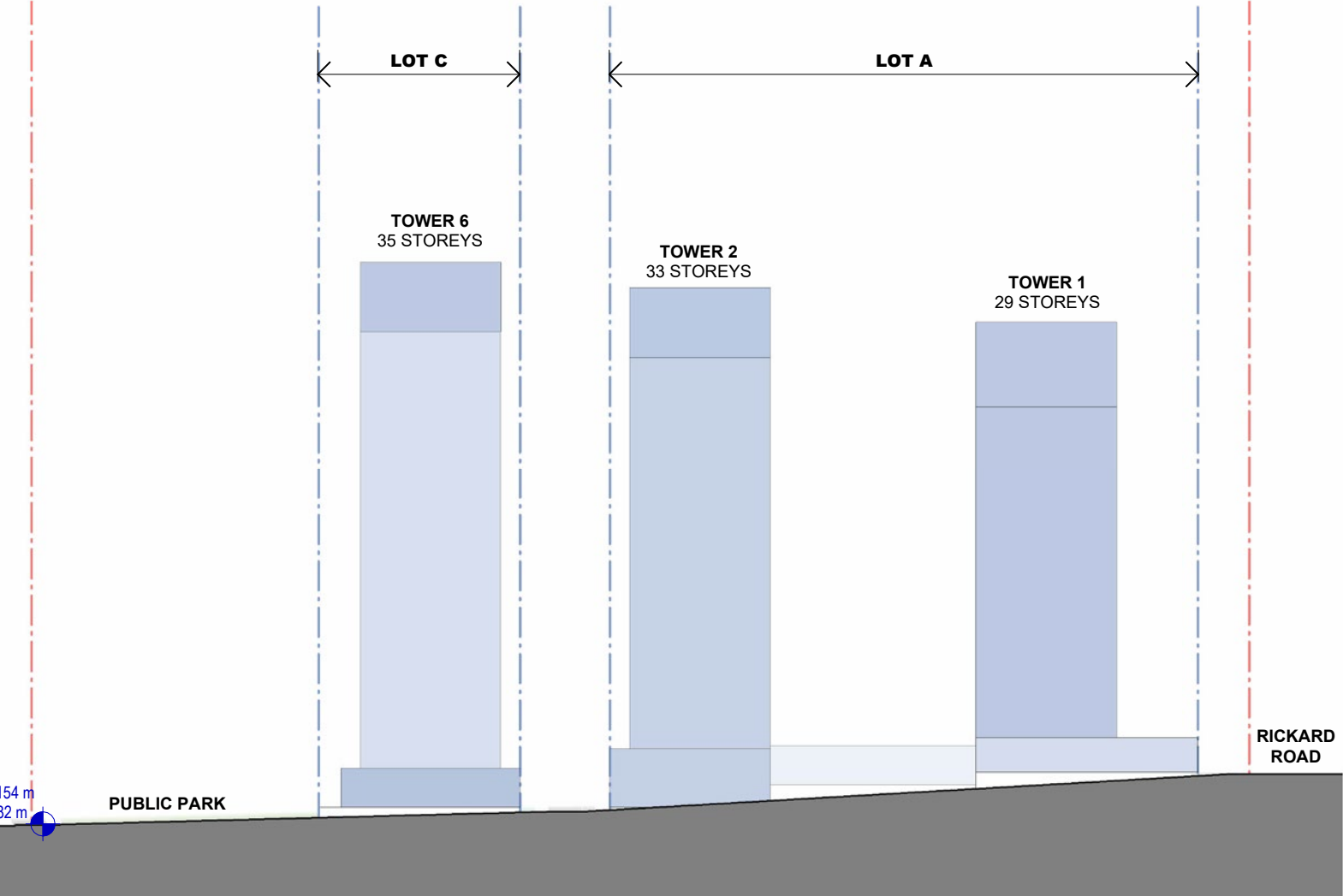


2. SOUTH BOUNDARY ELEVATION

Envelope Street Elevations



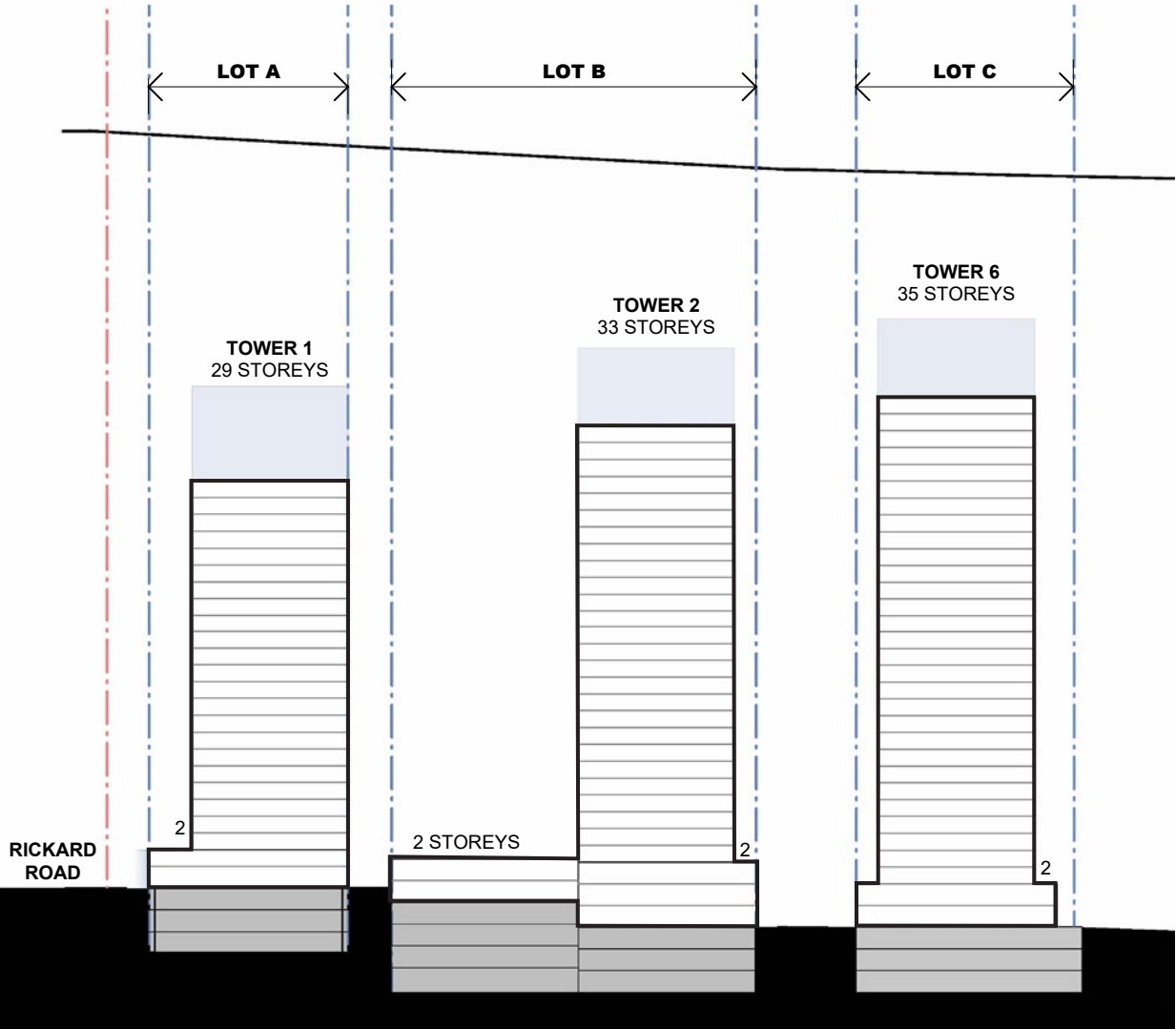
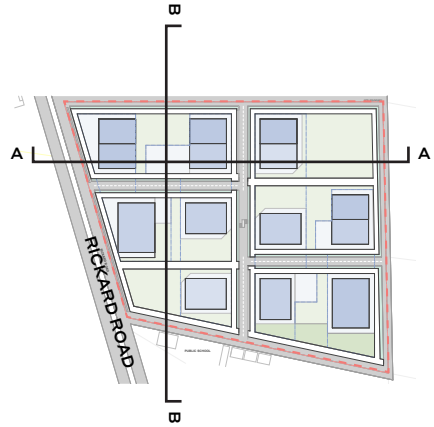
3. EAST BOUNDARY ELEVATION



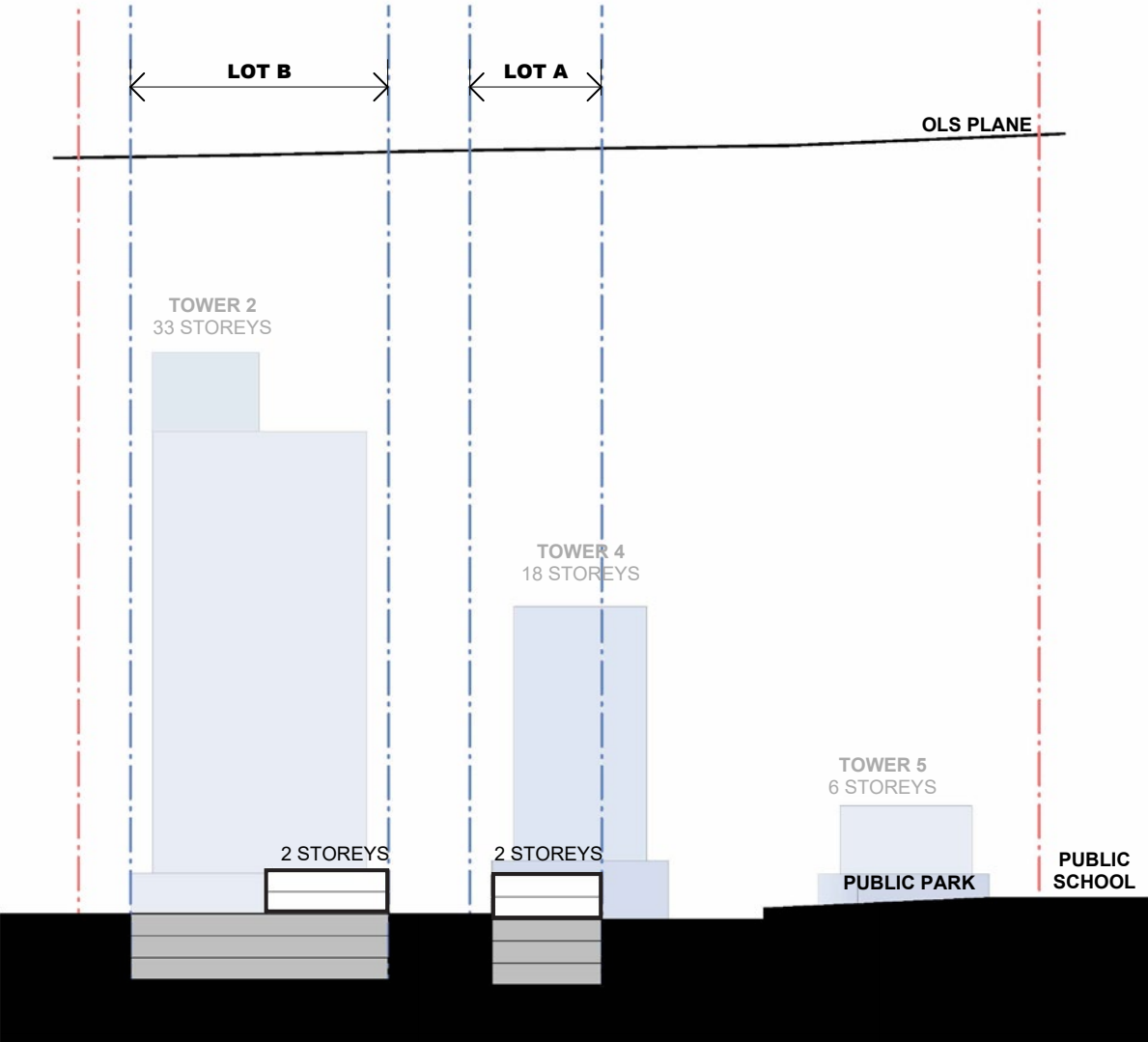
4. NORTH BOUNDARY ELEVATION

Envelope Section Diagrams

The section diagrams illustrate the relationship between the buildings, the streets, the public parks and the public school with consideration of the fall of the site. They show the step-down of forms toward open spaces and the primary school with scale growing toward the north along Rickard Road.

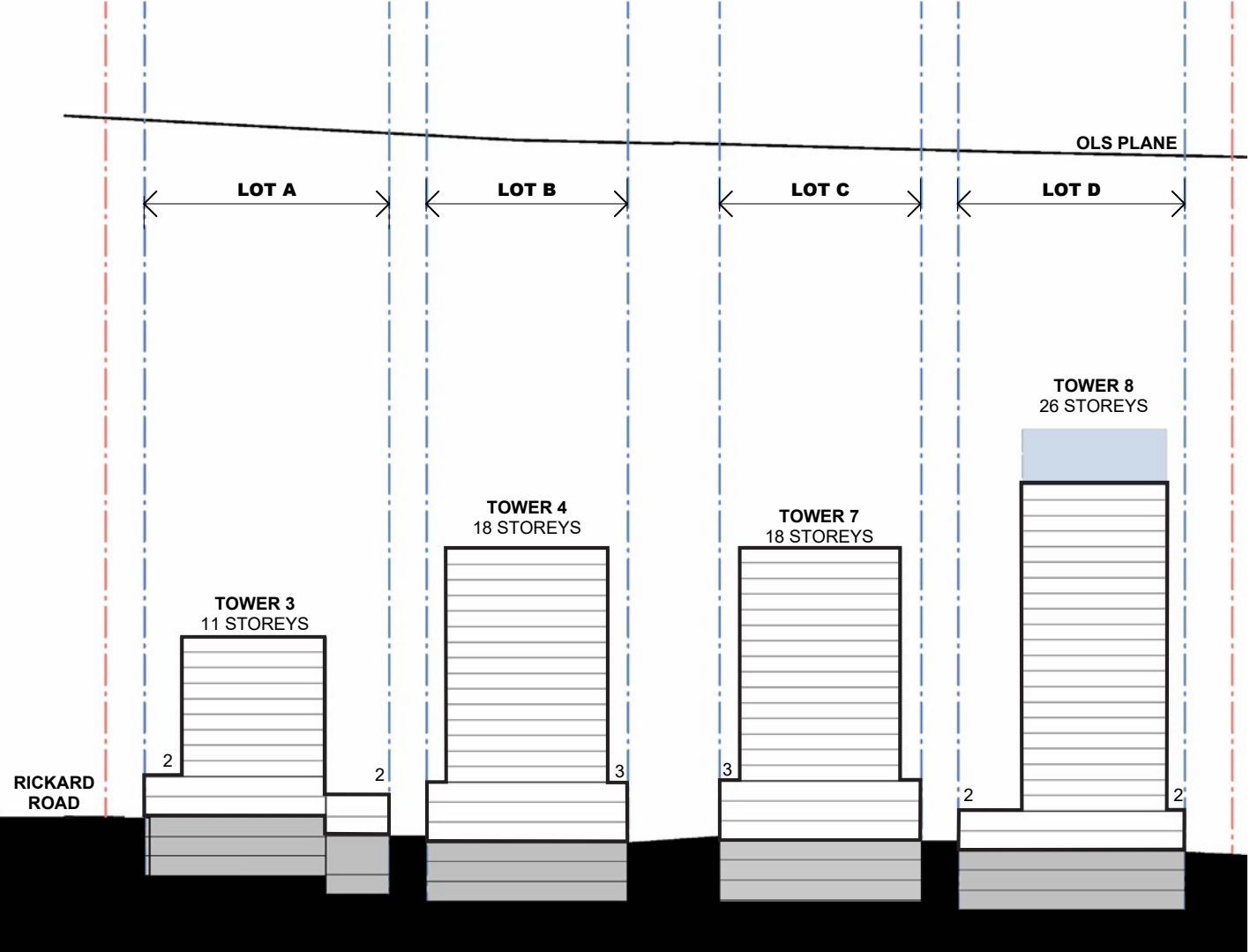
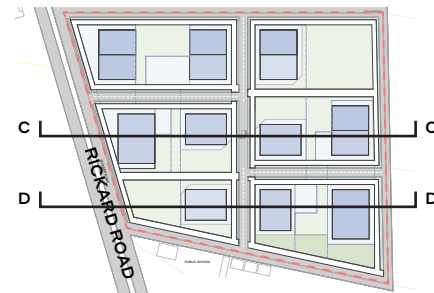


A-A. RICKARD ROAD SECTION

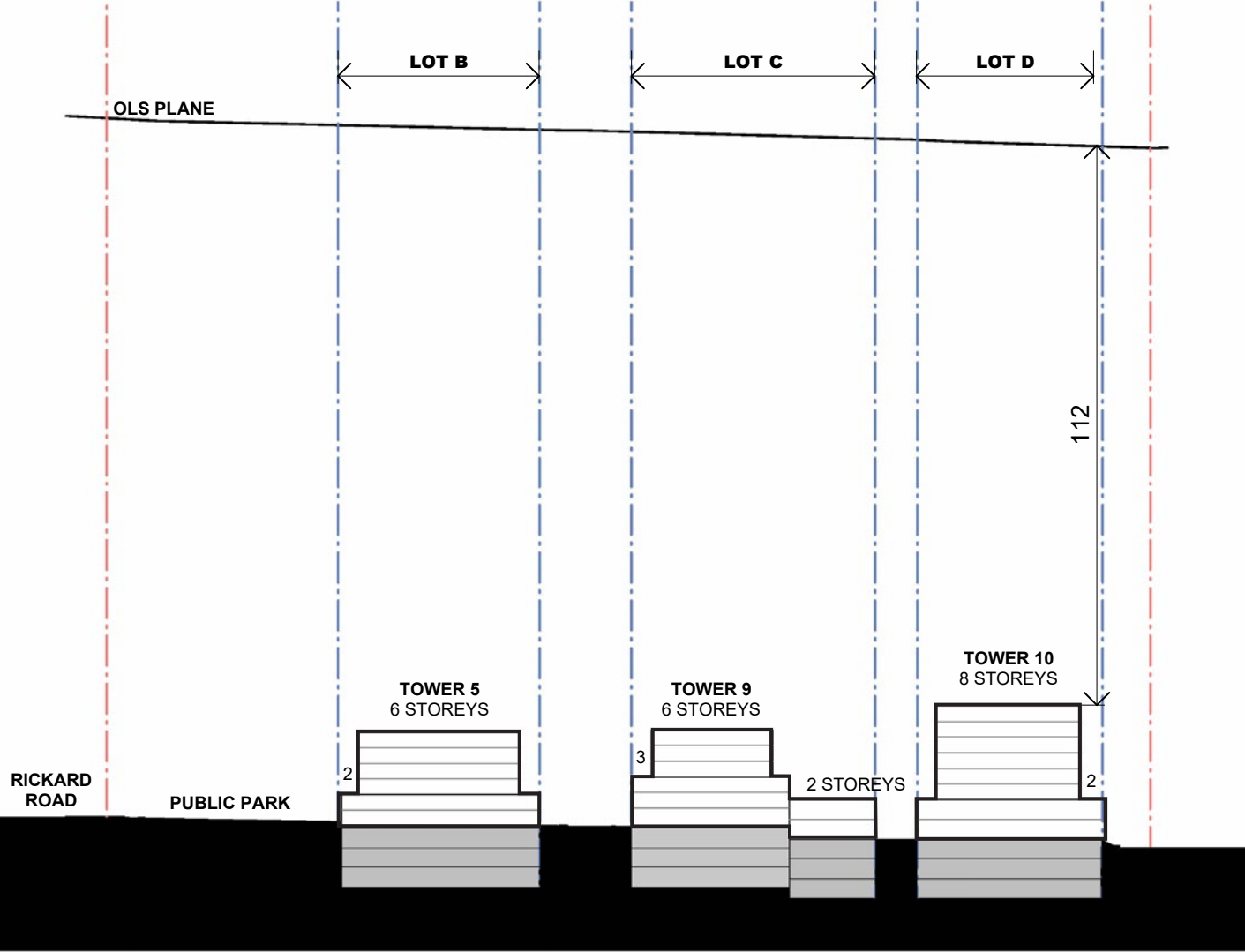


B-B. SOUTH BOUNDARY SECTION

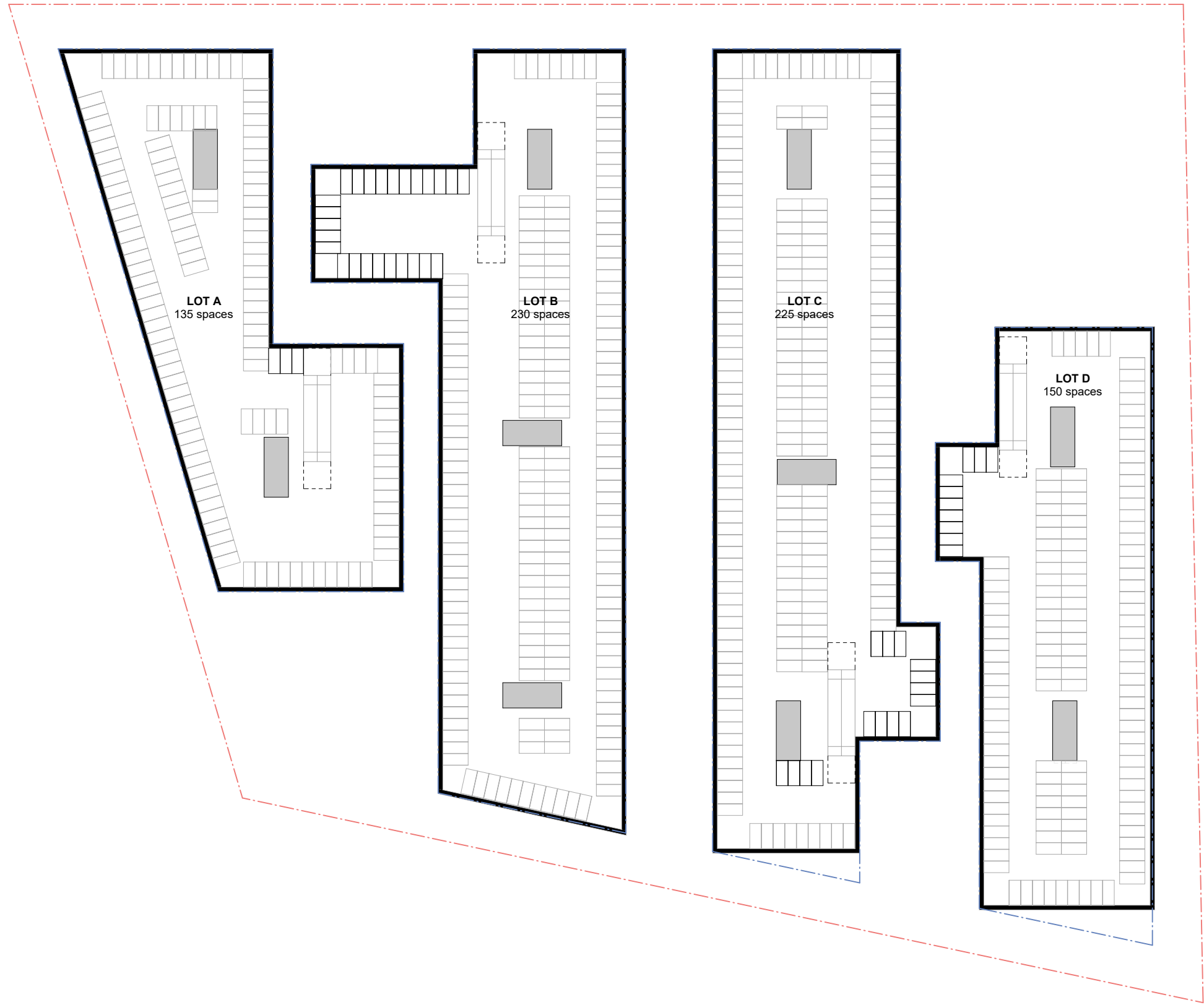
Envelope Section Diagrams

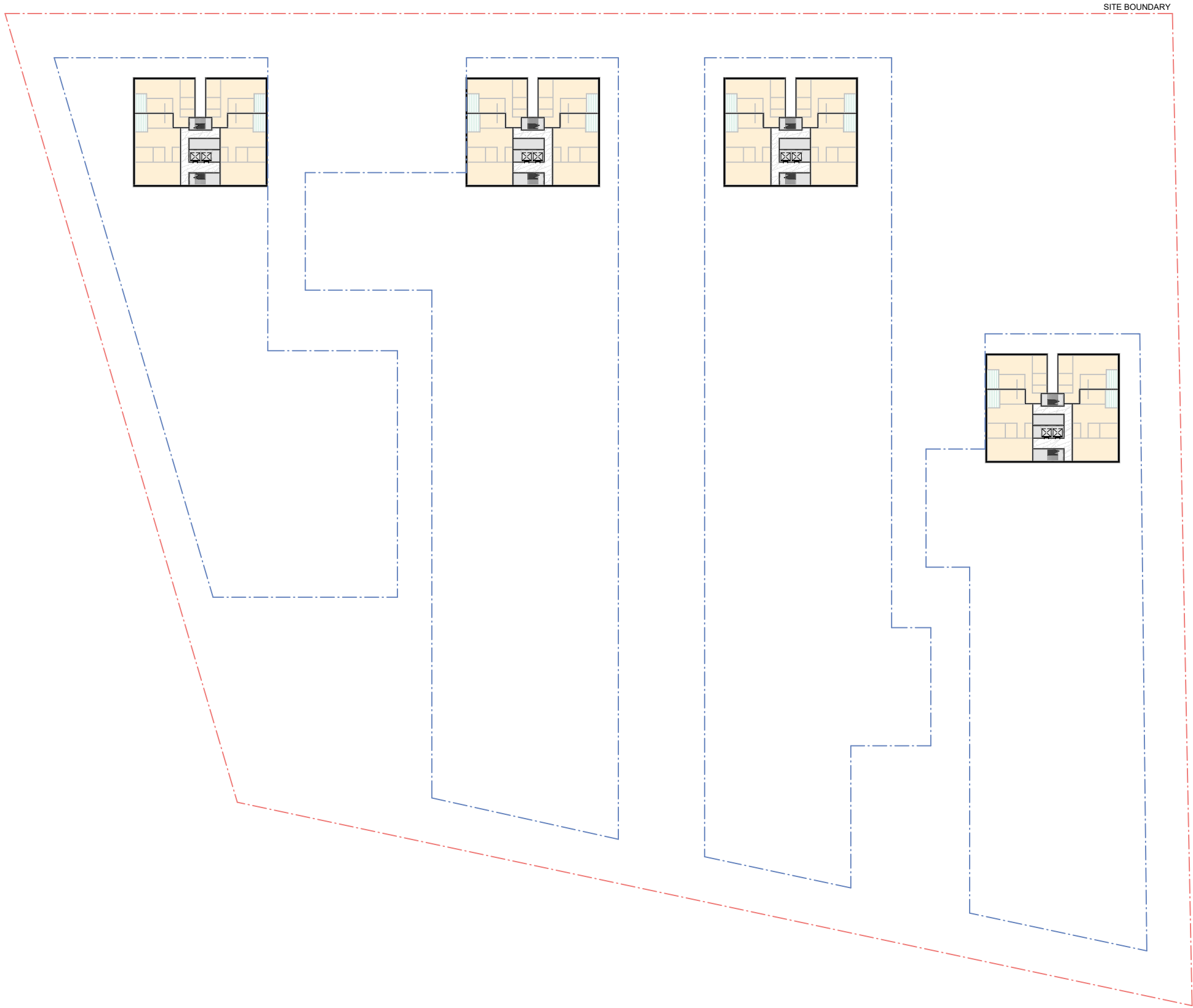
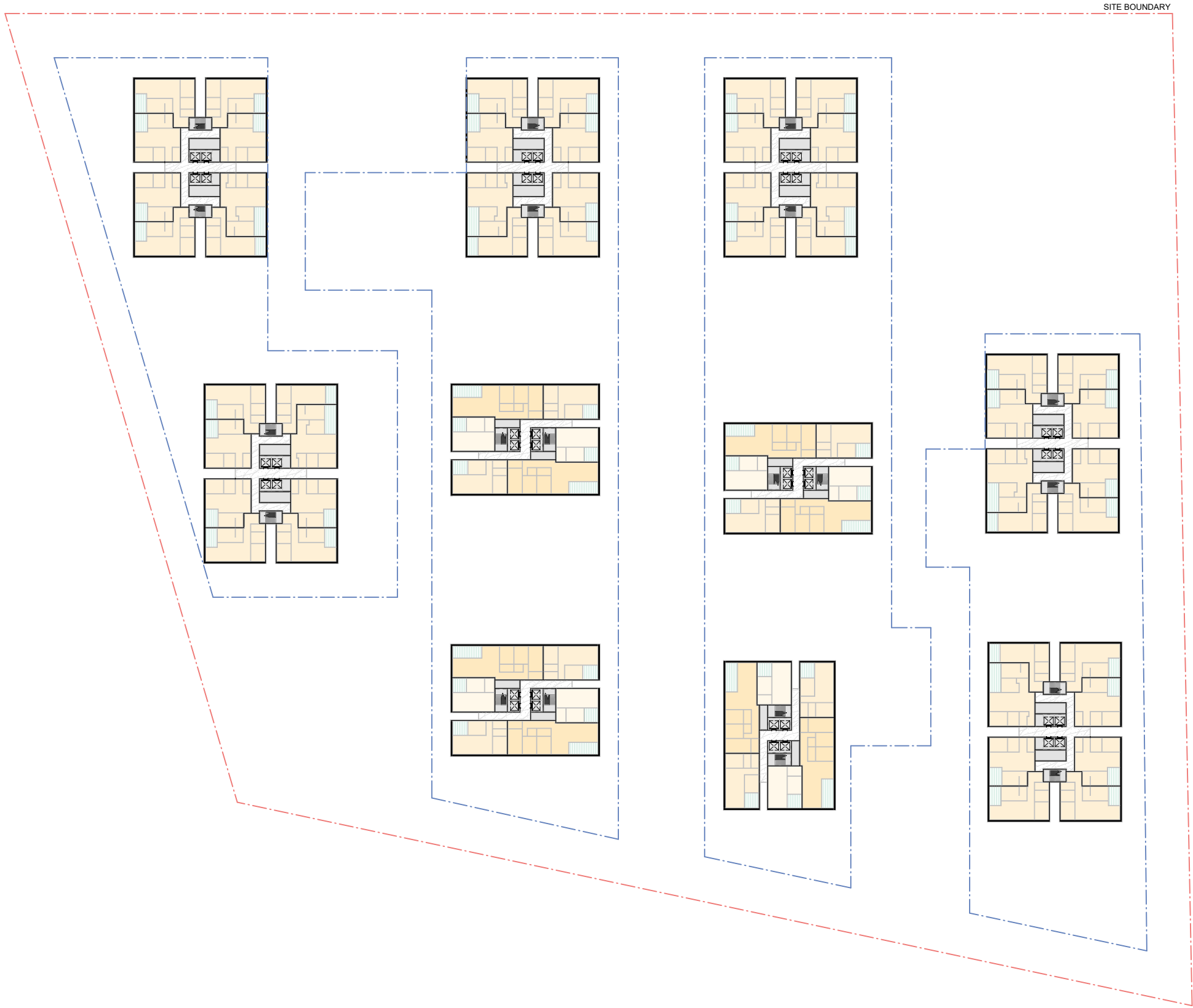


C-C. EAST BOUNDARY SECTION



D-D. NORTH BOUNDARY SECTION





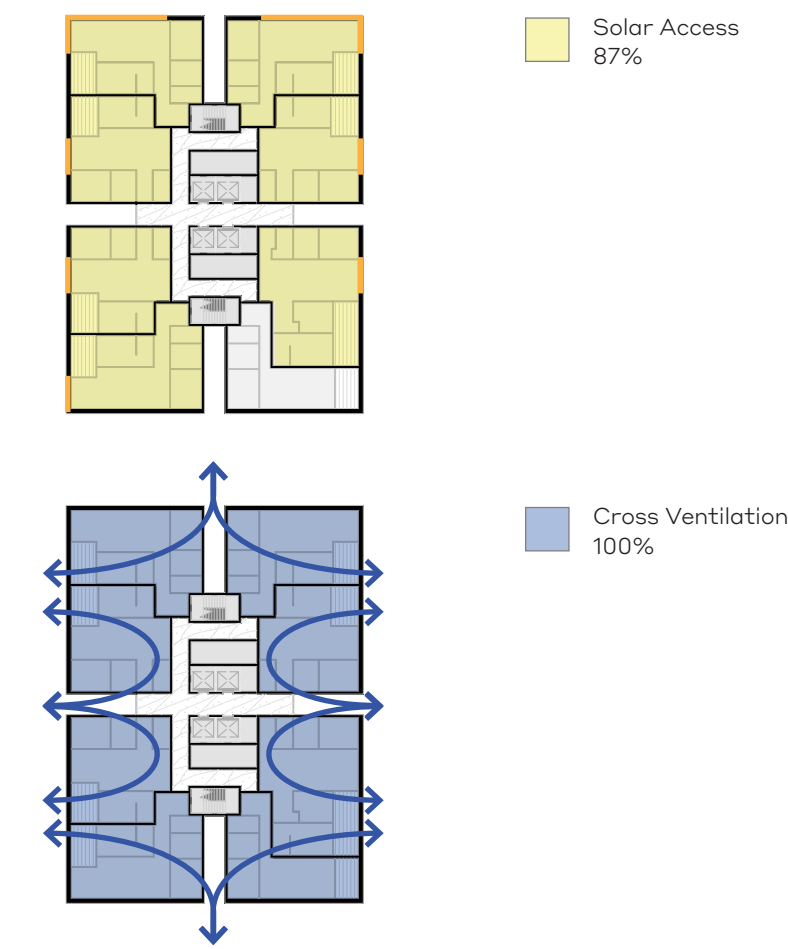
Indicative Design - Floor Plate Test

Building Type A

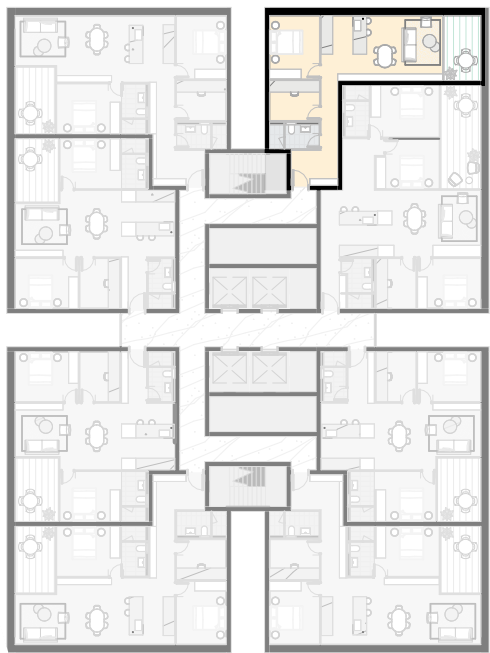
Solar Access
The ADG requires at least 70% of apartments to receive a minimum of 2 hours of direct sunlight to their living space between 9 am and 3pm in midwinter

It also requires a maximum of 15% of apartments that will receive no direct sunlight between 9am and 3pm at midwinter

Cross Ventilation
The ADG requires at least 60% of apartments to be naturally cross ventilated in the first nine storeys of the building.

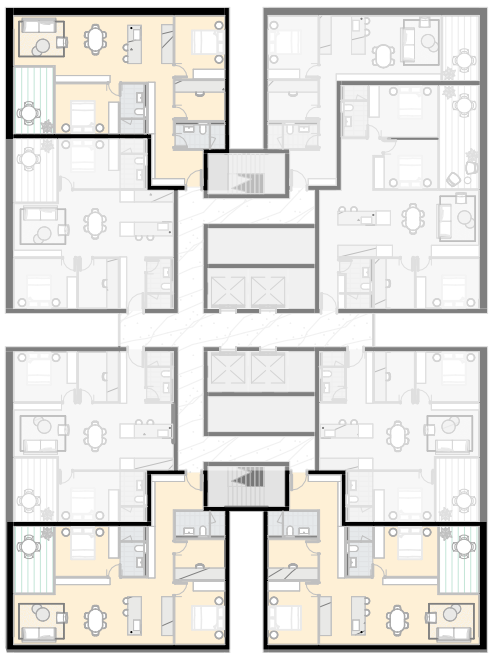


Indicative Design - Typical Apartments



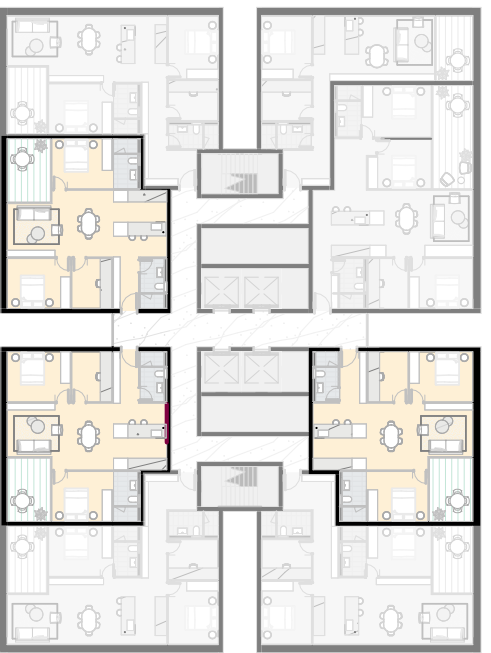
Typical 1 Bed +

1 x Bedroom
1 x Study
1 x Bathroom
Living and Dining
Balcony - 8m²



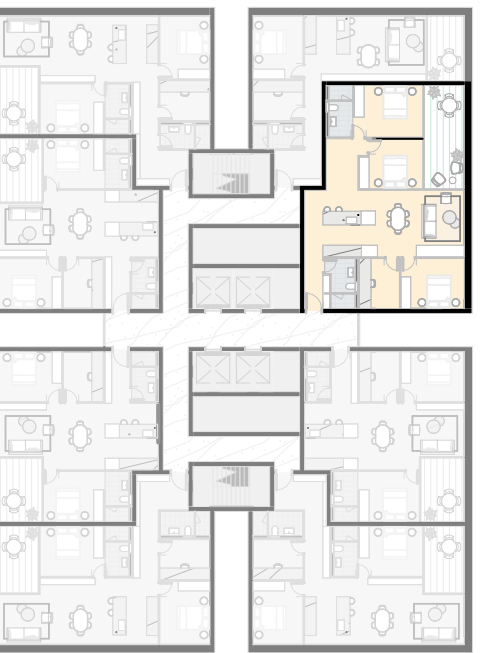
Typical 2 Bed +

2 x Bedroom
1 x Study
2 x Bathroom
Living and Dining
Balcony - 10m²



Typical 2 Bed +

2 x Bedroom
1 x Study
2 x Bathroom
Living and Dining
Balcony - 10m²



Typical 3 Bed +

3 x Bedroom
1 x Study
2 x Bathroom
Living and Dining
Balcony - 12m²

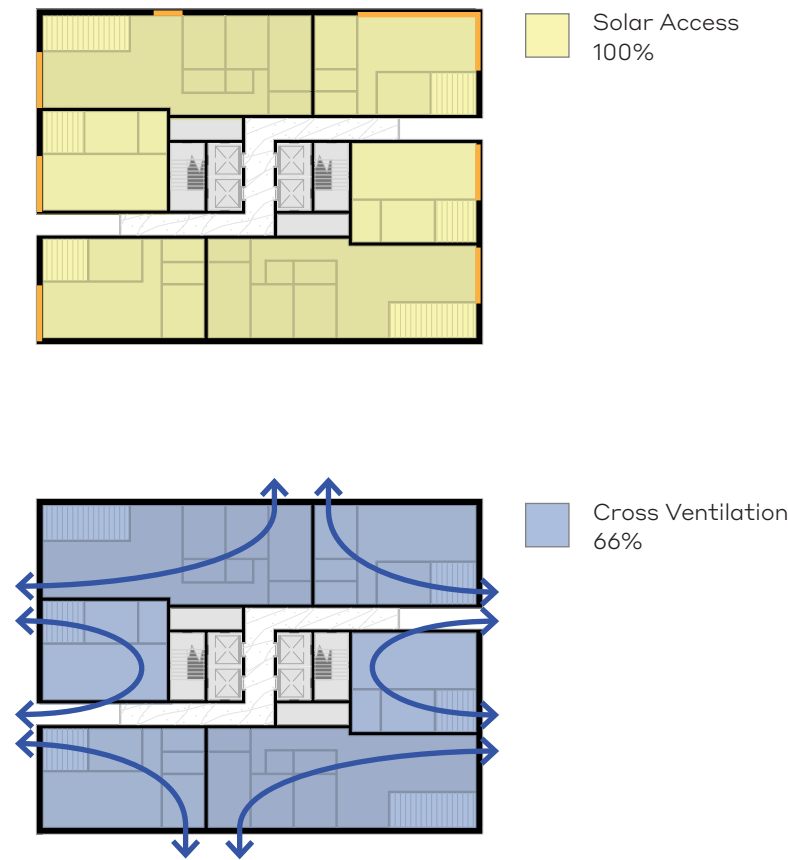
Indicative Design - Floor Plate Test

Building Type B

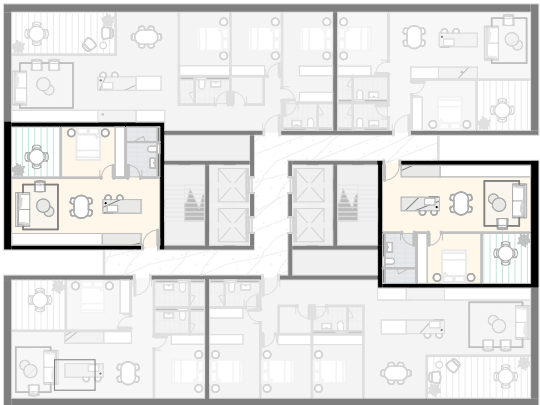
Solar Access
The ADG requires at least 70% of apartments to receive a minimum of 2 hours of direct sunlight to their living space between 9 am and 3pm in midwinter

It also requires a maximum of 15% of apartments that will receive no direct sunlight between 9am and 3pm at midwinter

Cross Ventilation
The ADG requires at least 60% of apartments to be naturally cross ventilated in the first nine storeys of the building.

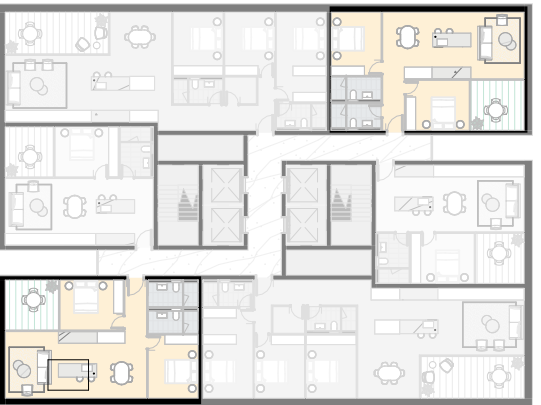


Indicative Design - Typical Apartments



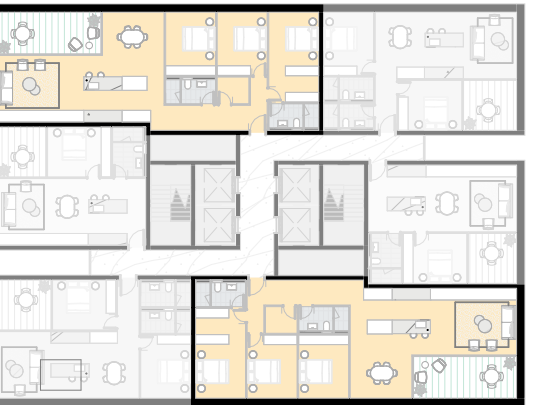
Typical 1 Bed

1 x Bedroom
1 x Bathroom
Living and Dining
Balcony - 8m²



Typical 2 Bed

2 x Bedroom
2 x Bathroom
Living and Dining
Balcony - 10m²



Typical 3 Bed

3 x Bedroom
2.5 x Bathroom
Living and Dining
Balcony - 12m²

Development Schedule

Total GBA	202,527
Total GFA	145,860
Total NSA	116,294
Total FSR	3.83
Total Apts	1,305

Retail NSA	2,873
Resi NSA	113,421
Retail GFA	3,603
Resi GFA	142,256

Lot	Tower		# Floors	Resi Floors	Building Height (m)	GBA/Floor	Total GBA	GFA/GBA	Total GFA	NSA/GBA	Total Resi NSA	Retail NSA	1	2	3	TH	Units/FI	# Dwellings	Parking
A	1	Ground	2		7.1	1702	3404	84%	2859	19%	638		1	2	1		4	8	
		Podium	0		0.0	0	0	84%	0	64%	0							0	
		Tower	22	22	68.2	1064	23408	74%	17322	64%	15026		1	6	1		8	176	
		Top Setback	5	4	17.4	667	3335	75%	2501	66%	1756		1	2	1		4	16	
		Total	29		92.7		30814		22683		17419	757	28	144	28			200	228
B	2	Ground	2		8.0	2180	4360	74%	3226	48%	2088			4	1	8	5	18	
		Podium	1		4.0	1409	1409	74%	1043	64%	902			6	2		8	8	
		Tower	26	26	80.6	1064	27664	74%	20471	64%	17758		1	6	1		8	208	
		Top Setback	4	3	14.3	667	2668	75%	2001	66%	1317		1	2	1		4	12	
		Total	33		106.9		36768		26741		22064		29	176	33	8		246	291
	Lot A Basement	3				4797													
A	3	Ground	2		8.0	1715	3430	81%	2778	23%	786			2		3	2	7	
		Podium	0		0.0	0	0	81%	0	64%	0						8	0	
		Tower	9	9	27.9	1064	9576	74%	7086	64%	6147		1	6	1		8	72	
		Total	11		35.9		14070		9865		6933	493	9	58	9	3		79	93
B	4	Ground	2		8.0	1129	2258	80%	1806	20%	448					6	0	6	
		Podium	1		4.0	1129	1129	80%	903	64%	723		1	7			8	8	
		Tower	15	15	46.5	761	11415	75%	8561	63%	7209		2	4			6	90	
		Total	18		58.5		15563		11271		8379	439	31	67		6		104	113
B	5	Ground	2		6.7	1129	2258	80%	1806	20%	448					6	0	6	
		Podium	0		0.0	1129	0	80%	0	64%	0		1	7			8	0	
		Tower	4	4	12.4	761	3044	75%	2283	63%	1922		2	4			6	24	
		Total	6		19.1		6063		4089		2370	434	8	16		6		30	39
		Lot B Basement	4				7058												
C	6	Ground	2		8.0	1557	3114	72%	2242	49%	1517			5	2		7	14	
		Podium	0		0.0	1557	0	72%	0	64%	0			4	4		8	0	
		Tower	29	29	89.9	1064	30856	74%	22833	64%	19807		1	6	1		8	232	
		Top Setback	4	3	14.3	667	2668	75%	2001	66%	1317		1	2	1		4	12	
		Total	35		112.2		37305		27077		22640		32	190	36			258	294
C	7	Ground	2		8.0	1129	2258	80%	1806	20%	448					6	0	6	
		Podium	1		4.0	1129	1129	80%	903	64%	723		1	7			8	8	
		Tower	15	15	46.5	761	11415	75%	8561	63%	7209		2	4			6	90	
		Total	18		58.5		15563		11271		8379	439	31	67		6		104	113
D	8	Ground	2		8.0	1692	3384	78%	2640	42%	1408			4	1	3	5	13	
		Podium	0		0.0	0	0	78%	0	64%	0						8	0	
		Tower	21	21	65.1	1064	22344	74%	16535	64%	14343		1	6	1		8	168	
		Top Setback	3	2	11.2	667	2001	75%	1501	66%	878		1	2	1		4	8	
		Total	26		84.3		28966		20675		16629		23	138	25	3		189	219
	Lot C Basement	3				7007													
C	9	Ground	2		7.1	1570	3140	81%	2543	25%	783					7	0	7	
		Podium	1		3.1	1185	1185	81%	960	64%	758			6	2		8	8	
		Tower	3	3	9.3	761	2283	75%	1712	63%	1442		2	4			6	18	
		Total	6		19.5		7369		5216		2983	311	6	18	2	7		33	46
D	10	Ground	2		8.0	1584	3168	71%	2249	48%	1526			5	2		7	14	
		Podium	0		0.0	1638	0	71%	0	60%	0						8	0	
		Tower	6	6	18.6	1064	6384	74%	4724	64%	4098		1	6	1		8	48	
		Total	8		26.6		10616		6973		5624		6	46	10			62	72
		Lot D Basement	2				4895												

Solar Compliance & Shadowing

Building #'s	GFA/Stage	Apts/Stage	Solar/Stage
A Sur park Total 1 & 3	Sur park Typical 135	LEVELS required 3	228
			279
			82%
B 443	135	4	265
			380
			70%
C 453	225	3	277
			395
			70%
D 291	150	2	251
			71%

Building Heights:

- Building 1:
29 Storeys
92.7m
- Building 2:
33 Storeys
106.9m
- Building 3:
11 Storeys
35.9m
- Building 4:
18 Storeys
58.5m
- Building 5:
6 Storeys
19.1m
- Building 6:
35 Storeys
112.2m
- Building 7:
18 Storeys
58.5m
- Building 8:
26Storeys
84.3m
- Building 9:
6 Storeys
19.5m
- Building 10:
8 Storeys
26.6m

Heights include Tower + Podium

Public Park Area Boundary



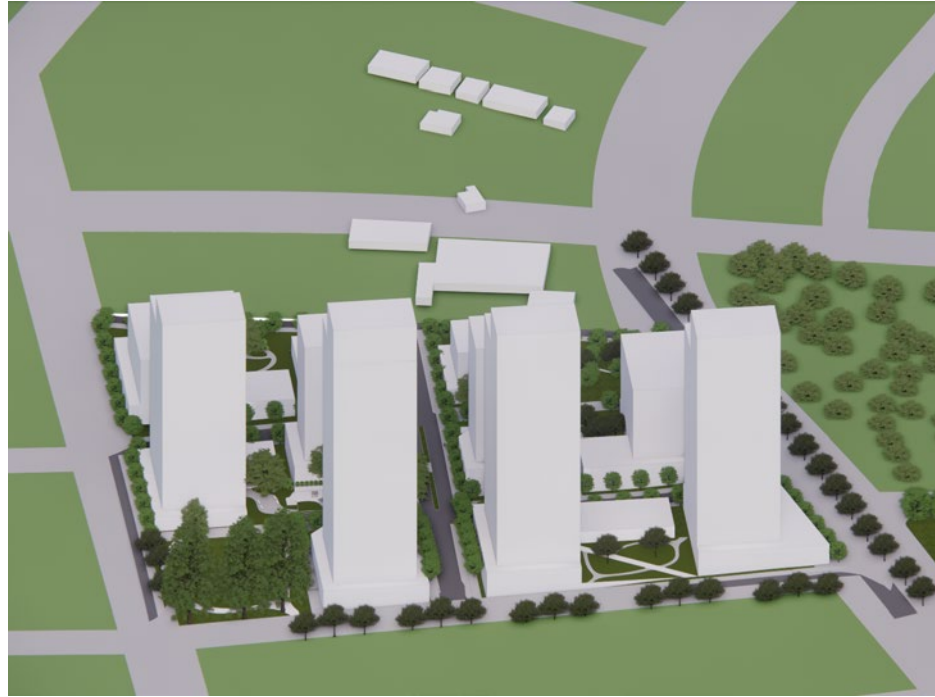
Sun angle views



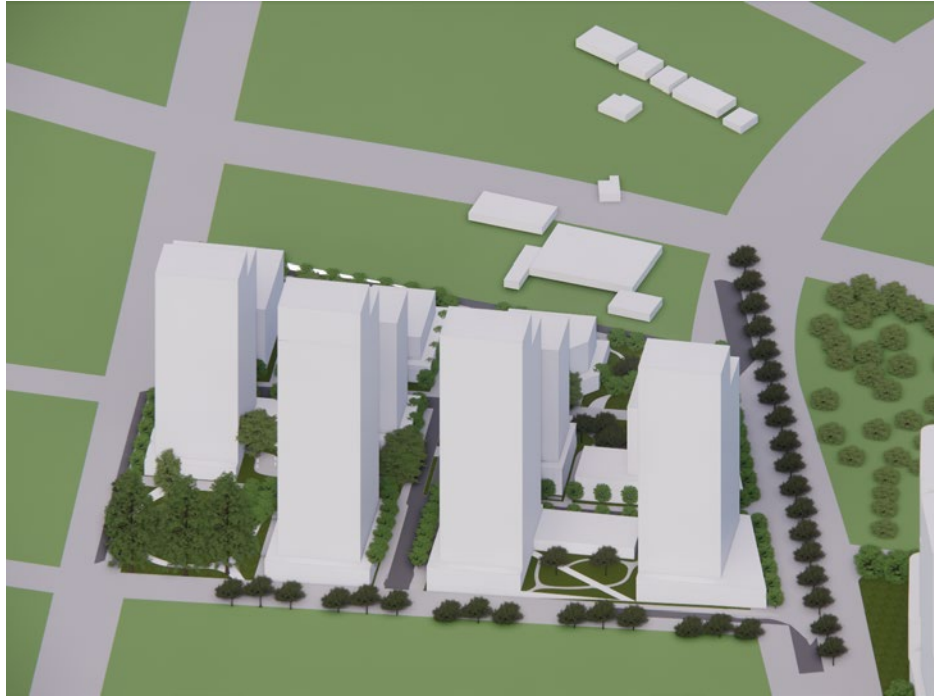
9am



10am



11am



12pm



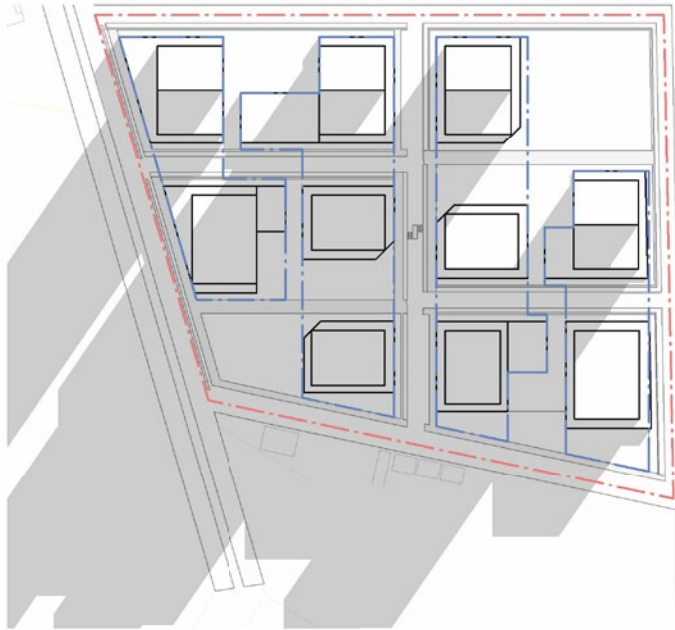
1pm



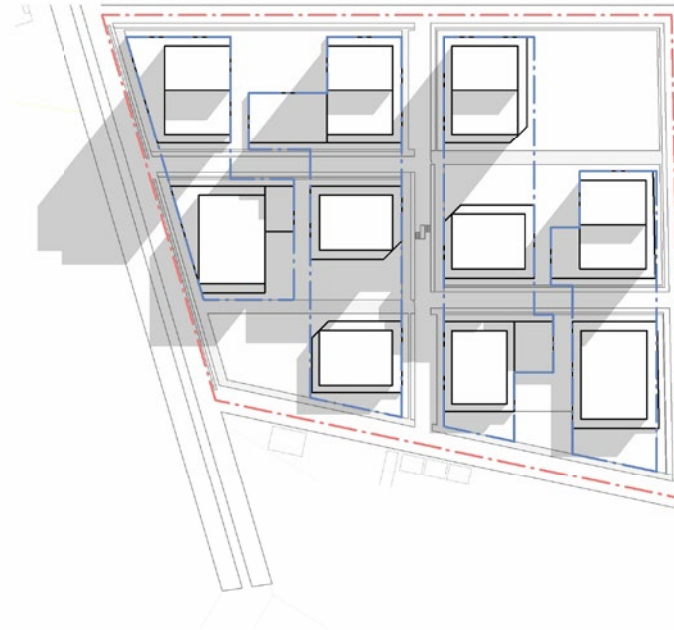
2pm

Envelope Shadow Diagrams

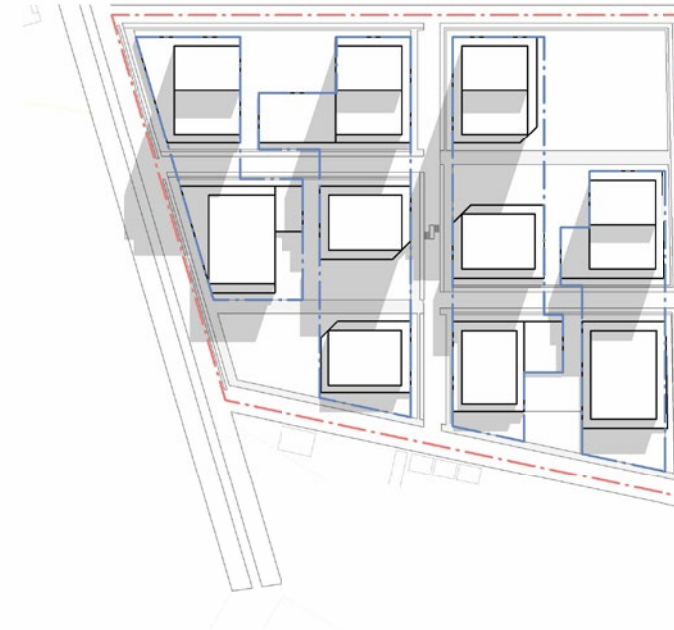
The shadow diagrams depict the resulting shadow impact of the proposed development during winter solstice between 9am and 2pm.



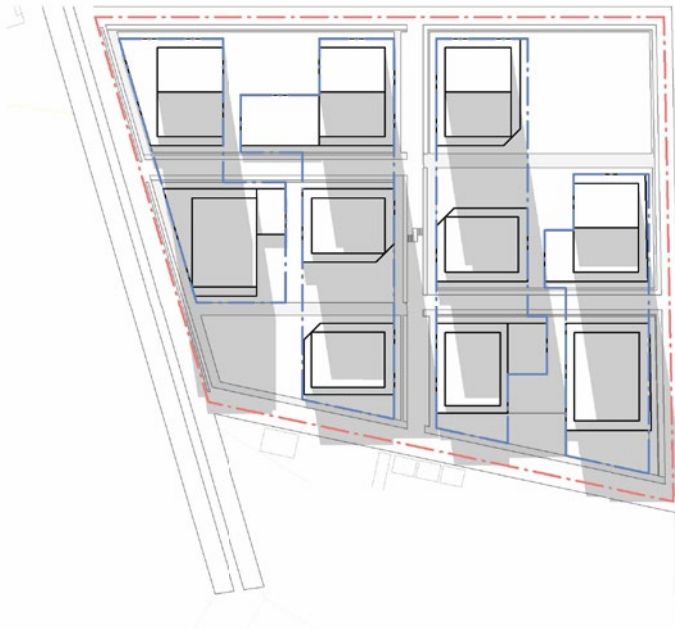
1. WINTER - 900



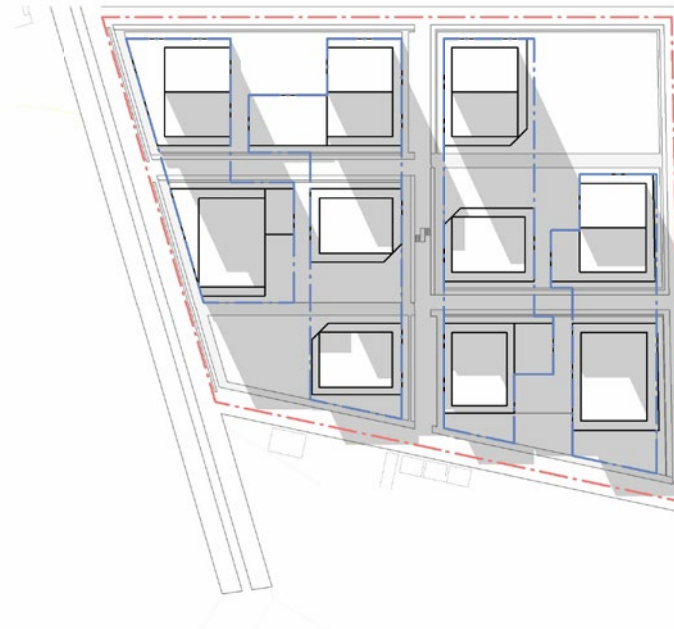
2. WINTER - 1000



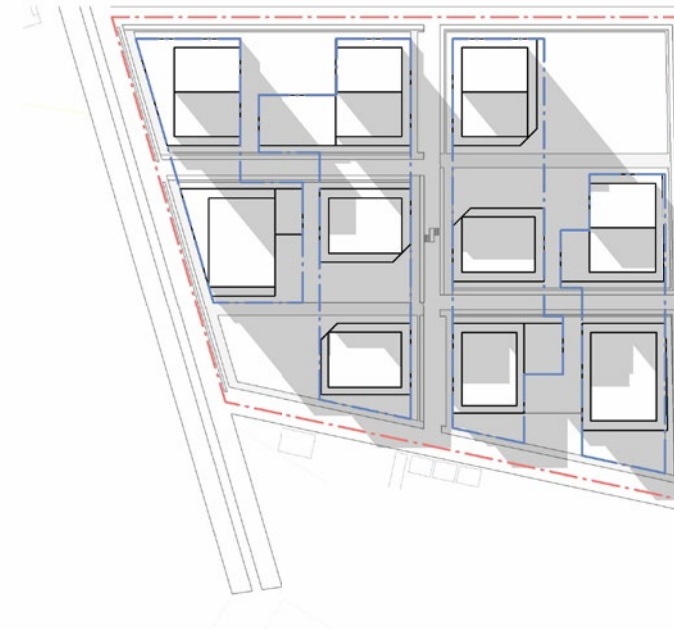
3. WINTER - 1100



4. WINTER - 1200



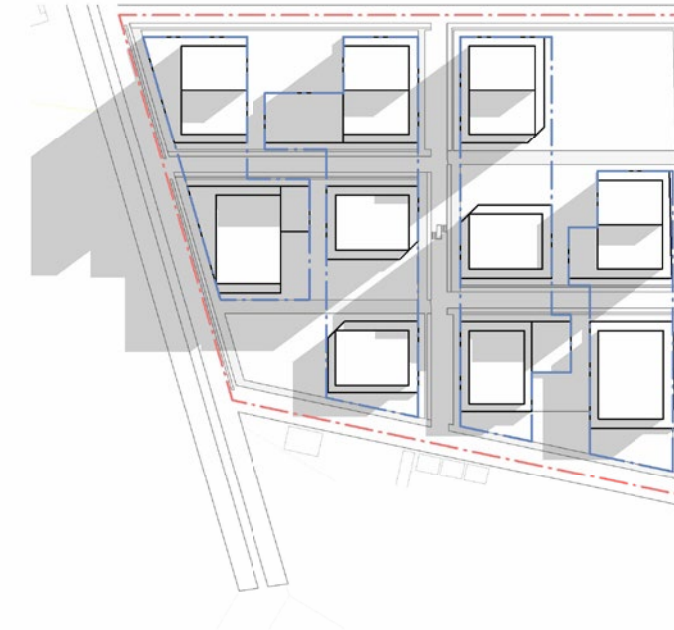
5. WINTER - 1300



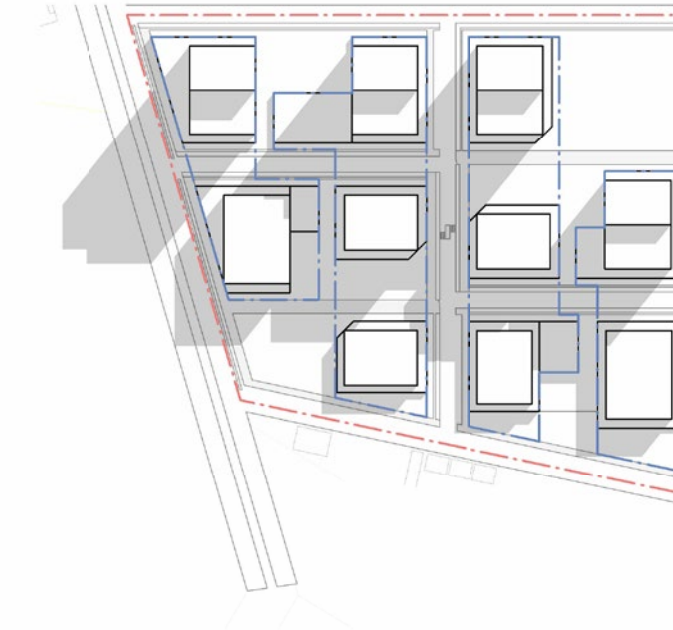
6. WINTER - 1400

Envelope Shadow Diagrams

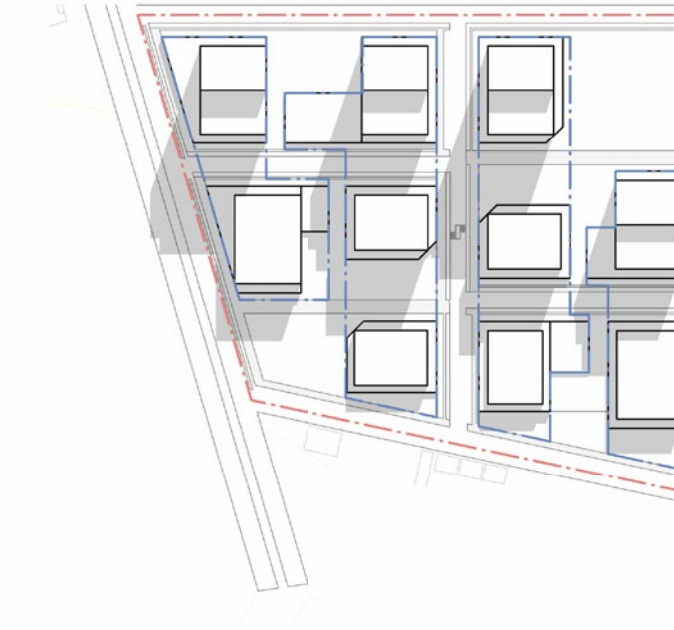
The shadow diagrams depict the resulting shadow impact of the proposed development during the equinox between 9am and 2pm.



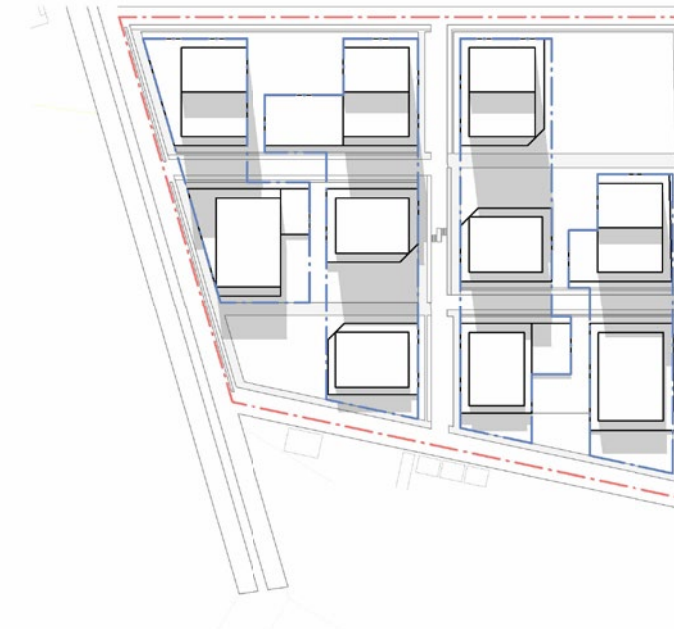
1. EQUINOX - 900



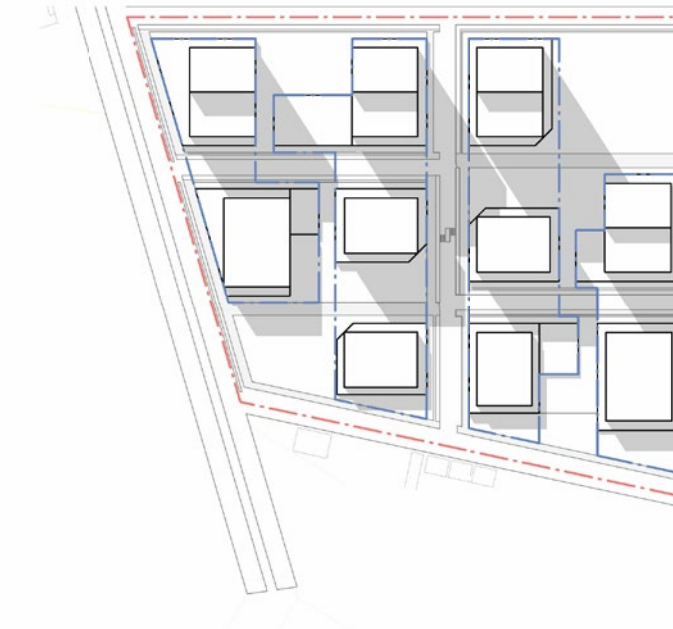
2. EQUINOX - 1000



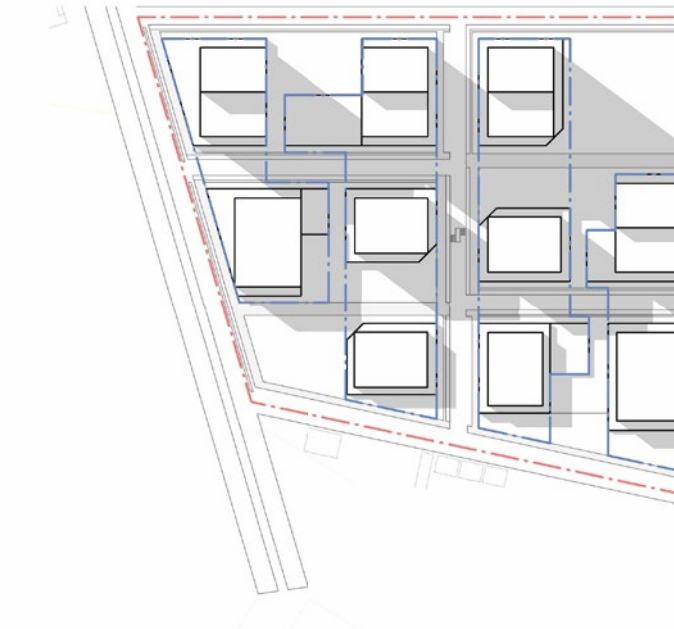
3. EQUINOX - 1100



4. EQUINOX - 1200



5. EQUINOX - 1300



6. EQUINOX - 1400

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