

# 3.4 BASEMENT

**BASEMENT**

The indicative design scheme proposes all parking and the majority of service vehicle loading areas are located in basements. Basement areas have been carefully balanced with deep soil zones to maximise retention of and opportunities for significant trees, as well as to provide efficient layouts which will minimise excavation.

Basements are connected to minimize the number of required service vehicle ramps. The proposed basement layouts ensure that there are no basement areas under land which is be dedicated to council. No basements will be visible above ground level.

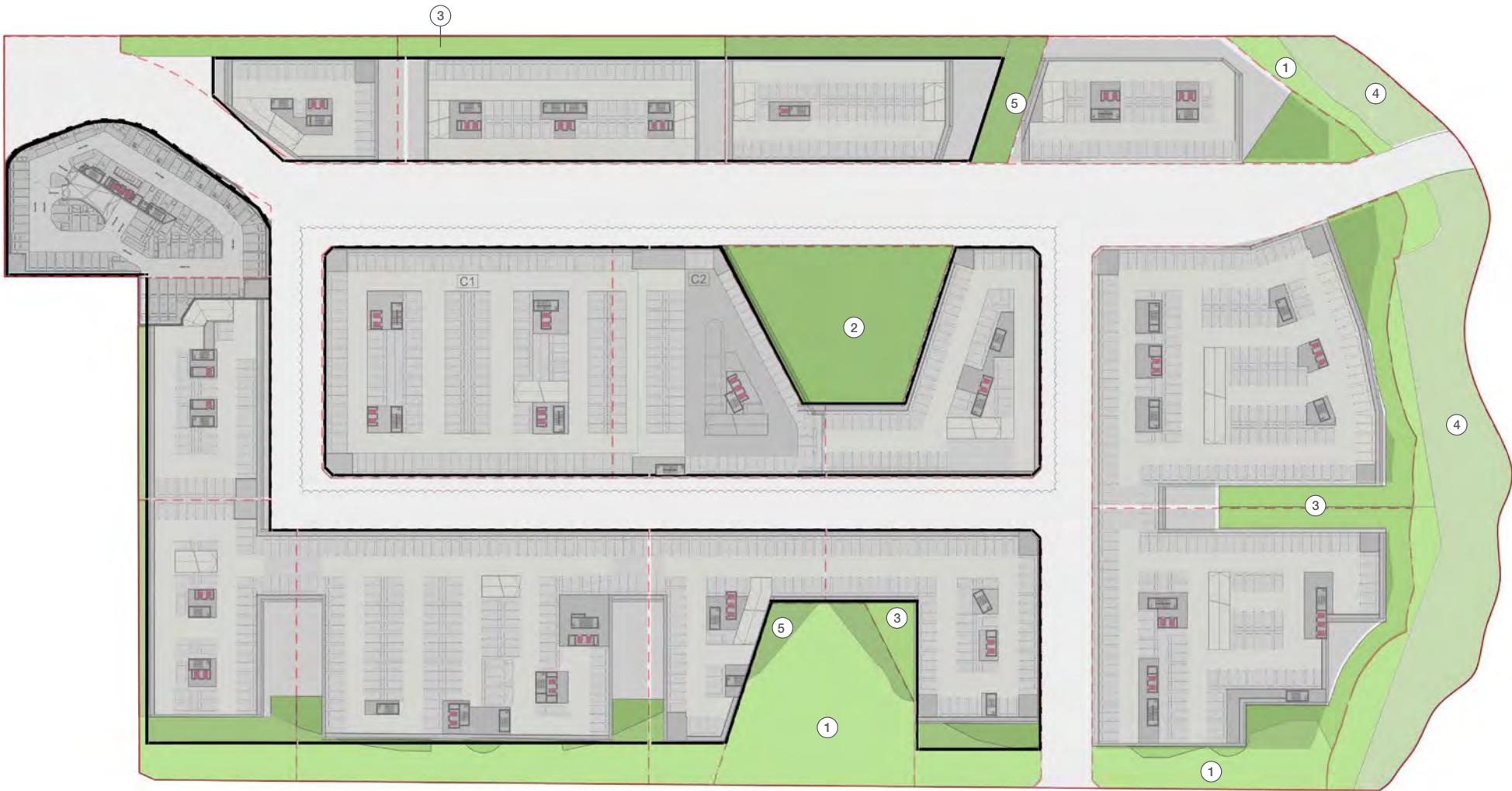
**DEEP SOIL ZONES**

To maximise opportunities to retain existing trees, the masterplan proposes large areas of deep soil along the Epping Road frontage of remnant bushland and adjacent to Shrimptons Creek.

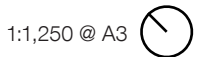
Within the masterplan site, Deep soil is proposed in the areas of new public domain and along the northeastern boundary to allow future growth of significant trees.

The masterplan proposes several development lots which contain no deep soil, however the site as a whole will achieve over 17% deep soil area.

- 1 - Deep Soil within Ecological Corridor (6,951m²)
- 2 - Deep Soil within Village Green (2,139m²)
- 3 - Additional Deep Soil within Site Area (4,163m²)
- 4 - Deep Soil within RE1 Zone (3,800m²)
- 5 - Other Potential for other Deep Soil (1,291m²)







# 3.5

## ENVELOPES + DESIGN GUIDELINES

While the indicative design scheme describes the likely size and arrangement of proposed buildings, in order to provide some future flexibility, this Concept Development Application seeks approval for more general building envelopes.

These general envelopes are accompanied by a set of design guidelines which ensure any future development applications are consistent the with principles illustrated in the indicative design scheme.

The design guidelines, included at Appendix B, cover a range of criteria which each set out objectives and provisions for compliance. The criteria and their respective objectives are summarised as following.

**CRITERION 1  
NORTH EAST DEVELOPMENT LOTS (B1 - B2)**

- / To allow for a future pedestrian and cycle connection from Main Street to Peach Tree Avenue
- / To provide opportunities for solar access to Main Street
- / To balance privacy and visual amenity to neighbouring sites
- /

**CRITERION 2  
PUBLIC AND COMMUNAL OPEN SPACE**

- / To retain and enhance the existing publicly accessible open space along Shrimptons Creek corridor.
- / To connect new public spaces to the existing open space network.
- / To provide an adequate area of communal open space to enhance residential amenity and to provide opportunities for landscaping.

**CRITERION 3  
DEEP SOIL ZONES**

- / To retain existing mature trees and to support healthy tree growth
- / To provide passive recreation opportunities
- / To promote management of water and air quality

**CRITERION 4  
PUBLIC DOMAIN INTERFACE**

- / To transition between private and public domain without compromising safety and security
- / To retain and enhance the amenity of the Shrimptons Creek corridor
- / To maximise the amenity of new streets and public open spaces

**CRITERION 5  
ACTIVE FRONTAGES**

- / To provide active frontages with a distinctive civic character to Main Street
- / To ensure that public spaces and streets are activated along their edges
- / To maximise street frontage activity where ground floor apartments are located
- / To deliver amenity and safety for residents when designing ground floor apartments

**CRITERION 6  
PEDESTRIAN AND VEHICULAR ENTRY LOCATIONS**

- / To provide building entries and pedestrian access that connects to and addresses the public domain
- / To provide accessible and easily identifiable building entries and pathways
- / To minimise conflicts between vehicles and pedestrians
- / To create high quality streetscapes

**CRITERION 7  
STREET WALL HEIGHT**

- / To provide buildings that positively contribute to the physical definition of the public domain
- / To reduce the scale of buildings as perceived from the public domain

**CRITERION 8  
GROUND LEVEL STREET SETBACKS**

- / To provide buildings that positively contribute to the physical definition of the public domain
- / To transition between private and public domain without compromising safety and security
- / To provide a landscape design which contributes to the streetscape and residential amenity

**CRITERION 9  
UPPER LEVEL SETBACKS**

- / To reduce the scale of buildings as perceived from the public domain
- / To minimise the adverse wind impact of down drafts from tall buildings

**CRITERION 10  
SETBACKS TO SHRIMPTONS CREEK**

- / To provide buildings that positively contribute to the physical definition of the public domain.
- / To reduce the scale of buildings as perceived from the public domain.
- / To minimise the adverse wind impact of down drafts from tall buildings

**CRITERION 11  
ROOFTOPS**

- / To maximise opportunities to use roof space for residential accommodation and open space
- / To incorporate sustainability features into the roof design
- / To minimise the visual impact of roof plant

**CRITERION 12  
FAÇADE EXPRESSION AND MATERIALS**

- / To define and reinforce a distinctive character within the masterplan precinct
- / To express building functions
- / To create buildings which will improve with age

**CRITERION 13  
DESIGN EXCELLENCE**

- / To ensure architectural diversity is achieved
- / To achieve a high standard of architectural and urban design, materials and detailing appropriate to the building type and location
- / To ensure the form and external appearance of the buildings improve the quality and amenity of the public domain
- / To ensure buildings meet sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency

**CRITERION 14  
UNIVERSAL DESIGN**

- / Universal design features are included in apartment design to promote flexible housing for all community members
- / A variety of apartments with adaptable designs are provided



# 3.6 STAGING

The proposed staging plan is arranged to maximise the amount of public domain delivered in the first two stages of development. Stages are sequenced to maintain a consistent tenure split between social and market dwellings and to ensure that the necessary infrastructure comes online to service the relevant stages.





# 3.7 SUSTAINABILITY

*The Ivanhoe Masterplan will achieve 6 Star Green Star using the Green Building Council of Australia’s current rating tool “Green Star – Communities v1.1” and subsequent releases as appropriate. The project aims to set new benchmarks in Sustainability under the following categories:*

**GOVERNANCE**

Ivanhoe Estate will look to demonstrate leadership within the industry by establishing and maintaining strong governance practices. This will occur through engagement, transparency, as well as community and industry capacity building. We will look to ensure that the Ivanhoe Estate development is resilient to a changing climate. Some of the initiatives being explored include:

- / Transparency via design reviews with independent sustainability experts
- / Inclusive and comprehensive stakeholder engagement process
- / Site Specific Climate Resilience Strategies

**LIVEABILITY**

We aim to deliver a safe, accessible and culturally rich community at Ivanhoe Estate. Accordingly we will focus on the development of healthy and active lifestyles, and look to create a community with a high level of amenity, activity, and inclusiveness. Areas of investigation currently include:

- / Health and Fitness classes for all residents
- / A safe, walkable and accessible community
- / Dedicated Community Development Managers

**ECONOMIC PROSPERITY**

Ivanhoe Estate will look to promote prosperity and productivity through the creation of equitable living and housing, through investment in education and skills development, and through community capacity building. Current initiatives being explored include:

- / Provision of digital infrastructure
- / On site energy generation
- / Community infrastructure investment

**ENVIRONMENT**

Reducing the impact of urban development on the local ecosystem is an important objective for Ivanhoe Estate. Resource management and efficiency will be carefully considered through promoting infrastructure, transport, and buildings that have reduced ecological footprints. Accordingly, we will seek to reduce the impacts of this project on the local land and aquatic environments. Ideas currently under consideration include:

- / Ensuring WSUD (Water Sensitive Urban Design) principles are applied throughout the precinct
- / Urban Heat Island reduction and mitigation strategies
- / Waste management strategies
- / Life Cycle impacts analyses of materials used on site
- / Maximising the ecological value of site to be close to or exceeding existing

**INNOVATION**

Implementation of innovative practices, processes and strategies that promote sustainability in the built environment will occur throughout the lifetime of the development ensuring that Ivanhoe Estate is recognised as one of the most progressive projects in the country. A number of innovative concepts are being currently explored on this project including:

- / Transparent financial reporting on sustainability initiatives
- / Contractor education on sustainability
- / Innovative use of technology through an integrated infrastructure solution (Real Utilities)

**6 STAR COMMUNITIES RATING TARGETS**

Sustainable Site	Maximise the ecological value of site to be close to or exceeding existing (biodiversity, permeable surfaces, urban greening): 1. Protect the existing Turpentine Ironbark Forest 2. Maintain its functional connection to Shrimptons Creek riparian habitat through the site and with fauna crossings at road intersections. 3. Mitigating the urban heat island effect with extensive landscaped public domain, green roofs, low-SRI roofs and solar PV.
	Mitigating the urban heat island effect with extensive landscaped public domain, light coloured roofs, green roofs and solar PV.
	Employ Water Sensitive Urban Design Manage stormwater. Manage urban stormwater with water sensitive urban design including swales and permeable detention basins
Transport & Connectivity	A connected and permeable site to encourage active transport and use of public transport
	At least one bicycle parking space to be provided for each dwelling and at least 200 provided for visitors
	Provision of 50 GoGet spaces
	Electric vehicle ready
Community Health & Happiness	End of trip facilities for non-residential buildings
	To fully quantify and track tangible health and well-being metrics through programs and partnerships including Live Life Get Active and Mission Australia’s Strengthening Communities amongst others.
	Public domain that encourages social interaction, has activated street frontages, is adaptable and comfortable, and is pedestrian-oriented
Living Costs	A minimum 200 volunteer hours on various community activities specifically for Ivanhoe Estate.
	Development reduces average living costs for households, and average operating costs for businesses, compared with business as usual
	Whole of life affordability strategy considering: Housing, Utilities, Food and Transit
Local Economy	The CCAP Precinct report indicates in excess of a 40% reduction in living costs.
	Integrate commercial opportunities within precinct, including spaces suitable for small business or home business operations and / or work from- home 1. Community Hub – fitted out with offices and session rooms for the delivery of MA’s tenant support programs and also drop-in offices for the delivery of community services 2. Social Enterprise Space – opportunities for social enterprise development in conjunction with the community.
	The Strengthening Communities program will deliver opportunities that MA and MAH can create through the operation of the residential community such as: 1) Landscaping, 2)Common area maintenance, 3) Administration of the Community Hub, and 4) Live Work Dwellings are incorporated in buildings along the main street which will be suitable for small business or home business





# 4.0 PUBLIC DOMAIN

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*Our vision for Ivanhoe is to create a place of inclusion and opportunity. It will be open, integrated and diverse. Ivanhoe will be a place to make friends, to live in close proximity to employment, to walk your kids to school, to connect with nature or to create a life-long connection with place.*

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# 4.1 DESIGN APPROACH

## 4.1.1 LANDSCAPE CONTEXT - HISTORICAL ACCOUNTS

*“The land is undulating, with rich and deep subsoil; and from all parts of the property the most magnificent views of diversified scenery are to be seen. Standing on a slight knoll and looking north, Red Hill comes into ken, with its sloping uplands laid out in fruit and crops. The sun, pouring his fervid rays with fleecy clouds of steel and gray, now and again casts into shadows and lights acres upon acres of cultivated and bush land, which forms a picture which may be equalled but not surpassed”*

**JULIE DAWSON**  
**1902, NORTH RYDE FARM**  
**THE NORTH RYDE RECORDER**



**SYDNEY TURPENTINE-IRONBARK FOREST**

The North Ryde region of Sydney pre 1788 was a forested environment with the vegetation thought to have been largely composed of the Sydney Turpentine–Ironbark Forest. This vegetation community was generally found in medium rainfall areas on Wianamatta Shale soils. Sydney Turpentine-Ironbark Forest was probably the most common native bushland type in Ryde before European settlement. The natural distribution of Sydney Turpentine–Ironbark Forest is limited to the Sydney Region, where it naturally occurred on undulating clay soils overlaying Hawkesbury Sandstone on the Hornsby Plateau and in Sydney’s inner-west where rainfall is between 900 and 1,000mm. This landscape type is classified as “Glenoirie soil landscape”.

It is a medium height open forest up to approximately 30 metres. The most common trees were Turpentine (*Syncarpia glomulifera*), White Stringybark (*Eucalyptus globoidea*), Red Mahogany (*Eucalyptus resinifera*) and Grey Ironbark (*Eucalyptus paniculata*). The understorey was quite dense except where burnt by the indigenous Australians, a land management and food production task performed on a regular basis. Understorey typically consisted of flowering shrubs and native grasses. Various Acacias, Dodoneas and a range of grasses and herbs are the common understorey species.

As these soils where the Sydney Turpentine–Ironbark Forest occurred were very fertile, the forests were cut down for their timber and to allow agricultural development. Very few remnants of Turpentine–Ironbark Forest remain in the Sydney region. The most substantial remnant in Ryde remains is in Wallumatta Reserve in East Ryde. It is owned and managed by the National Park and Wildlife Service. Smaller and unfortunately more degraded remnants can be found locally in Stewart Park, Macquarie University and Meadowbank Park. The only other significant remnant is the Newington Forest on the Olympic site in Homebush.



**SHALE/SANDSTONE TRANSITON FOREST**

Shale/Sandstone Transition Forest is a native plant community, which occurs in the narrow band where the gently undulating Cumberland Plain meets steep slopes of the Sandstone Country. It often occurs in a linear shape between Turpentine Ironbark Forest and Sandstone Gully Forest and can be found in stands as narrow as 20 meters in width.

This plant community has evolved in the specific conditions characteristic of the transitional areas between the clay soils derived from Wianamatta Shales and the sandy soils and cliffs of the Hawkesbury Sandstone. Its natural distribution is limited to the margins of the Cumberland Plain in the Sydney Region.

The coming together of two distinct landscape types means that the species associated with each of the adjacent ecosystems intermingle to form an individual distinct unit. Characteristics are high diversity and unusual species composition. The structure of the community is forest or woodland with an understorey of shrubs and native grasses and herbs. Typical trees are Grey Gum, White Stringybark, Red Mahogany, Grey Ironbark, Broad-leaved Ironbark, and Narrow-leaved Ironbark.

Small stands of this naturally rare community remain, of which a small number can be found in the northern area of the Ryde LGA along Epping Road and near Macquarie University.

Shale/Sandstone Transition Forest is listed as an endangered ecological community under the Threatened Species Conservation Act 1995. In view of the small size of existing remnants and the threat of further clearing and other threatening processes, the community is likely to become extinct unless threatening activities cease.



**AGRICULTURAL DEVELOPMENT**

Throughout the nineteenth century the area was farmed, largely by orchardists and poultry farmers until at least the 1940s when much of the Macquarie Park area was subdivided for suburban development in the period immediately after the Second World War. The Ivanhoe site on Epping and Herring Roads was used for market gardens and poultry farms before it was developed into a social housing estate by the Department of Housing in the 1960s - 80s.

Julie Dawson illustrates the agricultural landscape in ‘The North Ryde Recorder’ (1902), “behind the front vineyard are the loquats and patches of mandarins and oranges, the St Vincent predominating in the former and the St Michael in the latter. The Seville is fairly represented. So far as the Mandarins are concerned, the pride of place is given the Emperor.”

The development of farms and later housing, commercial and university land uses did not eradicate the native landscape altogether with remnant areas of vegetation surviving along creek lines and adjacent to the Lane Cove River.

Dawson captures the qualities of the forest landscape “...and the russet and purple hues of maturing crops, with white and pink blooms of budding and flowering trees...with the towering Ironbark, Spotted Gum, White Gum, Blackbutt and Woollybutt...and the dim outline of mountain ranges blue and hazy in the distance...”

**REFERENCES**  
1/ Sydney Turpentine Ironbark Forest  
2/ Shale/ Sandstone Transition Forest  
3/ Eastwood Orchards 1900-1927, State Library of NSW





4.1.2 LANDSCAPE CONTEXT - CURRENT

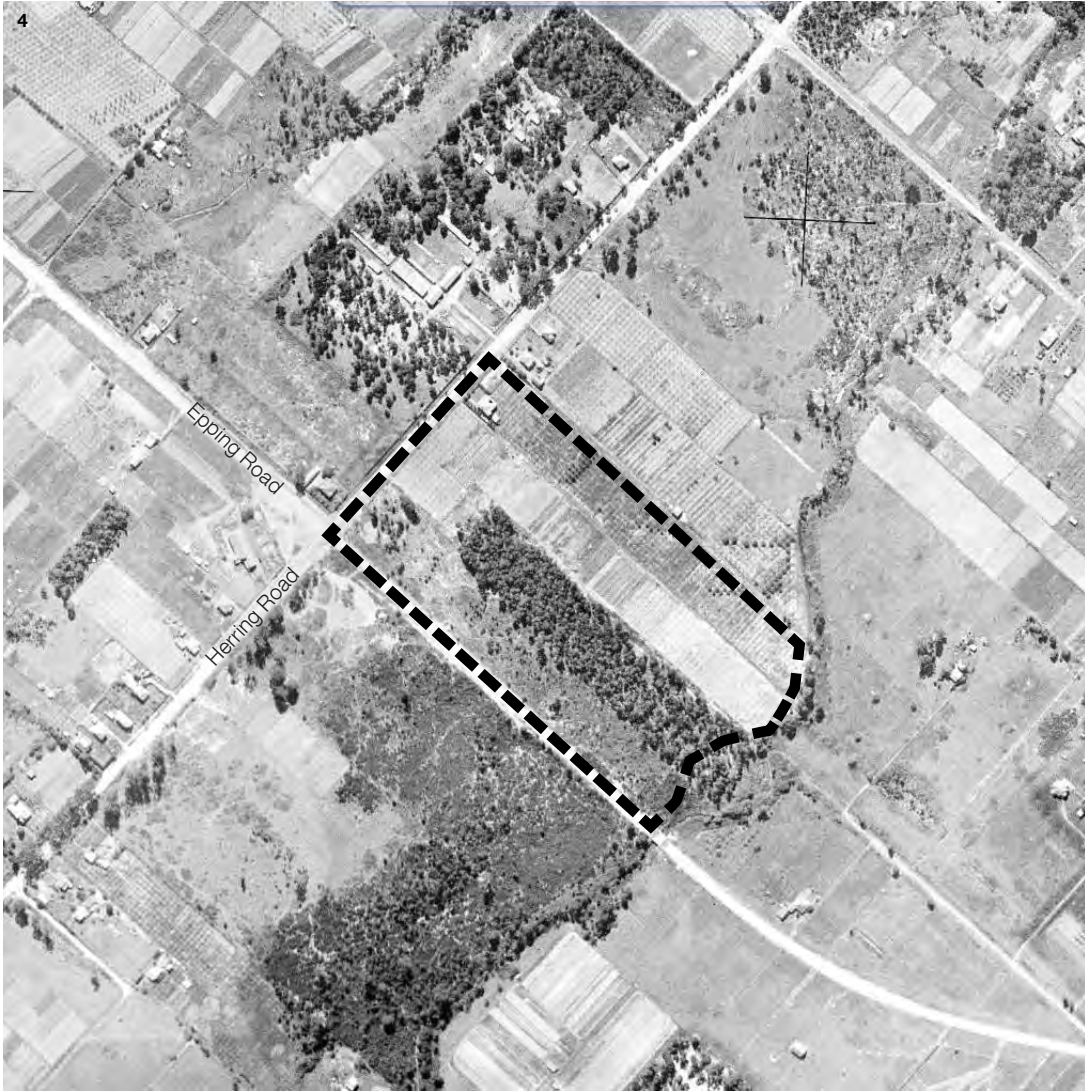
The landscape of the Herring Road precinct of Macquarie Park features generally undulating terrain with distinct ridges and valleys. The Ivanhoe Estate site runs from the Herring Road ridge line down bushland along the low lying Shrimptons Creek.

East of the creek lies the Macquarie Business Park which extends to Lane Cove Road. Generous building setbacks in the business park are also planted with large native trees. The heavily treed creek corridor provides a connection to Waterloo Road and the Macquarie Centre to the northeast and to the string of parks known collectively as Shrimptons Creek Parklands to the southwest. Much of the creek corridor in this direction has a forested character, with stands of Sydney Turpentine/Ironbark vegetation, some of which is extant remnant vegetation. In particular, large specimens of Sydney Blue Gum (*Eucalyptus saligna*) are distinctive features along the creek's shared path. The understorey of the corridor is, however, heavily weed infested.

Adjacent sites on the north side of Herring Road are currently being redeveloped as part of a new, high-density residential area. Low-rise residential areas such as the Ivanhoe Estate and the area immediately to its northeast are also slated for higher density development.

The arterial and main roads bordering the precinct are typically marked by large stands of native trees, generally Eucalypts. The existing estate has a comprehensive tree canopy, including a belt of protected vegetation that acts as a buffer along the Epping Road boundary. Surrounding streets typically feature a mixture of native evergreen and exotic deciduous street trees. There is no remnant vegetation from the period of market gardens within the study area.

The majority of the vegetation along Shrimptons Creek and the adjacent parks have been highly disturbed with weed species. The City of Ryde are undertaking extensive rehabilitation works to the riparian corridor of Shrimptons Creek, between Ivanhoe Estate and Waterloo Road. Master Plan improvement works to Wilga Reserve, Cottonwood Park and the creek shared path system, adjacent to Ivanhoe, are due to commence in 2018.



Source -  
1/ State Library of NSW  
2/ State Library of NSW  
3/ State Library of NSW  
4/ Six Maps



4.1.3 PUBLIC DOMAIN PRINCIPLES



1. THE HEART AND SOUL FOR THE SITE

- / Ensure that people are at the heart of the project and that the public domain will provide engaging public spaces that aid the development of a sense of community
- / Create opportunities for local business and social enterprise
- / Deliver places in which people will want to gather and where they will feel both safe and welcome



2. AN ACCESSIBLE AND ATTRACTIVE PRECINCT

- / Beautiful streets that provide comfortable and legible connections across the site
- / A focus on walkability and a convenient network of paths and trails both on-street and through public open space
- / Well defined, legible arrival and meeting points



3. GREAT COMMUNITY PLACES

- / Gathering spaces for social and recreational activities such as the Village Green which is planned as the primary community space
- / A variety of spaces, facilities and activities
- / Connections to the surrounding community and the Shrimpton's Creek corridor
- / A flexible public realm that allows for the evolution of uses and character over time
- / Creative playspaces catering to the anticipated demographic character of the Ivanhoe community



4. HEALTHY ACTIVE COMMUNITIES

- / The Ivanhoe master plan will be integrated with the wider Macquarie Park open space and recreation network
- / Cycling and walking routes will provide recreational loops across the open spaces network of the master plan



5. A FOCUS ON DELIVERY

- / Design that exploits the unique qualities of the site
- / Public art as an integral element in the parks and public domain
- / Quality architecture and landscape design
- / Robust yet elegant finishes and materials that contribute to a sense of place
- / Considered arrangement of street furniture and amenities



# FOREST TO NEIGHBOURHOOD

## FOREST TO NEIGHBOURHOOD

**FOREST**  
The Ivanhoe site is bordered on two sides by stands of largely native bushland: a protected area of regrowth forest along the Epping Road edge and the vegetation of the riparian corridor of Shrimptons Creek.

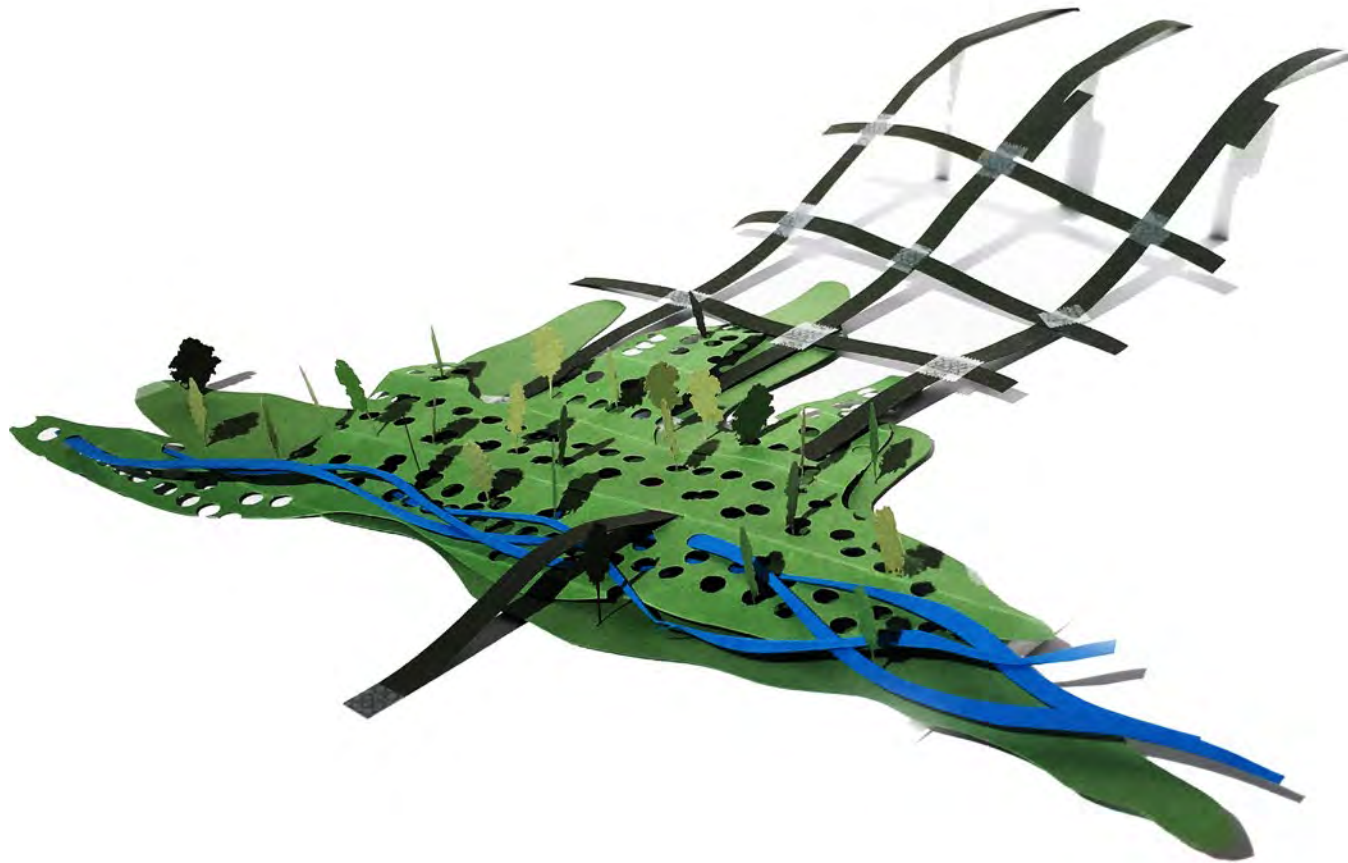
**NEIGHBOURHOOD**  
A new neighbourhood is being created at Ivanhoe, a neighbourhood of active and engaging streets and spaces.

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The site offers the opportunity to celebrate both of these characters, here is where Forest meets Neighbourhood. This will inform the character and materiality of each street and open space.

The site's informal forested edges and topography will infiltrate the urban grid, given particular expression at entry points to the site and across the proposed Green Link, the link that will connect the Epping Road protected vegetation to the creek corridor.

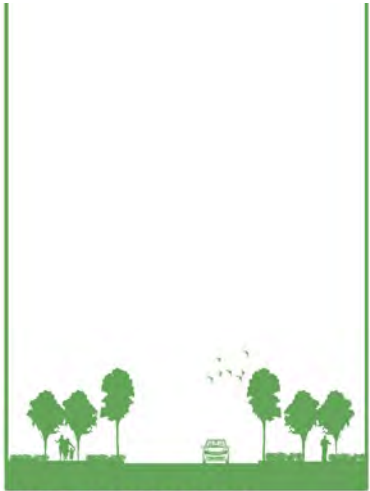
Beyond the Green Link, the streets will take on a neighbourhood character where a more orderly arrangement of street trees and furniture will provide a high level of urban amenity.



Neighbourhood streets flow down to meet the forest

Forest charcter permeates the streets and spaces

Shrimptons Creek



NEIGHBOURHOOD

- Neighbourhood Streets and Spaces -
- \_human scale
  - \_ordered planting
  - \_low canopy trees



FOREST

- Forest Streets and Spaces -
- \_an ordered chaos to placement of trees
  - \_mixed tree planting
  - \_extensive understorey planting

# FOREST TO NEIGHBOURHOOD



1/ Forested Entries and thresholds to the site speaking to the existing landscape character and creating a distinctive arrival experience with textured planting informally located.

2/ Clearings creating moments of celebratory sunlight. Located at moments of decision.

3/ Neighbourhood Gardens  
Special intimate gardens along the streets  
Lower tree canopy  
Seasonal qualities  
Finely detailed

4/ Street Planting Structure  
A coherent urban framework  
Consistent and calm  
Human scale  
Regular grid  
Tall canopy





PRIMARY OPEN SPACES

The range of larger public spaces at Ivanhoe will have different functions and each a distinct landscape feeling reflecting its neighbourhood or forest character. The busy space of the community centre forecourt leads to the terraced edge of the village green. The terraces overlook the community oval, a playspace and the green link. The tall trees lining the green link visually connect the forest playground at the southwestern end of the site back to the village green and to the multi-function play area adjacent to the school and then to Shrimptons Creek.



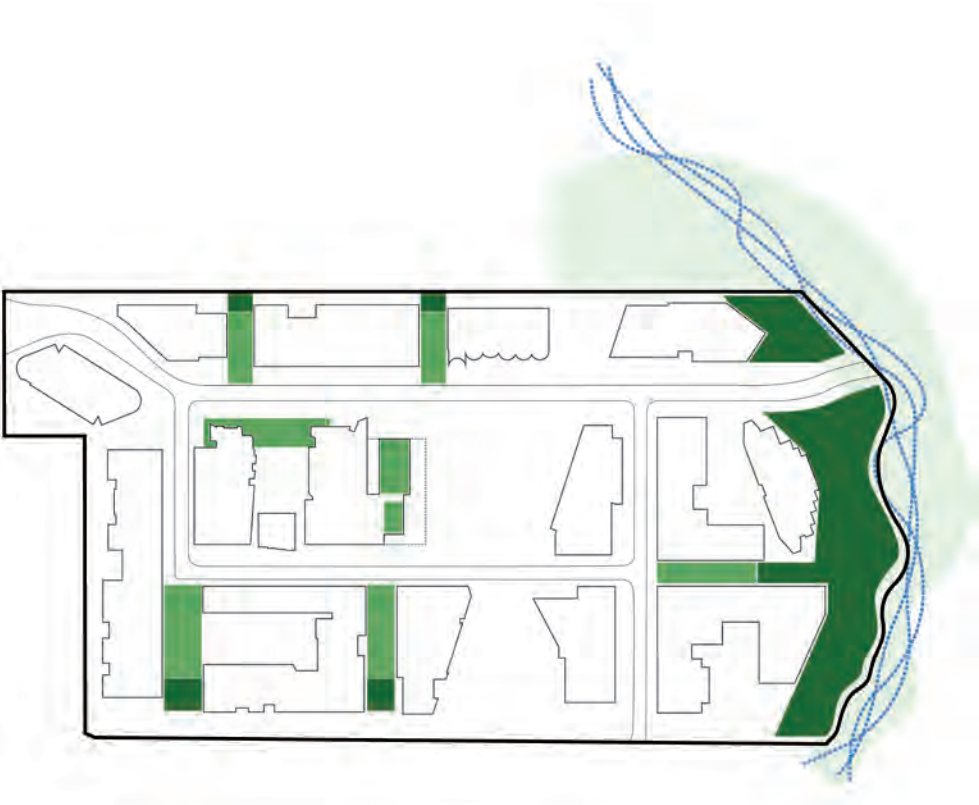
- LEGEND
- Neighbourhood spaces
  - Forest spaces





SECONDARY OPEN SPACES

A series of smaller public spaces in turn will also respond to the forest and neighbourhood landscape themes. On street neighbourhood gardens will create smaller, more detailed and richly planted areas - quieter urban settings. At the edges of the development where the shared local streets meet the perimeter bushland, forested urban gardens will formalise these transitions.



- LEGEND
- Neighbourhood spaces
  - Forest spaces





INCIDENTAL SPACES

The streets and open spaces of Ivanhoe and along Shrimptons Creek will be furnished with small areas for sitting, meeting and reflecting. Strategically arranged seating and planting will create these quieter small moments in the public landscape.



- LEGEND
- Neighbourhood spaces
  - Forest spaces





# 4.2 PUBLIC DOMAIN FRAMEWORK

## STREET NETWORK AND HIERARCHY

### A LEGIBLE & COMFORTABLE STREET NETWORK

Main Street connects Ivanhoe to the wider precinct, via a signalised intersection at Herring Road and across a new bridge and road extension to Lyonpark Road in the Macquarie Business Park area to the south east.

Main Street is the primary public street; lined by residential apartment buildings, school, aged care accommodation, community centre and village green.

In contrast the Neighbourhood Streets are predominantly residential in nature, and as such are defined by a pedestrian, intimate scale.

The Neighbourhood Mews are paved and landscaped spaces providing vehicle access to basement car parks, while also creating spaces for informal activation associated with adjacent dwellings.

It is anticipated that the whole site will be a designated low speed (40 km/h) environment.

## PEDESTRIAN CONNECTIVITY

### A HIGHLY WALKABLE, SAFE STREET NETWORK

The primary pedestrian paths on streets have been designed to comfortably allow for passing wheelchairs and prams, as well as generous streetscape planting and seating areas.

The circulation zones on both sides of Main Street is 4 metres, in the form of a footpath on its southern side and a shared path to the north. Neighbourhood streets are either 1.8 or 2.4 metres wide. The Neighbourhood Mews/Driveway zones are proposed as shared spaces.

A range of pedestrian crossings will provide safe movement across roads at intersections and adjacent to primary public spaces and buildings.

Off-street connections of various widths run through the network of public open space.

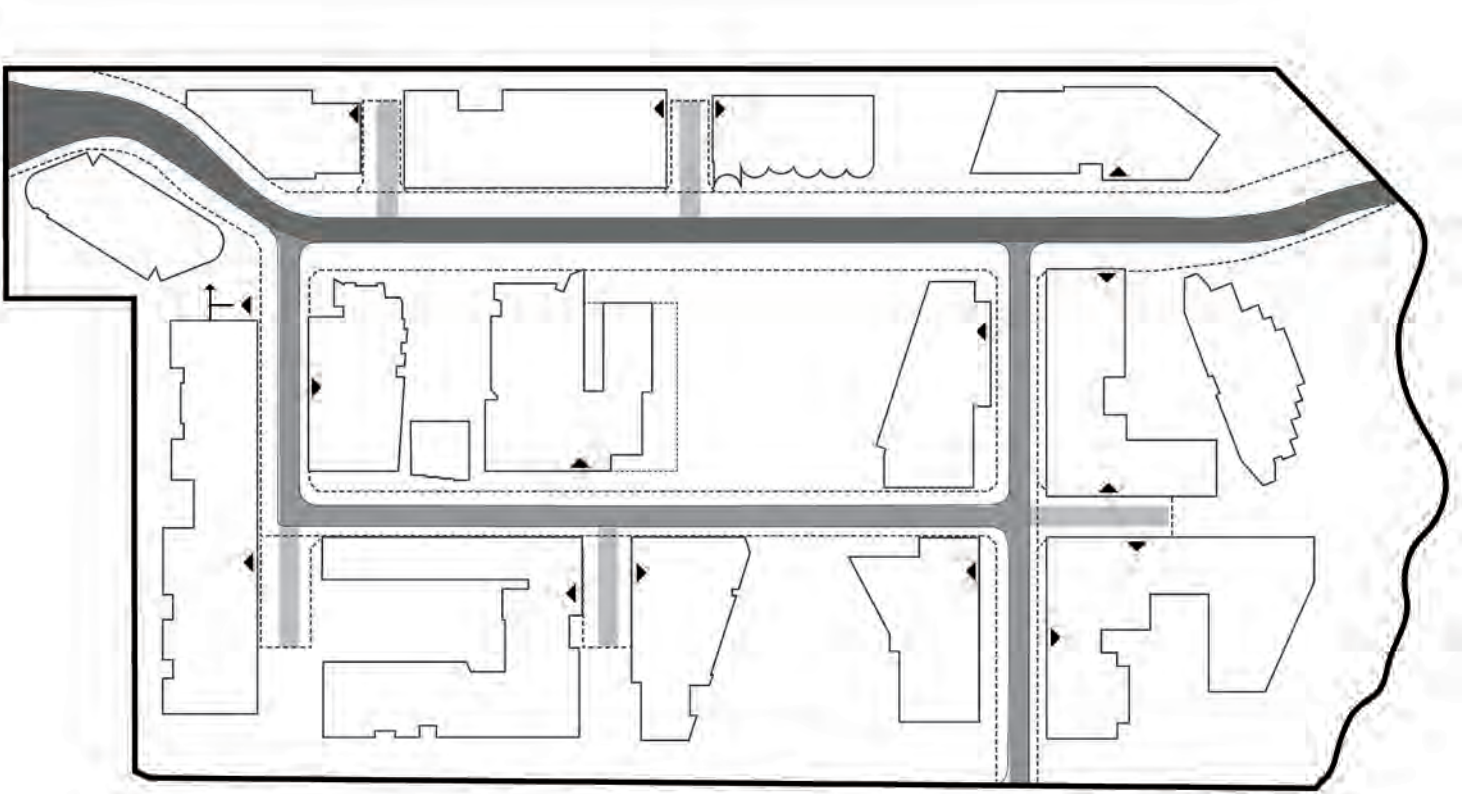
LEGEND

23.4m Main Street (varies along length)

14.5m Neighbourhood Street

Neighbourhood Mews / Driveways

Driveway Entries



LEGEND

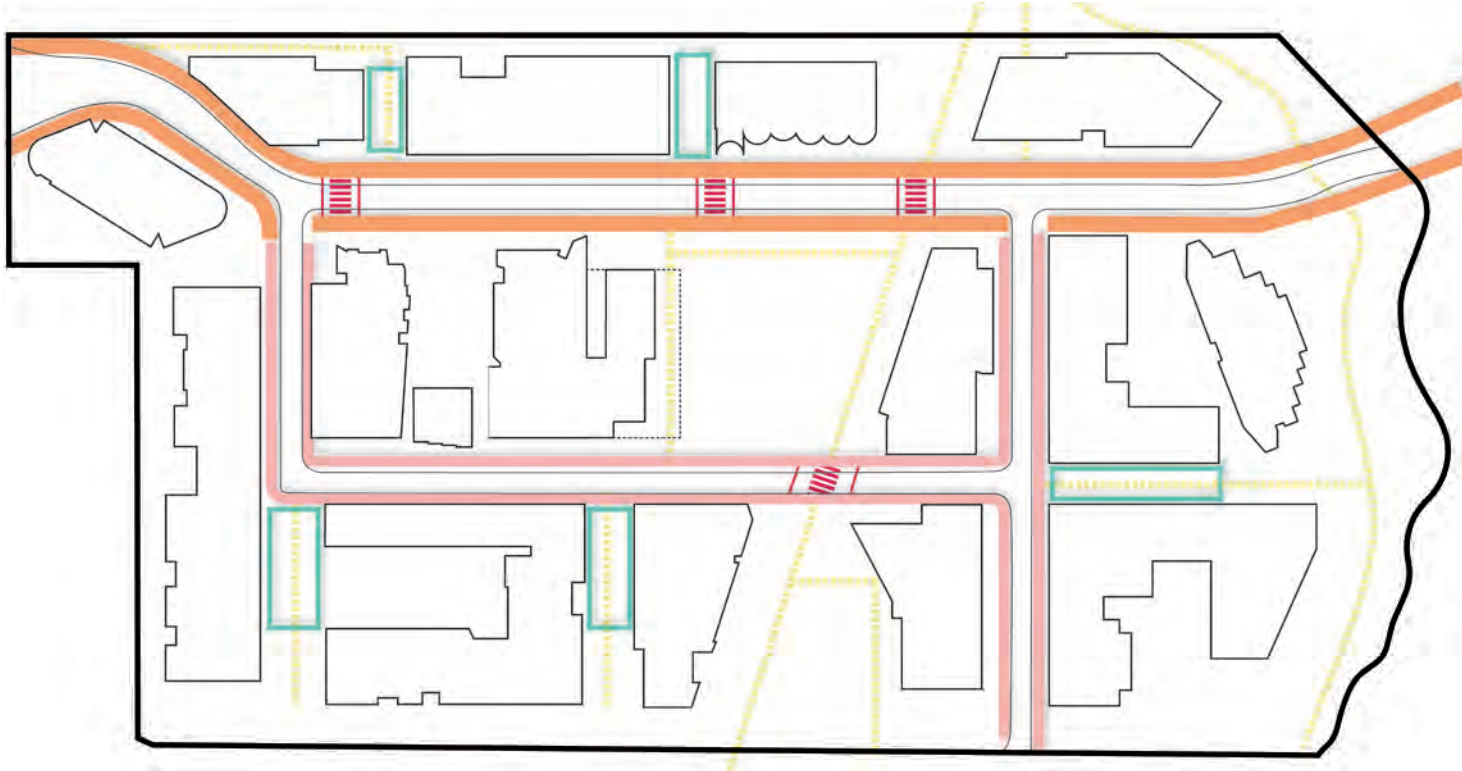
4.0m footpath & shared paths

Open space links

1.8 - 2.4m footpath

Neighbourhood Mews


Raised pedestrian crossing

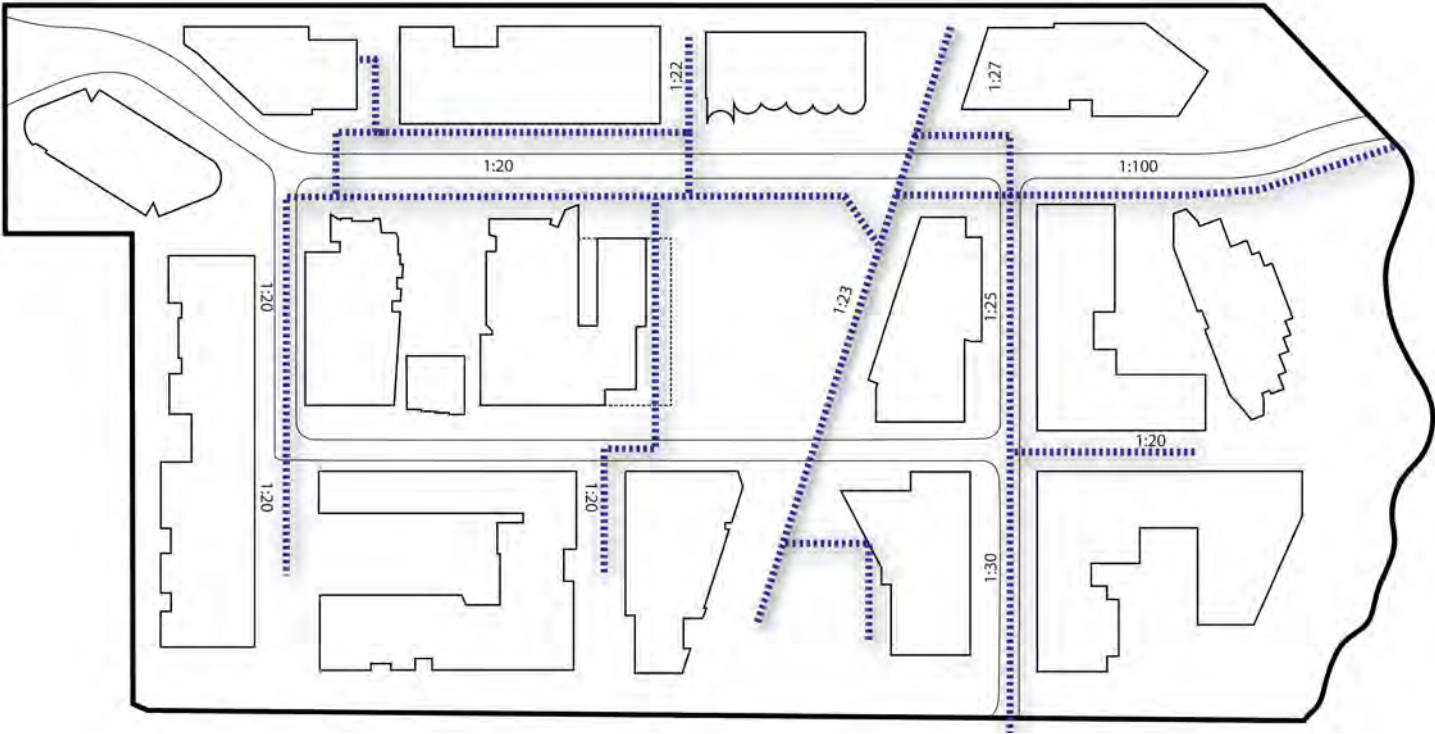


PEDESTRIAN ACCESSIBILITY

An accessible path of travel is available through the development, using a mix of on-street and open space connections. This path will connect all the public spaces and facilities on the site.

LEGEND

 Accessible paths







CYCLE CONNECTIVITY

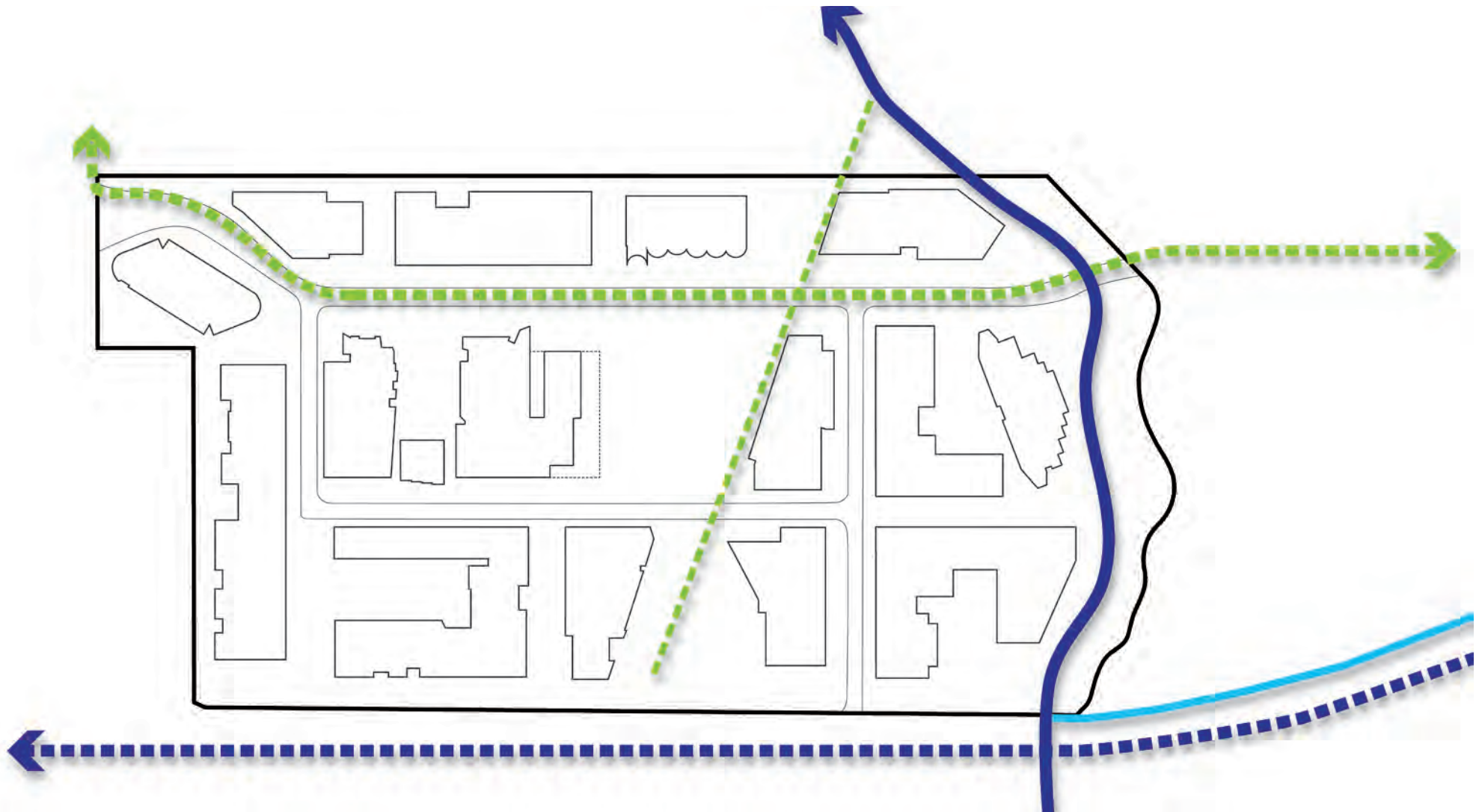
CONNECTED, SAFE CYCLE NETWORK

A shared path along the Main Street is proposed as a Local Cycle Link between Herring Road and both the Shrimptons Creek shared path and the existing cycle route on Lyonpark Road.

A secondary shared path is also planned along the Green Link. This will largely serve as a children's route between and around the open spaces within the site.

LEGEND

-  Existing regional cycle route. To the north connects to Waterloo Road, Macquarie Centre & Macquarie University. To the south, ELS Fields.
-  Proposed regional cycle route. Regional route 7. Visually separated 4m offroad bi-directional cycleway.
-  Existing local cycle link including, Lyonpark Rd off-road shared path (Local Link 10)
-  Proposed Shared paths





OPEN SPACE

The Village Green, Forest Playground and the School Garden, along with Shrimptons Creek corridor, are the largest open space and recreation areas. These will cater for a range of active and passive recreation activities.

The community centre forecourt and landscape terraces to the Village Green are lined with trees, outdoor dining and recreation.

The Neighbourhood Mews as paved shared zones are local - the thresholds between residential buildings, and between the urban area and the forested edge.

The Neighbourhood Gardens are more intimate areas, richer in detail and planting texture. Quieter moments to sit and pause. Similarly the Incidental street zones will allow for seating and additional planting.

LEGEND

- Shrimptons Creek Riparian Corridor (existing vegetation)
- Sydney Turpentine Ironbark Forest (existing vegetation)
- Forest Entry
- Forest Thresholds
- Forest Playground
- Neighbourhood Gardens
- School Gardens
- Village Green
- Neighbourhood Mews
- Green Link



LANDSCAPE CHARACTER

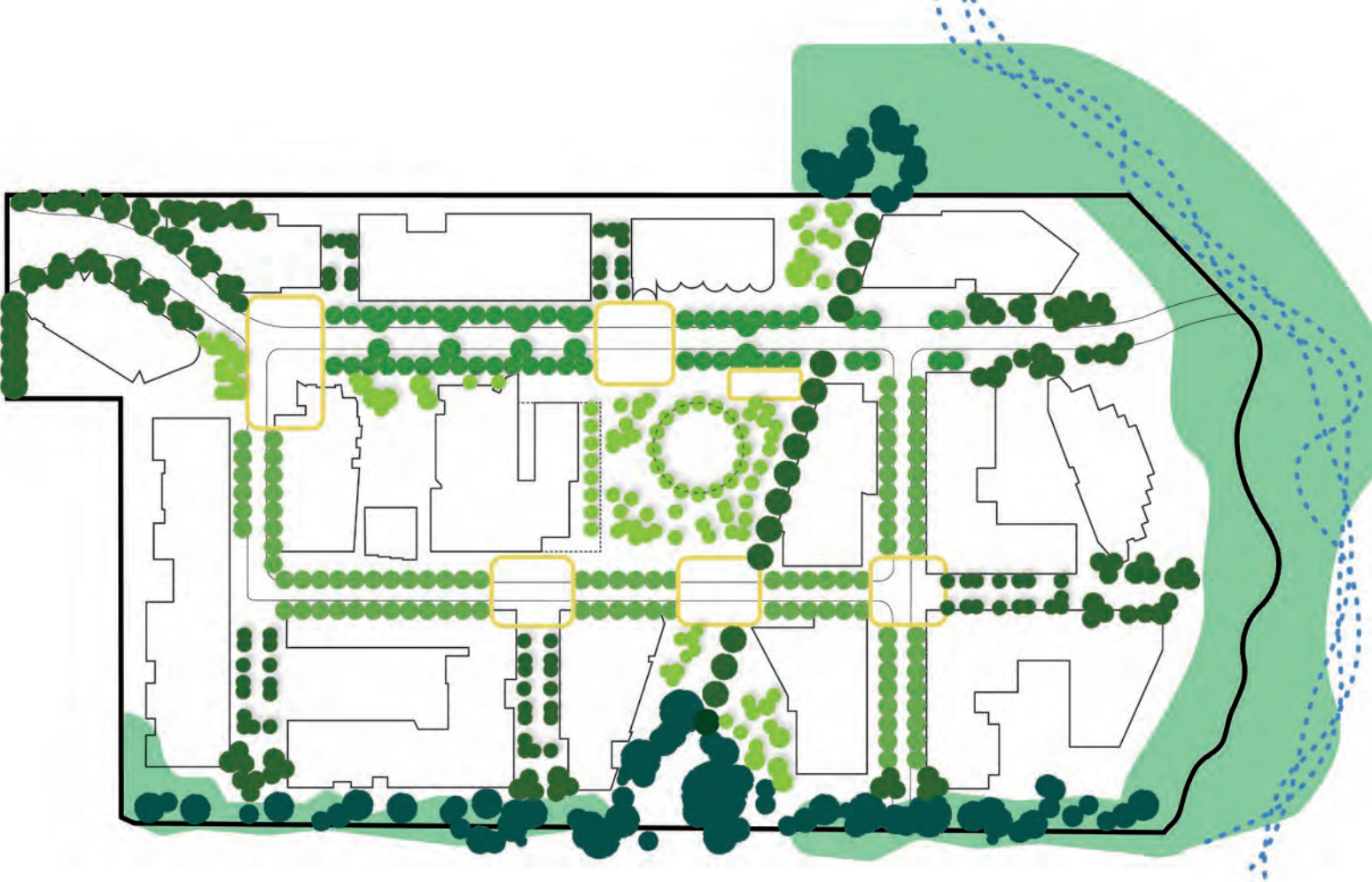
A COLLECTION OF NEIGHBOURHOOD GARDENS, FORESTS AND SUNNY CLEARINGS.

The logic of 'forest', 'neighbourhood' and 'clearings' within the forest is applied to both streets and public spaces. The dense, looser arrangement of trees at entry points to the precinct speaks to the forested edges of the site. The more orderly layout of street trees on Main Street and the neighbourhood streets expresses the new urban grid, while clearings on these streets occur in sunny locations and at principal pedestrian crossing points.

In turn, clearings in public open space are framed by groupings of various trees. The large trees of the 'forest' snake across the green link, from the Epping Road forested edge to the bushland of the creekline. The Forest Playground maintains a bushland character while the Village Green and School Playground blend active, usable spaces with a generally informal planting arrangement.

LEGEND

- Sydney Turpentine Ironbark Forest (Existing vegetation)
- Forests Planting
- Neighbourhood Planting
- Main Street Planting
- Neighbourhood Street Planting
- Clearings



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A PLAYABLE FOREST NEIGHBOURHOOD

Ivanhoe will be an open, inclusive and inviting neighbourhood to live in, but it will also be fun, active and healthy.

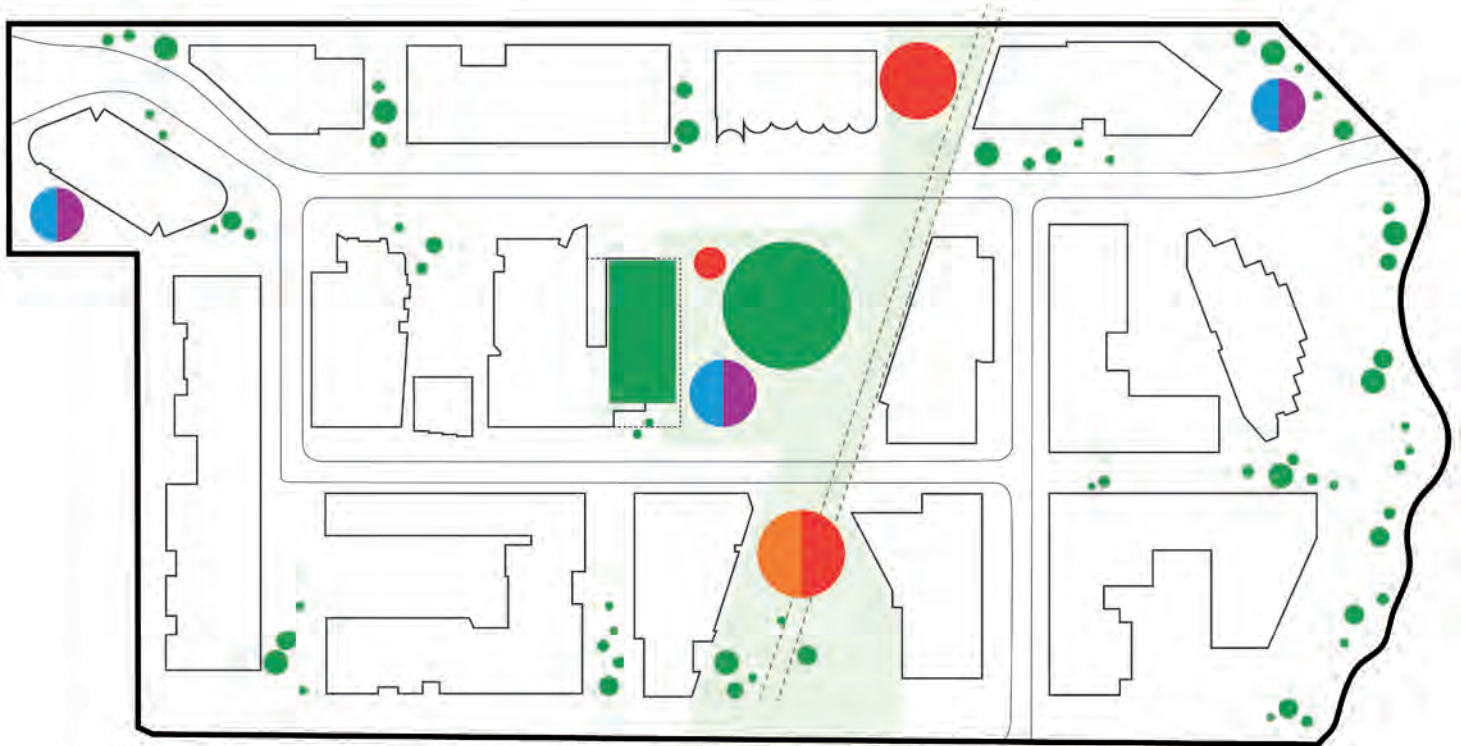
Play for all ages is proposed from toddler to adult, from formal to informal, from interactive to passive.

The opportunities for play are concentrated along the proposed Green Link. The Village Green playground will be aimed at 6 months - 5yrs, taking advantage of the adjacent Community Hub and excellent visibility across the open space. The forest playground is aimed at 6 yrs + taking advantage of the treed and sloped setting, and creating a nature based forest playground. The grounds associated with and adjacent to the school will be aimed at 12+, with a focus on exercise

In addition to the formal playgrounds, the intent is that the site is peppered with interactive, playable, and whimsical elements.

LEGEND

- 6months - 2yrs
- 2yrs - 5yrs
- 5yrs - 12 yrs
- 12+yrs
- Play for all



- 6 months to 2 yrs
- Crawl
- Touch
- Walk
- Stand

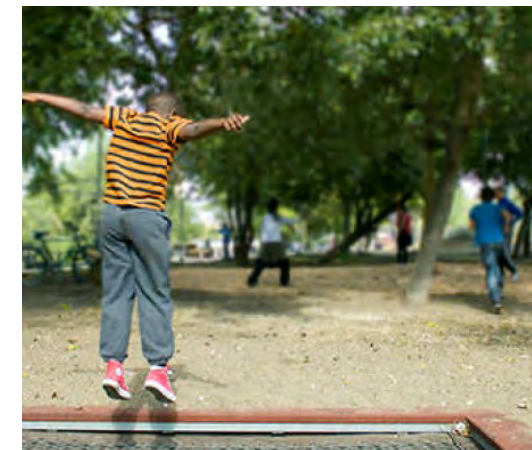


- 2 yrs to 5 yrs
- Step
- Crawl
- Grasp
- Get wet
- Ride
- Spring
- Explore
- Learn





5 yrs to 12 yrs  
 Climb  
 Swing  
 Get lost  
 Collaborate  
 Chat  
 Balance  
 Run  
 Learn  
 Dance  
 Escape



12+ yrs  
 Play  
 Run  
 Join in  
 Learn  
 Hang out  
 Exercise  
 Plug in  
 Read  
 Safe environment



Play for All and Incidental Play  
 Puzzle  
 Delight  
 Surprise  
 Gather  
 Perform  
 Interact  
 Artistic  
 Thoughtful





PUBLIC ART


PEOPLE, PLACE AND POETRY

The master plan identifies a series of opportunities and approaches to providing public art ranging from community based art works along the through site green link to iconic major art project in the village centre.


The creative art works will add meaning and vibrancy to the experience of living in, working in this new community.

The artwork should reference both the environmental and the cultural background of the site, and be a combination of integrated art and stand alone pieces.


LEGEND



Major art project at town plaza



Series of smaller art works around the community



Potential artworks along creek corridor



PUBLIC ART

PEOPLE, PLACE AND POETRY

- 1/ Furniture as playable art pieces
- 2/ Historical references - literal
- 3/ Place making pieces
- 4/ Interactive and fun pieces
- 5/ Historical references - embedded





PUBLIC DOMAIN MASTER PLAN

LEGEND

- 1/ New vehicular and pedestrian link to Herring Road, providing immediate links to Macquarie University, Macquarie Centre and station. The entry is a forest of Melaleuca in paving creating a dynamic entrance to the site.
- 2/ A new mixed-use Main Street is created through the site as the primary movement spine and the focus for public functions.
- 3/ The community centre will be a busy, active space that caters for a range of activities from swimming, casual dining to public meetings and entertainment.
- 4/ The School Garden provides active and passive public spaces adjacent to the school.
- 5/ The Green Link is a circulation and landscape spine from creekline through the open spaces of the development to the Epping Road bushland buffer.
- 6/ The Village Green is a place to celebrate the outdoor lifestyle, a large, flexible and recreation reserve for organised events or casual gatherings such as informal sports, picnics and play.
- 7/ Vehicle and pedestrian bridge across Shrimptons Creek and connection to Lyonpark Road and Macquarie Business Park.
- 8/ A neighbourhood loop road provides connections around the site.
- 9/ Shrimptons Creek is an important landscape and recreational spine, connecting Ivanhoe to the Macquarie Centre and to the creek parklands. Rehabilitation of the riparian corridor and duplication of the path system, coupled with improvements to the Epping Road underpass and inclusion of new amenities will dramatically upgrade the creek environs
- 10/ New entrance connection from Epping Road.
- 11/ Neighbourhood Mews provide driveway access to buildings while sensitively interfacing with adjacent bushland and providing open areas for small gatherings.
- 12/ Communal courtyards provide private sanctuary for residents.
- 13/ Neighbourhood Gardens provide a series of intimate, informal public spaces.
- 14/ Forest thresholds form the boundary between the development and its context. Stepped terraces take up the slope and create areas for gathering and individual activities.
- 15/ Forest playground is a place that celebrates the natural history of the site through play.
- 16/ Entry clearing celebrates your arrival into the community. Taking advantage of the abundant sunlight in this location, it connects the adjacent plaza, neighbourhood garden, Main Street and Neighbourhood Street.





## 4.3 STREET CHARACTER

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*The streets of the Ivanhoe development are where the daily life of the residents of Ivanhoe will play out. The streets have been designed to allow easy access through and around the neighbourhood while providing generous tree and understorey planting, but also to allow incidental moments to occur. Street furniture will be carefully curated to take advantage of views, adjacent building uses and to allow for conversation, gathering and also individual use.*

*Main Street will be the heart of the site, a vibrant wide boulevard with generous tree planting, bordered by school, aged care facilities, community centre and the Village Green.*

*The Neighbourhood Streets are smaller in scale with smaller tree planting and pockets of street furniture.*



MAIN STREET

VISION

Main Street is the main connecting road, to both the north and south, to the wider Macquarie Park area. It will also be the high street of Ivanhoe, where the retail, community and public open space are concentrated. Accordingly, Main Street will have a civic character: broad footpaths, large canopy trees, public seating and formalised pedestrian crossings. The quality of paving and furnishings will reflect this civic and social function.

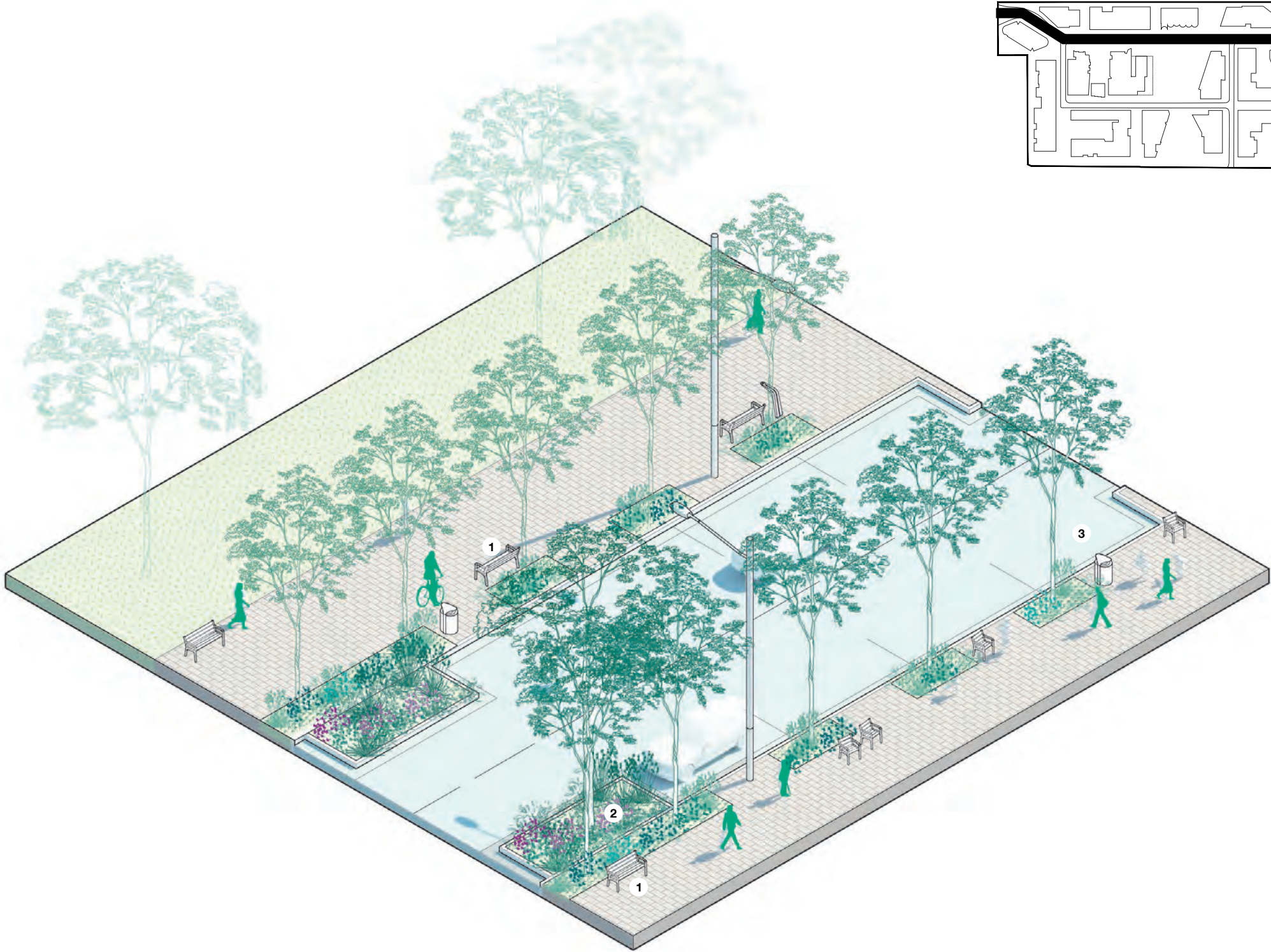
The landscape character of the street will change at the site entries, at Herring Road and at the bridge crossing at Shrimptons Creek. Street tree planting will no longer be the single species of the civic avenue but a mixture of trees, looser in their arrangement, as a point of reference to the public landscape of Macquarie Park and where forest meets neighbourhood. Broad pathways through the forest planting at Herring Road will bring the pedestrian to an opening in the canopy at the top of Main Street. Here, a well detailed pavement and rich understorey planting will foreground the Main Street avenue.

At the bottom of Main Street the ‘forested’ landscape of Shrimptons Creek will migrate on to the street, as the urban order meeting the bush as the new bridge connects Main Street to the business zone to the south east.

Function + Program:  
The principal circulation spine of the development, serving residential buildings, aged care facilities, the school, the community centre and the Village Green.

A shared path is proposed along the Main Street to provide a cycling link through the development.

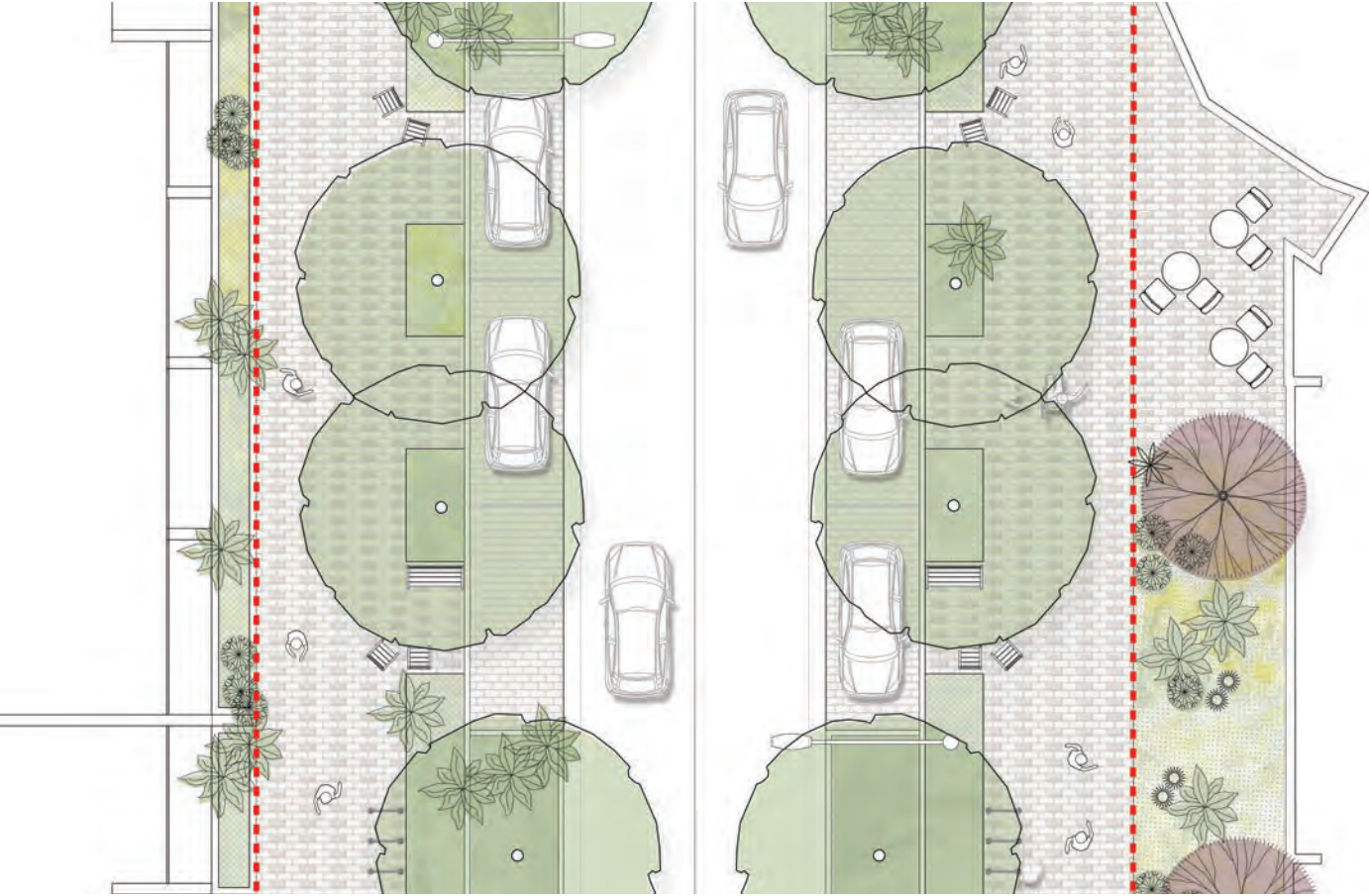
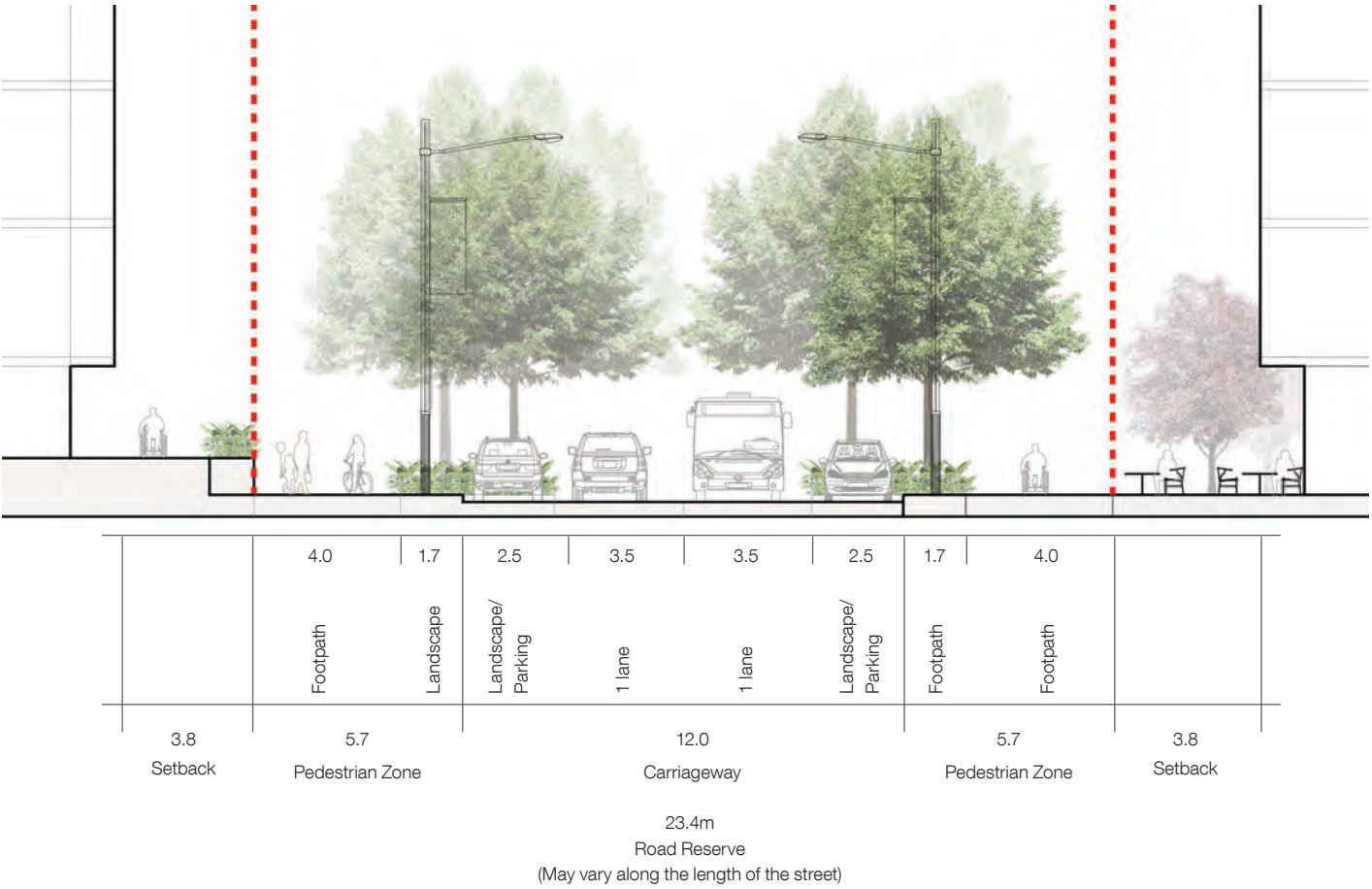
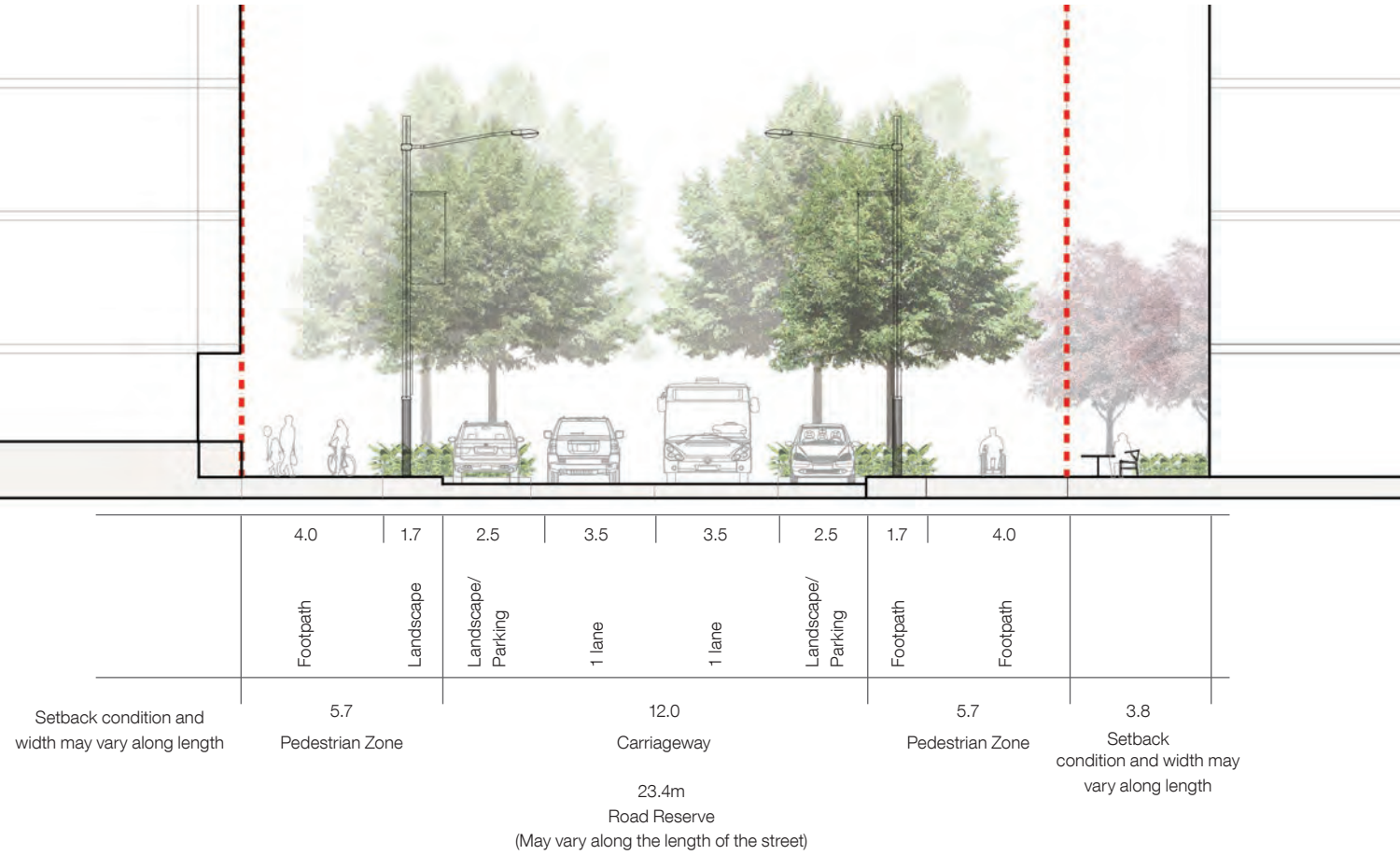
Street landscaping and a series of Neighbourhood Gardens will add to the amenity and variety of what will be a busy circulation and social space.



**MAIN STREET**  
1/ Street furniture including seats, lighting, bicycle parking  
2/ Generous planting frame the street and break up parking bays  
3/ Disabled parking located with unobstructed access to the footpath



TYPICAL SECTIONS & PLAN

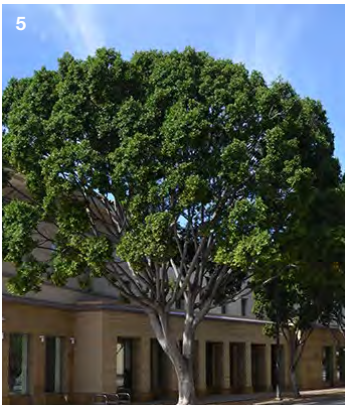






CHARACTER, MATERIALITY & PLANT PALETTE

**BENCHMARK IMAGES**  
1/ Croydon South End, London. HASSELL  
2/ Carter Lane Gardens, London  
3/ Tree lined boulevard, Paris



**PLANT PALETTE**  
1/ Betula nigra  
2/ Elaeocarpus reticulatus  
3/ Eucalyptus saligna  
4/ Ficus hillii  
5/ Ficus microcarpa  
6/ Melaleuca quinquenervia



**MATERIALITY**  
1/ Paving  
2/ Paving  
3/ Stairs  
4/ Furniture  
5/ Furniture  
6/ Furniture



NEIGHBOURHOOD STREET

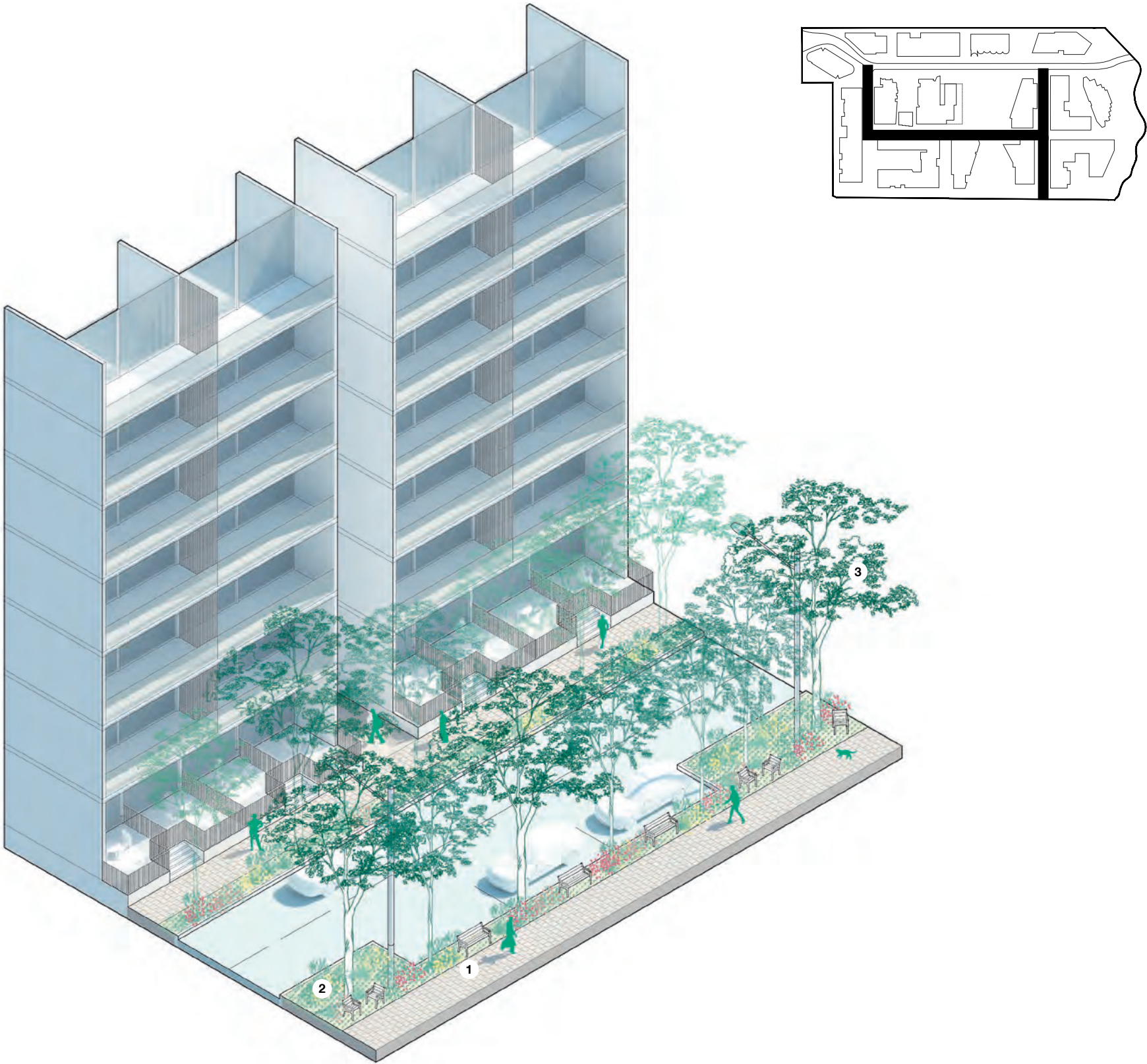
**VISION**

The neighbourhood streets are smaller in scale than main street, tying the development together. They are residential in character with extensive understorey planting and a variety of tree sizes and species.

As the streets meet the forest thresholds, the tree planting will become less regular and reflect the neighbourhood meeting forest theme.

Function + Program:

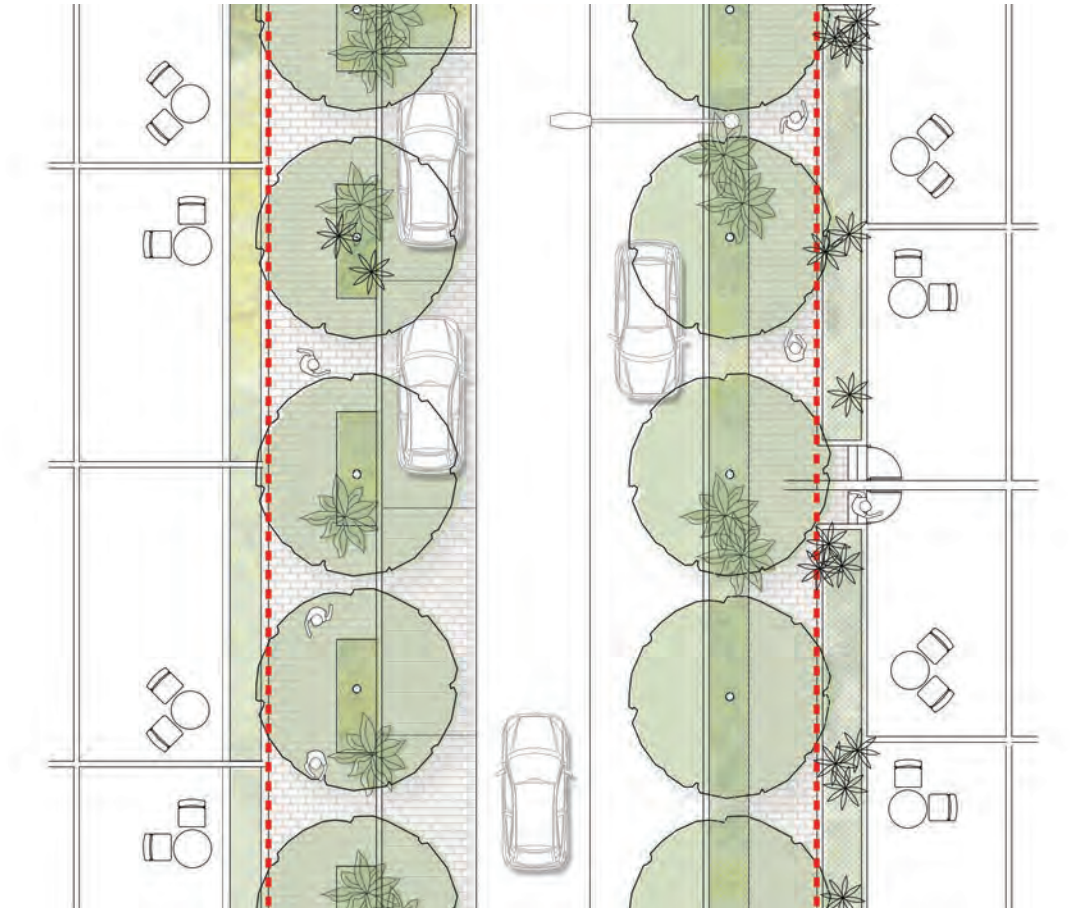
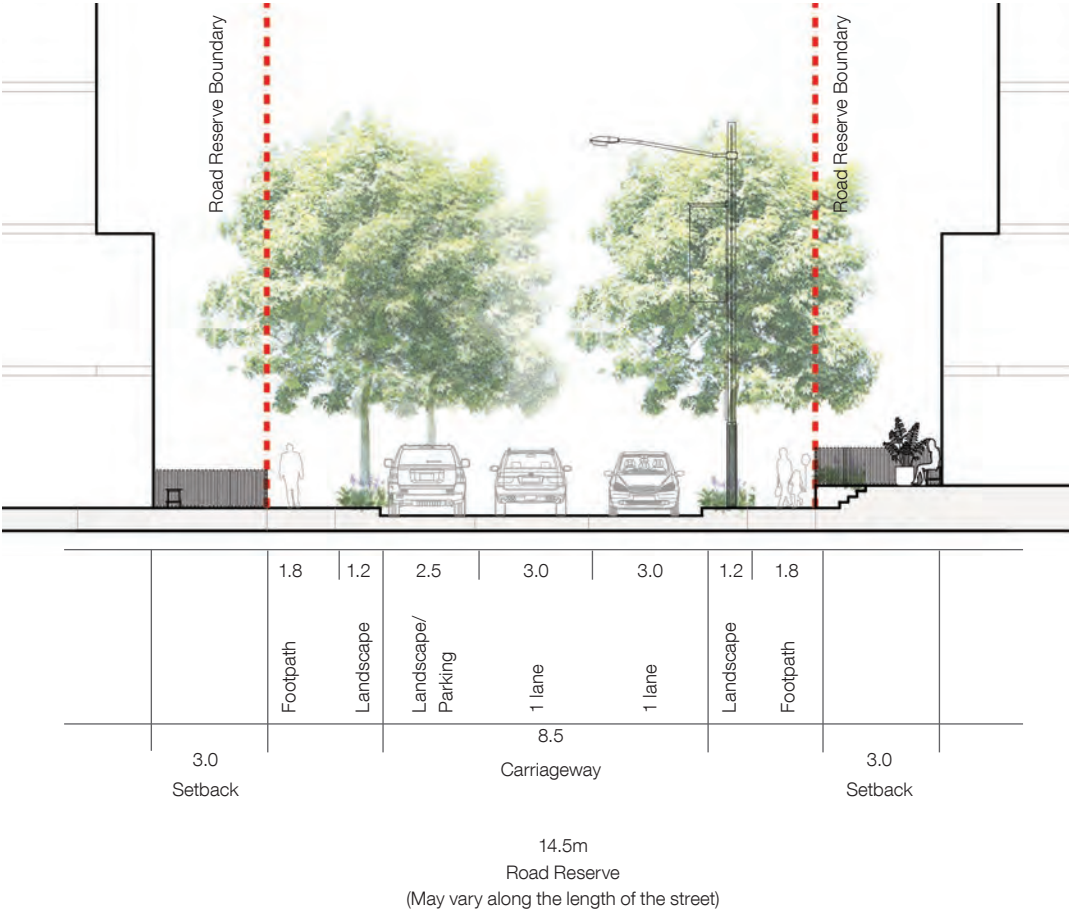
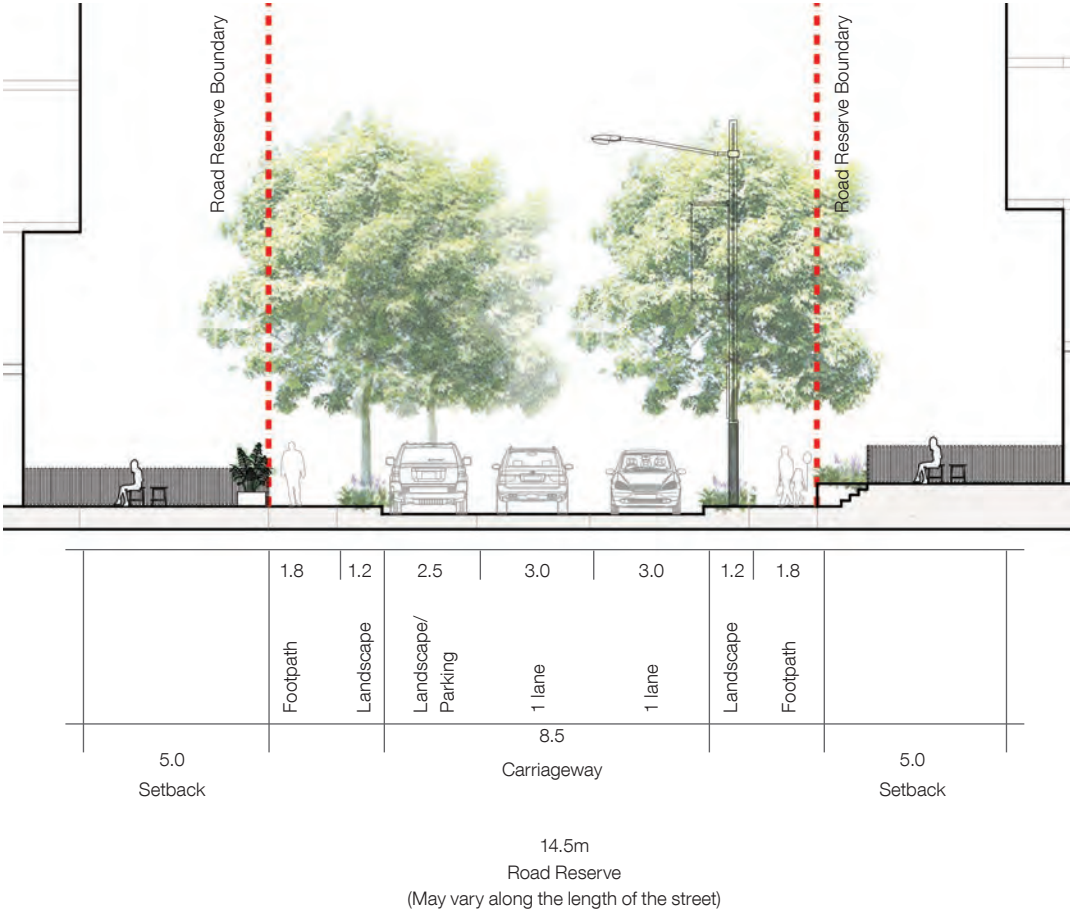
The streets form an internal loop in the development and links from Epping Road, Shrimptons Creek and the Green Link. Street furniture is located to encourage lingering on the street, meeting friends and gathering.



**NEIGHBOURHOOD STREET**  
1/ Street furniture enveloped by planting  
2/ Generous planting frame the street and break up parking bays  
3/ Mix of tree heights and forms



TYPICAL SECTIONS & PLAN





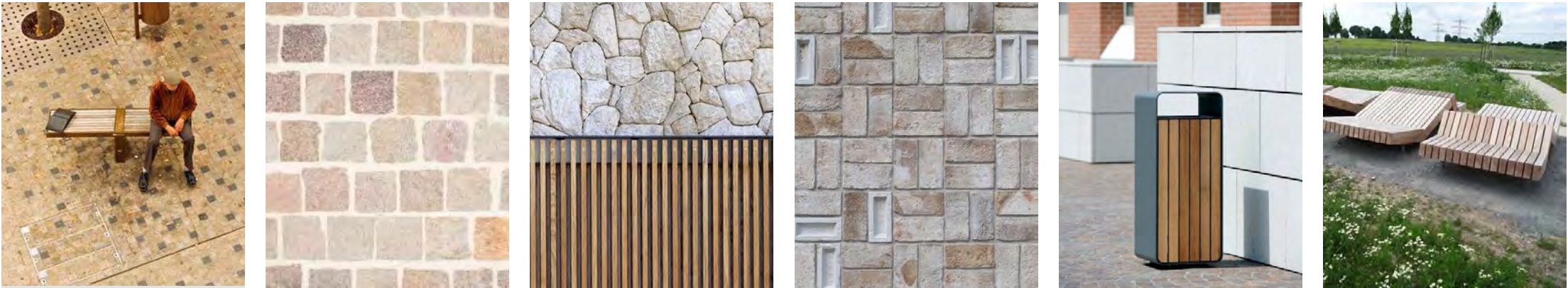


CHARACTER, MATERIALITY & PLANT PALETTE

**BENCHMARK IMAGES**  
1/ St Andrews, Bromley by Bow Townshend Landscape Architects  
2/ St Andrews, Bromley by Bow Townshend Landscape Architects  
3/ Brooklyn Brownstones, New York



**PLANT PALETTE**  
1/ Elaeocarpus reticulatus  
2/ Elaeocarpus reticulatus flower  
3/ Pittosporum undulatum  
4/ Pittosporum undulatum flower  
5/ Waterhousia floribunda  
6/ Waterhousia floribunda flower



**MATERIALITY**  
1/ Paving  
2/ Paving  
3/ Facade  
4/ Paving  
5/ Furniture  
6/ Furniture