Camellia-Rosehill Integrated Master Plan

July 2022

















ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Burramattagal of the Darug, the original inhabitants of the subject area, and the Gadigal of the Eora nation, the original inhabitants of the land on which we work.

Aboriginal and Torres Strait Islander peoples have a connection to place, land, water and community, established over many thousands of years. We recognize the cultural significance inherent in these connections, that sovereignty over this land was never ceded and that it continues to be sacred to its rightful owners.

We pay respect to Elders past and present, and stand with all First Peoples in your quest for justice, truth telling, and reconciliation.

Cox Architecture

70 George Street The Rocks (Tallawoladah) NSW 2000 Australia T +61 2 9267 9599 F +61 2 9264 5844 sydney@cox.com.au

coxarchitecture.com.au

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Disclaimer

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Overview of the project

This project represents a unique opportunity to establish a Place Strategy that considers the character, culture, and community of Sydney's Central River City in light of the significant investment and subsequent change that is occurring within the City.

Crucially, Camellia-Rosehill has the opportunity to serve as a Town Centre for the Central River City, delivering more job opportunities across more diverse employment sectors, supported by a wide range of living, recreating and socialising opportunities. This Town Centre role would complement the hierarchy of centres within the Central River City including Westmead, Parramatta and Sydney Olympic Park.

Purpose of the report

This is a watershed moment for Camellia-Rosehill. The Place Strategy provides an opportunity to establish a people-oriented framework that will guide growth for decades to come.

The Integrated Master Plan provides the foundation for the Camellia Rosehill Place Strategy and is a guide for future growth over the next 20 years and is driven by providing amenity for all users and uses within Camellia-Rosehill.

The Integrated Master Plan is a framework for the redevelopment of the Precinct and to guide more detailed precinct planning in the future. The Plan aims to:

- Ensure authentic aboriginal engagement and designing with Country from the Place Strategy through to subsequent rezoning and Master Planning processes
- Develop design principles for the Precinct
- Enshrine high levels of amenity and the provision of community infrastructure in the early stages of planning
- Define land use boundaries and strategies to manage transitions and interfaces between uses and users
- Undertake a high level infrastructure capacity analysis
- Prepare an infrastructure plan with a funding strategy
- Identify required multi-modal transport networks and new and upgraded connections
- Manage flood impacts while providing for a precinct-wide contamination remediation strategy
- Provide an integrated environmental strategy considering water and energy management (net zero), heritage and landscape considerations
- Commit to providing public access to the foreshore wherever possible

Considerations

Strategic Considerations

- Camellia-Rosehill is in a very strategic location close to the Parramatta CBD, located on the Parramatta River and is geographically central within Sydney
- There is an opportunity to retain and reinforce a significant proportion of the existing industrial uses in Camellia as there are limited industrial areas located in the geographic heart of Sydney and comprising 321 hectares of land
- The location of Camellia-Rosehill adjacent to other industrial areas including Silverwater and Rydalmere which provide opportunities for complementary industrial uses and improved heavy vehicle connectivity to and through the Precinct
- There is an opportunity to create an innovation ecosystem to foster research and start-ups in the manufacturing and construction sectors leveraging the proximity to Western Sydney University
- There is potential to diversify the range of employment uses from heavy industrial, light industrial, freight and logistics, and standalone commercial premises in a central location that is easily accessed by the population of Sydney.

Precinct considerations

- To allow for mixed use development, including residential, in the north-western quadrant of the Precinct, concentrated around the future Parramatta Light Rail (PLR) alignments and stops and with primary access from James Ruse Drive and Grand Avenue
- To create a mixed-use entertainment precinct at Rosehill Gardens Racecourse
- The retention of parts of the Precinct for industrial uses, but facilitating a potential transition to more contemporary industries including clean technologies, eco-industries, advanced manufacturing and logistics
- Allowing for a considered transition of land uses between the mixed use precinct to the west and urban services and industrial precinct in the east
- Providing for new vehicular connections between Camellia, Silverwater, Rydalmere and the M4 Motorway to remove unnecessary heavy vehicle movements from the proposed Town Centre
- Improving access to public transport in the Precinct by focusing new employment and mixed use development around proposed transport nodes
- Creating a network of public open spaces to improve active transport connectivity to, through and within the Precinct and open the river frontage to the public
- Investigating opportunities for additional public facilities and community infrastructure to meet underlying and future demand at Camellia
- Establishing amenity-based design guidelines to deliver high quality urban environments within Camellia to ensure amenity for residents, workers and visitors alike
- Exploring the opportunity for Precinct-wide approaches to manage environmental constraints such as contamination and the staging of remediation
- Increasing in canopy cover across the Precinct
- Delivering a net zero emissions precinct through building efficiency and precinct scale renewables.



Vision

Camellia-Rosehill has an important strategic role as an industry and employment hub within the Greater Parramatta and Olympic Peninsula (GPOP) Economic Corridor. By 2041, the precinct will be enhanced with service and circular economy industries and new recreational and entertainment facilities, all enabled by better transport access via light rail, active transport and road connections.

A well-designed town centre next to the light rail stop will be the focus of community activity.

A new urban services precinct and retention of heavy industrial land will ensure Camellia-Rosehill fulfils its potential to be an employment powerhouse.

New homes and jobs will be close to public transport supported by new quality public spaces including public open spaces, public facilities high quality street infrastructure, and walking and cycling paths.

Key environmental features such as Parramatta River, Duck River and their wetlands will be protected and enhanced. Camellia's rich heritage will be preserved, celebrated and promoted.

Country and culture will be valued and respected with the renewal guided by Aboriginal people.

The precinct will be net zero ready and set a new standard for environmental sustainability with embedded renewable energy networks, integrated remediation and water management strategies, and circular economy industries.

Recycled water will be connected to all residences, businesses and public spaces and will support the integrated network of green infrastructure.

Camellia will be a showcase of recovery and restoration – a place of economic prosperity but also a place where people love to live, work and enjoy.



Aerial View of the Future Camellia-Rosehill Precinct Looking north east

INTRODUCTION PROJECT DESCRIPTION

New South Wales Department of Planning and Environment (DPE), in collaboration with City of Parramatta Council (Council), industry, the community and State agencies, have led the development of the Camellia-Rosehill Place Strategy and Master Plan for the Camellia-Rosehill Precinct (the Precinct). The Precinct is defined by Parramatta River to the north, Duck River to the east, the M4 Motorway to the south and James Ruse Drive to the west, all of which form physical boundaries to the Precinct.

The Precinct incorporates the whole of the suburb of Camellia between the Parramatta River and Grand Avenue, and parts of Rosehill (south of Grand Avenue) and Clyde (south of Duck River).

The Precinct is presently comprised largely by industrial activity, and the Rosehill Gardens Racecourse. The industrial legacy means that soils are heavily contaminated across most of the Precinct.

Located in the geographic heart of Sydney and comprising 321 hectares of land, the Precinct has an important strategic role in the Greater Parramatta and Olympic Peninsula (GPOP) area within the Central River City. Previous investigations have identified that the Precinct should be retained for urban services lands and a Town Centre, but that the costs of infrastructure and remediation should be carefully considered when making future land use decisions.

The Place Strategy and this Integrated Master Plan have been prepared for the whole Precinct and draw on the substantial body of previous investigations, including ongoing collaboration with industry, the community and state agencies.

The overarching objective of the Place Strategy is to provide an integrated 20-year vision, which recognises the strategic attributes of the Precinct, guides future land use and infrastructure investment decisions and which can be delivered with the support of State and local agencies.

DPE has engaged a range of technical studies to identify challenges within the Precinct and potential opportunities to overcome the challenges. The technical studies have informed the development of the Place Strategy and Integrated Master Plan for the Precinct.





Camellia-Rosehill was identified by the NSW Government as a priority growth area in 2014, resulting in precinct wide Land Use and Infrastructure Strategy in 2015 and subsequently development of a Town Centre Master Plan in 2018. Work on the Town Centre was paused pending outcomes of the 2019 Draft Place-based Infrastructure Compact (PIC) Pilot which aimed to ensure infrastructure delivery was matched with growth across the 26 precincts in the GPOP corridor. The PIC recommended that Camellia be retained for urban services and industrial lands, however, should the Government seek to progress a new Town Centre as part of the Precinct (in the form of the 2018 plan or a modified form) a number of issues had to be resolved. It was determined that a coordinated and strategic approach was required, and a Place Strategy to be prepared for the whole Precinct, drawing on previous work and including ongoing collaboration with industry, the community, state agencies and local councils.

An Enquiry by Design (EbD) process was undertaken to inform the preparation of the Place Strategy. The EbD was an interactive process which explored a number of Master Plan options for Camellia-Rosehill which could deliver the vision for the precinct, and resulted in a draft Master Plan which was the subject of public consultation as part of the Camellia-Rosehill Directions Paper. The draft Master Plan was further refined following exhibition of the Directions Paper and consideration of the submissions received.

Preliminary Enquiry by Design Workshop

The Preliminary EbD workshop for the Camellia-Rosehill Place Strategy was held on the 11th and 12th of May 2021. The Preliminary EbD was an iterative process that allowed for the testing of ideas, solutions and concepts by almost 100 participants across all technical streams and a range of stakeholders such as state agencies, local government and department representatives.

The workshop resulted in three scenarios being developed based on overall economic visions for the Precinct and represented in spatial outcomes and growth scenarios to inform the next phase of refinement and testing.

Final Enquiry by Design Workshop

The Final EbD workshop for the Camellia-Rosehill Place Strategy was held on the 16th, 17th and 18th of June 2021.

The workshop resulted in a preferred scenario being developed to align with the Precinct objectives, collective vision statement and the findings of the technical assessment of the three scenarios that emerged from the Preliminary EbD workshop in May 2021.

Camellia-Rosehill Directions Paper

The preferred scenario is a combination of the best elements of each of the options and provided the basis for the Master Plan which was the subject of public consultation as part of the Camellia-Rosehill Directions Paper. The draft Master Plan within the Directions Paper was further refined following exhibition of the Directions Paper and consideration of the submissions received.

Draft Place Strategy Exhibition

The draft place strategy was publicly exhibited on 17 December 2021 until 4 March 2022. The draft Master Plan was further refined following consideration of the submissions received. Refer to the Department of Planning and Environment's finalisation report for further information.







Photo from the EbD workshops

INTRODUCTION MASTER PLAN PROCESS

Process

The Master Plan process for investigating the growth and renewal potential for the Camellia-Rosehill Precinct is outlined below.

Key Considerations

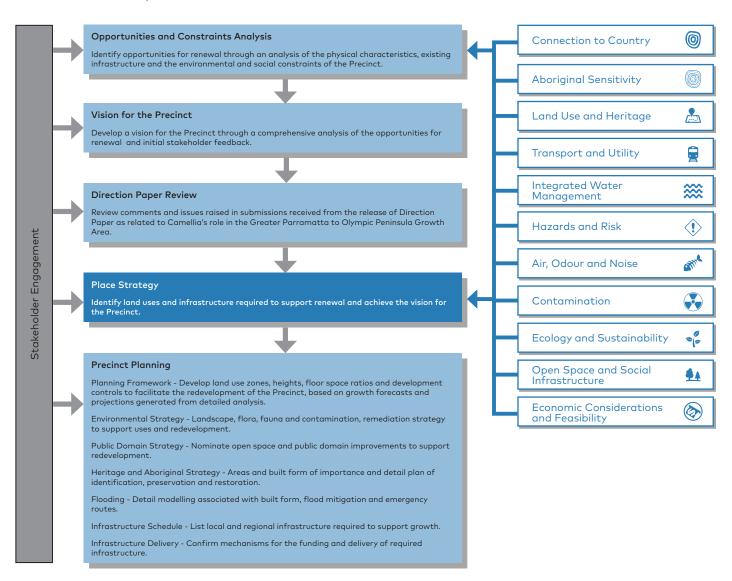
The development of the Place Strategy and this Integrated Master Plan is informed by detailed analysis and an evidence base from a variety of technical studies. These studies include:

- · Economics
- Transport
- · Services, infrastructure and sustainability
- Heritage
- · Integrated water management and flooding
- · Ecology and biodiversity
- Contamination
- · Noise, air and odour
- · Land ownership patterns
- Hazard and risk
- · Aboriginal sensitivity
- Connection to Country.

This analysis identified challenges that may constrain development and that may impact on the urban renewal potential of the Precinct. A summary of the major challenges are:

- A constrained transport network surrounding the Precinct
- · The need to remediate contaminated land
- · Significant extents of flooding across the Peninsula
- Hazard risk associated with the gas and fuel pipelines and Viva Energy's operations
- Existing employment uses and users that are fundamental to the economy of Sydney and NSW.

In addition, the analysis also identified areas in the Precinct that were relatively unconstrained and presented significant opportunities for urban renewal, change of uses and/or intensification of existing uses, further facilitated by improved public transport connections.



Connecting to Country

Ensuring Agency

Camellia-Rosehill rests on Darug Country at the junction of the Parramatta and Duck Rivers, where fresh water meets salt water. The story of this place and the Aboriginal people who have and continue to occupy these brackish waters is a rich one that began long before 1788 and will continue long after.

Government Architect NSW's (GANSW) Connecting with Country draft Framework (the Framework) challenges built-environment professionals to embed genuine Aboriginal influence and agency into the design process, so that the aspirations described in the Framework are considered not merely as a 'value add,' but as the very foundation upon which NSW's development initiatives will rest.

Each stage of the Camellia-Rosehill development – from Place Strategy to Master Plan to detailed development, from briefing to concept design, from technical documentation to construction procurement, from operation and beyond – should be committed to operating within a framework that both respects and actively facilitates the agency of Aboriginal peoples.

Engagement

The process of Aboriginal community engagement in informing this Integrated Master Plan is also aligned with the intent of Connecting with Country. These are:

- Empower: Those whose decisions will be implemented by the project team
- Collaborate: Those whose advice will be incorporated to the maximum extent possible
- Involve: Those whose advice will inform the broad concerns, objectives and aspirations of the project

For further details, refer to the Camellia-Rosehill Connecting with Country Implementation Report - by The Fulcrum Agency, May 2022.

Governance

The NSW Government's OCHRE Plan has outlined a range of initiatives to foster Local Decision Making in Aboriginal Communities. These commitments are consistent with Dharug communities having a greater voice in the decisions that affect the development of Camellia-Rosehill.

The future of the development will rest upon, for example, remediation of the contaminated sites and restoration of remnant ecologies. Remediation will likely require the long-term commitment and financing by government authorities (in partnership with industry). Aboriginal people, too, should help shape this commitment. Camellia-Rosehill has the potential to be an exemplar in restoration and care of post industrial landscapes.

Project Life Cycle

"Identify and nurture immediate and longer term opportunities to support cultural practice on Country - through the development and delivery of the project as well as future use." (Connecting With Country)

As the project develops beyond the Master Plan, ensure that the principles of Connecting with Country continue to influence design decisions. Develop strategies for embedding influence at detailed Master Planning, building design, construction and beyond.





CONSIDERATIONS

PLANNING AND POLICY CONTEXT

Regional Context

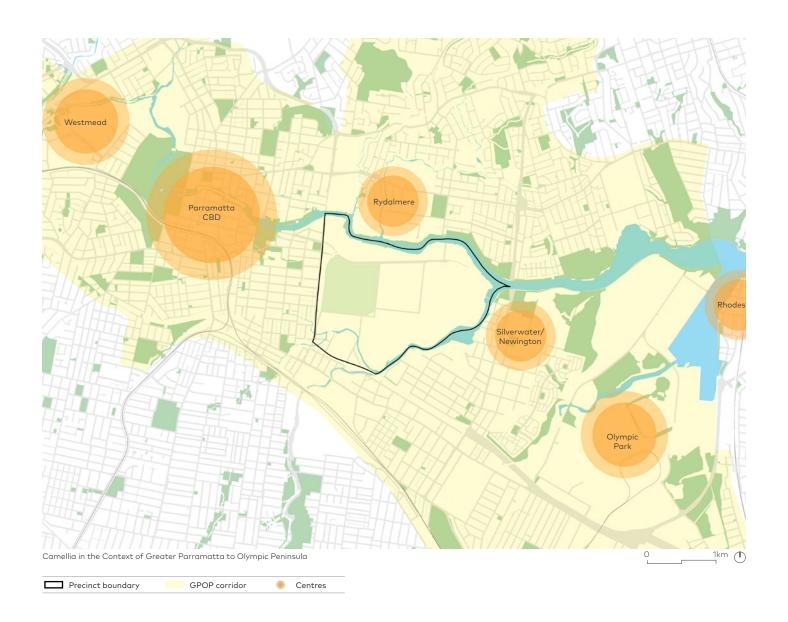
The Camellia-Rosehill Precinct is located in the Central River City, 1.5 kilometres east of Parramatta CBD. It is defined by Parramatta River to the north, Duck River to the east, the M4 Motorway to the south and James Ruse Drive to the west, all of which form physical boundaries to the Precinct.

The Central District Plan reinforces the role of Camellia-Rosehill in the GPOP Priority Growth Area and Economic Corridor, identifying that Camellia-Rosehill will evolve into a highly productive part of the Central River City, with a focus on coexisting water, energy and transport uses generating a range of employment types, including highly skilled jobs. It has also been recognised as a suitable place to retain and reinforce urban services, such as building material production, waste processing and water recycling.

The Plan also identifies that the GPOP Priority Growth Area incorporates areas that are now, or will in the future, experience significant change as they transition from their current land uses and undergo redevelopment.

In order to facilitate this transition, the Plan recognises the need to:

- Establish new partnerships between government agencies, local councils, industry and the community to manage the renewal of the area.
- Increase density and deliver enabling infrastructure to support growth and urban renewal
- Grow the knowledge economy as part of the extension of the global economic corridor



State Strategic Policy Context

As the integrated Master Plan that underpins the Camellia-Rosehill Place Strategy has been developed, it was critical to ensure consistency with NSW Government and Parramatta City Council's policies and strategic priorities. The documents highlighted below are seen as the key strategy and policy documents of relevance to the future urban renewal of the Precinct, ensuring alignment across all levels of government.



Premier's Priorities

The priorities that redevelopment of the Precinct can particularly contribute to are:

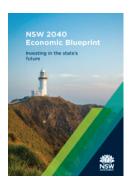
- Greener public spaces by providing a proportion of homes within 10 minutes' walk of quality green, open and public space by 10% by 2023
- Greening our city by increasing the tree canopy and green cover with the aim of planting 1 million trees by 2022



Global NSW

The employment areas within the Precinct presents the opportunity to contribute to the Global NSW road map by:

- Attracting world-class industry capability to locate within the Precinct
- Supporting the development of innovative, sustainable and fast growing industries
- Supporting advanced manufacturing and artificial intelligence



NSW 2040 Economic Blueprint: Investing in the State's Future

Sets the direction for NSW's continued success in a changing world and expanding global economy

- A high standard of living
- Diversified economy
- Vibrant and well-connected urban centre with modern infrastructure
- Potential to accommodate innovative businesses and industries of the future
- Environment and biodiversity are preserved



24-hour Economy Strategy

The strategy consists of a unified vision and actions to activate a vibrant, diverse, inclusive and safe 24-hour economy

- Supporting more integrated planning and placemaking
- Nurturing industry and cultural development
- Exploring ways to enhance mobility and connectivity
- Diversification of night-time activities
- Nurturing industry and cultural development



Net Zero Plan Stage 1: 2020 – 2030

Opportunity to contribute to the Plan's net zero priorities to:

- Drive uptake of proven emissions reduction technologies
- Empower consumers and businesses
- Invest in the next wave of emissions reduction innovation
- Ensure the NSW Government leads by example



Kickstarting the Productivity Conversation

Opportunity for implications for the future development:

- Water recycling
- Improving asset utilisation and demand management
- Potential employment zones
- Building dwellings that better match preferences
- Balance labour mobility with tenure security
- Efficient and equitable developer contributions
- Minimising red tape and complexity



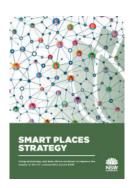




NSW 2040 Economic Blueprint: Investing in the State's Future

This Blueprint sets the direction for NSW's continued success in a changing world and expanding global economy

- A high standard of living
- The diversified economy
- A vibrant and well connected urban centre
- The potential to accommodate innovative businesses and industries
- The location where the environment and biodiversity are preserved



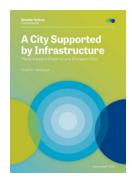
Smart Places Strategy

Responds to the NSW State Infrastructure Strategy, which recognises that successfully delivering Smart Places requires robust foundations, effective enablers and innovative programs.

Action 6 of the Strategy promotes the development of a guide to assist place owners and precinct planners design smart places. The Precinct offers an opportunity to contribute to the guide and possibly even be considered as a pilot of a future 'smart place'.

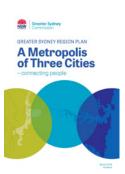
The Precinct also has the potential to benefit from other Actions including (among others):

- Partnerships with start ups and fostering innovation and innovation ecosystems
- The Smart Places Acceleration Fund
- Investment in smart solutions in Special Activation Precincts as part of their ongoing delivery.



A City Supported by Infrastructure Place Based Infrastructure Compact Pilot

Recommendation to retain existing controls and uses across the Precinct and reconsideration of the highgrowth residential scheme envisaged for the Camellia Town Centre Master Plan (2018) due to high upfront costs associated with constrained access and the perceived high value of job retention over housing supply.



Greater Sydney Region Plan – A metropolis of three cities 2036

40-year vision and 20-year plan to manage growth and change

The vision is to create 3 interconnected cities, where most residents to live within 30 minutes of their jobs, education and health facilities, services and recreation places.

Camellia–Rosehill is located within the Central River City and GPOP economic corridor.



Central City District Plan

The Central City District Plan is the 20-year plan to manage growth and change of the Central City to fulfil the vision of the Greater Sydney Region Plan. Identifies a number of strategic priorities for Camellia-Rosehill:

- Reconfirms Camellia as one of 12 next-generation housing precincts
- Identifies that industrial and urban service land within Camellia is to be reviewed and managed
- Evolves Camellia into a highly productive part of the Central River City, with a focus on coexisting water, energy and transport uses
- Links parks, bushland, playgrounds and waterways through the Greater Sydney Green Grid

In addition to reinforcing the Greater Sydney Region Plan's retain and manage strategy for the Precinct, the Central City District Plan identifies Camellia as one of 12 Next Generation Housing Precincts to be created to complement and support and the advanced technology/highly skilled jobs precinct, supported by existing water, energy and transport services.

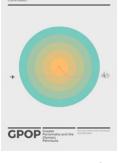


Future Transport 2056

future.

The delivery of Parramatta Light Rail 2023 and Sydney Metro West alignment connecting stops at Parramatta and Sydney Olympic Park is proposed to transect the Precinct. Other key priorities:

- Walking or cycling
- Vibrant centres supported by streets
- 30 minute access
- Fast and convenient interchanging
- Efficient and reliable freight
- A resilient transport system.



Greater Parramatta and Olympic Peninsula: Our true centre: the connected, unifying

Establishes 4 'quarters' for the creation of jobs and housing. 2 of the quarters include a focus on the Precinct, both of which are contingent on a traffic and transport solution:

- Camellia will be part of a 21st-Century living, learning and leisure district.
- Central hub of urban services, advanced technology and knowledge sectors.

The GPOP vision is proposed to be implemented by 12 directions. Some which are relevant to the Camellia-Rosehill Precinct.



West Central District Sydney Green Grid Spatial Framework and Project Opportunities

The Carlingford Line, Subiaco Creek and Camellia Waterfront and Duck River and Camellia Wetlands are identified as potential focus areas. Other key recommendations include:

- Promoting health and active living
- Creating new high-quality public realm through sustainable regeneration and the establishment of vibrant, pedestrian friendly public realm.

Better Placed

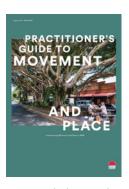
Better Placed is an integrated design policy that creates a clear approach to ensure we get the good design that will deliver the architecture, public places and environments. Better Placed is based on 7 key objectives: better fit, performance, for community, for people, working, value, look and feel.

It is accompanied by Implementing Good Design, Evaluating Good Design. These policies can be used to guide and inform planning through all future stages of design.



Connecting with Country and Draft Sustainability Framework

A draft framework for developing connections with Country to inform the planning, design, and delivery of built environment projects in NSW and advocate the ways Aboriginal culture and heritage, can be incorporated into projects and facilitate place-led design approaches.



Movement and Place and Practitioner's Guide to Movement and Place

A cohesive approach to balancing the movement of people and goods with the amenity and quality of places, contributing to the attractiveness, sustainability and success of our cities and towns.



Parramatta Community Strategic Plan

The City of Parramatta's
Community Strategic Plan (CSP)
sets out a long-term vision for the
City to be Sydney's central city,
sustainable, liveable and productive
– inspired by their communities. The
vision is underpinned by 4 principles:

- Sustainable
- Liveable
- Productive
- Leading.



Parramatta Local Strategic Planning Statement (LSPS)

The LSPS implements the region and district plan. It assumes a high growth residential scheme for the Camellia Precinct, focussed in the proposed Town Centre, while supporting the retention and intensification of employment uses. Other recommendations include:

- Exploring the retention of employment densities
- Urban services and advanced technologies
- Fostering a small increase in general industrial jobs
- Industrial uses that meets the contemporary needs
- Supporting the intensification of employment uses.



Parramatta Local Housing Strategy

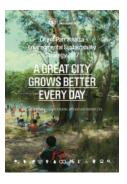
Considers the Precinct as a longterm source of housing supply the Precinct's potential to perform as a key employment hub for essential services, advanced services and knowledge sectors is reinforced by the draft LHS. The capacity to take greater account for additional employment generation to facilitate local objectives for housing delivery and economic significance and accommodate a recycling facility are also highlighted.



City of Parramatta Economic Development Plan 2017 – 2021

Actions relevant to the precinct:

- Provide capacity for additional mixed-use development
- Investigate urban renewal options
- Pursue Next Generation Living
- Ensure essential urban services, advanced technology and knowledge sectors
- Ensure the important logistic operations are supported.



City of Parramatta Environmental Sustainability Strategy 2017 A Great City Grows Better Everyday

Priorities relevant to the Precinct:

- Protecting, enhancing and increasing parks and green spaces and the health of unique natural ecosystems
- Increasing canopy cover to 40% by 2050 (based on 2016 levels)
- 60% emissions reduction by 2038 (based on 2015 levels)
- 50% of electricity demand to be met by renewable energy by 2038

- No net increase in potable water consumption by 2038 (based on 2015 levels)
- Reducing resource consumption from 8.2kg to 6.1kg per person by 2038 (based on 2015 levels)
- Increasing diversion from landfill to 85% by 2038
- Promoting 10% of trips to be made by walking and cycling by 2038
- Improving liveability by cooling and protecting people and communities from heat stress
- Minimising the impact of flooding on the community.



Existing Uses and Ownership

The Camellia-Rosehill Precinct is characterised by a strong industrial history and a large variety of industrial land uses, most notably the Viva Energy fuel storage and distribution terminal (operated by Shell as a refinery until 2012) which currently comprises approximately one third of the Precinct area, however some of the land is surplus to their operational needs.

Fuel storage and distribution terminals in Camellia-Rosehill supply approximately 50 per cent of NSW's petroleum requirements. Other industrial land uses include warehousing and freight distribution, resource recovery and manufacturing. The Precinct also contains a cluster of critical city-shaping uses including:

- Manufacturing of building materials such as plasterboard and asphalt for roads
- Production of essential food products, including yeast supply for Sydney's largest bakery
- The majority of concrete recycling in Sydney, which is reused in the building of infrastructure.

The other key land use within the Precinct is private recreation, namely Rosehill Gardens Racecourse, which provides a buffer between existing residential communities west of James Ruse Drive and industrial land uses to the east.

The Precinct is undergoing change and will accommodate critical transport infrastructure, including a stop and Stabling Yards for the Parramatta Light Rail Stage 1 project, and Sydney Metro West Clyde stabling and maintenance facility. Key projects within the Precinct are, or have been, subject to State-led planning processes. These include:

- Parramatta Light Rail Stage 1 from Westmead to Carlingford via Parramatta CBD with a stop and stabling facility located within the Precinct
- Parramatta Light Rail Stage 2 from Camellia to Sydney
 Olympic Park; two potential route alignments are currently
 being explored, both which pass through Camellia.
- Sydney Metro West is now being delivered with a stabling yard and major associated facilities within the Precinct on the former Sydney Speedway site south of Duck Creek. The maintenance facility connects to the mainline tunnels via a section of above ground track, a dive structure and tunnel portal.
- Sydney Metro have lodged a State Significant infrastructure application for the construction of a control centre, test track and maintenance facility at Clyde (https://www. planningportal.nsw.gov.au/major-projects/project/25631).

Given the land ownership structure, nature of the uses and future development aspirations, ongoing collaboration will be critical where State-led processes occur alongside local planning pathways.

Camellia-Rosehill is unique in that it is a large precinct, covering an area of 321 hectares, but is relatively unfragmented in land ownership.

Of the 321 hectares the vast majority of the precinct is within just four ownerships outlined below:

- 94 ha is owned by Viva Energy that recently converted from refinery operations to fuel import terminal, that is also a major hazard facility
 - 35 ha is surplus to Viva Energy's operational needs and is currently being subdivided for industrial lots
- 38 ha for the provision of the Sydney Metro West Clyde Stabling and Maintenance Facility
- 6 ha for the provision of the Parramatta Light Rail Stage 1 Stabling and Maintenance Facility
- 59 ha is owned by ATC for the Rosehill Gardens Racecourse

Surrounding land uses

The Precinct has an external interface to a variety of existing communities and uses including;

- Light industrial and manufacturing uses are located at Rydalmere, north of the Parramatta River and at Silverwater, east of the Duck River. The proximity of industrial areas surrounding Camellia, including Rydalmere to the north, Silverwater to the east and Auburn to the south, provides opportunities to create a productive industrial hub centrally located in Sydney with improved heavy vehicle connections and the potential resource sharing
- Residential interfaces to the Precinct occur north of the Parramatta River at Ermington, north west of the Precinct at Parramatta and west of the Precinct a mixed business and residential interface with Rosehill
- The nearby Western Sydney University, located north of the Parramatta River, offers the potential to develop physical, academic, economic and digital partnerships to foster a new high technology industry cluster and over the longer term an innovation precinct, combining employment uses with research and development opportunities.









Photos of the Existing Elements within the Precinct



Major Landowners and External Interfaces to the Precinct

CONSIDERATIONS TRANSPORT

Transport Context

Located two kilometres west of Parramatta CBD, the Camellia-Rosehill Precinct will play a crucial role in providing high-quality places for living, jobs and services for the entire Central River City.

Existing Conditions

Roads

Due to Camellia-Rosehill's proximity to regional roads and associated large employment areas, there is currently a significant volume of heavy vehicle traffic entering and leaving the Precinct at all hours of the day.

Travel patterns in the Camellia-Rosehill Precinct are currently dominated by private vehicle usage. James Ruse Drive and the M4 Western Motorway/Parramatta Road provide good access to the broader Sydney arterial and motorway road network. Road access into the Precinct is currently provided by only two connections:

- · Hassall Street to James Ruse Drive
- Unwin Street, Kay Street and Wentworth Street to Parramatta Road.

Active Transport

The Camellia-Rosehill Precinct currently has a very limited active transport network, with no dedicated cycling infrastructure and a disconnected network of roadside footpaths, which is reflected by the car dominant travel patterns in the Precinct. The limited crossing opportunities over James Ruse Drive, Parramatta River and Duck River also means that these corridors present barriers for people walking and cycling to and from the Precinct, making active transport an undesirable option for travel.

There are only two Parramatta River active transport crossings from the Precinct:

- James Ruse Drive road bridge
- Thackeray Street pipe bridge.

Public Transport

At present, M92 bus services operate on James Ruse Drive connecting the site to Parramatta CBD and Sutherland via

The Rydalmere Ferry Wharf is located on the northern shore of the Parramatta River with services that connect to Parramatta and Circular Quay.

Committed Projects

Sydney Metro West

The Metro West project will connect Sydney CBD to Westmead running below the Precinct with the closest stations being located within the Parramatta CBD and Sydney Olympic Park. A stabling and maintenance facility for Sydney Metro West will be established at the former Speedway and adjacent industrial land in the south west area of the precinct.

The new metro station at Parramatta would be near the Parramatta light rail stop, providing convenient transport interchange between the two modes. This would further enhance public transport links for the Precinct via the light rail, enabling quicker journeys to Olympic Park and the Sydney CBD as well as the broader metropolitan area covered by the heavy rail network.

Parramatta Light Rail Stage 1

The proposed Camellia light rail stop on the Parramatta Light Rail Stage 1 will provide a high quality public transport connection in the Precinct and connect with Parramatta Station transport interchange. This would greatly contribute to improved access for potential Camellia residents to jobs and services at Parramatta CBD and Westmead, while also improving public transport access for workers commuting into the Precinct from the rest of Sydney.

Active Transport

Parramatta Light Rail Stage 1 includes a new active transport link that runs from Alfred Street, Parramatta to Carlingford alongside the light rail route. This includes a new grade-separated bridge over James Ruse Drive, an upgraded Parramatta River crossing with a connection to the Parramatta Valley cycleway, and a connection to Rosehill Racecourse.

Under Investigation

Roads

Additional road capacity could potentially be created by either upgrading the current intersections access points and creating new connections with James Ruse Drive over Parramatta River to connect with Victoria Road or over Duck River to connect with Silverwater, M4 Western Motorway and Parramatta Road.

Creating new access points and bridges into the Precinct would need to take into consideration:

- Performance impacts on the existing road network, including traffic on Victoria Road, Silverwater Road and Parramatta Road
- Potential rat-running routes that may be created
- Integration with new public transport and active transport links
- Integration with the overall Master Plan for the Precinct and surrounding suburbs
- The provision of a potential additional connection to the M4
 Western Motorway could be provided to facilitate better
 access between the Precinct and the arterial, which is to be
 considered during the construction of Clyde maintenance
 facility associated with Sydney Metro West.

Parramatta Light Rail Stage 2

Parramatta Light Rail Stage 2 will extend the Light Rail network from the Parramatta Light Rail Stage 1 to Ermington and Sydney Olympic Park. There are two options currently under consideration:

- Option 1 through Camellia, following Grand Avenue before crossing Parramatta River to connect with South Street in Rydalmere
- Option 2 through Camellia, following Grand Avenue until Durham Street, then continuing along the foreshore before crossing Parramatta River to connect with South Street in Rydalmere.

Buses

The existing bus network would need to be extended to run into the Precinct to support any densification of land use, taking advantage of the connections provided by the Camellia light rail stop.

Active Transport

An essential outcome of the proposed development of the Camellia-Rosehill Precinct is to enable a substantial shift of mobility from car-based more sustainable transport modes of active and public transport. The development of Precinct should take advantage of the river to provide pleasant active transport connections that would be effective in encouraging more people to walk or cycle along the green and blue corridors surrounding the Precinct.

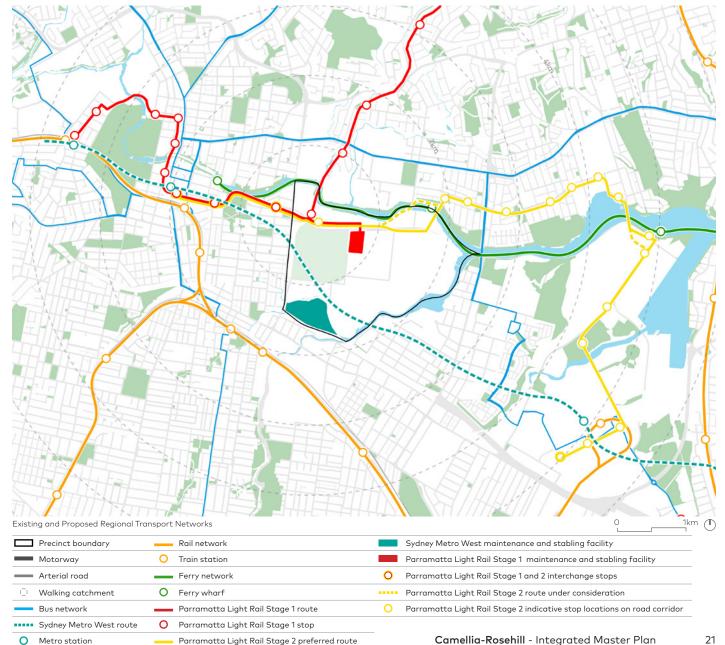
For further information please refer to the Traffic and Transport Implementation Report prepared by Arcadis, 2022.



The Parramatta Light Rail viaduct east of the bridge over James Ruse Drive



The Parramatta Light Rail bridge over James Ruse Drive looking north east



CONSIDERATIONS HAZARD

The Precinct includes one Major Hazard Facility, fuel transmission pipelines and several operations that handle hazardous chemicals. These have the potential to impact the surrounding land uses in the unlikely event that a spill of hazardous chemicals occurs. The industries that store, transport and handle large quantities of hazardous chemicals in the Precinct are:

- · Viva Energy's Clyde and Parramatta Fuel Storage Terminals.
- Ampol's fuel pipeline that runs under Grand Avenue and then north adjacent to the light rail alignment.
- Secondary main gas pipelines, which although not generally posing constraints run in the same easement as Ampol's pipeline and if they leak, they may lead to a larger, escalated fire.

The design of the Precinct has accounted for:

- Separation of population from the Ampol pipeline and Viva Energy's fuel terminals
- Population limits specified, especially in the 'consequence affected zone' see diagram below

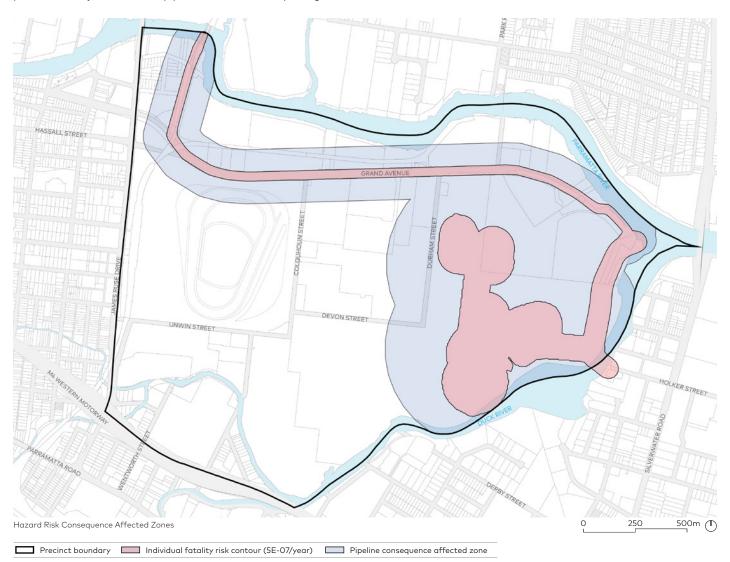
The hazard-risk issues considered when developing the population constraints, setbacks and buffers are different from those considered by the pipeline operators when determining the risk to their pipeline under AS 2885 or whether construction activity is permissible adjacent to their pipeline via 'dial before you dig'.

Considerations

Although the Master Plan complies with all qualitative and quantitative risk criteria defined in Hazardous Industry Planning Advisory Paper 10 - Land use planning and safety (HIPAP 10), the following planning considerations are recommended:

- Developments proposed with 'sensitive' uses, such as childcare centres, hospitals and aged care facilities in the consequence affected zone need to be referred to DPE (hazards) for comment to ensure that they comply with the risk criteria in HIPAP 10.
- The consent authority must consult DPE (hazards) if a
 development is proposed with a population greater than that
 allowable for any location, particularly those defined as Town
 Centre (medium) in the Master Plan prior to submission of
 a Preliminary Hazard Analysis. A review of land use safety
 considerations and compliance with HIPAP 10 will be required.
- All development applications must refer to the pipeline operator for comment as per the State Environmental Planning Policy (Transport and Infrastructure) 2021, subdivision 2 'development adjacent to pipeline corridors'.

For further information, refer to the Qualitative Risk Assessment Report prepared by Sherpa Consulting, 2022.



CONSIDERATIONS

INTEGRATED WATER CYCLE MANAGEMENT

The precinct is located at the confluence of Duck River and Parramatta River, where the upstream Parramatta River catchment is about 170km². The Precinct is subject to flooding from the surrounding waterways including local runoff and flooding from Parramatta River, Duck River, Duck Creek and A'Becketts Creek. The Precinct drains naturally to the Parramatta River and the Duck River. The south-west corner of the Precinct is also drained by Duck Creek, a tributary of Duck River, and a small section of A'Becketts Creek which drains into Duck Creek.

Flood affectation can be categorised into three preliminary risk

- High risk predominantly restricted to Duck Creek, Duck River and Parramatta River watercourses
- Medium risk predominantly fringes the high-risk areas
- Low risk the majority of the remainder of the Precinct is located in the low risk precinct with the exception of the western portion of the Rosehill Racecourse

City of Parramatta Council's existing flood inundation and hydraulic flood hazard mapping indicates that most of the Precinct is within a low risk area, the rivers and their foreshores and at the confluence of the Parramatta and Duck Rivers is high hazard, the north west corner near James Ruse Drive including the wetland and a significant portion of the eastern end of the Precinct is within the medium risk area.

Grey Area (Drainage Problem Area)

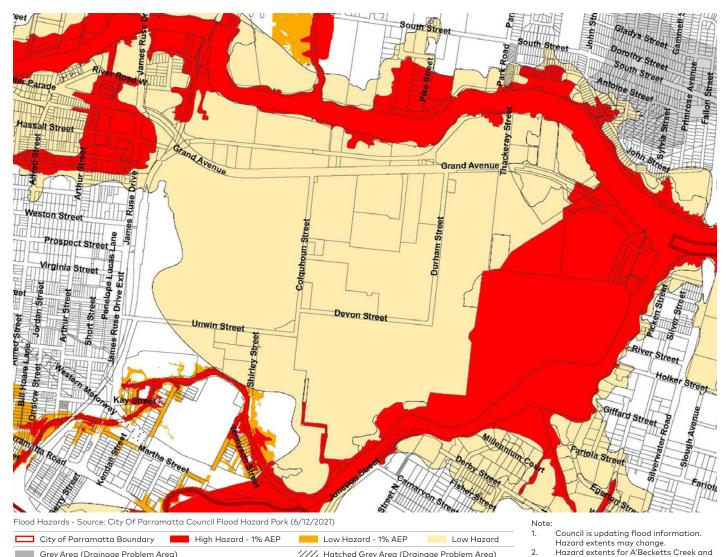
Considerations

The key considerations for the water cycle management across the precinct considered in the Master Planning include:

- Flood risk
- Capacity of existing stormwater drainage network
- Contaminated land this reduces the ability to manage flood and stormwater with channels and basins
- Stormwater runoff quality this impacts the objectives to improve the quality of Parramatta River

Future flood risk needs to be managed as well as water quality. Refer to section 6 of the Integrated Water Cycle Management report.

Disclaimer: Flood levels and flood extent lines are based on current information held by council. Council does not accept responsibility for the accuracy of this information. Any pipe sizes and location of pits and pipe lines should be confirmed by site investigation. The flood levels provided are only an approximate guide and have been derived using the current computer simulated model. The information provided on this document is presented in good faith. It is the responsibility of each individual using this information to undertake their own checks and confirm this information prior to its use. City of Parramatta Council, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement, or advice referred to above



////, Hatched Grey Area (Drainage Problem Area)

Vineyard Creek not shown.

CONSIDERATIONS

ECOLOGY, HYDROLOGY & LANDFORM

Hydrology

The Precinct contains four (4) mapped watercourses and their associated riparian buffers including the 4th order Parramatta River in the north, 3rd order Duck River to the east and south east, 2nd order Duck Creek to the south as well the 1st order A'Becketts creek in the south western corner. A 40m foreshore area with the following riparian vegetated buffers are to be protected or reestablished: Parramatta River: 40m, Duck River: 30m, Duck Creek: 20m, and A'Becketts Creek: 10m.

Ecology

The Precinct is currently dominated by large scale industrial operations, with ecological features being limited to a wetland area in the east, remnant and mangrove vegetation around the periphery both of which are heritage listed and protected areas. The native ecological communities identified in these areas, despite being historically disturbed by historic land use, are protected under the *Environmental Protection* and *Biodiversity Conservation Act 1999* (EPBC Act [Commonwealth]), the *Biodiversity Conservation Act 2016* (BC Act [State]) and also the *Fisheries Management Act 1994* (FM Act [State]) including:

- Estuarine Swamp Oak Forest (EPBC Act Endangered; BC Act Endangered)
- Estuarine Mangrove Forest (FM Act Protected)
- Estuarine Reedland (BC Act Endangered)
- Estuarine Saltmarsh (EPBC Act Vulnerable; BC Act Endangered; FM Act Protected).

A variety of threatened species have also been historically recorded within these areas, which are also protected under the *EPBC Act* and the *BC Act 2016*. Such species include:

- Downy Wattle (Acacia pubescens), most recently recorded in 2008 (EPBC Act – Vulnerable; BC Act – Vulnerable)
- Eastern Osprey (Pandion cristatus), most recently recorded in 2008 (BC Act – Vulnerable)
- Green and Golden Bell Frog (Litoria aurea), most recently recorded in 2005 (EPBC Act – Vulnerable; BC Act – Endangered)
- Grey-headed Flying-fox (Pteropus poliocephalus), most recently recorded in 2013 (EPBC Act – Vulnerable; BC Act – Vulnerable)
- Masked Owl (Tyto novaehollandiae), most recently recorded in 2012 (BC Act – Vulnerable)
- Narrow-leaf Wilsonia (Wilsonia backhousei), most recently recorded in 2008 (BC Act – Vulnerable)
- Migratory shorebird habitat for Bar-tailed Godwit (Limosa lapponica) and Curlew Sandpiper [(Calidris ferruginea); EPBC Act – Migratory]

Vegetation within the remainder of the Precinct is largely comprised of scattered urban/native exotic vegetation, street trees and within the boundaries of the Rosehill Gardens Racecourse.

Topography, Geology and Soil

The Precinct has a modest slope with an elevation ranging from 2m above sea level (ASL) in the east to approximately 17m ASL in the west. The majority of the Precinct is on Disturbed Terrain, however a small section in the east of the Precinct is on the Ettalong Soil landscape, with other small sections in the west of the Precinct on the Glenorie and Birrong Soil Landscapes.

Considerations

Opportunities to improve biodiversity considered in developing the Master Plan include:

- Ecological regeneration as a key driver for the future identity and purpose of the Precinct
- Ecological restoration as opportunity for connection with Country
- Opportunities for future development to improve ecological outcomes as part of site development
- Environmental management partnerships with industry
- Large scale water management and quality improvements across the peninsula
- The need for better environmental quality to support amenity, identity and change in the Precinct
- The need for green cover across the peninsula given deficits and the significant contribution this would make to the region.

The continued protection of the wetland and riparian corridor and habitat features of the Precinct is a key ecological consideration for the Master Plan.

A number of opportunities to improve biodiversity further across the Precinct have been identified:

- The implementation of the riparian buffers along all foreshore areas
- Strategically locating river crossings as best as possible in already cleared areas or designed to minimise impacts on the foreshore environment
- If the wetland becomes publicly accessible, a specific management plan should be prepared to ensure the ongoing survival and enhancement of the wetland area. This should be in line with the objectives of the current Plan of Management for the wetland (Biosphere 2014) and enhanced where needed
- Mangrove revegetation should happen in areas along the foreshore that are not being utilised for river crossings. Areas that have been historically cleared or have been identified in the remediation plan should be prioritised
- Locally indigenous street tree plantings should be utilised for the greening strategy along all roads in the Precinct to improve canopy cover connectivity
- Future development should aim to avoid the removal of vegetation and should incorporate locally indigenous species into all landscape plans to improve the general ecology across the Precinct
- Future development in the vicinity of wetlands and riparian corridors should incorporate a buffer to be managed under a vegetation management plan to minimise edge effects and to protect and enhances the sensitive vegetation nearby
- Areas of greenspace should be created within the Precinct utilising locally indigenous flora species to provide increase foraging resources for native species.

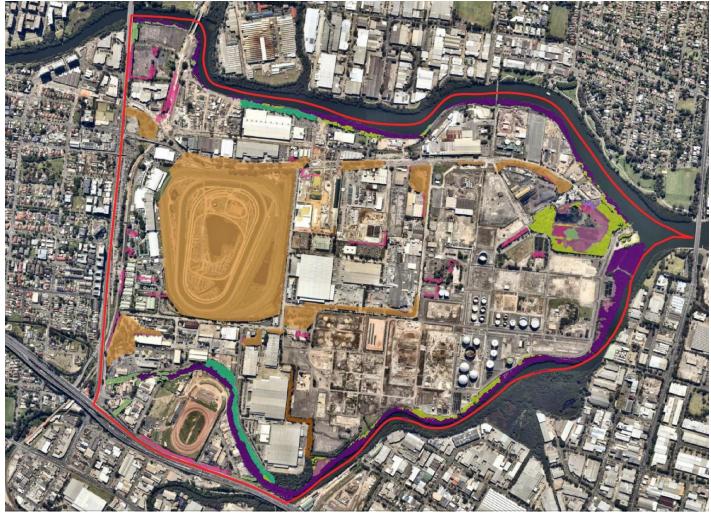
For further detail refer to the Environmental Implementation Report prepared by Narla Environmental, 2022.





Mixture of planted native street trees

Mangroves, wetlands & trees along the foreshore



Existing Ecological Features of the Precinct

Precinct boundary	S_FoW08: Estuarine Swamp Oak Forest (OEH 2016)	Urban_E/N: Urban Exotic/Native (OEH 2016)		
S_FoW08: Estuarine Swamp Oak Forest	S_FoW08: Estuarine Reedland (OEH 2016)	Weed_Ex: Weeds and Exotics (OEH 2016)		
S_FoW08: Estuarine Mangrove Forest	S_FoW08: Estuarine Mangrove Forest (OEH 2016)	S_FoW08: Estuarine Swamp Oak Forest (Biosis 2018)		
Urban E/N: Urban Exotic/Native	S FoW08: Estuarine Saltmarsh (OEH 2016)			

CONSIDERATIONS

INDIGENOUS AND EUROPEAN HERITAGE

Research provides direct evidence that Aboriginal people started living adjacent to the river, on the Parramatta sand body, around 40,000 to 35,000 years ago. When they started to live on the sandy clay, the wind slowly eroded the sand (it became windblown aeolian sand). The sand was then through time redeposited over the sites and places inhabited by Aboriginal people, gradually burying the materials items they had created. The outcome of this process is the buried sites we find across Parramatta on the sand today.

This is a flood and wind-blown sand deposit that flanks both sides of the river (about 4-6m above normal water level) between Parramatta Park to about James Ruse Drive and is listed on the State heritage Register as 'ancient Aboriginal and early Colonial landscape' for its combined archaeological, historical and environmental values.

Parts of the Precinct have been historically filled with materials that have been placed over relatively permeable sand and clay fluvial sediments that may be also contaminated. Deep fills and contamination present challenges to the archaeological management of potentially archaeologically sensitive soils that may be present below modern building and infrastructure.

There are two Aboriginal archaeological sites located within the Precinct.

AHIMS 45-6-2559 is recorded in the Rosehill Gardens Racecourse carpark on the southern side of Grand Avenue North, east of the intersection of Grand Avenue North and James Ruse Drive.

The site was relocated from an older recording during work for the Parramatta Light Rail project. The original recording described silcrete, chert, mudstone/tuff and quartz stone artefacts eroding out of an apparently intact soil surface. The site was assessed to be representative of its class and it was recommended that further investigation would likely contribute to our understanding of Aboriginal landscape use along lower order tributaries in proximity to the river. The scientific value of the site was assessed to be moderate and partial salvage was recommended for the portion that would be impacted by the light rail works.

AHIMS 45-6-3627 is a Potential Archaeological Deposit (PAD) recorded within the grounds of former Parramatta Speedway, now being developed as the Clyde stabling and maintenance facility. This site is assessed to have low-moderate archaeological significance and future works may impact Aboriginal objects (ibid:106). The future archaeological management of the site is outlined in the ACHA that has been prepared for the Sydney Metro West Stage 1 (Artefact Heritage 2020).

In terms of European heritage, the Precinct contains one site that is listed on the State Heritage Register and seven other items listed in the Parramatta Local Environmental Plan 2011. There are also two items listed in the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005. The Rosehill Station footbridge is also of heritage significance and listed on s. 170 Register (Transport for NSW). Additionally, there are two key State Heritage listed items near to the study area - the Female Orphan School in Rydalmere and Elizabeth Farm in Rosehill.

Considerations

Aboriginal Archaeology

Recommendations to manage aboriginal archaeological heritage:

Future management of AHIMS #45-6-2559 and AHIMS #45-6-3627 should be consistent with the statutory requirements under the terms of the National Parks & Wildlife Act 1974 (amended).

- AHIMS #45-6-2559 is within the Australian Turf Club land and is under statutory management of an existing NPW Act approval issued to Transport for NSW (TfNSW) and related to the Parramatta Light Rail (PLR).
- Where future impacts to AHIMS #45-6-2559 are greater than previously identified and permissible under the existing approvals, TfNSW will require amendment to the mitigation measures in the existing PLR Aboriginal Cultural Heritage Assessment and this change will require further consultation with Aboriginal stakeholders and variation to the existing statutory approval under the NPW Act.
- AHIMS #45-6-3627 is situated within the proposed Clyde stabling and maintenance facility construction site and its future management should continue according to the archaeological strategy established for the site by the ACHA prepared for the Sydney Metro West Stage 1.

For further details, refer to the Aboriginal Cultural Heritage Assessment prepared by Dominic Steele Consulting Archaeology, 2022.

Heritage

- An opportunity to celebrate Aboriginal culture and history, as well as truth telling about the dispossession that occurred here and elsewhere.
- It is appropriate to concentrate high density development close to James Ruse Drive and the north west of the site, and this should be viewed as an opportunity to protect and rehabilitate wetlands and the river.
- Development along Grand Avenue represents the greatest opportunity for enhancing the Avenue as a centrepiece of the precinct and transport corridor. Widening of the street, while retaining its treed character and sculptures and introducing new landscape elements, would achieve this.
- Active recreation areas and the riparian corridor along the riverbank create excellent opportunities for ecological corridors as well as appreciation of industrial structures such as wharves
- The former Australian Aluminium Co site with its treed landscaping and interesting campus architecture should serve as model for industrial and urban services development. Even industrial sites should have good canopy coverage.
- Canopy coverage across the precinct must be increased and provided in corridors and within publicly accessible green space.
- A "green space" buffer zone should be established around the wetland, even though it is unlikely to be publicly accessible, with a view to enhancing ecological outcomes on the site.
- Heritage values (including natural, Aboriginal cultural, industrial, early settler-colonial, tourism and transport heritage) must be interpreted and celebrated, and heritage tourism (linked to Elizabeth Farm and the Female Orphan School) promoted.
- The Grave of Eliner Magee and child should be reinterpreted
- The urban form of the proposed grid incorporating urban services interprets the historical plans (only partially realised) for the residential development Camellia-Rosehill. New northsouth connections as part of this create greater opportunities to access heritage at the south of the site, including Duck River and the Australian Aluminium Co factory.

For further details, refer to Heritage Implementation Report by Hector Abraham Architects, 2022.







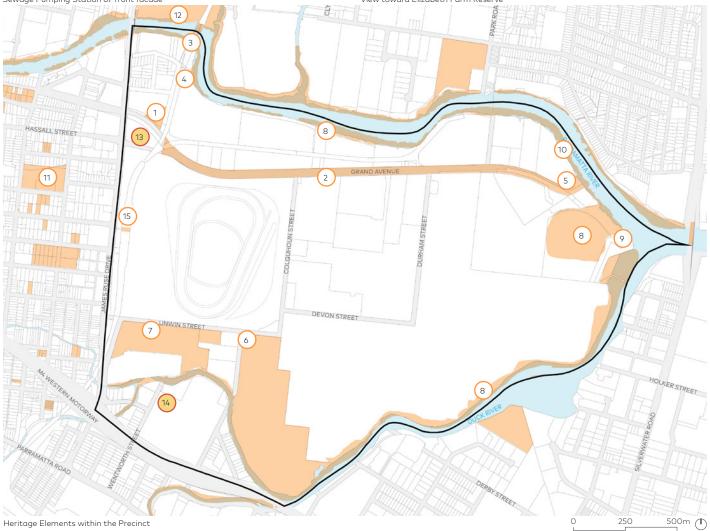
The Grave of Elinor Magee and child

Sculptures on Grand Avenue



Sewage Pumping Station 67 front facade

View toward Elizabeth Farm Reserve



	Precinct boundary		Heritage		
1	1 Sewage Pumping Station 67 (SP0067)		2 Tram alignment (Grand Avenue) 3 Clyde Carlingford Rail		Clyde Carlingford Rail Bridge abutments
4	Grave of Eliner Magee and child	5	Pumping Station (potable water valve)	6	Capral Aluminium (former Australian Aluminium Co)
7	RTA Depot (Department of Main Roads workshop and depot)	8	Wetlands	9	Shell Oil Refinery Wharf
10	Industrial Wharves	11	Elizabeth Farm and reserve	12	Female Orphan School (Western Sydney University campus)
13	AHIMS 45-6-2559	14	AHIMS 45-6-3627	15	Rosehill Station footbridge

CONSIDERATIONS

CONTAMINATION, ODOUR AND NOISE

Contamination

The Precinct's long history of industrial activities have included filling and land reclamation of low lying marsh land (often with industrial wastes), oil refining, a tannery, metal works, lumber yard, recycling, pharmaceuticals and manufacturing of asbestos products, chrome chemicals, chlorinated solvents, plasterboard, bricks, roof tiles, bitumen, arsenic based herbicides and food products. As a result of the Precinct's long and varied industrial history, previous studies have confirmed that soil and groundwater are contaminated with a range of contaminants of concern to human health and the environment.

The majority of sites in the precinct are affected by contamination, and multiple sites are subject to an instrument under the Contaminated Land Management Act, 1997 requiring management of contamination, or are identified as notified or regulated sites. The widest spread contamination across the Precinct are considered to include:

- Asbestos wastes from the James Hardie manufacturing operations, most notably in the north-west (181 James Ruse Drive and 1 Grand Avenue) and central (the former quarries backfilled with asbestos waste on the north side of Devon Street) portions of the Precinct. Asbestos materials are also found in uncontrolled fill placed across the surface of several other properties.
- Hexavalent Chromium waste originating from the former Chrome Chemicals manufacturing facility at 6-8 Grand Avenue, and potentially other properties, was reportedly used as fill material across the Precinct, particularly in low lying reclamation areas. This has resulted in widespread contamination of soil and groundwater, particularly in the northern and eastern portions of the Precinct.
- Petroleum hydrocarbon contamination has been identified at the Precinct, most notably at the Clyde Refinery in the southeastern portion of the Precinct. Petroleum hydrocarbons have also been identified at the SAMI bitumen plant site at 12 Grand Avenue, the Hymix Australia site at 14 Grand Avenue, the Downer site at 1 Unwin Street, and several other properties.
- Chlorinated hydrocarbon contamination has been identified within the Precinct, most notably within the Parramatta Light Rail Stabling and Maintenance site at 6-8 Grand Avenue, as well as on the adjoining CSR site located at 10 Grand Avenue.
- Perfluoroalkyl and polyfluoroalkyl (PFAS) substances in groundwater are known to be present on the Shell refinery site and may have migrated on to adjoining sites in groundwater.

The map on the following page identifies the risk ranking of potential land contamination across the Precinct.

To date remediation and management of contamination within the Precinct has largely been on a piecemeal basis. Redevelopment of the Precinct offers the opportunity to provide an integrated remediation solution to support the proposed land uses. Remediation strategies should however, where possible, avoid creating exposures pathways to chromium and asbestos contamination. Large scale bulk earth works should be avoided in areas where this contamination is located because of the associated environmental management risks, including contaminated dust, asbestos fibres and surplus waste requiring off site management.

Considerations

The proposed Remediation Strategy outlined in the Remediation Implementation Report includes:

- Soil/fill capping and containment, with excavation and offsite management of isolated hot spots (e.g., Underground petroleum storage systems (UPSS)).
- Excavation and capping of Parramatta River foreshore in select areas where required. The scope of the foreshore remediation activities will be dependent on the level of public access to be permitted. In some scenarios, the existing mangroves may need to be removed to allow remediation to occur. The reinstatement of the mangroves would need to be considered in these scenarios.
- Hexavalent chromium (and potentially chlorinated hydrocarbon) groundwater treatment using a Permeable Reactive Barrier (PRB) along the Parramatta River foreshore.
- Ongoing Monitored Natural Attenuation (MNA) for Precinctwide petroleum hydrocarbons with the use of remediation corridors (easements) to facilitate future groundwater remediation programs
- Basement parking is not supported under the Remediation Strategy due to the potential to generate waste, disturb contamination and require the potential ongoing requirement for the management of contaminated groundwater and/or hazardous ground gases.

Geotechnical

Geotechnical constraints associated with the broadscale filling across the Precinct have been identified. This may have implications for geotechnical issues such as allowable bearing pressures, design parameters for ground treatment areas, and allowable settlement.

Considerations

Key geotechnical considerations for future developments may include:

- Minimise excavations where possible.
- Pre-loading the site to 'build-out' settlements on fill and compressible soils
- Foreshore retaining structures could include rigid inclusions
- Slab options may include suspended/piled slabs or ground treatment through preloading.

The management of contaminated groundwater would also need to be considered as part of any below ground development proposals. In areas of widespread hexavalent chromium waste, surface barriers will be required to prevent exposure but also to reduce surface infiltration and leaching. The ability of hexavalent chromium to wick and form surface blooms on pavements and structures also needs to be managed with the use of barriers such as capillary break layers.

For further details, refer to the Remediation Implementation Report prepared by Golder WSP, 2022.

Air and Odour

An analysis of air quality and odour impacts has determined that existing air emission sources located within and surrounding the Precinct have the potential to result in land use conflicts. As the Precinct undergoes redevelopment, it will be important to determine land uses and built form controls in a manner that minimises potential additional land use conflicts and enables industries to operate without onerous compliance burdens while balancing the amenity and health protection needs of future residents, works and visitors to the Precinct.

Considerations

Potential considerations to mitigate air and odour impacts may include:

- Co-locating high impact industrial uses to concentrate odorous activities and to minimise buffer requirements
- Mitigation at the source through various treatments such as capture, ventilation, exhaust stacks, regular cleaning and routine preventive maintenance
- Mitigation at the receiver through good design, orientation and positioning of air conditioning and ventilation away form odour sources
- Implementation of buffers around the Sewage Pumping Station
- Delineating suitable buffers between existing and future residences and any major new industrial developments
- Introducing vegetation bands within the industrial area in the order of 50-100m wide consisting of dense, tall vegetation to disperse and dilute emissions

For further details, refer to the Air and Odour Implementation Report prepared by Todoroski Air Sciences, 2022.

Noise

Employment activities generate noise across the Precinct and the surrounding areas of Silverwater, Rydalmere and Parramatta which are most prevalent at night. Traffic noise generated by M4 motorway, James Ruse Drive and heavy vehicles on the local street network also reduce amenity.

Considerations

The Precinct's size provides a rare opportunity to create a built environment that reduces future land use conflicts and allows the passive management of noise impacts, reduces environmental noise effects and the need for retrofitting noise controls at sensitive receivers. As development progresses across the Precinct, noise and vibration impacts generated by existing activities as well as potential new sources will need to be considered to minimise future land use conflicts and costly noise mitigation.

Noise levels from industrial sources are predicted to result in low to moderate noise impacts throughout the Precinct during daytime hours, while industrial noise may affect new and existing residential areas along the banks of the Parramatta River at both Camellia and Rydalmere during the night.

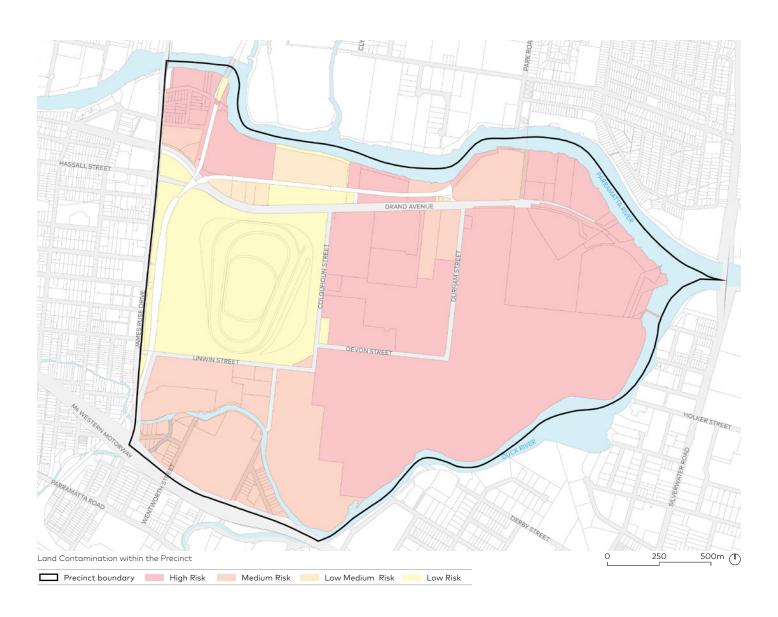
Noise from the proposed Parramatta Light Rail maintenance facility may impact residential properties at the eastern end of the proposed residential area, particularly during night-time hours. Traffic on James Ruse Drive is predicted to impact new residential areas, particularly properties directly facing the corridor. Traffic on Grand Avenue is likely to generate low noise impacts during night time hours. Noise at both proposed school locations is likely to be impacted by road traffic noise. Residential buildings within the town centre and entertainment precincts may be impacted by noise from within the precincts themselves. Overall, the risk of long-term ground vibration impacts is considered low.

Impacts are able to be managed through the consideration of noise and vibration at all stages of the planning process. Substantial benefits to amenity and cost reductions can be realised where good acoustic design is incorporated during early stages of planning.

For further details, refer to the Noise and Vibration Implementation Report prepared by WSP 2022.

Land Contamination Risk Rank	Definition of Risk Rank	Likelihood that remediation is needed to Achieve Identified Land Use					
	Definition of RISK Rank	School / Kindergarten	High Density Residential	Recreational	Commercial / Industrial		
Low	Soil Contamination is Likely & Groundwater Contamination is Possible. The information suggests that there may have been some activities on the site that have resulted in localised contamination of the land but the site is not likely to be a source site for groundwater impact.	Possible	Unlikely	Unlikely	Unlikely		
Medium	Soil & Groundwater Contamination is Likely. The information suggests that the site activities may have contaminated the land and/or groundwater. Some remediation of soil will potentially be required and there will be a potential need for groundwater remediation.	Possible with some restrictions	Possible	Possible	Unlikely		
High	Soil &/or Groundwater Pollution. The information suggests that the site activities are likely to have caused pollution that would likely require soil remediation and/or active groundwater remediation.	Likely	Likely	Likely	Possible		

Land Contamination Risk Rank Table



CONSIDERATIONS SOCIAL INFRASTRUCTURE

Public Open Space and Recreational Facilities

The Precinct's historic industrial use and lack of residential population has presented limited demand or need to provide open space of any scale or function.

The 56 hectare Rosehill Gardens Racecourse is private recreation open space and represents 17% of the Precinct's total site area. In addition, there is 9.9 hectares within the Precinct that is currently wetland area, however this land is not zoned for open space or publicly accessible purposes and is owned by Viva Energy.

The closest local open spaces are north of the Parramatta River, and within the Elizabeth Farm House complex, while Robin Thomas Reserve at Harris Park comprising sporting facilities and a children's playground would be the closest district open space. Regional open space is located at Sydney Olympic Park (4 kilometres) and Parramatta Park (3 kilometres). There are 25 sports grounds that are within 5 kilometres of the Precinct.

Of that, four are located within 1 kilometre and another eight are located within 2 kilometres of the Precinct. There are a total of 18 play spaces within 5 kilometres of the Precinct, of which four are located within 1 kilometre of the Precinct.

The Precinct is within 5 kilometres of five aquatic facilities including the new Aquatic Leisure Centre under construction at Parramatta Park. There is only one indoor recreation centre in the

LGA which is located within 2 kilometres of the Precinct. There is one community garden that is located within 1 kilometre of the Precinct.

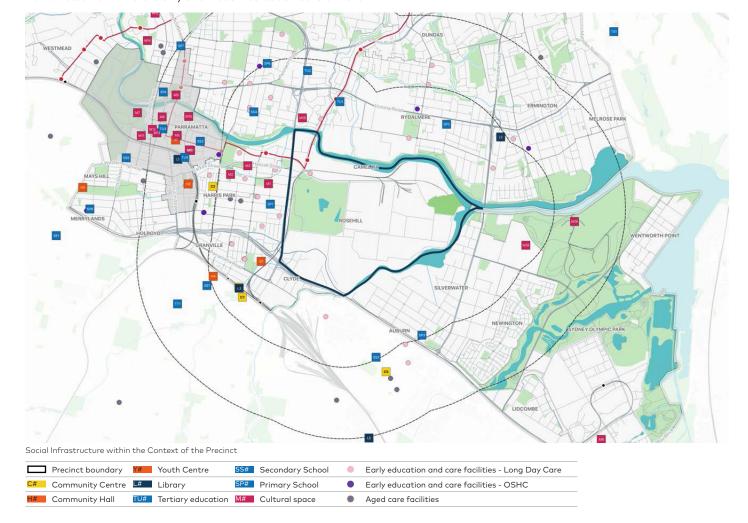
Considerations

The Parramatta River Foreshore and Duck River Open Space Corridor are two of four Green Grid priorities identified in the Central City District Plan. Funded by DPE, the City of Parramatta Council is developing a spatial framework for Parramatta River Foreshores. This includes planning for continuous access along the foreshore extending from Sydney Olympic Park to Parramatta CBD and Parramatta Park.

The Precinct's existing tree canopy cover is approximately 10% (based on 2016 data) including streets, wetlands, riverside planting, and planted buffers to the Racecourse.

There are no existing community centres within the Precinct or within easily accessible locations. The Newington Library Service to the east and Ermington Library to the north are within 1km of the Precinct. New community facilities will be required to support any new resident and worker populations within the Precinct.

New social facilities will be required to support the incoming population informed by Council benchmarks and other policies. For further details, refer to the Social Infrastructure Implementation Report by Cred Consulting, 2022.



CONSIDERATIONS COMBINED CONSTRAINTS

From the analysis the following constraints have been considered in the development of the Master Plan for the Precinct. They are summarised below.

Land Use and Infrastructure

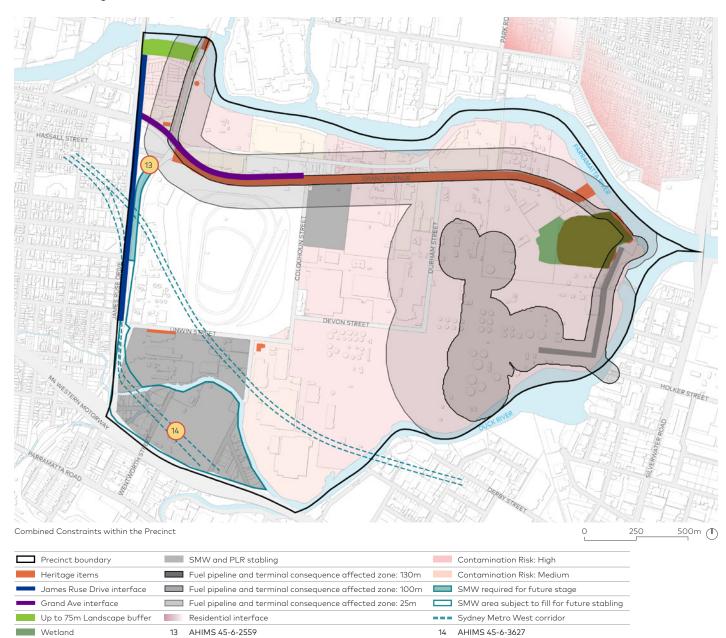
- Presence of contaminants such as asbestos, hexavalent chromium and other hazardous substances
- · Cost of remediation and feasibility of future development
- Noise, vibration, odour and air quality issues associated with existing industrial and infrastructure land uses
- High pressure gas main, critical pipelines and Viva Energy's fuel terminal are, and will continue to be, located within the
- Extent of flooding within the Precinct and existing drainage issues
- Retention of state heritage listed Sewage Pumping Station SPS67 as an operational asset
- View corridors associated with Elizabeth Farm
- Integration of the Parramatta Light Rail and Sydney Metro West Stabling and Maintenance Facilities.

Access

- Limited access to the Precinct, with only two roads (Grand Avenue and Wentworth Street) and limited public streets
- Existing road network and intersections such as James Ruse Drive already at capacity
- No street connections to the north (Rydalmere) or east (Silverwater)
- Large volume of heavy vehicle movements
- Eastern and southern part of the Precinct is not serviced by public transport
- Poor pedestrian and cycling infrastructure and connections

Open Space and Ecology

- · Very limited public open space within the Precinct
- Limited access to the Parramatta River and Duck River
- · Ecology constraints along the foreshore
- Large areas of private open space (i.e. Rosehill Racecourse) that are presently only utilised during horse racing and training or conventions and exhibitions



CONSIDERATIONS OPPORTUNITIES

In addition, drawing from the analysis the following opportunities have been considered in the development of the Master Plan for the Precinct. They are summarised briefly below.

Land use and infrastructure

- Potential for a mixed use area in the north-west quadrant of the Precinct close to public transport, the Parramatta River and access to James Ruse Drive
- Diversification and intensification of employment generating uses including urban services and entertainment.

Access

- Significant revitalisation potential associated with a new public transport node within the proposed mixed use Town Centre with potential future extension to the east
- Proximity to the regional road network via James Ruse Drive, M4 Western Motorway, Silverwater Road and Victoria Road
- Opportunity for a new direct connection to the M4 Western Motorway as an alternative heavy vehicle route
- Potential new vehicular connections across the rivers to Rydalmere and Silverwater

• Strategic location for freight distribution in Central Sydney.

Open space and social infrastructure

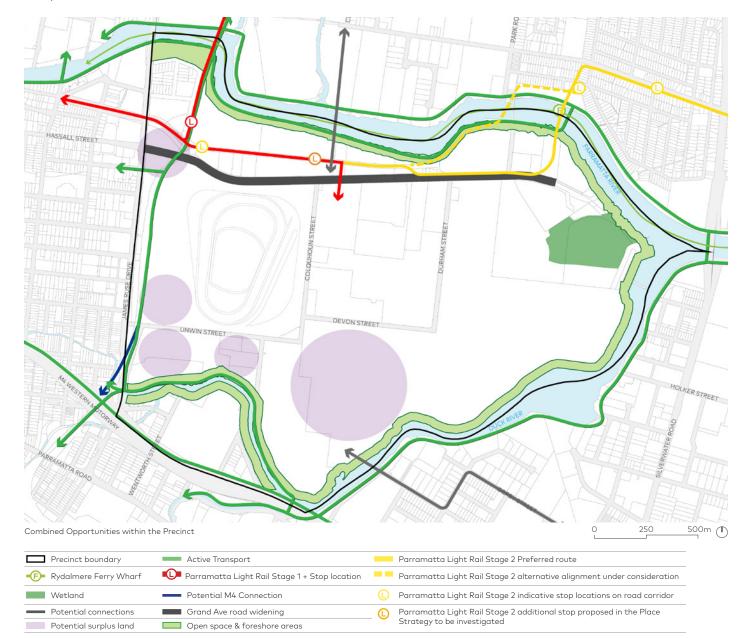
- Potential public foreshore pedestrian and cycle access along Parramatta River and Duck River
- Potential for connections to the existing cycleway network including Parramatta Valley Cycleway
- The provision of additional open spaces to meet the needs of future workers and residents in the Precinct
- The potential to utilise surplus lands within the Metro Stabling Yards and Rosehill Gardens for recreational spaces.

Heritage

The urban form of the proposed grid incorporating urban services interprets the historical plans (only partially realised) for the residential development Camellia-Rosehill.

Connection to Country

An opportunity to celebrate Aboriginal culture and history, as well as truth telling about the dispossession that occurred here and elsewhere.







DESIGN PRINCIPLES PRINCIPLES

Guiding principles

The following are urban design principles specific to Camellia-Rosehill that reflect an understanding of the local character and leverage the Precinct's unique opportunities.

Connecting with Country

Commitments and Principles for Action

The Connecting with Country Implementation Report identifies a range of provisional opportunities for Connecting with Country at Camellia-Rosehill. These opportunities broadly align with the Connecting with Country framework's Commitments and Principles for Action:

- We will respect the rights of Aboriginal peoples to Indigenous cultural intellectual property, and we will support the right of Country to be cared for
- We will prioritise Aboriginal peoples relationship to Country, and their cultural protocols, through education and enterprise by and for Aboriginal people
- We will prioritise financial and economic benefits to the Country where we are working, and by extension to the Traditional Custodians of that Country
- We will share tangible and intangible benefits with the Country where we are working, and by extension the Traditional Custodians of that Country, including current and future generations
- We will respect the diversity of Aboriginal cultures, but we will prioritise the local, place-specific cultural identity of the Country we are working on
- We will prioritise recognition and responsibility of Aboriginal people, supporting capacity building across Aboriginal and non-Aboriginal communities, and across government project teams
- We will support Aboriginal people to continue their practices of managing land, water, and air through their ongoing reciprocal relationships with Country. We will create opportunities for traditional first cultures to flourish

Landscape and Water

- Regenerate Camellia's natural assets, including the Parramatta River and Duck River, to create a clean and healthy environment.
- Provide appropriate open space and community infrastructure for the Precinct with consideration to heritage and Connecting with Country.
- Implement best practice social and environmental sustainability and deliver a comfortable, pedestrian friendly, public domain and street network.
- To protect and enhance existing riparian zones and wetland ecological communities and opportunities to increase vegetation cover and biodiversity with the use of native/endemic species and a measurable target for both public spaces and private developments.
- Retain existing mature trees where possible and that new trees will be planted across the Precinct where they will provide greatest ecological value, pedestrian amenity and reduction in urban heat island effect.
- Provide a consistent public street edge to the foreshore land to optimise public access and legibility of public spaces from private development.

Connectivity/Accessibility

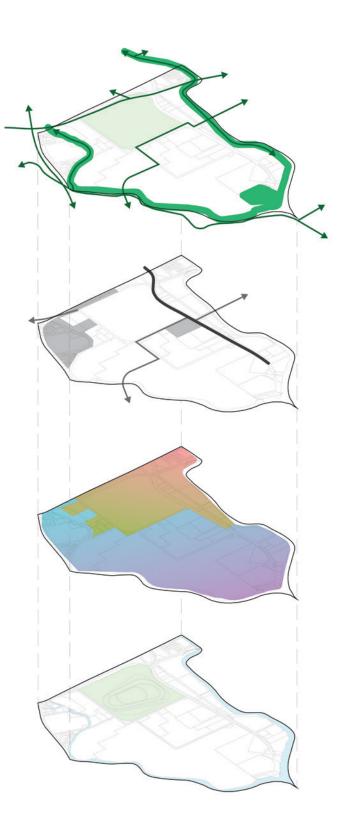
- Deliver a multi-modal transport network that reduces the reliance on the private motor vehicle and improves the connectivity of people, places and businesses.
- Establish a key east-west and north-south green link and provide active transport links with footpaths along both sides of the streets.
- Deliver the Green Grid projects within the Camellia Precinct including the Duck River Priority Project and Parramatta River Foreshore Priority Project.
- Blur the boundaries between the Camellia-Rosehill
 Precinct and existing communities and places of
 employment to help create strong, direct and clear
 connections across Parramatta River, Duck River and
 James Ruse Drive.
- Increased permeability, legibility and walkability will create a connected and accessible Precinct, with a fine grain network of streets and shared spaces for movement that prioritise people and pedestrians.
- Future active transport, bus, light rail and metro infrastructure projects will prioritise pedestrian cycling and public transport movements over the private motor vehicle.
- Separate regional freight movements from Town Centre uses and users where possible.

Identity

- Prioritise design quality as a tool to create a built environment that is unique to Camellia-Rosehill and its setting on a peninsula surrounded by water.
- Foster a dynamic, integrated community by creating places for people to work, learn, live and play.
- The identity of the Precinct will be captured through a combination of art, culture, programming and positioning
- The Master Plan will celebrate and interpret Indigenous heritage, European heritage and the local cultural and immigration histories being created now and in the future.
- The Precinct will deliver a network of discovery trails linking the foreshore and sub-precincts (green grid, blue grid and ochre grid) in attractive and accessible public spaces.
- Establish a unique architectural and public domain language drawn from Camellia-Rosehill's geographic, industrial, colonial and Indigenous past.

Environmental

- Support innovation and sustainability through the growth of new industries including clean technologies, ecoindustries, advanced manufacturing and logistics.
- Deliver a net zero emissions precinct through building efficiency and precinct scale renewable energy networks.
- Precinct-scale solutions for water and energy will include efficiencies from local reticulation networks and local energy grid solutions.
- Provide environmentally sensitive interfaces to creeks and rivers, including riparian buffers to enhance water quality and protect flora and fauna along the water bodies.
- Provide recreational spaces associated with the foreshore, river and wetlands.
- Protect and enhance wetlands and environmentally sensitive areas.
- Incorporation of Water Sensitive Urban Design (WSUD) and the proposals within the Integrated Water Cycle Management report.
- Partnerships will develop innovative solutions to environmental issues such as waste, reuse and recycling.
- Leverage the existing recycled water system to maintain the new landscapes to create a cool, green Precinct.
- Integrate landscape treatments with remediation strategies such as soil depth requirements and options for new trees in open spaces.







MASTER PLAN MASTER PLAN

The Master Plan is an indication of the proposed uses, public domain and transport networks as a translation of the principles and objectives within the Place Strategy and the supporting technical studies.

Key features of the Master Plan include:

- Provision for approximately 10,000 dwellings within a mixed-use Town Centre underpinned by a multimodal public transport network including buses and light rail
- Provision for approximately 15,400 jobs across a diverse range of industry sectors
- Identification of potential sites for a new primary school and potentially an additional combined K-12 primary and secondary high school within the Town Centre
- The designation and delivery of a network of district open space facilities
- Introduction of a new entertainment precinct and an urban services area
- Initiatives to Care for Country and continued protection of heritage listed sites
- Retention of the existing state heritage Sewage Pumping Station 067 within the Town Centre
- Measures to mitigate land use conflicts and risks including buffers and setbacks from existing fuel pipelines and between the existing sewage pumping station and future residential uses
- Providing public access to the Parramatta River, Duck River and Duck Creek foreshores and potentially the wetland
- New transport infrastructure including a local street network, potential bus services, additional connections into and out of the Precinct, and opportunities to integrate Parramatta Light Rail Stage 2 alignments are under investigation
- · An extensive active transport network
- · A comprehensive remediation strategy
- A sustainability strategy and integrated water cycle management strategy.

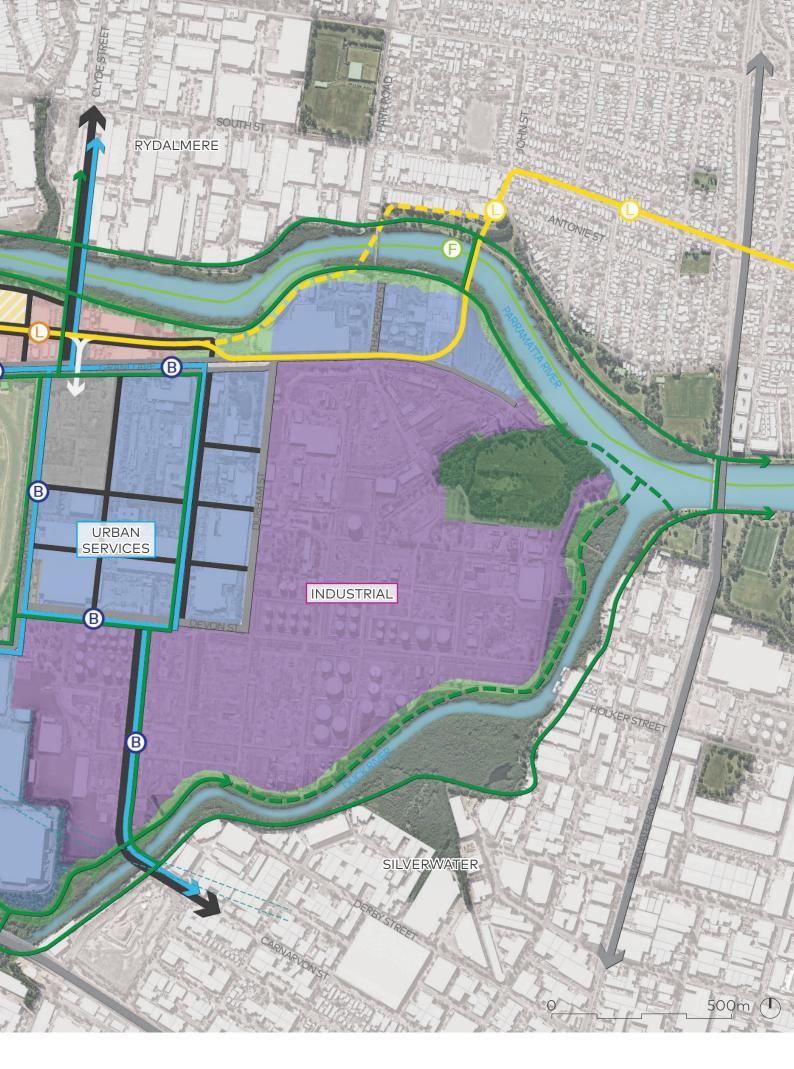


road corridor investigated

Proposed open space - Subject to further review of Sydney Metro's operational requirements



Western





Redevelopment of the Precinct will be focused around a new Town Centre located along the Parramatta River with access to future public transport nodes, Grand Avenue and James Ruse Drive. The Town Centre will deliver new homes, jobs, shops, cafés, restaurants, entertainment and local services and be an attractive place for people to live, work and visit. Density will be focused around future public transport stops and the amenity of the Parramatta River and proposed open spaces, whilst considering the impacts of the fuel, gas and sewage infrastructure within the Town Centre. The new community of Camellia, and surrounding areas, will enjoy enhanced public access to Parramatta River through continuous waterfront parklands and a riverfront promenade connecting Camellia to Parramatta CBD and Sydney Olympic Park.

Significant areas of employment generating land uses are to be retained across the Precinct to further develop Camellia-Rosehill as an innovation and emerging technologies Precinct and to build on Camellia's strategic location for freight distribution. Heavy industry is to be retained in the eastern part of the Precinct, with the remainder to be transformed into an urban services employment zone where job density is expected to increase.

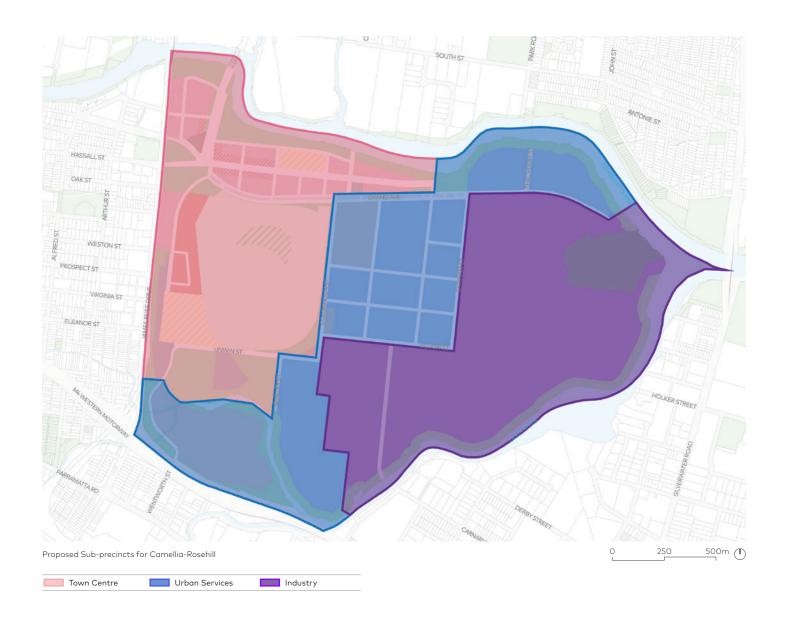
The Town Centre and new public open spaces will also serve new businesses attracted to the Precinct, particularly within the urban services lands. These businesses, which will provide a buffer between residential and industrial uses, could act as a hub for research, innovation and emerging technologies to support other industries in the Precinct.

Entertainment uses within Rosehill Gardens will be accessible from James Ruse Drive and the Town Centre and provide for recreational opportunities and a night-time economy for Camellia and the Central River City.

The Parramatta River waterfront will be gradually transformed to contribute to the open space network both within the Precinct and connecting to the broader Central River City. A consistent street edge to the foreshore land will provide public access and legibility of public spaces and delineate these areas from private developments. Detailed planning and design of the riparian corridor to be undertaken and addressed as part of future detailed design stages.

The type of development envisaged for each of the Sub-precincts is outlined in detail in the Sub-precincts chapter of this report. In summary the Sub-precincts are;

- Town Centre residential and mixed use development will be concentrated in the north-western quadrant of the Precinct. The mixed use development will also act as a catalyst for the redevelopment of Camellia-Rosehill by providing appropriate transit-oriented development with sufficient urban amenity and vibrant activities around future light rail stops. The Town Centre will also include enhanced entertainment opportunities at Rosehill Gardens Racecourse, schools and regionally significant open spaces. There may also be opportunities for potential urban services uses to form part of the fabric of the town centre such as artisan industries (small scale niche manufacturing), event production, technical services and creative industries, low-intensity food and beverage manufacturing and printing.
- Urban Services located adjacent to the Town Centre to provide a buffer between residential and industrial uses.
 Existing heavy industry within the Sub-precinct are expected to transition to higher order employment uses over time
- Industry The eastern and southern parts of the study area will be retained as a heavy industrial zone and will enable important city-building industries to continue to operate.

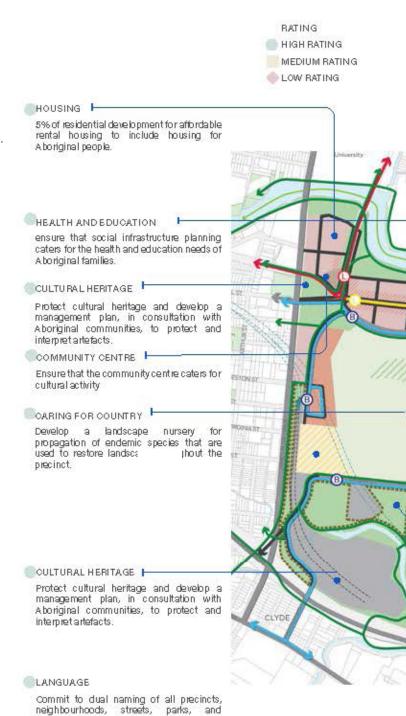


MASTER PLAN CONNECTING TO COUNTRY

Having regard to the Connecting with Country expert report, this Master Plan has adopted key recommendations that can be implemented or progressed through the current planning processes. These include:

- Use Dharug language in naming of entries, precincts, streets, public spaces, buildings, wayfinding and interpretive signage and art
- Integrate public art commissioned through local Aboriginal arts practitioners - into public spaces, entries, parks, town centre, Parramatta Light Rail and Rosehill Gardens Racecourse.
- Design way finding throughout the precinct that incorporates
 Dharug language, including along active transport networks
 with rest areas that interpret the cultural landscape, at
 Parramatta Light Rail stops, and Rosehill Gardens Racecourse.
- Ensure access to river frontages, wetlands and other remnant ecologies to promote Caring for Country.
- Ensure the precinct's social infrastructure includes opportunities for supporting culture (e.g. meeting and performance spaces, health clinics, cultural centres, childcare facilities for Aboriginal families).
- Consider the importance of the water cycle, access to the river, and flood mitigation strategies that prevent contaminated water from entering the river.
- Acknowledge the importance of the Country to Dharug people and its importance as a place of abundant food for Barramattagal.
- Acknowledge the location where salt water and fresh water come together, with fish to the east along the River and towards the coast and meat to the west in the Cumberland Plain.
- Tell contemporary stories of Dharug people who have lived and worked in the area.
- Consider flood mitigation strategies that prevent contaminated water from entering the river.
- · Restore the river shoreline and natural ecology.
- Ensure easy access to river frontages and wetlands.
- Engage with Elders to tell stories of Country.
- Tell the stories of the area as a culturally important meeting and marketplace.
- Provide access to Country for young people to understand history and culture.
- Restore habitat and song lines of knowledge.
- Acknowledge Rivers as important places for meetings and ceremonies, trade and barter.
- Include an understanding of seasons in landscape treatments.
- Prioritise environmental restoration and Caring for Country Flood management through natural processes

For more information refer to Connecting with Country Implementation Report.



Connecting with Country Master Plan Evaluation

buildings. Various locations.



MASTER PLAN INDICATIVE CONCEPT PLAN

The Indicative Concept Plan represents the potential landscape, public domain, street network and uses proposed under the Master Plan. The Plan provides a framework to facilitate the redevelopment of Camellia-Rosehill to become a productive, connected, sustainable and liveable place. The Plan also considers the desired future character and continuity between the three Subprecincts that comprise the broader Camellia-Rosehill Precinct; Town Centre Sub-precinct; Urban Services Sub-precinct; and Industry Sub-precinct.

The Concept Plan identifies opportunities for new residential areas and continued employment growth in the Precinct have been identified through the provision of a mixed-use Town Centre and more intensive and diverse employment opportunities within the Urban Services areas. Redevelopment will be focused around a new Town Centre located around multi-modal transport connections and will be an attractive place for people to live, work, study and visit.

The new community, and surrounding areas, will enjoy enhanced public access to the Parramatta River through continuous waterfront parklands connecting the Precinct to Parramatta CBD and Sydney Olympic Park. This includes a major public park adjoining the River and Town Centre to the east and north of the PLR stop.

Another significant open space at the intersection of Grand Avenue and James Ruse Drive serves as a green gateway to the Precinct and additional passive open spaces to meet the existing and future needs of residents, workers and visitors to the Precinct and the surrounding communities.

A new primary and K-12 school are planned to support the new residential population and collocated with open space on the Parramatta River and potential open space on the surplus lands within the Sydney Metro West transport and utility site.

A transition zone between the mixed-use Town Centre and more intensive industrial uses is comprised of urban services, light industry and manufacturing sectors.

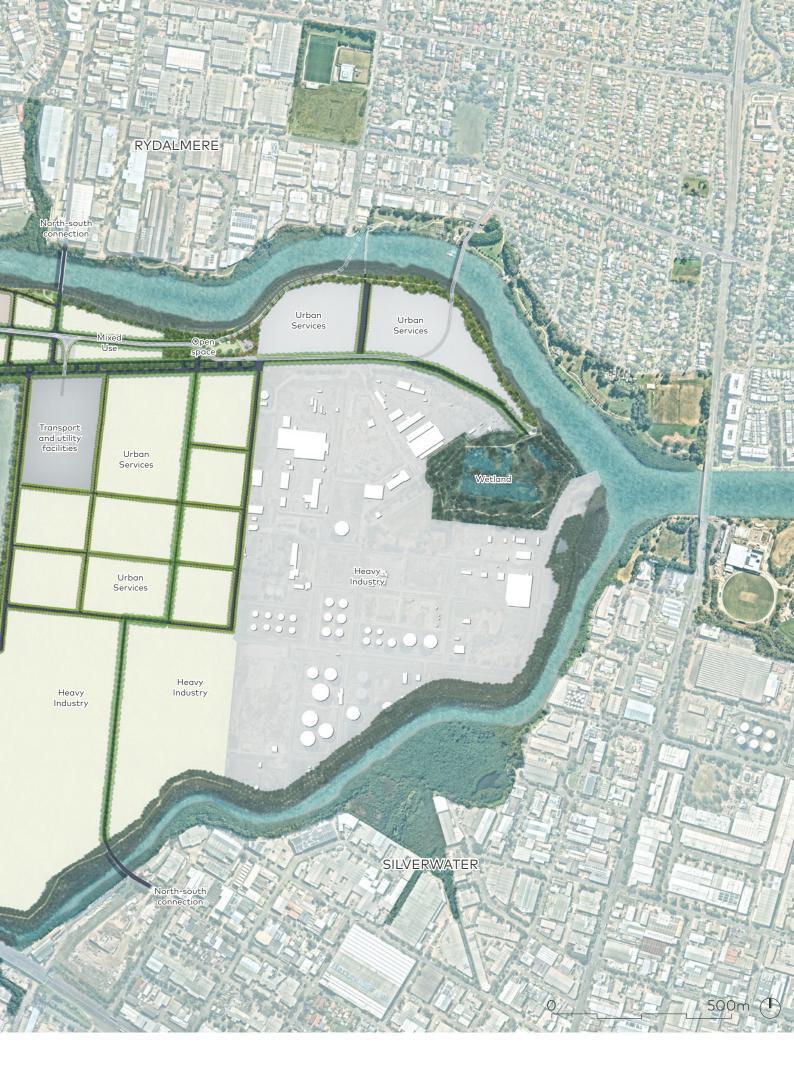
Urban services businesses will be attracted to Camellia-Rosehill by new transport infrastructure, open spaces, the Town Centre, enhanced pedestrian and cyclist environments and access to the Parramatta River.

The eastern portion of the peninsula is focussed on maintaining the employment focus of the Camellia-Rosehill Precinct, while ensuring a greater diversity of uses and users within it. The industrial uses will achieve a greater density and diversity of jobs through new and existing business including high tech/eco-industries such as prefabrication, 3D prototyping, robotics, recycling and industrial design businesses, city-building services, warehousing, logistics, distribution centres, energy generation and distribution.

A detailed built form outcome is subject to detailed Master Planning and flood study as well as the outcomes of the Integrated Transport Study.



Indicative Concept Plan for Camellia-Rosehill





Open Spaces

A variety of open spaces and recreational opportunities are provided within the Master Plan to meet the recreational demand of the future population.

The open space provision reflects the employment and residential uses. Four district level parks are proposed, two on the foreshore in the north-western portion of the site and the other two south of the racecourse, with the latter including sporting fields.

Additional local open space is located within the Town Centre adjacent to the Parramatta Light Rail stop, and on the foreshore in the central portion of the site.

The Master Plan identifies multiple active transport connections. Foreshore links are proposed along the Parramatta River, Duck River and Duck Creek, providing connections to surrounding precincts and addressing missing links in the wider regional pedestrian and cycle network.

All streets are to be considered as green streets and include specific green links with increased tree canopy and vegetation, including Grand Avenue and the primary north-south active transport connection.

The Master Plan ensures that all residents are within 200m of some form of open space and that most meets the target for being within 800m of a District Park, with a small portion within 1200m. Outdoor courts are proposed in the district parks and indoor courts can be provided within the Entertainment Precinct or close to the multi-purpose community hub.

Foreshore Landscapes

The Place Strategy and Master Plan provide for a 40m foreshore area with the following riparian vegetated buffers to be protected or re-established: Parramatta River: 40m, Duck River: 30m, Duck Creek: 20m, and A'Becketts Creek: 10m. The remaining area of the foreshore is intended to be utilised for open space and recreation. Exact details will be worked through as part of the rezoning process.

The 40m continuous riparian buffer along the Parramatta River can potentially deliver a foreshore park while avoiding impacts to mangroves and mudflats. Any impacts to mangroves would need to be assessed at the development stage, with a fisheries permit acquired and restoration plan likely to be needed.

Landscape Heritage

The Precinct's redevelopment provides unique opportunities to conserve and celebrate landscape and heritage items as functional, educational and placemaking opportunities.

Wetland and mangroves

- Forming a large part of a wider system of wetlands and mangroves along the Parramatta and Duck Rivers, these ecologies create an environment of unusual peace in the midst of the industrial urban surrounds. The wetland and mangrove ecosystem will be conserved and enhanced where possible, including the creation of a buffer zone of green space around the perimeter of the wetland.
- This area provides opportunity for acknowledgement of Aboriginal cultural heritage and cultural life both pre- and post-1788. Efforts to interpret this heritage should be led by local Aboriginal people with material assistance from government and developers.

Industrial Wharves

 There are remnants of industrial wharves to the west of Thackeray Street and a heritage assessment should be undertaken to understand their significance and opportunities to be incorporated in to future foreshore public open space.

Grand Avenue

A 19th century tram route from the river, at the end of the
peninsula, originally stretching to Parramatta, Grand Avenue
was initially a route for workers and was at one point proposed
to be a key connection for residents. It offers an opportunity to
create a grand avenue befitting the name, which can act as a
main thoroughfare for workers and residents in the area.

Remediation and Greening Strategies

The proposed remediation strategy (Golder WSP 2022) will aid in the management of the impacts of contamination across the Precinct, which will benefit the Precinct's groundwater and the ecological communities that rely on them.

Given the contamination and remediation requirements within the Precinct it is highly unlikely that basement car parking will be the predominant form of public and private parking within the Precinct. Where possible, any above ground parking should be sleeved with development and not be directly exposed as it presents to the public domain.

The greening strategy as well as the finer grain street network of the Master Plan will see an increase in canopy cover across the Precinct, with a target of 35% canopy cover target for mixed use, urban services, entertainment and industrial and 45% canopy cover target for open space. This will provide valuable canopy connectivity across the Precinct and will increase the availability of foraging and nesting resources for the Precinct's native birds and mammal species.

It is acknowledged that owing to the contamination currently present across the Precinct, tree planting locations are likely to be restricted. Areas where remediation has been proposed should be prioritised and planted out with vegetation as much as possible. It is recommended that the species utilised to increase canopy cover should be locally indigenous species with the aim to recreate the plant community that likely occurred in the location prior to development.

To assist in mitigating the urban heat island effect and to improve the urban tree canopy and local habitat, it is recommended to:

- Avoid removing existing trees where possible, particularly any local native species
- Replace any removed trees at a ratio greater than 1:1 for trees not covered by a biodiversity offset
- Replace trees with local provenance native plant species from the local native vegetation communities that occur or occurred in the local area to enhance local biodiversity, rather than plant non-local native or non-native plants
- Use advanced and established local native species, to assist in mitigating the removal of trees, as the loss of existing trees and the benefits that they provide takes years for a juvenile tree to grow and replace
- Provide sufficient area/space to allow the trees to grow to maturity

Public Art

Public art is an important consideration in the creation of vibrant, welcoming and active public domain. Where possible public art should be commissioned through local Aboriginal arts practitioners and integrated with existing elements to add meaning, interest and tell the story of place, rather than as stand alone elements.













Precedent Images for the Proposed Open Space Network within Camellia-Rosehill



State heritage listed Sewage Pumping Station

/// Potential open space

/// Investigation site for educational facilities – subject to further review

Wetland-potentially publicly accessible

Proposed open space-public recreation & Riparian buffer

Rosehill Gardens Racecourse

Proposed Active Transport to be finalised

Existing and Indicative Road Network

Potential Long Term Active Transport

Proposed open space - Subject to further review of Sydney Metro's operational requirements

MASTER PLAN SOCIAL INFRASTRUCTURE

Social Infrastructure

The social infrastructure proposed has the opportunity to meet the demand for the future population of the Precinct in terms of public facilities. There is opportunity to further deliver on recreational facilities such as indoor courts, outdoor courts, fitness stations, play spaces and youth spaces.

The Master Plan proposes:

- A 2Ha primary school located in close proximity to open space, public transport and outside the consequence risk area of the gas and fuel consequence affected zones
- A potential K-12 school subject to demand threshold analysis and proximity to potential open space
- Childcare has an opportunity to be delivered as part of the mixed-use development
- 6 local parks, 4 linear parks, 3* district parks, 2 combined sports grounds, 2* double multi-purpose courts, wetland and publicly accessible foreshore areas
- · Potential for a publicly accessibly wetland
- * size and quantum subject to further review of Sydney Metro's operational requirements

- Open space and active recreation divided between three spaces along the Parramatta River, next to the primary school and opposite the Race Course has the opportunity to provide adequate play spaces and outdoor fitness stations
- A 40m continuous riparian buffer along Parramatta River can
 potentially deliver a foreshore park/ trail along the buffer that
 is in close proximity to the residences and a distance from the
 heavy industrial
- Affordable housing units to be part of the mixed use/ residential developments to deliver affordable housing in the Precinct
- A potential community hub near the Town Centre with community and subsidised floorspace, library space, youth spaces, senior spaces and cultural floorspace to meet the needs of future residents of the Precinct
- There is also an opportunity to deliver an indoor recreation centre within the entertainment area, urban services area and/ or district parks.

The design of schools will be undertaken by Schools Infrastructure NSW and further design development process will be undertaken to ensure the sites are suitable in regards to flooding, contamination, hazard consequence affected zone and transport planning.





Precedent Images for the Social Infrastructure Proposed for Camellia-Rosehill





Heritage Items

The Precinct's redevelopment provides unique opportunities to conserve and celebrate heritage items and structures as functional, educational and placemaking opportunities.

Sewage Pumping Station 67

 The Sewage Pumping Station SPS67 will be conserved and retained. The area surrounding the pumping station has historically had a designed landscape and will be appropriately landscaped to allow appreciation of the architecture from outside the Precinct.

Grave of Elinor Magee and child

 The grave site located within the Town Centre will be conserved and a comprehensive reinterpretation undertaken.
 Any development adjacent to or around the grave will require further investigations to ascertain the status of any remains or associated relics.

Australian Aluminium Co

 The existing buildings and factory facade will be retained and conserved, along with the remaining original landscaping of the Precinct, including driveway and trees. The peaceful quality of an "oasis" amidst the industrial activity of Camellia, created by landscaping around the factory buildings, could serve as inspiration for new development in Camellia.

Department of Main Roads workshop

 The former workshop and depot has the facade and structure of the main building along Unwin Street remains and the extant fabric will be retained and interpreted.

"Pumping station" at 41 Grand Avenue

 The small weatherboard building houses a water valve unit for a 900mm trunk potable water main and may have some moderate aesthetic significance and it is currently an active asset for Sydney Water. Any proposed change in use should be accompanied by a thorough heritage assessment to fully determine its significance.

Shell Oil Refinery Wharf

• A full assessment of its significance should be undertaken before any proposed change.

Grand Avenue

- A "grand avenue" for people and centrepiece of the locality, rather than a freight route.
- Conserve and add to artistic interventions.
- Conserve treed character and enhance with further plantings.

Wetlands and Mangroves

- Ecology must be conserved and enhanced, including by establishing a buffer zone of green space surrounding the wetland area.
- For people, the river can be a place of peaceful reflection as well as an active/ferry transport route.
- A key place of potential interpretation of Aboriginal cultural heritage - local Aboriginal people should lead any cultural intervention or interpretation.
- Blue and green connections between Duck and Parramatta Rivers, as well as the wetlands, should be created.

Industrial Wharves

 There are some apparent remnants of industrial wharves to the west of Thackeray Street and a full heritage assessment should be undertaken before any changes to this site.

Bridge sidings

 To be conserved and interpreted and if it becomes redundant the sidings should still be conserved. The bridge itself presents an opportunity for interpretation of the river, mangroves and wetlands communicating the ecological and cultural significance

Rosehill Station Footbridge

 This footbridge is being considered for relocation as a condition of approval for the Sydney Metro West stabling yards.

Off-site Heritage Opportunities

Elizabeth Farm

 Run by Sydney Living Museums as a museum, Elizabeth Farm is within a suburban setting and developments within the Precinct needs to consider overshadowing the Precinct and visual impact from Elizabeth Farm to the proposed built form within the Precinct.

Female Orphan School (Western Sydney University)

 The original building of the Female Orphan School's principle elevation addresses the Parramatta River, and the views from the school building and from the surrounding landscape are part of the significance of the place. Development along the river front on the opposite bank that is highly visible will therefore have some impact on the significance of the place as a whole. Setback from the river in this area and landscape designed with views from the Orphan School in mind to soften the impact of new buildings.

For further details, refer to Heritage Implementation Report by Hector Abraham Architects, 2022.

Safety in Design

Considered urban design must address community safety as part of a holistic approach. Community crime prevention incorporates social, environmental and community development strategies.

Crime Prevention Through Environmental Design (CPTED) seeks to influence the design of buildings and places by:

- Reducing opportunities for crime or antisocial behaviour by increasing the possibility of detection, challenge and capture, therefore risk of perpetrators
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits or targets
- Defining acceptable public community behaviour.

CPTED is based on four design concepts. They are:

- Surveillance
- Access control
- Territorial reinforcement
- Space management/maintenance.

The aim of applying the CPTED principles and framework is to design and build safer, more productive and user-friendly environments.

CPTED has been a consideration in the preparation of the Master Plan but will be more carefully considered as part of future detailed Master Plans and delivery of open spaces, buildings and spaces between them.

SUSTAINABILITY, WATER AND UTILITIES STRATEGY

The renewal of Camellia-Rosehill provides an opportunity to build an efficient and resilient precinct that improves liveability for residents and workers, through clever design, a diversified approach to energy, water and waste management and the creation of vibrant, well connected public spaces that encourage social interaction.

The establishment of Camellia as a place of innovation relates to both the types of industries and job provided, as well as the manner in which infrastructure and services are delivered to the community.

Energy efficiency and the use of renewable energy sources will underpin all aspects of redevelopment in the Precinct. Existing and future buildings with large roof areas and large single landholdings within Camellia provide a strong basis for establishing large scale solar energy generation within the Precinct.

The need to review current utility infrastructure provision as part of redevelopment works and the scale and mix of proposed development in Camellia also provides a substantial opportunity for investigating alternative utility servicing options such as Precinct scale energy and water systems. Such systems can:

- Deliver a more cost effective solution than traditional centralised utility provision models (both from an upfront capital and ongoing operational cost perspective)
- Improve resilience to resource shortages/ climate disruptions through greater diversity of supply
- Provide greater efficiency and deliver better environmental outcomes (e.g. Reduced greenhouse gas emissions, impacts on adjoining waterways/ natural areas)

The existing Rosehill Recycled Water Network provides an alternative water supply to service non-potable uses within the Precinct at a reduced cost. An integrated water cycle management approach will be applied to Camellia, incorporating the practices of flood management, water sensitive urban design, stormwater quality control, wastewater management, community needs and preservation of the natural environment.

Establishing well connected, green streets will reduce the impacts of urban heat, support healthy lifestyles, improve stormwater quality and reduce dependency on private motor vehicles. The provision of quality public spaces will encourage social interaction and provide a range of experiences for people living and working in Camellia.

A series of key strategy opportunities have been identified to guide the development of the Camellia to achieve high standards in sustainability.

Net Zero Emissions Precinct

Deliver a net zero emissions precinct by 2040 through building efficiency and precinct scale renewables. The aim is to align with the NSW Net Zero Emissions Target as well as the City of Parramatta Sustainability Strategy.

Recycled Water for a Cool Green Precinct

Leverage the existing recycled water system create a cool green precinct. This strategy will effectively make Camellia a zero sewer export precinct, recycling all the sewer to service the irrigation requirements of the planned canopy and green cover. The integrated economic, social and resilience benefits of this strategy are significant.

Parking and mobility to reduce car dependency

Camellia-Rosehill will be well connected. It will be serviced by the Parramatta Light Rail, buses and new active transport connections to create a public transport focused, walkable, and bicycle-friendly community.

Car ownership rates could be expected to be as low as some of the more accessible areas around the Parramatta CBD. Good planning will ensure this access to public transport and access to employment is matched with lower parking rates for new dwellings.

Residential parking will be delivered as a transitionary asset class that can be repurposed with changes in car ownership and mobility patterns. Parking will be provided decoupled and unbundled from the sale of apartments and commercial spaces in mixed-use buildings.

This not only future-proofs the precinct but supports lower remediation and construction costs, increasing housing affordability.

To support and encourage the transition to electric vehicles, parking in all buildings and key public locations will have electric vehicle charging infrastructure, in line with the NSW Electric Vehicle Strategy.

Zero Waste Precinct

Adopt a circular economy approach to rethink waste as a resource. This strategy will leverage the existing Earth Power facility and innovative on-site organic waste management techniques to transform waste to energy and feedstock for the Western Sydney agribusiness precinct.



Green walls on mixed use buildings



Solar panels on large expanses of industrial building rooftops

MASTER PLAN ACCESS AND MOVEMENT

A number of transport options were considered in order to improve access to the Camellia peninsula by sustainable transport modes, address existing congestion problems and to also accommodate the projected growth.

As previously identified, the Camellia-Rosehill Precinct is currently constrained in terms of access with only two access points to the Precinct; Grand Avenue and Wentworth Street. A number of potential upgrades and new connections were assessed. Road layout and intersection configuration will be undertaken as part of the future detailed Master Planning and rezoning process and Integrated Transport Study.

The proposed access and movement network for Camellia is summarised below;

Light Rail

- Current Parramatta Light Rail Stage 1 connecting to the Town Centre
- Potential connection to the urban services and industry zone with Parramatta Light Rail stage 2 and other sub-precincts.

Bus Network

Future bus services would integrate with light rail services.
 Long term bus services are likely to be connect to Auburn,
 Silverwater, West Ryde, Eastwood and Epping.

Active Transport

- An opportunity to connect to the expansive western Sydney pedestrian and cycle network and provide public access to the riverfront
- Potential to connect the Parramatta Valley Cycleway missing connections and link public open spaces
- Safe connections across major roads such as James Ruse Drive to be considered
- Potential to improve access to the existing path over the river on eastern side of the James Ruse Drive
- Upgrading existing pedestrian/water pipe bridge over Parramatta River to also be considered
- As part of the future more detailed Master Planning process, to provide staging details and addressing topography consideration for cycleways network.

Pedestrian Movement

- Permeable, walkable network with safe crossing points, sufficient footpath width and pedestrian signal phasing to meet pedestrian demand
- Wide footpaths and comprehensive pedestrian connections supported with lighting, way-finding and mature trees, particularly around schools
- Kerb ramps, bus shelters, kerb out-stands and refuge crossings, particularly around schools
- Shared user paths and scooter/bicycle parking, particularly around schools
- Lower vehicle speeds around land uses with high pedestrian demands, including schools
- Local area traffic calming, particularly around schools
- Improved pedestrian access to bus stops and higher bus priority on roads to decrease bus journey times and improve efficiency. This includes for school buses.

Street network

- North-South Connection, offers improved accessibility to the north, including Rydalmere industrial area and connections to Victoria Road
 - This would create a north-south spine through the Precinct and would be located close to the proposed mixed use area
 - Movement from urban services and industry to Silverwater by the use of Carnarvon Street
- Potential link to the M4 Western Motorway
- The State heritage listed Sewage Pump Station to remain operational with heavy vehicle access to allow safe operation and maintenance
- The indicative street network to consider the Practitioner's Guide to Movement and Place which has been classified in accordance with street environments based on the interactions of movement and place. Civic spaces are places for people, with higher pedestrian activities and wider areas for nonvehicular movements, and in contrast, main roads include motorways and major roads and transit corridors. A movement and place matrix provides a relative measure of how streets are classified by movement and place functions.
- Noting the street layouts are indicative and will be further investigated through the rezoning process.

Heritage Items

- Grand Avenue
 - The access and movement network for Camellia plans for Grand Avenue to be conserved and the avenue as a whole will retain its treed character, but the street has the potential to be repurposed with active transport or shared path and the median strip altered. If required as part of a broader place making strategy, advice from the artist, community and Aboriginal stakeholders should be sought for the relocation of the sculptures and painted areas on the median strip. The redundant rail crossing at the corner of Grand Avenue and Durham Street, including tracks will be conserved as evidence of the use of rail in the area.
- Grave of Elinor Magee and child
 - The grave site will be conserved and a comprehensive reinterpretation undertaken. The street network adjacent to or around the grave will require further investigations to ascertain the status of any remains or associated relice.

For further information please refer to the Traffic and Transport Implementation Report prepared by Arcadis, 2022.



Yarra's Edge, VIC



Green Square, NSW



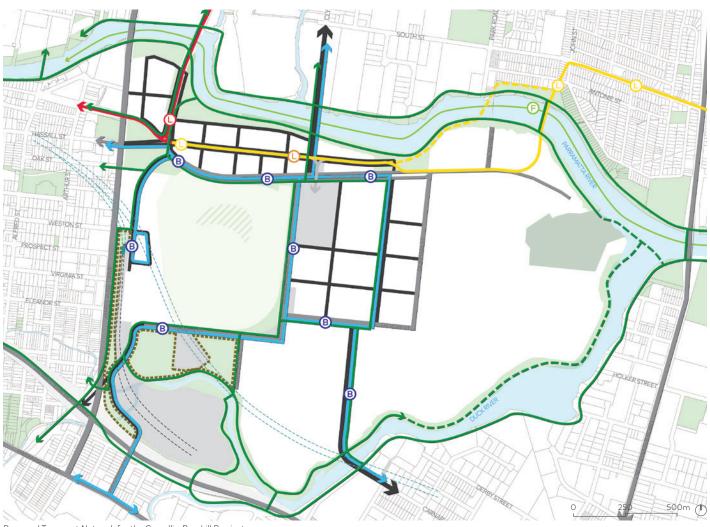


Proposed Camellia Town Centre



- Place -

Street environments. Source: Practitioner's Guide to Movement and Place, NSW Government's Architect



Proposed Transport Network for the Camellia-Rosehill Precinct

Transport and utility facilities		Proposed Active Transport to be finalised		Potential Long Term Active Transport
Existing Road Network		Proposed Road Network to be finalised	- (F)	Rydalmere Ferry Wharf
Sydney Metro corridor-above ground		Sydney Metro corridor-below ground tunnels	L)	Parramatta Light Rail Stage 1 + Stop location
Rosehill Gardens Racecourse	////	Potential open space		Wetland-potentially publicly accessible
Proposed Bus Network + Stops under investigation		Proposed open space-public recreation & Riparian buffer	###	Proposed open space - Subject to further revier of Sydney Metro's operational requirements
Parramatta Light Rail Stabling and maintenance facility access		Parramatta Light Rail Stage 2 Preferred route		Parramatta Light Rail Stage 2 alternative alignment under consideration
Parramatta Light Rail Stage 2 indicative stop locations on road corridor	0	Parramatta Light Rail Stage 2 additional stop	prop	posed in the place strategy to be investigated

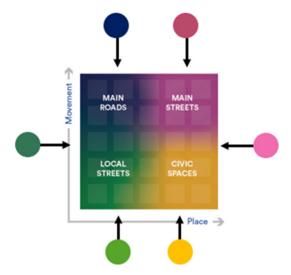
Street Typologies

Street typologies have been developed in response to the public domain principles and the Guide to Movement and Place, in particular:

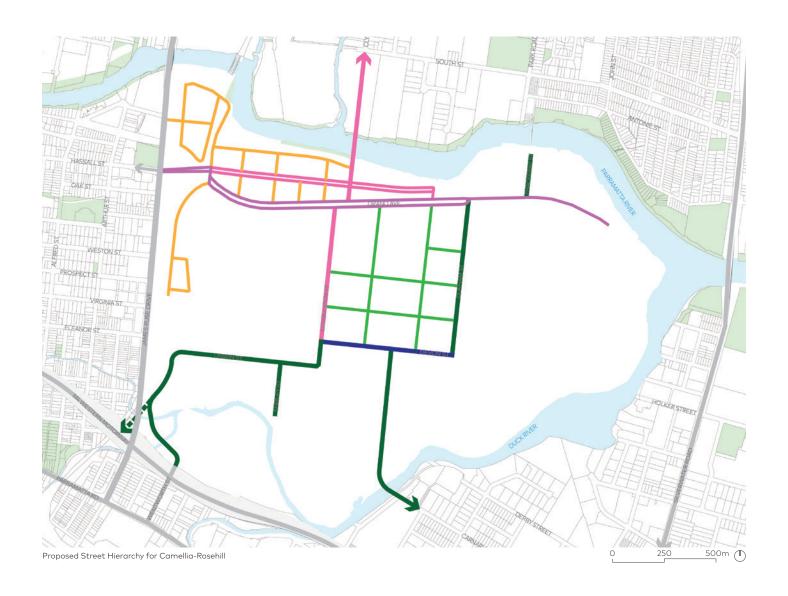
- · Pedestrian priority
- · Clear and legible
- · Heritage elements
- · Amenity and shade
- Appropriate scale and dimension for intended function.

Further to these principles, it is critical for the public domain that building floor levels match external levels even if this requires internal stepping. Additionally, to maintain the continuity of active frontages, all service doors, fire rooms, garbage enclosure doors and venting should be located away from these areas.

The street typologies have not at this stage considered water management which will be further considered as part of detailed master planning.



Proposed Street Hierarchy legend. Street environments. Source: Practitioner's Guide to Movement and Place, NSW Government's Architect



Grand Avenue

- Retain and enhance landscape median
- Retain and enhance artwork within the median
- Proposed landscape and footpath zone to allow trees and wider footpath
- Shared path on the southern side of Grand Avenue for pedestrians and cyclists
- Potential expansion of carriageway to three lane if required



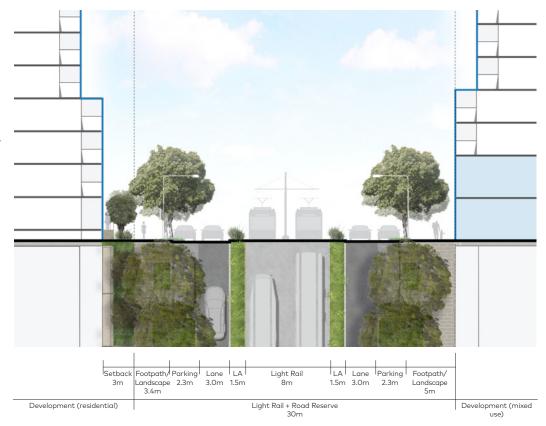
Local Street -Foreshore

- 16m road reserve with onstreet parking on the open space edge
- Footpath and landscape zone within road reserve and additional shared path within the waterfront reserve
- Boardwalk where possible for a continuous movement along the river edge
- Potential for wider road reserve to allow parking on both sides of the street



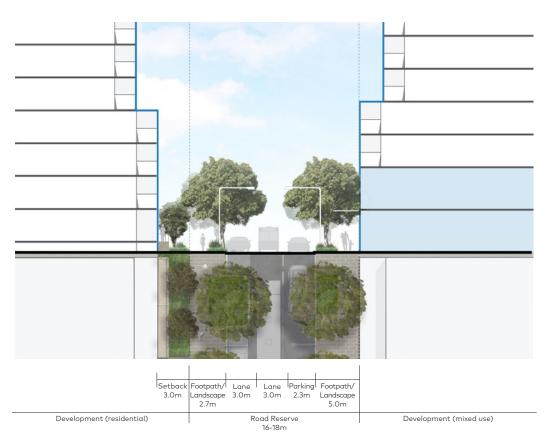
Local Street - PLR

- 30m road reserve with light rail zone
- One way movement on either side of the light rail corridor with on-street parking
- Landscape zone (LA) adjacent to light rail corridor



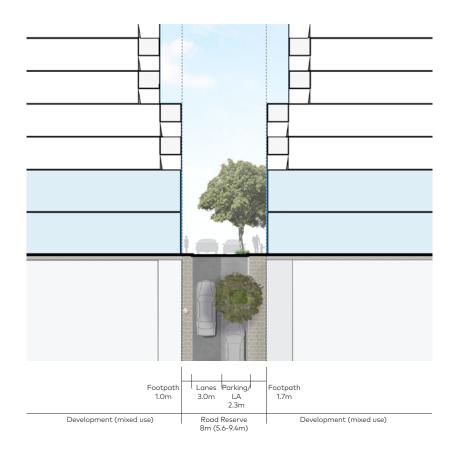
Local Street

- 16m road reserve with onstreet parking
- Proposed landscape and footpath zone to allow trees and minimum 1.8m footpath
- Parking and landscaping zone
- Minimum 5m footpath/ landscape zone interface with non-residential uses for active frontage
- Minimum 3m landscape zone interface with residential uses for planting



Laneway

- Access for service vehicles and parking entry
- One-way vehicle movement
- Landscaping and on-street parking



MASTER PLAN DEVELOPMENT CAPACITY

The Precinct-wide study for resolving environmental issues, considerations of transport accessibility and the levels of amenity afforded by new open spaces and community facilities has guided the preparation of proposed height and Floor Space Ratio controls for the Precinct. Density has been distributed across the Precinct in line with these considerations and the overall vision for Camellia-Rosehill.

The proposed controls have been developed in response to flooding, contamination constraints, hazard considerations, setbacks and development types in relation to pipeline hazard, odour/noise sources from continuing industrial uses within the precinct, and ecological constraints.

The commitment to transport infrastructure such as Parramatta Light Rail Stage 1 and Stage 2, new bus services and new vehicular connections north-south across the river and to the M4 Western Motorway underpin the proposed employment and resident densities.

Another consideration in the preparation of appropriate density and use controls has been the social infrastructure requirements to meet the demand for the future population of the Precinct. The two major requirements being a standard primary school and a K-12 school. Additional social infrastructure provisions include public open spaces, indoor courts, outdoor courts, fitness stations, play spaces and youth spaces.

The combination of the constraints, limitations on the transport network and the required provision of social infrastructure have identified a cap on residential development within the Precinct of approximately 10,000 dwellings.

The table below represents an upper limit of development capacity for the Precinct in terms of land use, gross floor area (GFA) and resultant jobs, dwellings, residential population and school students. The density is based on the hazard considerations across all development lots and proximity to public transport and activation zones.

As a capacity study, it does not consider market take up, developer/landowner ambitions and financial capacity or changing market conditions over time any, or all, of which may result in a lower realisation of the theoretical capacity of the Precinct. The Master Plan has not contemplated the location and land take required to accommodate parking needs and built community facilities in the Precinct.

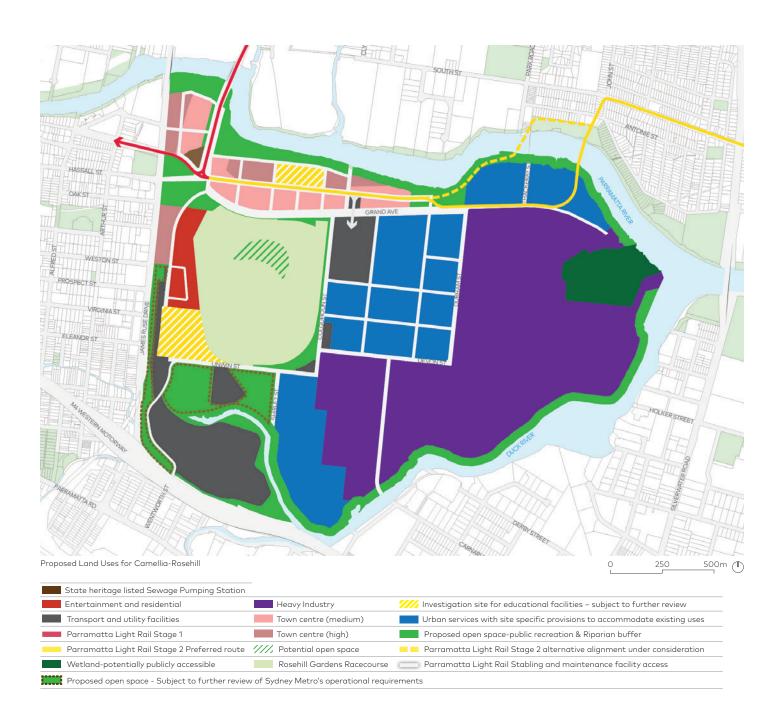
Further detailed analysis and testing (such as flooding, urban design, transport studies) will be undertaken at the rezoning stage. This will also involve working with the City of Parramatta on the rezoning and site specific development controls to ensure good built form and place outcomes.

Assumptions

- Mix of residential and retail/commercial;
 - Entertainment and residential: 80% residential & 20% retail/commercial
 - Town Centre: 95% residential & 5% retail/commercial
- Dwelling GFA is based on 90m² per dwelling
- Emp (x:GFA): Where possible, assumptions have been drawn from the Landcom Productive Places Common Planning Assumptions Workspace Ratios which equate the quantum of floorspace in GFA required to support 1 full-time equivalent job within that particular use. For instance, for 1 job, it is assumed that 80m² GFA of Urban Services (average of small/high tech) and 35m² GFA for retail has been assumed.

Uses		Proposed zoning	Area (m²)	Efficiency	FSR	HOB (storeys)	HOB (m)	Residential (GFA)	Dwellings	Population (@2.4ppd)	Employment (GFA)	sdoL	Other
Heavy Industry	E5	Heavy Industrial	1,061,335	100%	-	4	16	-	-	-	1,061,335	2,653	-
Urban services with site specific provisions to accommodate existing uses	E3	Productivity Support	580,517	100%	1.5	4	20	-	-	-	870,775	10,885	-
Entertainment and residential	MU	Mixed Use	52,773	95%	4	8-12	36	157,159	1,746	4,191	39,290	491	-
Town centre (medium)	MU1	Mixed Use	98,773	95%	4.5	12-24	80	401,143	4,457	10,697	21,113	603	-
Town centre (high)	MU1	Mixed Use	69,094	95%	5.5	24-40	130	342,964	3,811	9,146	18,051	516	-
Investigation site for educational facilities – subject to further review - Primary School	SP2	Infrastructure	20,198	100%	-	-	-	-	-	-	-	100	1,000
Investigation site for educational facilities – subject to further review - K-12 School	SP2	Infrastructure	56,100	100%	-	-	-	-	-	-	-	200	2,000
Total								901,266	10,014	24,034	2,010,564	15,448	3,000

Proposed Land Uses, Yields and Assumptions for Camellia-Rosehill $\,$





Central River City Skyline

The section at the bottom of the page represents the future skyline of the Central River City in line with proposals under the Central City District Plan. The Plan is the 20-year plan to manage growth and change of the Central City to fulfil the vision of the Greater Sydney Region Plan.

To achieve this, the Strategic Centres of Rhodes, Sydney Olympic Park, Parramatta and Westmead are to be reinforced with significant growth and a resultant change in building heights and the city skyline.

In the context of this, the proposed building heights at Camellia are lower in height than at Sydney Olympic Park and Parramatta to the east and west, which signifies the hierarchy in terms of Strategic Centres and a Town Centre at Camellia.

Camellia-Rosehill Skyline

The proposed built form at Camellia will need to consider a transition east-west between the existing community at Rosehill and Harris Park and the lower density employment lands to the east.

A cluster of taller buildings can be used to signify the location of the Town Centre, the area of highest density which is supported by the highest levels of recreational amenity and public transport accessibility.

Views

Views to and from the Parramatta River have been considered and buildings will need to be significantly set back from the foreshore to allow for district views along the river. Taller forms are located further south of the riverfront to provide for a transitional built form that steps down to the River.

Views from Elizabeth Farm are also considered and the clustering of buildings along an east-west axis within the Town Centre ensures the impact on eastern views to the sky from Elizabeth Farm are minimised.

The protection of view lines, the natural features of an area or solar access to the public realm are important considerations. These will need to addressed when determining future building envelopes. Character of streets and neighbourhoods is created by the scale, definition and extent of enclosure by buildings and landscape. Key principles to consider:

- Protect significant views to and from public places
- Configure built form to enhance or frame views to significant places or elements, or support legibility of the area
- Buildings should not to impede key views from the public domain to important public places, parks, heritage buildings and monuments.

Building Heights

Building heights respond to both the principles and parameters set out during the detailed Master Planning phase. The review proposes that a general height limit of 130m be applied to buildings outside of the hazard consequence affected zone, with up to 80m permissible within the hazard consequence affected zone. For further information, refer to the Qualitative Risk Assessment Report prepared by Sherpa Consulting, 2022.

The building heights under the Master Plan range from:

- 4-storey retail and commercial uses framing the open space and active areas
- 12-24 storeys within the Medium Town Centre area
- 24-40 storeys within the High Town Centre area
- Approximately 4-6 storeys within the urban services and industrial uses.

Building Separation

Building separation needs to be carefully considered during the detailed master planning phase, and will need to demonstrate that minimum building separation requirements of the Apartment Design Guide can be achieved.

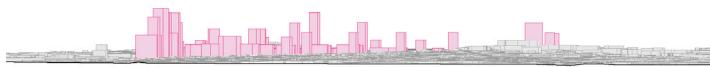




View from Parramatta River



View from Elizabeth Farm



Camellia-Rosehill Skyline







SUB-PRECINCTS TOWN CENTRE

Indicative Concept Plan

The Precinct's "Front Door" will be realised through the transformation of the Parramatta River frontage to a continuous waterfront parkland that contributes to the open space network both within the Precinct and the broader area.

The new community, workers and visitors to the Precinct will enjoy enhanced public access to the Parramatta River through new waterfront parks along the Precinct's western side between James Ruse Drive and a proposed crossing over the River between Colquhoun Street and Dunham Street. Longer term the waterfront parklands will connect the Precinct to Parramatta CBD and Sydney Olympic Park.

Located in the north western portion of the Precinct, the Town Centre will capitalise on the transport accessibility afforded by Parramatta Light Rail Stage 1. New homes, jobs, shops, cafés, restaurants, entertainment and local services will be located close to transport connections in an attractive place for people to live, work and visit.

The proposed uses within the Town Centre focus on housing choice, a diverse range of uses and 24 hour activity. High density residential uses will be supported by novel typologies that meet targeted residential needs such as student accommodation, build-to-rent and affordable housing among others.

Local services and social infrastructure will support the new residential community. Entertainment uses within Rosehill Gardens will be accessible from James Ruse Drive and the Town Centre and provide for recreational opportunities and a night-time economy for Camellia and the Central River City.

A new primary school is planned to support the new residential population and is proposed to be collocated with open space on the Parramatta River. In order to future proof longer term needs, a second potential K-12 school location will need to be identified through future stages of the Project. The Master Plan has considered one appropriate location for the K-12 school may be on the Australia Turf Club land addressing Unwin Street. Both proposed sites for educational facilities are subject to further review.

The active and attractive Town Centre of Camellia-Rosehill is realised through its transformation with a focus on housing choice and mix, diverse range of uses and a precinct that is active day and night, weekday and weekend, winter and summer.

The Town Centre becomes a place of high density mixed uses, supported by a significant network of passive and active open spaces and community facilities. Approximately 24,000 future residents and 15,000 future workers will activate the vast expanses of public open spaces, the walking and cycling trails and the retail, food and beverage, community facilities and entertainment offerings on a daily basis.

Supporting this new community would be provision of local services and job opportunities in a high amenity Town Centre.

The concept plan identifies a grain of development interspersed by public open spaces and an indicative street network to facilitate movement throughout the Town Centre sub-precinct.

Design Principles

- Create a multi-modal transit hub at the PLR stop catering for various social activities
- Allow higher density mixed use development concentrated around the transit hub
- Create a waterfront park in the heart of the Town Centre where long views east along the Parramatta River are afforded
- Provide a number of District-scale parks linked by a north-south green corridor along Colquhoun Street connecting the Parramatta River to Duck Creek
- Provide a consistent public street edge to the foreshore land to optimise public access and legibility of public spaces from private development.
- Preserve a view corridor between the historical Camellia Sewage Pumping Station and the Female Orphan School
- Preserve the historical view corridor from Elizabeth Farm House
- Define the street edge along major transitways, roads and view corridors by appropriate built form controls
- Support taller buildings (where appropriate) of a slender and more elegant form
- Maximise potential amenity and environmental performance
- Allow for street wall heights to proportionally respond to street widths
- Mitigate the impact of buildings on the public domain and streetscape experience
- Sleeved parking in mixed use buildings with basement parking only permitted on sites not affected by certain constraints, including contamination and flooding





Indicative Concept Plan for the Town Centre Sub-precinct

Uses

The uses within the Town Centre are proposed to comprise of mixed uses, entertainment, public and private recreation. Highest densities are to be located around the areas of highest amenity and accessibility and in consideration of the hazards associated with gas and fuel pipelines and flooding.

Considerations

- The extent of consequence affected zones associated with the gas and fuel pipelines and the uses, density and total populations (workers and residents) within the hazard risk consequence affected zones
- Sewage pumping station odour buffer and access by Sydney Water
- Parramatta Light Rail stage 1 and stage 2 alignment and proposed and potential stop locations and operations
- · Realignment of Hassall Street/Grand Ave bridge
- A varying 40m-75m offset of buildings from the foreshore line
- Repurposing of Grand Avenue, landscaping and shared path/ bike path in consideration of the heritage elements
- Primary school requirements to be located within the Town Centre, outside of the hazard consequence affected zone and co-located with open space
- Social infrastructure and open space requirements in close proximity to residential uses
- North-south connection to Rydalmere for better vehicle and active transport connectivity
- The need to manage any residential interface to Entertainment Uses and the Rosehill Gardens Racecourse
- Buffering residential uses from James Ruse Drive to mitigate noise and particulate matter pollution
- Potential opportunity to utilise space within ATC land as a restricted access public use of racetrack land as open space.

Requirements

- Sensitive Uses within the hazard consequence affected zone
 - Developments proposed such as child care centres, hospitals and aged care facilities in the consequence affected zone need to be referred to DPE (hazards) for comment to ensure that they comply with the qualitative risk criteria in HIPAP 10
- Social Infrastructure
 - A primary school located outside of the 130m hazard consequence affected zone in close proximity to open space and residential uses

- Open Space
 - Continuous open space along the foreshore
 - Open space in close proximity to the primary school
 - Open space in close proximity to the residential population, pubic transport and active transport

Heritage

- Sewerage Pumping Station 67, the ongoing operation of which may be incompatible with the proposed high density residential and mixed use, though this risk is mitigated by a proposed buffer zone surrounding the
- Pumping station and other odour control measures
- Residential Density
 - Densities should be highest around public transport and public open spaces in addition to considering the 130m hazard consequence affected zone
- · Transport and utility facilities
 - Integration of Parramatta Light Rail Stage 1 and Sydney Metro West Stabling and Maintenance Facilities

Activation

The street edge definition principles ensure areas of greatest activity are reinforced by built form and passive surveillance.

Considerations

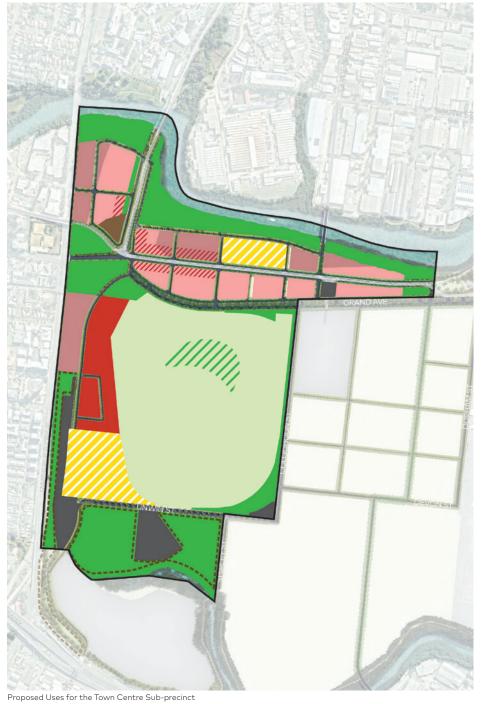
- Mixed use residential development to be considered for the north-western quadrant of the Precinct
- Development to create well defined streets that enhance accessibility, allow for sensitive transition to future waterfront parks and publicly accessible foreshore with active uses on the ground floor for key foreshore buildings (for example, cafés, restaurants, and community facilities).
- Buildings heights should be considered to define gateways and key destinations in the Precinct

Requirements

- Active ground floor (minimum) uses extending north-south adjoining the PLR stop and east-west adjoining the PLR line to the proposed primary school
- Entertainment zone to allow placemaking initiatives and to consider the experience of the Precinct at night.
- Installations and public art projects to renew and reinforce the precinct's unique character and the night-time economy

Uses	Proposed zoning		
State heritage listed SPS 067 Sydney Water	SP2	Infrastructure	
Entertainment and residential	MU1	Mixed Use	
Town centre (medium)	MU1	Mixed Use	
Town centre (high)	MU1	Mixed Use	
Investigation site for educational facilities – subject to further review	SP2	Infrastructure	
Transport and utility facilities	SP2	Infrastructure	
Open space-public recreation & Riparian buffer	RE1	Public Recreation	
Potential additional open space	RE2	Private Recreation	

Proposed zoning for land uses nominated in the Master Plan





Ridge Hill, New York



Darling Quarter, NSW



Top Ryde, NSW

Entertainment and residential	//// Investigation site for educational facilities – subject to further review
Town centre (medium)	Proposed open space-public recreation & Riparian buffer
Town centre (high)	State heritage listed Sewage Pump Station
///, Potential additional open space	Transport and utility facilities
Rosehill Gardens Racecourse	//// Active frontage

Public Domain & Social Infrastructure

The open space framework for the Town Centre comprises of a continuous riverfront promenade that can link Parramatta to Camellia and further to Sydney Olympic Park. The proposed riverfront promenade in conjunction with the established Parramatta Valley Cycleway in Rydalmere north of the Precinct, will form a comprehensive riverfront walking and cycling network connecting to Greater Parramatta, consistent with the Parramatta Green Grid project.

Dedicated off-street walkways and cycleways, and green links with wider pedestrian footpaths and featured landscape settings will provide comfortable walking and cycling connections towards and between the proposed riverfront promenade, waterfront parks, gateway open space, transit facilities, the Town Centre and event spaces.

There is a proposed north-south green spine, parallel to the Parramatta Light Rail connects the mixed use area, the transport node to the riverfront to the north.

Streetscape improvements along the interface with James Ruse Drive, including the provision of a new "gateway" green space and significant buffer planting in the form of street trees, will enhance the amenity of this Sub-precinct.

Additional public space would be sought as individual development parcels are considered for development.

A potential primary school and a K-12 school have been identified on sites located within the Town Centre and are subject to more detailed assessment and design processes. A community hub will be required within the Town Centre to deliver a range of spaces and activities for young and old.

In future phases of detail design, site-specific development controls or design guidelines are to be developed to promote high quality development and improved public domain, such as streetscape upgrades to improve pedestrian amenity (footpaths, tree lined streets, etc).

Design Requirements

- A 4,300m² community hub near the Town Centre with community and subsidised floorspace, library space, youth spaces, senior spaces and cultural floorspace to meet the needs of the Precinct's future residents
- A 2 Ha primary school that meets the standard primary school requirements in terms of size and shape, proximity to open space, proximity to public transport and distance from the gas and fuel consequence affected zones
- A 5 to 6 Ha K-12 school potentially south west area of the ATC land due to its proximity to the sporting field that is likely to be located within the Metro surplus land
- Initiatives to Care for Country and continued protection of heritage listed sites
- Access to the Parramatta River, Duck River and Duck Creek foreshores and potentially the wetland
- Active recreation which includes a district foreshore park, a local park and significant linear open space along the foreshore
- Three district scale parks which are accessible by the vast majority of residents within an 800m walking catchment
- Affordable housing units as part of the mixed use/residential developments being a minimum of 5% of new housing
- Active transport along the foreshore and connecting to eastwest and north-south links throughout the site and connecting to existing active transport links across the river
- Street tress along existing and proposed street networks to mitigate the urban heat island effect and improve biodiversity outcomes
- Integrate landscape treatments with remediation strategies
- Achieve positive ecological outcomes through the continued protection of the wetland and riparian corridor
- Enhancement of habitat features through the introduction of open spaces across the Precinct as well as the proposed remediation works and greening strategy

Proposed Open Space Metrics

Uses	Area (m²)
Investigation site for educational facilities – subject to further review - Primary School	20,198
Investigation site for educational facilities – subject to further review - K-12 School	56,100
Open space, public recreation & foreshore	308,641
Potential additional open space (Rosehill Gardens Infield)	26,264

The total Town Centre Sub-precinct Area is 1,279,281 m². Of this, open space, public recreation and the riparian buffer comprise 308,641 m² or 22% of the total Sub-precinct site area and the potential additional open space (Rosehill Gardens infield) 26,264m² or 2% of the total Sub-precinct area.

North West District Park

On the north west corner of the site, where the Parramatta River wraps around the Precinct, the district park can support a diverse range of uses of recreation activities. These active and passive recreation opportunities can be delivered whilst preserving and protecting the existing mangrove and foreshore ecology.

An indicative and conceptual concept plan below identifies sports fields, play spaces, open green spaces, a connection to the foreshore and shared path connecting the foreshore to the heart of the mixed use Town Centre. The elements within the District Park are;

- 1. Shared path
- 2. Boardwalk access to viewing platforms
- 3. Existing riparian vegetation retained and enhanced

- 4. Shelter
- 5. Multi-purpose hardcourts
- 6. Open lawn areas
- 7. Outdoor exercise equipment
- 8. Adventure playground very young through to older children
- 9. Cafe kiosk / amenities building
- 10. Cafe kiosk / amenities building
- 11. Green local street
- 12. Linear park connection to town centre
- 13. Pedestrian crossing



Northwest District Park (plans are indicative and conceptual only)

Northern District Park

Adjacent to the heart of the Town Centre, the Northern District Park can provide spaces to gather and interact and/or to encourage individual and group based active recreation. Located in close proximity to the residential and mixed use areas the park will provide opportunities for local play spaces, dog walking, smaller scale active recreation and outdoor exercise facilities.

The elements within the Northern District Park are;

- 1. Shared path
- 2. Boardwalk / viewing platforms
- 3. Existing riparian vegetation retained and enhanced
- 4. Shelter

- 5. Open lawn areas (opportunities for dog off-leash areas)
- 6. Outdoor exercise equipment
- 7. Playground very young through to older children
- 8. Amenities building
- 9. Half-court
- 10. Green local street
- 11. Pedestrian crossings



Northern District Park (plans are indicative and conceptual only)

72

Southern District Park

The Southern District Park may be delivered on lands surplus to the operational needs of Sydney Metro West. The park is adjacent to active transport links along Duck Creek and the north-south open space corridor parallel to Colquhoun Street, within the Rosehill Gardens Racecourse lands. This would provide the structured, active recreational opportunities that the residential population of the Town Centre requires.

The elements within the Southern District Park are;

- 1. Shared path
- 2. Playing fields
- 3. Existing riparian vegetation retained and enhanced

- 4. Shelter
- 5. Multi-purpose hardcourts
- 6. Open lawn areas (opportunities for dog off-leash areas)
- 7. Youth play skate park, pump track
- 8. Playground very young through to older children
- 9. Clubhouse / amenities building
- 10. Green local street
- 11. Local parks
- 12. Planted buffer to Metro land
- 13. Undesignated space (subject to further review of Sydney Metro's operational requirements)



Southern District Park (plans are indicative and conceptual only and subject to further review of Sydney Metro's operational requirements)

50m (T)



Eye-level view of the Proposed Camellia-Rosehill Precinct looking east within the Northern District Park



Access and Movement

As part of the strategic traffic and transport analysis for Camellia-Rosehill, a number of preferred public transport and road initiatives have been identified for the Precinct. Additional connections and improvements have been identified in order to improve access to the Precinct by sustainable transport modes, address existing congestion problems and accommodate future growth.

Public transport and active transport is essential to improving access to the Camellia-Rosehill Precinct. This Strategy recognises that the redevelopment of the Precinct represents a significant opportunity to improve and plan for the provision of new public transport services at this early planning stage. A summary of the proposed public and active transport options that will be further investigated include:

Considerations

- An active transport network that is well-connected to existing shared paths in all directions through bridges over the Parramatta River and Duck River
- Integration of active transport links with the foreshore through waterfront activation
- Safe separation of high pedestrian activity areas such as the town centre from freight and heavy vehicle movements generated by industrial areas
- A bus network that supports the Parramatta Light Rail services by providing additional public transport connectivity to the town centre and employment areas
- Integration of the potential Parramatta Light Rail Stage 2
- New heavy vehicle accesses to the Precinct to enable freight movements to metropolitan Sydney, rural NSW and the rest of Australia
- Safe separation of general traffic movements from freight and heavy vehicles
- A street network that is well-connected to major road corridors in all directions through new Precinct access points, including bridges over the Parramatta River and Duck River
- Consideration to speed limits for different street typologies to allow safe movement.

Requirements

- · Realignment of Hassall Street/Grand Ave bridge
 - Entry to site from James Ruse Drive and Hassall street to be realigned to provide one connection point to Grand Avenue and associated local streets
 - Existing Grand Avenue heritage items within the median and landscaping/artwork to be retained and be enhanced

Local Traffic

- Intersections along Grand Avenue are adequately spaced to allow for all the proposed movements into and out of adjoining roads
- The proposed road network includes local streets that provide vehicle access to the foreshore and public open spaces
- Local streets provide direct access to each of the proposed superlots and along public open spaces and riparian corridors to provide on-street parking for accessing these amenities
- Parramatta Light Rail stage 1 and stage 2
 - Existing Parramatta light rail with the potential of extension of stage 2 through the town centre with additional stops to serve the town centre and primary school
 - Potential additional stops for the urban services and industry zone

Bus Network

- Providing public transport around the Precinct with connection to the light rail stop to create a public transport interchange
- Bus stops are to be located to be integrated with planned and potential light rail stops and near schools and recreational facilities

Cycling

- Continuous bicycle network along the foreshore with the north-south connection via the light rail interface and connection over Parramatta River to Rydalmere
- Bicycle network along Grand Avenue and connection to ATC and the entertainment and mixed use precinct east of James Ruse Drive

Walking

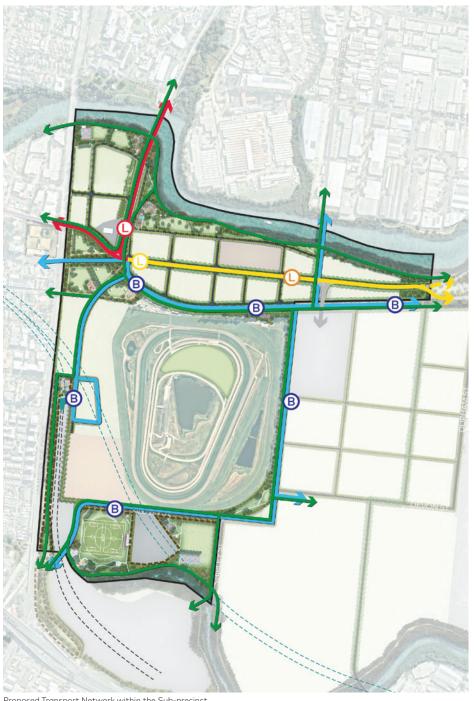
- Upgrade footpaths with street trees on existing roads and streets to allow for pedestrian comfort
- Proposed minimum 1.8m footpath with landscaping and street trees on proposed street network

North South Connection

 A bridge is provided within the site to link the northern and southern side of Parramatta River together and provide for additional movement.

Schools

- Permeable, walkable network with safe crossing points, sufficient footpath width and pedestrian signal phasing to meet travel demand.
- Wide footpaths and through-paths supported with lighting, way-finding and mature trees.
- Pram ramps, bus shelters, kerb outstands and refuges crossings
- Shared User Paths and scooter/bicycle parking.
- Lower vehicle speeds.
- Local area traffic calming
- Improved pedestrian access to bus stops and higher bus priority on roads to decrease bus journey times.







Precedent images for Transport Nodes and Active Transport within the Sub-precinct

Proposed Transport Network within the Sub-precinct

	·						
	Sydney Metro corridor-below ground tunnels		Proposed Bus Network + Stops under investigation				
	Sydney Metro corridor-above ground		Proposed Active Transport to be finalised				
L.	Parramatta Light Rail Stage 1 + Stop location		Parramatta Light Rail Stage 2 Preferred route				
	Parramatta Light Rail Stage 2 indicative stop locations on road corridor		Parramatta Light Rail Stage 2 alternative alignment under consideration				
(L)	Parramatta Light Rail Stage 2 additional stop pro	posec	I in the place strategy to be investigated				
1001	Proposed open space - Subject to further review of Sydney Metro's operational requirements						



Parramatta Light Rail Stop and Town Centre looking north



Built Form, Building Heights and Density

The intention of the Indicative Concept Plan is to test the recommended planning controls and represent just one of the many permutations of transformation which may occur within the Town Centre Sub-precinct. A detailed built form outcome is subject to detailed Master Planning and flood study.

The height strategy aims to deliver a diverse built form that sympathetically responds to adjoining areas, existing developments and reinforces the high levels of amenity and solar access to public spaces and in to private dwellings.

Requirements

- Allow higher density mixed use development with separation and articulation to avoid walls of high rise buildings
- Mixed use ground planes and podiums define the streetscapes with zero or minimal setbacks to the public domain. A secondary setback relates to the setback of the tower/building component above the podium level
- Consideration of density and uses in relation to the hazard and risk associated with the gas and fuel pipelines
- Continue to consult with Sydney Water to investigate measures to mitigate odour impacts and confirm the exact odour buffers. Refer to table below for more detail
- A built form outcome on a site-by-site basis that considers the scale of surrounding buildings and a level of continuity in the way that buildings define of the street networks and public spaces
- Ensuring that buildings address the streets, laneways, new through-site links or open space
- Appropriate building setbacks to buildings fronting James Ruse Drive to ensure that adequate land is set aside to facilitate the design of the major upgrade of James Ruse Drive / Grand Avenue / Hassall Street intersection
- Podium ranges in heights from 2-4 storeys with towers ranging from 12 to 40 storeys
- Taller towers oriented north-south to limit overshadowing and take advantage of views along the Parramatta River to the east and west
- Lower densities are proposed to be located within the 130m hazard consequence affected zone and higher densities outside of the 130m hazard consequence affected zone
- Sleeved parking and/or decoupled parking as an opportunity.

Indicative Odour Buffer Requirements

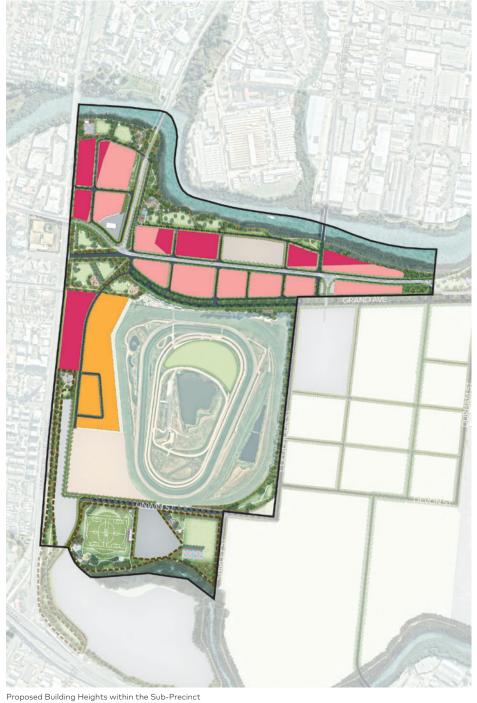
Height (m)	Approximate buffer distance based on modelling predictions (m)
0	<10
4	<10
8	50-70
12	70-80
18	70-100
24	45-80
28	<10

Summary of approximate buffer distances for SPS 067 at varying heights. Source: Todoroski Air Sciences, Air and Odour Implementation Report 13 December 2021

Solar Access and Overshadowing

Overshadowing analysis and enshrining of solar access provisions to existing and future residential properties and open spaces will be undertaken at more detailed design Master Planning stages as part of the rezoning process.

- The height controls should be developed to provide for a varied and distinctive skyline for the Town Centre
- Protect solar access to the public domain and residential private open space and communal open spaces
- The future built form to consider the impacts of the proposed building heights on the heritage listed Elizabeth Farm
- Prescribing a minimum proportion of the public spaces to receive a minimum hours of sunlight throughout the year
- Setbacks from the river and landscaping designed while considering existing views from the Orphan School to the Parramatta River and beyond.





Victoria Park, NSW



Discovery Point, NSV



Zetland, NSW



Rhodes, NSW

	36m (8-12 Storeys)	80m (12-24 Storeys)	130m (24-40 Storeys)

Uses	Area (m²)	Efficiency	FSR	HOB (storeys)	HOB (m)	Residential (GFA)	Dwellings	Population (@2.4ppd)	Employment (GFA)	SdoL
Entertainment and residential	51,697	95%	4	8-12	36	157,159	1,746	4,191	39,290	491
Town centre (medium)	98,773	95%	5	12-24	80	401,143	4,457	10,697	21,113	603
Town centre (high)	69,094	95%	6	24-40	130	342,964	3,811	9,146	18,051	516
Total						901,266	10,014	24,034	78,453	1,910



Indicative Concept Plan

The concept plan for the Urban Services Sub-precinct responds to the evolving nature of industrial precincts throughout Sydney and introduces an urban services component located adjacent to the Parramatta River and Rosehill Gardens Racecourse.

The demand for urban services uses acknowledges the Sub-precinct's central location within the GPOP corridor and the need to provide critical services for the growing population. The Sub-precinct concept plan is aligned with Government objectives that reinforce the importance of urban services and strategic industrial uses in highly accessible areas.

Grand Avenue will act as a catalyst for a new business activity corridor broadly forming the northern boundary for the urban services Sub-precinct. The Sub-precinct will also serve as a transitional buffer between residential uses in the Town Centre and industrial uses to the east and south. The Sub-precinct could act as a hub for research, innovation and emerging technologies to support other industries in the Precinct, Parramatta CBD and Greater Parramatta.

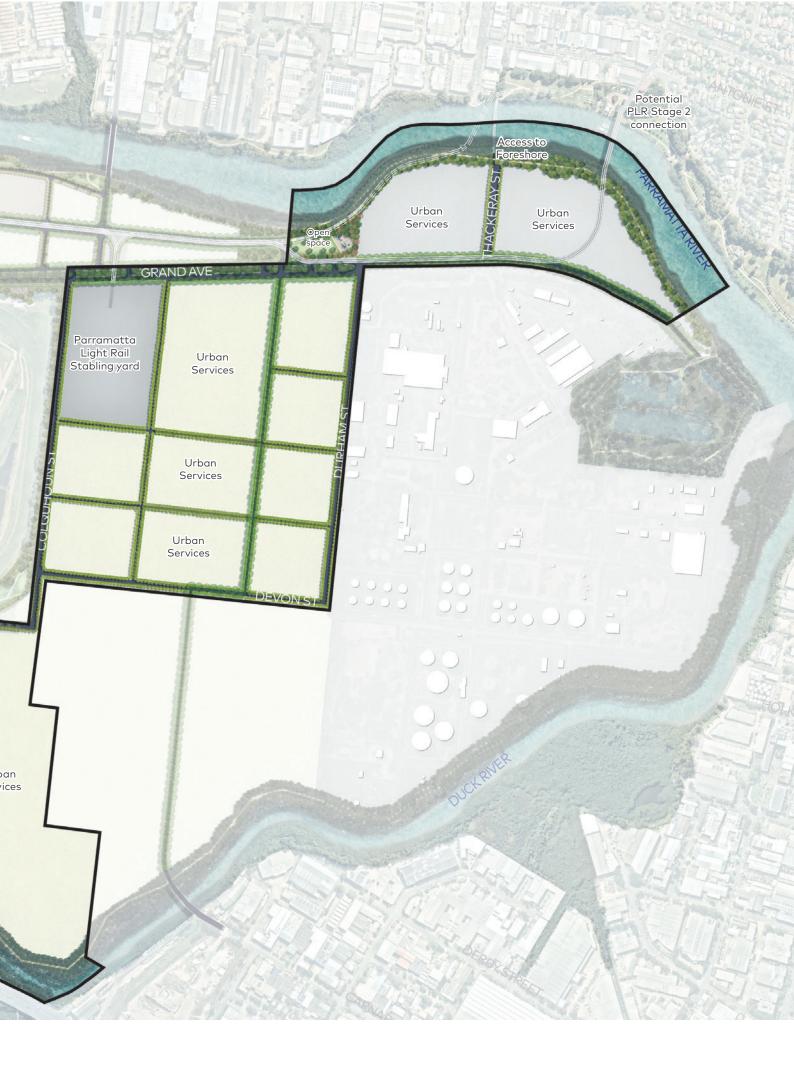
Existing heavy industry uses along the foreshore are expected to transition over time to higher order urban services.

Design Principles

- Consideration of the type, form and function of buildings and uses with an interface to the residential uses within the Town Centre Subprecinct
- Delivering a diverse range of lot sizes to cater for a variety of businesses
- Reduce the visual and environmental impacts of urban services buildings through measures such as green rooftops, solar panels and landscaping within the lots
- Provision for a local open space on the riverfront, to complement the network of open space across Camellia-Rosehill, and to cater to the needs of the workers within the Sub-precinct.
- Businesses are encouraged to provide publicly accessible open spaces within their sites to cater to the needs of people working in their industries.
- The potential provision of additional public open space through redevelopment of sites within the Sub-precinct
- An active transport network that is well-connected to proposed shared paths in all directions within precinct will also help meet workers' needs
- A bus network that connects the Sub-precinct to the multi-modal transport node within the Town Centre and beyond the Camellia-Rosehill Precinct
- Integration of the Parramatta Light Rail Stage 2 and Sydney Metro Clyde Stabling and Maintenance Facility
- Provide for the safe separation of general traffic movements from freight and heavy vehicles.



Indicative Concept Plan for the Urban Services Sub-precinct



Uses

A diversity of lot sizes and building typologies will support a range of industries from urban services to population serving retail and recreation uses. The Sub-precinct will be activated over the course of the day, evening and throughout the weekend by these uses. A vibrant evening economy clustered around the potential future Stage 2 light rail alignment and stops will attract users such as brew-pubs, flexible event spaces and maker spaces that serve as a transition between the Town Centre Sub-precinct and the more intensive urban services uses.

The Sub-precinct also includes the Parramatta Light Rail Stage 1 Stabling Yards and Maintenance Facility (under construction) and the Sydney Metro West Clyde Stabling and Maintenance Facility, which include train stabling, maintenance and ancillary facilities.

Small Format Employment

The small format employment typology provide buildings where small to medium enterprises can co-locate and incubate. Tenants will focus on research and development and knowledge-intensive manufacturing including aerospace, information technology, advanced materials, biomedical, medical technologies and defence.

Small format employment will have an indicative lot size of $2,000m^2$ to $5,000m^2$.

Large Format Employment

The large format employment typology provides more significant lot sizes and buildings for enterprises that require scale and function for warehouse and distribution industries including advanced logistics, automated manufacturing, e-tailing, wholesale retailing, freight forwarding, and third-party logistics (3PL).

Large format employment will have an indicative lot size of 5,000m² to 40,000m².

- Generous landscaping within the lots including green roofs, solar panels and permeable surfaces
- A new local open space on the riverfront
- A minimum 14 hectares of public open space and foreshore
- The potential provision of additional public open space through redevelopment of sites within the Sub-precinct
- Connecting regional active transport links through the Subprecinct along the Parramatta River and Duck Creek
- Incorporation of the design, development and operations of both the Parramatta Light Rail and Sydney Metro and Stabling and Maintenance facilities
- 40m offset from foreshore line
- Heritage elements on Unwin Street.



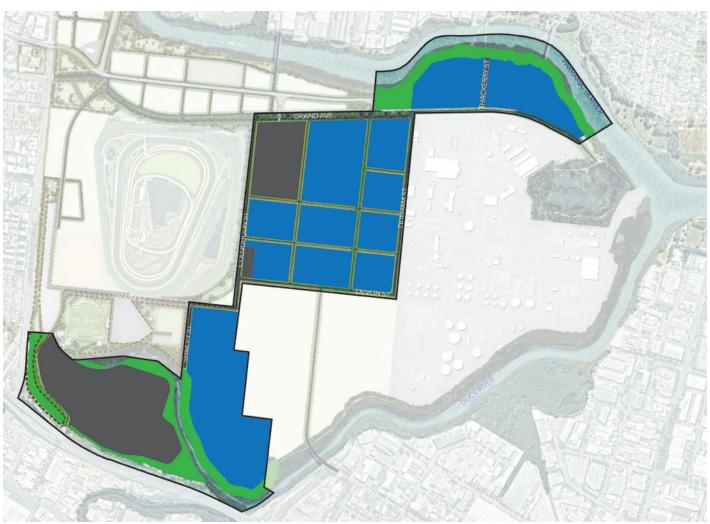
Incubator lots



Newington Business Park, NSW



Retail



Proposed Uses for the Urban Services Sub-precinct

Transport and utility facilities

Urban services with site specific provisions to accommodate existing uses

Proposed open space-public recreation & Riparian buffer

Uses		Proposed zoning	Area (m²)	FSR	Efficiency	Employment (GFA)	Jobs
Urban services with site specific provisions to accommodate existing uses	E3	Productivity Support	580,517	1.5	100%	870,775	10,885
Transport and utility facilities	SP2	Infrastructure	227,973				
Open space-public recreation & foreshore	RE1	Public Recreation	141,961				
Total						870,775	10,885

Urban Services Sub Precinct Area: 1,215,530m²

• Open space-public recreation & foreshore (12%)

Access and Movement

Vehicular and active transport links will connect the urban services sub precinct to the adjacent Rydalmere and Silverwater employment precincts to support and foster interactions and relationships between businesses.

Considerations

 Street network to have the capacity to accommodate the growing demand for sub-regional freight and logistics uses and last mile deliveries.

- Local Traffic
 - The urban services sub-precinct will intensify in employment uses over time. This intensification will be facilitated by a finer grain of local streets that allows for efficient movement through the sub-precinct and direct access to each of the future development lots
- Parramatta Light Rail stage 2
 - Existing Parramatta light rail with the potential of extension of stage 2 and potential additional stops for the urban services and industry zone
- Bus Network
 - Providing public transport connections via bus to the town centre and to the north and east across the Parramatta River
- Cycling
 - Continuous bicycle network along the foreshore with north south connection via the light rail interface and connection over Parramatta River
- Walking
 - Upgrade footpaths with street trees on existing roads and streets to allow for pedestrian comfort
 - Proposed minimum 1.8m footpath with landscaping and street trees on proposed street network
- M4 Connection
 - Investigate future connection to the M4 from Unwin Street.



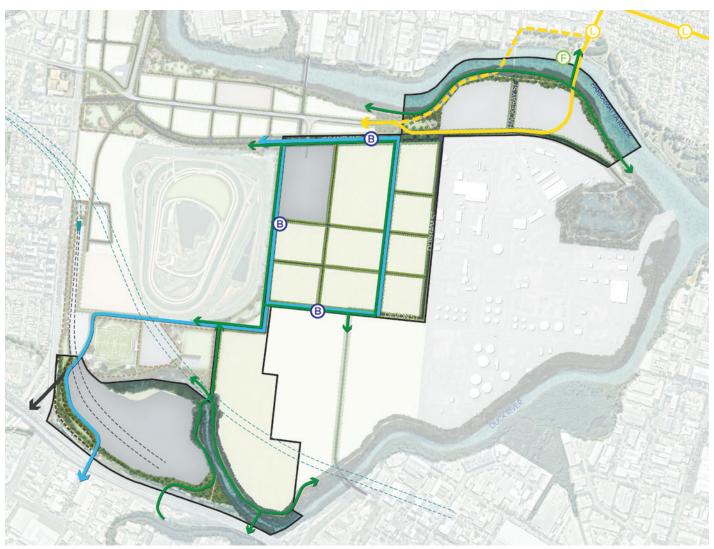
Macquarie Park, NSW



Quad Business Park, NSW



Restaurants and cafés



 ${\bf Proposed\ Transport\ Network\ for\ the\ Urban\ Services\ Sub-precinct}$

 Sydney Metro corridor-below ground tunnels 	Proposed Bus Network + Stops under investigation
- — Sydney Metro corridor-above ground	Proposed Active Transport to be finalised
C Parramatta Light Rail Stage 2 indicative stop locations on road corridor	Parramatta Light Rail Stage 2 alternative alignment under consideration
Parramatta Light Rail Stage 2 Preferred route	Rydalmere Ferry Wharf

SUB-PRECINCTS INDUSTRY

Indicative Concept Plan

Industrial uses critical to the success and function of Sydney as a city are planned to be retained in the eastern and southern areas of the precinct. This includes Viva Energy's fuel storage and distribution terminal and the facilities for manufacturers of building materials such as asphalt for roads and concrete for construction.

Water, waste and energy recycling businesses such as Rosehill Recycled Water Scheme have the potential to create a strong economic cluster that can drive innovation in associated enterprises. They could expand to deliver circular economy outcomes for the Central River City and Sydney more generally.

New industrial lots are currently being established on land surplus to Viva's needs will provide opportunities for industrial businesses to relocate or establish in the precinct.

By harnessing the Precinct's proximity to Westmead and Western Sydney University, innovative research-and-development-aligned activities such as prototyping and fabrication will be supported through partnerships with universities and research institutes.

Design Principles

- Delivering diversity of lot sizes to cater for a variety of businesses
- Providing public access to the wetland and foreshore
- Reducing the visual and environmental impacts of industrial buildings through measures such as green rooftops, solar panels and permeable landscaping within the lots
- Connecting the regional active transport networks in all directions through bridges over the Duck River
- Safe separation of high pedestrian activity areas such as the Town Centre from freight and heavy vehicle movements generated by industrial areas
- Higher-quality heavy vehicle accesses to the Precinct, through new Precinct access points and bridges over Duck River to enable freight movements to metropolitan Sydney, rural NSW and the rest of Australia
- Integration of the potential Parramatta Light Rail Stage 2
- A street network that is well-connected to major road corridors in all directions
- Investigating opportunities for large scale solar generation
- Investigate the creation of a buffer zone of green space around the perimeter of the wetland.



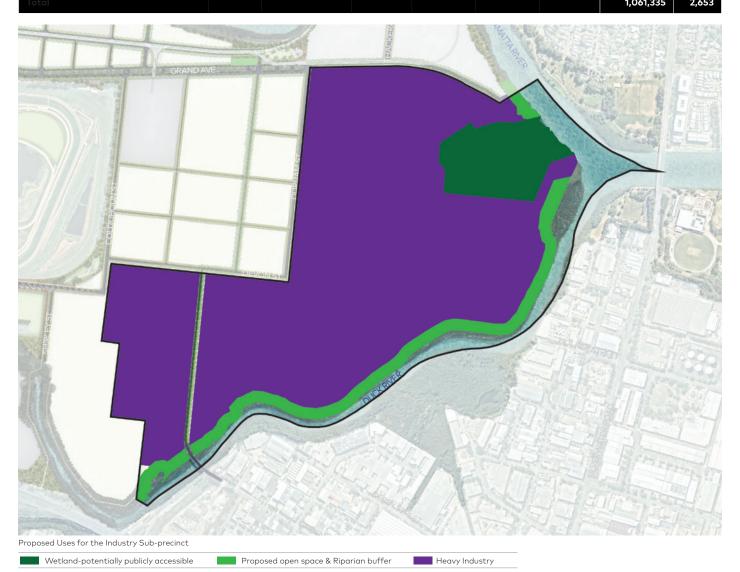


Uses

The Sub-precinct is comprised primarily of industrial and environmental uses and will continue to attract these sorts of uses and users as the Sub-precinct evolves. For example, Downer's Rosehill Sustainable Resource Centre that produces sustainable road products has relocated from land that has been acquired for the delivery of Sydney Metro West and a State Significant Development for the Downer facility has been approved within the Sub-precinct.

- The heritage listed wetland will be retained and enhanced
- Opportunities to make the wetland publicly accessible are under investigation and will consider need to protect the ecological values, ensuring safety and security taking into account Viva Energy's continued operations and distance from the active Town Centre.
- An appropriate built form and land use interface to Parramatta River and Duck River, including the long-term provision of a 30m wide riparian buffer to Duck River
- Building heights will generally vary from one to four storeys
- Investigate the creation of a buffer zone of green space around the perimeter of the wetland

Uses	Proposed zoning		Area (m²)	Efficiency	HOB (storeys)	HOB (m)	Employment (GFA)	Jobs
Heavy Industry	E5	Heavy Industrial	1,061,335	100%	4	16	1,061,335	2,653
Wetland-potentially publicly accessible	C2	Environmental Conservation	98,714					
Proposed open space & Riparian buffer	RE1	Public Recreation	90,058					
							4.0/4.225	2 (52



Access and Movement

Businesses located within the Sub-precinct will benefit from new bus routes and stops that connect to the multi-modal transport hub within the Town Centre and other destinations within Sydney.

Considerations

- This area will be supported by a street network that services heavy vehicle movements and freight distribution
- Enhanced accessibility within this sub-precinct is provided by a new vehicular and public transport connection to the south and east
- Active transport along the riverfront is to be provided wherever practicable.

Requirements

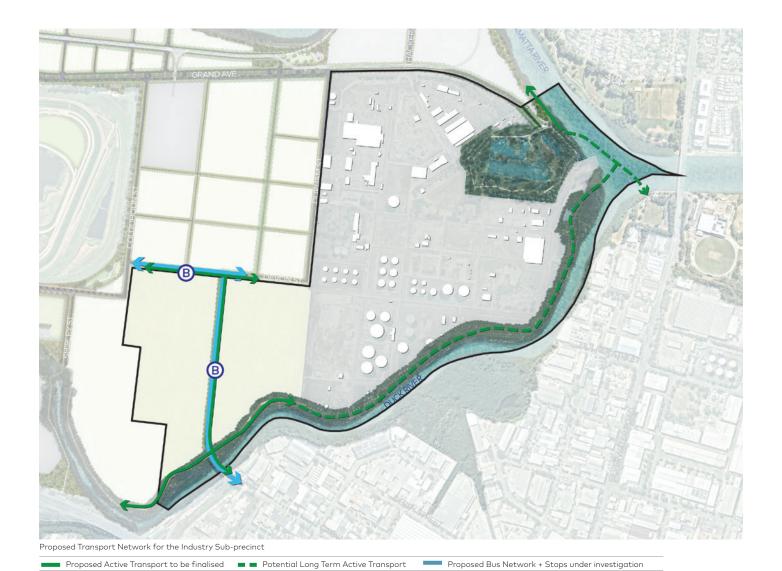
- Local Traffic
 - Connecting the broader Precinct to Silverwater Road via Carnarvon and Derby Streets.

Cycling

- New active transport linkages will be provided along the foreshore of Duck Creek connecting west and south to the Duck River Priority Project.
- Potential long-term active transport connection west along the Viva Energy site has also been identified to recognise that should future operations at Viva's site change, that this additional link should be explored.

Pedestrian

- Upgrade footpaths with street trees on existing roads and streets to allow for pedestrian comfort
- Proposed minimum 1.8m footpath with landscaping and street trees on proposed street network.



Camellia-Rosehill - Integrated Master Plan

INFRASTRUCTURE

The successful delivery of this place strategy for Camellia–Rosehill will require substantial investment over many years on the remediation of contaminated lands, new transport infrastructure, opening up the foreshore, development of social infrastructure and the creation of quality open space.

Infrastructure delivery needs to be staged appropriately to ensure it aligns to growth and delivers good place outcomes.

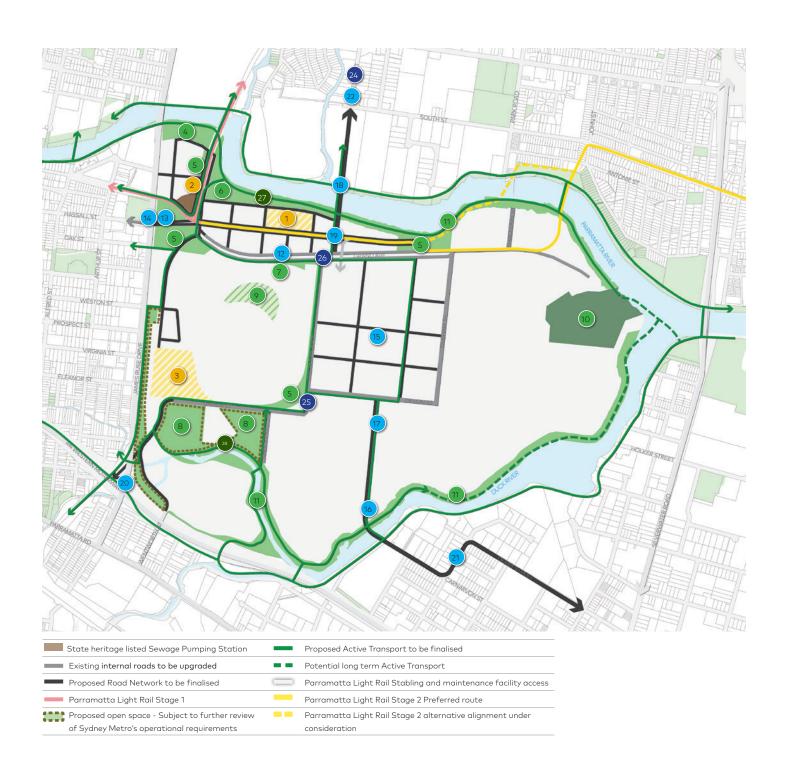
The diagram opposite provides a map of infrastructure items and their indicative locations proposed for delivery under this plan.

A mix of mechanisms are proposed to fund and deliver essential infrastructure, and it will be important for state agencies, local councils, landowners and industry to work collaboratively.

The infrastructure opportunities and delivery pathways will require further refinement through more detailed studies to support the rezoning stage. To ensure maximum feasibility the more detailed studies should focus on innovative, efficient and sustainable infrastructure solutions to support the precinct.

Most infrastructure proposals, in particular transport initiatives, are not funded or committed. As a result, they should be regarded as initiatives subject to further development, scoping, business case investigation and investment decisions.

	Social infrastructure
1	Primary School-subject to further review
2	Multipurpose Community Facility (location TBC)
3	K -12 School–subject to further review
	Open space and recreation
4	District Park
5	Local Parks
6	District Park
_7	Local Linear Park
8	District Park (Subject to further review of Sydney Metro's operational requirements)
9	Potential restricted access open space
10	Potentially Publicly Accessible Wetlands
11	40m Foreshore Buffer
	Traffic and active transport - Road Links
12	Upgrade and widening of Grand Avenue to 4 lanes
13	Removal of Grand Avenue Bridge approaching James Ruse Drive
14	Upgrade of James Ruse Dr / Grand Ave / Hassall St intersection
15	Internal road network between Colquhoun Street, Durham Street, Grand Avenue, and Devon Street
16	Road and active transport Duck River Bridge to Carnarvon Street
17	North-South link connecting from Grand Avenue to proposed Duck River bridge
18	Road and active transport Parramatta River bridge to Clyde Street
19	North link connecting from Grand Avenue to proposed Parramatta River bridge
20	Connection to M4 Western Motorway
21	Widening of Carnarvon Street and Derby Street
22	Widening of Clyde Street
	Traffic and active transport - Intersections
23	Upgrade Intersection of Derby Street and Silverwater Road
24	Upgrade Intersection of Clyde Street and Victoria Road
25	North-South link intersection with Devon Street
26	North-South link dog-leg intersection with Grand Avenue and North Link to Rydalmere
	Active Transport
27	Parramatta River active transport
28	Duck Creek active transport



STAGING

The delivery program sets the course for the staged delivery of land for new homes and jobs in the Precinct and coordinates the delivery of infrastructure. The forward program for rezoning will be staged to align with public and private infrastructure commitments.

The end-state Integrated Master Plan sees the realisation of an integrated urban renewal of the Camellia-Rosehill Precinct, while facilitating the continued operation and gradual transition of the strategic employment lands and industrial uses. The timing, order and detailed resolution of each Sub-precinct will be further resolved as part of ongoing investigations in the Precinct.

The staging strategy considers a precinct-wide perspective to enable coordinated delivery, while allowing flexibility to accommodate future changes in land-use demands and community needs in subsequent planning and development phases.

Short term - 0 to 5 years

Infrastructure

- Parramatta Light Rail stabling yard delivered
- Parramatta Light Rail Stage 1 operating

- Parramatta Light Rail Stage 2 preferred route decided and construction commenced*
- · Planning, design and feasibility of transport initiatives
- · Educational facilities**

further review by School Infrastructure.

Planning and design of social infrastructure and open space

Employment uses

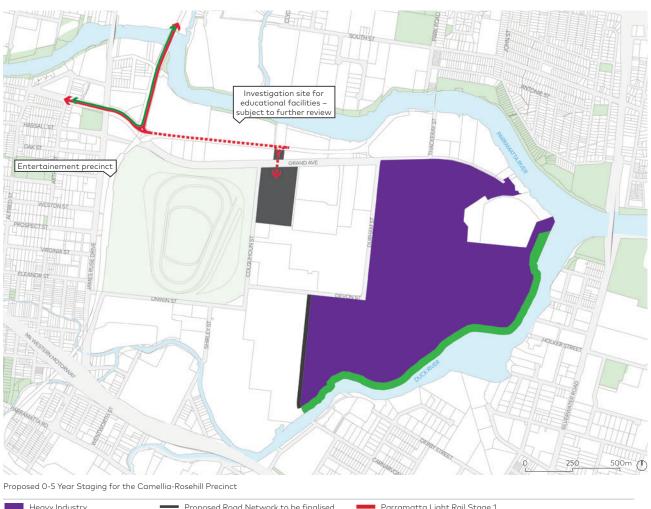
- Ongoing industrial activity, with growth associated with development applications in the pipeline
- Progress development of the entertainment precinct, capitalising on existing entertainment facilities and connections to the Parramatta CBD

Town centre, residential and entertainment precincts

- Start of planning and remediation works
- Early stage works for unconstrained development sites
- Works for open space and community infrastructure to support early stage development

* The NSW Government has committed \$602.4 million for Parramatta Light Rail Stage 2 to commence the detailed planning process and early works for the delivery of a new bridge crossing the Parramatta River between Wentworth Point and Melrose Park.

** The locations and timing of educational facilities are under investigation and subject to



Medium term - 5 to 10 years

Infrastructure

- Sydney Metro West stabling yards delivered
- Parramatta Light Rail Stage 2 delivered*
- Deliver the initial road network enhancements:
 - Grand Avenue/James Ruse Drive intersection upgrade
 - M4 connection
 - Road connections across Parramatta River and Duck
 - Upgrades to Carnarvon and Derby Street, and Derby Street Silverwater Road intersection
- First stage of active transport links
- Town centre enabling works

Entertainment and residential

Existing Road Network

Town centre

- Foreshore access
- Bus services established

* The NSW Government has committed \$602.4 million for Parramatta Light Rail Stage 2 to commence the detailed planning process and early works for the delivery of a new bridge crossing the Parramatta River between Wentworth Point and Melrose Park.

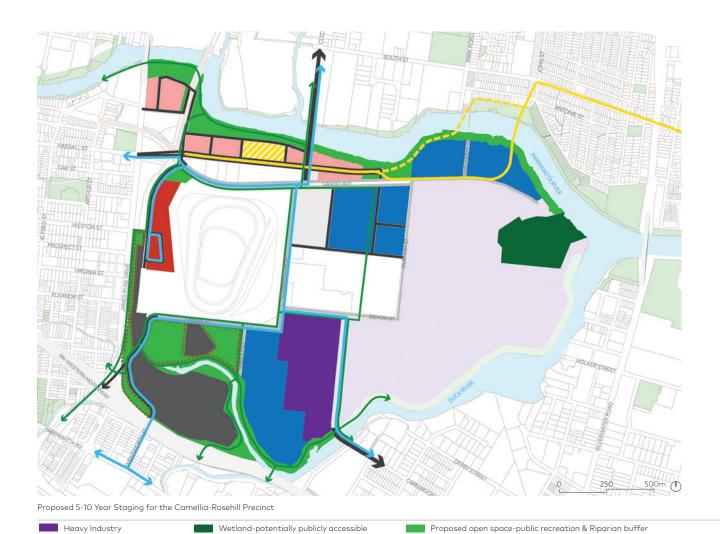
** The locations and timing of educational facilities are under investigation and subject to further review by School Infrastructure.

Employment uses

- Continued growth of industrial and urban services
- Start of finer grain development through the urban services precinct
- Consolidation of city building uses with access to enhanced wastewater and renewable energy supply (including battery storage facilities, subject to private sector investment)

Town centre, residential and entertainment precincts

- Initial development on remediated sites and on sites with few constraints once the base infrastructure for the precinct is established
- Early stage town centre enabling works, including district park and early community facilities
- Further development of the entertainment precinct



Proposed Road Network to be finalised

Transport and utility facilities

Urban services with site specific provisions to accommodate existing uses

Proposed Active Transport to be finalised

Long term - 10 to 20+ years

Infrastructure

- Active transport links completed
- Additional educational facilities**

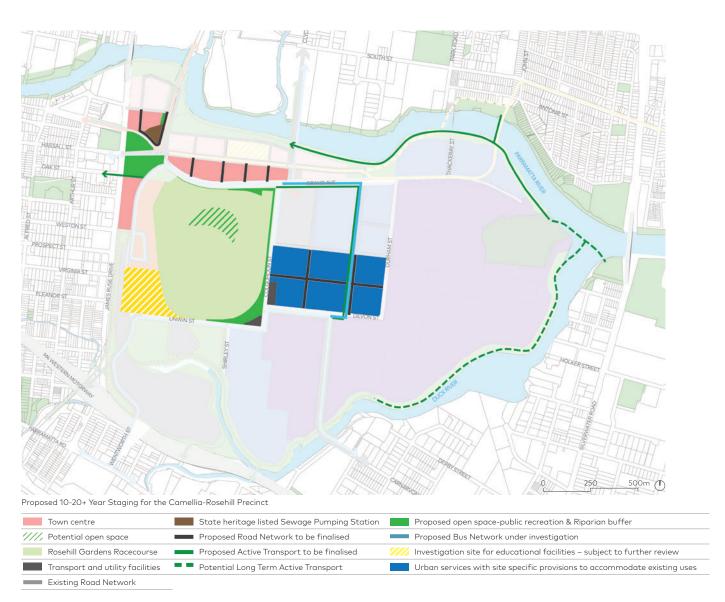
Employment

- More employment growth within and adjacent to the town centre
- Establishment of a new road network through the urban services precinct
- Consolidation of a circular economy built around businesses supporting city building and operation, including water treatment, energy generation and materials recycling

Town centre, residential and entertainment precincts

- Gradual development of the town centre supported by social infrastructure, Parramatta Light Rail and road upgrades
- · Build out of remediated sites

 $^{^{\}star\star}$ The locations and timing of educational facilities are under investigation and subject to further review by School Infrastructure.



GLOSSARY/ABBREVIATIONS

ACHA - Aboriginal Cultural Heritage Assessment

AEP - Annual Exceedance Probability. The probability that a design event (rainfall or flood) has of occurring in any 1 year period

AHIMS - Aboriginal Heritage Information Management System

ASL - Above Sea Level

Council - City of Parramatta Council

DA - Development Application

DPE - New South Wales Department of Planning and Environment

EbD - Enquiry by Design

Emp - Employment

FSR - Floor Space Ratio

GANSW - Government Architect NSW

GFA - Gross Floor Area

GPOP - Greater Parramatta to Olympic Peninsula

Ha - Hectare

HIPAP - Hazardous Industry Planning Advisory Papers

HOB - Height of Building

IWCMS - Integrated Water Cycle Management Strategy

LA - Landscape

 ${f LHS}$ - Local Housing Strategy

LSPS - Local Strategic Planning Statement

LZN - Land Use Zone

m - Metre

MNA - Monitored Natural Attenuation

PIC - Place-based Infrastructure Compact

Ppd - People per Dwelling

PRB - Permeable Reactive Barrier

PSB - Parramatta Sand Body

SSDA - State Significant Development Application

UPSS - Underground Petroleum Storage Systems

WSUD - Water Sensitive Urban Design

