



CAMELLIA-ROSEHILL PLACE STRATEGY INFRASTRUCTURE AND DELIVERY PLAN

Department of Planning, Industry and
Environment

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Camellia Rosehill Place Strategy

Infrastructure and Delivery Plan

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Disclaimer

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By



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Executive summary

The Department of Planning, Industry and Environment is preparing the Camellia-Rosehill Place Strategy. The vision for Camellia-Rosehill is:

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 the community activity.

New homes will be close to public transport supported by walking and cycling paths and new public spaces, including the Parramatta River foreshore.

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

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

The precinct will set a new standard for environmental sustainability with embedded renewable energy networks, integrated remediation and water management strategies, circular economy industries and a commitment to achieve net zero by 2050.

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.¹

The Place Strategy master plan provides a framework for an innovation and industry precinct. The eastern part of the Precinct is reserved to reinforce the existing energy, recycling and water infrastructure. Mixed use and residential redevelopment will be focussed around a new town centre located in the north-western corner close to transport connections and is intended to be an attractive place for people to live, work, study and visit.

GLN Planning was engaged to prepare an Infrastructure Delivery Plan (IDP) to support the Draft Master Plan.

The overall purpose of the IDP is to assist landowners, developers and infrastructure agencies to collaboratively plan, prioritise, program and deliver infrastructure in the Camellia-Rosehill Place Strategy area in an orderly and timely manner.

The IDP:

¹ Camellia-Rosehill Integrated Master Plan, Cox 2021

- sets out the growth infrastructure to support the development vision for Camellia-Rosehill, and their costs
- recommends a mix of mechanisms to fund and deliver the infrastructure, and the projected revenue that could be derived from the mechanisms
- identifies the entities / agencies likely to be responsibility for the delivery of the infrastructure – e.g., landowners, developers, and government (both local and State)
- identifies the potential for individual developments (including development on key sites) that can accommodate specific infrastructure in their developments
- provides an indicative staging scenario that shows infrastructure timing and cost, compared to income / delivery timing, resulting in a high-level cash flow analysis
- lists the next steps that should be followed to create the framework necessary to enable orderly and timely delivery of infrastructure to support the place strategy.

Key features of the IDP include:

- Total infrastructure costs more than \$1.5 billion.
- Identified developer and landowner funding mechanisms that could meet around \$1.1 billion of this cost, reflecting a funding gap of around \$416 million.
- An infrastructure indicative staging profile as shown in the table below.

Infrastructure costs by stage of delivery

Infrastructure type	Short term (0-5 years) (\$m)	Medium term (5-10 years) (\$m)	Long term (10+years) (\$m)	Total costs (\$m)
Roads and intersections	\$31.6	\$279.3	\$238.3	\$549.2
Active transport	\$0.0	\$69.4	\$126.2	\$195.6
Utilities	\$0.0	\$46.6	\$0.0	\$46.6
Social infrastructure	\$8.3	\$94.3	\$162.9	\$265.5
Open space and recreation	\$0.0	\$204.0	\$295.9	\$499.9
Total	\$39.9	\$693.6	\$823.3	\$1,556.8

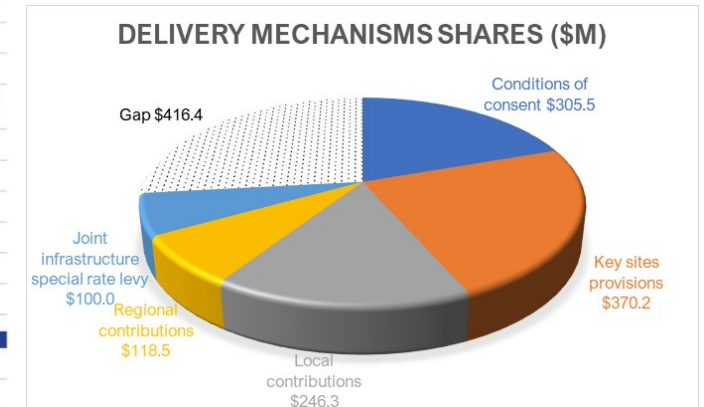
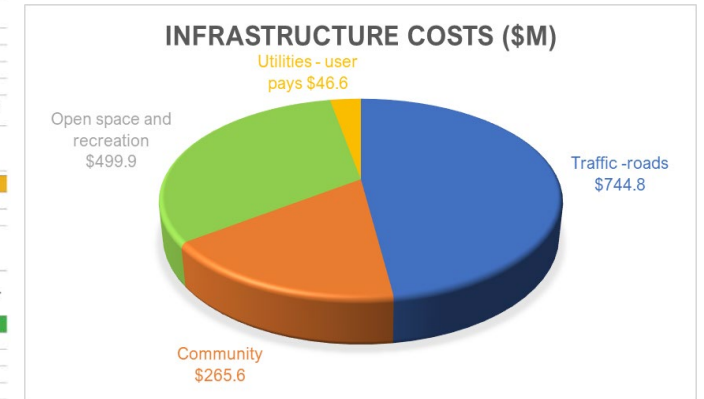
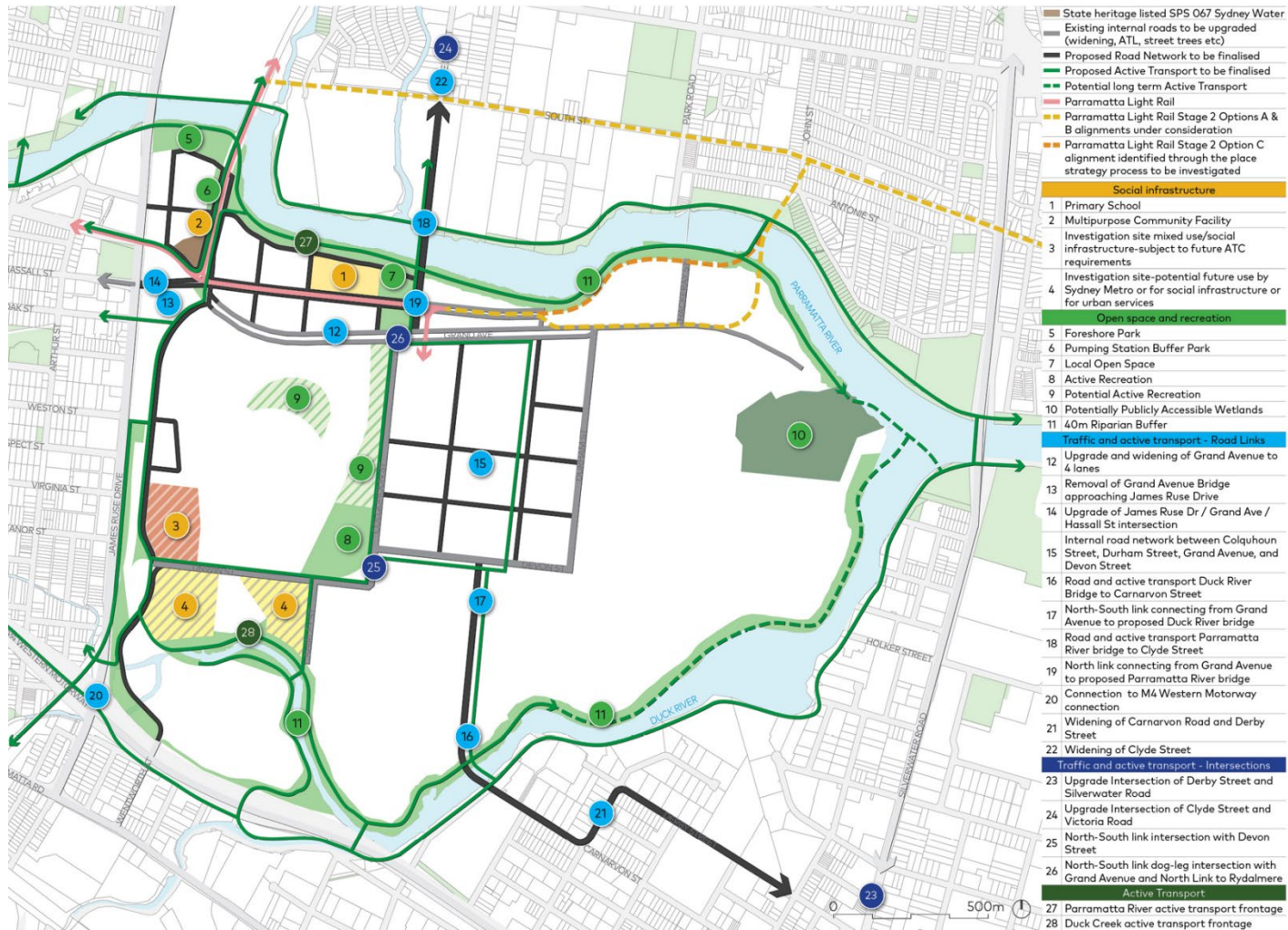
The following page contains a summary of this plan, and shows:

- The map containing the infrastructure items and their indicative locations, proposed for delivery under this plan
- The figure 'Infrastructure Costs' that provides a breakdown of the infrastructure costs associated with each infrastructure type
- The figure 'Delivery Mechanisms' that provides an indicative breakdown of what infrastructure funding mechanisms may be used to fund the delivery of infrastructure and an indicative funding gap that will need to be funded by alternative sources.

This plan has been prepared and is subject to the following limitations:

- All infrastructure costs are high level strategic costs which have not been prepared using concept or detailed designs,
- The costs have been prepared using multiple assumptions for land and remediation costs
- There has been no commitment from government agencies to fund infrastructure in the Precinct. The use of government funding options are subject to future consideration.

Infrastructure delivery plan at a glance



Glossary of terms and abbreviations

Abbreviation	Meaning
DPIE	Department of Planning, Industry and Environment
CBD	Central Business District
Council	City of Parramatta Council
EbD	Enquiry by Design
FSR	Floor space ratio
GANSW	Government Architect New South Wales
GPOP	Greater Parramatta and Olympic Peninsula
IDP	Infrastructure Delivery Plan
IPART	Independent Pricing and Regulatory Tribunal
LEP	Local Environmental Plan
NGO	Non-Government Organisation
OSHC	Out of Hours School Care
PCYC	Police and Community Youth Club
PLR	Parramatta Light Rail
RIC	Regional Infrastructure Contribution
SEPP	State Environmental Planning Policy
SIC	Special Infrastructure Contribution
SPS	Sewer Pumping Station

1 Project background

New South Wales Department of Planning, Industry & Environment (DPIE), in collaboration with City of Parramatta Council (Council), industry, the community and State agencies, is leading the development of the Camellia-Rosehill Place Strategy and Draft 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.



Figure 1 Area of the Camellia-Rosehill Draft Master Plan

The Precinct is presently dominated by industrial activity, with large amounts of land also allocated to Rosehill Gardens Racecourse and stabling yards for Parramatta Light Rail and Sydney Metro. Its industrial legacy means that soils are heavily contaminated across most of the Precinct.

Located in the geographic heart of Sydney, the Precinct has an important strategic role in the Greater Parramatta and Olympic Peninsula (GPOP).

This Place Strategy and Draft Master Plan is being prepared for the whole Precinct and draws 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.

DPIE has engaged GLN Planning to deliver technical studies for Package E – Delivery and Funding, with the scope of work to establish the funding mechanisms that may be available to assist with the delivery of infrastructure to support the proposed vision.

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.

1.1 Purpose of this plan

The purposes of this Camellia-Rosehill Place Strategy IDP are to:

- set out the infrastructure that will be needed to support the vision
- recommend a mix of funding mechanisms for the delivery of place strategy infrastructure, and the respective responsibilities of the main organisations who will deliver the infrastructure – Landowners, Developers, and Government (both local and State)
- identify the potential for individual developments (including development on key sites) to incorporate some of the required infrastructure in their developments
- identify the estimated costs of the infrastructure
- recommend priorities and an indicative staging schedule for delivery of the different infrastructure items
- provide a ‘road map’ to assist agencies to collaboratively plan, prioritise, program and deliver infrastructure in the Place Strategy area in an orderly and timely manner.

1.2 How is infrastructure funded and delivered in NSW?

‘Infrastructure’ are assets supporting services that enable our cities, towns, and regions to properly function. Most of these services are provided by public authorities including State agencies and local councils.²

State and local government usually play a lead role in providing new or augmented public infrastructure to meet the needs of land that is developed or redeveloped.

Public infrastructure where government plays a leading role in its delivery typically includes:

- roads and pedestrian and cycle paths
- public transport
- water cycle management
- open space for recreation facilities
- community facilities such as community centres and libraries, schools and hospitals

² NSW Productivity Commission (2020), Review of Infrastructure Contributions in New South Wales – Final Report, p22

- utility services such as water and sewer, electricity, gas, telecommunications.³

Funds for public infrastructure must ultimately come from either users and other beneficiaries, rate payers or tax payers. These funding sources include:

- the State Budget from State tax revenue, Commonwealth funding and grants, and the proceeds of asset transactions
- local government from general rates revenue
- direct user charges
- infrastructure contributions.⁴

Developers of land also play a major role in delivering infrastructure to support land development and redevelopment through requirements placed on development approvals. Conditions are imposed on development by consent authorities such as planning panels and local councils requiring developers to provide roads and transport facilities, drains, and utility services to meet the needs of development. Often, the completed facilities become public infrastructure when they are handed over to be maintained in perpetuity by public authorities and local councils.

Developers and State and local government also act jointly in providing infrastructure whereby developers make 'contributions' of money, land or works which the government then applies towards providing public infrastructure that supports growth. These are known as infrastructure contributions.

Developers and owners of land, as well as State and local government (through the funding sources listed above) will all have a role in the delivery of infrastructure to support the Camellia-Rosehill Place Strategy land use plan.

Funding and delivery sources and mechanisms are discussed in section 3.

1.3 Limitations

This IDP has been developed with input from DPIE, Parramatta City Council (Council), government agencies and the place strategy consultant team using the latest available evidence.

The plan's funding mix and staging recommendations and conclusions are heavily influenced by several assumptions. Variation of these assumptions may significantly affect the plan.

The reader should therefore be mindful of the following:

- The infrastructure costs are high level strategic costs that have not been prepared with regard to concept or detailed designs.
- The infrastructure costs have been prepared using multiple assumptions including but not limited to, land remediation costs and land valuation costs. A detailed list of assumptions is included in Appendix A.
- The commitment of government agencies to fund infrastructure in the Precinct using taxpayer sources is unknown and untested.

³ NSW Productivity Commission (2020), p23

⁴ NSW Productivity Commission (2020), p23

- The commitment of local government to fund infrastructure in the Precinct will need to be agreed to and endorsed by Council.
- Development uptake is assumed to be 100% of the available potential over 20 years.
- The uptake of development is assumed to follow the staging plan contained in this plan.
- The capture of development contributions from industrial and non-residential development is uncertain. Industrial lands within the Precinct have existing use rights that may allow for future redevelopment without a proportional increase in demand i.e. the sites are being underused currently because of vehicle access limitations.
- The application of the key sites mechanism being used to internalise to certain developments a considerable portion of the community and open space facilities costs relies on development viability benchmarks being met.
- The proposed reforms to the NSW infrastructure contributions system are still being designed and the final form will influence the revenue and spending of regional contributions collected from development within Camellia-Rosehill.

2 Infrastructure drivers and constraints

2.1 Camellia-Rosehill 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 the community activity.

New homes will be close to public transport supported by walking and cycling paths and new public spaces, including the Parramatta River foreshore.

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

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

The precinct will set a new standard for environmental sustainability with embedded renewable energy networks, integrated remediation and water management strategies, circular economy industries and a commitment to achieve net zero by 2050.

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.

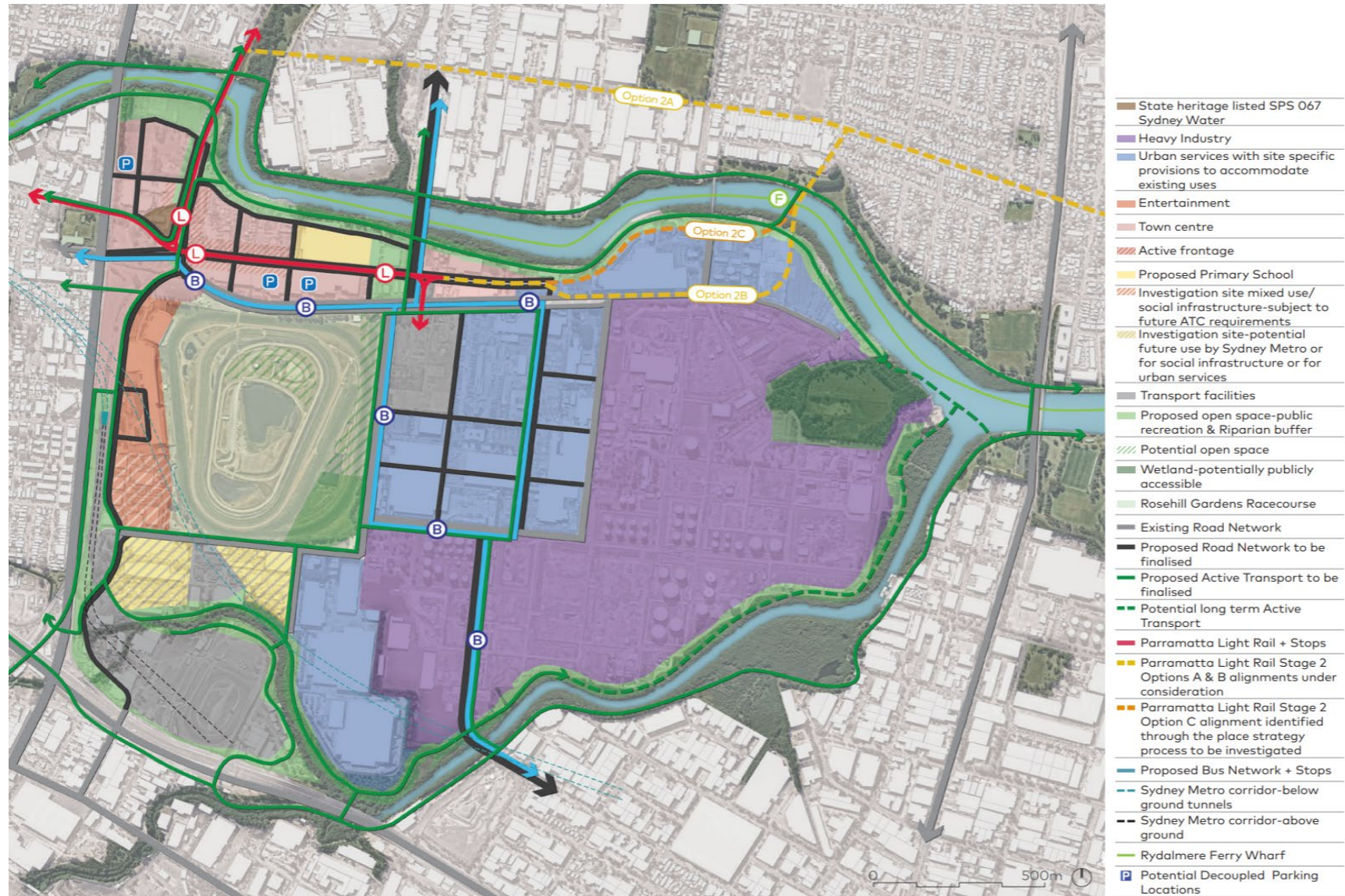
2.2 The Camellia-Rosehill Draft Master Plan

The Draft Master Plan is shown in Figure 2 and forms the basis of the Place Strategy.

Key features of the Draft Master Plan include:

- Provision for approximately 10,000 dwellings within a Town Centre serviced by light rail
- Provision for approximately 14,500 jobs
- A new primary school and primary and secondary high school
- District and regional 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 sewerage pumping station (SPS) 067 within the town centre
- Measures to mitigate land use conflicts and risks including regulatory buffers and setbacks from existing fuel pipelines and between the existing sewerage pumping station and future surrounding residential uses

- Access to the Parramatta River, Duck River and Duck Creek foreshores and potentially the wetland
- New transport infrastructure including a local road network, potential bus services, additional connections into and out of the Precinct, and opportunities to integrate with Parramatta Light Rail (PLR) Stage 2
- An extensive active transport network
- A comprehensive remediation strategy
- A sustainability strategy and integrated water cycle management strategy.



Source: Draft Camellia-Rosehill Place Strategy 2021, Cox

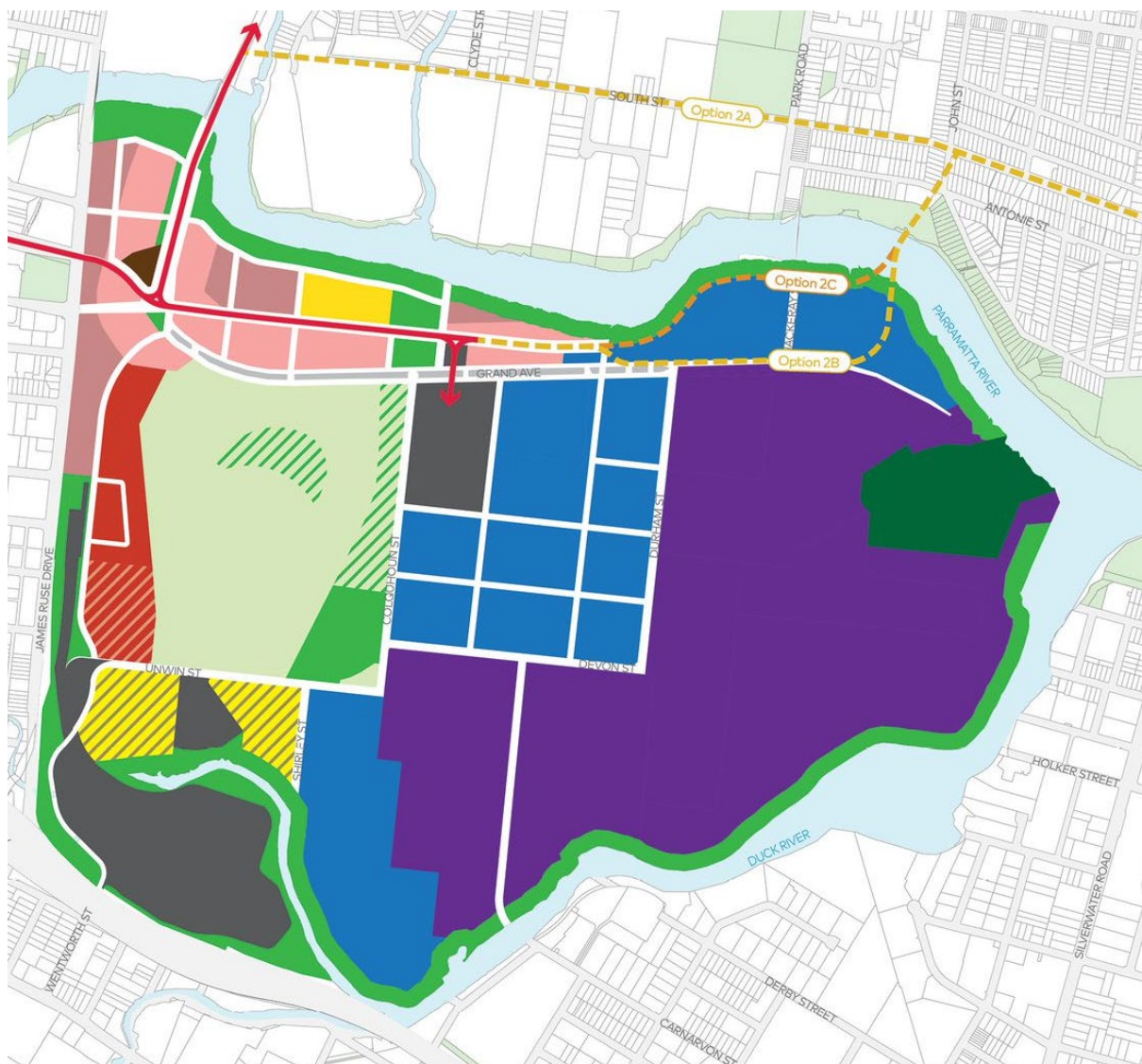
Figure 2 Draft Camellia-Rosehill Master Plan

Land use

Figure 3 provides an estimate of the proposed floorspace for uses within the Precinct. Residential and mixed-use development is concentrated in the north-western section. The central, southern, and eastern areas are proposed to continue to be industrial and innovation employment areas.

Other uses include primary and secondary schools and areas for open space and recreation purposes.

Figure 4 shows the proposed estimated land use metrics for the Precinct.



Source: Draft Camellia-Rosehill Place Strategy, Cox 2021

Figure 3 Draft Camellia-Rosehill Master Plan - Land Use

Uses	Area	Efficiency	HOB (storeys)	HOB (m)	Mix	Dwelling: GFA	Emp (X:GFA)	Emp Density (X:Ha)	Dwellings	Population (@2.4ppd)	Jobs	Other
					Resi	Retail						
State heritage listed SPS 067 Sydney Water	5,120	-										
Heavy Industry	1,061,330	100%		16				25			2,653	
Urban services with site specific provisions to accommodate existing uses	597,000	100%	4	20			80				7,463	
Entertainment	52,770	100%	8	36			80				2,639	
Town centre (medium)	124,370	95%	12-24	80	95%	5%	90	35	5,612	13,469	760	
Town centre (high)	82,800	95%	24-40	130	95%	5%	90	35	4,567	10,960	618	
Proposed Primary School	20,820	100%									100	1,000
Investigation site mixed use/social infrastructure-subject to future ATC requirements	38,380	100%						25			96	
Investigation site-potential future use by Sydney Metro or for social infrastructure	77,570	100%						25			194	
Transport facilities	257,710	-										
Proposed open space-public recreation & Riparian buffer	402,430	-										
Wetland-potentially publicly accessible	98,710	-										
Potential open space	64,000	-										
Rosehill Gardens Racecourse	331,980	-										
Total									10,179	24,429	14,522	1,000

Source: Draft Camellia-Rosehill Place Strategy, Cox 2021

Figure 4 Draft Camellia-Rosehill Master Plan land use metrics

The Preferred Scenario is anticipated to result in:

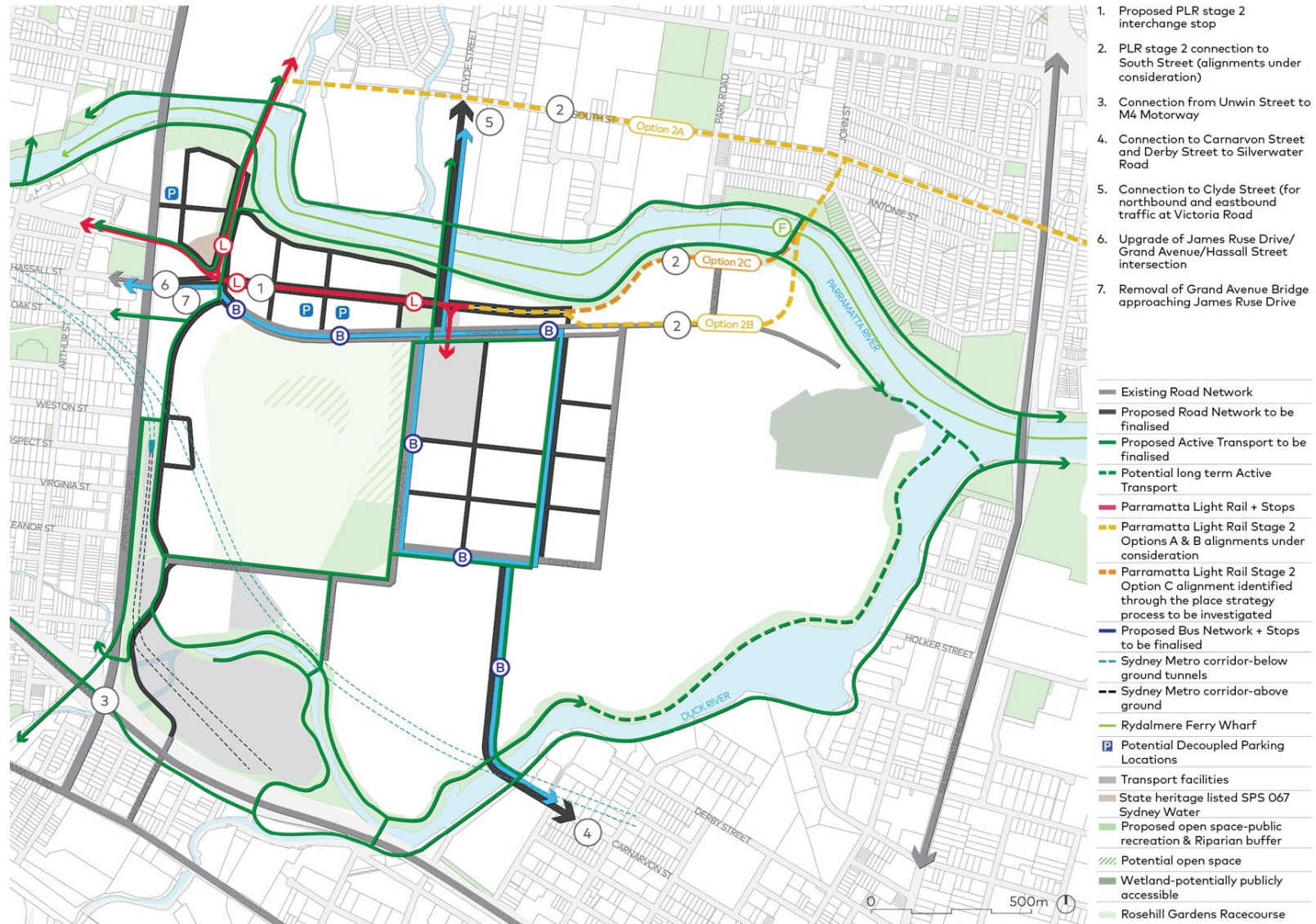
- 10,179 dwellings with a mix of dwelling typologies,
- 24,429 new residents
- 14,500 new jobs.

This development demand has informed the infrastructure planning for the Draft Master Plan.

2.3 Supporting infrastructure overview

Access for vehicles and people

A summary of the proposed transport infrastructure to meet the needs of the development anticipated in the Draft Master Plan is shown in Figure 5.



Source: Draft Camellia-Rosehill Place Strategy, Cox August 2021

Figure 5 Draft Camellia-Rosehill Master Plan - Movement and Access

The works include:

- New road bridge crossings for vehicles providing new access to the north and south-east of the Precinct
- New active transport bridge crossings
- New active transport paths internal to Camellia
- New internal local roads
- Widening of some internal roads
- Upgrades to intersections and roads external to the Precinct.

Public transport requirements are centred on the new PLR station at Camellia that provides future connection to Parramatta and Westmead to the west, Melrose Park and Wentworth Point to the east and Carlingford to the north. Additional public transport options would include improved bus services. None of the public transport options are included in this funding and delivery strategy, as it is assumed that their cost will be met by State budget allocations.

The provision of cycleways and shared paths focus on closing the gaps in the network both inside and beyond the Precinct. They will also improve connection to open spaces and alternative routes to the Parramatta CBD.

Open space and recreation infrastructure

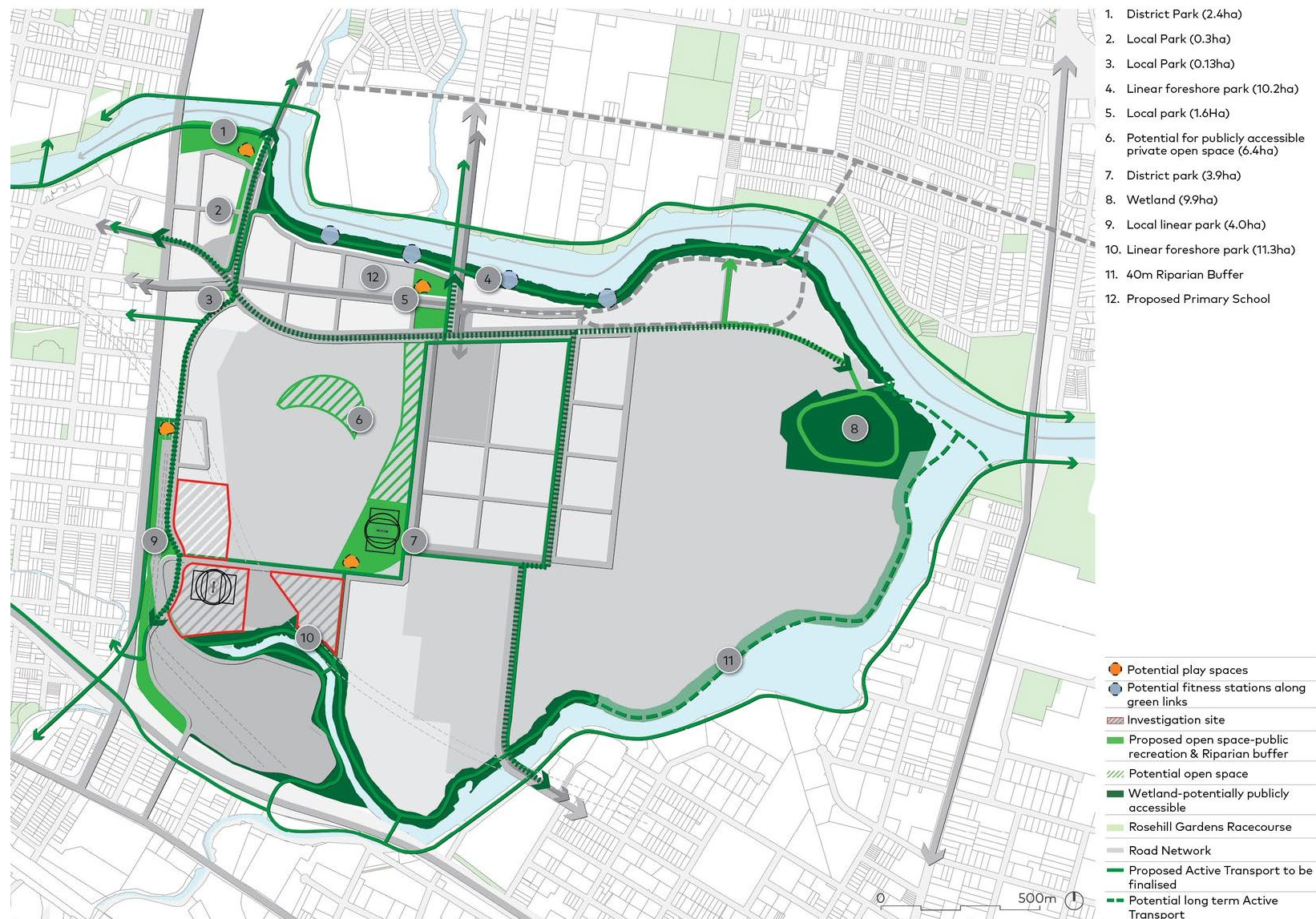
A summary of the proposed open space and recreation infrastructure to meet the needs of the development anticipated is listed below and shown in Figure 6:

- New foreshore park
- New local open space
- Linear park/riparian corridor along part of Parramatta River and Duck Creek
- Access to the existing wetlands
- New sportsfields provision to support resident growth
- Play spaces and fitness equipment
- Future potential active recreation spaces
- Potential indoor recreation courts.

Social and community infrastructure

A summary of the proposed social infrastructure to meet the needs of the development anticipated is listed below and partly shown in Figure 6:

- 3,500m² of community and library floorspace within the Town Centre
- Childcare Services
- Out of School Hours Care services (potentially located within the proposed public school)
- Public primary school
- Combined primary and secondary school.



Source: Draft Camellia-Rosehill Place Strategy, Cox August 2021

Figure 6 Draft Camellia-Rosehill Master Plan - Community and Open Space Infrastructure

Green infrastructure

Green infrastructure is the network of green spaces, natural systems and semi-natural systems that supports sustainable communities and includes waterways; bushland; tree canopy and green ground cover; parks, and open spaces that includes parks; and open spaces that are strategically planned, designed and managed to support a good quality of life in the urban environment (Greener Places: An Urban Green Infrastructure Design Framework GANSW 2020).

This type of infrastructure can be provided by government or developer. The delivery of items such as alternative parking options need to be incentivised through development controls or can also be achieved through 'key sites' provisions in a future Local Environmental Plan (LEP) instrument.

Affordable housing

The Place Strategy provides for a minimum of 5% of affordable housing. The mechanisms to be used for this outcome are yet to be resolved.

Utilities

Utilities are provided by utility service providers. It is possible for developers to have an agreement with a utility provider to deliver infrastructure on their behalf.

2.4 Risks to the timely delivery of infrastructure

Development viability impacts on infrastructure provision

Developers of land are likely to emphasise that the viability of redevelopment should or must be benchmarked against today's economic conditions. This has implications for determining the 'capacity to pay' level of developer contributions, and how much development is needed on a key site in order for the site to accommodate infrastructure.

The place strategy is based on changes and developments set to occur over many years. Just because a particular development does not meet viability thresholds today does not mean it will always be so. Viability results will eventually reach benchmarks if sales income outstrips development costs. This may not be right now, but in 5 or 10 years time. In the context of a plan taking thirty or more years to implement, it is reasonable to consider the temporal aspect of development viability.

Remediation method impacts development and infrastructure staging

Contamination of land in the Precinct requires careful consideration when the Draft Master Plan proposes the transition to more sensitive land uses (residential and social). The remediation costs of land should include the initial clean-up of the site areas and the ongoing management and maintenance costs of the areas into the future. Further, any land proposed to be dedicated to Council would be subject to discussions and agreement with Council.

A remediation strategy has been developed to support the place strategy and includes indicative cost estimates. The strategy sets out a precinct-wide approach to minimising contamination disturbance and generation of waste, while considering opportunities for a precinct-wide approach for groundwater remediation. The remediation assumed in the estimate of costs in this plan for publicly accessible areas like the foreshore linear park, public open space and public facilities spaces assumes the strategy approach above. Should the precinct-wide approach not be followed, then there is potential for increased remediation costs.

Development contributions opportunities limited to areas being developed

An important limitation on the delivery of infrastructure is that the opportunity to receive either contributions funds or works-in-kind relies on development occurring. The contributions that may be collected to deliver infrastructure items, is limited because development is delayed or does not happen as expected.

In the case of local contributions, the Precinct has been identified for both residential and non-residential development. While there is considerable short to medium term interest for residential development, new industrial and innovation development is likely to occur once Precinct vehicle access to the external arterial network is improved. The capture of development contributions from industrial and non-residential development is uncertain. Industrial lands within the Precinct may have existing use rights that allow for future redevelopment without a proportional increase in demand. Or, intensification of land use may occur through, for example, use of external hard paved areas for freight storage without any floor space increase. That is, the sites are being underused currently because of vehicle access limitations. Therefore, redevelopment of the sites may not incur the payment of development contributions (i.e. local contributions are usually based on net increase in floor space or jobs). It means that the recoupment (through contributions) of costs incurred by forward funding of infrastructure projects may be substantially limited to residential projects.

Regional and state contributions will be collected for all new development within the Precinct irrespective of the demand that is created, including changes of use of land. There is also an option for a Transport Project Contribution to help fund the PLR project.

Consequently, a special rate levy on all the lands within the Precinct may be a more reliable source of long-term income for the potential recoupment of local and regional works that may be provided by forward funding by local and state government. More detail on special rates is provided in section 3.4.

A related risk is that income via contributions will fall short of the target if only a portion of the development potential provided in the place strategy is taken up. For example, this plan assumes 100% of development potential will be taken up, whereas there may be much less, such as 50-60% take-up over 20 years.

The provision of social or open space infrastructure located on privately owned lands is contingent on the development of those lands. Where development is delayed longer than expected, important infrastructure such as open space or schools may require compulsory acquisition by government to achieve important community outcomes.

3 Infrastructure funding and delivery mechanisms

New or augmented infrastructure that is needed to support the growth of urban redevelopment areas in a built-up urban context with numerous landowners - such as Camellia-Rosehill - is provided through several mechanisms.

Potential mechanisms that might be used to deliver infrastructure are shown in Table 1. It summarises contributions and other planning system mechanisms that are available to deliver infrastructure that is linked to development growth.

Blue highlighted mechanisms are discussed more fully in sections 3.1 to 3.4. Potential application of these mechanisms to individual infrastructure items is discussed in section 3.5.

Table 1 Potential infrastructure funding and delivery mechanisms

Mechanism	Brief description of mechanism	Potential for use at Camellia-Rosehill
Planning system mechanisms		
Direct developer provision through planning controls	The developer is required to provide, replace or upgrade infrastructure as a condition on a development consent. The works are usually required directly as a result of the development works. For example: in-street drainage and upgrades of street adjoining their development.	High
S7.11 contributions	A contribution of money or land imposed as a condition on a development consent or complying development certificate. The contribution cannot be more than an amount that reflects the relationship (or nexus) between the particular development and the infrastructure the subject of the contribution.	High Section 3.1
S7.12 levies	Fixed rate levy imposed as a condition on a development consent or complying development certificate. Maximum levy rate is set by regulation and is generally 1% of development cost.	High Section 3.1
S7.24 Special Infrastructure Contributions (SICs)	Contribution of money or land imposed as a condition on a development consent or complying development certificate to be applied toward the provision of public infrastructure determined by the Minister for Planning and Public Spaces. (Note: these are to become a regional infrastructure contributions – see section 3.2)	High Section 3.2
Planning agreements (State and Local)	An agreement voluntarily negotiated between a developer and the one or more planning authorities in which the developer commits to providing contributions of land, works or money for public purposes.	High
Key sites provisions in an LEP	An arrangement where a developer provides infrastructure on or adjacent the development site that has a broader public benefit, in exchange for the right to develop the site for alternative and/or more intense land use. The contributions are formalised through a planning agreement.	High Section 3.3
Other mechanisms		
Council General fund	Ordinary rates revenue that is collected by the council on an annual basis to fund the operations of the council. The use of	Low

Mechanism	Brief description of mechanism	Potential for use at Camellia-Rosehill
	general funds to fund infrastructure needs to be agreed and endorsed by Council.	
Special rate variation (LGA)	Additional council rates pursuant to section 495 of the Local Government Act 1993 for works or services that will service the LGA. An application is required to be made and approved by Independent Pricing and Regulatory Tribunal (IPART). The use of special rate variations need to be agreed and endorsed by Council.	Medium
Local area special rate	Additional council rates pursuant to section 495 of the Local Government Act 1993 for works or services limited to a specific area (e.g. land release or suburb) that will benefit from the proposed infrastructure. An application is required to be made and approved by IPART. The use of special rate variations need to be agreed and endorsed by Council.	High Section 3.4
Subsidised borrowing schemes	Low cost loan financing offered by the NSW Government (e.g. Low- Cost Loans Initiative, LCLI). All councils are eligible to apply for a maximum loan period of 10 years. Programs tend to support 'enabling infrastructure' that may include community facilities, parks and playing fields. This mechanism depends on the NSW Government continuation of the scheme over time.	Low
Non council providers of similar service	Facilities and services that have been traditionally provided by councils but are also provided by other organisations. Examples include childcare centres (increasingly provided by for-profit companies), indoor recreation centres (increasingly provided by registered clubs and Non-Government Organisations (NGOs) such as Police and Community Youth Clubs (PCYC)).	Medium
Proceeds from asset sales	Sale of publicly owned assets (usually land e.g. depots) that are surplus to needs or are otherwise redundant and are no longer required.	Low
Redevelopment of State Government land	Opportunities to have infrastructure, facilities, affordable housing or other public benefits incorporated into the redevelopment of State-owned land that is surplus to agency needs.	Low
State and Commonwealth Government grants	Funds that are available for the provision of infrastructure via an application process. Most schemes require co-funding/cash contribution for projects. Projects without co-funding tend to score lower against the merit criteria.	Medium
State Budget allocations	Amounts allocated from NSW government consolidated revenue.	High
User fees and charges	One-off and recurrent payments made by users of a facility or service, such as connection and usage fees charged by utility authorities for utility services	High

3.1 Local infrastructure contributions

The primary funding and delivery mechanism available to councils to fund local infrastructure is local infrastructure contributions (s7.11 or s7.12 contributions).

Typical infrastructure items that may be part or fully funded (depending on the population growth) includes:

- local road improvements, pedestrian crossings, and cycleways
- local and district park upgrades
- local and district community facilities upgrades and expansions
- public domain works including footpath widening and street tree planting (where it is not fronting new development works)
- recreation and sport facilities including courts, swim centres, sportsfields
- trunk stormwater drainage facilities.

Under the current planning framework, councils can impose contributions, but are restricted on the amount of contributions imposed on a residential development. For section 7.11, the current State government policy is that unless a contributions plan has been reviewed by the Independent Pricing and Regulatory Tribunal (IPART), the maximum amount applying to residential development in infill areas is \$20,000 per dwelling or lot. Presently no corresponding limit applies to contributions imposed on non-residential development.

The IPART review process is extensive and the infrastructure in a plan must be on the 'essential works' list to be funded by developer contributions. Essential works do not include community buildings, indoor sports centres and streetscape works not linked to traffic improvements. These are all works proposed in the Draft Master Plan.

Alternatively, a section 7.12 plan may be applied to development. The contribution levy is restricted to a maximum of 1% of the cost of development. The contributions that could potentially be exacted from development for the provision of infrastructure under a section 7.12 plan is usually less than contributions received from section 7.11. This is reflected in Council's recent repeal of the existing section 7.12 plan and adoption of a section 7.11 plan for all the areas outside of the Parramatta Central Business District (CBD) which includes Camellia-Rosehill.

To understand the type of income that could be expected from local infrastructure contributions GLN has applied the following section 7.11 contribution rates, taken from the City of Parramatta (Outside of CBD) Plan 2021:

- \$20,000 per dwelling
- \$3,000 per worker.

3.2 Infrastructure contributions reforms

In November 2020, the NSW Productivity Commission completed its Final Report on the Review of the NSW Infrastructure Contributions System.

In March 2021 the State Government accepted all 29 recommendations of the review. Of the recommendations identified by Productivity Commission Review, the following are of special interest in Camellia-Rosehill:

- Recommendation 4.6: contributions plans reflect development-contingent costs only (including applying the essential works list to all section 7.11 contributions plans)
- Recommendation 5.1: adopt Regional Infrastructure Contributions (or RICs)
- Recommendation 5.3: Adopt transport contributions for major projects.

At the time of writing the detail of all the reforms is yet to be revealed. Nevertheless, we make the following observations that are likely to impact on the scope of both State and local contributions to fund infrastructure in the Precinct:

Impacts on local contributions

- What constitutes 'development contingent infrastructure' is still being developed. However, the Productivity Commission review suggests that these are infrastructure costs with a causal connection to development 'because they would be avoided if the development did not proceed'. A developer has created these infrastructure costs and should therefore bear (some) or all the costs.
- It is probable that the bridge connections in the roads connecting to them to provide access to both the residential and industrial development, as well as social infrastructure may fit the definition of 'development contingent'. Presently, it remains unknown if local contributions plans will continue to be able to levy for these items in future.
- The 'essential works list' is being reviewed by IPART. The current essential works list does not include important social infrastructure like indoor recreation facilities, community, and library facilities. These works have been identified for delivery in the Precinct. Despite the comment above that social infrastructure would appear to meet the definition of development contingent infrastructure in Camellia-Rosehill's case, it is not certain that these items will be included in the essential works list.⁵

Impacts on State and regional contributions

A new Regional Infrastructure Contribution (RIC) Framework is proposed to replace the existing Special Infrastructure Contributions (SIC) framework, providing a simpler, more strategic and consistent approach to funding state and regional infrastructure. The RIC (Base Contribution) is a standard broad-based charge applying to residential, industrial, commercial and retail development.

The Precinct is located in the Greater Sydney RIC region. The base RIC rates applicable to the Precinct are:

- \$10,000 per residential unit
- \$15 per m² of new gross floor area for industrial development
- \$30 per m² of new gross floor area for commercial or retail uses.

Similar to other infrastructure contributions frameworks, the RIC is proposed as a developer contribution supplementing infrastructure funding through other budget processes. Based on the proposed development yield of the Precinct there is potential to collect approximately \$118 million in contributions. This will then form part of the overall RIC investment program, which is expected to generate approximately \$700 million per annum across the Greater Sydney Region.

The RIC Framework includes a new approach to strategic planning and infrastructure planning. A RIC Fund will be established and incorporated into new infrastructure planning, delivery, and budgeting mechanisms.

⁵ The state government announced in November 2021 that the reform recommendation that all section 7.11 plans only include development-contingent essential works will not commence as planned in 2022, and current arrangements in respect to the essential works list applying only to IPART-reviewed plans will continue until at least 2025.

This will ensure state agencies align new infrastructure with potential new growth. Eligible infrastructure identified for the Precinct will be delivered through this program, and other State funding mechanisms, forming part of the prioritisation process for growth infrastructure in the Greater Sydney region.

In addition to the base contribution, the RIC includes a Transport Project Component (TPC), that can also apply to new development within a specified service catchment of a major transport project. It aims to ensure that developers contribute towards the cost of major transport infrastructure that results in a significant uplift in their property values. While this opportunity exists in Camellia-Rosehill to support the delivery of the PLR project, further work is required to determine the service catchment and contribution rate and whether it will be applied.

3.3 Key sites planning provisions

'Key sites' planning provisions are provisions included in an environmental planning instrument such as a LEP that allow developers of key sites to deliver infrastructure - works in-kind, or via land dedication - in exchange for approval to develop the land for alternative use or, at a greater intensity, or both.

For example:

- a planning instrument may allow additional floor space or building height on a site if the developer provides open space, community facilities, through site links, or other specified public benefits
- a planning instrument may allow land that is currently zoned for industrial purposes to be allowed to be developed for residential purposes, subject to the developer of that land providing infrastructure / public benefits specified for that land in the LEP.

A planning agreement(s) providing the detail around the specification and timing of infrastructure provision would be negotiated between the developer and the relevant planning authority as part of the process.

Figure 7 over page shows how a key sites infrastructure delivery approach could work in helping to deliver Camellia-Rosehill infrastructure.

The key sites approach has been used extensively and effectively by the City of Sydney Council, which has included provisions in the Sydney LEP 2012⁶ that give the opportunity for developers of the key site to directly provide community infrastructure in exchange for approval to develop the land in excess of the prevailing building height and floor space controls.

A more recent example of key sites being part of a comprehensive approach to the delivery of infrastructure can also be found in the Lane Cove LEP 2009⁷ provisions applying to the St Leonards South redevelopment area.

⁶ Sydney LEP 2012 permits for provision of amenities in exchange for additional floor space on either key sites or throughout a wider area such as Green Square Town Centre.

⁷ Lane Cove LEP 2009 permits for provision of community facilities, open space, pedestrian links and roads in exchange for floor space within the St Leonards South area.

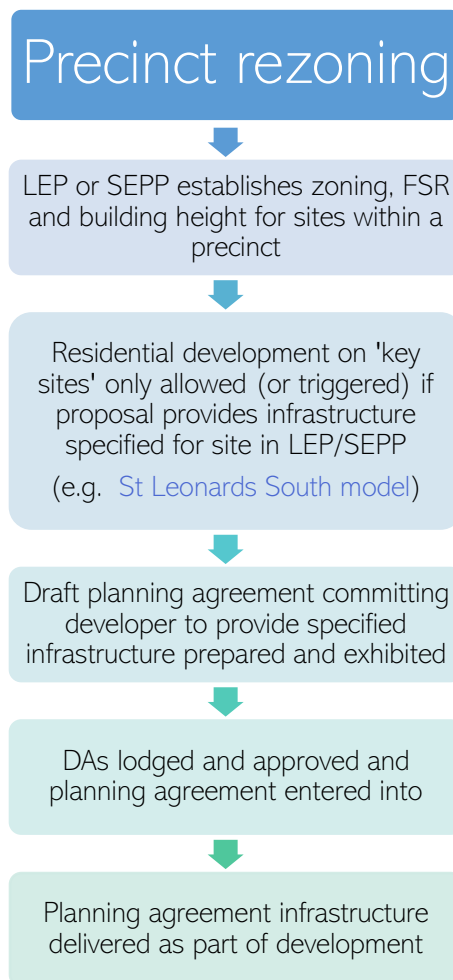


Figure 7 Key Sites process

Key sites provisions could be used in the redevelopment of sites in the Precinct to provide growth -related infrastructure, particularly social infrastructure. Opportunities include:

- Development sites require substantial land contamination remediation. Developers could be required to remediate their entire landholding, thus creating a 'clean' portion of the site to accommodate required social infrastructure.
- Land holdings are reasonably large, providing the potential for single developers to absorb the cost of whole infrastructure items on their site (in exchange for an adequate increase in development rights).
- Infrastructure provided by this mechanism means that the infrastructure does not need to be included in a contributions plan.
- Facilities that have a broader public benefit - such as open space and community facilities than the development site - can be provided in conjunction with development and potentially sooner than if they had to be provided through contributions from a number of developments.
- Having the developer provide the facility in theory removes the financial risk of council having to provide that facility potentially many years after the development, using the less predictable local contributions funding stream.

A key site may, but not necessarily, align with existing land ownership boundaries. There is nothing to prevent a key site being a consolidation of parcels owned by multiple entities.

The infrastructure provided using key sites provisions are usually additional to mandatory section 7.11 / 7.12 contributions that are authorised to be imposed on the development under Council's contributions plans. This necessarily means that the developer of a key site is subject to a greater infrastructure burden than a developer of a site that is not a key site. For the key sites approach to work, it must be based on an assessment that verifies that the key site can be feasibly developed.

The developers of residential accommodation can be incentivised (through sufficient development yield) to deliver social, open space and recreation infrastructure. The proposed high density mixed-use residential area in the north-west part of the Camellia-Rosehill Place Strategy area has high potential for the key sites approach.

Table 2 and associated maps on the following page show the potential key sites and the infrastructure items can be linked to residential development on the sites.

For the purposes of this IDP, the cost estimate for potential 'key sites' infrastructure is assumed to be \$370 million.

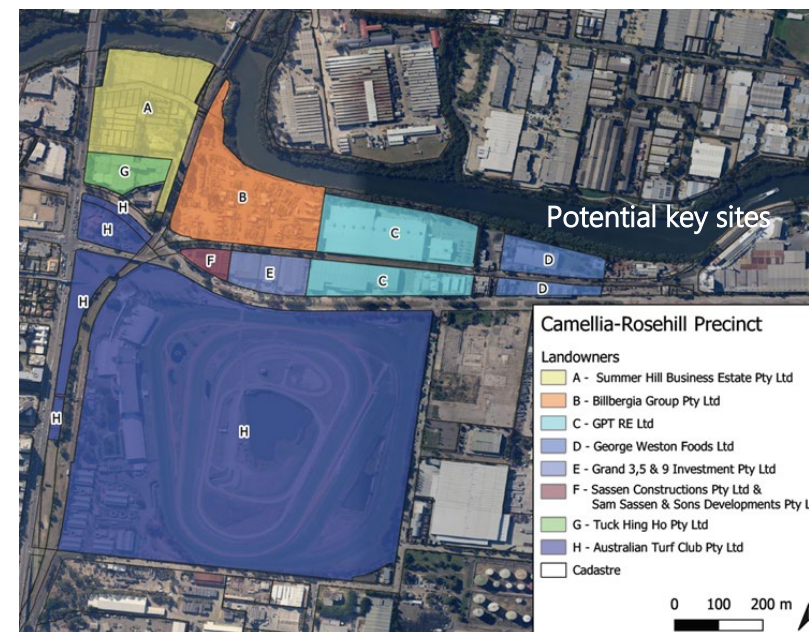
Table 2 Key sites and potential associated infrastructure

Infrastructure map extract ref (bottom right)	Item description	Linked key site (s) (map top right)
1	Primary school land*	C**
3 or 4	Combined primary and high school land	H
2	Multi-purpose community hub (land and works)	Any key site except C
5	Foreshore Park (land and works)	A
7	Local open space (land and works)	C**
4 or 8 & 9	Potential active recreation (land and works)	H
11	Riparian buffer (Parramatta River frontage works) ^a	A, B, C and D
27	Active transport works (Key sites frontage Parramatta River)	A, B, C and D
TBD	Indoor recreation – 4 courts (land and works)	Any except C

All land assumed to be remediated and dedicated in a state that is fit for purpose

* land for riparian buffer is assumed to be provided as a condition of development consent; works on land regarded as infrastructure provided by key sites

** Site C is significantly burdened as it is nominated as the location for school, local open space, riparian buffer and active transport. Feasibility of developer providing multiple infrastructure needs to be tested or alternatively, compulsory acquisition used.



In some cases, one of several key sites could accommodate the infrastructure. The place strategy contains preferred locations for Items 1, 5, 7 and 8. Items 11 and 27 are fixed along the Parramatta River and to be provided by the respective sites along the riverbank. Other items have the potential to be delivered on any of the remaining sites.

The preferred location for a primary school and local open space (items 1 and 7) is on site C. The land required for the two items is approximately 4.1ha or about 75% of the total land holdings, making this site significantly burdened for social infrastructure compared to other sites. The developer of this site will only be incentivised to directly provide the infrastructure item or items nominated for the site if there is sufficient development potential provided on the balance (or the developable portion) of the site. Feasibility analysis of this site may show that the developable portion of the site may need to be allowed height and FSR that is incompatible with the proposed Camellia-Rosehill Draft Master Plan. Consequently, another alternative may be the compulsory acquisition of land identified for public purposes.

The location, extent and cost of social infrastructure, together with the development potential proposed to be available on potential key sites, therefore needs to be investigated using feasibility analysis so that development on the proposed key sites is feasible.

3.4 Special rates and levies

Partnerships between Local and State Government

The Local Government Amendment Act 2021 proposes to allow changes to the making and levying of special rates. The change is to allow a special rate to be levied for 'intergovernmental projects'. This is where works, services or facilities are to be undertaken as a joint venture between local government and one or more government entity. This change would allow councils to partner with the State Government for the delivery of external infrastructure to the Camellia-Rosehill Precinct such as traffic upgrades and bridges. The costs of the project would be split between the government entities.

Local area special rate and low-cost loan financing

A special rate imposed on certain LGA properties (i.e., the properties in the Precinct) would provide a funding mechanism by which a council can hypothecate revenue from the rateable properties in an area for the infrastructure needs, thereby eliminating, or at least reducing, any unnecessary burden on the broader community. The special rate is levied on all properties within an identified area that would benefit from the infrastructure to be provided, regardless, of whether properties within the area are further developed or not.

Special rates must be made pursuant to section 495 of the Local Government Act. They may be levied for works or services provided or proposed to be provided by a council which includes growth infrastructure for urban release or renewal areas. Such rates should not be levied on properties that will not benefit from the purpose for which the funds are collected. In this case, it is reasonable to levy all properties within the Precinct benefit from any infrastructure works that improve access, circulation, and connectivity.

An example of a special rate approved by the Minister for Local Government in 2006, continues to be in operation in the City of Ryde.⁸ It is levied to all properties within the Macquarie Park Corridor precinct. The funds are used to implement a master plan developed to respond to the change of the Precinct into an

⁸ More detail is available in City of Ryde Delivery Program, page 96

urban centre. Income provides public domain works, road improvements and cycleways. The levy has raised approximately \$17.5 million since commencement.

3.5 Linking Camellia-Rosehill infrastructure to delivery mechanisms

A summary of the opportunities for the various delivery mechanisms to fund infrastructure in Camellia-Rosehill is shown in Table 3 over page.

Table 3 Summary of potential funding and delivery mechanisms

	Site /shared within Precinct /shared external to Precinct	Responsibility	Contributions mechanism(s) opportunities	Developer delivery opportunities		
				Works condition of consent	In kind RIC or LIC contribution offsets	Key sites LEP provisions (VPA ^a)
Transport infrastructure						
PLR (2)		State	RIC (potential)	N/A	N/A	
Roads connecting to surrounding arterial network	Site / Precinct	Developer / Council	LIC / Special rate	Yes	Yes	
New bridge crossings for vehicles	Precinct	Council	LIC / Special rate		Yes	
New bridge crossings active transport only	Precinct / External	Council / State	RIC / LIC / Special rate		Yes	
Additional internal roads	Site / Precinct	Developer	-	Yes		
Widening of internal roads	Site / Precinct	Council / State	LIC	Yes	Yes	
New internal active transport paths	Precinct	Council / State/ Developer	RIC ^b / LIC	Yes	Yes	
New active transport paths outside precinct	External	Council / State	RIC		Yes	
External road and intersection upgrades	External	Council / State	RIC / Special rate		Yes	
Public transport infrastructure and services (light rail, bus)	External	State	RIC			
Utilities						
All utilities required for the precinct	Precinct	Utility providers/ Developer	User charges	Yes		
Recycled Water connection	Precinct	Developer /Sydney Water / Council		Yes		

LIC = Local infrastructure contributions; RIC = Regional infrastructure Contribution

^a Operates as an alternative to, or additional to State and local contributions

^b Where the link provides regional connectivity

	Site /shared within Precinct /shared external to Precinct	Responsibility	Contributions mechanism(s) opportunities	Developer delivery opportunities		
				Works condition of consent	In kind RIC or LIC contribution offsets	Key sites LEP provisions (VPA ^a)
Social Infrastructure						
Multipurpose community hub	Precinct	Council / Developer	LIC/ Developer		Yes	Yes
Childcare LDC /OHSC	Precinct	Private	-			Yes
Primary School	Precinct	State	RIC (land only)		Yes	Yes
Combined Primary and High School	Precinct	State	RIC (land only)		Yes	Yes
Open space and recreation						
Foreshore Park	Precinct	Council / Developer	LIC / Developer		Yes	Yes
Local Open Space	Precinct	Council / Developer	LIC / Developer		Yes	Yes
Active Recreation	Precinct	Council / Developer	LIC		Yes	
Potential Active Recreation	Precinct	Private		Yes		Yes
40m wide Riparian Buffer (South - Duck River frontage)	Precinct	Council / Developer	LIC / Developer	Yes	Yes	
40m wide Riparian Buffer (North - Parramatta River frontage)	Precinct	Council / Developer	LIC / Developer	Yes	Yes	Yes
Indoor recreation centre - 4 multi-purpose courts	Precinct	Council / Developer	LIC / Developer		Yes	Yes

LIC = Local infrastructure contributions; RIC = Regional infrastructure Contribution

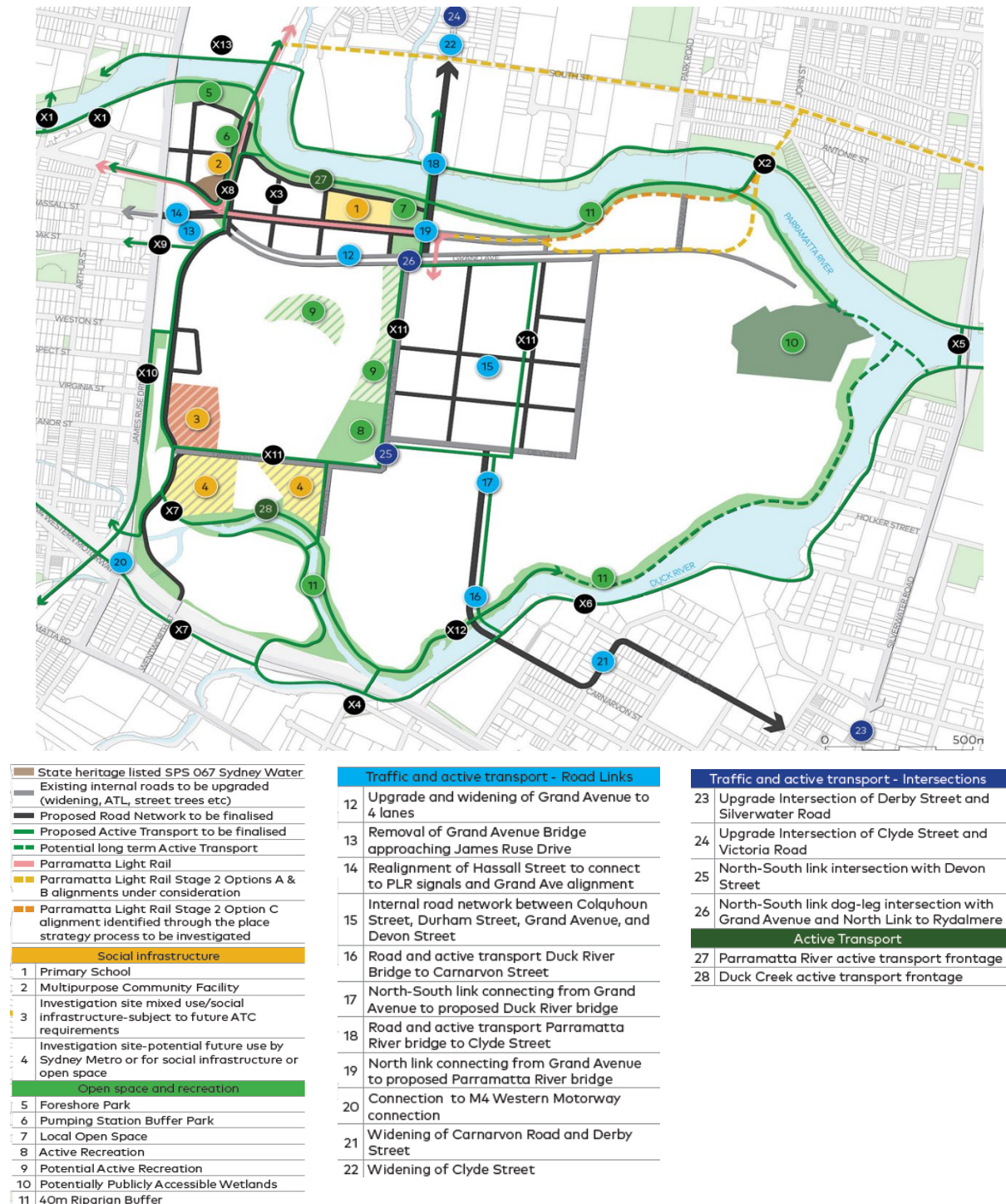
^a Operates as an alternative to, or additional to State and local contributions

^b Where the link provides regional connectivity

4 Infrastructure delivery plan

4.1 Infrastructure map and schedule

Figure 8 shows the location of the proposed infrastructure to meet the development vision for the Precinct.



Source: Draft Camellia-Rosehill Place Strategy, Cox August 2021 & Arcadis

Figure 8 Camellia-Rosehill infrastructure schedule and map

4.2 Infrastructure costs

The estimated capital costs of infrastructure have been derived from several sources including consultant strategies from the Enquiry by Design process, Council and external sources. Appendix A provides a detailed list of the assumptions used to estimate costs, the source documents and unit rates. It also provides works that are excluded.

- Land values are included for the items that are expected to be used for publicly accessible infrastructure such as open space, public facilities (including schools), active transport, and road widening purposes. The unit rate used has been sourced from a land valuation report (2020) provided by Council.
- An estimate of remediation costs has been used for all lands proposed to be publicly accessible including open space, public facilities (including schools), active transport, and road widening. The cost used is a mid-range estimate from the Golder Remediation Implementation Report. The remediation costs will vary on a site and land use basis.
- The unit rates used for the embellishment of various types of open space are from cost estimates for a similar purpose taken from the City of Parramatta (Outside of CBD) Plan 2021 or from Mitchell Brandtman Quantity Survey cost estimates for similar works.

Table 4 below shows a summary of the estimated infrastructure costs by category.

Table 4 Infrastructure costs summary by category

Infrastructure category	Estimated cost
Roads and intersections	\$549,207,522
Active transport	\$195,582,667
Utilities - user pays	\$46,575,691
Social infrastructure	\$265,627,000
Open space and recreation	\$499,930,500
Total	\$1,556,923,380

4.3 Funding sources and delivery mechanisms

The following mechanisms are considered to have the greatest potential to be applied to deliver the place strategy infrastructure:

- Conditions of development consent to carry out works under section 4.17 of the Environmental Planning and Assessment Act 1979 (EP&A Act).
- Key sites planning provisions in LEPs
- Local infrastructure contributions (LICs) condition imposed on development consents.
- Planning agreements between developers and local or State government.
- State and regional infrastructure contributions (where the scale the redevelopment is likely to impact on State or regional infrastructure) (i.e. RICs).
- User charges (for example, charges imposed by utility authorities).

- General taxation revenue, including State budget allocations, local council general funds and local land taxation via special rate levies.

The mechanisms would be applied according to the type, scale and location of proposed infrastructure as shown in Table 5.

Table 5 Place Strategy infrastructure types and delivery mechanisms

Infrastructure type(s)	Key features	Mechanisms
Infrastructure to enable individual site development to occur	<p>These are the infrastructure requirements necessary for individual sites to be redeveloped to higher order uses. Site-level needs include:</p> <ul style="list-style-type: none"> • Access into the site, including new roads that service the development, and potential improvements to existing roads that are necessary to accommodate the proposed growth • All utilities and other infrastructure required to service the particular site, including drainage, where the base/trunk infrastructure is available • Private open space and improvements/upgrades to the public domain fronting the development site such as footpaths, lighting etc. 	<p>At the developer's cost via:</p> <ul style="list-style-type: none"> • Conditions of development consent, • User fees and charges (for utilities). <p>Where a developer provides additional infrastructure to the minimum required, planning agreements can be used.</p>
Shared infrastructure situated within the Precinct	<p>Costs of shared-demand infrastructure in a precinct are typically shared between all the developers of a precinct. Shared-demand infrastructure includes:</p> <ul style="list-style-type: none"> • district / local open space, • community facilities, • higher order road upgrades that will benefit multiple developments • active transport linkages. <p>Because the need for them is generated by multiple developments they are often items included in a council contributions plan. Developers are required to either make a cash contribution under section 7.11 or s7.12 of the EP&A Act toward the provision of infrastructure or offer (the Council) to provide the works instead of making cash payments.</p> <p>An alternative to conventional contributions is the use of 'Key sites' LEP provisions. This approach identifies specific sites, the development of which is contingent upon the developer providing infrastructure that provides a broader public benefit. Refer section 3.3 for a brief explanation.</p>	<p>Key sites planning provisions in the planning instrument to facilitate direct developer delivery of infrastructure items on particular sites.</p> <p>Where key sites provisions can't be used, then the following are to be imposed on all developments to help fund shared infrastructure</p> <p>LICs and RICs: These mechanisms can be complemented by implementing a Special local area rate on all land owners in the Precinct to ensure existing use beneficiaries meet some of the infrastructure costs.</p> <p>Existing uses are likely to be a feature of future development because of the extra capacity afforded by the proposed new connections to external arterial routes leading to induced heavy vehicle demand. In other words, extra traffic and extra land value will be generated on current industrial sites using their existing approvals or existing use rights.</p>

Infrastructure type(s)	Key features	Mechanisms
Shared Infrastructure items situated external to the Precinct	<p>These infrastructure item costs are typically shared between developers and Government (State and/or Local). In the case of Camellia-Rosehill it includes the major road access upgrades and water crossings that are required to allow the Precinct to be further developed.</p> <p>Vehicle bridge crossings and new or upgraded roads connecting them would serve development in the Precinct and may also meet a broader need (e.g., diversion of arterial road traffic from the surrounding network when it is congested at peak times).</p> <p>This user profile suggests that costs should be shared between existing land owners, developers of land in the Precinct, and by taxpayers .</p>	As for 'Shared infrastructure situated within the Precinct' plus State Budget allocations .

4.4 Funding mix and gap

Table 6 shows that the potential funding and delivery mechanisms have the capacity to fund around \$1.14 billion in infrastructure, leaving a notional funding gap of \$416.2 million. Funding of the gap could be via other mechanisms listed in Table 1, however the source most likely to be able to meet the gap is State Budget allocation of consolidated revenue.

The projected gap is dependent on, among other things, 100% take-up of development potential over 20 years. For example, if the take-up turns out to be much lower, such as 50%, reductions in development contributions would increase the gap by \$150 million. Other factors could also increase the projected gap. For example, if the special rate is struck at 50% of the assumed \$5 million per year, the gap would increase by \$50 million.

Table 6 Delivery mechanisms potential funding mix and funding gap

Funding / delivery mechanism	Estimated income (\$m)
Local Infrastructure Contributions	\$246.3
Regional Infrastructure Contributions	\$118.5
Key sites infrastructure	\$370.0
Conditions of consent	\$305.5
Local area special rate	\$100.0
Total funding	\$1,140.5
Total infrastructure costs	\$1,556.9
Funding gap	-\$416.2

* The special rate is an assumption that has not undertaken the process described in section 4.4.

The potential funding from separate sources shown in Table 6 assumes that RIC funds would be used to fund the regional infrastructure items for the Precinct. Should the RIC funds be used to fund infrastructure like the PLR (assumed to be funded from other sources), then the funding gap will increase.

The breakdown and assumptions informing the different mechanism funding amounts is discussed below.

Conditions of consent / user fees and charges

We have assumed that the following infrastructure would be delivered by conditions imposed on development consents – i.e., they would be carried out at the developers' cost:

- new subdivision roads
- riparian corridor land (excluding embellishment).

User fees and charges will provide the utilities infrastructure.

Local and regional infrastructure contributions

A summary of potential contributions income is shown in Table 7 below. The estimates are based on:

- RIC rates foreshadowed by the NSW Productivity Commission
- Current LIC (\$7.11) rates contained in the recently adopted Parramatta City Council contributions plan.

Table 7 Summary of potential contributions income

Contribution type		Assumed rate	Demand No. or m ²	Contributions
Local	Residential per dwelling	\$20,000	10,179	\$203,580,000
	Per worker	\$3,000	14,233	\$42,699,000
Subtotal Local				\$246,279,000
State	Residential per dwelling	\$10,000	10,179	\$101,790,000
	Industrial	\$15/m ²	597,040	\$8,955,600
	Commercial	\$30/m ²	211,120	\$6,333,600
	Retail	\$30/m ²	48,230	\$1,446,900
Subtotal State				\$118,526,100
Total				\$364,805,100

Key sites

A summary of potential value of land and works that have been assumed could be delivered directly by developers of 'key sites' is shown in Table 8. The location of the key sites is shown in Figure 7.

As discussed in section 3.3, the potential of the key sites mechanism is dependent on the developer of each key site being able to absorb the cost of the infrastructure while still achieving a profitable development.

The feasibility of the linked infrastructure items and the development potential of key sites has not been tested, and so the anticipated \$370 million return from the key sites mechanism should be treated with caution. Feasibility testing needs to be undertaken before deciding on key sites and their required infrastructure.

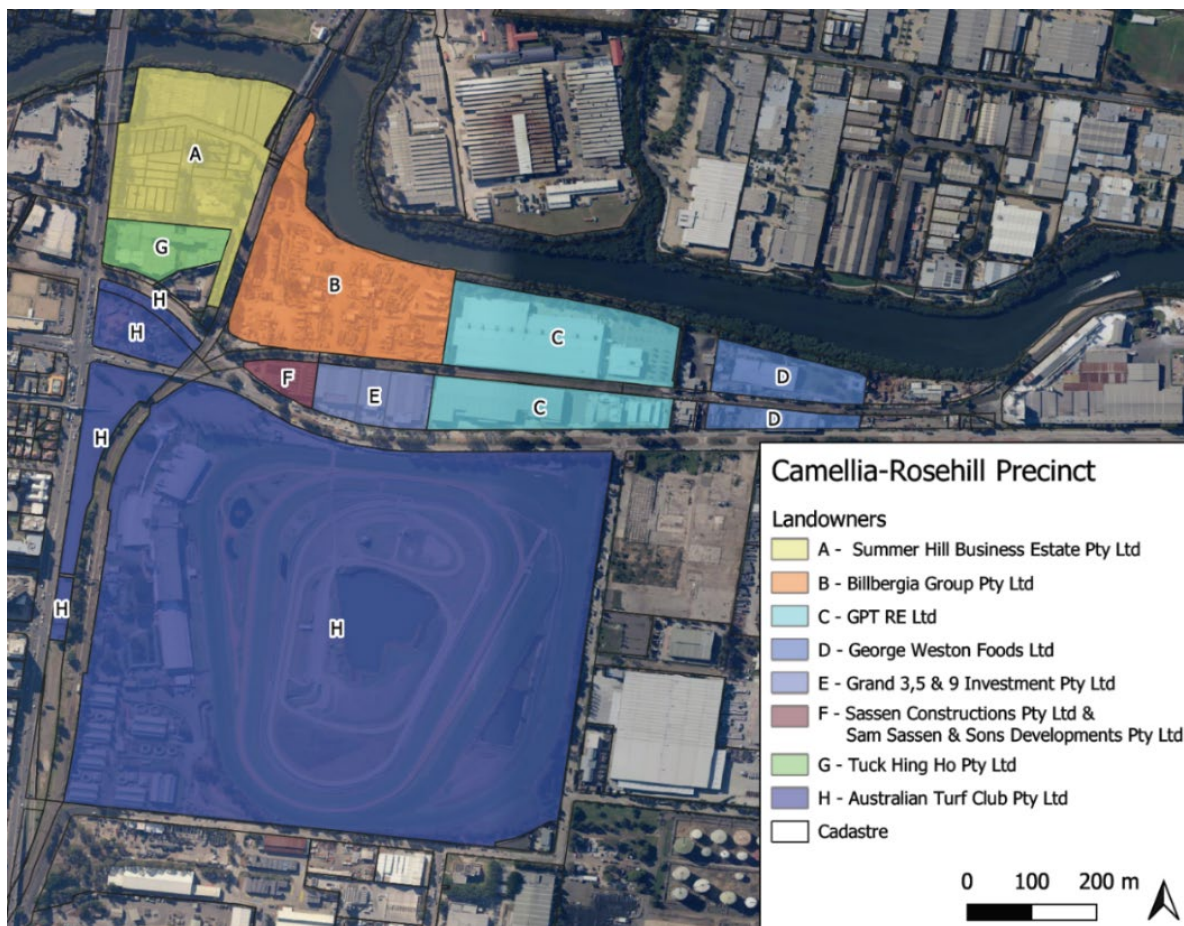
Table 8 Infrastructure items that have the potential to be delivered by key sites

Infrastructure item	Key sites that could accommodate item (refer map in Figure 8)
Primary school land*	C**
Combined primary and high school land	H
Multi-purpose community hub (land and works)	Any key site except C
Foreshore Park (land and works)	A
Local open space (land and works)	C**
Potential active recreation (land and works)	H
Riparian buffer (Parramatta River frontage works) ^a	A, B, C and D
Active transport along Parramatta frontage	A, B, C and D
Indoor recreation – 4 courts (land and works)	Any except C
Total potential estimate	\$370 million

All land assumed to be remediated and dedicated in a state that is fit for purpose

* land for riparian buffer is assumed to be provided as a condition of development consent; works on land regarded as infrastructure provided by key sites

** Site C is significantly burdened as it is nominated as the location for school, local open space, riparian buffer and active transport. Feasibility of developer providing multiple infrastructure needs to be tested.



Source: GLN Planning

Figure 9 Potential key sites

Local area special rate

A special rate applying to key access infrastructure jointly funded by Parramatta City Council and the State Government would be appropriate as it would allow beneficiaries that are not developers sharing in the cost of infrastructure.

The estimated income that could be derived from such a measure is difficult to predict. For the purpose of deriving a proposed funding mix, the special rate levy is assumed to generate \$5 million (in today's dollars) per annum over a 20-year timeframe.

The actual amount would be determined after investigating relevant aspects to determine a reasonable levy reflecting the unearned value of the infrastructure program added to land.

The special rate levy study would address matters such as:

- (a) Current annual rates paid to Parramatta City Council by the Precinct land owners.
- (b) Compare the level of rates imposed on land in Camellia with the rates imposed on land in comparable industrial areas – for example, Silverwater, Smithfield, Wetherill Park, Botany, Enfield.
- (c) Determine the particular works and likely timing of the place strategy infrastructure that will significantly improve access for heavy vehicles servicing existing industrial zoned land in the Precinct. This is likely to be the works providing extra external access capacity, such as the M4

ramps to Unwin Street, the southern crossing of Duck River and the northern access across Parramatta River.

- (d) Assess the change in land values across the Precinct attributable to each of the external access works, corresponding to the expected timing of delivery, noting that the current restricted / constrained external access effectively limits the intensity of use of industrial zoned land at Camellia.
- (e) Assess the likely change in land value with a 'do nothing' option – no new or upgraded external access works.
- (f) Determine a suitable special area rate based on the likely value uplift created by access improvements (i.e. the difference over time between (d) and (e)).

This work would then provide the basis for a special rate application to IPART.

4.5 Staging

The purpose of this section is to provide an indicative funding and delivery staging schedule for the development and infrastructure that is anticipated to take place over a 20-year timeframe based on the Draft Master Plan.

General development and infrastructure outcomes for short, medium and long term horizons were workshopped with DPIE staff and consultants. These are shown in Table 9.

Table 9 Indicative infrastructure delivery by stage

Timeframe	Infrastructure	Employment uses	Town centre, residential and entertainment precincts
Short term (0 – 5 years)	<ul style="list-style-type: none"> Parramatta Light Rail stabling yard Parramatta Light Rail (Stage 1) planning investigations and business case development 	<ul style="list-style-type: none"> Ongoing industrial activity, with growth associated with development applications currently under assessment 	<ul style="list-style-type: none"> Start of planning and remediation works Potential early delivery of housing on non-contaminated sites.
Medium term (5 – 10 years)	<ul style="list-style-type: none"> Sydney Metro West (stabling yards) Deliver the initial road network upgrades: potentially Grand Ave/James Ruse Drive intersection and M4 connection (subject to detailed feasibility review) Town Centre enabling works Primary school Foreshore access Including first stage of active transport links 	<ul style="list-style-type: none"> Continued growth of industrial and urban services. Start of finer grain development through the Urban services Consolidation of city building uses with access to enhanced wastewater and renewable energy supply (including battery storage facilities, subject to private sector investment) 	<ul style="list-style-type: none"> Initial development on remediated sites. Early stage Town Centre enabling work, including District Park and early community facilities. Entertainment precinct establishment including night-time venues and indoor courts

Timeframe	Infrastructure	Employment uses	Town centre, residential and entertainment precincts
Long term (10-20+ years)	<ul style="list-style-type: none"> Parramatta Light Rail Stage 2 Active transport links completed Road connections across Parramatta River and Duck Creek High School 	<ul style="list-style-type: none"> 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, including water treatment, energy generation and materials recycling 	<ul style="list-style-type: none"> Gradual development of the town centre supported by social infrastructure Light Rail and road upgrades Build out of remediated sites

Infrastructure staging and responsibility summaries

Using the information in the above table each infrastructure item was assigned a delivery year, with years grouped into short, medium and long term horizons (0-5, 5-10 and 10-20 years).

The bulk of infrastructure is anticipated to be delivered in the medium and long terms, as shown in Table 10. The short-term works assume design and planning costs for the proposed bridges over the Parramatta River, the Duck River, the M4 free flow ramps and public school.

Table 10 Infrastructure spending by stage of delivery

Infrastructure type	Short term (0-5 years) (\$m)	Medium term (5-10 years) (\$m)	Long term (10+ years) (\$m)
Roads and intersections	\$31.6	\$279.36	\$238.3
Active transport	\$0.0	\$69.4	\$126.2
Utilities	\$0.0	\$46.6	\$0.0
Social infrastructure	\$8.3	\$94.3	\$162.9
Open space and recreation	\$0.0	\$204.0	\$295.9
Total	\$39.9	\$693.6	\$823.4

Note: This table provides an indicative cost of infrastructure proposed by each stage.

Table 11 shows the responsibility for and general timing of the proposed infrastructure – i.e., the infrastructure items, the organisation that may deliver the infrastructure and the indicative timeframe for the delivery.

There are many items that are identified as the responsibility of local government, but it is not to be assumed that the infrastructure will be funded by local government. The actual delivery of infrastructure and the funding mechanisms to be used will be a mix of the funding mechanisms.

Table 11 Infrastructure responsibilities and timing

Description	Responsibility			Timing	
	Local	State	Developer	Medium	Long
Road links					
12 Widening of Internal Roads - Grand Avenue widening (approx 10 metres)	●		●	○	○
13-14 Grand Avenue Bridge removal and remaking at grade intersection		●		○	
X3 Additional internal roads north of Grand Avenue, with a N-S link west of Rosehill Racecourse			●		○
15 Additional internal roads between Colquhoun St and Durham St			●	○	○
16 Bridge over Duck River to Carnarvon St (including active transport path)	●	●		○	
17 New N-S link from Grand Ave to proposed Duck River Bridge			●		○
18 Bridge link between Parramatta River and Clyde Street			●	○	
19 New N-S link between Colquhoun St and Durham St, from new bridge south to Grand Ave (includes active transport path)			●	○	
20 Free flow M4 ramps		●		○	
21 Widening of Roads - Carnarvon Road and Derby Street widening (approx 10 metres)	●	●			○
20 Widening of internal roads - Wentworth Street	●				○
22 Widening of Clyde Street (approx 10m)	●				○
Intersections					
23 Upgrade Intersection of Derby St and Silverwater Rd		●			○
24 Upgrade Intersection of Clyde St and Victoria Rd		●			○
25 New Intersection of N-S Link and Devon St		●			○
26 New Intersection of N-S Link (Dog-Leg) and North Link to Rydalmere		●			○
Active transport					
X1 New bridge crossing - active transport path over Parramatta River connecting to Morton Street	●				
X7 New active transport path along Western Motorway through the Unwin St connection		●			
X8 New bridge crossing - active transport path alongside new PLR alignment north of Grand Ave		●		○	
X9 New bridge crossing - active transport path over James Ruse Drive and rail line connecting Rosehill Racecourse to Oak St		●			○
X10 New bridge crossing - active transport path over James Ruse Drive and rail line connecting Rosehill Racecourse to Prospect St		●			○
X11 New active transport located alongside Shirley St, Unwin St, Colquhoun St and Grand Ave	●		●		○
Parramatta River frontage					
X13 New Active Transport Corridor to Camellia Peninsula (Parramatta River north riverbank)	●	●	●	○	
X5 New Bridge Crossing - Active Transport path over Parramatta River connecting to Morton Street				○	
X2 New Bridge Crossing - Active Transport path alongside new Parramatta Light Rail alignment (over Parramatta River) connecting to Antoine Street		●		○	
X5 New Bridge Crossing - Active Transport path over Parramatta River adjacent to Silverwater Bridge	●			○	
27 New active transport path from James Ruse Drive along Parramatta River to the Silverwater Bridge	●		●	○	○
Duck River Frontage					
28 Path along south west border of the Camellia peninsula including across Duck River	●				○
X6 From M4 along Duck River to Silverwater Bridge	●				○
Utilities					
Recycled Water Plant					
Water Plant			●	○	
Recycled Main			●	○	
Communications					
Conduits along all 6 current main roads			●	○	
Electrical					
Undergrounding all overhead lines along Grand Avenue near the residential area			●	○	
New HV transformer kiosks for Residential area			●	○	
Gas					
Low pressure network			●	○	
Pressure reduction facilities			●	○	
Social and community					
2 Multipurpose community hub (library etc.)	●		●	○	
Childcare - LDC			●	○	○
Childcare - OOSH			●	○	○
1 Primary school 2.2ha		●		○	
3 or 4 K-12 School 5.1ha		●			○
Open space and recreation					
5 Foreshore Park	●		●	○	○
27/28 Linear foreshore park	●		●	○	○
7 Local Park			●	○	
8 or 4 Active recreation - 1 double playing field with amenities and carpark	●	●			○
9 Potential active recreation			●	○	○
11 River frontage - Riparian buffer			●	○	○

5 Next steps

The following actions are recommended to enable efficient, effective and timely delivery of infrastructure in Rosehill-Camellia:

1. Investigate the viability of direct-developer provision of certain infrastructure on specific sites ('key sites') identified in Section 4.3. Based on that investigation, DPIE should:
 - (a) adjust (increase) potential development yield where appropriate so that infrastructure can be provided by the developers of these sites, or
 - (b) adjust the scope of infrastructure items to be provided via the key sites mechanism,or both, in order to ensure development is feasible on these sites.
2. The planning proposal and subsequent environmental planning instrument that implements the place strategy should contain provisions that:
 - (a) enable direct-developer provision of certain infrastructure on key sites
 - (b) ensure that any public infrastructure land dedicated or transferred to the local council or other public authority has been decontaminated / remediated to the relevant standard.
3. Council to update its section 7.11 contributions plan to reflect the local infrastructure works contained in this IDP, excluding infrastructure that is intended to be provided via the key sites mechanism.
4. Investigate the potential for a local area special rate to assist in the funding of infrastructure that will enable all uses an improved level of access to the surrounding arterial road network. The special rate levy study would address the following:
 - (a) Current annual rates paid to Parramatta City Council by the Precinct land owners.
 - (b) Compare the level of rates imposed on land in Camellia with the rates imposed on land in comparable industrial areas – for example, Silverwater, Smithfield, Wetherill Park, Botany, Enfield.
 - (c) Determine the particular works and likely timing of the place strategy infrastructure that will significantly improve access for heavy vehicles servicing existing industrial zoned land in the Precinct. This is likely to be the works providing extra external access capacity, such as the M4 ramps, the southern crossing of Duck River and the northern access across Parramatta River.
 - (d) Assess the change in land values across the Precinct attributable to each of the external access works, corresponding to the expected timing of delivery, noting that the current restricted / constrained external access effectively limits the intensity of use of industrial zoned land at Camellia.
 - (e) Assess the likely change in land value with a 'do nothing' option – no new or upgraded external access works.
 - (f) Determine a suitable special area rate based on the likely value uplift created by access improvements (i.e. the difference over time between (d) and (e)).

APPENDIX A: ASSUMPTIONS AND EXCLUSIONS

These items have either been excluded or an allowance has been made for the infrastructure costs assessment.

Item	Notes
Drainage	Assumed to be managed by conditions of consent - developer to provide - excluded
Wetlands/riparian area	Excluded
Recycled water uses connection	Included with utilities costs, considered to be private/developer funded
Innovative parking solutions	Excluded
Parramatta Light Rail	Excluded - it is assumed that the PLR project funds are not sourced from this project. A transport contribution levied for PLR is also excluded from this assessment because the levy is proposed to be in addition to RIC.
Utilities	User pays - unknown if the costs include disturbance/remediation costs required for relocation and new infrastructure
Existing roads	Reconstruction or realignment costs are excluded. Assumed to be completed by developers if required.
Public schools	Estimate based on typical costs for new schools shown in the 2021 NSW Budget Papers
New bus services	Excluded - may be private or State
Open space on private land	Excluded - there may be future lease arrangements to consider
Remediation costs	See table below

Unit Rates Assumptions

Land - Within precinct

Category	\$/m2	Source
Open Space & Recreation	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Traffic & Active Transport	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Utilities	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Social Infrastructure	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)

Land - Outside precinct

Category	\$/m2	Source
Open Space & Recreation	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Traffic & Active Transport	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Utilities	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)
Social Infrastructure	\$ 939.00	Based on AEC Land Valuation Report (15 June 2020 - pg 26)

Remediation	\$/m2	Source
All Land - Within precinct that is to be used for open space, active transport and public facilities	\$ 110.00	Golder

Works

Open Space and Recreation	\$/m2	Source
Passive open space embellishment	\$ 1,000.00	Rate from Draft City of Parramatta Outside CBD CP (Item O13b)
Active open space embellishment	\$ 400.00	Estimated rate from Mitchell Brandtman - high-end finish
Foreshore open space embellishment	\$ 500.00	Rate from Draft City of Parramatta Outside CBD CP (Item O12b)
Riparian embellishment	\$ 150.00	Estimated rate from Mitchell Brandtman - high-end finish