



Roma Street Priority Development Area – Transport Report

Cross River Rail Delivery Authority – Infrastructure Plan Background Report

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1 Introduction

1.1 Scope

This report has been prepared as a summary of transport planning and infrastructure assessments completed by SMEC in relation to the roads, public transport and active transport infrastructure networks for the Roma Street Cross River Rail Priority Development Area (Roma Street CRR PDA) Development Scheme. It provides a summary of existing conditions in the area and makes recommendations to inform long term infrastructure plans and funding arrangements.

The Queensland Government's Cross River Rail Precincts Delivery Strategy sets a vision for each CRR Station Precinct that is aligned to the Government's policy priorities. The Strategy sets out a vision of Roma Street Precinct to be an extension of the Central Business District (CBD) and Brisbane's gateway to jobs, tourism and recreation.

To facilitate the realisation of this potential, the Roma Street Precinct focus will be on:

- The key arrival destination for the CBD, and the western gateway to the City's premier cultural, leisure and entertainment offerings including a Potential Major Entertainment Arena (PMEA)
- Improved public realm and active transport connections to improve pedestrian movement and connections
- Significant upgrades to State-owned station interchange for CRR, Metro and bus services, including realignment of the Inner Northern Busway (INB).

The Strategy sets out a Roma Street Precinct Intent, located at one of Brisbane's most significant city centre arrival points, that has the opportunity to become a key economic and community hub through major redevelopment, reinvigorating heritage places, new public spaces and developing strong connections to nearby major parklands and facilities.

The Cross River Rail Delivery Authority Act 2016 establishes the Cross River Rail Delivery Authority (CRRDA). The purpose of the CRRDA is to plan, carry out, promote or coordinate activities to facilitate economic development and development for community purposes in a CRR PDA.

1.2 Study Area

Roma Street PDA was declared in December 2019 and is approximately 32 hectares of land located on the outer edge of Brisbane's city centre as illustrated in Figure 1-1. The PDA extends over a number of government land holdings, state transport corridors and roads.

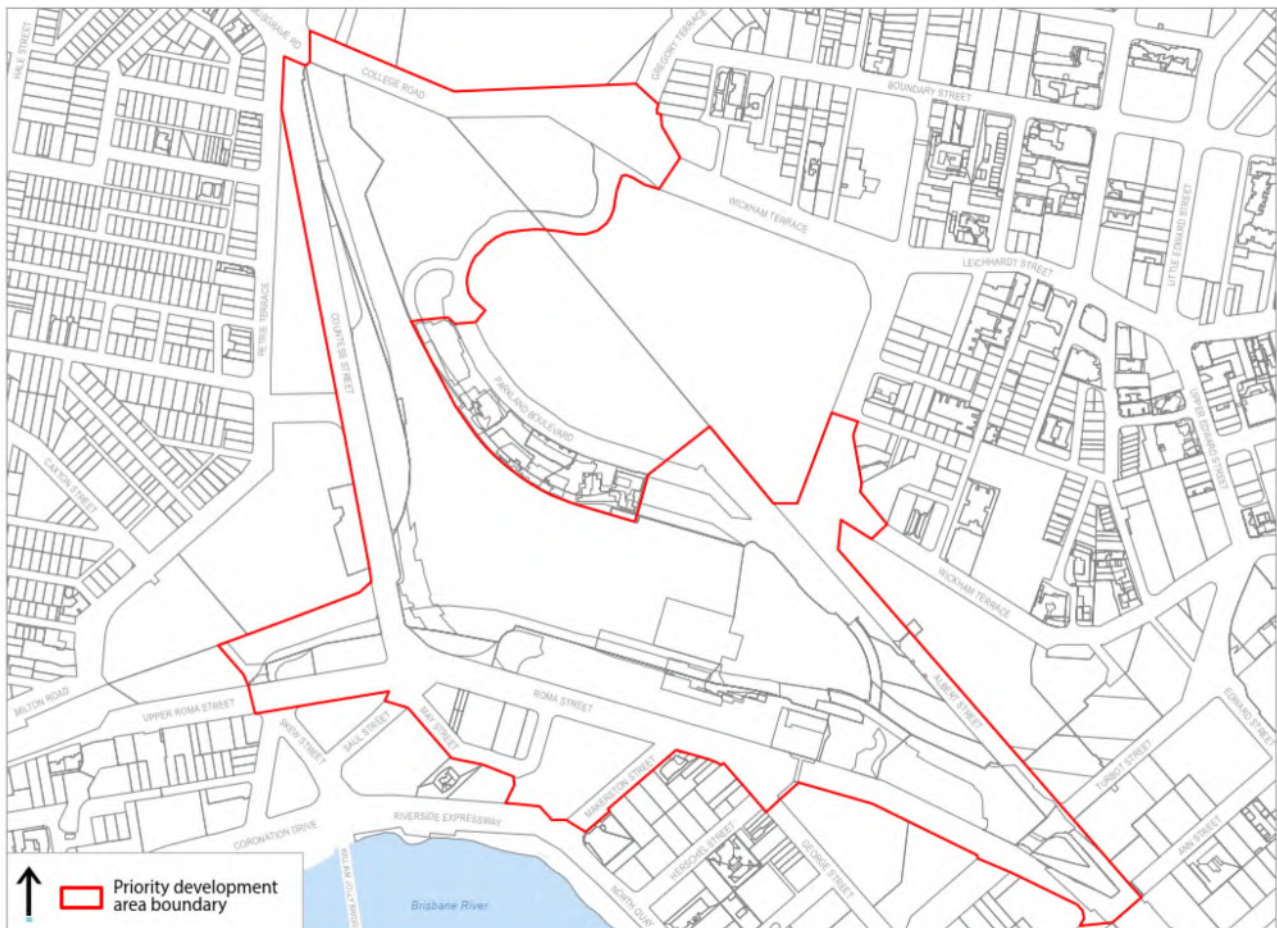


Figure 1-1: Roma Street CRR PDA Boundary (Source: CRRDA Roma Street Interim Land Use Plan Dec 19)

1.3 Objectives

This report sets out key transport infrastructure required to:

- Provide access and movement for all transport modes, with safety and convenience for walking and cycling prioritised over private and service vehicles
- Not impact on the efficiency or safety of surrounding transport networks
- Provide carparking and servicing to meet the functional requirements of the PDA.

1.4 Assessment Methodology

This assessment was undertaken via onsite inspections, a desktop review of relevant documents, research and applying this to assess the proposed transport infrastructure. A range of relevant literature was reviewed, including:

- Brisbane City Council City Plan 2014
- Brisbane City Council strategies and other documents:
 - Active Transport Strategy 2012-2026
 - Albert Street Vision
 - Brisbane City Centre Master Plan, 2014
- Department of Transport and Main Roads: South East Queensland Principal Cycle Network Plan (SEQPCNP)
- Queensland Walking Strategy 2019-2029
- Queensland Cycling Strategy 2017-2027
- Matrix, Q2039 Roma St & Albert St Pedestrian Crossing Surveys, 15 and 16 Mar 2018
- Strava Global Heatmaps.

The data, tools and research applied to undertake a desktop review of the proposed transport infrastructure include:

- Brisbane Central Area SATURN Model (BCASM) for mesoscopic modelling

- Level of Service for Metrics (for Network Operations Planning) by Austroads (AP-R47515), Jan 2015
- SIDRA 8 to calculate intersection operation and performance.

1.5 Desired Level of Service

Schedule 6 of the Planning Regulation 2017 (Planning Regulation) prohibits Brisbane City Plan 2014 from making PDA-related development assessable under the Planning Act, however, certain definitions from Schedule 1 of the Brisbane City Plan 2014 and various other parts of the Brisbane City Plan 2014 are utilised as guidance for this assessment.

Assessing impacts as part of any of assessments and apply appropriate upgrades, it is noted Council's inner-city desired standard of service from City Plan 2014 sets the following benchmarks:

- LGIP DSS Section 4.4.2.1 (d) – Road Networks:
 - (iv) the off-peak operation of the road network provides a Level of Service (LoS) C
 - (v) the peak period operation of the road network provides a Los C, except where the road network is highly constrained and the use of alternative modes of transport in these areas is anticipated in the mode share targets stated in Map C3 Transport Network DSS Mode Share Targets.
- LGIP DSS Section 4.4.2.2 – Pathway Network:
 - (a) provide a safe, attractive and convenient pedestrian and cycle pathway network that links residential areas to employment areas, major activity nodes, education facilities and public transport interchanges, thereby encouraging walking and cycling as acceptable travel alternatives
 - (b) plan, design and deliver the pathway network and associated infrastructure to comply with the following:
 - (i) the pathway network classification (as identified on the Bicycle network overlay map), connectivity, safety and access in accordance with the Infrastructure design planning scheme policy and the Bicycle network overlay code
 - (ii) Infrastructure design planning scheme policy (Chapters 1 and 4)
 - (iii) Bicycle network overlay code
 - (iv) pathways are planned to provide for future demand needs in accordance with the Bicycle network overlay map and the Bicycle network overlay code.

It is noted that the Pathway Network does not apply a LoS, however, LoS C has been considered for typical commuter peaks. For events, a LoS D is considered more appropriate in particular for any post event exiting/unloading. Further, Active Transport routes must always be publicly accessible, or a suitable alternative route must be provided during the operation of events.

In terms of the road network, given the PDA is within the inner city with limit upgrade opportunities and existing network congestion with intersections and links above acceptable limits, the assessment criteria of no net worsening of the physical condition or operating performance of state transport infrastructure and associated transport network will also be applied.

1.6 Exclusions and Limitations

This report is not providing detailed design of proposed future transport infrastructure or built form details such as carparking and service requirements. This report has assessed a Baseline Potential Development Scenario with potential land use yields and staging. The planning has assumed and considered a PMEA.

Further, the final land-use proportions are unknown, and the values outlined further within are indicative for planning purposes.

2 Roma Street CRR PDA

2.1 Overview

The long-term realisation of future re-development opportunities within Roma Street CRR PDA concurrently creates an opportunity to deliver improved active transport facilities in the area providing access to Brisbane City Centre, Brisbane River, Kurilpa Bridge and nearby neighbourhoods of Petrie Terrace and Spring Hill. Future re-development within the Roma Street CRR PDA will be delivered in precincts as illustrated in Figure 2-1 as follows:

- **Precinct 1:** The *Roma Street Gateway Precinct* is a highly urbanised environment that provides the greatest concentration of activity in the Roma Street CRR PDA through a mix of uses that strengthen the economic role of the capital city centre. The precinct is focused around a major transit interchange that forms a significant city centre gateway for large numbers of people throughout the day and night and to access surrounding destinations such as Suncorp Stadium and Roma Street Parkland.
- **Precinct 2:** The *Community and Entertainment Precinct* is a vibrant, integrated community and entertainment hub established above existing major transport infrastructure (railway and busway) and open spaces between Albert Street, Roma Street and the Roma Street station platforms.
- **Precinct 3:** The *City Centre Transition Precinct* creates a sensitive interface with the Roma Street Parkland, Parkland Residences and surrounding areas in Spring Hill and Petrie Terrace.

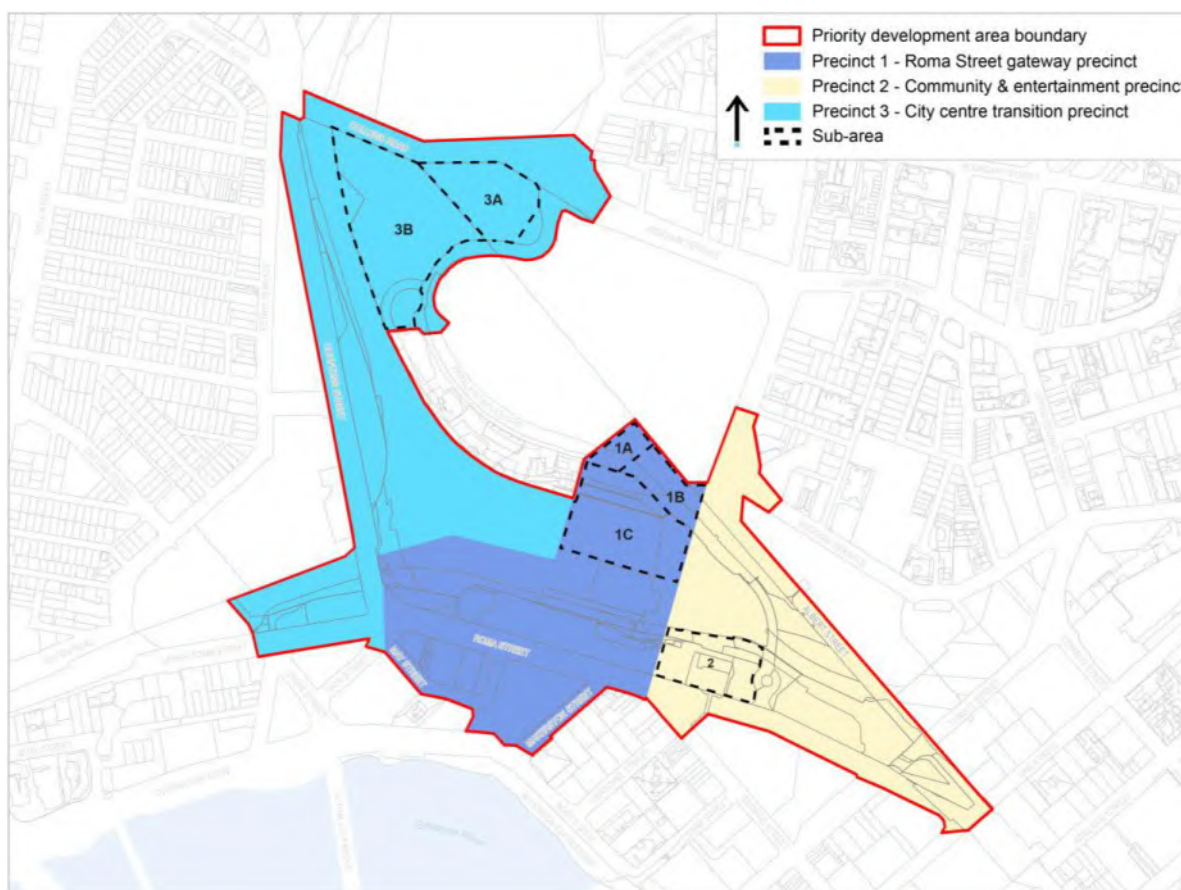


Figure 2-1: Roma Street CRR PDA Precinct Plan (Source: Unpublished Draft Development Scheme, May 2021)

2.1.1 Transport Vision and Connectivity

The Roma Street CRR PDA, is located at one of Brisbane's most significant city centre arrival points reinforcing it as a key transport hub for the Brisbane City Business District (CBD). Re-development will create active street frontages, a range of safe and inviting public spaces for pedestrians and cyclists by strengthening permeable connections to George Street, Roma Street, Albert Street and Tank Street. Re-development will be well suited to the transit-rich environment and city centre context including surrounding civic, education, health and research institutions.

The PDA is noted to be largely within the Centre Core (as identified in the Brisbane City Plan 2014 Transport, access, parking and servicing code) except a small area west of Countess Street which is not proposed to be re-developed as illustrated in Figure 2-2: City Core and Roma Street CRR PDA Boundary (Source: Brisbane City Plan 2014: Transport, access, parking and servicing code – Figure A)

Figure 2-2.

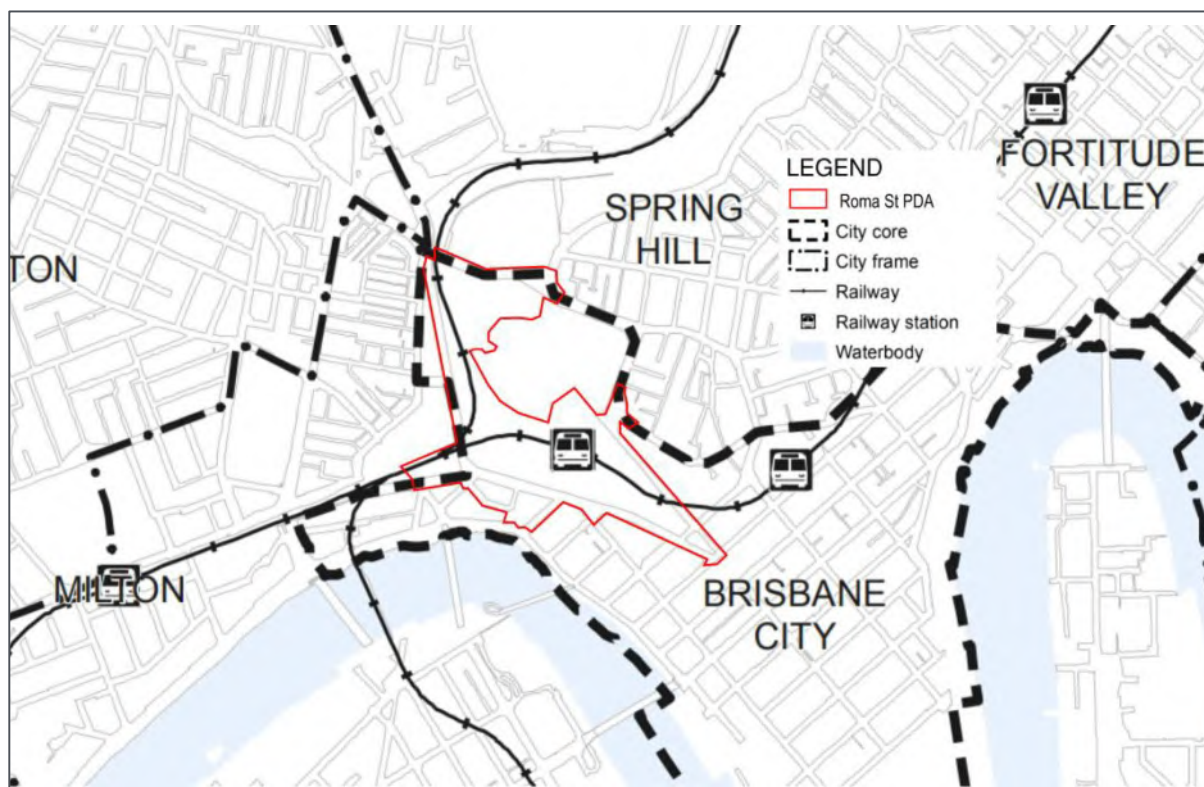


Figure 2-2: City Core and Roma Street CRR PDA Boundary (Source: Brisbane City Plan 2014: Transport, access, parking and servicing code – Figure A)

The key transport visions are summarised as follow:

- Provide for a well-connected and accessible city-wide transport network that is well connected and permeable throughout the PDA to a full range of pedestrian, cyclist, public transport and private vehicle movements
- Located and designed to enhance the accessibility and integration of existing and future public passenger transport infrastructure, and to cater to high-volume pedestrian movements
- Pedestrian footpath widths and ability to circulate within the PDA are maximised to surrounding neighbourhoods, including Spring Hill, Petrie Terrace and South Brisbane via Kurilpa Bridge by new or enhanced active transport links which are direct and efficient offering a high level of attractiveness and comfort
- Intersections are designed to facilitate the safe movement of vehicles, cyclists and pedestrians including footpath spaces designed to cater for gathering at intersections and pedestrian movements to destinations
- Allows for universal access for all members of the community and their mobility needs
- Protects the functional requirements of state transport infrastructure, state transport corridors and future state transport corridors to ensure the operational efficiency, integrity and safety of the transport network is maintained
- Vehicular access, on-site servicing and parking does not compromise active transport movements
- Delivery of the Cross River Rail project and other public transport is highly accessible offering regular bus and rail services to increases service frequency which will further enhance public transport accessibility within the Roma Street CRR PDA
- Development integrates and maximises public transport infrastructure investment by focusing land uses that generate high pedestrian traffic near public transport stations and by delivering a high-quality pedestrian experience in proximity to the station by ensuring pedestrian access points and connections to the station from the road and public realm are well-defined and legible, in particular from Roma Street to Roma Street Parkland

- Streets are designed to cater for anticipated vehicle, cyclist and pedestrian movements as well as streetscaping and car parking requirements.

2.2 Precinct Land Use Scenario and Indicative Staging

The Roma Street CRR PDA has been divided into five (5) potential development opportunity sites as illustrated in Figure 2-3.

**Roma Street Cross River Rail Priority Development Area
Baseline Potential Development Scenario
Staging Plan - Reference Scheme**

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Basin Parcels
- PDA Boundary
- TSD Delivery Area
- PDA Precinct Boundary
- PDA Sub-Area Boundary
- Development Sites (by Stage & Year) (Indicative Only)
- Stage 1 (2020 - 2025)
- Stage 2 (2025 - 2030)
- Stage 3 (2030 - 2035)
- Stage 4 (2035 - 2040)
- Stage 5 (2040 - 2045)
- Future Publicly Accessible Open Space
- Parkland Setting Development (inc. Publicly Accessible Open Space)
- Publicly Accessible Open Space (Park)

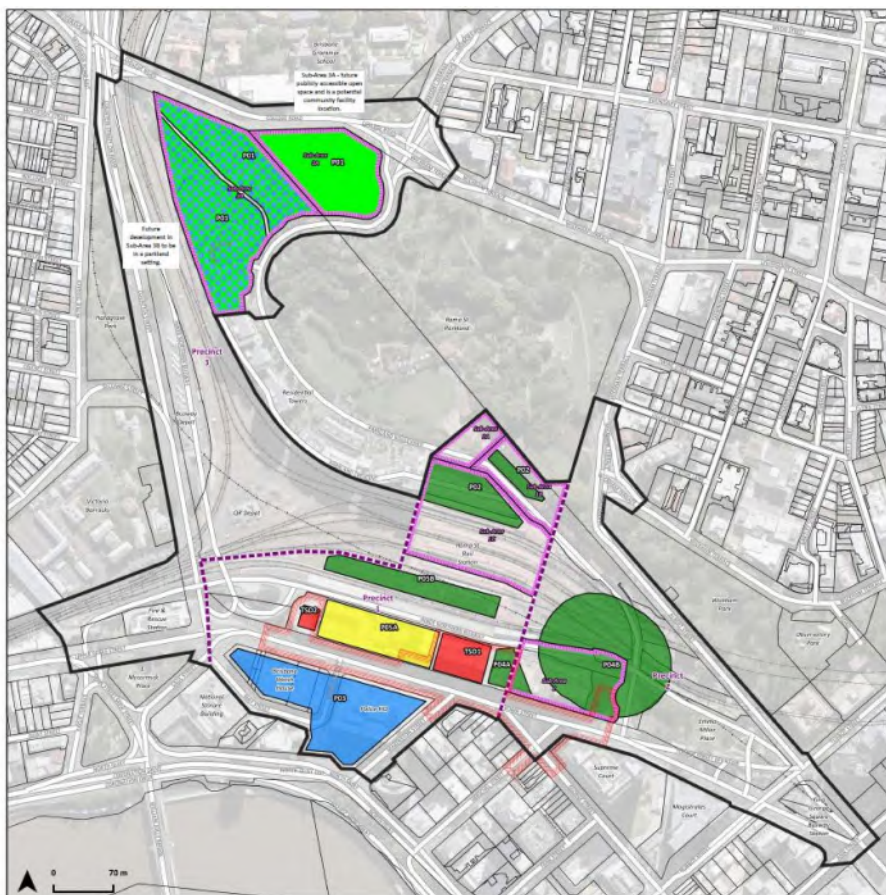


Figure 2-3: PDA Development Sites – Baseline

It is anticipated that the future land use mix will be predominantly comprise commercial and office, research/education, residential, hotel and retail uses which will potentially be realised by 2036 as listed in Table 2-1 and illustrated Figure 2-4. The Roma Street CRR PDA is also intended to accommodate a PMEA, which could act as a catalyst to revitalisation and add to the area's appeal as a city centre destination.

Each of these land uses will generate some traffic demand, however, given the Roma Street CRR PDA is within the City Core and has access to excellent Public Transport (PT) and Active Transport (AT) infrastructure, it is expected that a significant proportion of the travel demand will be satisfied by non-private vehicle mode share. Further, the future re-development will be replacing some previous land uses where the traffic generated will be offset against the new developments.

Table 2-1: Roma Street PDA Land Use – Baseline

Site	Stage (Year)	Office/ Commercial (m ² GFA)	Education (m ² GFA)	Retail (m ² GFA)	Entertainment/ Sport (m ² GFA)	Dwellings/ Hotel (m ² GFA)	Sub Total (m ² GFA)	Dwelling (Units)	Hotel (Rooms)
5	2 (2025-2026)	181,656		11,396		93,556	286,608	1,047	
2	3 (2026-2031)	23,939				16,776	40,715	198	
4	3 (2026-2031)	10,881		9,523	57,096	15,606	93,106		357
1	4 (2032-2041)		82,890				82,890		
3	4 (2032-2041)	104,567				54,883	159,450	649	
TOTAL		321,043	82,890	20,919	57,096	180,821	662,769	1,894	357

Note, the final land-use proportions are unknown, and these values are for planning purposes only, making the list above indicative. It should be noted that splits between certain land uses, in particular commercial and office, are not known at this stage. Reasonable assumptions and sensitivity analysis have been applied where possible for the assessment.

Roma Street Cross River Rail Priority Development Area Baseline Potential Development Scenario Staging Plan - Reference Scheme

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- TSD Delivery Area
- PDA Precinct Boundary
- PDA Sub-Area Boundary
- Development Sites (by Stage & Year) (Indicative Only)
- Stage 1 (TSD) (2020-2025)
- Stage 2 (2025 - 2026)
- Stage 3 (2026 - 2031)
- Stage 4 (2032 - 2041)
- Future Publicly Accessible Open Space
- Parkland Setting Development (inc. Publicly Accessible Open Space)
- Publicly Accessible Open Space (Park)

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Data Sources:
QUD Government 2021, Brisbane City Council 2021

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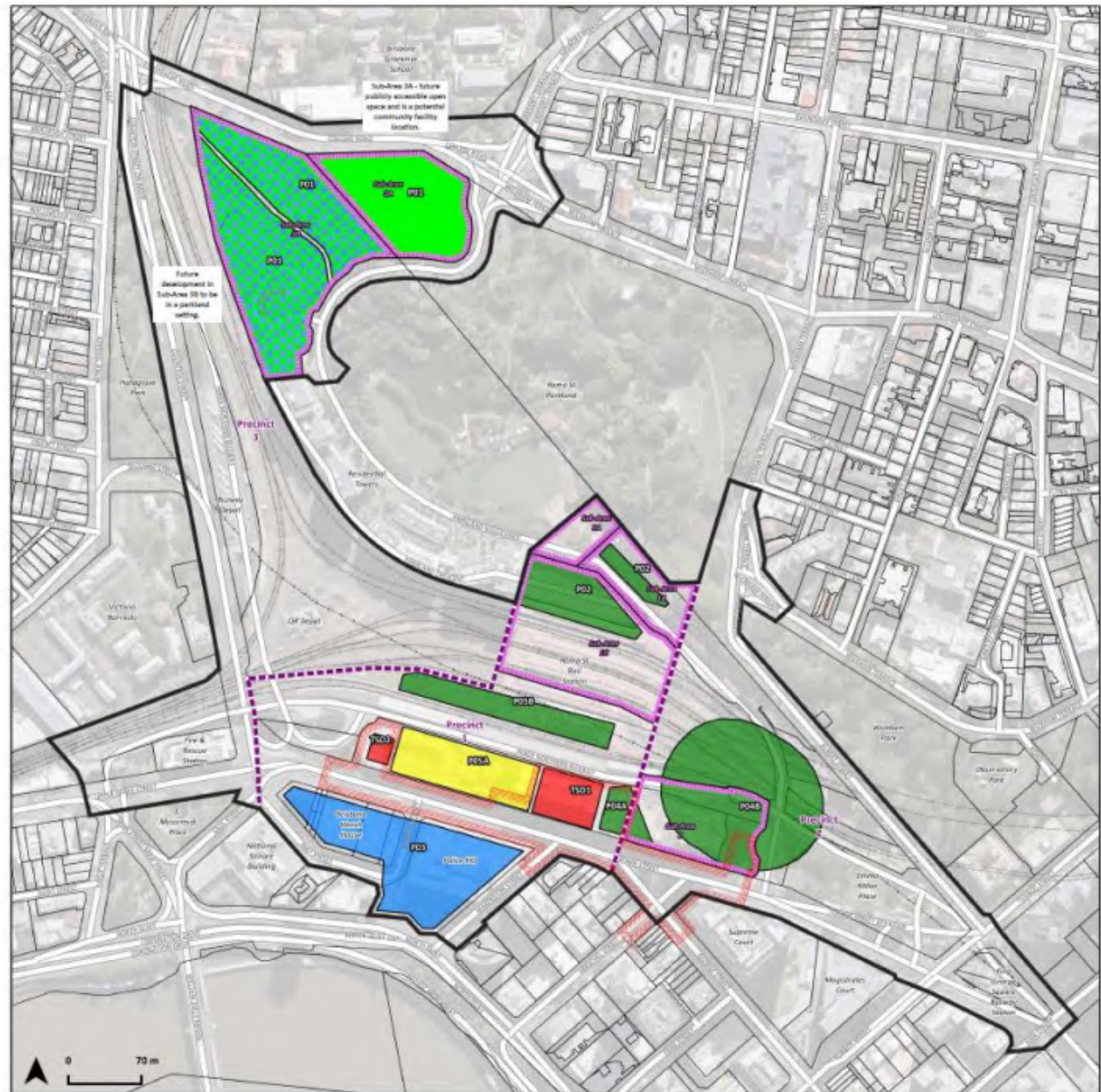


Figure 2-4: Staging and Form of Development – Baseline

2.3 Trip Generation Rates

The assessments outlined in this report are based on a traffic model developed to determine the impacts (if any) on existing roads, public transport and active transport infrastructure by the ultimate development year at 2031.

Trip generation rates were developed by:

- Determining the potential land uses of the PDA
- Sourcing acceptable traffic generation rates for each of the land-uses, while considering public and active transport mode shares
- Applying the traffic demand to the traffic model to distribute according to existing travel patterns
- Using the assigned traffic demands to determine the impacts on the infrastructure.

2.3.1 Mode Share

The private vehicle mode share for the Brisbane CBD based on the Household Travel Survey Data is approximately 34% as shown in Figure 2-5.

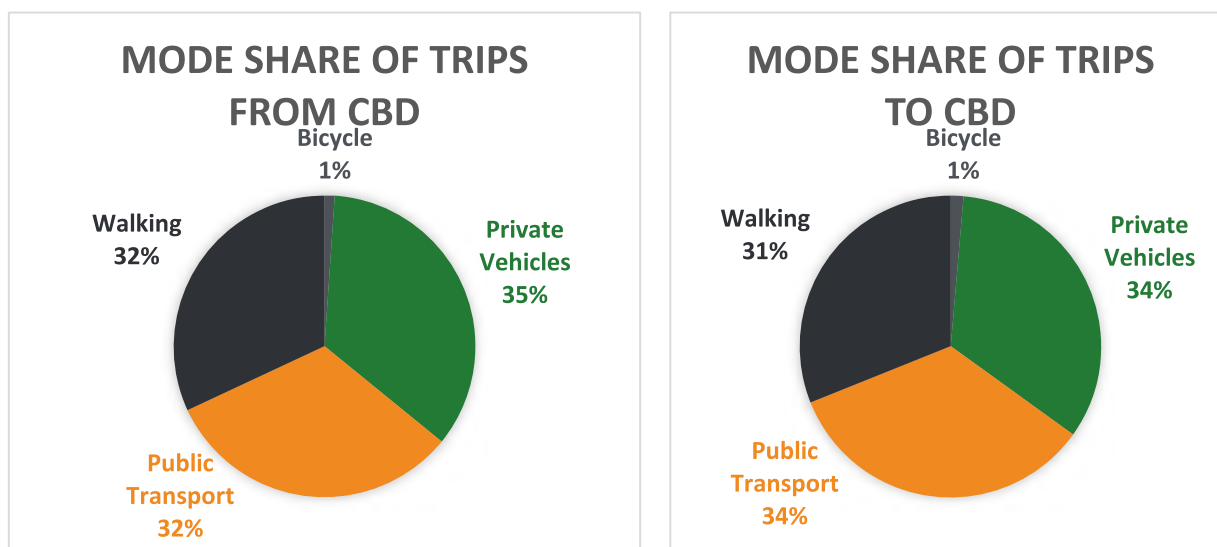


Figure 2-5: Current mode Share for CBD

Source: Household Travel Survey – South East Queensland; http://www.tmr.qld.gov.au/-/media/aboutus/corpinfo/Open%20data/householdtravelsurveys/2009-2012_SEQ_HTS_v15.accdb

2.3.2 Broad Study Assumptions

The following assumptions were applied to the trip generation calculations:

- Current trip rates have an amount of mode share (i.e. non-vehicle trips). Rates will be pro-rated to account for current mode share to proposed mode share for future long-term stages
- Trip rates will assume the approximate existing CBD mode shares, unless indicated otherwise by the specific land use e.g. a car park will not have a high PT share
- Self-contained, internal trips within the Precinct make up 25% of trips to retail, as recommended by Roads and Maritime Services (RMS) Guide to Traffic Generating Developments, Version 2.2, 2002
- The proportions of trips to and from the Precinct for each trip purpose were taken from the RMS Guide to Traffic Generating Developments Updated Traffic Surveys (2013), and Institute of Transportation Engineers (ITE) Trip Generation Manual handbooks.

It is noted that the Precinct and surrounding neighbourhood will provide key strategic land uses and be part of an important transport corridor now and in the future as outlined in the City Plan 2014. The Precinct is within the City Core which is expected to have an average mode share target (non-private vehicle) of 75% by 2026.

Therefore, it is anticipated that as each stage is built that the private vehicle mode share of each trip reduces from the current Brisbane CBD mode share of 35% (65% PT/AT) to potentially 15% (85% PT/AT) and when further considering self-containment.

The proposed PT/AT mode shares proposed by stage and timeframe are:

- Stage 2 – 2026: Medium mode share of 65% to 75%
- Stage 3 and Stage 4 – 2031 and 2036: High mode share of 75% to 85%.

2.4 Trip Generation

It is assumed that the minor retail land uses do not contribute to additional trips as they are most likely to predominantly consist of smaller scale stores that people visit as part of other trip or work purposes. A range of trip generation rates were used to assess different rates of PT and AT take-up.

Based on the typical industry standard peak hour trip generation rates, Table 2-2 and Table 2-3 provide trips for the AM and PM peak periods respectively.

Table 2-2: Roma Street PDA Land Use – AM Trip Generation by Typical Rates

SITE	2031 AM BASELINE		AM PEAK MEDIUM MODE SHARE		AM PEAK HIGH MODE SHARE	
	IN	OUT	IN	OUT	IN	OUT
Site 1	27	37	314	43	124	17
Site 2	37	48	155	31	87	20
Site 3	215	142	498	78	279	47
Site 4	37	48	230	42	207	39
Site 5	192	41	900	168	522	113
TOTAL	508	316	2,097	362	1,219	236

Table 2-3: Roma Street PDA Land Use – PM Trip Generation by Typical Rates

SITE	2031 PM BASELINE		PM PEAK MEDIUM MODE SHARE		PM PEAK HIGH MODE SHARE	
	IN	OUT	IN	OUT	IN	OUT
Site 1	31	88	53	258	20	96
Site 2	34	84	31	127	18	70
Site 3	71	164	88	405	49	226
Site 4	34	84	142	228	137	209
Site 5	24	152	253	799	186	489
TOTAL	194	572	567	1,817	410	1,090

2.4.1 Carparking Rates and Sensitivity

Carparking rates for residential are based as per the City Core (City Plan 2014) rates, however, for Non-residential uses a reduce rate is proposed:

- Residential:
 - Multiple dwelling:
 - Maximum 0.5 space per 1 bedroom dwelling
 - Maximum 1 space per 2 bedroom dwelling
 - Maximum 1.5 spaces per 3 bedroom dwelling
 - Maximum 2 spaces per 4 and above bedroom dwelling
 - Visitor space per 20 dwelling units
 - Rooming accommodation:
 - Maximum 0.25 per room

- Short term accommodation
 - Maximum 0.25 per room, unit or cabin.
- Non-residential:
 - Maximum of 1 space per 300 square metres of GFA.

3 Existing Network Provisions

3.1 Key Features

Key transport features of the Roma Street Precinct include:

- The bus station for the INB
- The Roma Street Railway Station which includes local and regional train platforms
- Bus terminal for coach and long-distance travel
- Various high-density residential apartments along Parkland Crescent
- At grade parking lot off Parkland Crescent
- Council facilities to the northwest of the Roma Street Parkland
- Principal Cycle Routes including Normanby Cycleway, and Roma Street which lead to Northern Bikeway to the north via Parkland Boulevard and George Street on road, two-way cycle track, Kurilpa Bridge to the south.

3.2 Active Transport

Roma Street Station is the existing focal point in the PDA for high levels of pedestrian traffic, with access provided to Roma Street and Parkland Crescent. A summary of the assessment for existing situation and conditions are as follows:

3.2.1 Pedestrians

- The Precinct has a footpath network of standard widths on all roads with typical street furniture such as trees, bike parking, CityCycle Stations, mail boxes and bus shelters creating pinch points
- Roma Street has a narrow median along most of its length, with a small triangular island at George Street/Herschel Street intersection which results in a high degree of informal, potentially unsafe pedestrian crossing activity as there is desire line along George Street
- Significant volume of pedestrians undertake illegal crossings at Herschel Street, George Street, Makerston Street intersections with Roma Street due to a lack of legal at-grade crossings and pedestrians possibly unwilling to wait for signals
- Most signalised intersections provide for pedestrians, however, a number of intersections do not provide a pedestrian crossing on all legs and several have free left turn lanes with only small islands for pedestrians to store and wait. There may be opportunities to improve pedestrian amenities by adding pedestrian crossings on the missing legs or scramble crossing phase, and removing the free left slip turns.
- The largest at-grade pedestrian movements across Roma Street occurs at Makerston Street which is at the main entrance to the existing Roma Street rail and busway station. The former overpass at Herschel Street was connected to the upper food court on level 2 having narrow stairs and escalators. The overpass was not accompanied by elevators, so it was not Disability Discrimination Act (DDA) complaint.
- Persons with disabilities face additional challenges when accessing the Roma Street Station. Prior to the CRR Tunnel Station Delivery (TSD) Project construction works commencing, the wheelchair ramp was 60m to the east of the main entrance, past telephone boxes, a large tree and a loading bay for the eastern Brisbane Transit Centre building. The closest road crossing points to the wheelchair ramp is approximately 60m west at Makerston Street or further east at Parkland Boulevard.
- Passengers can also access/egress the platforms northward through the central pedestrian subway to Parkland Crescent, through the Roma Street Parkland and then onto Wickham Terrace and Albert Street. Signalised pedestrian crossing points are between 30m and 150m away from the Roma Street Parkland exits.
- To travel between Roma Street and Roma Street Parkland, pedestrians must either enter and exit the railway station thoroughfare which is not 24 hours a day, 7 days a week accessible or circumnavigate the railway station by using the pathways on Parkland Boulevard or Albert Street. There are safety issues involved with the tunnel structure on Parkland Boulevard given the low levels of lighting and lack of Closed-circuit Television (CCTV) cameras. Existing path width does not meet current minimum standards for pedestrians (measured minimum of approximately 1.0m).
- Overall, the wayfinding throughout the Precinct, particularly along Roma Street, is limited and can be confusing especially for movements towards King George Square as it is not direct, with multiple traffic islands and crossings that need to be negotiated. Wayfinding for movements towards the northwest are better, however, they are focused on accessing Roma Street Parkland facilities.

It should be noted that a number of the existing issues noted above will be resolved as part of the CRR TSD Project outcomes at day-of-opening in 2025, with the station forecourt and public realm works providing more legible access.

3.2.2 Cycling

- Although the area has moderate inclines, especially to the north-western extents, the Precinct has good access to the Principal Cycle Network Route (PCNR) to service a wider population for both commuter and recreation cyclists, and more than just the typical 1 - 5km local cycle trips
- Routes include the Bicentennial Bikeway which runs along the northern bank of the Brisbane River, Tank Street and Kurilpa Bridge connecting to South Bank on the southern side of the river, as well as direct access to the Normanby Cycleway from Parkland Boulevard heading north which connects onto the Kedron Brook Bikeway. Roma Street is also on the Principal Cycle Network with sections of on road cycle lanes existing east of Herschel Street. However, there are gaps in the routes and precarious with multiple road crossings required.
- Normanby Cycleway through Roma Street Parkland is the PCNR to the CBD from the north side of Brisbane with increasing demand which will continue to put pressure on the use of Parkland Boulevard. This section of the route currently does not comply with current cycle standards and infrastructure needs to be improved to meet the needs of users of all ages and abilities. There is also an existing safety issue at the bottom of the inbound ramp on Parkland Boulevard due to the unsignalised T-intersection where cyclists are at speed and interacting with traffic emerging from Parkland Crescent including slow and heavy coaches exiting from the temporary long-distance coach terminal.
- Parkland Crescent is a secondary route used by cyclists, although it is narrow and has issues in terms of not meeting Crime Prevention through Environmental Design (CPTED) principles, as it is mostly under building and backing onto the railway corridor
- Parkland Boulevard is more attractive to cyclists than Parkland Crescent. Moreover, it can be deduced that either route is preferred for cyclists on their outbound trip irrespective of the route they chosen for their inbound trip, with Parkland Crescent having a gentler slope than Parkland Boulevard. Surveys showed:
 - Approximately 88% of cyclists use Parkland Boulevard in both directions compared with 12% on Parkland Crescent
 - Approximately 65% and 78% of cyclists on Parkland Boulevard and Parkland Crescent respectively were heading outbound
- Strava heat maps illustrated equal preference for cyclists on Herschel Street and Tank Street (via the courtyard between the Supreme Court of Queensland and the Brisbane Magistrates Court), compared to Turbot Street.

3.2.3 Existing Site Gradients

One of the key global challenges for development and infrastructure provision in this locality is the changes of grade between the various sections of the Precinct, particularly with significant existing infrastructure (e.g. rail) in between and sections with relatively steep gradients. An assessment of grades found the following:

- Parkland Boulevard from Roma Street is uphill for approximately 140m at an average grade of 5%. It was noted by Strava (which also collects speed and elevation of cyclists over a space of distance) that the maximum grade for cyclists is 8.2% for a 20m section of the ramp
- Albert Street from Turbot Street to Wickham Terrace has an average grade of approximately 7% uphill over 400m
- Wickham Terrace from Albert Street to Leichhardt Street is relatively flat for 150m and then increases up to 7% for 50m and 10% for the last 50 - 75m
- Wickham Terrace from Leichhardt Street to Normanby Cycleway has an average grade of approx. 4.5% downhill westbound for 400m from and relatively flat at the very western end.

3.3 Road Network

As the Roma Street Precinct is within the CDB, the transport network is mature and the road corridors are typically constructed to their maximum number of lanes including turn lanes. Additionally, from liaison with Council during the baseline assessment in late 2018 for the Roma Street CRR PDA, there are no future road widenings planned.

4 Network Upgrades

4.1.1 Modelling Methodology

The future year trips from the PDA will be applied to the future year (2031) BCASM. The modelling process allows assessment of road network connections and internal road network layout, in order to inform the longer-term infrastructure requirements necessary to support future development in the Roma Street Precinct.

Note, whilst the indicative yield staging is beyond 2031 for the final stages (2036+) there is no current BCASM beyond 2031 and the timeframe to develop a future year which aligns with strategic modelling future year such as 2036 or 2041 is considerable and beyond the scope of this exercise, as noted and confirmed by Council and agreed in principle with TMR Officers and summarised as follows and illustrated in Figure 4-1:

- Calculation of the potential new trips generated by the Baseline Potential Development Scenario by stages, for the AM and PM peak periods
- Apply the calibrated base BCASM network changes to the future year (2031) BCASM, such as the zone splits and zone connections
- Apply the delta (positive or negative differences) of the trips from the Baseline Potential Development Scenario, compared to the future year (2031) BCASM trips
- Modelling the development Baseline Potential Development Scenario by stages in BCASM, allowing the distribution of development vehicle trips onto the road network by utilising the BCASM AM and PM demand patterns
- Output the predicted Precinct traffic volumes on the surrounding road network for the final assessment of the Precinct intersections using SIDRA
- Assess the impact, if any, of queues and delays at intersections and apply upgrades as appropriate, noting Council's inner-city desired standard of service acknowledges from City Plan 2014 LGIP DSS Section 4.4.2.1 (d) that:
 - (iv) the off-peak operation of the road network provides a LoS C
 - (v) the peak period operation of the road network provides a LoS C, except where the road network is highly constrained and the use of alternative modes of transport in these areas is anticipated in the mode share targets stated in Map C3 Transport Network DSS Mode Share Targets.

Further, in terms of the road network, given the PDA is within the inner city with limited upgrade opportunities and existing network congestion with intersections and links above acceptable limits, the assessment criteria of no net worsening of the physical condition or operating performance of state transport infrastructure and associated transport network will be applied.

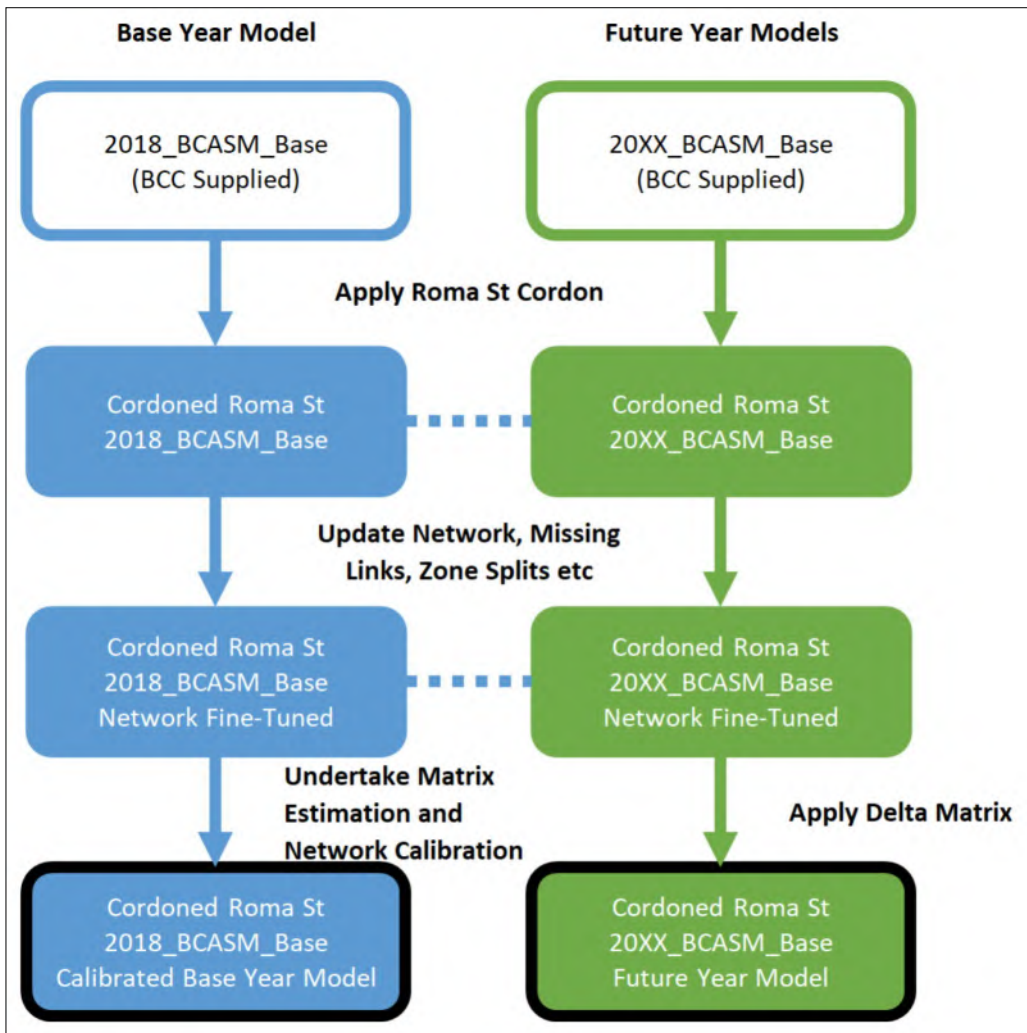


Figure 4-1: BCASM-CRR-RS Model Development Process

4.2 Future Road Network Opportunities and Treatments

Road network options and upgrade are focused on but not limited to the following:

- Access arrangements along Roma Street for Site 3 (current Magistrates Court and Queensland Police Head Quarters) and Site 5 (former Brisbane Transit Centre), including potential intersection improvements at Garrick Street
- Improvements to:
 - Parkland Boulevard at Gregory Terrace/Wickham Terrace/College Avenue intersection
 - Roma Street/Turbot Street/Albert Street intersection
- Proposed changes for PMEA
- Restricting through access of Parkland Boulevard to active transport only and re-routing through access for cars and service vehicles via Parkland Crescent.

The performance and operation of the network with the PDA and mitigation measures have been considered within the future year modelling. The modelling assessed the pedestrian and cyclists delays and LoS at signalised intersections considering upgrades were possible.

From a road transport infrastructure perspective, the proposed upgrades are as follows and shown on Figure 4-2:

- RD01 – potential re-alignment or upgrade of Garrick Street to facilitate the upgrade of I01 as a four-way signalised intersection triggered by Site 3
- RD02 – re-alignment of Parkland Boulevard triggered by redevelopment of Site 1 and Site 2, and possibly Site 4, and enhancing service vehicle access including for Roma Street Parkland

- I01 – Four-way signalised intersection with the potential re-alignment or upgrade of Garrick Street to provide access and triggered by Site 3 and providing wider network benefits including PT, car and pedestrian movements
- I02 – Non-trunk intersection upgrade of Parkland Boulevard (non-trunk) with Roma Street (trunk) providing access to PMEA and FOSD (East) triggered by Site 4
- I03 – Trunk intersection upgrade Roma Street/Turbot Street/Albert Street intersection as a scramble crossing (associated with the PMEA)
- I04 – Non-trunk intersection upgrade along Albert Street (non-trunk) to provide servicing access to the PMEA (Site 4)
- I05 – Trunk intersection upgrade of Wickham Terrace/Albert Street intersection linked to the PMEA (Site 4) which is noted not to compromise Albert Street Green Spine vision and provides wider active transport crossing benefits
- I06 – Trunk intersection upgrade Parkland Boulevard at Gregory Terrace/Wickham Terrace/College Avenue intersection triggered by Site 1 and Site 2, and possibly Site 4, providing wider network benefits (including for existing Parkland Residences & visitors to Roma Street Parkland) including car and active transport movements
- I07 – Non-trunk intersection upgrade Parkland Boulevard/Crescent (both non-trunk) triggered by Site 1 and Site 2, and possibly Site 4
- I08 – Non-trunk intersection upgrade Parkland Boulevard/Crescent (both non-trunk) triggered by Site 1 and Site 2, and possibly Site 4.

Note:

- I03 noted as supporting Albert Street Green Spine vision (PC07)
- I04 and I05 not to compromise Albert Street Green Spine vision
- I07 and I08 need to tie and thus consider design of into AT12.

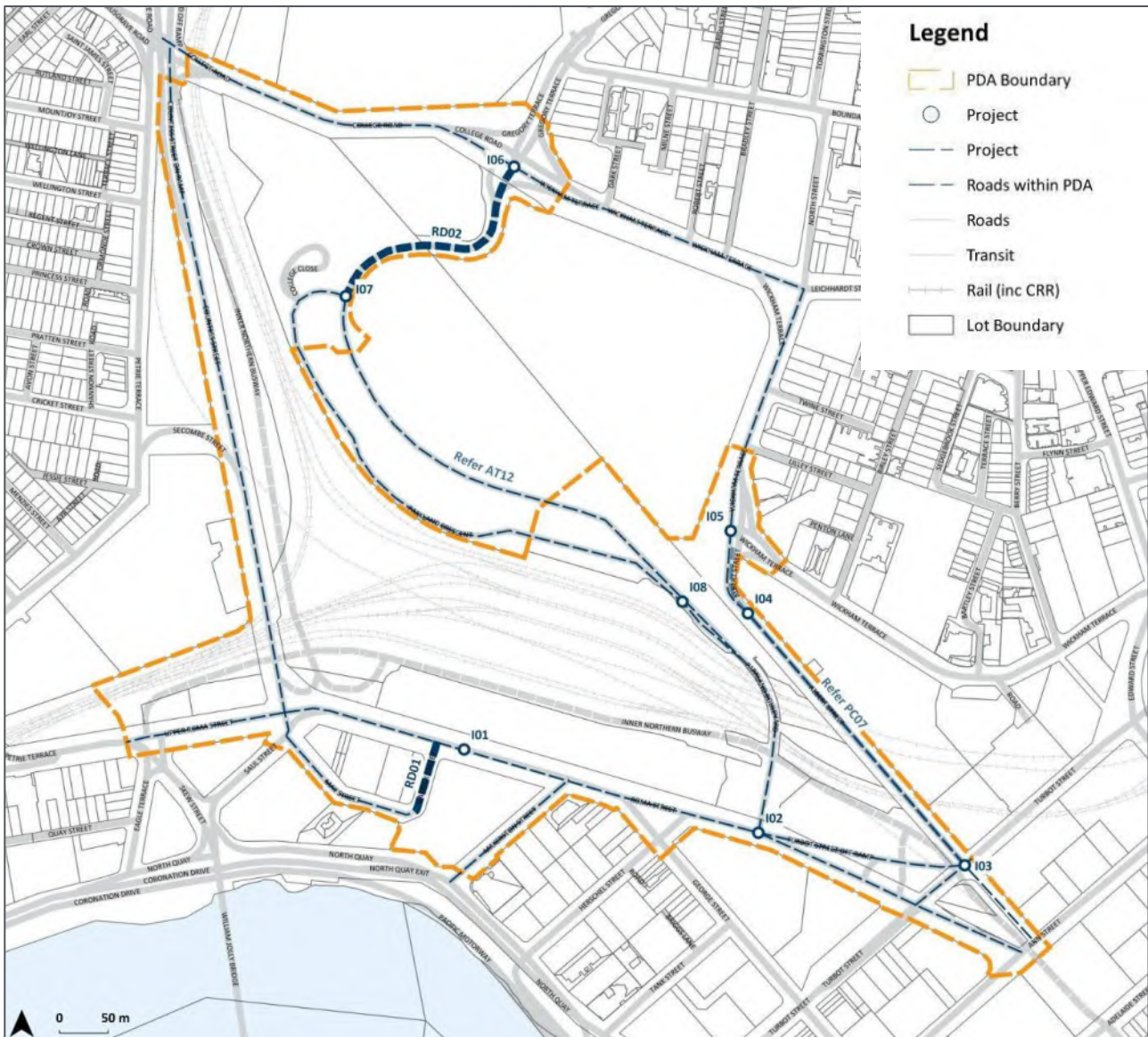


Figure 4-2: Future Road Network Opportunities

4.3 Future Active Transport Opportunities and Treatments

Future developments in the PDA will provide opportunity to greatly improve connectivity for the pedestrian movements between Roma Street and the Roma Street Parkland, as well as creating greater pedestrian and cyclist activation through the PDA. Moreover, Council's Albert Street Green Spine project will also enhance the pedestrian connectivity and activation between the Precinct and the CBD. Many of the existing conditions and issues will be resolved as part of this Project at day-of-opening with the station forecourt and public realm works

Further, within the latest BCC budget and Lord Mayor's 2020-21 Budget Speech, there is commitment for \$58 million in the next two years for major cycleway projects, \$29 million for the four year term on new shared paths across Brisbane suburbs and Active Transport Infrastructure Fund, and further invest \$16.6 million over four years in making the Brisbane CBD more pedestrian and cyclist friendly as major developments in the CBD come online.

It was also announced that Council will work with the Queensland Government to roll out new pop-up bike lanes in the CBD as soon as possible.

As part of the PDA infrastructure assessment, the planning has considered:

- Existing high pedestrian demand to access the CRR Roma Street Station during the peak hours via the station's southern entrance, predominantly via the George Street/Roma Street at-grade crossing and the intersection's capacity to meet future pedestrian flows

- A Primary Route (Council's highest order bicycle hierarchy) or PCNR (TMR's designation) needs to be maintained from Wickham Terrace to Roma Street via Roma Street Parkland through all planning, design, construction and operation of future development in the Precinct (e.g. during construction and operation of a PMEA). Investigation of alternative alignments would be 'as well as', not 'instead of' the existing alignment along Normanby Cycleway/Parkland Boulevard.
- The PMEA in event mode would generate significant pedestrian movements and an alternative cycle route is strongly recommended to be provided. Further to this, event mode of the PMEA needs to consider footpath and pedestrian road crossing capacities in conjunction with typical peak periods for cyclists. It is expected that events at the PMEA would occur in PM peaks and late evenings both on weekdays and on weekends
- There is an opportunity for improved pedestrian amenity with the proposed Albert Street Green Spine, connection to the PMEA podium separating cyclists from the pedestrian corridors on the PMEA through a dedicated cycle path circling around the western edge of the PMEA to connect to and over Roma Street overpass:
 - PMEA commercial development partner develops a preferred alignment that considers the key principles and promotes safe and equitable access for all users with a coherent Principle Cycle Route that separates pedestrian and cyclist movements on the PMEA podium
 - This ultimately allows continuity of the cycle desire line towards the Court Precinct, leading to the existing George Street on road, two-way cycle track and onwards to Kurilpa Bridge. This alignment can also connect to the existing or realigned Parkland Boulevard section on the western side of the PMEA
- There are opportunities for future Skywalks and elevated walkways such as between The Barracks and Roma Street Parkland.

Future options through development for pedestrians and cyclists traversing across the site revolve on key factors:

- PMEA construction
- Neighbouring land parcel usage
- Land space requirement for cycling ramps with acceptable gradients.

From an active transport infrastructure perspective, the proposed are potential upgrades are as follows and shown on Figure 4-3:

- AT01 – Future proofing of the Normanby Cycleway upgraded as a separated route for pedestrians and cyclists to standards required for a Principal Cycle Route
- AT02 – Albert Street Green Spine forecourt to the PMEA and connection to Parkland Boulevard for pedestrians (associated with the PMEA)
- AT03 – Roma Street overpass connecting to the Law Courts Precinct (associated with the PMEA)
- AT04 – with PMEA route providing podium and public realm upgrades including connectivity to AT03 and AT05, Roma Street Parkland and Albert Street Green Spine for pedestrians and cyclists (particularly to reduce potential pedestrian/cycle conflicts during PMEA events) (associated with the PMEA)
- AT05 – A 24-hour DDA compliant elevated pedestrian and cycle over rail access providing:
 - Without PMEA, access from Roma Street Parkland, Parkland Residences and future development opportunity sites (AT02) to Roma Street and FOSD
 - With PMEA, connectivity with AT04, AT03 and AT02 - particularly beneficial to maintain cycle access to Roma Street and George Street during PMEA events when AT10 and PC07 are likely to experience high pedestrian activity
- AT08 – Skyway between The Barracks and the Roma Street Parkland – noting this relies on The Barracks being redeveloped and thus not expected in the short or medium term
- AT09 – Upgrades through the Law Courts Precinct to George Street on road, two-way cycle track (associated with the PMEA)
- AT10 – Primary Principal Cycle Route for cyclist connecting to AT03 with PMEA (outside of events), linking with the public realm (PC07) upgrade of Albert Street Green Spine and AT02. The final alignment would depend on the urban design outcome for the parkland/public realm with the PMEA (options with or without PMEA)
- AT11 – Skyway from AT05 leading to The Barracks Shopping Centre and Caxton Street

- AT12 – Upgrades to Parkland Boulevard to meet current design standards for Principal Cycle Route. This may include the closure or cul-de-sac-ing of Parkland Boulevard near the kiosk with all through traffic utilising Parkland Crescent instead
- AT14 – It is noted that further investigations are required with BCC and TMR regarding how best to facilitate Principal Cycle Route connectivity west of Herschel Street with options to consider including Roma Street (should road corridor allocation and interface constraints enable this over time) or alternatively consideration of North Quay / future pedestrian laneway / May Street
- AT15 – Vertical Transport bridge with lift and stairs between the top of Roma Street Parklands near Wickham Street and the Parkland Café level. Existing stairs and lifts will be utilised for those continuing from the Parkland Café level to the Brisbane Coach Terminal and beyond. DDA compliance of the structure and its connections are to be resolved in detailed design.

A major connection to the west has challenges given there is no physical corridor between the rail lines and the Normanby Cycleway, thus this is not expected in the short or medium time. Further, the intersections along Roma Street and Wickham Terrace/College Avenue are also being assessed for improvements as part of the traffic modelling.

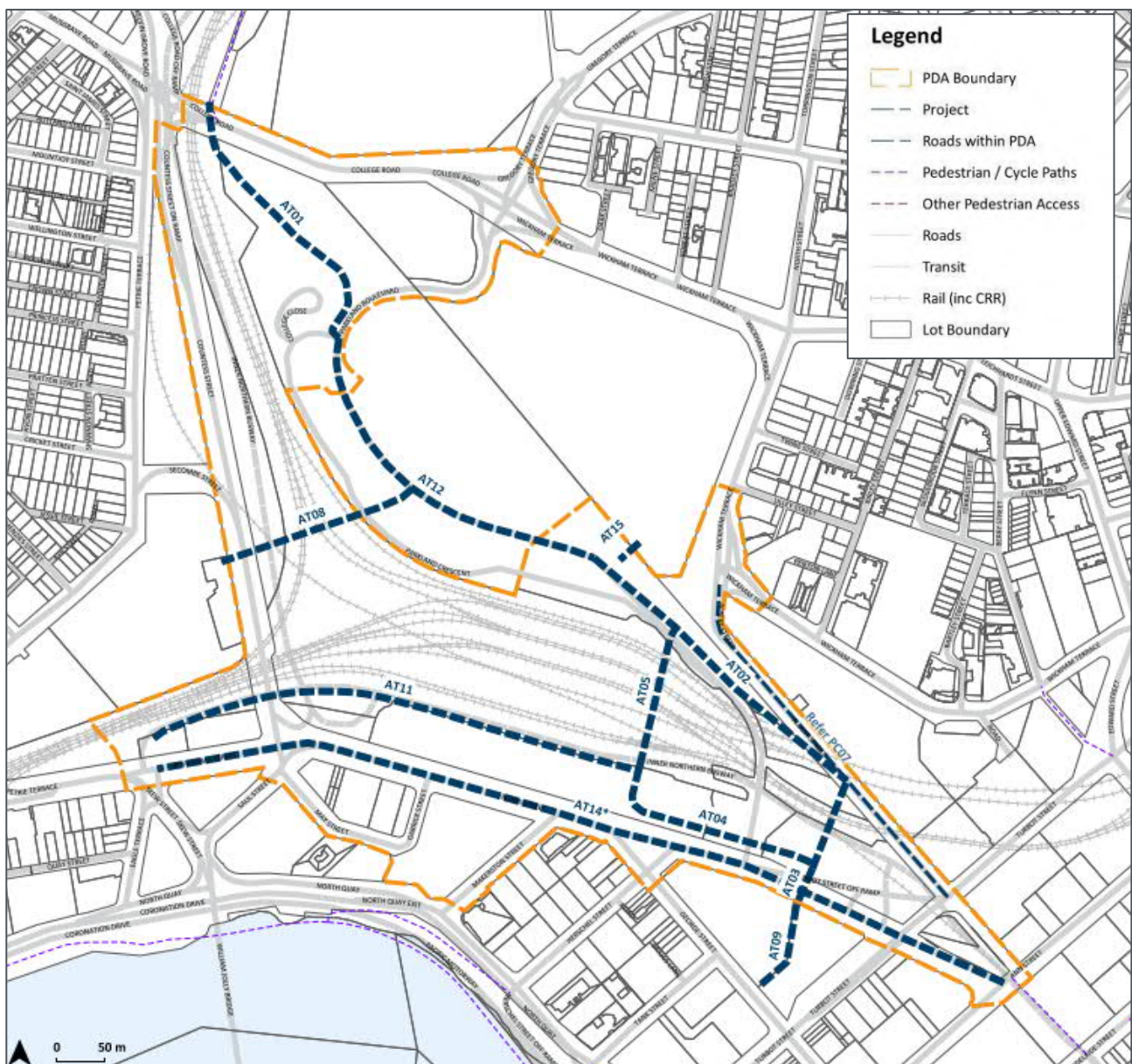


Figure 4-3: Future Active Transport Opportunities

Whilst not noted as a Principal Cycle Route and outside the PDA, it is recommended that bicycle provisions such as on-road cycle track on the western side of Herschel Street to meet cyclists desire lines are investigated by others to tie onto the George Street on road, two-way cycle track and on-road cycle lanes on Roma Street.

Lastly, the intersections along Roma Street and Wickham Terrace/College Avenue are also being assessed for pedestrian improvements as part of the traffic modelling.

5 Conclusion and Recommendations

There are existing constraints for pedestrians and cyclists using the Roma Street Precinct as they move through the site with:

- Poor pedestrian connectivity between Roma street and the Roma Street Parkland due to non-compliant footpath widths, poor signage, restricted passage through the station and non-DDA compliant sections along the routes
- Poor cyclist connectivity between the Bicentennial Bikeway and Normanby Cycleway due to poor signage, unfavourable grades in some sections, intersections with safety concerns and CTPED issues along Parkland Crescent
- Footpath widths and queueing for pedestrians at signals with the development uplift and events at PMEA, Roma Street Parkland and Suncorp Stadium.

BCC and TMR seek to address these issues as part of the developable land in the PDA.

Overall, the PMEA may offer many opportunities to ameliorate the existing issues for pedestrian and cyclist connectivity. Any future PMEA design and/or FOSD design or podium design could provide pedestrians with:

- A direct 24-hour pedestrian route from Roma Street to the Roma Street Parkland (that does not require Go-Card or paper-ticket usage/staffed access)
- Improved way finding and DDA compliant routes to various destinations within the site, and externally to Southbank Bank via the podium overpass to George Street and the Kurilpa Bridge.

However, challenges include:

- Increased potential conflicts between pedestrians and cyclists, as noted above at the PMEA site and the overpass of Roma Street towards George Street and Kurilpa Bridge, especially during events
- CPTED challenges for pedestrian paths on Parkland Crescent underneath Parkland Boulevard and underneath potential new developments.

The design could provide cyclists with:

- A preferred cycle path (preferably separated from road traffic) between the Normanby Cycleway and George Street that is clearly marked with good sight lines
- Improved grades between Roma Street and the Northern Bikeway either through the PMEA site or along the of Albert Street Green Spine
- Improved access to the Kurilpa Bridge via the podium overpass of Roma Street.

Further, a Principal Cycle Route from Normanby Cycleway along Parkland Boulevard and through to Roma Street overpass should be maintained as 24 hours a day, 7 days a week cycle route including during events. It should be delivered in such a way as to minimise conflict with pedestrians and link seamlessly to other PCNP routes in the inner city. Therefore, as part of this framework process, cycling provisions in Roma Street Parkland should be advocated for such as Cycle Streets or on road, two-way cycle track.

The pedestrian assessment concluded that in order to meet LoS C, the footpath width required to accommodate all queues at signals and passing traffic for typical weekdays (excluding events) are as follows:

- Northern side of Roma Street in front of the Western Services Building (route to Suncorp Stadium) – 1.8m for non-events and for events to be confirmed once post-game flows are available
- Northern side of Roma Street under 5.0m at Makerston Street
- Southern side of Roma Street expected to be under 5.0m at Makerston Street
- Northern side of Roma Street between Makerston Street and George Street/Herschel Street to be 1.5m
- George Street/Herschel Street at Roma Street Station Forecourt 8.2m
- George Street/Herschel Street opposite at Roma Street Station Forecourt 3.0m
- Northern side of Roma Street east of George Street/Herschel Street to be 1.8m.

To address these challenges, it is recommended that:

- All Active Transport links need to be publicly accessible 365 days a year, 24 hours a day, and 7 days a week, or alternative access be provided during events
- CCTV is considered on paths used by cyclists and pedestrians where CPTED challenges are noted, such as for paths under buildings or future developments

- Cyclist and pedestrian paths are clearly marked, with potential conflict sites highlighted
- Access control (current design and installation guidance at time of installation) is provided on paths where there are potential pedestrian and cyclist interactions on slopes to reduce cyclist speeds noting
- Cycling provision on Parkland Boulevard within the PDA is upgraded to meet current standards by providing additional path width through Site 1 at the north-western corner
- Cycling provisions are advocated on Parkland Boulevard in association with the Roma Street Parkland “framework”, such as providing a “Cycle Street” outcome
- The overpass of Roma Street to George Street is constructed to improve pedestrian and cyclist connectivity to South Bank and the Kurilpa Bridge
- Bicycle provisions on Herschel Street to be investigated by others
- Skyways and elevated walkways are future proofed including in building-built forms
- Albert Street Green Spine vision is not compromised and supported through the PMEA
- Intersections upgraded considering pedestrians and cyclists such as at Albert Street/Roma Street/Turbot Street with or without the inclusion of PMEA.

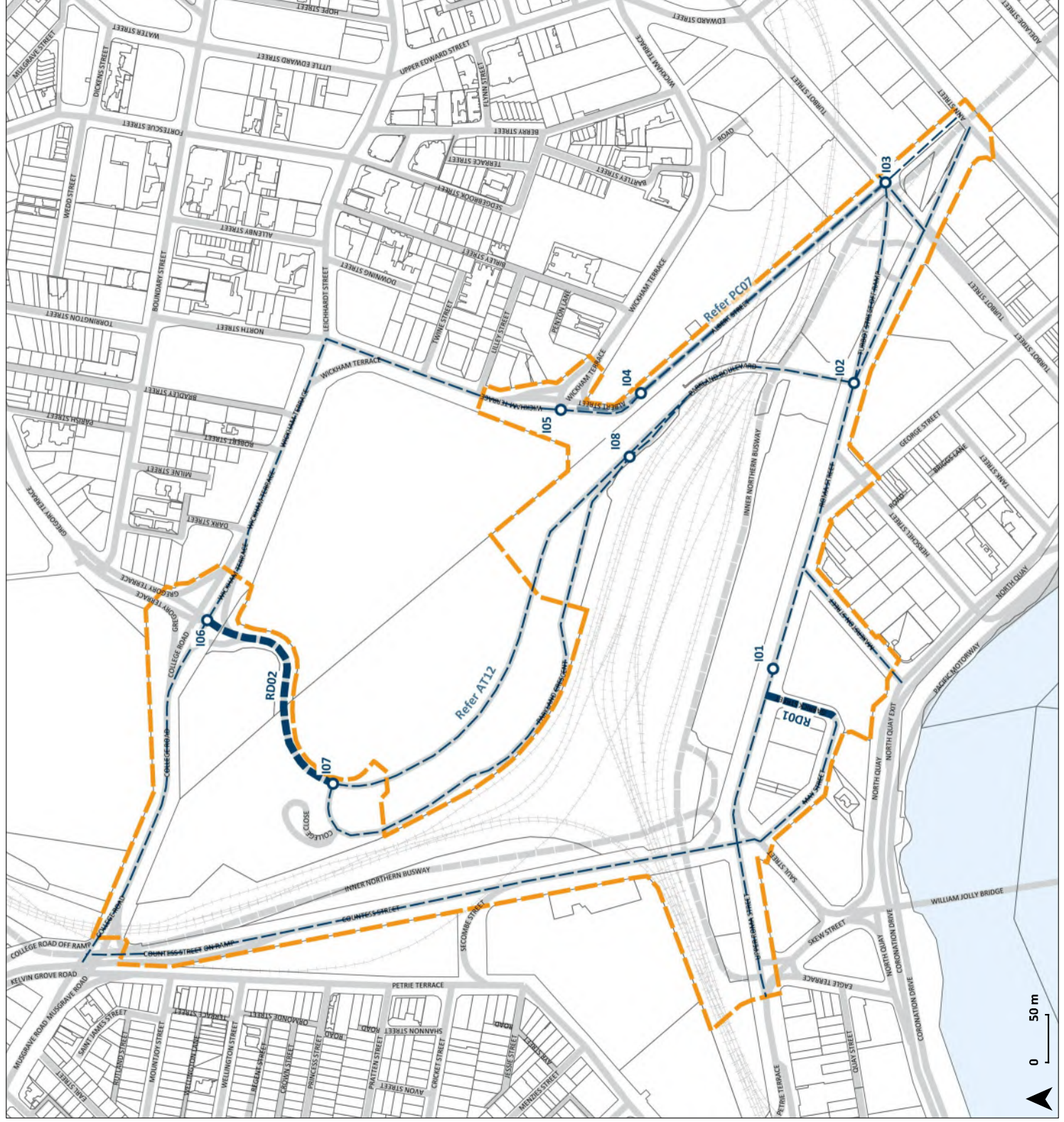
To address these road challenges, it is recommended that trunk road upgrades proposed are as follows:

- Western FOSD/Garrick Street intersection ultimately planned as a four-way signalised intersection – proposed with development Site 3
- Intersection upgrade of Parkland Blvd College/Gregory Terrace/Wickham Terrace to allow for additional turning movements
- Intersection upgrades considering pedestrians and cyclists at Albert Street/Roma Street/Turbot Street.

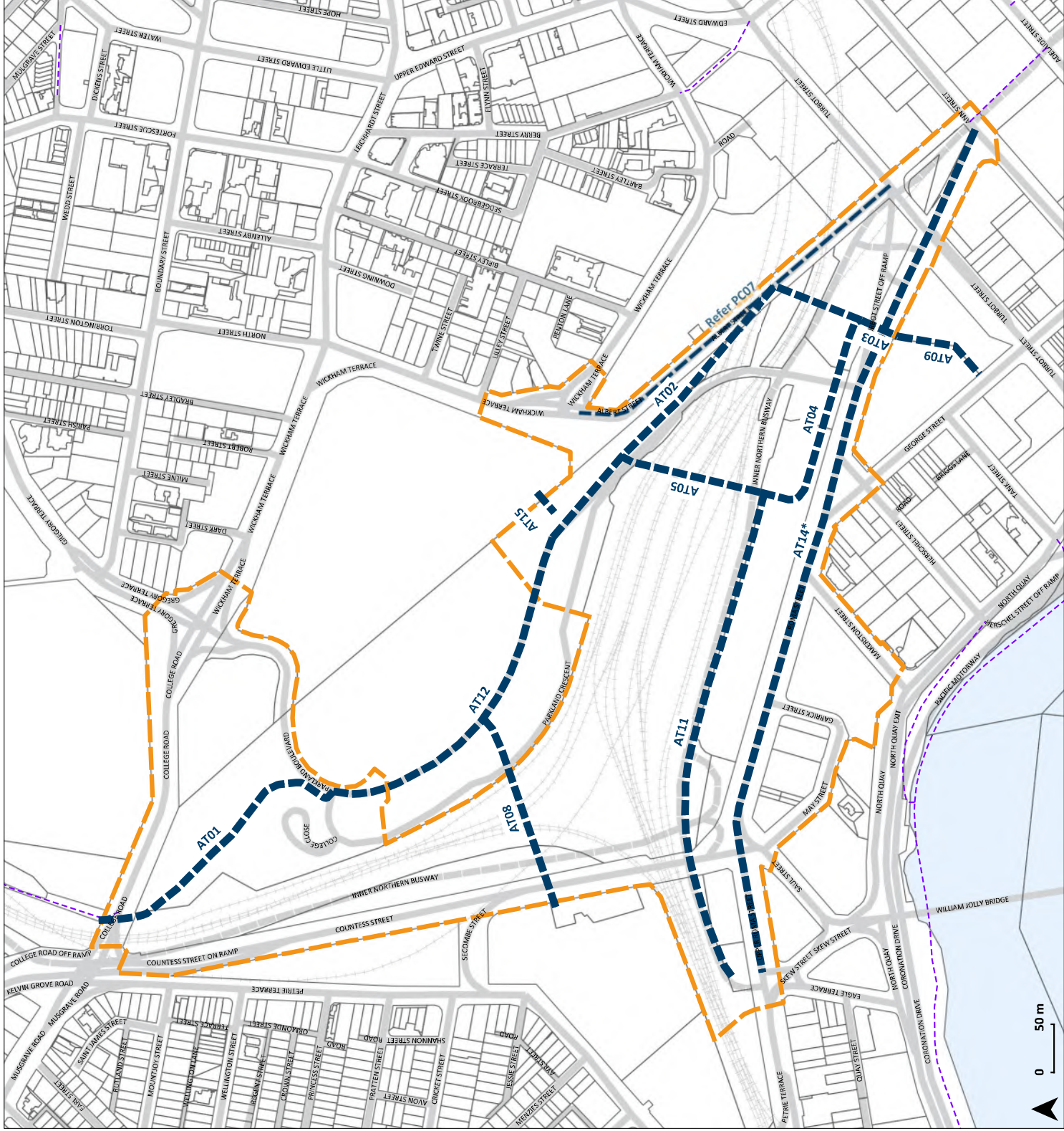
Appendix A Transport Infrastructure Network Plan Maps

Legend

- PDA Boundary
- Project
- Project
- Roads within PDA
- Roads
- Transit
- Rail (inc CRR)
- Lot Boundary



- Legend**
- PDA Boundary
 - Project
 - Roads within PDA
 - Pedestrian / Cycle Paths
 - Roads
 - Transit
 - Rail (inc CRR)
 - Lot Boundary



Note: * further detail about specific alignments is subject to further planning

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Technical Memo

Technical Memo No	30032260-CI-ROMA-IPBR-002	Date of Issue	1 June 2021
Subject/Title	Roma Street Precinct Community Infrastructure Assessment		
Project Name	Cross River Rail	Project Number	30032260
Discipline	Community Infrastructure		
Document Number	30032260-CI-ROMA-IPBR-002		
Revision Details	09		
Author	Chris Mahoney		
Reviewed by	Gustavo Pereira		
Approved by	Gustavo Pereira		
Purpose	Development Scheme IPBR		
Prepared for	Cross River Rail Delivery Authority	Attention to	Daniel Gallagher

1 Overview

The Cross River Rail Delivery Authority (CRRDA) is preparing a Development Scheme for the Roma Street Cross River Rail Priority Development Area (PDA) to support the Queensland Government's Cross River Rail Precincts Delivery Strategy (PDS) Roma Street Precinct Vision.

The PDA sets out a vision of Roma Street Precinct to be an extension of the CBD and Brisbane's gateway to jobs, tourism and recreation.

To facilitate the realisation of this potential, the Roma Street precinct focus will be on:

- The key arrival destination for the central CBD, and the western gateway to the City's premier cultural, leisure and entertainment offerings including a Potential Major Entertainment Arena (PMEA).
- Improved public realm and active transport connections to improve pedestrian movement and connections.
- Significant upgrades to State-owned station interchange for Cross River Rail (CRR), Brisbane Metro and bus services, including realignment of the Inner Northern Busway.

The Strategy sets out a Roma Street Precinct Intent, located at one of Brisbane's most significant city centre arrival points, has the opportunity to become a key economic and community hub through major redevelopment, reinvigorating heritage places, new public spaces and developing strong connections to nearby major Parkland and facilities. Map 01 as provided in Appendix A illustrates the PDA boundary along with the three internal precincts and respective development sites.

Informing the PDA Development Scheme preparation process are infrastructure baseline assessments, one of which is concerned with community infrastructure. This specifically investigates current and projected provision of parks and open space and land for community facilities as per the Brisbane City Council Public Parks Network and Land for Community Facilities Network.

This Technical Note was been prepared in consultation with Brisbane City Council (BCC) (Parks and Community Facility Planning Divisions) and City Parkland Services.

This Technical Note provides a summary of current and future baseline infrastructure provision, the key findings of the community infrastructure assessment and resultant recommendations for consideration in the drafting of the PDA Development Scheme.

2 Catchment areas

To provide a suitable framework for the Community infrastructure baseline assessment, respective catchment areas were defined as presented in Map 02 and Map 03 provided in Appendix A.

The Neighbourhood catchment is the smallest area of assessment and encompasses the area within and immediately surrounding the PDA. It is designed to capture the characteristics of the area which would be most affected by what occurs within the PDA boundary. The Neighbourhood catchment for the Roma Street Precinct comprises a total of 17 mesh block areas as defined by the Australian Bureau of Statistics (ABS). The Neighbourhood catchment is depicted in Map 02 which also indicates existing provision of parks and community facilities (note that there are none currently within the Neighbourhood catchment).

The Local catchment includes the area surrounding the PDA and the Neighbourhood catchment. In defining the Local catchment, the accessibility standards of parks (within 750m for local recreation park) and community facilities (1km from a local level facility) have been considered along with connectivity with the other major inner-city parkland facilities of the Brisbane Botanic Gardens and South Bank Parklands. As depicted in Map 03; the Local catchment comprises the statistical geographies (SA2) of Brisbane City, Spring Hill and South Bank.

The purpose of the District catchment is to provide a contextual understanding and comparator for the neighbourhood and Local catchments. In addition to Brisbane City, Spring Hill and South Bank (which constitute the Local catchment), the District catchment includes:

- Fortitude Valley;
- Kelvin Grove- Herston;
- Red Hill;
- Paddington- Milton;
- West End;
- Newstead- Bowen Hills;
- Woolloongabba;
- Kangaroo Point.

Depiction of the Local and District catchments is provided in Map 03, which also indicates the existing provision of parks and land for community facilities.

3 Baseline Assessments

The baseline assessments presented in this Technical Note are based on the CRRDA Roma Street Precinct baseline development yields and staging assumptions - refer to Table 1. (Note that the existing 'Parklands' residential development is not included as there is no proposed alteration to this development as part of the PDA).

Table 1: Baseline Scenario- Development yields – Roma St Precinct/PDA

Stage	Estimated year	Total GFA (m ²)	Total apartments	Total hotel rooms	Total persons	Total jobs
Pre-development state	Pre-2020	99,440	-	191	344	4,444
Stage 1	2020 - 2025	55,748	-	-	-	2,508
Stage 2	2025 - 2026	248,800	-	-	-	11,749
Stage 3	2026 - 2031	346,248	1,245	357	2,884	14,221
Stage 4	2032 - 2041	481,948	1,894	357	4,052	18,939

3.1 Neighbourhood catchment

A summary of population and jobs data relating to the Neighbourhood catchment is provided in Table 2.

Table 2: Baseline Scenario- Resident Population and job predictions

	2020	2026	2026- with PDA development	2036	2036 (with PDA development)
Resident Population	3003	3,800	3,800	5,624	9,332
Jobs	37,114	42,208	49,513	48,640	63,135

Existing supply:

The total existing supply of trunk park in the Neighbourhood catchment equates to 2.4 ha, with Wickham Park and King Edward Park the only trunk parks- both being of type 'metropolitan recreation'.

There is an existing total of 1.8 ha of non-trunk park space, comprising E.E McCormick Park, Hardgrave Park, Observatory Park and a portion of Emma Miller Place. The remainder of Emma Place provides 0.64 ha of trunk urban commons.

A central feature of the Neighbourhood catchment is the Roma Street Parkland which is managed by City Parklands Services- a subsidiary company of BCC. Consisting of 9.8ha of dedicated park space, Roma Street Parklands is a multi-award winning example of an inner city feature park which provides a tourism attraction, a venue for community events along with recreational park space for surrounding residents and employees. Whilst not a "trunk" Council park, along with South Bank Parkland, for the purposes of this assessment Roma Street Parkland can be classified in its own category of "State Parkland", with a commensurate high level of embellishment being of state-wide significance.

In the northern section of Precinct 3 of the PDA are two portions of land demarcated as Sub-Area 3A and Sub-Area 3B (refer to Map 01). Sub-Area 3A is a portion of the Roma Street Parkland which currently is primarily used as a depot and park maintenance facility and associated private car park area. Of the total lot size of 10,931m², an area of 1,314m² is publicly accessible open space and currently part of the Roma Street Parklands. The remaining 9,716m² is currently not publicly accessible and utilised as the maintenance facility and car park.

There is no existing supply of land for community facilities in the Neighbourhood catchment.

Refer to Map 02 in Appendix A for a depiction of existing supply of parks in the Neighbourhood catchment.

Future supply:

As per the BCC Local Government Infrastructure Plan (LGIP) and Long Term Infrastructure Plan (LTIP), the only currently proposed future provision of parks and land for community facilities in the Neighbourhood catchment is that proposed as part of the CRR project and Roma Street Precinct Delivery Strategy.

Community infrastructure would be delivered both as part of the CRR Tunnel, Station & Development (TSD) delivery and through the realisation of future development opportunities within the broader PDA.

CRRTSD will involve delivery of the following community infrastructure (approximate estimates only):

- Roma Street Station Arrival Plaza- provision of 718m² of embellished (non-trunk) public realm space by 2025
- Herschel Street Pocket Park- provision of 699m² of embellished (non-trunk) scenic amenity/ corridor park by 2025
- Roma Street Streetscape Improvements (North)- provision of 362m of improved (non-trunk) landscape amenity along Roma Street by 2026
- Roma Street Streetscape Improvements (South)- provision of 240m of improved (non-trunk) landscape amenity along Roma Street by 2026

Community infrastructure proposed to be delivered within the broader PDA includes:

- A (potential) major sport, recreation and entertainment facility (PEMA)- provision of 57,096m² GFA of (State) community facility space by 2031
- Expanded Station Plaza (subject to constraints resolution)- provision of 2,450m² of embellished public realm/ urban commons space by 2031
- PMEA forecourt / Emma Miller Place forecourt and activated landscaped plaza - provision of 8,227m² of embellished public realm/ urban commons space by 2031
- Albert Street Green Spine where abuts the PMEA forecourt/ Emma Miller Place- provision of ~4,421m² of (trunk) Recreation Corridor Park by 2031
- PMEA streetscape improvements on Roma Street- provision of ~1,084m² of improved (non-trunk) landscape amenity space by 2031
- College Road Park (name to be confirmed), providing an additional 10,931m² of trunk local recreation park in Sub-Area 3A of Precinct 3 by 2036
- Provision of publicly accessible green space in Sub-Area 3B of Precinct 3 comprising up to approximately 3,000m² of (non-trunk) landscape amenity open space by 2036
- A multi-purpose community space including community meeting rooms of ~600m² – 800m² (floorspace) by 2031

These developments would result in the following additional provision by 2026:

- 0.07 ha of embellished non-trunk public realm
- 0.07 ha of embellished non-trunk scenic amenity park
- 0.06 ha of improved non-trunk landscape amenity

By 2036 it would result in additional provision of the following:

- 1.09 ha of trunk local recreation park
- 0.44 ha of trunk recreation corridor park
- 1.07 ha of trunk urban commons
- 0.08 ha of trunk community facility space
- 1.89 ha of (State) community facility space
- 0.41 ha of improved non-trunk landscape amenity park

Table 3- Current and future predicted rates of provision

Community Infrastructure/ Type	Desired Standard of Service (BCC)	Current Provision of Service	Future (2026) Provision of Service	Proposed PDA development (2026)	Future (2036) Provision of Service	Proposed PDA Development (2036)
Local recreational park (trunk)	Access within 750m walk 0.8ha / 1,000P	100% of residents have access to park 0.0ha / 1,000P*	100% of residents have access to park 0.00ha / 1000P*	100% of residents have access to park 0.00ha / 1000P*	100% of residents have access to park 0.00ha / 1000P*	100% of residents have access to park 0.12ha / 1000P*
District and Metropolitan Park	Access to a park within 3km travel distance 1.6ha / 1,000P	100% of residents have access to park 0.79ha / 1,000P**	100% of residents have access to park 0.63ha / 1000P	100% of residents have access to park 0.63ha / 1000P	100% of residents have access to park 0.42ha / 1000P	100% of residents have access to park 0.31ha / 1000P
Sports Park	Access to a park within 3km travel distance 1.2 ha / 1,000P	100% of residents have access to park Nil	100% of residents have access to park Nil	100% of residents have access to park Nil	100% of residents have access to park Nil	100% of residents have access to park Nil
Urban commons	Access within 750m walk Provision of 5+ urban commons area in the	100% of residents and employees have access	100% of residents and employees have access	100% of residents and employees have access	100% of residents and employees have access	100% of residents and employees have access

Community Infrastructure/ Type	Desired Standard of Service (BCC)	Current Provision of Service	Future (2026) Provision of Service	Proposed PDA development (2026)	Future (2036) Provision of Service	Proposed PDA Development (2036)
	Principal Centre	0.64ha (0.21ha/ 1,000P)	0.64ha (0.16ha/ 1,000P)	0.64ha (0.16ha/ 1,000P)	0.64ha (0.11ha/ 1,000P)	1.71ha (0.18ha/ 1,000P)
Land for Community Facilities Network	Local - 360 m ² / 1000 persons 60m ² / 1000 jobs (EP)	Supply: nil Indicative under supply: 1,081m ²	Supply: nil Indicative under supply: 1,368m ²	Supply: nil Indicative under supply: 1,368m ²	Supply: nil Indicative under supply: 2,0246m ²	Supply: 800m ² Indicative under supply: 2,559m ²

*Note 1: Roma Street Parkland includes approximately 98,000m² of local recreation parkland. If recognised as providing equivalent of trunk local recreational park, the:

- current rate of provision is 3.26ha / 1,000P
- future (2026) rate of provision is 2.57ha / 1,000P (assumes growth of 4.0% pa)
- with Precinct development in 2026 rate of provision remains 2.57ha/ 1,000P
- future (2036) rate of provision is 1.74ha/ 1,000P
- with Precinct development in 2036 (total addition of 3,708 residents) rate of provision is 1.05ha/ 1,000P (which exceeds the DSS of 0.8ha/1,000P)

**Note 2: if Roma Street Parkland is recognised as providing equivalent of trunk district and metropolitan park, the:

- current rate of provision is 4.06ha/ 1,000P
- future (2026) rate of provision is 3.21ha/ 1,000P (assumes growth of 4.0% pa)
- with Precinct development in 2026 rate of provision is 321ha/ 1,000P
- future (2036) rate of provision is 2.16ha/ 1,000P
- with Precinct development in 2036 (additional of 3,708 residents) rate of provision is 1.28ha/ 1,000P (which is 0.32ha less than the DSS of 1.6ha/1,000P)

3.2 Local catchment

A summary of population and jobs data relating to the Local catchment is provided in Table 4.

Table 4- Resident Population and job assumptions

	2020	2026	2026 (with development)	2036	2036 (with development)
Resident Population	23,476	34,930	34,930	52,943	56,651
Jobs	216,059	241,835	249,140	279,884	294,379

Existing supply:

A majority of park supply in the Local catchment, which constitutes inner city Brisbane, is classified as district or metropolitan park. Supply of local recreation park is limited to Terrace Street Park (0.04 ha) in Spring Hill and Alexander Smith Park (0.8 ha) and Jolly Place Park (0.9 ha) in South Brisbane.

The City Botanic Gardens (18.1 ha) provides a major source of district and metropolitan park along with Kangaroo Point Cliffs Park (6.54 ha) and Musgrave Park (6.32 ha). Whilst not including by BCC as part of the Brisbane City Parks network, Southbank Parkland is an iconic park facility which is an inner city recreational and tourism hub. It provides approximately 14 ha of highly embellished park space. As discussed above, for the purposes of this assessment and along with Roma Street Parkland, South Bank Parkland can be classified in its own category of "State Parkland". Sports park provision in the Local catchment is relatively constrained, limited to the tennis court, aquatic centre and playing field portions of Victoria Park (0.6 ha) in Spring Hill and the aquatic centre, courts and playing fields portion of Musgrave Park (0.45 ha) in South Brisbane.

There are six existing urban commons in the Local catchment (Anzac Square, Cathedral Square, Emma Miller Place, King George Square, Post Office Square and Admiralty Towers) providing a total of 3.35 ha.

There are a range of principal level community infrastructure across the Local catchment area which are on designated land for community facilities. These include the Gallery of Modern Art, Queensland Museum, Queensland State Library, Brisbane Square Library, Brisbane Riverstage performance venue and the Jagera Community Hall in South Brisbane.

Future supply (in addition to that listed under the Neighbourhood catchment)

As outlined in the BCC City Plan 2014 LGIP, future provision of parks in the Local catchment to 2026 is limited to 0.30 ha of local recreation park and 1.0 ha of district recreation park- both of which are in South Brisbane. There is no planned park provision within the Local catchment listed in the LTIP.

With regard to land for community facilities, there is no planned future provision identified in the LGIP 2016-2026; however, in the LTIP (2026- 2036), in South Brisbane there are plans for provision of a Principal Indoor Sports Centre (1.2 ha) and a district community arts centre (0.4 ha). Refer to Map 05 in Appendix A for depiction of proposed parks and land for community facilities in the Local and District catchments.

Table 5- Local catchment: Current and future predicted rates of provision

Community Infrastructure/ Type	Desired Standard of Service	Current Provision of Service	Future (2026) Provision of Service	Proposed PDA development (2026)	Future (2036) Provision of Service	Proposed PDA Development (2036)
Local recreational park (trunk)	Access within 750m walk (Local and district recreation park) 1.4ha / 1,000P	100% of residents have access to park 0.07ha / 1,000P *	100% of residents have access to park 0.06ha / 1000P*	100% of residents have access to park 0.06ha / 1000P*	100% of residents have access to park 0.004ha / 1000P*	100% of residents have access to park 0.05ha / 1000P*
District and Metropolitan Park	Access to a park within 3km travel distance	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park

Community Infrastructure/ Type	Desired Standard of Service	Current Provision of Service	Future (2026) Provision of Service	Proposed PDA development (2026)	Future (2036) Provision of Service	Proposed PDA Development (2036)
	1.6ha / 1,000P	1.77ha / 1,000P**	1.19ha / 1000P**	1.19ha / 1000P**	0.79ha / 1000P**	0.71ha / 1000P**
Sports Park	Access to a park within 3km travel distance	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park	100% of residents have access to park
	1.2ha / 1,000P	0.04ha / 1,000P	0.03ha / 1,000P	0.03ha / 1,000P	0.02ha / 1,000P	0.02ha / 1,000P
Urban commons	Access within 750m walk Provision of 5+ urban commons area in the Principal centre	100% of residents and employees have access 3.35ha (0.14 / 1000P)	100% of residents and employees have access 3.35ha (0.09ha / 1000P)	100% of residents and employees have access 3.35ha (0.09ha / 1000P)	100% of residents and employees have access 3.35ha (0.06ha/ 1,000P)	100% of residents and employees have access 3.46ha (0.06ha/ 1,000P)
Land for Community Facilities Network	2,116 m ² / 1000 persons-residential 260m ² / 1000 jobs (EP)	Demand= 49,675m ² Supply 89,400m ² Indicative over supply: 39,725m ²	Demand= 73,912m ² Supply 89,400m ² Indicative over supply: 15,488m ²	Demand= 77,172m ² Supply 89,400m ² Indicative over supply: 12,228m ²	Demand= 112,027m ² Supply 89,400m ² Indicative under supply: 22,627 m ²	Demand= 119,873m ² Supply 90,200m ² Indicative under supply: 29,673m ²

*Note 3: If Roma Street Parkland and South Bank Parkland are recognised as serving providing equivalent of trunk local recreational park, the:

- current rate of provision for trunk local recreational park is 1.15ha/ 1,000P
- future (2026) rate of provision is 0.77ha/ 1,000P (assumes growth of 4.0% pa)
- with Precinct development in 2026 the rate of provision remains 0.77ha/ 1,000P
- future (2036) rate of provision is 0.51ha/ 1,000P
- with Precinct development in 2036 (additional of 3,708 residents) rate of provision is 0.49ha/ 1,000P

**Note 4: if Roma Street Parkland and South Bank Parkland is recognised as providing equivalent of trunk district and metropolitan park, the:

- current rate of provision is 2.92ha/ 1,000P

- future (2026) rate of provision is 1.97ha/ 1,000P (assumes growth of 4.0% pa)
- with Precinct development in 2026 rate of provision is 1.97ha/ 1,000P
- future (2036) rate of provision is 1.29ha/ 1,000P
- with Precinct development in 2036 (additional of 3,905 residents) rate of provision is 1.26ha/ 1,000P

3.3 District catchment

A summary of population and jobs data relating to the District catchment is provided in Table 6.

Table 6- Population and job predictions

	2020	2026	2026 (with development)	2036	2036 (with development)
Resident Population	135,539	171,501	172,785	253,863	257,633
Jobs	362,500	391,680	398,985	444,566	459,061

Existing supply

Across the District catchment there is a total of:

- 15.5 ha of local recreation park
- 116.8 ha of district and metropolitan park
- 63.1 ha of sports park

Note that Victoria Park provides a key source of Sport park and District recreation park in the catchment. BCC is currently advancing the redevelopment of Victoria Park, however at the time of this assessment the project was not far enough advanced to provide detail in terms of changes in the rate of provision of specific park categories. However, it is likely the redevelopment will deliver increased provision of trunk Metropolitan general recreation parkland (addition of approximately 3.5ha) and decreased provision of trunk Sport park (decrease of approximately 6ha).

In terms of land for community facilities there are a total of 36 sites with a combined land provision of 24.1 ha.

Future supply (in addition to that listed under the neighbourhood and Local catchments)

Future provision of parks in the District catchment as outlined in the BCC City Plan 2014 LGIP (2016- 2026) includes 0.30 ha in Herston, 0.18 ha in Woolloongabba and an additional total of 3.48 ha across six sites in West End, most of which are proposed local recreation park space. In the LTIP (2026- 2036) there are two sites parks proposed totalling 0.8ha.

With regard to land for community facilities, there is the planned provision of additional library and community centre space (0.18 ha) in West End identified in the LGIP (2016- 2026); whilst in the LTIP (2026- 2036), there are only the two sites in South Brisbane as listed under the District catchment.

Table 7- Current and future predicted rates of provision

Community Infrastructure/ Type	Desired Standard of Service	Current Provision of Service	Future (2026) Provision of Service	Proposed development (2026)	Future (2036) Provision of Service	Proposed Development (2036)
Local recreational park (trunk)	Access within 750m walk (Local and district recreation park) 1.4ha / 1,000P	100% of residents have access to park 0.12ha / 1,000P	100% of residents have access to park 0.09ha / 1000P	100% of residents have access to park 0.09ha / 1000P	100% of residents have access to park 0.06ha / 1000P	100% of residents have access to park 0.06ha / 1000P
District and Metropolitan Park	Access to a park within 3km travel distance 1.6ha / 1,000P	100% of residents have access to park 0.86ha / 1,000P*	100% of residents have access to park 0.68ha / 1000P*	100% of residents have access to park 0.68ha / 1000P*	100% of residents have access to park 0.45ha / 1000P*	100% of residents have access to park 0.44ha / 1000P*
Sports Park	Access to a park within 3km travel distance 1.2ha / 1,000P	100% of residents have access to park 0.46ha / 1,000P	100% of residents have access to park 0.37ha / 1,000P	100% of residents have access to park 0.37ha / 1,000P	100% of residents have access to park 0.24ha / 1,000P	100% of residents have access to park 0.24ha / 1,000P
Land for Community Facilities Network	2,116 m ² / 1000 persons-residential 260m ² / 1000 equivalent persons	Demand= 286,800 Supply 241,400m ² Indicative under supply: 45,400m ²	Demand= 362,894m ² Supply 241,400m ² Indicative under supply: 121,494m ²	Demand= 363,217m ² Supply 241,400m ² Indicative under supply: 121,817m ²	Demand= 537,174m ² Supply 241,400m ² Indicative under supply: 295,774m ²	Demand= 545,151m ² Supply 242,200m ² Indicative under supply: 302,951m ²

4 Overview of Key Findings

Regarding the assessment of existing and predicted future provision of parks and open space and land for community facilities against applicable desired standards of service, in the Neighbourhood catchment:

- There is no existing provision of Local recreation park or Sports park or Land for community facilities;

- There is constrained existing provision of District and metropolitan park (0.79ha/ 1,000P); however, if Roma Street Parkland is also considered as contributing to supply, the rate of provision (3.26ha/ 1,000P) is far higher than the DSS (1.6 Ha/ 1,000P)
- Development of the PDA would serve to increase the supply of trunk district recreation corridor park; however full development (2036) would result in a reduction in the comparative rate of provision of district park to 0.31ha/ 1,000P (without including Roma Street Parkland) and 1.28 ha / 1,000P (including Roma Street Parkland)
- Development of the PDA and the provision of the College Road Park (name to be confirmed) would substantially increase the supply (10,931m²) of trunk Local recreation park in the inner city
- Development of the PDA would increase the supply of Urban commons- from 0.64ha (current) to 1.07ha (2036) with development of Roma Street Station Arrival Plaza, PMEA forecourt / Emma Miller Place forecourt and Expanded Station Plaza; which would serve to maintain the rate of provision in 2036 at 0.11 ha/ 1,000P
- There is no existing provision of land for community facilities. Development of the PDA proposes minimum provision of 600m² - 800m² GFA for multi-purpose space, including community meeting rooms. This provision accords with the EDQ PDA Guideline no. 11- Community facilities associated with a population trigger of 2,000 – 3,000 persons, which is anticipated to be delivered in partnership with PDA development by 2031 (addition of an estimated 2,669 residents). Provision of a 600m² - 800m² GFA community facility would also meet indicative demand generated by the ultimate (2036) number of additional residents (3,708) and jobs (14,996) generated within the PDA

In the Local catchment:

- There is a very limited existing supply of local recreation park and sports park
- There is relatively high level of provision of district and metropolitan park - 1.77ha / 1,000P currently, reducing to 0.71ha / 1,000P in 2036 with the development.
- If Roma Street Parkland and Southbank Parkland are recognised as contributing to supply of district park, the current rate of supply is 2.92ha/ 1,000P, falling to 1.26ha/ 1,000P with full development of the PDA
- There is a relatively high level of provision of land for community facilities with a broad array of principal level infrastructure
- Development of the PDA would have little effect on the overall demand for provision of parks and land for community facilities against applicable DSS in the Local catchment

In the District catchment:

- There are very low rates of provision of local recreation park across the District catchment
- Rates of district/ metropolitan park and sports park are higher (than rates of local recreation park); however, remain substantially below the DSS rates of provision
- Whilst there is substantial provision of land for community facilities, (24.1 ha), with continued projected population growth and little planned additional supply, this only equates to approximately 55% of demand by 2036
- Development of the PDA would have negligible effect on the overall demand for provision of parks and land for community facilities against applicable DSS in the District catchment

In consultation with BCC and City Parklands, several opportunities offered by the PDA were identified including:

- Improved connectivity between the three major inner-city park facilities- Roma Street, Botanic Gardens and Southbank Parkland;
- Greater connectivity and accessibility to the existing parks and green spaces within the immediate area is also a key opportunity - particularly the connectivity between Roma Street Parkland, Albert Street and Wickham Park. This would include enhancement of the Albert Street Green Spine and connectivity between Ann and Turbot Street – a key connector between the city and the PMEA development site;

- There is an opportunity to increase patronage and use of Roma Street Parkland through improved connectivity - a key requirement is improved access through from Roma Street which currently requires access through the station;
- There is an opportunity to advance the development of Albert Street Green Spine north of Turbot Street. There is a further opportunity to achieve integrated and complementary outcomes with future BCC investment in Wickham Park including enhanced accessibility of Wickham Park from the Albert Street Green Spine;
- Regarding the interface between the PDA and Hardgrave Park there is an opportunity to achieve integrated and complementary outcomes with future BCC investment in Hardgrave Park, which would complement the outcomes of the City West Neighbourhood Plan;
- Whilst the final form of Emma Miller Place is contingent upon the PMEA, there is an opportunity through the PDA to enhance the utility of Emma Miller Place whilst retaining its cultural significance as a community meeting and launching space for lawful public protest;
- Regarding community facility hubs, a potential opportunity may include locating this type of facility medium to longer term in the proposed new Local recreation park adjacent to College Road or in the Heritage Station Building. Council's needs / gap analysis would assist in informing these types of outcomes.;
- Establishment of a major entertainment facility within the PDA would provide a significant cultural asset and act as a catalyst to revitalisation and appeal of the city centre as a destination. There is an opportunity to add provisions which facilitate the wider use this facility, including meeting rooms, for general community activities at an affordable rate;
- PDAs potentially provide an opportunity to respond to housing affordability and diversity. The inclusion of housing at Roma Street station in Brisbane CBD potentially provides a key opportunity to provide for affordable and diverse range of housing needs. A key component is providing housing that meets the needs of a diverse population including key worker housing and community managed housing.

5 Summary of Recommended PDA Outcomes

With respect to the provision of parks, whilst there are the high levels of quality park and open space areas provided by Roma St Parkland along with BCC's proposed enhancements to Victoria Park and Green Spine, there is an identified very low level of supply of trunk Local recreation park. The PDA proposes to substantially increase supply through the provision of College Road Park (name to be confirmed) which would provide 10,931m² of trunk Local recreation park complemented by adjacent publicly accessible open green in Precinct 3 of the PDA. Additional public realm enhancements would be provided through the PMEA forecourt urban commons, the TSD Roma Street Station Plaza and potential expansion, Roma Street streetscape improvements and Herschel Street Pocket Park.

It is recommended that there be ongoing engagement of BCC and City Parkland Services regarding the interface between the PDA boundary and surrounding parks including Roma Street Parkland, Wickham Park, Emma Miller Place and Hardgrave Park.

Regarding community facilities, it is recommended that the opportunity be provided in the PDA for the inclusion of dedicated space for further community facilities infrastructure. It is recommended that the specific form of community facility be informed by the network planning for the community facilities network being undertaken by BCC. It is further recommended that the facility be located in a visible and highly accessible location with potential site options including the re-purposing of the Roma Street Heritage Station Building or within the new College Road Park (name to be confirmed). The trigger for provision of the facility is residential growth within the PDA of (capacity for) an additional 2,500 residents, which is planned to occur by 2031.

Overall it is recommended that the community infrastructure as outlined in Table 8 below and depicted in Map 4.0 in Appendix A; be delivered through the PDA.

Table 8- Proposed community infrastructure- Roma Street PDA

Item	Map reference	Area (m2)	Other Metrics	Category	Indicative Delivery date
Roma Street Station Arrival Plaza	PC02	718	n/a	Embellished (non-trunk) public realm	2025
Herschel Street pocket park	PC01	699	n/a	Non trunk scenic amenity park	2025
Roma St streetscape improvements	PC06 (N)	n/a	362m	Non trunk landscape amenity improvement	2025 Part a (2025) Part b (2026)
Roma Street streetscape improvements	PO6 (S)	n/a	240m	Non trunk landscape amenity improvement	2031 - 2036
Multi-purpose community space- potential site options include but not limited to the Roma Street Heritage Building or the new College Road Park*	PC04	600- 800 GFA	2,500 residents	Trunk community facility opportunity	2026 - 2031
Potential Major Entertainment Arena (PEMA)	PC08	57,096 GFA	17,000 seats (indicative)	State community facility opportunity	2026 - 2031
Expanded station plaza	PC05	2,450	n/a	Trunk urban commons	2026 - 2031
PMEA forecourt/ Emma Miller Place	PC03	8334	n/a	Trunk urban commons	2026 - 2031
Albert Street Green Spine	PC07	4,421	413m	Trunk recreation Corridor Park	2026 - 2031
PMEA Streetscape improvements	PC09	1,084	217m	Non trunk landscape amenity improvement	2026 - 2031
College Road Park* - Precinct 3 – Sub Area 3A	PC10	10,931m2	n/a	Trunk local recreation park	2031 - 2036
Publicly accessible parkland space- Precinct 3 – Sub Area 3B	PC11	~3,000m2	n/a	Non trunk landscape amenity park	2031 - 2036

*Park name to be confirmed

These developments would result in the following additional provision of community infrastructure:

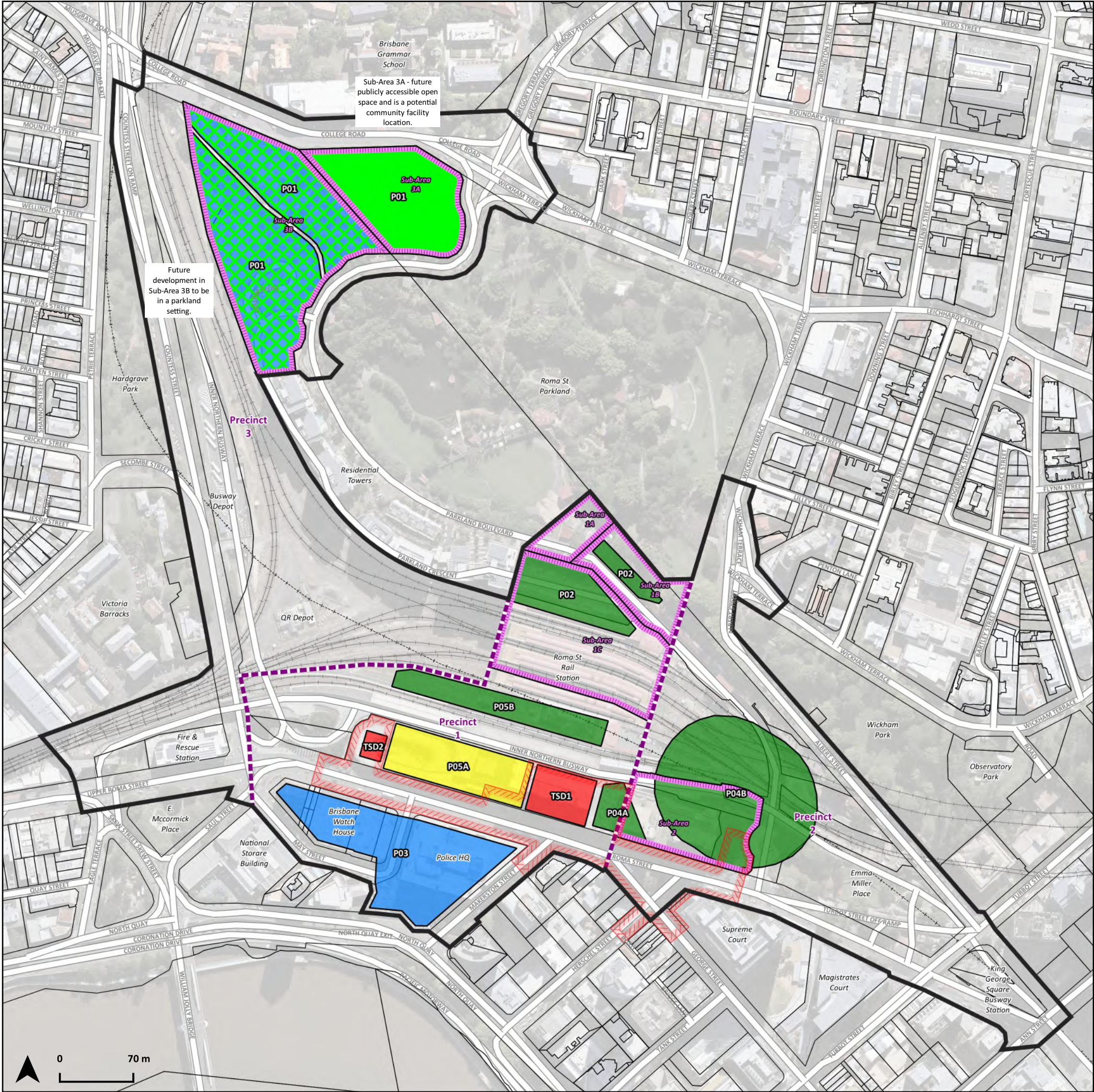
- 1.09 ha of trunk local recreation park
- 0.07 ha of embellished (non-trunk) public realm
- 0.07 ha of embellished non-trunk scenic amenity park
- 0.06 ha of improved non-trunk landscape amenity
- 0.44 ha of trunk recreation corridor park
- 1.07 ha of trunk urban commons
- 0.18 ha of trunk community facility space
- 1.89 ha of (State) community facility space
- 0.41 ha of improved non-trunk landscape amenity park

Appendix A – Maps

Roma Street Cross River Rail Priority Development Area
Community Infrastructure Analysis
Map 01 Reference Scheme

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- TSD Delivery Area
- PDA Precinct Boundary
- PDA Sub-Area Boundary
- Development Sites (by Stage & Year) (Indicative Only)
 - Stage 1 (TSD) (2020-2025)
 - Stage 2 (2025 - 2026)
 - Stage 3 (2026 - 2031)
 - Stage 4 (2032 - 2041)
- Future Publicly Accessible Open Space
 - Parkland Setting Development (inc. Publicly Accessible Open Space)
 - Publicly Accessible Open Space (Park)



Version Date & Time: 25/05/2021 18:42

Data Sources
QLD Government 2021, Brisbane City Council 2021

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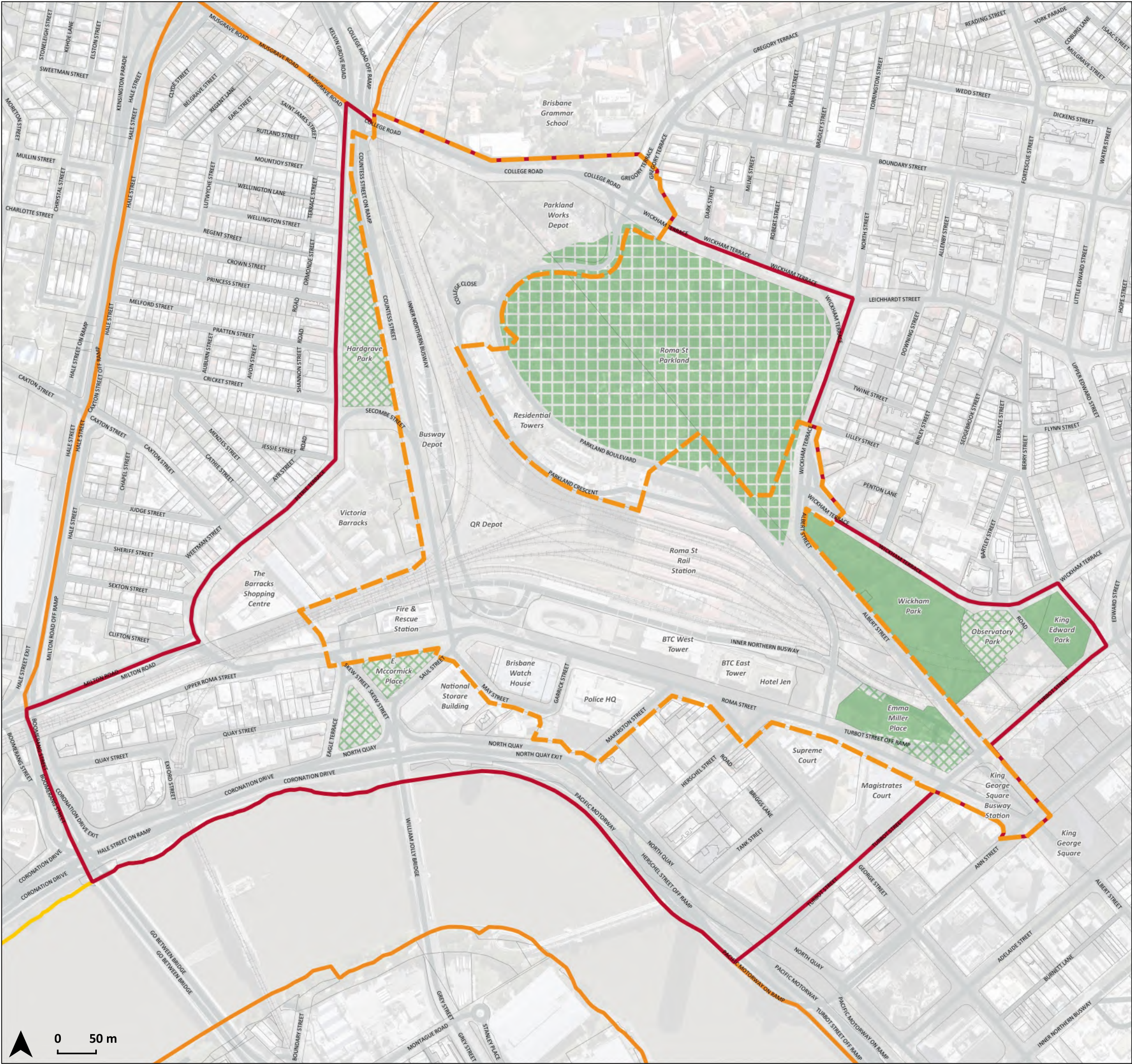
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Roma Street Cross River Rail Priority
Development Area
Precinct Community Infrastructure Analysis

Map 02
Neighbourhood catchment- Existing parks and
land for community facilities

Legend

- PDA Boundary
- Neighbourhood Catchment
- Local Catchment
- District Catchment
- Existing Trunk Park
- Existing Non-Trunk Park
- Existing State Parkland (Public Access Areas Only)
- Roads
- Transit
- Rail (inc CRR)
- Lot Boundary



Data Sources
QLD Government 2020, Brisbane City Council 2020

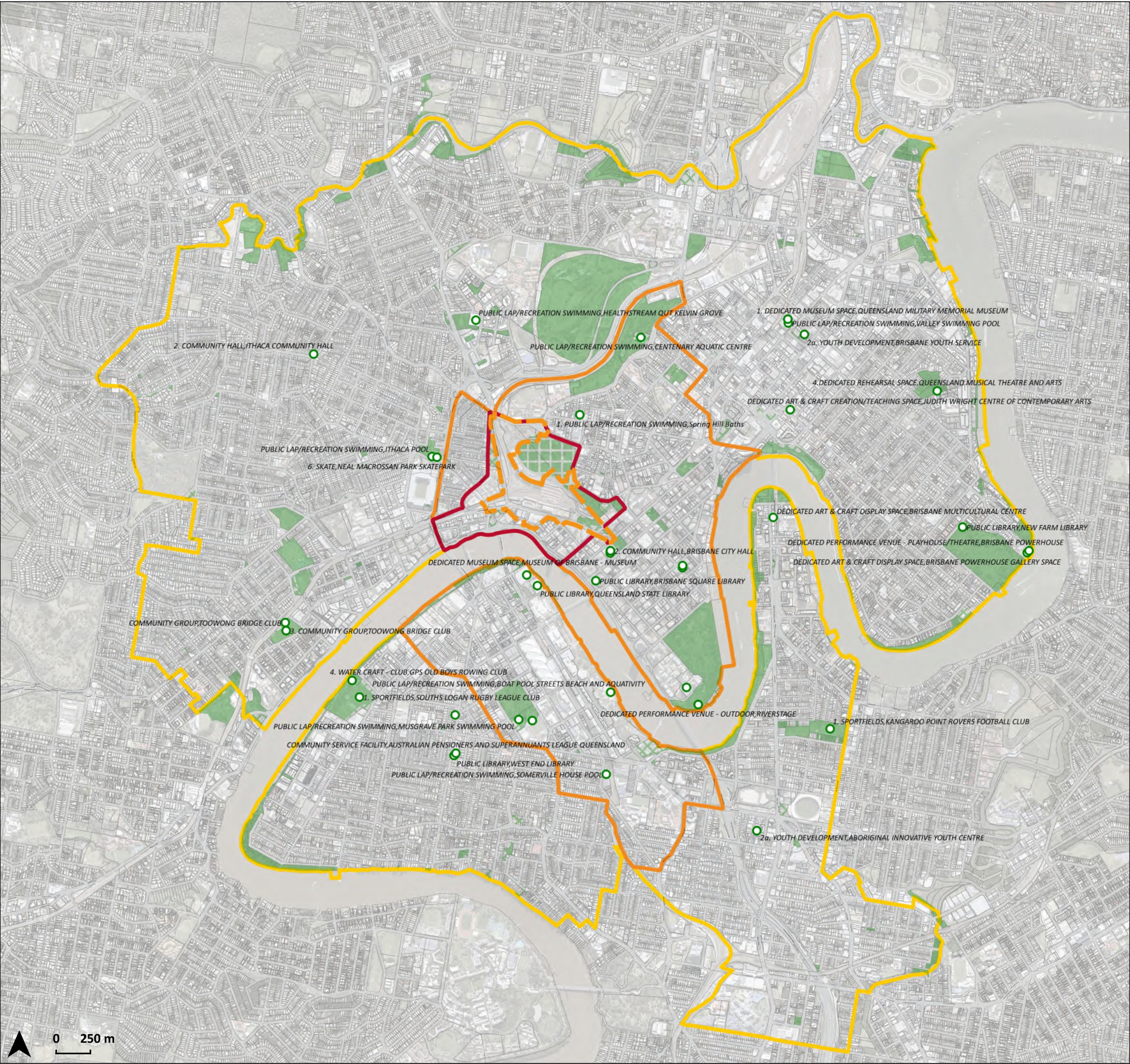
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Roma Street Cross River Rail Priority Development Area
Precinct Community Infrastructure Analysis

Map 03
Local and District catchments - Existing parks and land for community facilities

- Legend**
- PDA Boundary
 - Neighbourhood Catchment
 - Local Catchment
 - District Catchment
 - Existing Community Facility
 - Existing Trunk Park
 - Existing Non-Trunk Park
 - Existing State Parkland (Public Access Areas Only)
 - Roads
 - Rail (inc CRR)
 - Lot Boundary



Data Sources
QLD Government 2020, Brisbane City Council 2020

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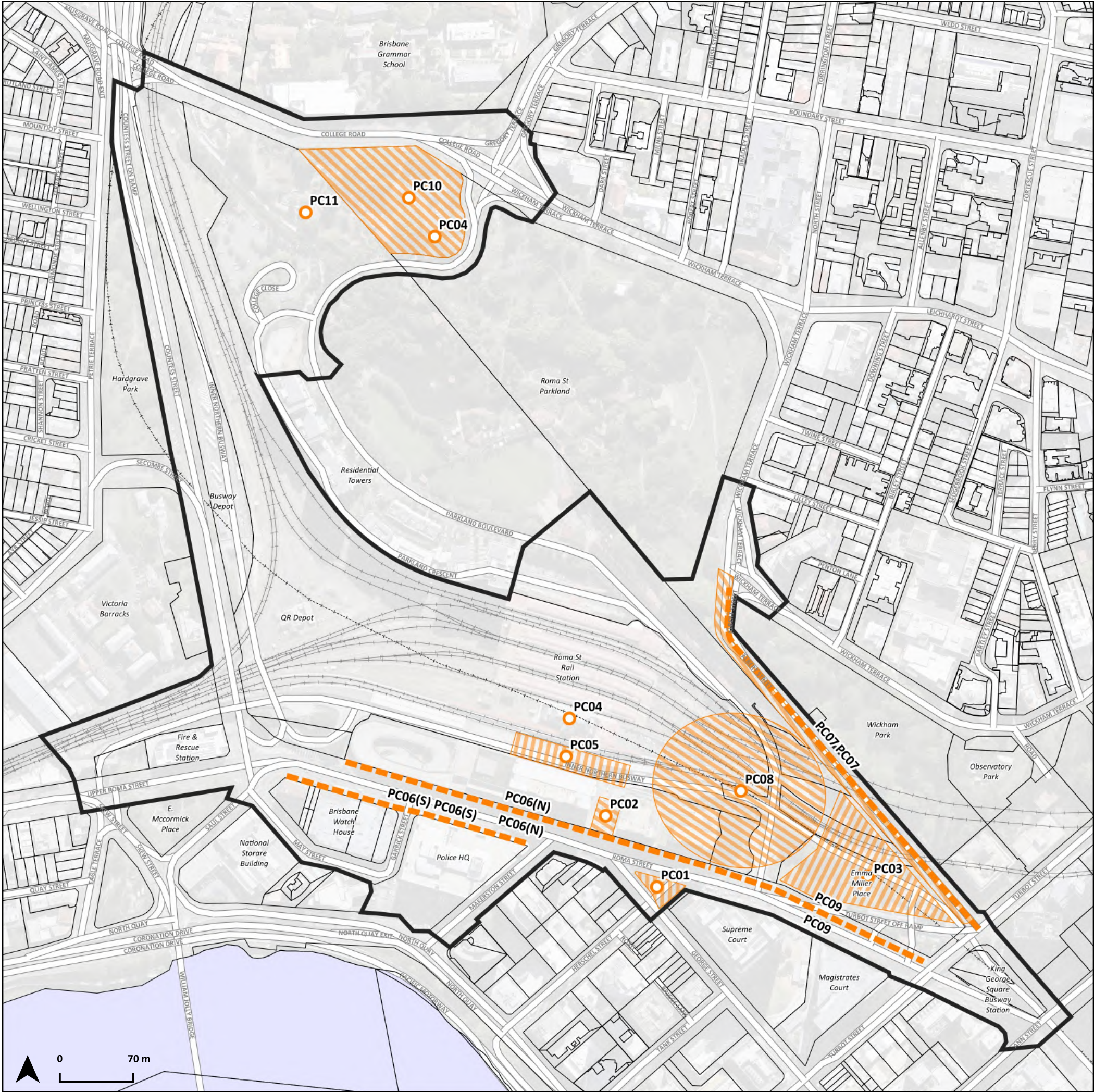
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Roma Street Cross River Rail Priority Development Area
Community Infrastructure Analysis

Map 04 Parks and community facilities - Future provision

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Parks & Community Infrastructure Project Alignment
- Parks & Community Infrastructure Project Location (Indicative)
- Parks & Community Infrastructure Project Footprint (Approx. Only)



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Data Sources
QLD Government 2021, Brisbane City Council 2021















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Roma Street Cross River Rail Priority
Development Area
Precinct Community Infrastructure Analysis

Map 05
Parks and community facilities- Future provision
(Local and District catchments)

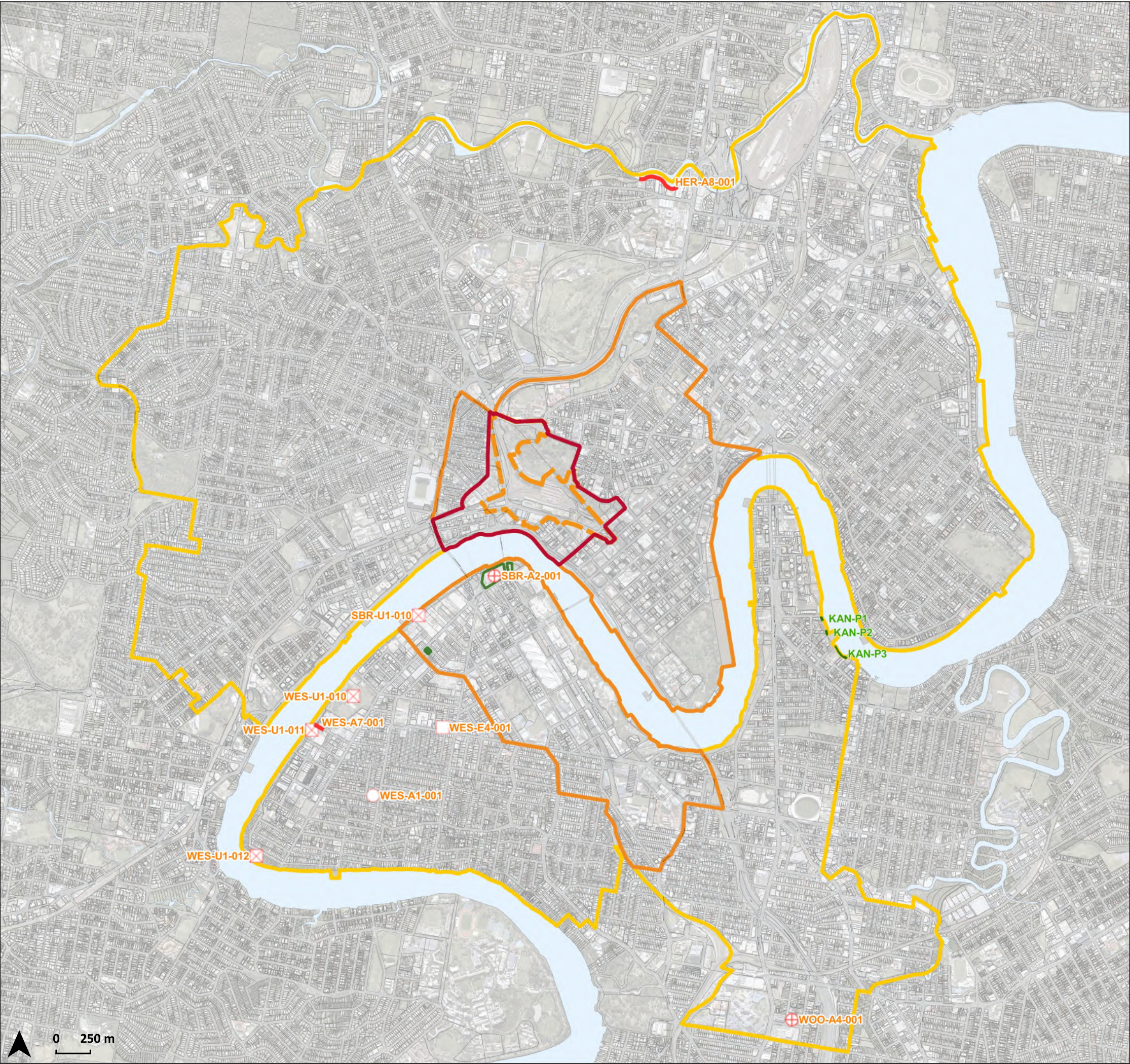
Legend

-  PDA Boundary
-  Neighbourhood Catchment
-  Local Catchment
-  District Catchment
-  Future Park Acquisition (Specific)
-  Future Park Acquisition (Indicative)
-  Future Park Upgrade (Specific)
-  Future Park Embellishment (Specific)
-  Future Corridor Link (Specific)
-  Future Community Purpose Corridor Link (Specific)
-  Future Community Purpose Acquisition
-  Roads
-  Rail (inc CRR)
-  Lot Boundary

Data Sources
QLD Government 2020, Brisbane City Council 2020

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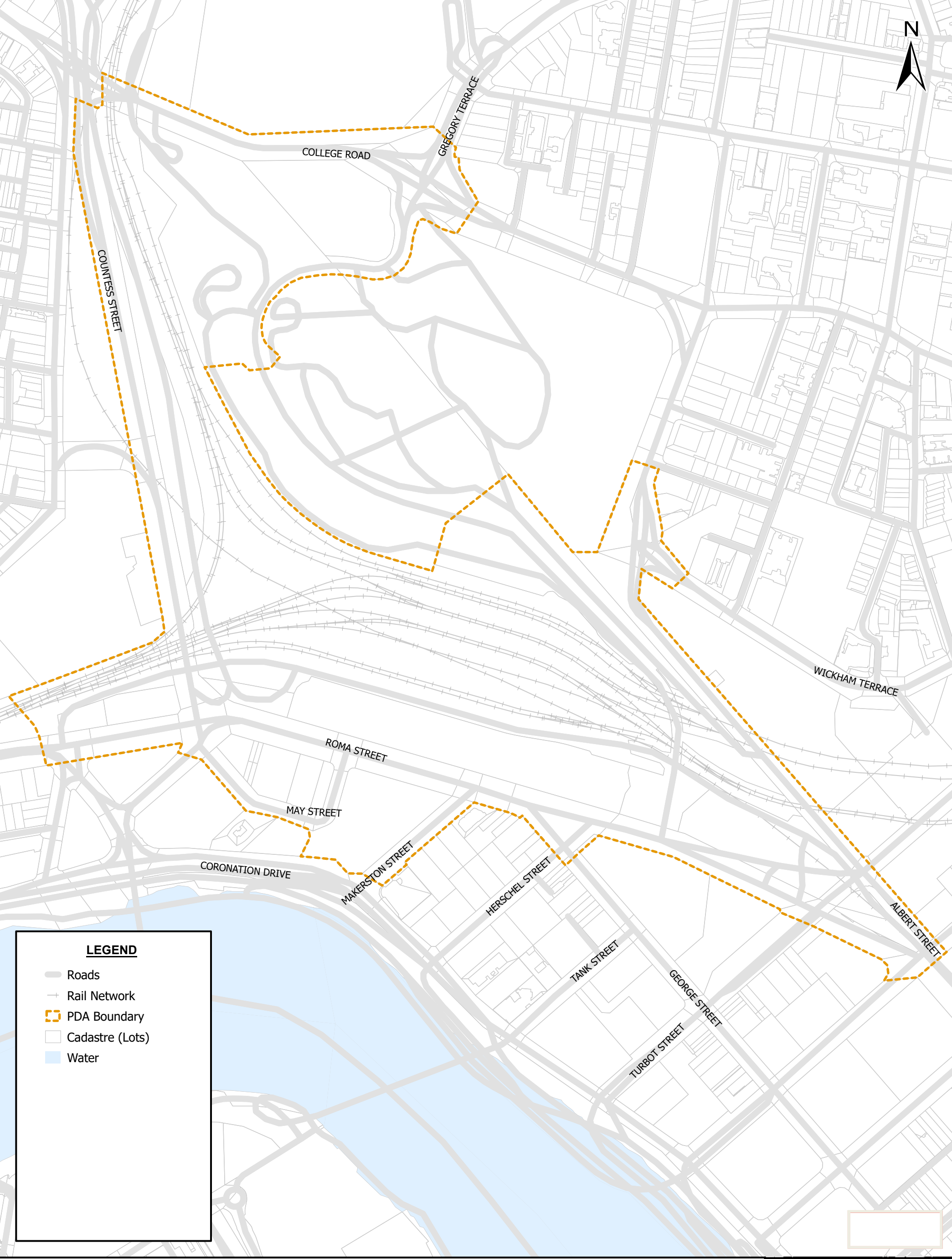


Map 04- Future provision of parks and community facilities

Identifier on Map	Facility type	Project description	Area
HER-A8-001	District Recreation Corridor Park	Acquire and embellish land to provide District Recreation Corridor Park	0.30
SBR-A2-001	Local recreational park	Acquire and embellish land to provide Local recreational infrastructure	0.30
SBR-A2-001	District recreational park	Acquire and embellish land to provide District recreational park	1.00
SBR-U1-010	Metropolitan recreational park upgrade (not new)	Upgrade existing park infrastructure to the value of \$1m+ (Metropolitan)	2.32
WES-A1-001	Local recreational park	Acquire and embellish land to provide Local recreational park	0.50
WES-A7-001	Local recreation corridor park	Acquire and embellish land to provide Local recreation corridor park corridor park	0.05
WES-E4-001	Urban Common	Provide Urban commons infrastructure	0.10
WES-U1-010	District- upgrade	Upgrade existing park infrastructure to the value of \$1m+ (District)	5.75
WES-U1-011	Metropolitan upgrade	Upgrade existing park infrastructure to the value of \$1m+ (Metropolitan)	0.81
WES-U1-012	District upgrade	Upgrade existing park infrastructure to the value of \$1m+ (District)	2.02
WOO-A4-001	District urban commons	Acquire and embellish land to provide Urban commons	0.18
KAN-P2	District access/ recreation corridor park	Acquire and embellish land to provide District access/ recreation corridor park	0.01
KAN-P3	District access/ recreation corridor park	Acquire and embellish land to provide District access/ recreation corridor park	0.07
SBR-A2-001	Principal indoor sports centre	Land acquisition, basic site preparation and connection to services to provide	1.2
SBR-A2-001	District community arts centre	Land acquisition, basic site preparation and connection to services to provide	0.4

Appendix F Future Trunk Infrastructure Network Plans

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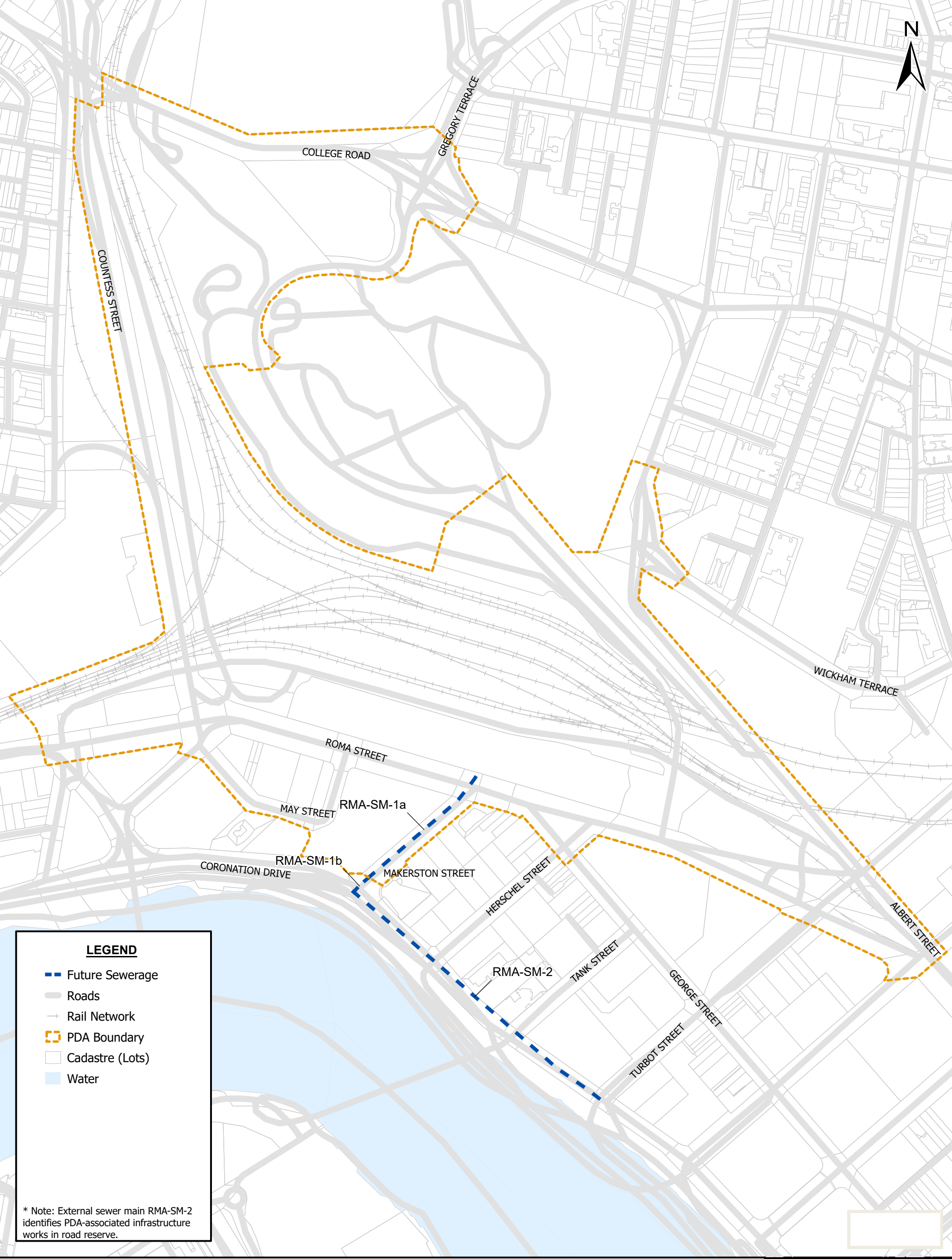


Map 01 Water Supply Future DCOP Trunk Infrastructure Plan

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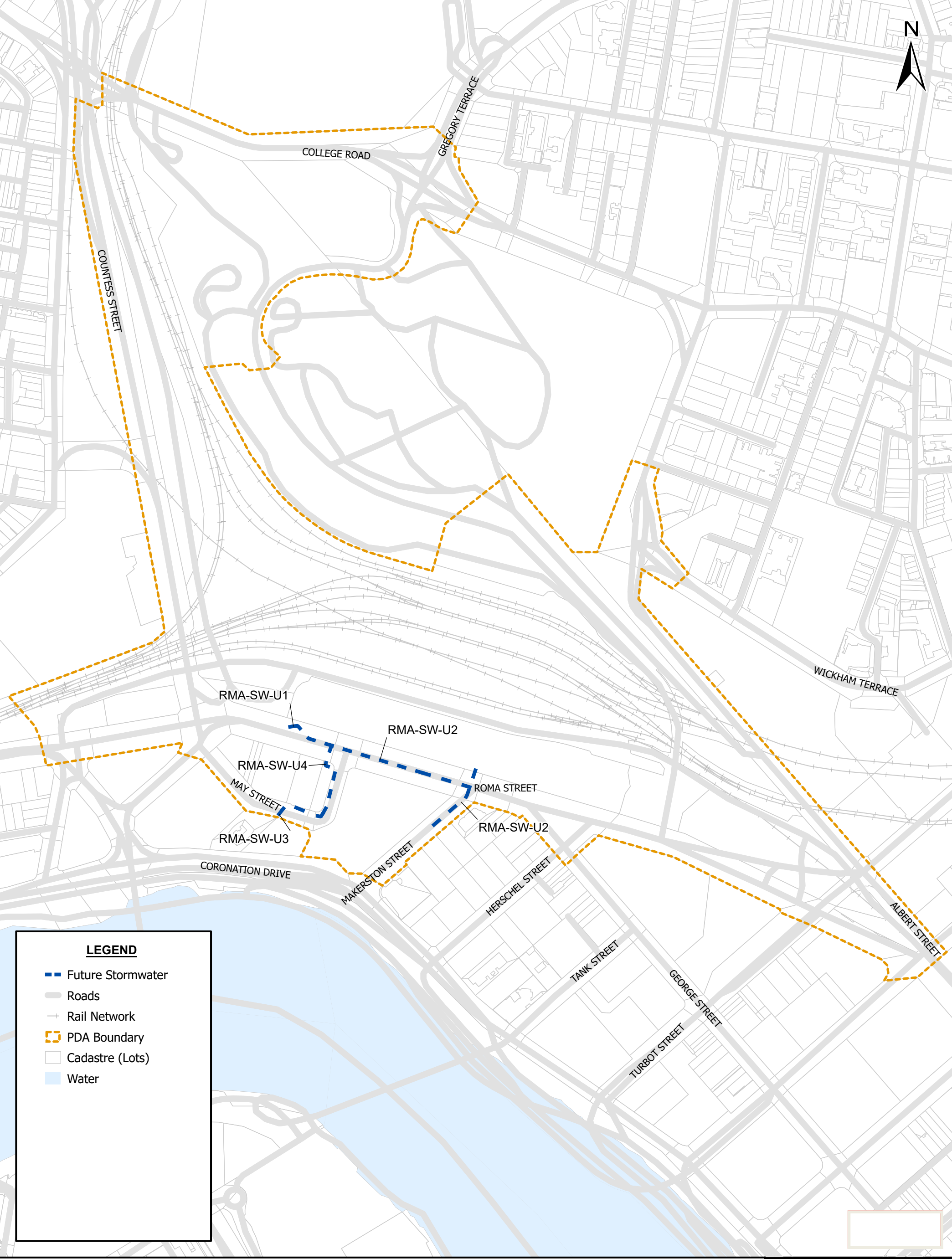


Map 02 Wastewater Future DCOP Trunk Infrastructure Plan

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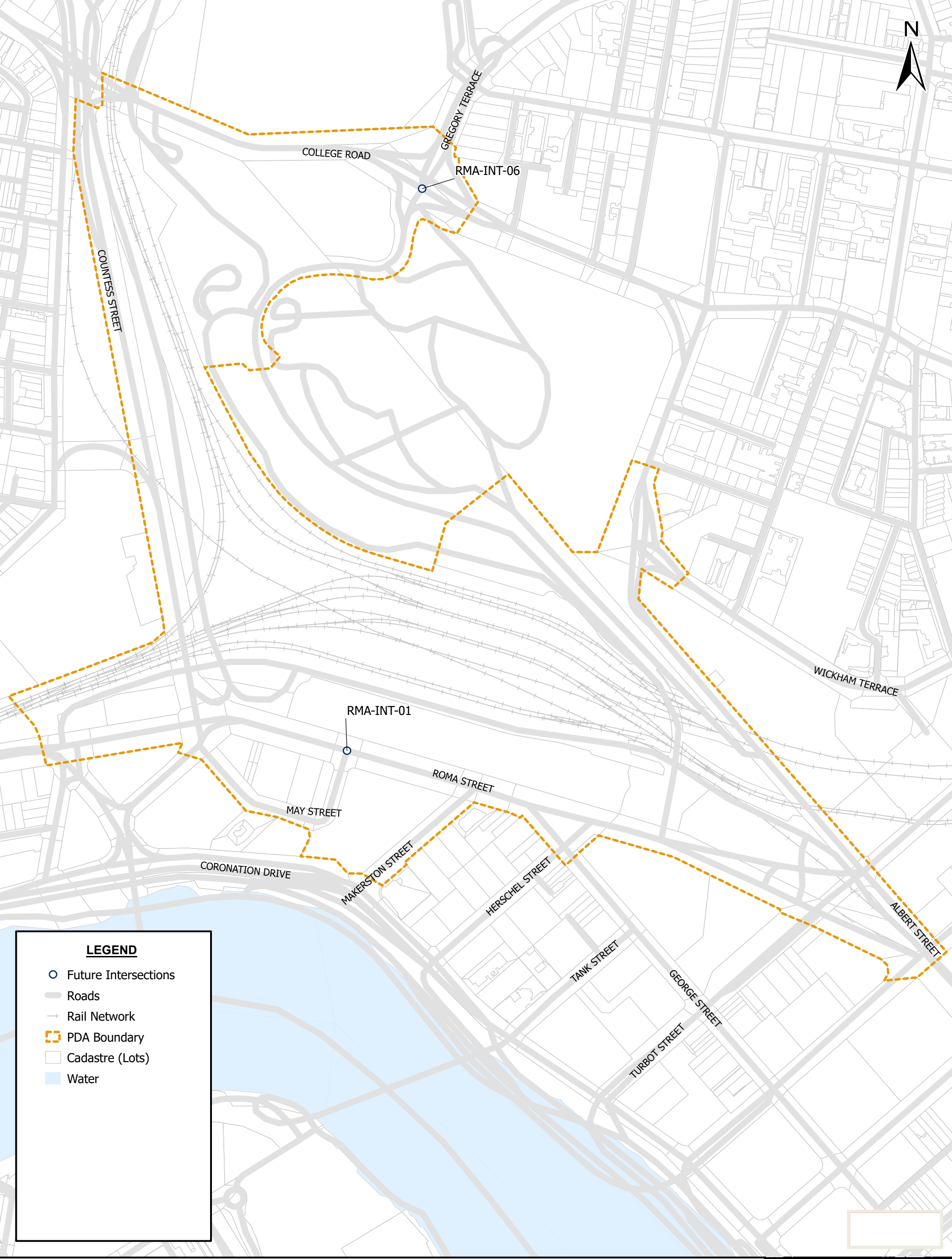


Map 03 Stormwater Future DCOP Trunk Infrastructure Plan

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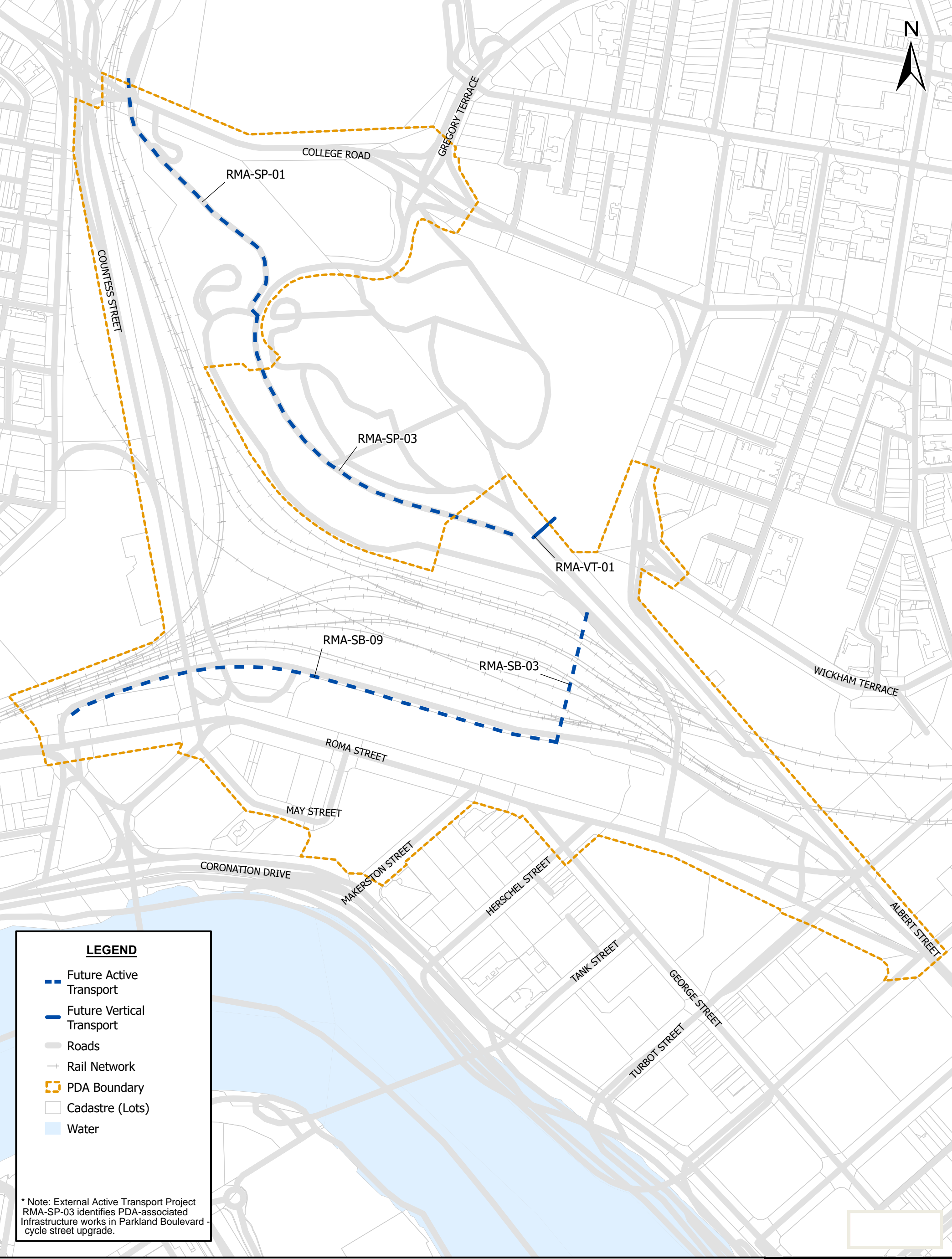


Map 04a Transport (Road) Future DCOP Trunk Infrastructure Plan

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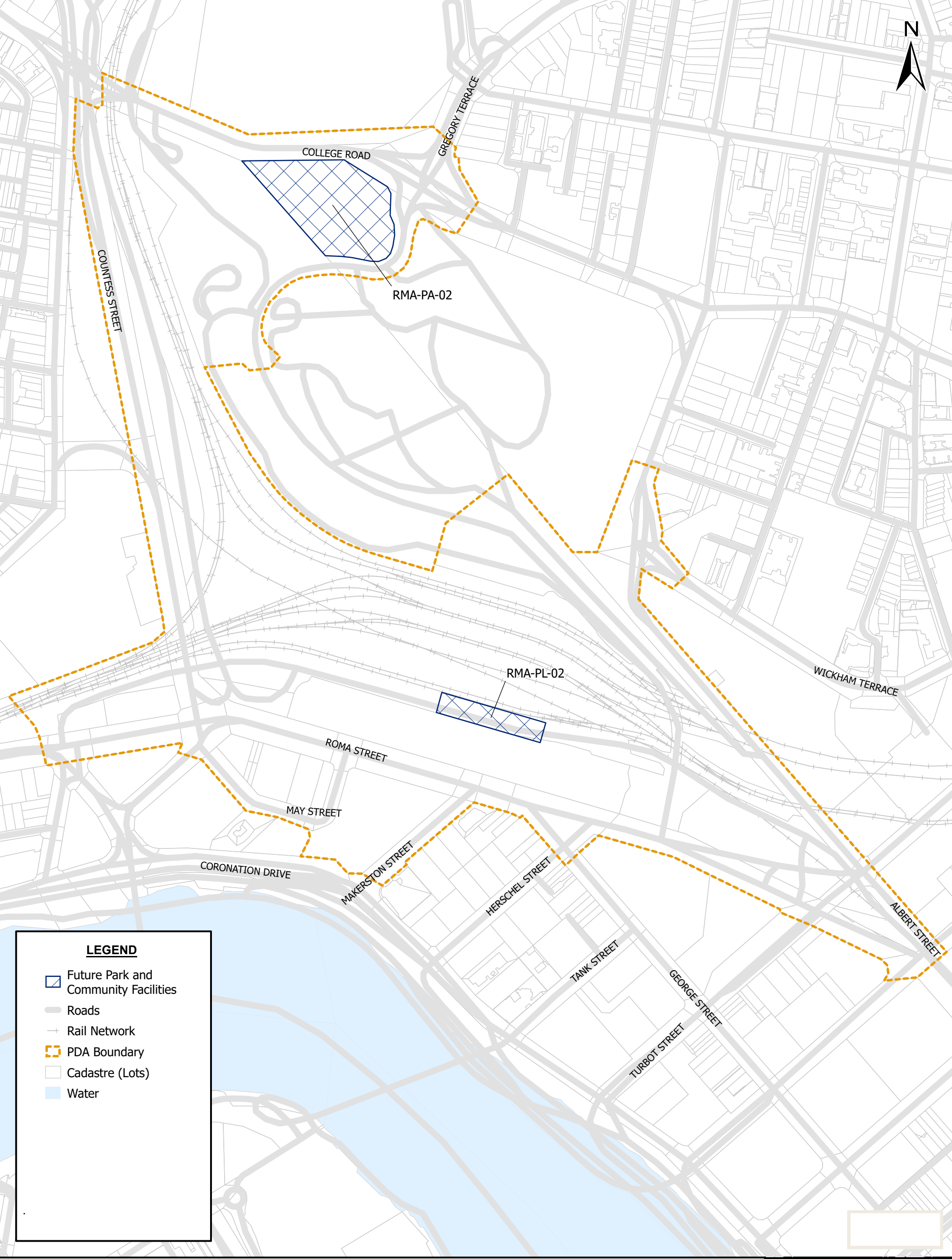


Map 04b Transport (Active) Future DCOP Trunk Infrastructure Plan

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Map 05 Parks and Community Facilities Future DCOP Trunk Infrastructure Plan

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Appendix G Future Trunk Infrastructure Cost Schedules

Appendix G - Detailed Infrastructure Schedule of Works – DCOP Trunk Infrastructure

Table 1 - Schedule of future trunk infrastructure works – Water supply

No infrastructure identified.

Table 2 - Schedule of future trunk infrastructure works – Wastewater

DCOP ID	Map ref	Infrastructure type	Infrastructure Description	Pipe diameter (mm)	Pipe length (m)	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost	Trunk establishment cost	Internal / External	Priority Infrastructure	PDA proposed contribution (trunk)	Non-PDA proposed contribution (trunk)
RMA-SM-1a	Map 2	Gravity Main	Augmentation of Makerston St Sewer (inside PDA)	400	153	2026 to 2031	\$0	\$2,559,241	\$358,294	\$437,630	\$3,355,165	\$3,355,165	Internal	Yes	\$3,355,165	\$0
RMA-SM-1b	Map 3	Gravity Main	Augmentation of Makerston St Sewer (outside PDA)	400	32	2026 to 2031	\$0	\$535,266	\$74,937	\$91,531	\$701,734	\$701,734	External	Yes	\$701,734	\$0
RMA-SM-2	Map 2	Gravity Main	Augmentation of North Quay Sewer	400	360	2026 to 2031	\$0	\$5,947,420	\$832,639	\$1,017,009	\$7,797,068	\$7,797,068	External	Yes	\$7,797,068	\$0
TOTALS							\$0	\$9,041,928	\$1,265,870	\$1,546,170	\$11,853,967	\$11,853,967			\$11,853,967	\$0

Table 3 - Schedule of future trunk infrastructure works – Stormwater

DCOP ID	Map ref	Infrastructure type	Infrastructure Description	Pipe diameter (mm)	Pipe length (m)	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost	Trunk establishment cost	Internal / External	Priority Infrastructure	PDA proposed contribution (trunk)	Non-PDA proposed contribution (trunk)
RMA-SW-U1	Map 3	Culvert	Trunk main under Roma St	1800 x 1800	5.5	2026 to 2031	\$0	\$20,698	\$3,519	\$3,632	\$27,849	\$27,849	Internal	No	TBC	TBC
RMA-SW-U2	Map 3	Culvert	Trunk main under Roma St	2400 x 2400	248.5	2026 to 2031	\$0	\$935,157	\$158,977	\$164,120	\$1,258,253	\$1,258,253	Internal	No	TBC	TBC
RMA-SW-U3	Map 3	Pipe	Drainage system under Garrick St and May St	750	47.2	2031 to 2036	\$0	\$89,135	\$15,153	\$15,643	\$119,932	\$119,932	Internal	No	TBC	TBC
RMA-SW-U4	Map 3	Pipe	Drainage system under Garrick St and May St	900	82.0	2031 to 2036	\$0	\$155,022	\$26,354	\$27,206	\$208,582	\$208,582	Internal	No	TBC	TBC
TOTALS							\$0	\$1,200,012	\$204,002	\$210,602	\$1,614,616	\$1,614,616			TBC	TBC

Notes:

1. TBC – To be confirmed

Table 4 - Schedule of future trunk infrastructure works - Transport

DCOP ID	Map ref	Infrastructure type	Infrastructure Description	Length (m) Qty (ea)	Width (m)	Area (m²)	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost	Trunk establishment cost	Internal / External	Priority Infrastructure	PDA proposed contribution (trunk)	Non-PDA proposed contribution (trunk)
Intersections																	
RMA-INT-01	Map 4a	Intersection Works	Upgrades/new signalised intersection to Roma Street/ Garrick Street (realigned)/FOSD (I01)	1			2026 to 2031	\$0	\$1,118,658	\$145,426	\$189,613	\$1,453,696	\$1,453,696	Internal	No	\$1,453,696	\$0
RMA-INT-06	Map 4a	Intersection Works	Upgrades to Wickham Terrace/ College Road/ Gregory Terrace/ Parkland Boulevard (I06)	1			2031 to 2036	\$0	\$1,432,893	\$186,276	\$242,875	\$1,862,044	\$1,862,044	Internal	No	TBC	TBC
Active Transport																	
RMA-SB-03	Map 4b	Pathway Bridge	A new pedestrian and cyclist skyway spanning over Roma Street Rail Line	150	5.5	825	2026 to 2031	\$0	\$16,500,000	\$2,805,000	\$2,895,750	\$22,200,750	\$22,200,750	Internal	No	\$22,200,750	\$0
RMA-SB-09	Map 4b	Pathway Bridge	A new pedestrian skyway from Roma Street Future Over Station Development over Countess Street to 'The Barracks' development	520	5.5	2860	2031 to 2036	\$0	TBC	TBC	TBC	TBC	TBC	Internal	No	TBC	TBC
RMA-SP-01	Map 4b	Separated Pathway	Normanby Cycleway upgraded as a separated route for pedestrians and cyclists	0	0	310	2031 to 2036	\$0	\$839,800	\$142,766	\$147,385	\$1,129,951	\$1,129,951	Internal	No	TBC	TBC
RMA-SP-03	Map 4b	On-Road Facilities	Parkland Boulevard - On-Road Facilities - Cycle Street upgrade	0	0	452	2031 to 2036	\$0	\$90,400	\$15,368	\$15,865	\$121,633	\$121,633	Mixed	No	TBC	TBC
RMA-VT-01*	Map 4b	Vertical Transport	Wickham Terrace Connection Link - Bridge Connection and Lift	0	0	1	2026 to 2031	\$0	\$1,576,000	\$267,920	\$276,588	\$2,120,508	\$2,120,508	Mixed	No	TBC	TBC
TOTALS								\$0	TBC	TBC	TBC	TBC	TBC			TBC	TBC

Notes:

1. * RMA-VT-01 is to be offset to 50% of the total value for construction of the Bridge Connection and Lift infrastructure. The remainder of costs are to be borne by the developing entity. For Clarity, the cost presented above reflects 50% of the total value for construction.
2. TBC – To be confirmed

Table 5 - Schedule of future trunk infrastructure works – Parks and community facilities

DCOP ID	Map ref	Infrastructure type	Infrastructure Description	Area (m²)	Estimated timing	Land cost	Works base cost	Works on-costs	Works contingency	Total works cost	Trunk establishment cost	Internal / External	Priority Infrastructure	PDA proposed contribution (trunk)	Non-PDA proposed contribution (trunk)
Public Realm															
RMA-PL-02	Map 5	Metropolitan Urban Common	Expanded Roma Street Station Arrival Plaza	2,450	2026 to 2031	\$0	\$877,343	\$114,055	\$148,710	\$1,140,108	\$1,140,108	Internal	No	TBC	TBC
Open Space															
RMA-PA-02	Map 6	Local Recreation Park	College Road Local Recreation Park	10,900	2031 to 2036	\$0	\$995,443	\$129,408	\$168,728	\$1,293,579	\$1,293,579	Internal	No	\$1,293,579	\$0
TOTALS						\$0	\$1,872,787	\$243,462	\$317,437	\$2,433,686	\$2,433,686			TBC	TBC

Notes:

1. TBC – To be confirmed

Table 6 - Schedule of future trunk infrastructure works – Priority Infrastructure / External Contributions*

Infrastructure type	Infrastructure Description	Trunk establishment cost / contribution
Sewerage**	Augmentation of Makerston St Sewer and North Quay Sewer	\$11,853,967
Parks, Plazas and Active Transport	Contributions towards or delivery of solutions for Emma Miller Place Enhancements, including connectivity between Albert Street and Roma Street	TBC
External Contributions	Contributions towards external infrastructure to be provided by other Infrastructure Authorities	TBC
TOTALS		TBC

Notes:

1. TBC – To be confirmed
2. * Priority Infrastructure / External Contributions are as referred to in the Roma Street CRR PDA Development Charges and Offset Plan (DCOP)
3. ** Also identified in Table 2 above.

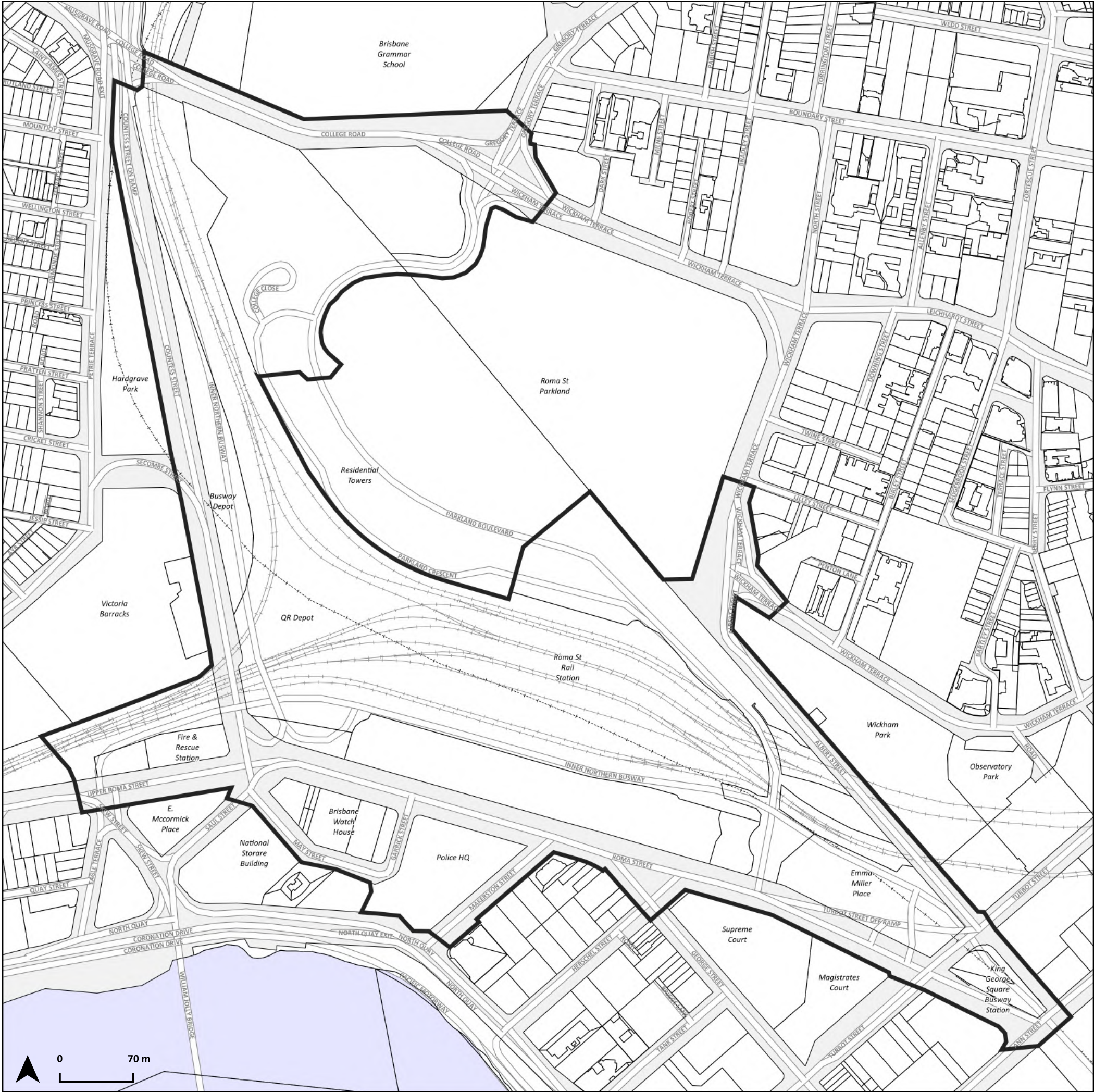
Appendix H Future Infrastructure Network Plans

Roma Street Cross River Rail Priority Development Area
Infrastructure Plan Background Report
Future Infrastructure Network Plans

Map 01
Water

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary



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QLD Government 2021, Brisbane City Council 2021

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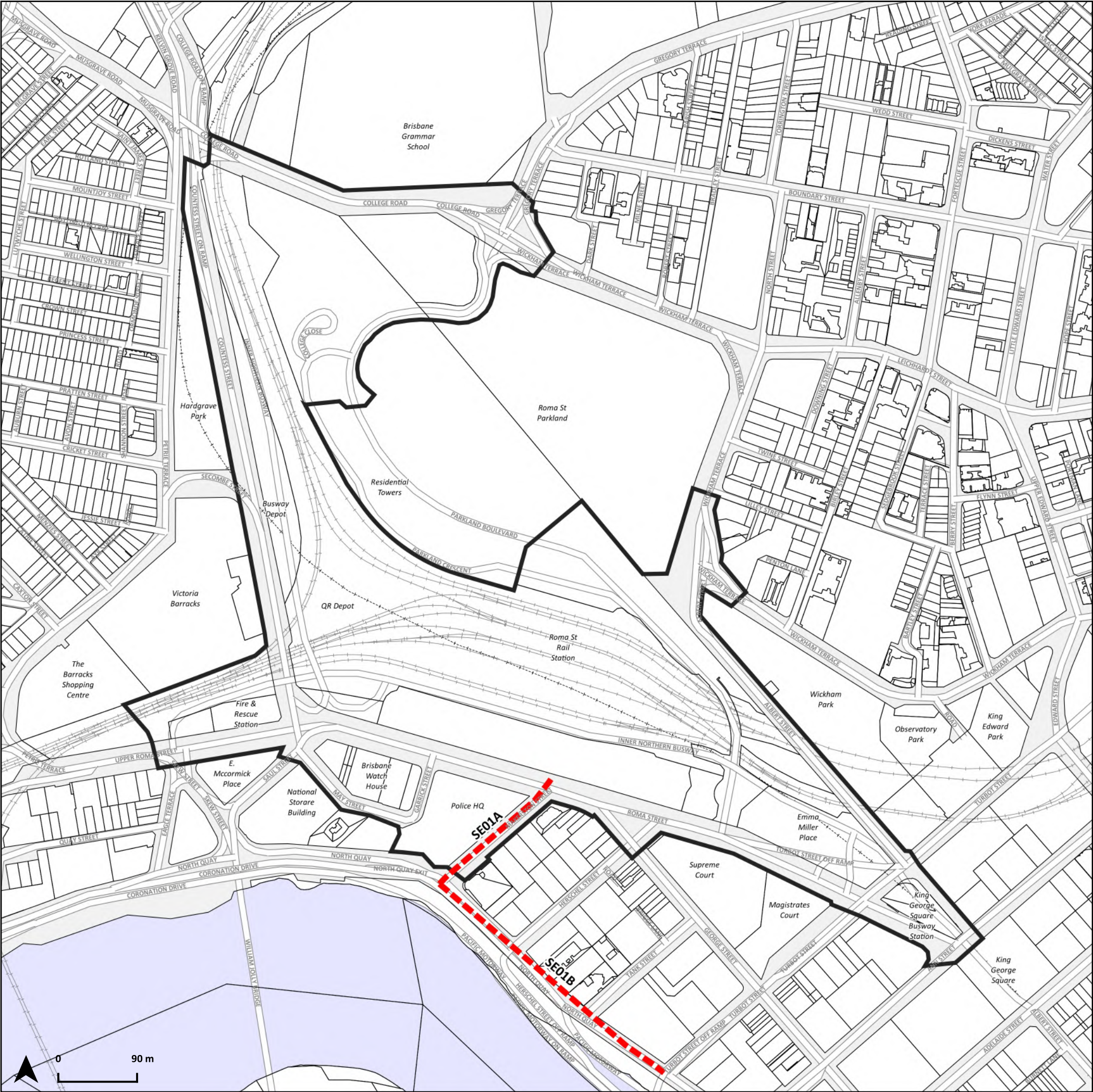
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Roma Street Cross River Rail Priority Development Area
Infrastructure Plan Background Report
Future Infrastructure Network Plans

Map 02
Wastewater

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Project Location (Alignment)
- Wastewater



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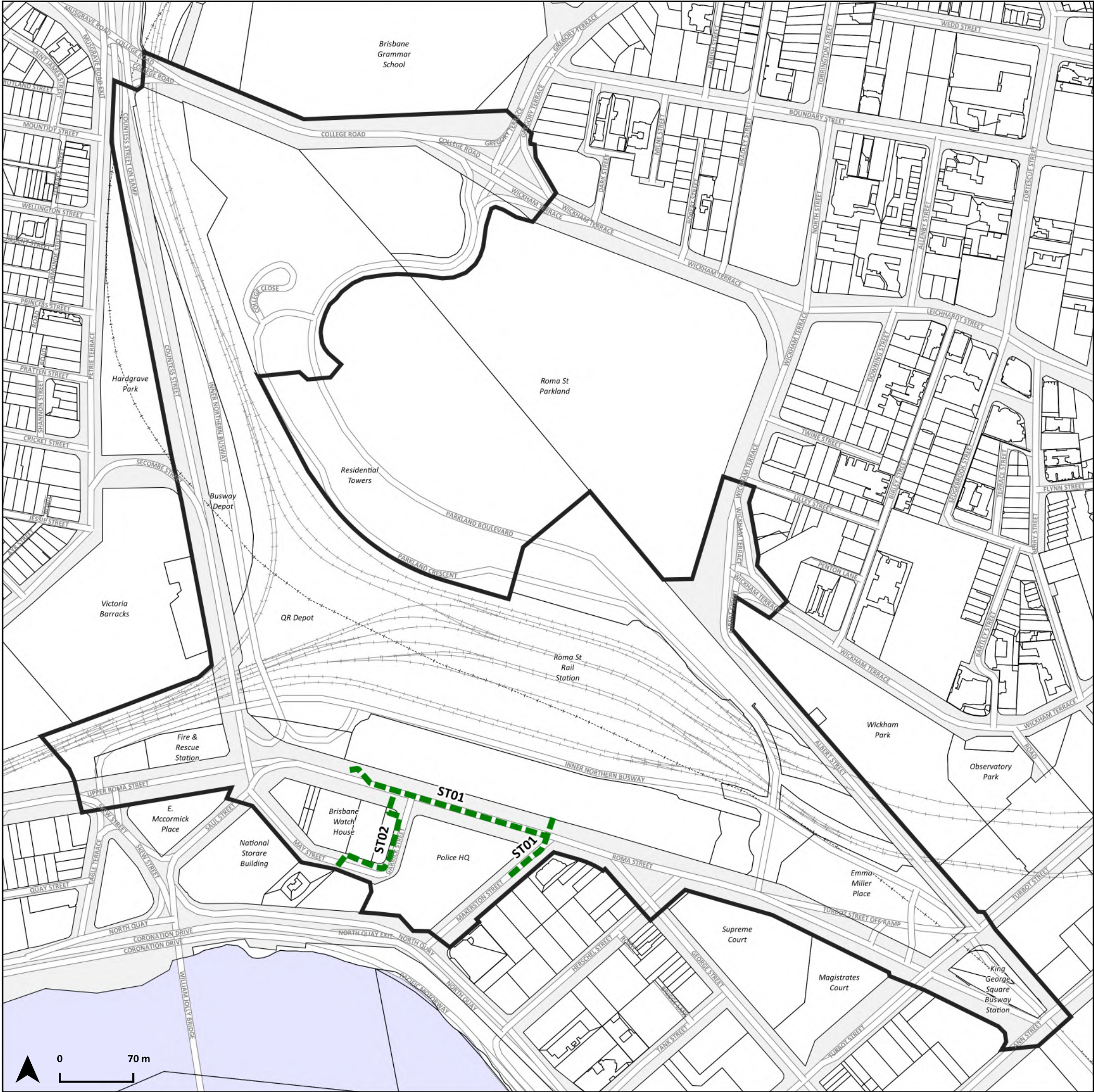
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Roma Street Cross River Rail Priority Development Area
Infrastructure Plan Background Report
Future Infrastructure Network Plans

Map 03
Stormwater

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Project Location (Alignment)
 - Stormwater



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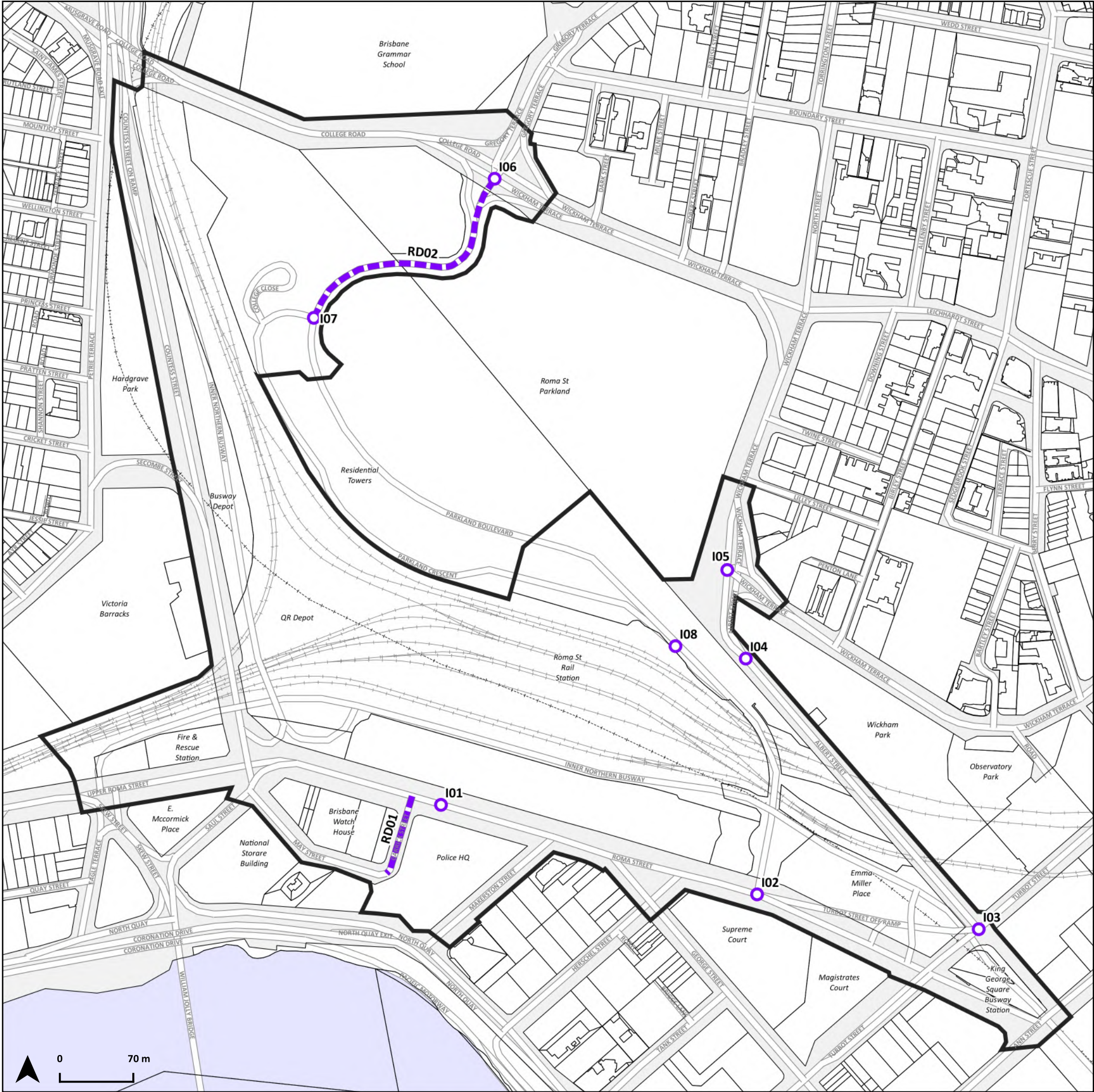
Roma Street Cross River Rail Priority Development Area
Infrastructure Plan Background Report
Future Infrastructure Network Plans

Map 04a
Road

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Project Location (Alignment)
 - Road
- Project Location (Point)
 - Road

Note: Further detail of specific alignment is subject to additional planning.



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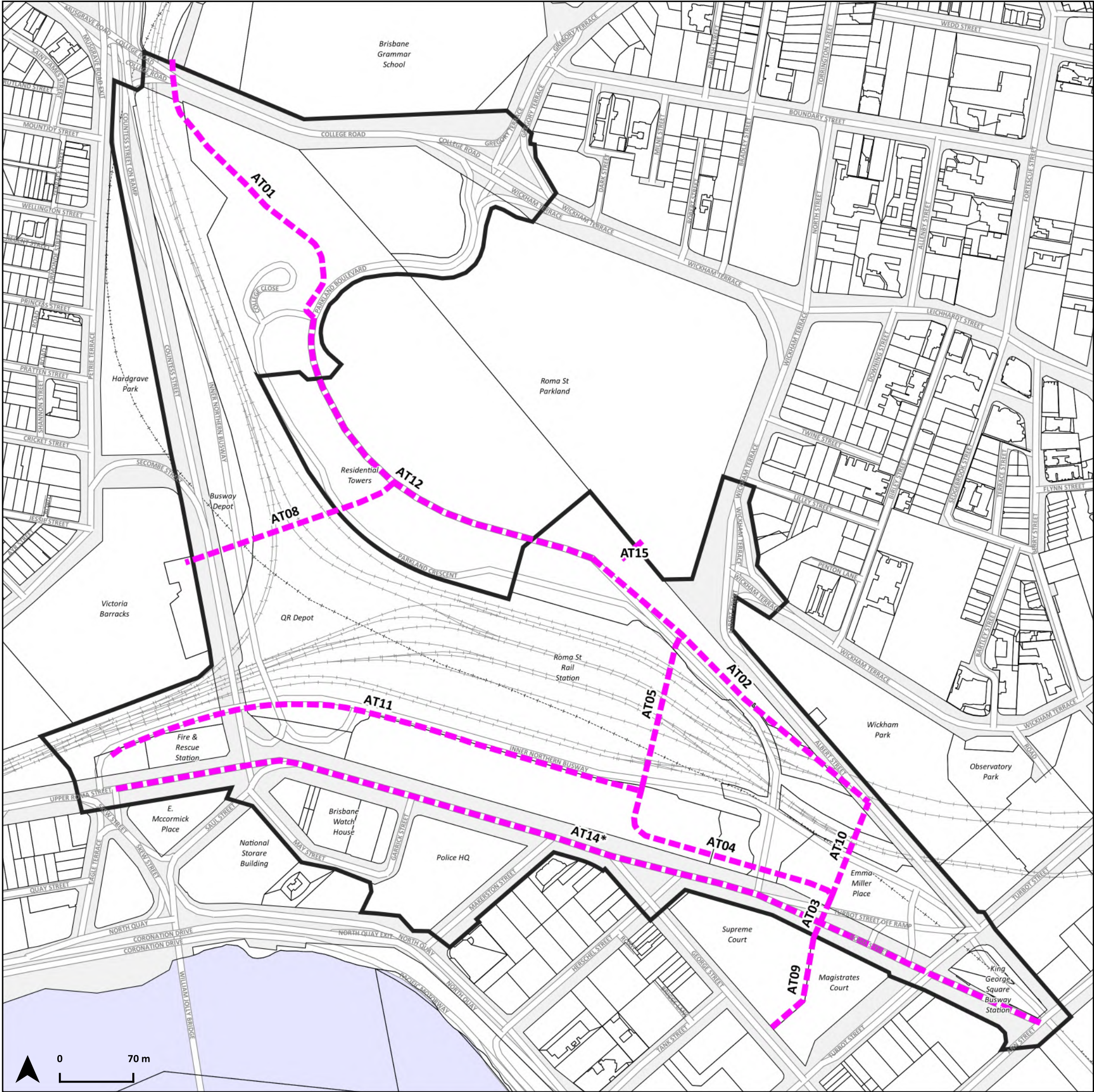
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Infrastructure Plan Background Report
Future Infrastructure Network Plans

Map 04b
Active Transport

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Project Location (Alignment)
 - Active Transport

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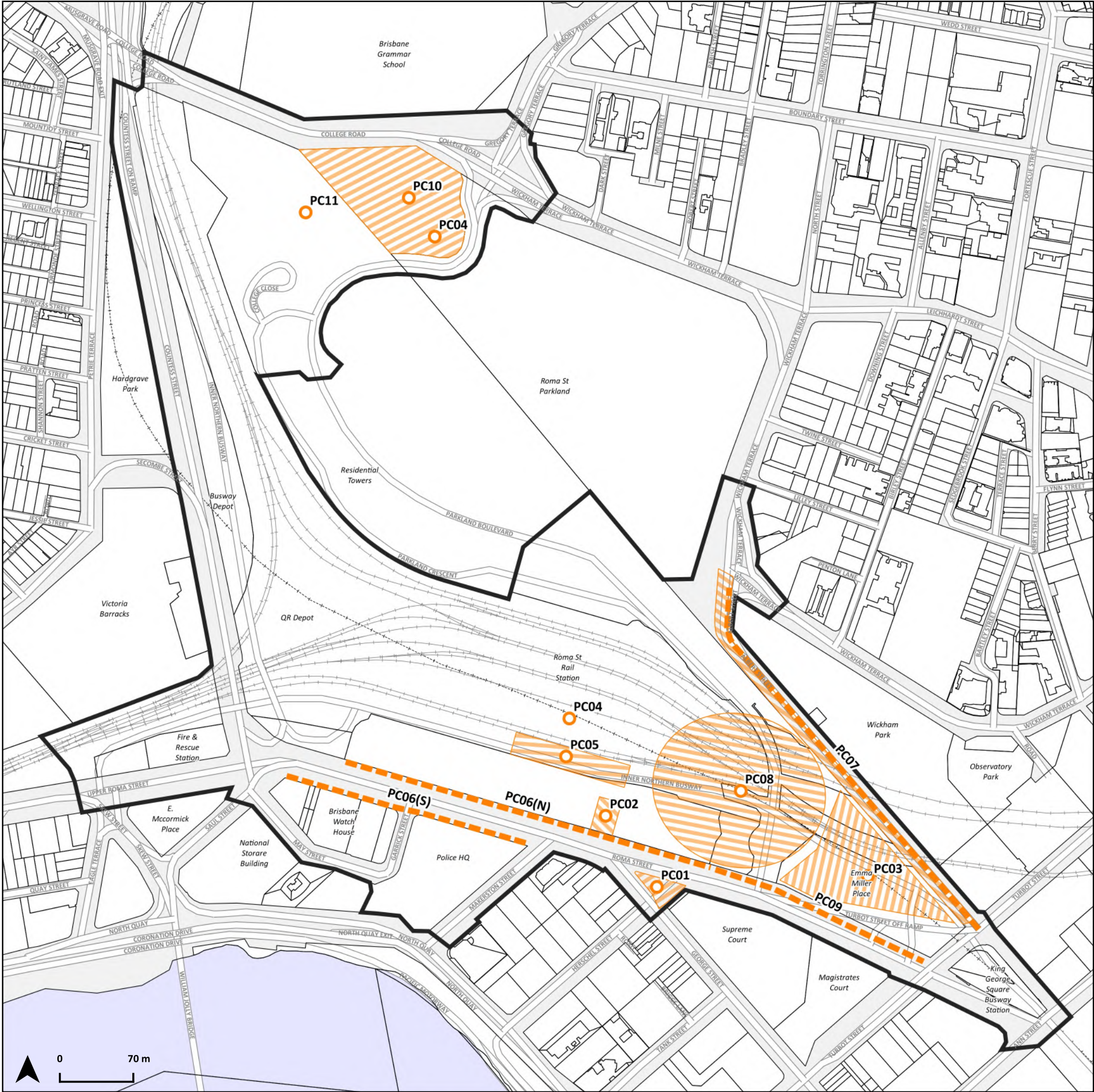
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Roma Street Cross River Rail Priority Development Area
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Future Infrastructure Network Plans
Map 05
Parks & Community Infrastructure

Legend

- Existing Rail
- Existing Road
- CRR Alignment
- Base Parcels
- PDA Boundary
- Project Location (Alignment)
 - Parks & Community Infrastructure
- Project Location (Point)
 - Parks & Community Infrastructure
 - Project Footprint (Approx. Only)



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