

CHAPTER 24

Summary and conclusions



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24. Summary and conclusions

This draft Design Report provides a voluntary, non-statutory assessment of the concept design, the feasibility of the project, understanding of potential construction and operational impacts, approach to managing potential impacts, and required regulatory approvals. It provides information to allow the community and stakeholders to understand Brisbane Metro and its potential impacts. It includes:

- information on Brisbane Metro's background and scope of the draft Design Report, project need, and community and stakeholder engagement activities and outcomes
- project options assessment, and development and an overview of Brisbane Metro's infrastructure, operation and construction including concept design drawings of the metro alignment, key infrastructure and construction areas
- transport, environmental and social assessments of potential impacts from the construction and operation of Brisbane Metro.

The findings of this draft Design Report and community and stakeholder feedback received on the draft Design Report through the public consultation process will inform the Brisbane Metro's ongoing design development and identify issues for further consideration during detailed design and future phases of the project's development.

24.1 Brisbane Metro

Improved access and connectivity to, and within, the inner city will be critical in driving economic growth, and maintaining Brisbane's status as a New World City.

Limited scope exists to further develop the road network into Brisbane's inner city. Recent major road investment in Brisbane has been focused on bypassing the CBD (such as Clem7, the Go Between Bridge and Legacy Way) rather than improving access directly into the CBD. Without new investment in public transport, there will be insufficient capacity to cater for increases in travel demand from future population and employment growth.

Brisbane Metro has been developed in accordance with the objectives and goals of a range of policies and frameworks for prioritising significant infrastructure projects.

Planning for Brisbane Metro has been informed by a number of previous studies and projects that have been initiated and investigated to address Brisbane's bus constraints. Due to a number of reasons, including affordability constraints and change in government direction, many of these have not progressed past the feasibility stage. Recognising the need to act, Council announced Brisbane Metro in early 2016 as a way of addressing Brisbane's inner city bus network congestion issues.

Council released the Business Case in May 2017 following a 12-month detailed assessment of the benefits, costs and impacts of delivering Brisbane Metro. The Business Case confirmed Brisbane Metro is a cost-effective solution that unlocks the potential of the existing busway infrastructure and lays the foundation for future growth.

24.1.1 Project description

Brisbane Metro is a high-frequency public transport system that will cut travel times, reduce CBD bus congestion and improve services to the suburbs. It comprises a high-frequency metro network linking the Eight Mile Plains, RBWH and UQ Lakes stations, and all busway stations in between. It features two new high-capacity metro lines:

- Metro 1 – Eight Mile Plains station to Roma Street station
- Metro 2 – RBWH station to UQ Lakes station.

Brisbane Metro will be delivered through five key elements, including providing new and upgraded infrastructure, high-frequency 'turn-up-and-go' metro services, a new fleet of high-capacity metro vehicles, policy and operational improvements and new passenger and vehicle management systems. By fixing critical bottlenecks in the inner city, and introducing new, high-capacity metro vehicles, it provides a cost-effective solution to Brisbane's bus congestion issues.

Brisbane Metro reuses, repurposes and augments existing busway infrastructure wherever possible. Targeted investment in new infrastructure, along with upgrades to existing infrastructure, will help address critical inner city bottlenecks and increase the capacity of the busway. Major new or modified infrastructure include:

- a new metro depot at Rochedale
- a new bus turnaround and layover facility at Griffith University station
- platform extensions at Buranda station
- new underground Cultural Centre station including an underpass of the railway corridor and transition structure along Melbourne Street
- changes to North Quay and a new Adelaide Street tunnel.

Brisbane Metro will deliver a 'turn-up-and-go' mass transit system with services every three minutes in peak periods on each metro line and up to every 90 seconds in the inner city, and with the capacity to carry up to 22,000 customers per hour per direction from day one of operations with increased capacity in the future.

As part of Brisbane Metro, a new fleet of 60 high-capacity metro vehicles will be introduced, each able to carry up to 150 customers. Each metro vehicle will be approximately 24-25 metres in length and bi-articulated (i.e. have two articulation or pivot points) to provide similar turning circles and swept path vehicle movements to existing buses. Other features of the metro vehicle include:

- low floor design to allow quicker boarding and alighting, and improved comfort
- four large (double) doors along the left-side of the vehicle to allow rapid boarding and departure
- four axles
- on-board features such as Wi-Fi access, passenger information systems to provide real-time travel updates, and public/voice announcements of the next station.

Council is assessing a range of metro vehicles from suppliers in Australia and around the world to determine their suitability for Brisbane Metro.

24.1.2 Construction

The main construction works for Brisbane Metro are expected to take approximately 2.5 years to complete (refer to Table 24.1). Pre-construction works (or early works) including some service and utility relocations are likely to be undertaken earlier (prior to the main works) to allow major construction activities to be undertaken as efficiently as possible.

Construction activities involving station upgrades or modifications to platforms or existing layover and turnaround areas will generally occur over a period of about two to six months at each station. Construction works for the new bus turnaround and layover facility at Griffith University station are expected to occur for about nine months.

Construction activities for the metro depot at Rochedale, Buranda station, Cultural Centre precinct and North Quay/Adelaide Street are expected to occur over extended periods. This is mainly due to the scale of works required to construct new infrastructure or the need to stage construction activities to manage potential disruptions to transport networks and surrounding uses.

Table 24.1: Indicative construction program

Phase	2018	2019	2020	2021	2022	2023
Pre-construction						
Identification/relocation of utilities and services	●-----●					
Design and construction						
Detailed design		●-----●				
Depot				●-----●		
Griffith University station				●-----●		
Buranda busway station				●-----●		
Cultural Centre station			●-----●			
Adelaide Street			●-----●			
Minor station modifications				●-----●		
Demobilisation and commissioning						
Commissioning					●-----●	
Demobilisation						●-----●

**Subject to government approvals and funding*

24.2 Existing context

The study area for the draft Design Report generally includes the Brisbane Metro alignment with a 250-metre buffer either side of the alignment. The study area commences at the metro depot site at Rochedale, south of Eight Mile Plains station, and follows the existing South East Busway alignment to the Cultural Centre precinct at South Brisbane. It then extends across Victoria Bridge to North Quay and along Adelaide Street to King George Square station, before following the Inner Northern Busway to RBWH station and Ernie’s Roundabout at Herston. The study area also extends from UQ Lakes station via the Eastern Busway to the South East Busway north of Buranda station.

The corridor comprises a mix of land uses including residential uses of varying densities, major commercial developments, small scale industrial uses, parkland and conservation areas, and local and regional level community facilities, including health and medical facilities, education, cultural facilities, recreation and leisure uses.

Environmental values across much of the study area reflect the corridor’s location within a highly developed urban area. The study area includes the riparian areas of Bulimba Creek, Norman Creek, the Brisbane River and Enoggera/Breakfast Creek, conservation areas at Toohey Forest Park, and open space areas of Dutton Park and Victoria Park. A number of historic heritage places listed on the Queensland Heritage Register are also located near Brisbane Metro. Many areas also have important Indigenous cultural heritage areas, including Woolloongabba, Dutton Park, Brisbane City, Roma Street and Victoria Park.

24.3 Impact assessment

Once operational, Brisbane Metro will have a range of long-term beneficial impacts. These include:

- more reliable, frequent and efficient public transport access and connections across Brisbane, providing benefits for residents, workers and visitors and supporting urban growth and development
- improved access to key centres, meeting places, employment, and health and education facilities, supporting enhanced social and economic outcomes for community members

- improved local amenity due to a reduction in bus numbers at surface level, and opportunities for enhanced streetscapes and public spaces, particularly at the Cultural Centre precinct and Melbourne Street.

Environmental and social impacts during the construction phase will mainly relate to such things as construction traffic impacts, including temporary changes to bus services and local access, construction noise and vibration, and dust from construction activities. Construction impacts are expected to be temporary in nature, ranging from a few months to a few years, and be mainly localised to those areas with the most intensive construction activity, such as metro depot, new bus turnaround and layover facility at Griffith University station, Buranda station, Cultural Centre precinct and North Quay/Adelaide Street. Other impacts include the clearing of some native vegetation and amenity trees and potential impacts on heritage values from the siting or construction of new infrastructure.

Where Brisbane Metro uses existing busway infrastructure, most impacts from modifications work will be appropriately managed with standard mitigation measures in place.

The key findings of this assessment are summarised in Table 24.2.

Table 24.2: Summary of draft Design Report findings

Environmental aspect	Assessment summary
Traffic and transport	<ul style="list-style-type: none"> · Brisbane Metro will provide high-frequency metro and bus services at existing busway stations along the alignment. For some stations, this includes a metro or bus service in the morning peak period every 20 to 30 seconds on average, while other stations will have a service about every minute on average. · Provision of a segregated corridor for Brisbane Metro requires some changes to local access at South Brisbane and the CBD, requiring some motorists to use alternative routes. · Brisbane Metro will generally support improvements in pedestrian and cycle access and connectivity, particularly at South Brisbane. However, the removal of existing cycle lanes on Victoria Bridge and Melbourne Street (north of Grey Street) may require changes for some cyclists. · At many locations, construction works will be minor and have minimal impact on transport operations. Any interfaces with bus services, road traffic, pedestrians and cyclists at these locations can be effectively managed with the implementation of standard traffic management measures and existing busway protocols. · In areas of more intensive construction works (e.g. metro depot, Griffith University station, Buranda station, Cultural Centre precinct, North Quay/Adelaide Street), potential traffic and transport impacts will generally be associated with: <ul style="list-style-type: none"> · temporary traffic lane closures and intersection changes near to construction works · temporary changes to property access near to proposed works · temporary changes to bus operations, including bus stops and bus services · changes to pedestrian and cycle networks near to construction works for safety. · The implementation of traffic management measures will assist in managing impacts on traffic and transport networks from construction activities and maintain safety for road users near to construction works.
Soils, topography and contaminated land	<ul style="list-style-type: none"> · During operation, potential impacts relating to soils will be similar to those for the current busway operations and be managed through the implementation of current operational management procedures and policies, and the design of new or modified infrastructure. · During construction, Brisbane Metro will not impact soils and topography where it uses existing infrastructure. Elsewhere, potential impacts will generally be associated with possible erosion and sedimentation due to soil disturbance, and disturbance of potential acid sulfate soils. This will be appropriately managed with the implementation of standard mitigation measures. · Potential land contamination risks will mainly be associated with works at Buranda station, Cultural Centre precinct and Adelaide Street. Contaminated land will be managed during construction using standard mitigation measures (removal and treatment). · The potential for contamination during construction or operation of Brisbane Metro due to spills or leaks will be managed through standard environmental management procedures.

Environmental aspect	Assessment summary
Surface water and flooding	<ul style="list-style-type: none"> • During operation, potential risks relating to surface water will be similar to those for the current busway operations and will be managed through existing drainage infrastructure, the incorporation of appropriate drainage into the design of new infrastructure, or the implementation of current operational management procedures and policies. • Flood and overland flow impacts and immunity of existing busway infrastructure were addressed as part of the original busway’s detailed design and construction. The new and modified infrastructure for Brisbane Metro will be designed to achieve relevant flood and overland flow immunity and to avoid impacts to other properties. • Possible flood impacts for operation of Brisbane Metro generally relate to minor, localised changes to overland flows at South Brisbane from the changed arrangements at the Melbourne Street portal and creek and riverine flood immunity of Ernie’s Roundabout at Herston. The proposed closure of the Melbourne Street portal improves the flood immunity of the busway. • During construction, potential impacts on surface water quality will be effectively managed with the implementation of appropriate environmental management measures relating to erosion and sediment control. Construction worksites and laydown areas are generally located outside of active flood zones or overland flow paths, apart from the construction laydown area at Hanlon Park and worksites within the Cultural Centre precinct. Measures will be implemented in these locations to minimise potential flood impacts (e.g. fencing/hoarding will be designed to minimise flood risk for a number of residential properties)
Groundwater	<ul style="list-style-type: none"> • The design of the new underground Cultural Centre station and Adelaide Street tunnel will incorporate groundwater control measures to manage potential impacts associated with groundwater ingress. • Excavation works for the new underground Cultural Centre station and Adelaide Street tunnel will incorporate appropriate construction techniques to control or limit the inflow of groundwater, minimising the potential for off-site groundwater drawdown and the migration of potentially contaminated groundwater. Appropriate protocols will also be implemented for the control and containment of fuel and chemicals to minimise the potential for contamination of the local groundwater environment.
Noise and vibration	<ul style="list-style-type: none"> • During operation of Brisbane Metro, changes to noise levels depend on the noise characteristics of the selected metro vehicle. For those sections of Brisbane Metro near the Pacific Motorway, the contribution of the metro and busway operations to overall noise levels is expected to be negligible. This is due to the significantly higher volumes of general vehicle traffic on the Pacific Motorway. • Construction noise and vibration impacts associated with modifications of most existing stations, layovers and turnaround facilities are expected to be minimal, and managed with the implementation of standard management measures (e.g. notification of near neighbours, scheduling of any noisy works during daytime hours where possible). • In areas of more intensive construction (e.g. Buranda station, the Cultural Centre precinct and North Quay/Adelaide Street), noise and vibration impacts are predicted from some construction activities for sensitive receptors near to work sites, and will require the implementation of specific mitigation measures. In particular, specific measures will be required to manage noise and vibration impacts for nearby residential receivers from works undertaken at night; vibration impacts on heritage buildings such as South Brisbane railway station, former Queensland National Bank (Ng House) and City Hall; and noise and vibration impacts for sensitive uses from some construction activities (e.g. piling and rock breaking) within the QPAC Green and adjoining areas.
Air quality	<ul style="list-style-type: none"> • During operations, reconfiguration of traffic flows for Brisbane Metro is likely to result in reductions in bus emissions in some areas of the CBD at both the year of opening and 10 years following operations. • During construction, potential air quality risks will mainly relate to major construction works such as Buranda station, Cultural Centre precinct and North Quay/Adelaide Street. Potential impacts will mainly be associated with soiling of surfaces due to dust deposition. This will be managed through standard mitigation measures. • Potential construction air quality impacts on human health and ecological receptors (e.g. sensitive habitats and plant communities) are expected to be negligible to low.

Environmental aspect	Assessment summary
Flora and fauna	<ul style="list-style-type: none"> • Potential risks for flora and fauna during operation will be similar to those for the current busway operations and are not expected to increase with Brisbane Metro. • During construction, flora and fauna impacts will mainly be associated with areas of major construction works. In particular, clearing of some native vegetation is expected to be required at the metro depot and Griffith University station. These areas of native vegetation are in highly-disturbed areas and do not represent significant habitat for wildlife. Measures will be implemented during construction to manage potential impacts on threatened flora and fauna species or communities. • Construction of the new underground Cultural Centre station and the Adelaide Street tunnel will require clearing of amenity plantings. Following construction, replacement landscaping and plantings will be provided to minimise potential amenity impacts.
Planning and land use	<ul style="list-style-type: none"> • Brisbane Metro will support Council and the Queensland Government's strategic planning objectives for Brisbane. • Property impacts are limited through the reuse of existing busway infrastructure and the location of new works within the existing busway corridor or road reserves, with the main permanent property impacts associated with the metro depot at Rochedale and the new underground Cultural Centre station (125 Grey Street). • Some additional parcels of land will be required during construction for temporary construction laydown areas. • Permanent land use change will generally be limited to the metro depot at Rochedale, a small area of land at Griffith University Mt Gravatt, and 125 Grey Street, South Brisbane. Impacts associated with these changes are minor.
Socio-economic	<ul style="list-style-type: none"> • The provision of more reliable, frequent and efficient public transport access and connections for communities across Brisbane to employment, services and facilities will support beneficial impacts relating to community well-being, community cohesion and improved economic opportunities for communities across Brisbane. • Brisbane Metro will support enhanced amenity at locations such as the Cultural Centre precinct, by removing general traffic and reducing surface buses from a section of Melbourne Street and removing existing pedestrian conflict points. • Local access changes within the inner city will require some road users to use alternative routes. • During construction, beneficial impacts will generally be associated with construction related employment and increased demand for goods and services to support construction activities. • Potential adverse socio-economic impacts will be temporary in nature and will be localised to those areas with the most intensive construction activity. These will generally relate to disruptions to local access and changes in local amenity and will be managed with the implementation of appropriate environmental and traffic management measures.
Aboriginal cultural heritage	<ul style="list-style-type: none"> • Brisbane Metro is not expected to impact on known Aboriginal or historic heritage places where it uses existing busway infrastructure. In areas where construction activities occur, Aboriginal cultural heritage values may be affected if works impact on any sub-surface material dating to the Aboriginal settlement of Brisbane. Potential changes to landscape, views and/or land use associated with new infrastructure may also impact intangible cultural heritage values. • Potential risk of impact on Aboriginal cultural heritage values are generally expected to be low, apart from works associated with the metro depot, bus turnaround facility at Griffith University and Adelaide Street tunnel. Consultation will be undertaken with the Turrbal People and Jagera People #2 as the Aboriginal parties for the study area to confirm the findings of the assessment.
Historical cultural heritage	<ul style="list-style-type: none"> • Brisbane Metro will not impact on historic heritage places where it uses existing busway infrastructure. • Potential impacts on historic heritage values may be associated with the siting or construction of new infrastructure. In particular, works at South Brisbane and the CBD are anticipated to directly impact places listed on the Queensland heritage register. This includes South Brisbane Railway station, Queensland Cultural Centre, Early Streets of Brisbane, and First Brisbane Burial Ground. Works on or near to these places that affect their heritage values may require approval under the <i>Planning Act 2016</i> • Disturbance of potential subsurface historical archaeological deposits and features associated with the early development of Brisbane

Environmental aspect	Assessment summary
	<ul style="list-style-type: none"> Potential impacts on historic heritage values associated with construction dust; physical contact by construction equipment; settlement and construction vibration; and changes to views from the introduction of new infrastructure are expected to be appropriately managed through the careful design of above ground infrastructure and the implementation of environmental management measures during construction.
Urban and visual amenity	<ul style="list-style-type: none"> The introduction of Brisbane Metro will not change existing visual or urban amenity where it uses existing infrastructure. Improvements to visual and urban amenity of local areas, particularly at the Cultural Centre precinct by: <ul style="list-style-type: none"> removing general traffic and reducing surface buses from a section of Melbourne Street and Victoria Bridge removing the existing Cultural Centre bus station, including removal and/or relocation of the lifts removing existing pedestrian conflict points, fencing and pedestrian barriers at Melbourne Street Enhanced pedestrian amenity and improved public realm within the Cultural Centre precinct, providing beneficial impacts for the Cultural Centre precinct and reinforcing the precinct's importance as a world-class cultural and entertainment destination. Amenity impacts will be limited to the areas of major construction. Temporary impacts will occur through the establishment of worksites including fencing/hoardings. Amenity trees at the QPAC Green and Adelaide Street will be removed during construction. Consultation with relevant stakeholders will be undertaken in relation to the reinstatement of these areas.
Sustainability	<ul style="list-style-type: none"> Brisbane Metro has been assessed as having an 'advanced' level of achievement against seven of the 19 sustainability principles.
Hazard and risk	<ul style="list-style-type: none"> The most significant risks are associated with the need to evacuate underground stations and tunnels in the event of an emergency. An emergency management plan will be in place for the operation of Brisbane Metro.
Cumulative impacts	<ul style="list-style-type: none"> Construction and operation of Brisbane Metro will interact with other developments in the study area, including Queen's Wharf Brisbane, Herston Quarter and the proposed Cross River Rail project. In the longer term, Brisbane Metro will interchange with the proposed Cross River Rail project at Boggo Road station and Roma Street station, providing benefits for public transport access. Brisbane Metro will also support planned developments within the study area and supporting sustainable growth. Potential cumulative impacts with other projects will mainly relate to construction traffic, local access changes and public transport changes. Ongoing engagement with relevant stakeholders of other projects in the study area will assist with the management of potential cumulative impacts. During construction, cumulative interactions between different environmental aspects of Brisbane Metro will mainly arise from combinations of noise, dust, visual intrusion, traffic, parking and access issues, although these will be effectively managed with the implementation of environmental management measures.
Waste management	<ul style="list-style-type: none"> Solid waste materials will be generated during construction, repair, alteration or demolition of existing busway stations or platforms, buildings and infrastructure such as roads, bridges and tunnels. The volumes of waste generated by Brisbane Metro during operation will be significantly less than those generated during the construction phase. Effective waste management and resource recovery control measures will be implemented.
Approvals	<ul style="list-style-type: none"> The construction of Brisbane Metro will be exempt from approvals under City Plan. To construct and operate Brisbane Metro in the existing busways, approvals will be required from the Queensland Government. Other planning, environment, heritage and transport approvals will be required.

24.4 Environmental mitigation and management

Brisbane Metro's environmental impacts will be managed in line with Commonwealth and State legislation, in addition to Council strategies, policies and guidelines through an environmental management framework.

24.4.1 Construction

The management of environmental impacts during construction will be documented in a CEMP, which will be developed through the detailed design phase. The CEMP will provide the framework for managing and controlling the environmental aspects of Brisbane Metro through the pre-construction, construction and commissioning phases. It also provides the overall framework for the system and procedures to minimise environmental impacts and fulfil legislative requirements.

The CEMP will provide a structured approach to managing environmental issues. The strategies defined in the CEMP will be developed with consideration of the mitigation measures presented in this draft Design Report and outcomes of stakeholder and community consultation. These measures will be refined and updated through the detailed design phase and following further environmental investigations and assessments.

In particular, the CEMP will outline:

- the management structure, roles and responsibilities for the management of environment impacts of construction
- the environmental management objectives that are important to the environmental performance of Brisbane Metro's construction
- specific management measures and controls to avoid or minimise negative environmental impacts
- statutory framework and specific mechanisms for compliance with applicable policies, approvals, licences, permits, consultation agreements and legislation
- an environmental monitoring and reporting, auditing and review process to confirm the adequacy and effectiveness of management measures and controls as they are implemented and incorporate any changes to environmental management procedures and practices
- process for identifying and implementing corrective actions to rectify non-conformances
- procedures for community and stakeholder engagement during construction, including implementation of a complaints and enquiries procedure.

The CEMP will be supported by a number of sub-plans that relate to specific environmental issues or particular construction activities.

24.4.2 Operation

It is expected that environmental management for Brisbane Metro operations will be in accordance with the existing environmental processes and procedures for the busway and Council bus depots. However, it is recognised that updates to some existing processes and operating procedures to incorporate environmental management of the new metro vehicles and new infrastructure will be required.

Implementation of a communication and engagement process will be important prior to the commencement of Brisbane Metro services and associated changes to the bus network in 2023. Key issues to be addressed will include the timing of commencement of services, information on using and accessing Brisbane Metro services, and updates to signage, website and passenger information channels. Information on changes to local traffic access will also be required.

Ongoing communication and complaints management for the metro operations will be in accordance with Transport for Brisbane and TransLink's existing customer feedback processes.

24.5 Next steps

Brisbane Metro presents a once-in-a-generation opportunity to improve the way people travel to and within Brisbane, providing more reliable, frequent and efficient public transport for residents and visitors. Through the assessments for this draft Design Report, Council has identified that where Brisbane Metro utilises existing busway infrastructure, the impacts from construction are expected to be minimal. Where major construction

works are required, impacts are temporary in nature, ranging from a few months to a few years, and are expected to be outweighed by the long-term transport, social and economic benefits of the project

Following the release of the draft Design Report, Council will work to finalise the report, following consideration of feedback from the community and key stakeholders. Council is committed to working closely with the Queensland and Australian Governments, and other important stakeholders, to progress detailed planning for Brisbane Metro. This includes confirming funding arrangements, detailed approvals and agreements with key stakeholders in relation to construction and operations.

The next stage of planning also includes readiness for market activities, including the preparation of procurement documentation. As part of this, Council will develop detailed technical specifications for all aspects of Brisbane Metro's construction, design and operations. Construction of Brisbane Metro is proposed to be completed in 2023, subject to funding and approvals. Council will continue to keep the community informed about Brisbane Metro, and provide opportunities for residents and stakeholders to have their say during future stages of project planning.

Key stages in the future development of Brisbane Metro are outlined in Table 24.3.

Table 24.3: Future project stages

Phase	Timing	Key activities
Draft Design Report	June 2017 to mid-2018	<ul style="list-style-type: none"> Refinement of the Concept Design Further environmental and social assessments Targeted stakeholder engagement Release for consultation with stakeholders and the community
Approvals and procurement planning*	Late-2017 to mid-2018	<ul style="list-style-type: none"> Secure project funding Finalisation of key government approvals Preparation of contract documentation, tender development and evaluation
Pre-construction works*	Mid-2018 to mid-2020	<ul style="list-style-type: none"> Relocation of some services and utilities Upgrades to some intersections
Procurement*	Mid-2018 to late-2019	<ul style="list-style-type: none"> Expressions of interests and request for tenders Selection of preferred tenderers
Detailed design and construction*	2019-2022	<ul style="list-style-type: none"> Complete detailed design and construction methodology Staged construction Ongoing community and stakeholder engagement
Project completion*	2023	<ul style="list-style-type: none"> Operational testing and commissioning Commencement of Brisbane metro services

* Subject to government approvals and funding