MELROSE PARK

TRANSPORT MANAGEMENT AND ACCESSIBILITY PLAN

Final Report

24 JANUARY 2019

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REVISION	DATE	DESCRIPTION	BY	REVIEW	APPROVED
A	09/05/2018	Draft submittal	C. Arkell	S. Konstas	S. Konstas
B	31/10/2018	Updated based on govt agency comments	C. Arkell	I. Smith	I. Smith
C	07/12/2018	Final report	C. Arkell	I. Smith	I. Smith
D	24/01/2019	Updated based on additional TfNSW comments	C. Arkell	I. Smith	I. Smith

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EXECUTIVE SUMMARY

Background

Jacobs Group (Australia) Pty Ltd has been engaged to prepare a Transport Management Accessibility Plan (TMAP) for the Melrose Park north and south precincts. This report addresses the traffic and transport implications of the proposed development of approximately 11,000 dwellings and has been tailored specifically to address stakeholder comments through the Project Coordination Group (PCG) made up by City of Parramatta (CoP), Department of Planning & Environment (DPE), Transport for NSW, Roads and Maritime (RMS), Parramatta Light Rail (PLR), mProjects, and City plan.

The TMAP has recognised the transport planning initiatives described in the *Greater Sydney Regional Plan* and *Future Transport Strategy 2056* developed by DPE and TfNSW respectively. The purpose of the TMAP is to provide a framework for the implementation of a range of measures designed to achieve a sustainable transport outcome for the Melrose Park structure plan.

The assessment process has included analysis focused around achieving the targets defined with the PCG of encouraging more people to use public transport (40%-50%) over the next 20 years. Initiatives to increase public transport use have guided the planning process for the Melrose Park structure plan and are fundamental to the development of the precinct.

Proposed Delivery Melrose Park Structure Plans

The aspiration of the Melrose Park structure plans is to develop a smart precinct minimising natural resource, energy and transport demands. Transport demand and infrastructure requirements are to be minimised through an appropriate balance of business, housing and employment uses within the precinct and wider Greater Parramatta and Olympic Peninsula (GPOP) targeting of strategic mass transit, intermediate transit and local transit connections proposed through the core of the development.

The land use mix will support an appropriate balance of residential, social and business opportunities. This is to support Melrose Park's role as a self-sufficient smart precinct with high levels of connectivity to its regional and wider contexts.

A multi-decade development framework has been proposed to enable development flexibility and to complement future transport initiatives planned within the study area. For the purposes of assessing the transport infrastructure and service requirements the following staging elements have been examined:

- 3,200 dwellings to be developed by 2024
  - Commercial 7,900 m² GFA
  - Retail 6,000 m² GFA
- 6,700 dwellings to developed by 2028
  - Commercial 13,500 m² GFA
  - Retail 10,200 m² GFA
- 11,000 dwellings full build-out by 2036
  - Commercial 19,400 m² GFA
  - Retail 15,600 m² GFA

The Melrose Park structure plans for the north and south precincts ensures that public transport and active transport will be fully integrated into the precinct.

Key Issues Examined

The TMAP assessment has used a set of transport modelling tools (Public Transport Project Model and Aimsun Model) developed to assist decision making on key issues such as:

- The nature and scale of the development and the ability of the road and public transport network to accommodate forecast additional demands
- The cumulative impacts of future developments and forecast background growth in travel demand within the study area
- Changes in transport infrastructure and services that will satisfy the target objectives of increasing travel by alternative modes other than car
- The level of investment required in public transport initiatives to achieve the targets and visions of *Future Transport Strategy 2056*
- The relationship between parking provision and the achievement of higher mode share to public transport, cycling and walking
- The overall staging and trigger points for proposed mitigation measures attributed to Melrose Park.

Key Findings

The key findings of the investigations undertaken as part of TMAP are as follows:

- Based on the nominated service levels for the surrounding road network, the upgrade of Victoria Road intersections (Wharf Road and Kissing Point Road) will be required in order to efficiently service the Melrose Park precinct
- The road network analysis has identified that the remainder of the existing surrounding road network is able to cater for traffic generated by the proposed development, with no significant impacts when compared to a future 'do minimum' scenario
- Increased bus service frequencies on Victoria Road are required to support development and achieve mode share targets. Investigations have confirmed the required bus service levels are feasible
- A new bridge crossing (public and active transport only) across the Parramatta River linking Melrose Park to Wentworth Point is required by 2028 (approximately 6,700 dwellings) to enable connections between residential and employment areas to key public transport nodes including the planned Sydney Metro West station at Sydney Olympic Park.
- New bus services between Top Ryde and Concord Hospital via Melrose Park are proposed to operate via the new bridge
- Shuttle services between Melrose Park and Meadowbank station are proposed to operate prior to the implementation of the new bridge. Proposed operations can be implemented without signifcant works or impacts
- Ferry user patronage demand from Melrose Park is likely to be small. A new bridge across the Parramatta River will provide access to the newly-upgraded Sydney Olympic Park and proposed new ferry wharf at Rhodes East
- As development progresses and activity increases, a light rail corridor is being proposed by TfNSW established through the core of the development. This would bring light rail services through the heart of Melrose Park with direct access to the proposed Sydney Metro West station at Olympic Park
- The introduction of PLR Stage 2 leads to a number of access implications along Boronia Street, Hope Street and Waratah Street which will need to be carefully managed
- The public transport network for Melrose Park has been planned to cater for the full development (11,000 dwellings) without the need for light rail but has been planned to accommodate light rail through the precinct
- The northern precinct structure plan maintains a corridor on Hope Street between Hughes Avenue and Waratah Street to enable the implementation of light rail. The southern precinct allows for light rail along Waratah Street.
- Key elements of Stage 1 - Prior to bridge (up to 6,700 dwellings:
  - Stage 1A, Stage 1B and Stage 1C Victoria Road upgrades
  - Enhanced Victoria Road bus services to serve both background growth and Melrose Park demand
  - Shuttle services to Meadowbank Station
- Key elements of Stage 2 - After new bridge (more than 6,700 dwellings)
  - New high frequency services (bus or light rail) over the bridge
  - Continued enhancement of Victoria Road bus services

Conclusions

The key conclusions of the Melrose Park TMAP are:

- The scale of development envisaged for Melrose Park presents significant but manageable challenges for transport infrastructure and services for both the road and public transport network
- The additional traffic demands as a result of Melrose Park development on the surrounding local road network fall within acceptable capacity thresholds
- Sydney Metro West will deliver significant benefits for residents from Melrose Park with high-capacity and more frequent services between Parramatta CBD, Sydney Olympic Park and Sydney CBD
- A new active and public transport bridge across Parramatta River will provide substantial connectivity improvements between Melrose Park, Rhodes and Sydney Olympic Park before light rail is implemented
- The increased frequency of the T1 Northern Line (to 8 services per hour) will provide capacity to support the development and will continue once Sydney Metro North West opens in 2019
- Parramatta Light Rail Stage 2 would provide a direct link to the Parramatta CBD, and connect to Sydney CBD via the broader rail and metro networks
- The new bridge across Parramatta River will provide fast, direct, high frequency services linking Melrose Park to Rhodes Station and future metro station at Sydney Olympic Park. The full development (11,000 dwellings) can be supported by either bus or light rail services across the bridge.
- Substantial resources will need to be devoted to improving the public transport servicing and infrastructure in the study area, with significant support and funding contributions from the various agencies, proponents and authorities
- An integrated package of measures needs to be implemented as the development progresses, with the package containing a mix of policy, infrastructure and transport services measures
- The measures presented within the TMAP need to be integrated comprehensively and consistently over the life of the development if the mode split targets as outlined in the TMAP are to be achieved.
- The TMAP recommends a total off-street parking supply of 9,441. A total on-street parking supply of approximately 700 and 500 spaces is being proposed for the northern and southern precincts respectively. It is proposed to initially provide levels of parking in accordance with CoP DCP, and gradually decrease parking provision as the public transport initiatives are implemented.

1. INTRODUCTION

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1. INTRODUCTION

1.1 Background

Melrose Park is located along the northern banks of the Parramatta River, 6km east of the Parramatta CBD and north east of the Greater Parramatta and Olympic Peninsula Urban Renewal Area (GPOP). The existing industrial area in Melrose Park has been proposed to be rezoned to enable large scale urban renewable and create a mixed use development featuring housing, commercial offices, retail space and community facilities. Melrose Park will include approximately 11,000 dwellings in a high density residential environment interspersed with retail, community and child care uses, and a mixed use Town Centre providing retail, commercial, community, a child care centre, affordable housing and plaza spaces.

In order to assist in the planning and rezoning of this precinct, this Transport Management and Accessibility Plan (TMAP) has been prepared. The recommendations of the TMAP will inform both the rezoning and the voluntary planning agreement process for Melrose Park to determine the ability of the transport network to cope with additional growth, and the improvements required to realise the development potential of Melrose Park.

An analysis of the regional context of the site has identified the following key considerations:

- The site at Melrose Park is located on and adjacent to the Global Economic Corridors to Parramatta and Sydney Olympic Park
- The eastern edge of the site forms the boundary between the Parramatta LGA and the Ryde LGA (Wharf Road)
- The site is located directly on the proposed corridor of Parramatta Light Rail Stage 2, which will provide a direct connection to Parramatta CBD. PLR Stage 2 will also connect to Sydney Olympic Park where significant development is planned along with a station for the future Sydney Metro West
- Surrounding remnant industrial sites at Camellia, Carter Street and Wentworth Point have been identified by the State Government as Priority Precincts for Urban Renewal and Urban Transformation
- The region contains an excellent network of Regional Parks and open spaces that traverse the banks of the Parramatta River.

The site at Melrose Park presents:

- A close proximity to Parramatta CBD a major economic centre, with strong commercial, living and cultural precincts with the single biggest concentration of jobs outside of Sydney CBD and North Sydney CBD
- A range of complementary land uses and community services that will be provided from the beginning of the development
- A mix of land uses will be created for Melrose Park to become an emerging, vibrant and attractive place to live, work, play and stay
- An integrated transport system comprising an interconnected, legible and urban scale grid street pattern providing a pedestrian and cycling friendly environment to provide optimal opportunities for bus, future light rail and connections to existing heavy railway transport interchanges and future metro through the core of the development
- A significant opportunity for urban renewal that has excellent access to the amenity of the Parramatta River and its associated network of regional parks and open space.

1.2 Purpose of this TMAP

The overall objective of the TMAP is to identify the local and regional impacts to the transport network as a result of approximately 11,000 dwellings at Melrose Park and to outline strategies and mitigations to ameliorate these impacts. The TMAP also aims to:

- Address movement to, from and within Melrose Park in a sustainable manner
- Ensure the provision of infrastructure and services will satisfy the forecast growth in travel demand generated by Melrose Park and is consistent with those planned for the wider region, taking into consideration potential development staging
- Present an integrated transport system that integrates all travel modes with a focus on encouraging the use of public transport, walking and cycling
- Ensure the development integrates seamlessly with the surrounding street environment
- Determine the changes in transport infrastructure that will satisfy the target objectives of more travel by alternative non car modes
- Examine the relationship between parking provision and the achievement of higher mode share to public transport, cycling and working
- Prepare a multi-modal transport network and services action plan including staging and trigger points of infrastructure upgrades.

The TMAP has recognised the land use and transport planning initiatives described in recently released NSW Government policies and strategies such as the *Greater Sydney Regional Plan* and *Future Transport Strategy 2056*. The purpose of the TMAP is to provide a framework for the implementation of a range of measures designed to achieve a sustainable transport outcome for Melrose Park.

The assessment process has included analysis built around achieving the targets defined and agreed during the TMAP process in getting more people on public transport (40%-50%) over the next 20 years. These initiatives and their influence on Melrose Park have been assessed and refined in the planning process for the TMAP.

1.3 Melrose Park TMAP objectives

The main objective of the Melrose Park structure plans is to achieve new standards of integration between land uses and public transport. Improved integration will be achieved by allowing higher development densities and clusters of different land uses together around public transport nodes and corridors, such as around existing Victoria Road bus corridor and future high-quality light rail corridor along Hope Street as part of PLR Stage 2. By allowing higher densities and a greater mix of land uses, including local employment, destinations are closer together, reducing travel distances. Higher densities in residential areas would also reduce land consumption, promote walking, support public transport services and reduce car use.

Transport infrastructure and services to support the development will need to be carefully planned and implemented to ensure an optimal outcome is achieved for future residents and the wider community. Potential issues that could arise as a result of poor planning and implementation have been identified and specific objectives formulated in response. These key objectives as determined with the Melrose Park Project Coordination Group (PCG) have guided the development of the TMAP and can also be used to measure the overall success of the northern and southern precincts in the future.

The potential issues and objectives set out in Table 1.1 highlight the requirements for regional transport improvements that could be made in GPOP and the surrounding area. The recently released *Greater Sydney Regional Plan* and F*uture Transport Strategy 2056* are a number of NSW Government policies and strategies also identify and promote public transport improvements in and around GPOP that could deliver a number of benefits to Melrose Park. The relationship between these policies and Melrose Park is discussed further in Section 2 of this report.

Table 1.1 : Melrose Park Objectives

Potential issue	Objective	Indicator
A lack of feasible non-car access to/ from the precinct leading to high car use and congestion	Encourage access by public transport, walking and cycling to reduce car dependence	Non-car mode share for peak trips to and from Melrose Park of 50% by 2036.
Limited options for travel between Melrose Park and strategic destinations, reducing the resilience and reliability of the transport network	Provide multiple transport options connecting to a variety of local and strategic destinations	30 minute travel time access by public and active transport to key metropolitan and strategic centres to and from Melrose Park by 2036.
A large number of residents being forced to travel long distances by car to access jobs and services.	Support a walkable urban environment with opportunities to work and play close to home	All new residents in Melrose Park are within a safe walking distance of open space, social infrastructure and retail facilities.
Excessive levels of car parking encouraging car use and ownership and inducing large volumes of car trips.	Support public and active transport through reducing private car parking and ownership	A reduction in residential parking provision from current parking requirements by 2036.
Trips generated by the development negatively impacting on regionally significant corridors adjacent to the precinct.	Minimise impacts to productive regional movement corridors	Travel times along Victoria Road (within model area) do not increase by greater than 5% compared to a 2036 base case scenario. Key precinct signalised intersections perform at LOS E or better in highest impact peak hour.
Insufficient new capacity is supplied to allow for and encourage non car travel.	Provide capacity to support a sustainable level of transport demand and cater for local access needs	Volume/capacity ratios on key public transport corridors directly impacted by the development are not detrimentally increased compared to a 2036 base case scenario.

1.4 Melrose Park TMAP study area

Figure 1.1 shows the Study Area adopted for this TMAP. The Study Area includes the Melrose Park northern and southern precincts and the area bordered by Stewart Street and Rutledge Street to the north; Church Street/Devlin Street to the east; Silverwater Road to the west and Parramatta River to the south. Consideration of physical issues such as interfaces with land use and the surrounding transport system are contained within the Study Area whereas considerations such as travel desire lines, trip distribution, demand and network capacity are considered beyond the Study Area.

1.5 Scope and limitations

As is normal in such studies, the scope of this work entails a number of assumptions and limitations. The TMAP does not aim to describe every aspect as the majority of the precinct is still in the planning proposal stage. Further detail will need to be provided as part of the development application and voluntary planning agreement process. The main assumptions and limitations include:

- Limits in the certainty of many key inputs to the public transport planning process such as the delivery of PLR Stage 2, Sydney Metro West and upgrades along T1 Northern Line
- The assumptions of rate and timing of development were provided by proponents for the northern and southern precincts and are understood to represent the current plans for Melrose Park
- In assessing the transport infrastructure needs, it has been assumed that access to Melrose Park will be facilitated in 2020, 2026 and 2036 to allow the requisite levels of transport infrastructure and services to match development and transport demands
- The interface between light rail and traffic in general requires significant further investigation and detailed traffic modelling. This is currently being investigated by TfNSW's PLR Stage 2 team
- The TMAP does not consider the detailed traffic and transport impacts associated with the operation of PLR Stage 2. The modelling has assessed the elimination of non-signalised right turns across the light rail alignment. Left-in/left-out movements have been assumed at remaining minor intersections
- Planned modifications to bus services as a result of PLR Stage 2 has been cursory and requires further work to understand and plan for the effective integration between bus and light rail across GPOP
- Indicative light rail layouts and stop locations for Hope Street (between Hughes Avenue and Waratah Street) have not been developed as part of the TMAP. This is currently being investigated by TfNSW's PLR Stage 2 team
- The impact of services and utilities on all the proposed mitigation measures may require further and more detailed examination
- Improvements to intersections at Devlin Street, Blaxland Road and Parkes Street were announced after the finalisation of future network assumptions for the project and have not been included in this modelling. Observed congestion in future traffic modelling at this location is likely to be significantly improved by these works.

1.6 Stakeholder engagement – process and key input

As part of this TMAP, regular consultation was undertaken with the City of Parramatta, and with other key stakeholders such as Department of Planning & Environment, Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) through a series of meetings and workshops.

During the TMAP process a formal Project Coordination Group (PCG) consisting of representatives listed below was established to oversee the key project assumptions, strategic land use and transport outcomes, planning timeframes, assess available evidence and model development. The members of the PCG met at least once a month to monitor the progress and provide technical expertise, advice, support and direction as necessary to the TMAP process. The PCG comprised the following key stakeholders:

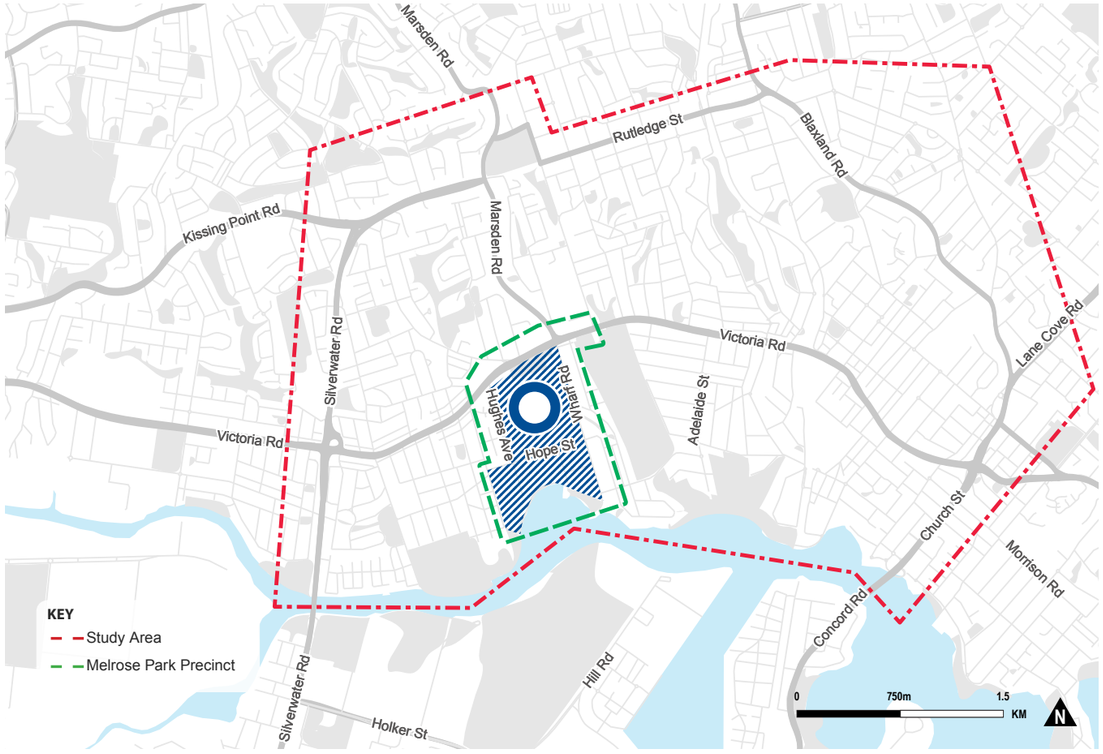
- Department of Planning & Environment (Chair)
- Greater Sydney Commission
- Transport for NSW
- Roads and Maritime Services
- Parramatta Light Rail Stage 1 and 2
- City of Parramatta
- mProjects (on behalf of Payce)
- Keyplan
- City Plan (on behalf of Holdmark and Goodman)

1.7 Report structure

This report is structured as follows:

- **Section 2: Strategic Context:** this brings together and summarises the background information and defines the physical context and transportation task affecting the study area
- **Section 3: Transport Context**: summarises the existing conditions of the study area and the future background conditions that will influence Melrose Park
- **Section 4: Melrose Park Structure Plans:** documents the planned land use proposed for Melrose Park and staging of the development
- **Section 5: Transport Modelling:** describes the transport modelling process as agreed with Transport for NSW, Roads and Maritime Services, Department of Planning and Environment and City of Parramatta
- **Section 6: Appraisal of the Melrose Park Structure Plans:** outlines the performance of the functional elements of the multi-modal transport network identified in the Melrose Park structure plans, and identifies infrastructure and service requirements to meet the desired standards of service
- **Section 7: Implementation Plan**: documents an integrated package of measures recommended to be implemented for Melrose Park.
- **Section 8: Conclusion and recommendations**: Summarises the key findings and outcomes of the TMAP.

Figure 1.1 : Melrose Park TMAP study area



2. STRATEGIC CONTEXT

2. STRATEGIC CONTEXT

2.1 Overview

This section reviews key NSW state and local government strategies and policies for land use and transport in and around Greater Parramatta Olympic Peninsula including Melrose Park. It provides a snapshot of the spatial planning and policy elements that may influence land use and transport outcomes for Melrose Park. This section presents an overview of the strategic land use and transport context and documents current and future land use and transport trends and projections.

2.1.1 Metropolitan and district context

Melrose Park is located 6km east of the Parramatta CBD which is in the geographic centre of the Sydney Metropolitan Region. With Parramatta identified as Sydney's second CBD, the region has an integral part to play in the provision of housing and jobs to Sydney.

The *Central District Plan* projects an additional 207,500 new dwellings and 210,000 new jobs by 2036. In the longer term, the district is projected to be home to up to over 2 million people and contain almost 1 million jobs by 2056. These projections are shown in Figure 2.1

The *Future Transport Strategy 2056* released in 2018 commits the NSW Government to a number of actions for improving transport to and within Parramatta CBD and Greater Parramatta Olympic Peninsula (GPOP). It is recognised that in its role as a CBD, the GPOP transport system must balance the need of all customers as well as align with current and future land use.

Melrose Park is surrounded by some of Greater Sydney's fastest growing strategic centres, presenting residents with significant employment options within close commute of home. The recently announced Sydney Metro West and Parramatta Light Rail Stage 2 project provides a unique opportunity to deliver a world-class transit system which can have a catalytic role in transforming Parramatta CBD and GPOP into a series of interconnected, sustainable and livable precincts. These public transport improvements provide an integrated transport and land use solution that is able to fully realise the benefits of the Parramatta CBD's multiple activity generators.

Melrose Park is strategically located to create strong synergies between the proposed light rail and future metro network and the economic activity centres of Parramatta CBD, Sydney CBD, Olympic Park, Macquarie Park, and Norwest. Current NSW Government policies and strategic directions will help shape a transport vision for Melrose Park which will include strengthened regional transport links, improved connectivity and sustainability.

Figure 2.2 presents Sydney's metropolitan transport network and its relationship with Melrose Park. The location of Melrose Park to GPOP presents a significant opportunity to deliver a strategy that will harness the multiple benefits of a sustainable regional transport system and a highly accessible urban form. The Melrose Park TMAP will assist in achieving a key aspect of the Metropolitan Strategy by strategically identifying a connected network of places that allow residents, workers and visitors to safely and efficiently access public transport improvements and surrounding land uses and amenities.

Figure 2.1 : Central District population and job growth

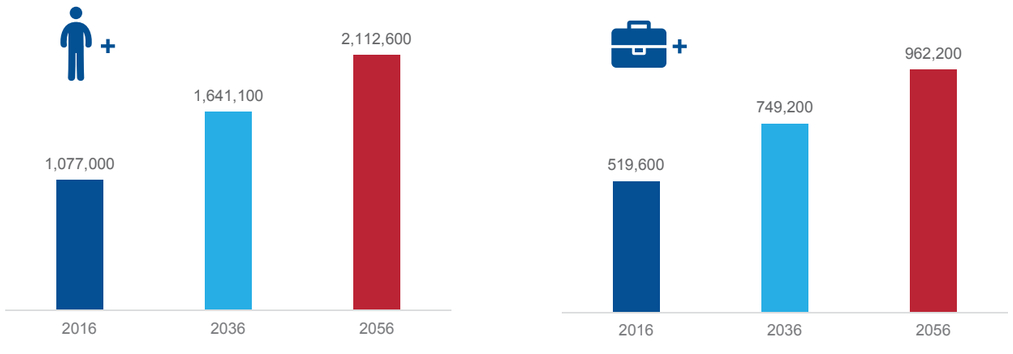
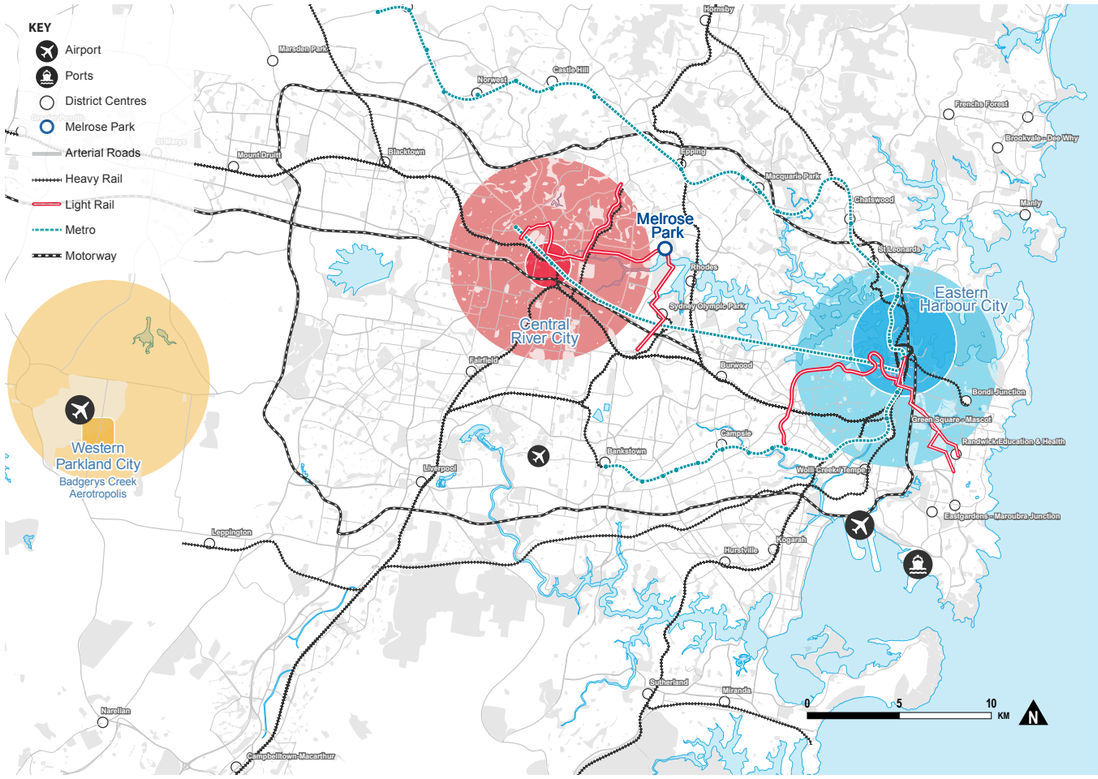


Figure 2.2 : Metropolitan and district context



2.2 GPOP context

Greater Parramatta Olympic Peninsula (GPOP) is comprised of the Parramatta CBD and several other distinct components including North Parramatta, Westmead, Rosehill Racecourse, Carter Street Activation Precinct, UWS Rydalmere, Sydney Olympic Park, Parramatta Road Urban Transformation, Rydalmere and Camellia industrial precincts. The Greater Sydney Commission has also recently included Melrose Park within the GPOP boundary. Many of these areas have been identified for potential redevelopment incorporating mixed use centres, which is expected to lead to increasing public and private sector investment in GPOP.

GPOP is at the heart of a second 'central' city, supported by a network of strategic centres including areas such as Melrose Park will become increasingly important as they work to help deliver the 30-minute city. Melrose Park sits within GPOP, and is surrounded by strategic and secondary employment and residential centres with significant public and private sector investment already underway.

Population and employment in GPOP are set to grow dramatically, putting more pressure on existing transport services and requiring major public transport improvements to the network. By 2056 there are planned to be an extra 370,000 residents and 200,000 jobs in GPOP. Forecast residential and employment growth for GPOP is shown in Figure 2.3.

The recently released *Future Transport Strategy 2056* shows that major investment such as Sydney Metro West and PLR Stage 2 via a new bridge across the Parramatta River will transform the surrounding area and GPOP including Melrose Park. Such transformation manifests itself as opportunities for best practice higher density developments that will attract residents looking for affordable housing in a centralised location with strong public transport links to Parramatta CBD and Sydney CBD within 30 minutes.

PLR Stage 1 will be introduced through the Parramatta CBD connecting the major educational and health facilities of Westmead and Rydalmere with provide faster and more frequent services. The recent announcement of PLR Stage 2 (refer to Figure 2.4) connecting Rydalmere to Melrose Park and Sydney Olympic Park will also make an important contribution to enhancing the sustainability of GPOP and improving its livability. PLR Stage 2 will play a positive role in stimulating urban renewal at Melrose Park connected by an integrated transport network to provide both housing and access to employment by connecting people and places.

Figure 2.3 : GPOP population and employment growth

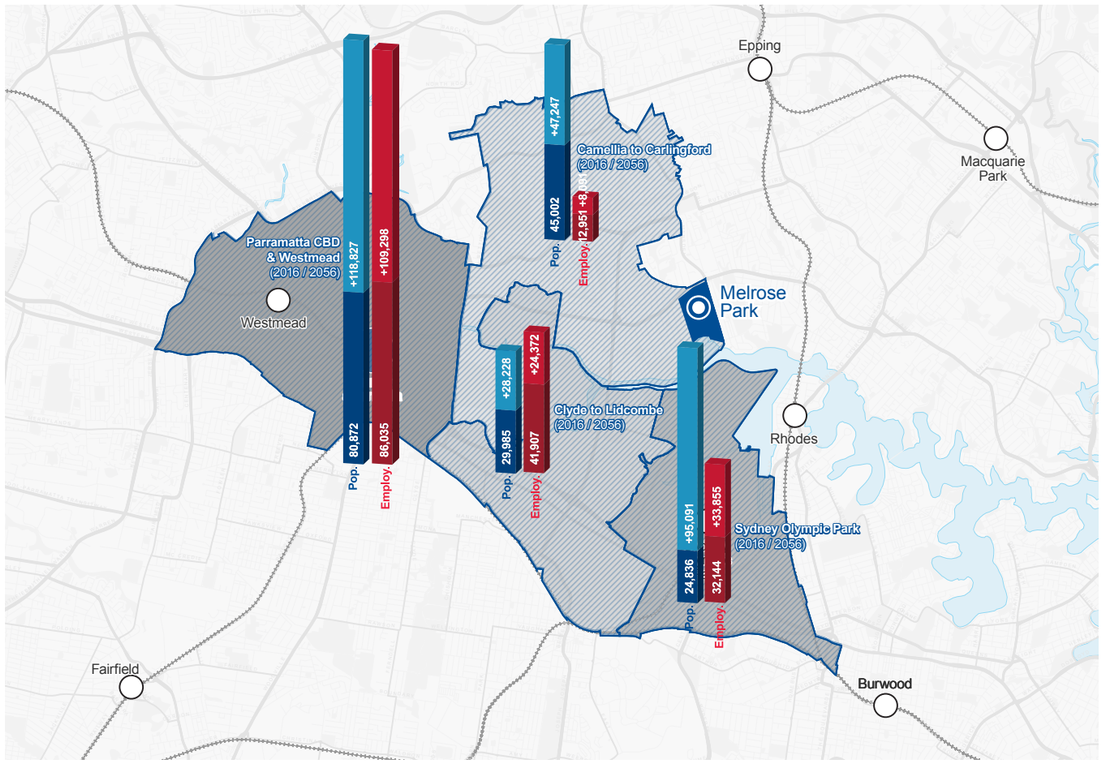
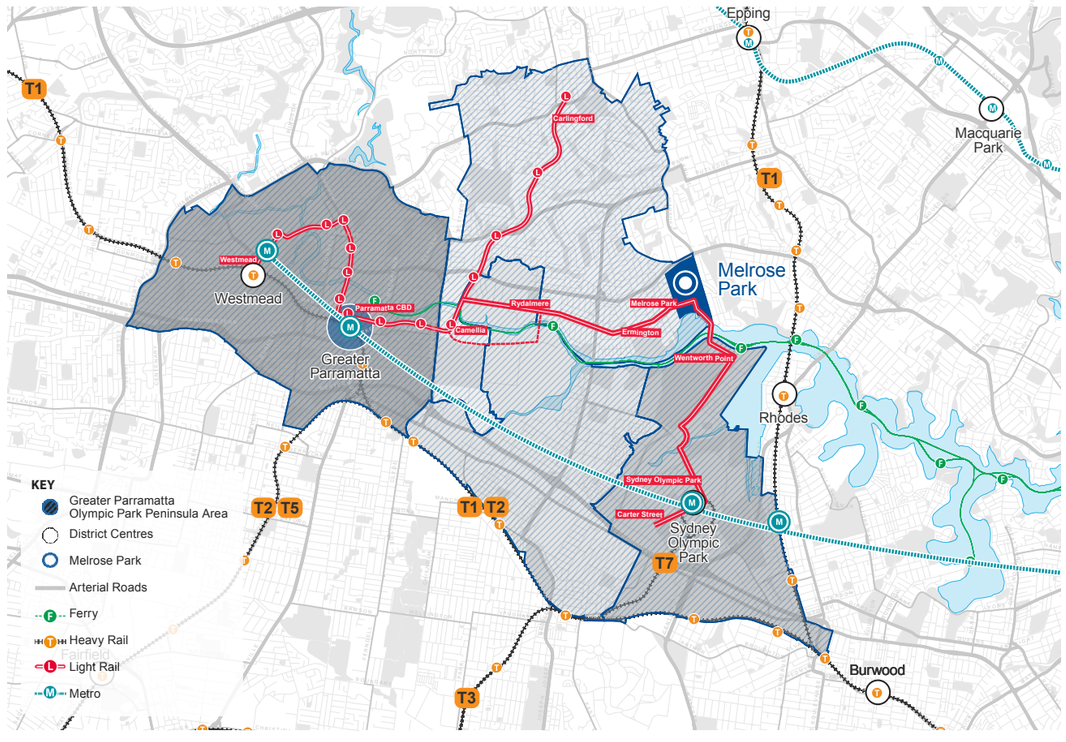


Figure 2.4 : GPOP context



2.3 Precinct and local context

Both the northern and southern Melrose Park precincts are located in an industrial site within an existing suburban area. The current block size (defined by the street network) is significantly larger than the block size commonly found in higher density urban areas. These large existing blocks present the opportunity for the street network layout proposed for the Melrose Park structure plan to connect well to the surrounding streets and offer good connectivity and permeability for the site. The blocks within the development are of a finer scale than the surrounding street areas and is further discussed in Section 4.

The Melrose Park precinct is well located in relation to several of Sydney's key strategic centres. The precinct incorporates effective connections to the transport system and provides good access to the Sydney CBD and key centres of economic activity across Sydney. A number of future public transport connections that would serve Melrose Park are planned or under investigation. The overall structure plan has been developed to facilitate and integrate with these opportunities if or when they are implemented. Some of these strategic corridors connecting the site include:

- Victoria Road
- Concord Road linking Ryde Bridge
- Connections to John Whitton Bridge
- Parramatta Light Rail Stage 2 connecting to Sydney Park via Melrose Park
- New bridge crossing across Parramatta River via Wharf Road (under investigation)

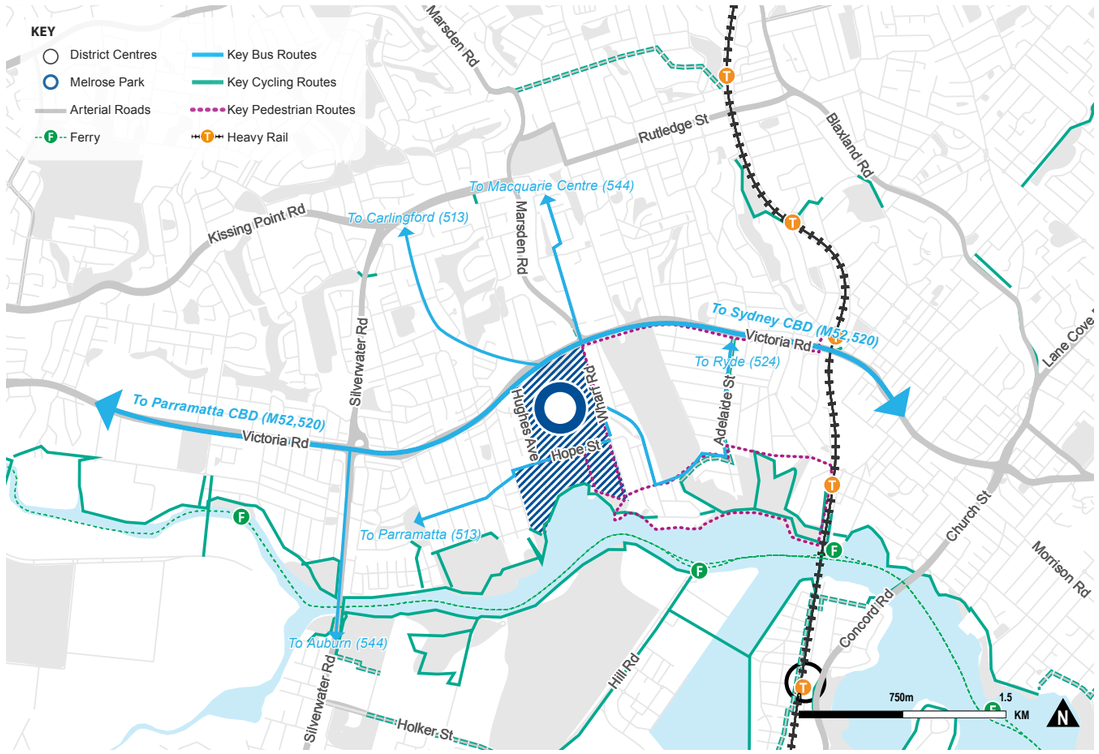
Major elements of the existing integrated transport network for the Melrose Park are shown in Figure 2.5. Key features of the network are outlined below:

- Trunk bus services between Parramatta CBD and Sydney CBD via Victoria Road are provided by the Route M52 and Route 520
- Key walking connections serving Melrose Park include Victoria Road, Hope Street, Adelaide Street, Hughes Avenue, Constitution Road West and Parramatta River Foreshore
- Key cycling routes serving Melrose Park include Parramatta River Foreshore, Andrew and Adelaide Streets, and bridges across Parramatta River (at Silverwater Road, Concord Road Street and John Whitton Bridge)
- Four key access corridors for general traffic serving destinations within Melrose Park include Victoria Road, Wharf Road, Hughes Avenue and Hope Street.

Melrose Park has a significant opportunity to raise the quality of sustainable transport as well as the built environment along and near the identified PLR Stage 2 corridor along Hope Street and Waratah Road, with a new bridge across Parramatta River connecting to a proposed new metro station at Sydney Olympic Park. The key to successfully implementing this city transformation project for the Melrose Park precinct is capitalising on opportunities created through carefully considered planning and urban design strategies along the Hope Street corridor in order to create a series of interconnected, sustainable and liveable precincts.

The enhanced public transport service with proximity to light rail stops and a potential new bridge across Parramatta River will encourage 'transit-oriented development', where the Melrose Park precinct urban design and built form can benefit from active transport links to public transport, whilst reducing the reliance on car access and parking in the medium to longer term.

Figure 2.5 : Major elements of existing network



2.4 Planning and policy context

The Commonwealth, State and Local Governments have recognised the importance of maintaining the economic growth and liveability within cities and urban areas, and have introduced a number of strategic plans to support future development within the Greater Sydney Metropolitan Area and GPOP. This section focuses on the most significant plans which shape the land use and transport context for Melrose Park. A summary of the key planning documents relevant to the Melrose Park, both regional and local, is provided in Table 2.1. They key output of TfNSW's *Future Transport Strategy 2056,* the proposed city-shaping and city-serving network, is shown in Figure 2.6.

Figure 2.6 : Future Transport 2056

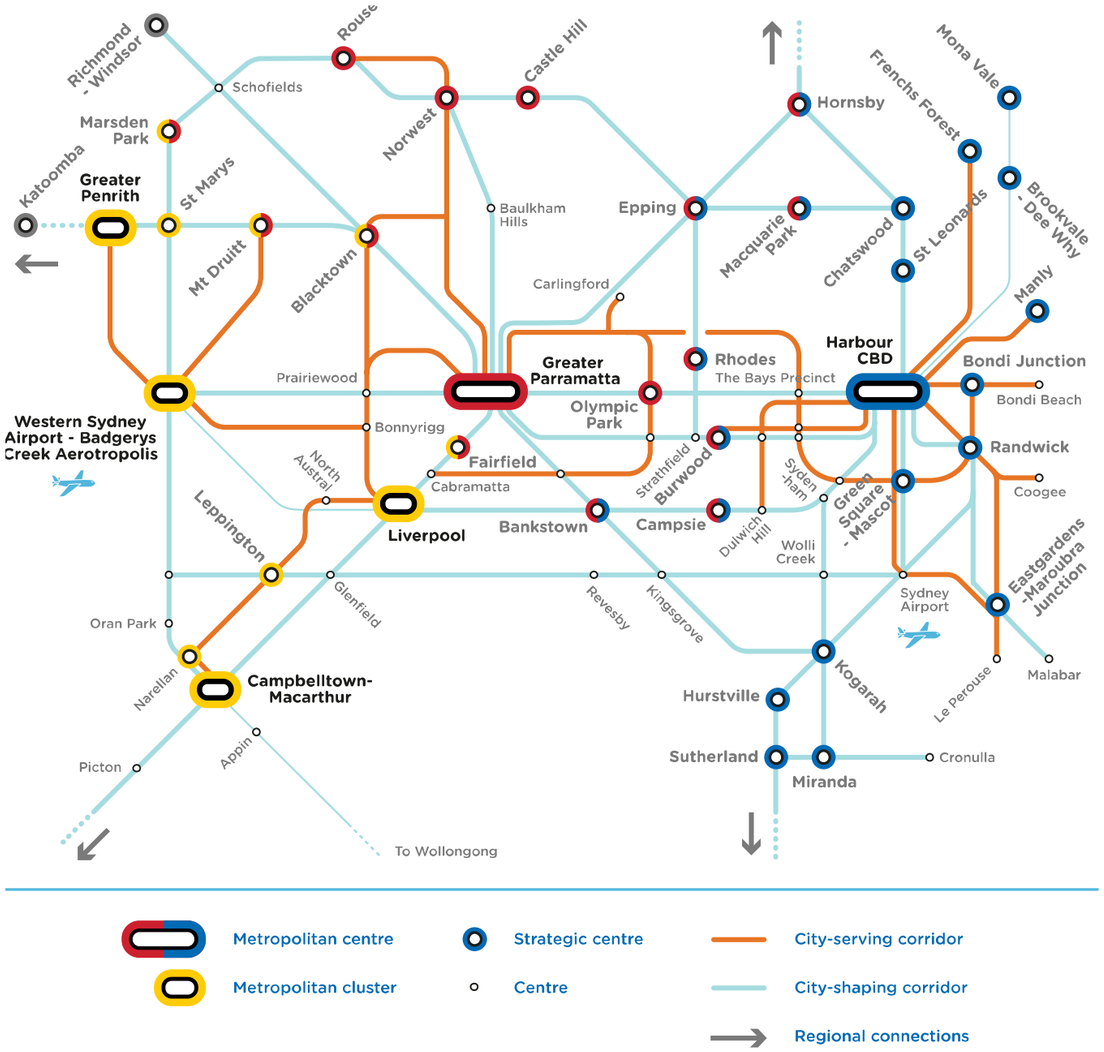


Table 2.1 : Planning and policy context

Document	Overview	Implications for Melrose Park
Greater Sydney Regional Plan	The Greater Sydney Region Plan, *A Metropolis of Three Cities* is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.	It is noted that Melrose Park: • Is strategically located in close proximity to both the Eastern and Central cities • Is well placed to provide 30-minute access to both of these cities as well as a significant number of strategic centres via active and public transport
Central West District Plan	The final district plans released in 2017 set out a strategic vision for each of the districts, having regard to economic, social and environmental objectives, and identifying priority growth areas.	The key implications to the Melrose Park precinct includes the following priorities: • Support the Greater Parramatta and the Olympic Peninsula (GPOP) vision • Encourage employment growth • Create a more connected District • Improve housing design and diversity • Improve access and health of waterways The proposed development of Melrose Park is strongly aligned with all of the above priorities. It presents a unique opportunity to be an exemplar development for the vision of the West Central District.
Greater Parramatta Olympic Peninsula	GPOP refers to Greater Parramatta and Olympic Peninsula. GPOP is set to undergo a significant rate and scale of growth over the next 20 years. Greater Sydney Commission has delivered a strategic vision for the area and has also designed Growth Infrastructure Compacts which will match housing and jobs growth with timely and cost- effective delivery of infrastructure.	Melrose Park is included in the GPOP area and the proposed development is strategically well placed to provide housing, jobs and services which will support the growth of the peninsula.
Future Transport Strategy 2056	The strategy provides plans and initiatives for the next 40 years of how people will live, work and move across the state A key component of the strategy is the Greater Sydney Services and Infrastructure Plan which shows significantly improved connections from Melrose Park to Parramatta via Parramatta Light Rail and to the Eastern City via Sydney Metro West.	Both the Central and Eastern city centres will be able to be reached within approximately 30 minutes from Melrose Park via active and public transport, a key metric identified in Future Transport 2056. This connectivity will make the Melrose Park site an ideal location for urban renewal and best practice higher density development.
State Infrastructure Strategy	The State Infrastructure Strategy (SIS) sets out the government's priorities for the next 20 years, and combined with the Future Transport Strategy 2056, the Greater Sydney Region Plan and the Regional Development Framework, brings together infrastructure investment and land-use planning for our cities and regions..	Key directions specific to Melrose Park and the Central City include: • Improve intercity and intracity transport connections. • Improve north-south transport connections, for example Greater Parramatta to Epping and Greater Parramatta to Kogarah via Bankstown. • Support growth in population and housing, including social and affordable housing options

3. TRANSPORT CONTEXT

3. TRANSPORT CONTEXT

3.1 Overview

This section reviews the existing, planned and proposed transport and land use conditions that will influence the development of the Melrose Park precinct. For the purposes of this of the Melrose Park TMAP it is important to understand the operation of the existing and future transport systems serving the current precinct within the study context.

3.2 Existing transport network

The existing network contains the primary access routes for Melrose Park, including:

- Public Transport – The major existing bus, ferry and rail corridors providing access to, through and within Melrose Park.
- Private vehicles– The major routes for private vehicles, service and delivery vehicles, freight and taxis/ride-share vehicles providing access to, through and within Melrose Park.
- Active Transport – The major walking and cycling routes providing access to, through and within Melrose Park.

An overview of the existing transport network is shown in Figure 3.1. Accessibility to and from Melrose Park within 30 minutes by public and active transport is shown in Figure 3.2. Approximately 45,000 residents and 28,000 jobs are currently located within a 30-minute public transport journey of Melrose Park (Figure 3.2).

Figure 3.1 : Strategic transport network serving Melrose Park

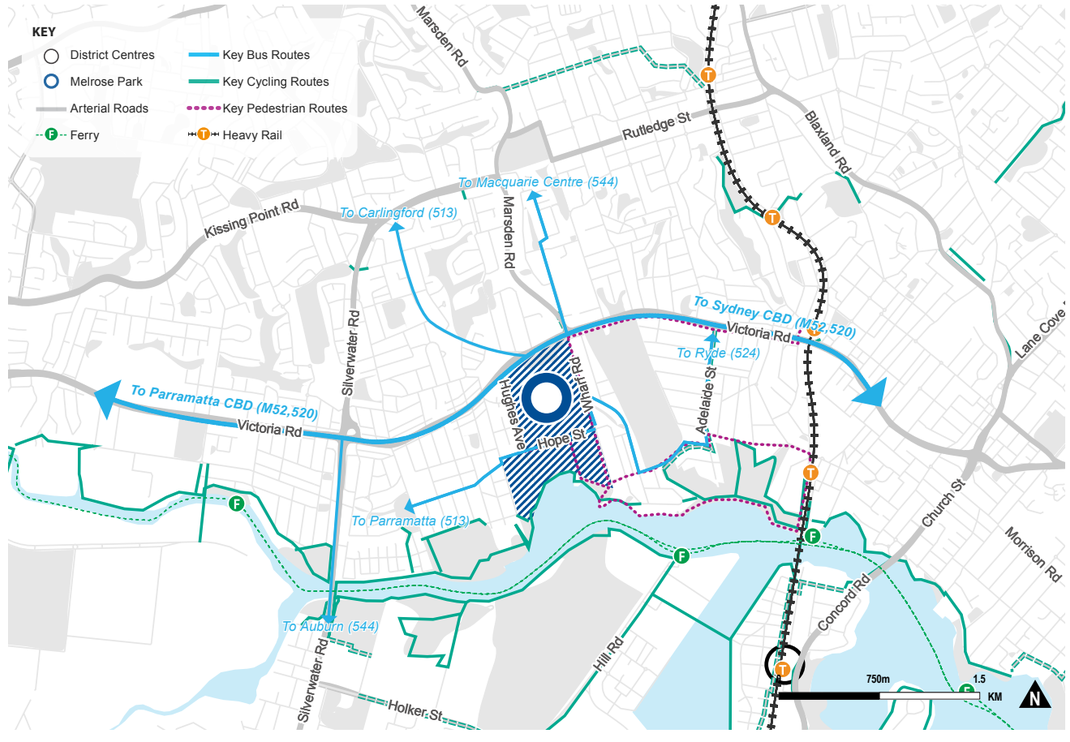
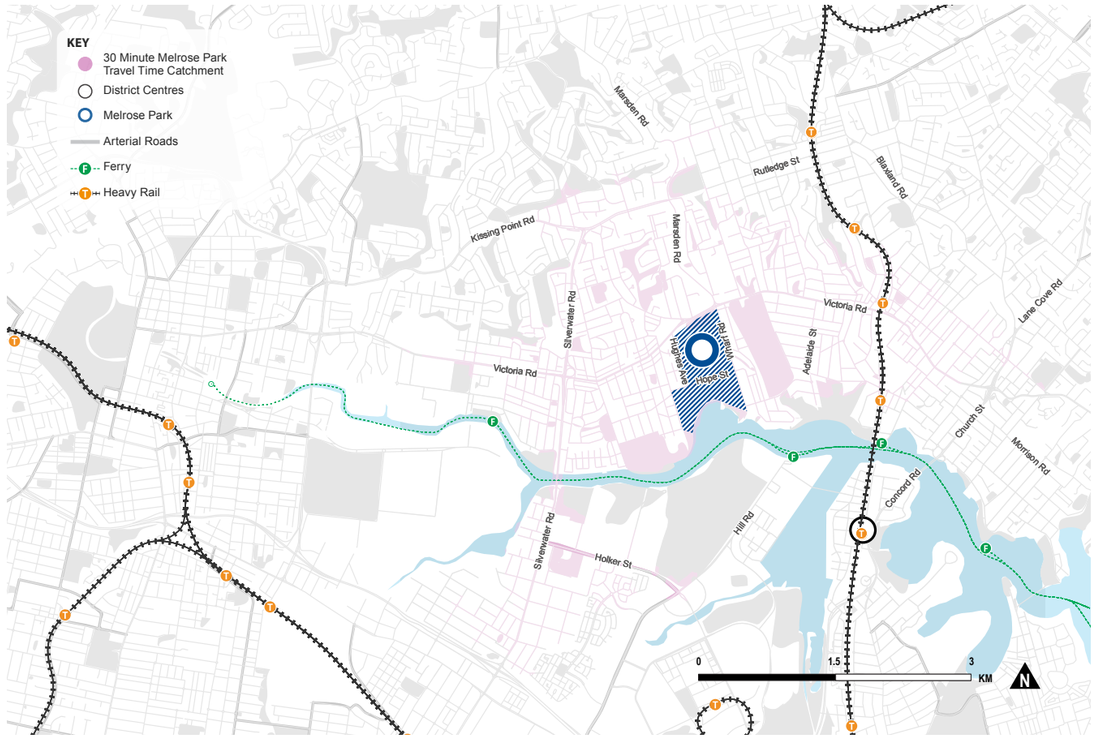


Figure 3.2 : Existing 30-minute public transport catchment from Melrose Park



3.3 Public transport network

3.3.1 Bus

Trunk bus services between Parramatta CBD and Sydney CBD via Victoria Road are provided by the Route M52 (6/hr in peak) and Route 520 (2/hr in peak). Bus services between Top Ryde and the Sydney CBD are more frequent but do not service the site directly.

These routes provide a direct and frequent service between Melrose Park and the Sydney CBD and Parramatta CBD. While travel times are relatively slow and unreliable (especially on Victoria Road east of Melrose Park), they are somewhat competitive with driving times. While there is generally spare passenger capacity on these services in the vicinity of Melrose Park, as bus routes get closer to the Sydney CBD, bus congestion on Victoria Road and in the Sydney CBD start to constrain passenger capacity on these routes.

Other bus routes serving Melrose Park include:

- Route 513 – Carlingford to Meadowbank Wharf (2/hr in peak)
- Route 523 – Parramatta – West Ryde (2/hr in peak)
- Route 524 – Parramatta – West Ryde (2/hr in peak)
- Route 544 – Auburn – Macquarie Centre (2/hr in peak).

These routes are relatively indirect and infrequent, offering a poor quality of service. The travel times for these north-south bus routes serving strategic centres are uncompetitive with driving times. As a result, there is generally spare capacity on these services.

Bus passenger loading data from Opal counts at locations near Melrose Park in both the inbound and outbound directions in May 2017 are summarised in Figure 3.3 and Figure 3.4 below. A summary of the data shows:

- Significant spare capacity on services traveling to Parramatta with spare seats available on all services. It is expected that a significant number of Melrose Park residents will travel to Greater Parramatta as jobs and services in the area increase over time.
- Several bus services are operating close to capacity in the eastbound direction through Melrose Park. It is expected that additional capacity will be required to allow Melrose Park residents to access destinations in the Eastern City.

Figure 3.3 : M52 bus loading - to Parramatta

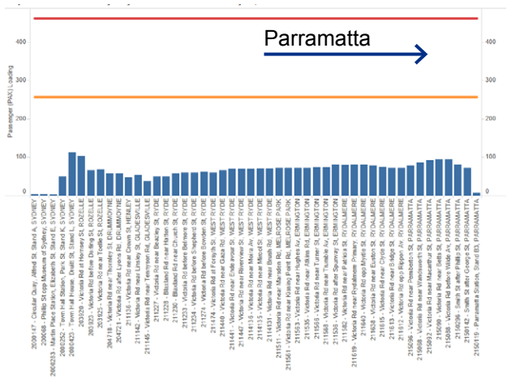
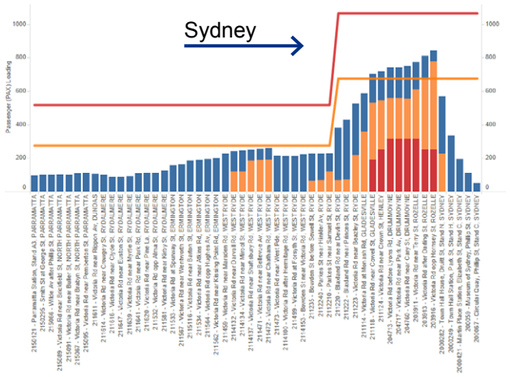


Figure 3.4 : M52 bus loading - to Sydney



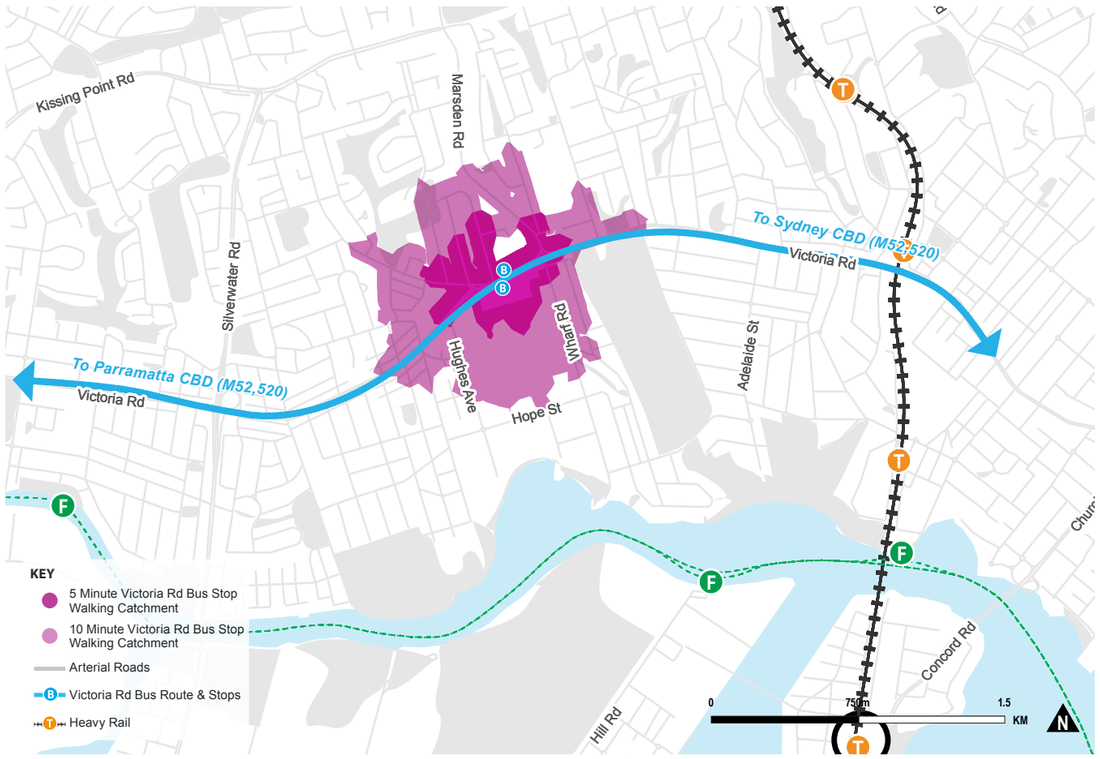
Planned Bus Improvement – Victoria Road

TfNSW is currently planning bus priority improvements along Victoria Road. This project will improve travel times for public transport services in the Victoria Road Corridor between Sydney CBD and Parramatta CBD. Services will be faster and more frequent, with improved bus priority, wider stop spacing and high quality interchanges with consistent wayfinding and signage. These improvements will also enable local bus networks to be streamlined to connect with Victoria Road services and take advantage of faster travel speeds.

This offers an excellent public transport opportunity for Melrose Park because:

- It provides a high-frequency bus connection to destinations along the Victoria Road corridor, connecting to both the Sydney CBD and Parramatta CBD.
- It would deliver improved levels of reliability and capacity (the existing bus services currently experience significant delays due to traffic congestion).
- It can be designed to facilitate integration of bus services with Parramatta Light Rail (PLR) Stage 2, in terms of their services patterns and their respective operation within the street network.

Figure 3.5 : Victoria Road bus stops - 5 and 10-minute walking catchments



Bus Stop Catchment

An analysis of the walk-up catchment for the existing bus stops on Victoria Road demonstrates that approximately half of the Melrose Park development site is within a 10-minute walk of bus services. This journey also involves an uphill grade from the site to Victoria Road. This catchment is shown in Figure 3.5.

3.3.2 Rail

The north-eastern corner of the proposed Melrose Park precinct is approximately a 1.9 km walk from West Ryde Station and the south-eastern corner of the proposed Melrose Park precinct is approximately a 2.1 km walk from Meadowbank Station. Melrose Park is outside the generally accepted walk-up catchment of nearby rail stations, meaning that access to the rail network needs to be provided by linked trips involving kiss and ride, bus access, shuttle services, on-demand services or access by bicycle.

The Northern Line (T1) serving West Ryde and Meadowbank (the two closest stations to Melrose Park) are served by 5 trains per hour in the AM peak (7:00-9:00am) and 4 trains per hour over the rest of the day. The travel time between West Ryde and Town Hall is around 32 minutes. Bus services currently offer a faster public transport option between Melrose Park and Parramatta than train.

TfNSW's travel statistics for 2016 report peak hour loadings and passengers as a percentage of seat capacity on T1 North Shore rail services (refer to Figure 3.6). Rail loadings are higher on services towards the city in the AM peak an approaching capacity at North Strathfield.

Planned rail improvement – Sydney Metro West

TfNSW is currently planning Sydney Metro West, a new metro line connecting Parramatta and Sydney central business districts. This project will be located on a corridor between the Parramatta River and existing T1 Western Line. The currently proposed rail alignment (see Figure 3.7) envisages new railway stations at Westmead, Parramatta, Sydney Olympic Park, the T1 Northern Line, the Bays Precinct and at Sydney CBD and is expected to be able to move up to 40,000 passengers an hour in each direction.

This offers an excellent public transport opportunity for Melrose Park by:

- Providing a high frequency, fast rail connection to both the Sydney CBD and Parramatta CBD. Trains departing as frequently as every 2 minutes.
- Providing significant additional rail capacity which will relieve the currently constrained heavy rail network. The new line will be able to carry up to 40,000 people per hour in each direction.

For Melrose Park to benefit from the new east-west connectivity that Sydney Metro West will provide, a fast, direct, high frequency intermediate service linking Melrose Park to the future metro station at Sydney Olympic Park will be required. This is planned to be provided by Stage 2 of Parramatta Light Rail (PLR2) but will be required for Melrose Park even if PLR 2 does not proceed. If well connected to the proposed metro, the Melrose Park development could be a valuable source of patronage for Sydney Metro West.

Planned rail improvement – T1 Northern Line

The need for rail capacity enhancements for the T1 Northern Line was identified in the *Rhodes East Investigation Area Traffic and Transport Report - 2017*. This report also considered the quadruplication of the T1 Northern Line through Rhodes and north over the Parramatta River rail bridge, allowing more services to stop at West Ryde, Meadowbank and Rhodes Stations.

The future introduction of Sydney Metro City & Southwest timetable adjustments will cater for increased capacity via additional services and less crowded services at West Ryde, Meadowbank and Rhodes (with T1 Northern Line customers diverting on to the Metro at Epping, prior to reaching Rhodes) are also being investigated.

The Northern Sydney Freight Corridor Stage 2 will also improve the performance of the T1 Northern Line by improving separation of freight and passenger services on the corridor.

It is noted that the recently commenced Epping-Chatswood shutdown has coincided with increased services on the T1 Northern Line, now 8 per hour in the peak. These services will continue following the implementation of Sydney Metro North West and provide a 60% capacity increase compared to the previous 5 services per hour.

These improvements offers an excellent public transport opportunity for Melrose Park by:

- Providing increased capacity for Northern Line services at West Ryde, Meadowbank and Rhodes Stations
- Supporting mode shift towards increased public transport trips
- Supporting the proposed shuttle services between Melrose Park and Meadowbank.

Figure 3.6 : T1 Northern Line loadings

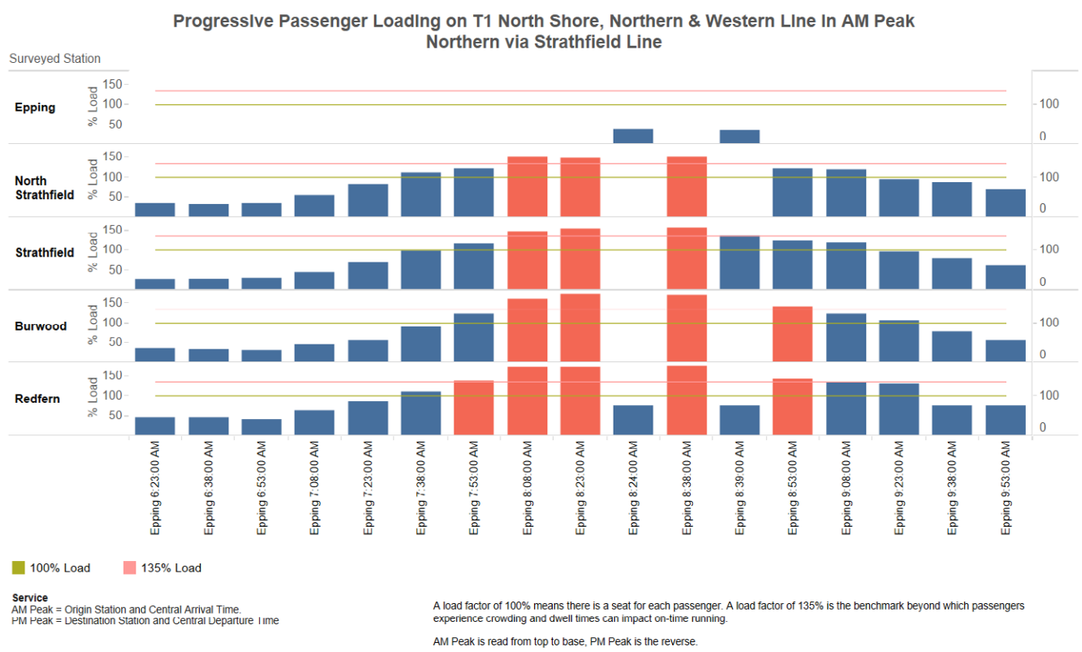
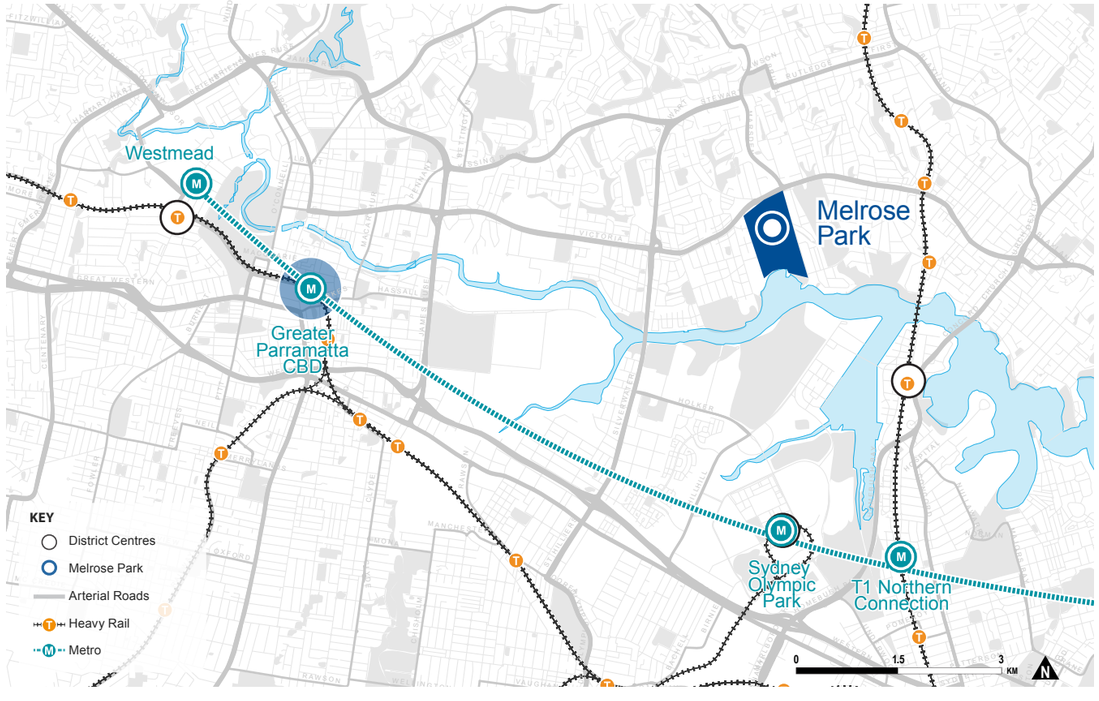


Figure 3.7 : Sydney Metro West (source: TfNSW)



3.3.3 Light rail

There is currently no light rail access in the vicinity of Melrose Park. Parramatta Light Rail Stage 1 will be introduced through the Parramatta CBD connecting the major educational and health facilities of Westmead and Rydalmere.

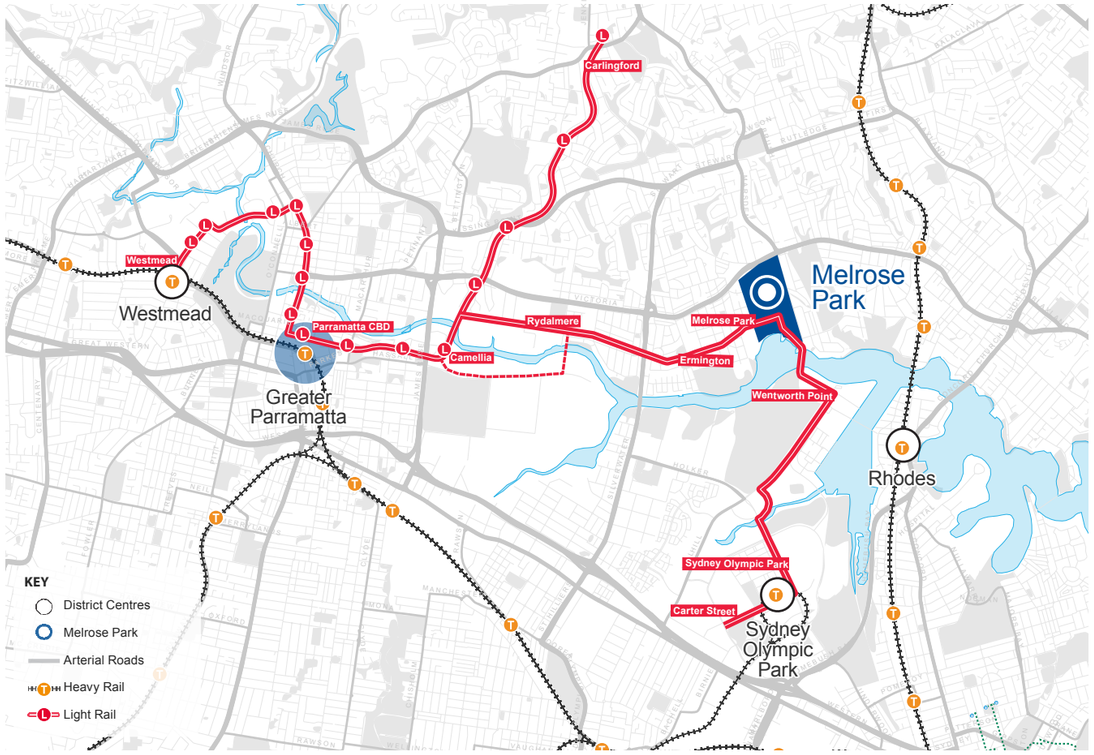
Planned light rail improvement – Parramatta Light Rail Stage 2

Parramatta Light Rail (PLR) Stage 2 is currently at the planning stage. The corridor under investigation connects Parramatta CBD with Sydney Olympic Park via Melrose Park using South Street, Boronia Street, Hope Street, Waratah Street, new bridge across Parramatta River, Hill Road, Australia Avenue and Carter Street. TfNSW is currently undertaking a final business case for PLR Stage 2 which is due to be completed by December 2018. Figure 3.8 shows the proposed alignment

This offers an excellent public transport opportunity for Melrose Park by:

- Better integrating Parramatta CBD with Rydalmere, Melrose Park, Wentworth Point and Sydney Olympic Park
- Providing an attractive and accessible service and the potential to reduce the need for car trips and car-parking use at Melrose Park
- Facilitating the development of higher density housing through better urban design and urban form at future light rail stops on Hope Street and Wharf Road.

Figure 3.8 : Proposed Parramatta Light Rail alignment (source: TfNSW)



3.3.4 Ferry

The existing ferry network is shown in Figure 3.9. Ferries currently run between Meadowbank Ferry Wharf and Circular Quay around twice per hour during the day. The trip takes approximately 50 minutes. Ferries currently run between Meadowbank Ferry Wharf and Parramatta once per hour and the trip takes 33 minutes.

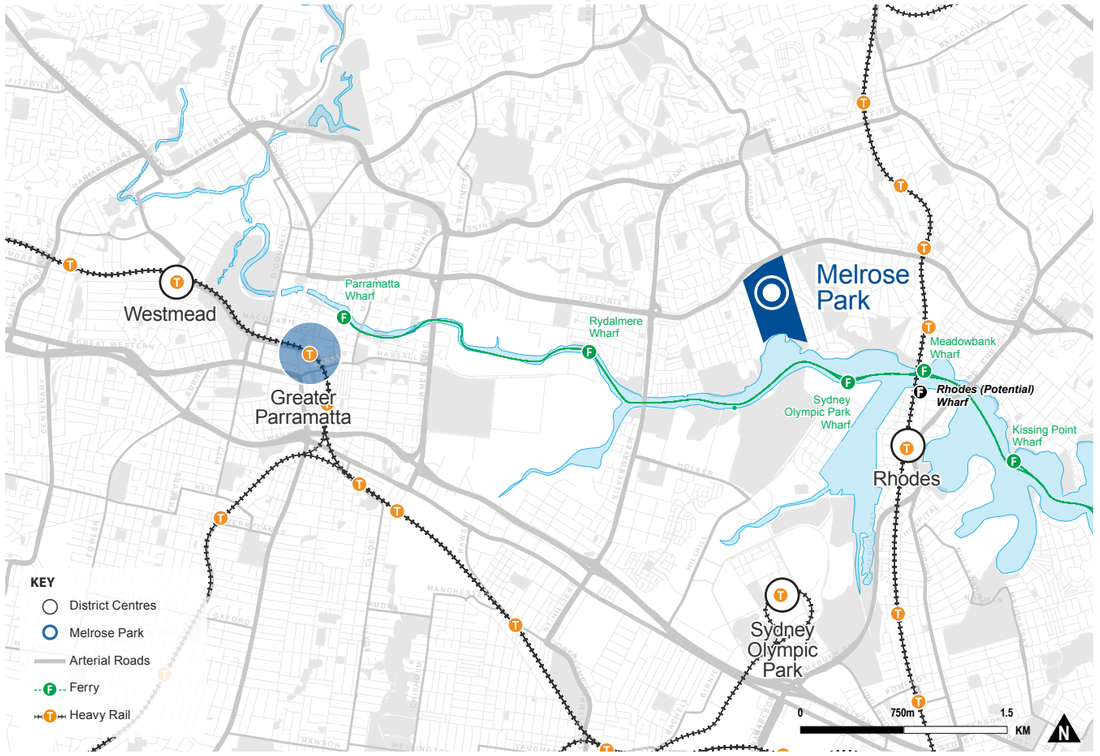
Parramatta River services have a higher proportion of travel for recreation than all Sydney ferry services, with a longer access trip, a longer ferry trip and a higher proportion of older passengers than the Sydney average. The current services are relatively slow and experience low patronage during the working week and overcrowding during the weekends.

Current commuter ferry services have capacity to accommodate future growth projected along the Parramatta River to the Parramatta CBD. Parramatta customers will continue to transfer to the Rivercat service at Rydalmere. Services will continue to operate directly to Parramatta in off-peak times and on weekends, reflecting demand.

Planned ferry improvement – Rhodes East Wharf

Roads and Maritime and TfNSW are investigating ferry wharf options at Rhodes East including between the John Whitton Rail Bridge and Ryde Bridge. The future wharf location will ultimately be decided based on operational and navigational design parameters for Sydney Ferries to run between Rhodes East and Meadowbank. Roads and Maritime has advised that the new Rhodes wharf will be delivered within the next three to five years. Further community consultation in relation to the proposed wharf will be undertaken by Roads and Maritime.

Figure 3.9 : Existing ferry network



3.4 Road network

3.4.1 Existing strategic road network

The key features of the road network in the vicinity of the Melrose Park site are summarised below:

Victoria Road

Victoria Road is a State Road providing access between Parramatta and the western end of Anzac Bridge. It is currently carrying approximately 60,000 veh/day and there are approximately 2,000 bus services provided along Victoria Road on a weekly basis in the vicinity of the site. Whilst serving as a primary arterial road and movement corridor, there is still a significant amount of direct access to properties on both sides of the road in the vicinity of the development site.

There is significant traffic congestion at nearby intersections on Victoria Road during peak hours. There are delays and queues eastbound in the AM peak at both signalised intersections with Wharf Road / Marsden Road and Kissing Point Road. Similar delays and queues exist in the PM peak at the Wharf Road / Marsden Road intersection.

Wharf Road

Wharf Road is a local road which provides direct access to properties on both sides of the road. Its main function is to facilitate the convenient and safe movement of local traffic to and from Victoria Road. This road generally provides two traffic lanes with parking on both sides. The road has a posted speed limit of 50km/h.

Hope Street

Hope Street is a local road which provides direct access to properties on both sides of the road. The Boronia Street-Hope Street-Andrews Road corridor distributes traffic within residential and industrial areas. These roads form a link between the local and higher order road network. This road generally provides two traffic lanes with parking on both sides. The road has a posted speed limit of 50km/h.

Hughes Avenue

Hughes Avenue is a local road which provides direct access to properties on both sides of the road. This road generally provides two traffic lanes with parking on both sides. The road has a posted speed limit of 50km/h.

Key issues and opportunities of the existing road network are summarised in Table 3.1 below.

A summary of the function of key roads in and around the Melrose Park precinct is summarised in Figure 3.10. This is based on observations pertaining to existing traffic volumes and the type of trips currently facilitated by particular corridors. The presented hierarchy is not intended to strictly correlate with the classification and governance structure of these assets i.e. some sub-arterial corridors are state roads whilst others are local roads.

Planned road improvement – Devlin Street

RMS are currently investigating improvements to intersections at Devlin Street, Blaxland Road and Parkes Street. These works were announced after the finalisation of future network assumptions for the project and have not been included in this modelling. Observed congestion in future traffic modelling at this location is likely to be significantly improved by these works.

Figure 3.10 : Indicative road hierarchy

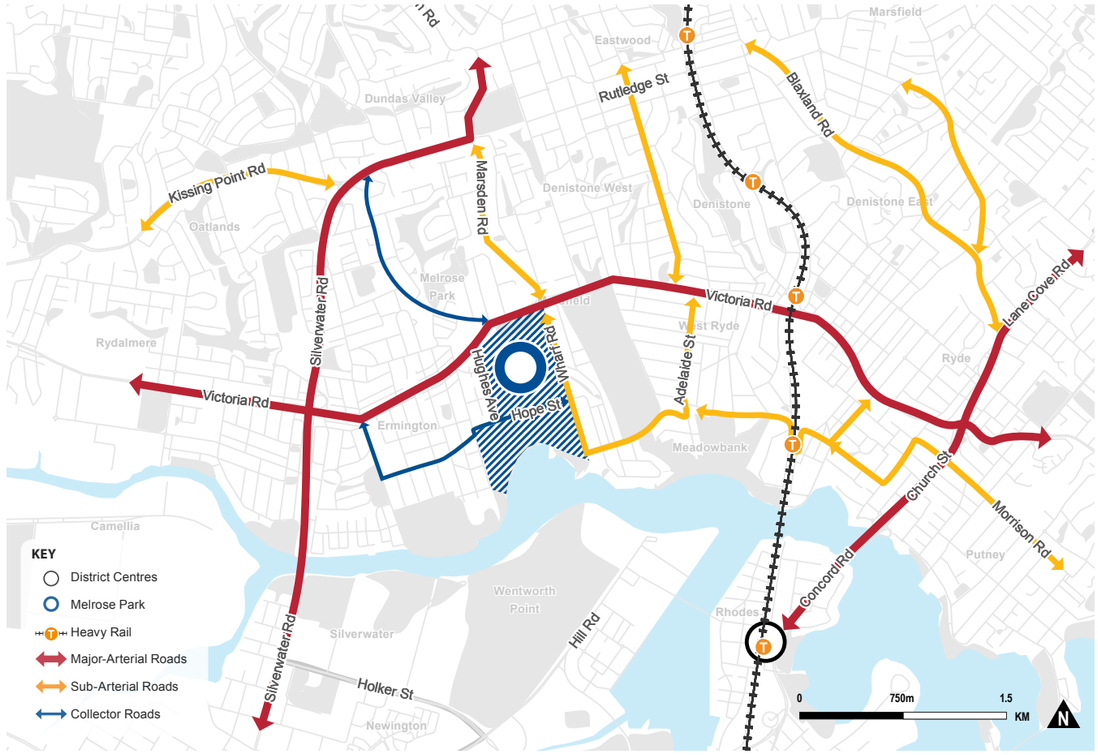


Table 3.1 : Key road access corridors serving Melrose Park

General Traffic Corridor	Role / Function	Opportunities
Victoria Road (A40)	Regional route and predominant movement corridor fronting Melrose Park and providing the most direct access for the development	Direct access from major arterial roads is generally discouraged as it may reduce efficiency of the corridor. Possible opportunities for left in left out access to relieve congestion on local roads
Wharf Road	Local access route along eastern edge of Melrose Park, providing alternative route into the development	Restricted by capacity to access by intersection on to Victoria Road. Opportunity to distribute traffic to reduce congestion.
Hughes Avenue	Local access route along western, edge of Melrose Park, providing alternative route into the development	Restricted to left in left out at priority intersection. Additional access to west and Parramatta.
Hope Street	Local access route along southern, edge of Melrose Park, serving as a local ‘back route’ and providing alternative route into the development.	Circuitous alternative route already in use to Meadowbank Station and Concord Road that avoids Victoria Road. Forms part of planned route for PLR Stage 2.

3.4.2 Existing traffic volumes

Peak hourly traffic volumes on selected roads in the study area, available from Aimsun Model, are summarised in the figure below depicting the traffic survey data collected in 2017. The key points from the traffic volumes include:

- Victoria Road, Silverwater Road and Church St/ Devlin Street carry significant traffic volumes of between 2,000 – 3,000 vehicles per hour in the peak direction.
- The section of Victoria Road east of Wharf Road carries the most traffic along this movement corridor.
- The Andrew Street/Constitution Road corridor performs a sub-arterial function and serves as an alternative east-west corridor to Victoria Road, with flows of up to 1,000 vehicles per hour.

These volumes are shown in Figure 3.11 and Figure 3.12.

Figure 3.11 : Existing traffic volumes AM peak hour

Figure 3.12 : Existing traffic volumes PM peak hour

3.4.3 Intersection Performance

The existing intersection performance of the Melrose Park study area was analysed using the Aimsun model for peak conditions (AM and PM peak) for 2017. The results of the analysis are presented in Figure 3.13 and Figure 3.14. The key points from the intersection performance include:

- Significant delays are observed along Victoria Road near Melrose Park at Wharf Road. The remaining intersections on Victoria Road perform satisfactorily with the exception of Church Street intersection in both peak periods and the West Parade intersection in the PM peak.
- Significant eastbound delays are observed on the Kissing Point Road/Stewart Street corridor in the AM peak, particularly at the Stewart Street/Marsden Road intersection.

Figure 3.13 : Existing intersection level of service AM peak hour

Figure 3.14 : Existing intersection level of service PM peak hour

3.4.4 Network Performance

A summary of the key existing performance indicators for general traffic, namely travel time and average vehicle speed, have been summarised in Table 3.2 and Table 3.3. The key points from the network performance include:

- Average speeds of approximately 33km/h in both the AM and PM periods indicates that the overall network performs relatively well, considering the modelled network is in an urban environment and does not include any motorways
- There is more demand for travel in the PM period with approximately 25,000 more km traveled across the four hours compared to the AM period
- All of the modelled traffic is able to enter the network in both modelled periods i.e. there is no unreleased traffic .

Table 3.2 : Travel time (2017)

		6:00am – 10:00am	3:00pm – 7:00pm
Victoria Road (between Silverwater Road and Devlin Street)	EB	12:14	11:23
	WB	9:02	12:16
Silverwater Road/Stewart Street (between South Street and Marsden Road)	NB	10:10	7:10
	SB	5:37	4:43
Wharf Road/Marsden Road (between Andrew Street and Stewart Street)	NB	5:40	7:54
	SB	4:05	4:19

Table 3.3 : Network statistics (2017)

	6:00am – 10:00am	3:00pm – 7:00pm
Vehicle kilometres travelled (VKT)	332,582	356,925
Vehicle hours travelled (VHT)	9,982	10,985
Average network speed (km/h)	33.3	32.5
Unreleased traffic (veh)	0	0

3.5 Pedestrian and cycling network

Figure 3.15 shows the current walking and cycling catchment from Melrose Park. The catchment analysis is indicative only and does not take into account locations in the road network which may be difficult for pedestrians and cyclists to traverse, such as major grade separated intersections. It does however provide a useful strategic assessment of active transport accessibility.

The catchments show that:

- Limited public transport services are within the existing walking catchment of Melrose Park
- Significant services and centres are within a 20 minute cycle of Melrose Park. These include:
  - T1 Northern Line
  - Rydalmere industrial area and future PLR stage 1
  - Sydney Olympic Park
  - Rhodes
  - Top Ryde.

Figure 3.15 : Walking and cycling catchments from Melrose Park

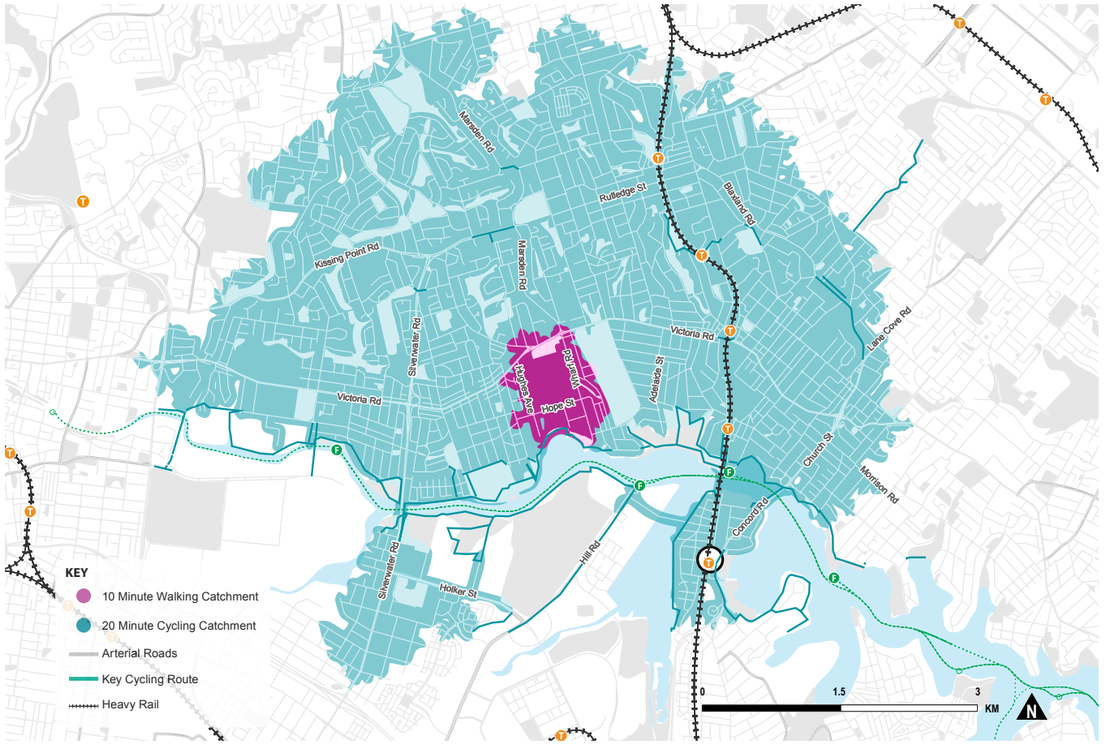
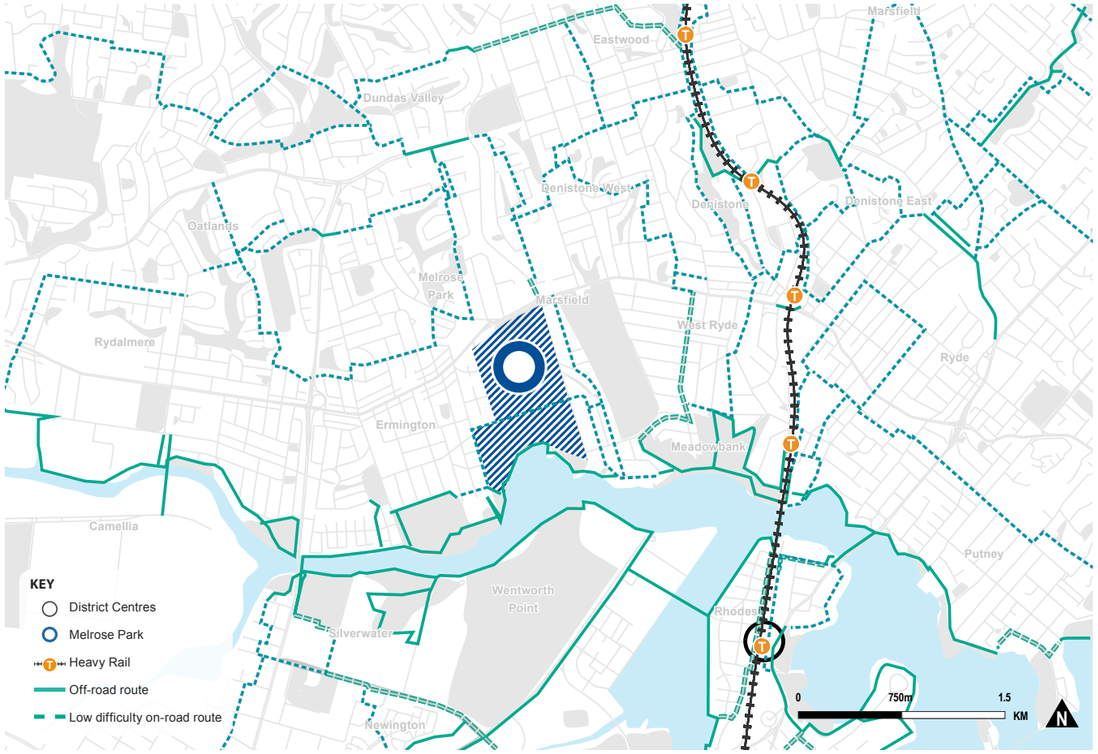


Figure 3.16 : Cycling routes



Existing off-road and low difficulty on-road cycling routes are shown in Figure 3.16 and are summarised in Table 3.4, below.

Table 3.4 : Key cycling connections serving Melrose Park

Connection	Role / Function	Route
Parramatta River Foreshore Pathway active transport shared path	Recreational and commuter cyclist connection to Meadowbank ferry wharf (and potentially station)	Parramatta River Foreshore Pathway east of the Melrose Park development (includes short section of Lancaster Avenue)
Southern precinct of Melrose Park to Victoria Road (West Ryde)	Local cycle connection	Andrew Street, Adelaide Street
Active transport shared path connections to southern side of Parramatta River and to Foreshore Pathway on southern side of river	Recreational and commuter cyclist connection to southern side of Parramatta River	Bridges across Parramatta River (Silverwater Road, Concord Road)

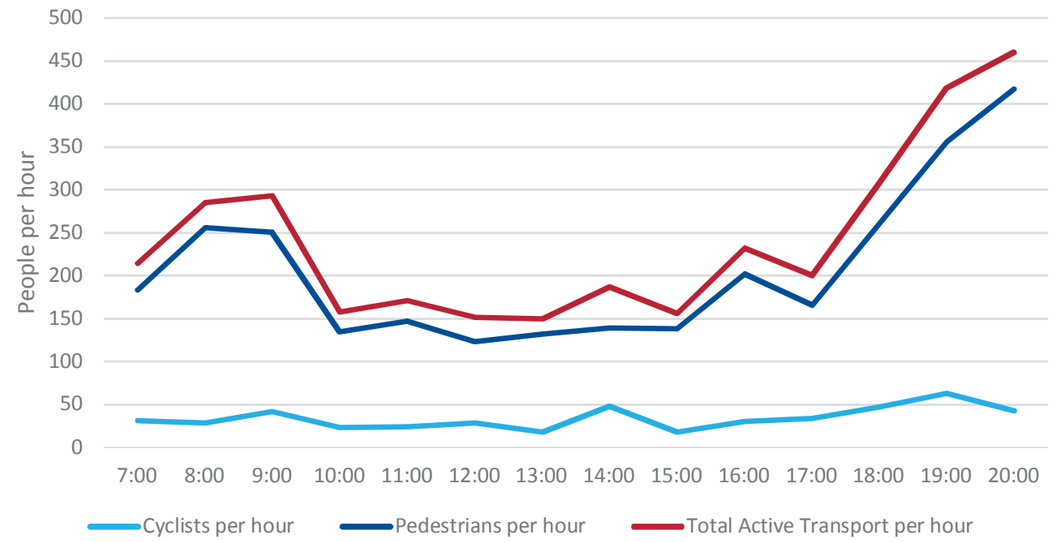
Bennelong Bridge active transport use

Surveys have been undertaken of active transport use on the Bennelong Bridge, connecting Wentworth Point and Rhodes. These surveys give an indication of the willingness of residents in the areas surrounding Melrose Park to use active transport if given safe and direct access to key centres.

Figure 3.17 outlines the results of the survey undertaken in November 2017. It is observed that:

- There is significant all-day use of the bridge by both pedestrians and cyclists.
- In the PM peak hour, over 50 cyclists and over 400 pedestrians utilise the bridge.
- Approximately 3,500 active transport trips are made across the bridge between 7:00am and 8:00pm.

Figure 3.17: Bennelong Bridge active transport use



3.6 Existing travel behaviour

Travel patterns to, from, through and within Melrose Park and GPOP have been analysed using data extracted from a range of sources including the Australian Bureau of Statistics (ABS) 2016 Census journey-to-work (JTW), Household Travel Survey (HTS) and TfNSW Strategic Travel Model (STM).

3.6.1 Existing mode share

The current site's function and urban character without renewal is predominately industrial which influences the existing travel patterns and purpose of trips to and from the study area. A number of trips are generated by workers commuting to employment opportunities provided by established commercial and industrial businesses within the study area.

Considering the predominantly residential nature of the proposed development, travel zones with existing residential characteristics adjacent to Melrose Park have been chosen to provide a more robust assessment of existing and future travel behaviour.

The travel zones shown in Figure 3.18 have been used to examine current JTW travel patterns and behaviour within and in proximity to Melrose Park.

Figure 3.19 and 3.20 show that trips to and from Melrose Park are predominantly undertaken by private vehicle, particularly for trips to the study area. Of more relevance to the future residential development, non-car mode share for commuting trips from the study area is currently 23%.

Figure 3.19 : Mode share for residents commuting from Melrose Park

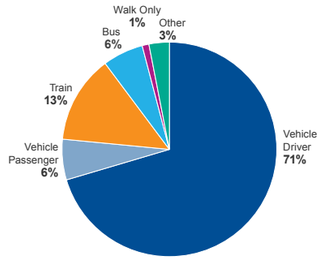


Figure 3.20 : Mode share for workers commuting to Melrose Park

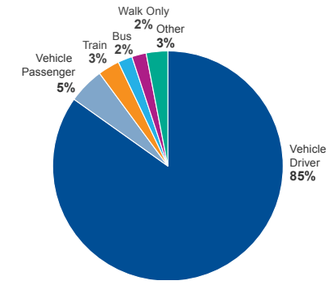
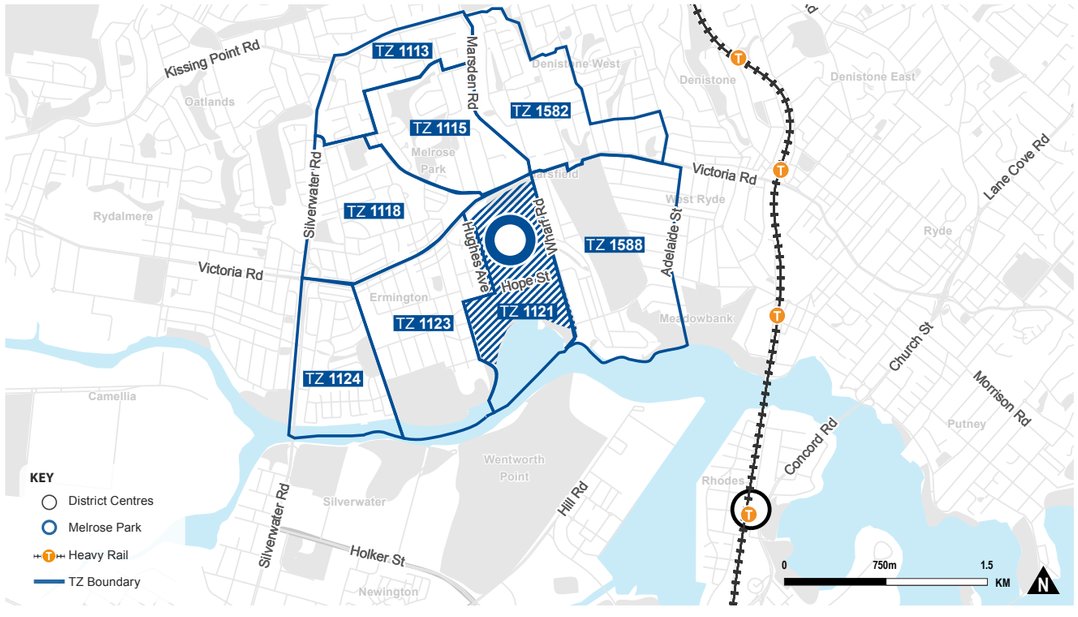


Figure 3.18 : Travel Zones - Melrose Park and surrounds



3.6.2 Existing trip purpose

A summary trip purpose is shown in Figure 3.21. This data is obtained from the Household Travel Survey (HTS). The Melrose Park data has been compared to the average trip purpose breakdown for the entire Sydney region. HTS data is available at the SA3 level so for the propose of this assessment the Melrose Park data has been derived from the Carlingford SA3 data. It is observed that:

- Commuter trips from Melrose Park make up a slightly higher proportion than the Sydney average.
- Trips for work related business, education, shopping and social/recreation from Melrose Park make up a slightly lower proportion than the Sydney average.

3.6.3 Existing trip lengths

Figure 3.22 shows the trip length distribution for all trips in the GPOP area. It is observed that:

- Average weekday trip distances have slightly shortened, with more trips in 0-5km category.
- On weekends, that trend is reversed, with more people taking longer trips (greater than 10km). This is indicative of a trend towards more car use for longer trips on weekends. This could particularly be the case if GPOP residents are traveling outside GPOP for discretionary weekend trips.
- Figure 3.23 shows that the breakdown of trips across the major weekday time periods has stayed relatively constant. There does not seem to have been any shift towards undertaking more off-peak travel in GPOP.

Figure 3.21 : Trip purpose

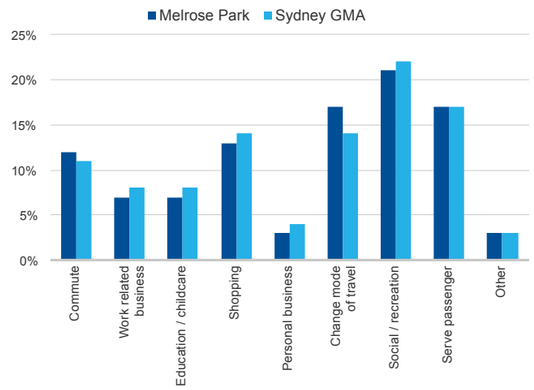


Figure 3.22 : Trip length distribution GPOP

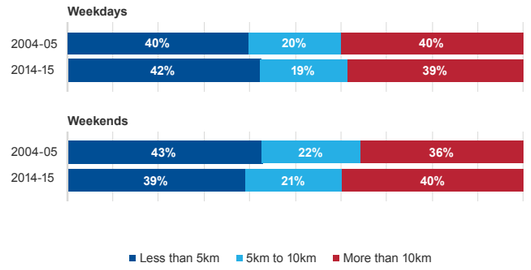
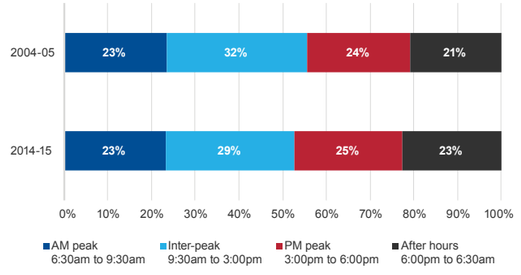


Figure 3.23 : Percentage of trips by time period



3.6.4 Existing trip distribution

The existing distribution of all trips leaving Melrose Park in the AM Peak has been analysed using TfNSW's Public Transport Project Model (PTPM), which is being used for planning of PLR Stage 1 and 2. Figure 3.24 shows the key 12 destinations – at the SA3 level – of these trips.

Figure 3.25 shows the destinations of all trips leaving Melrose Park at a '3 cities' level, with trips either remaining in the Central City or heading to the Eastern or Western Cities.

Both figures represent all modes of travel.

Several key observations can be made:

- A significant number of trips are relatively short and either remain in the Carlingford SA3 or travel to the adjacent Ryde-Hunters Hill SA3
- There is a strong desire line to the east of Melrose Park – due to the current imbalance of jobs and services in the Eastern City. 62% of trips originating around the Melrose Park precinct have destinations in the Eastern City.
- As the Parramatta CBD and wider Central City continues to grow it is expected that future residents of Melrose Park will be less reliant on the Eastern City. The existing 36% of trips which remain in the Central City is expected to increase.
- The balance of employment in Sydney has been shifting west, moving beyond the traditional employment hubs in the Eastern City

Figure 3.24 : Distribution of AM peak hour trips from Melrose Park - SA3 level (all modes)

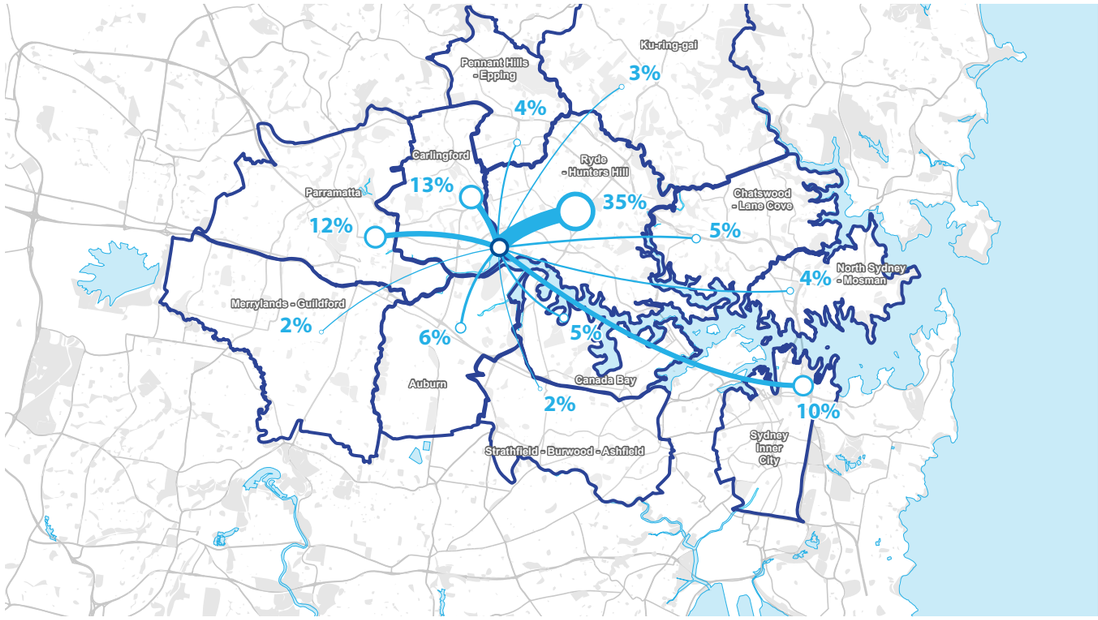
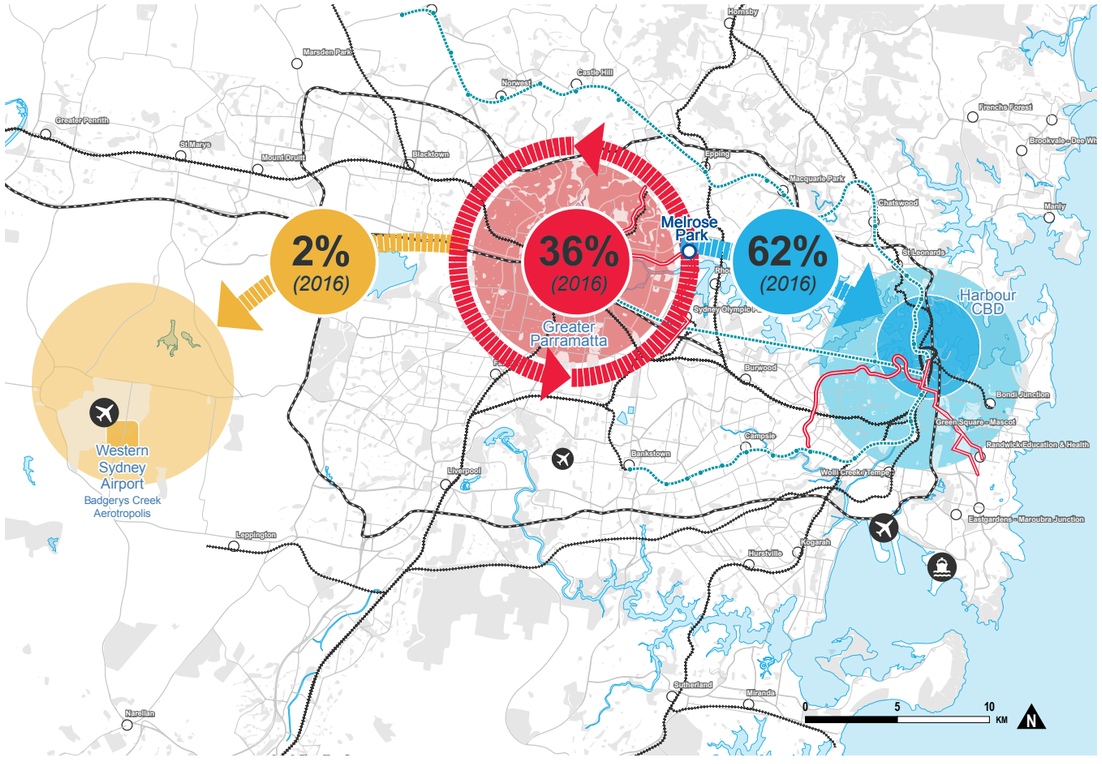


Figure 3.25 : Distribution of AM peak hour trips from Melrose Park - 3 cities (all modes)



4. MELROSE PARK STRUCTURE PLANS

JACOBS