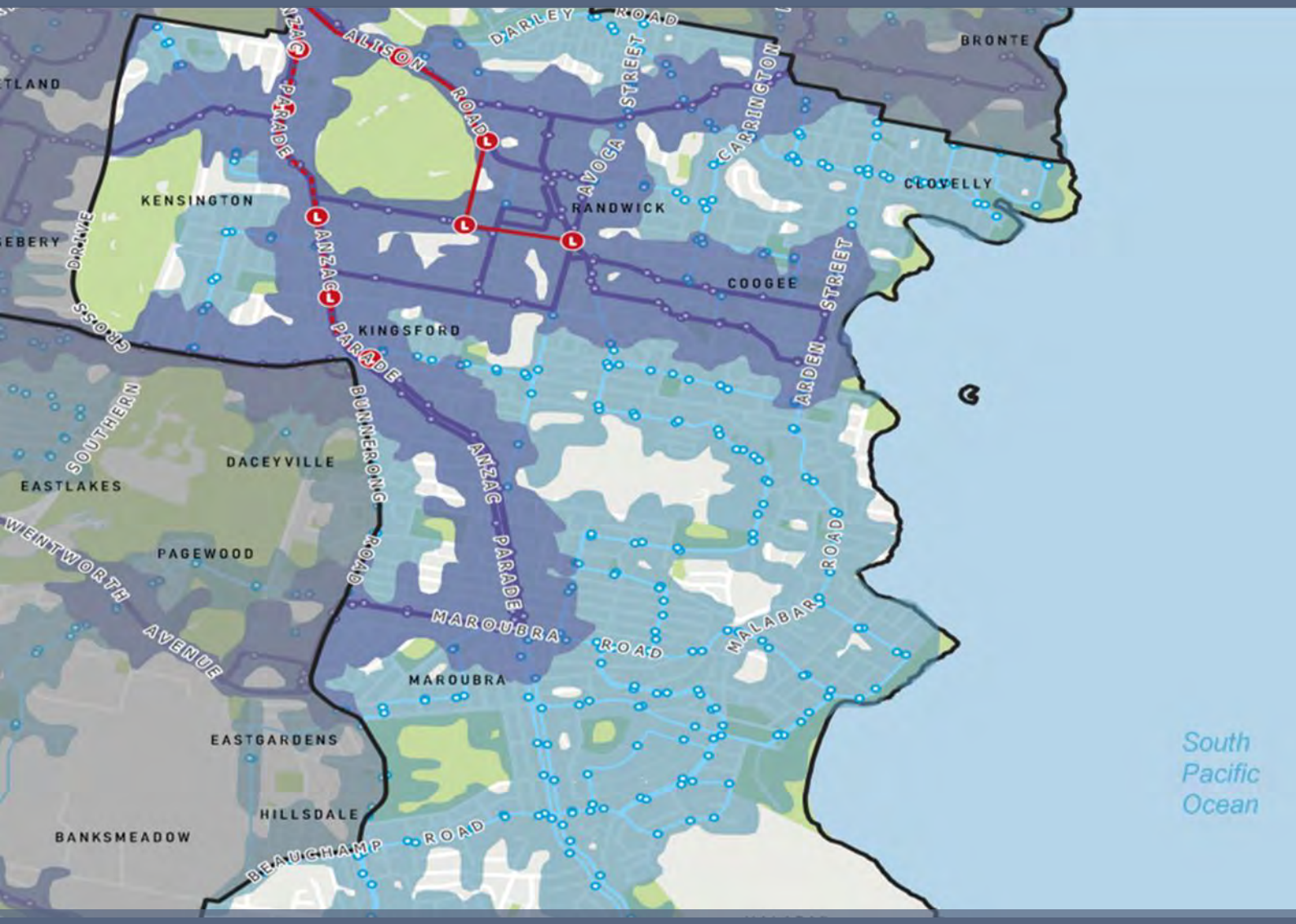
Randwick Integrated Transport Study

Randwick City Council
Final Report



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GTAconsultants

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1. INTRODUCTION

01

1.1. Introduction and Background

GTA Consultants (GTA) has been commissioned by Randwick City Council (Randwick City) to prepare the Randwick Integrated Transport Study.

The study provides evidence-based information summarising the multimodal context, identifying strengths, weaknesses, opportunities and threats to directly inform the preparation of the Integrated Transport Strategy for the Randwick City Local Government Area (LGA), which will lead Randwick City's strategic transport planning approach over the next ten years.

As the study evolves, the result of comprehensive community consultation and stakeholder engagement will enrich the findings to appropriately cover key stakeholders' visions and concerns.

1.2. Scope of the Study

This report provides an overview of the existing transport situation and relevant transport opportunities and constraints across the LGA. In particular, the study examines existing and known future conditions relating to:

- The transport and land use policy context.
- Underlying land use, demographic and economic trends.
- Existing journey-to-work and other movement patterns.
- Randwick's multi-modal transport network, including roads, public transport, active transport, freight, parking and road safety.

A report on the community engagement is included within this study.

1.3. Study Area

The LGA is located in the Sydney Eastern Suburbs and is home to 140,000 residents. The LGA was one of the first to be established in NSW after the City of Sydney. Randwick provides a mix of inner-city density and low to medium residential areas.

Randwick City has a land area of 37.4km^2 and is bounded by Centennial Parklands to the north, the Pacific Ocean to the east, Botany Bay to the south and a line of open space, largely occupied by golf courses developed over low-lying land that is known historically as the Lachlan Swamp and Botany Wetlands, to the west.

The transport network is dominated by Anzac Parade which provides one continuous north-south spine through the LGA with Bunnerong Road being an alternative north-south connection. Both are intersected by various east-west connections with differing traffic volumes.

Randwick is one of the few LGAs in Greater Sydney without passenger train services. The backbone of the public transport offering is an extensive bus network that provides a range of local and express services, connecting suburbs within Randwick City and linking Randwick City with the surrounding neighbourhoods and centres. In December 2019, the CBD and South East Light Rail started operating between the Prince of Wales Hospital in Randwick and Circular Quay with the additional branch to Kingsford opened in April 2020. The light rail offers mass transit connections to the CBD and provides additional public transport services to the north of the LGA.

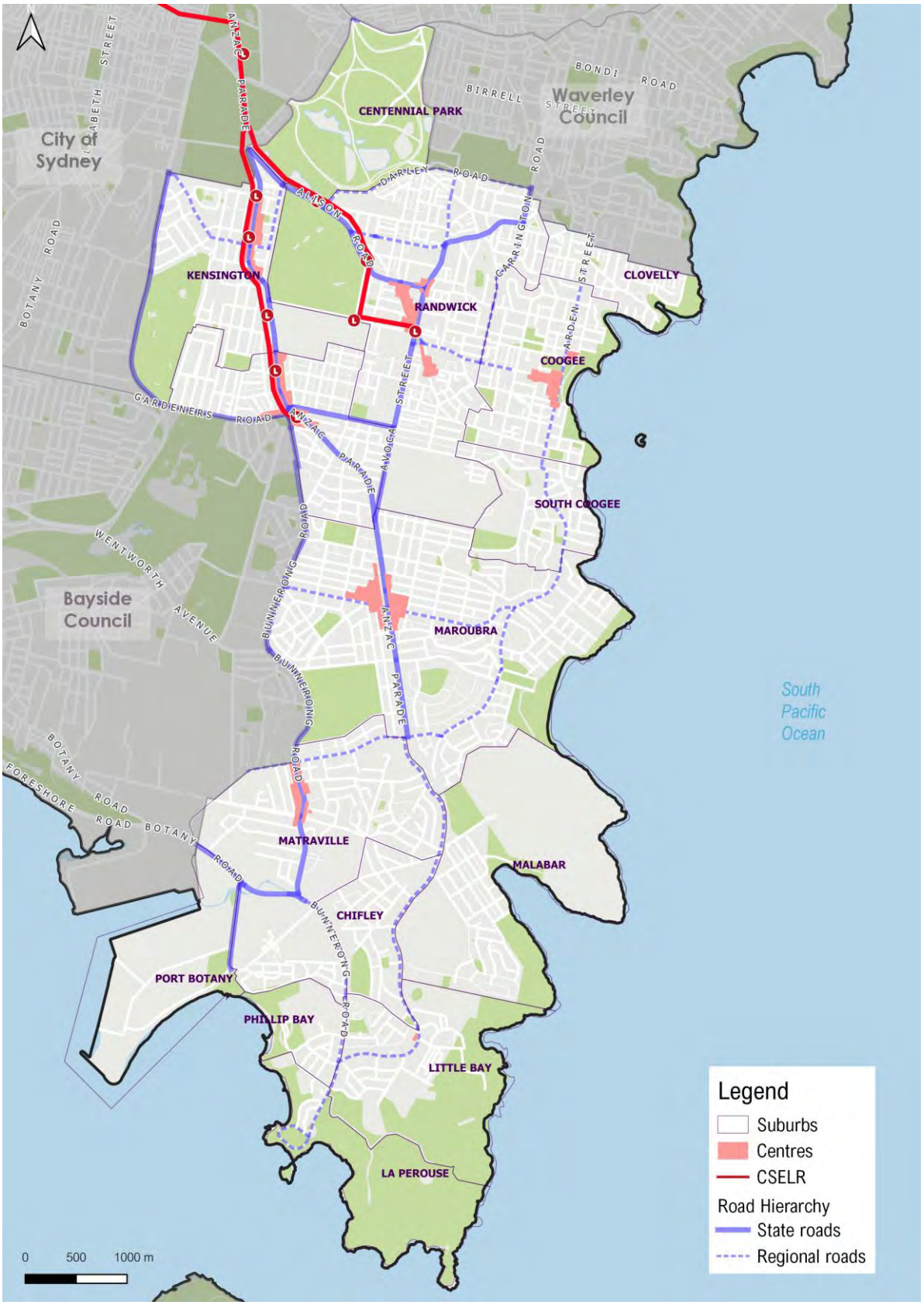
Randwick City makes an important economic contribution to the Eastern City District and Greater Sydney through its employment sectors that include education, specialist medical and healthcare, professional services, industry and manufacturing. Port Botany, located across Randwick and Bayside LGAs, is a trade gateway for the CBD and the nation, surrounded by industrial land.

INTRODUCTION

Randwick City has two strategic centres: the Randwick Strategic Centre is located at the Randwick Health and Education Precinct. the second strategic centre is Maroubra Junction – Eastgardens which straddles across both Randwick and Bayside LGAs. While both are identified as strategic centres, they have differing roles within Randwick City's network of town centres and local centres.

Randwick City's broad range of natural assets are major attractors drawing in local and regional visitors. Randwick City's 29 kilometres of coastline strongly influences the areas character and function and contains a diverse range of precincts and land uses including beachside residential areas and town centres, open space and parklands, as well as industrial and port facilities.

Figure 1.1: Study Area



Source: GTA Consultants based on data from Randwick City Council

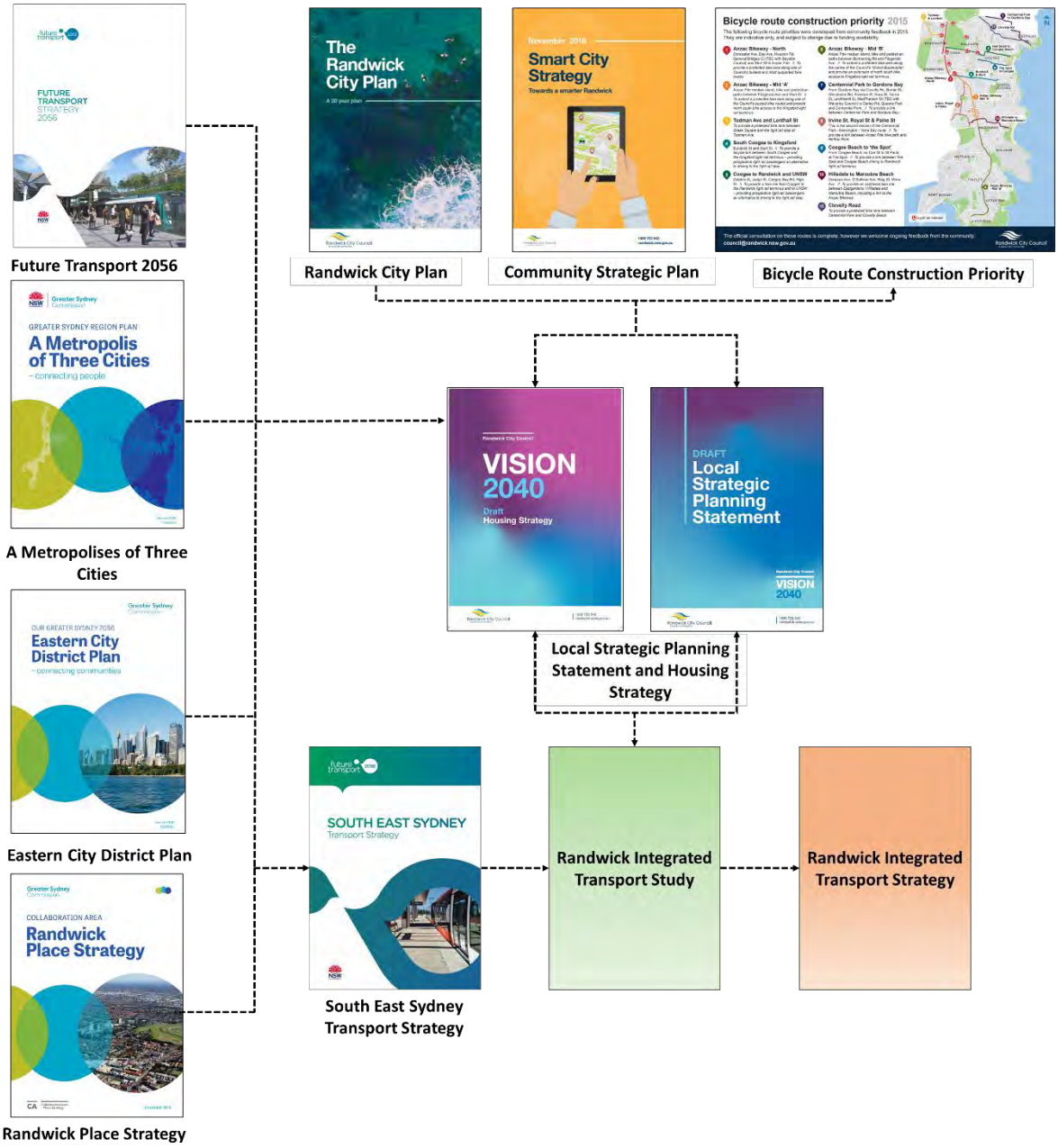
2. POLICY CONTEXT

02

2.1. Policies and Strategic Context

The summary and the key policy implications of reviewed relevant strategic documents for the study area are outlined in Figure 2.1 and Table 2.1.

Figure 2.1: Strategic Alignment Diagram



Source: GTA Consultants

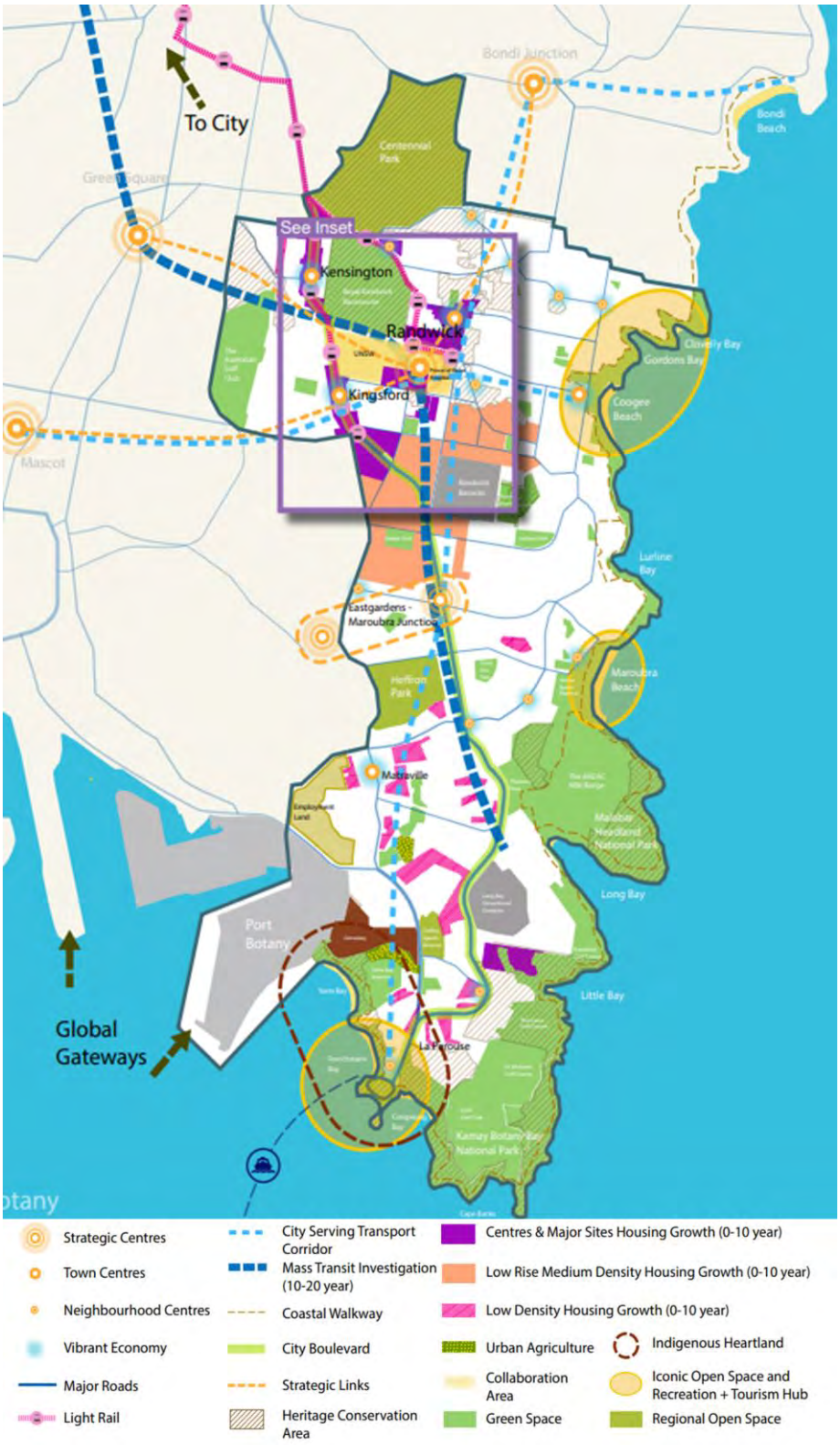
Table 2.1: Strategic Context

Policy/ Strategy	Implications for Randwick
Future Transport Strategy 2056 (2018) by Transport for NSW	Future Transport 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW, which will guide transport investment over the longer term. It will be delivered through a series of supporting plans, including the South East Sydney Transport Strategy (see below). In addition, the Greater Sydney Principal Bicycle Network is a key element of this strategy, which outlines what the future proposed cycling network will look like by 2056. For Randwick City, the Principal Bicycle Network includes principal bicycle routes between the Sydney CBD, Randwick and Port Botany and also supporting links which will provide cycleway access between Randwick, Clovelly, Maroubra and Malabar.
South East Sydney Transport Strategy (2020) (SESTS) by Transport for NSW	The SESTS sets out the medium and long term (2026-56) integrated transport and land use plan for South East Sydney; an area encompassing the Eastern Suburbs (including Randwick City) to the south of Bondi Junction, extending north to Central Station, west to the T4 Illawarra rail line and south to include Rockdale and Brighton Le Sands. It is a detailed place-based transport strategy that articulates Future Transport 2056's vision and policies for South East Sydney. The SESTS' vision for the South East incorporates the following elements: • Safe, reliable and easy access to a wide range of employment, open space, education, recreation, healthcare and commercial opportunities • Safe, reliable, high quality and appropriate transport networks that meet local freight, passenger and workers' needs • Workplaces in the South East have access to a large and diverse workforce through an accessible transport network • Integrated land use and transport development that supports a mix of housing typologies, jobs and services • Walking, cycling and public transport becomes a mode of choice for those travelling to, from and within the South East • Transport technologies enable residents and workers in South East Sydney to make sustainable transport choices, support economic growth and transport service delivery. The SESTS proposes a preferred integrated transport and land use scenario by 2056 to realise its stated visions. Key transport elements of this scenario include: • Metro West extension to Malabar/La Perouse via Randwick and Green Square by 2041 • Metro from Kogarah to Randwick by 2056 • Eight new rapid bus routes connecting destinations such as Coogee, South Coogee, Maroubra, Eastgardens, Randwick, Kingsford and Kensington • Delivery of the Principal Bicycle Network • Sydney Gateway Extension to Port Botany These transport elements are premised on changes to land use in South East Sydney. At a local level, strategic centres, collaboration areas and new Metro stations are a focus for residential and employment intensification. The spatial distribution of this land use and population growth is primarily driven by two new Metro lines (Sydney CBD to La Perouse and Randwick to Kogarah). As such, intensification is expected in the indicative station locations of Randwick, Maroubra Junction, Maroubra, Malabar and La Perouse within the LGA.
Greater Sydney Region Plan – A Metropolis of Three Cities by the Greater Sydney Commission & Eastern City District Plan	The GSC presents a vision for three, integrated and connected cities that will rebalance Greater Sydney – placing housing, jobs, infrastructure and services within a 30-minute reach of more residents, no matter where they live. Specifically, the following strategic plans and initiatives are relevant to the study are: • Randwick Health and Education Precinct. • Eastern economic corridor. • Improving transport, walking and cycling connections across the district. • Capitalising on the potential mass transit solution for the south east of the District. • Delivering integrated land use and transport planning and a 30-minute city.

Policy/ Strategy	Implications for Randwick
Vision 2040 Housing Strategy	The Vision 2040 Housing Strategy identifies Randwick City's housing need and housing priorities and takes a balanced approach to meeting housing needs to 2040. The Housing Strategy sets a 6-10 year housing growth target and demonstrates Randwick City's capacity to meet longer term housing needs. Some of the more important parts of the strategy which will have impact on transport and traffic in the LGA are: • Changes to subdivision rules. • New low-rise medium density areas. • Identified centres and major sites. • Long term housing growth plans. • Affordable housing plans.
Randwick Community Strategic Plan/ Randwick City Plan	The Randwick City Plan is a 20-year strategic plan for Randwick City. In terms of transport, it identifies the following directions and actions to achieve integrated and accessible transport: • Implement a network of safe and convenient walking paths and cycleways. • Encourage use of public transport. • Advocate for light-rail extension to Maroubra. • Implement traffic control strategies to protect residential amenity. • Manage parking to balance convenience against reduced car reliance. • The plan also identifies future transport needs to serve the growing Randwick Collaboration Area
Randwick Local Environmental Plan (LEP) 2012	The Randwick Local Environmental Plan 2012 promotes sustainable transport, including increased use of public transport, walking and cycling, road access and the circulation network and car parking provision, including integrated options to reduce car use. Randwick City's Integrated Transport Strategy will inform the development of an updated LEP, however, it is expected that the updated LEP will continue to promote increased use of sustainable modes of transport.
Randwick Development Control Plan (DCP) 2012	The current DCP includes planning controls for vehicle and bicycle parking rates and bicycle storage facilities. Most existing car parking rates for different types of land use are minimum requirements.
Sydney Green Grid – Central District Spatial Framework	The Greater Sydney Green Grid is a multi-layered network of Sydney's urban green infrastructure that comprises recreational, transport, ecological and hydrological functions. The Central District Spatial Framework includes the Green Grid as a series of proposed projects and priorities in areas that form part of the Central District, including Randwick City. In Randwick City, the Framework contains the following elements: • The Great Coastal walk from South Head to La Perouse • Improved connections from Anzac Parade: Moore Park to La Perouse as it would form a continuous link with the Great Coastal Walk and connects the coast with town centres and regional parks. • Providing green links along streets near beaches in the Eastern Suburbs • Improving east west coastal green links from Randwick to Coogee • Connecting Randwick Barracks and Environment Park to the Great Coastal Walk • Improving east-west coastal green links from Mascot to Maroubra • Providing recreational facilities along Fitzgerald Avenue and Heffron Park, Maroubra

Policy/ Strategy	Implications for Randwick
Collaboration Area Randwick Place strategy – December 2018	This Randwick Collaboration Area Place Strategy was designed by the stakeholders involved in planning for the future of the Collaboration Area. The Randwick Collaboration Area contains the cluster of the University of New South Wales (UNSW), Randwick Hospitals Campus and the surrounding town centres of Kensington to Kingsford, Randwick Junction and the Spot. Specifically, it: • establishes a vision for the Randwick Collaboration Area, based on the community's vision expressed in the Eastern City District Plan • identifies impediments and opportunities • sets priorities for the Collaboration Area • identifies actions to deliver the vision. The document defines Randwick as a strategic centre, a health and education precinct as well as a collaboration area based on the A Metropolis of Three Cities. It also outlines the challenges and the vision for the collaboration area. The most relevant of these visons to the current study are: • The area will be well connected to rest of Greater Sydney by public transport. • Prioritise walking and cycling connections and vibrant centres of activity, including the night-time economy.
Smart City Strategy – Towards a smarter Randwick	The Smart City Strategy provides the roadmap for how Randwick City will respond to and take advantage of technological and societal changes, to continue to achieve its vision. This Strategy recognises Randwick City's strengths and sets the direction for smart city action for the next ten years. From a transport perspective the following objectives from the strategy are related to the study: • Support and prepare for emerging transport technologies. • Facilitate optimum journeys and reduce traffic congestion in Randwick City through public access to information. • Utilise data to inform decisions on transport planning and infrastructure delivery. • Improve access and mobility for a diverse community.
Local Strategic Planning Statement	Every council in New South Wales is required to prepare a Local Strategic Planning Statement (LSPS) that sets out their 20-year vision for land use, to inform the development of an updated Local Environmental Plan (LEP) and Development Control Plan (DCP). The Draft Randwick City LSPS' transport related actions are summarised as follows: • Prepare an Integrated Transport Strategy. • Prioritise and provide improved walking and cycling access and facilities in and around town and neighbourhood centres. • Investigate emerging technologies to improve access to and management of parking. • Collaborate with councils, agencies and industry to understand emerging transport modes and technologies. • Undertake ongoing improvements to the public domain and urban interface around town and neighbourhood centres. • Continue to upgrade and extend the coastal walkway to allow residents and visitors to experience the whole eastern coastal environment. An overall structure plan for Randwick City from the LSPS showing identified areas of growth is shown in Figure 2.2.

Figure 2.2: Randwick City Structure Plan



Source: Draft Local Strategic Planning Statement, Vision 2020: Shaping Randwick's Future, Randwick City Council

3. LAND USE AND TRANSPORT CONTEXT

3

3.1. Land Use

The study area is chiefly residential with strategic and local centres distributed across the LGA which serves varying community needs including retail, commercial, social and local employment opportunities. The LGA hosts several trip generators and attractors as summarised below:

Table 3.1: Major Land Use Trip Generators and Attractors in Randwick

Trip generators	Descriptions
Strategic and local centres	• Randwick strategic centre located at the Randwick Collaboration Area • Maroubra Junction – Eastgardens strategic centre located across both Randwick and Bayside LGAs. • Coogee local centres • Matraville local centre • Kensington town centre • Kingsford town centre
Employment sectors including education, healthcare and medical and freight	• Randwick Hospital Campus • UNSW Kensington Campus • TAFE NSW Randwick • UNSW Randwick Campus • Port Botany
Coastal attractions	• Clovelly Beach • Coogee Beach • Maroubra Beach • Malabar Beach • Little Bay • La Perouse
Parks and recreation	• Centennial Park • Heffron Park • Kamay Botany Bay National Park • Malabar Headland National Park

3.2. Population, Employment and Demographics

3.2.1. Population and Employment Growth

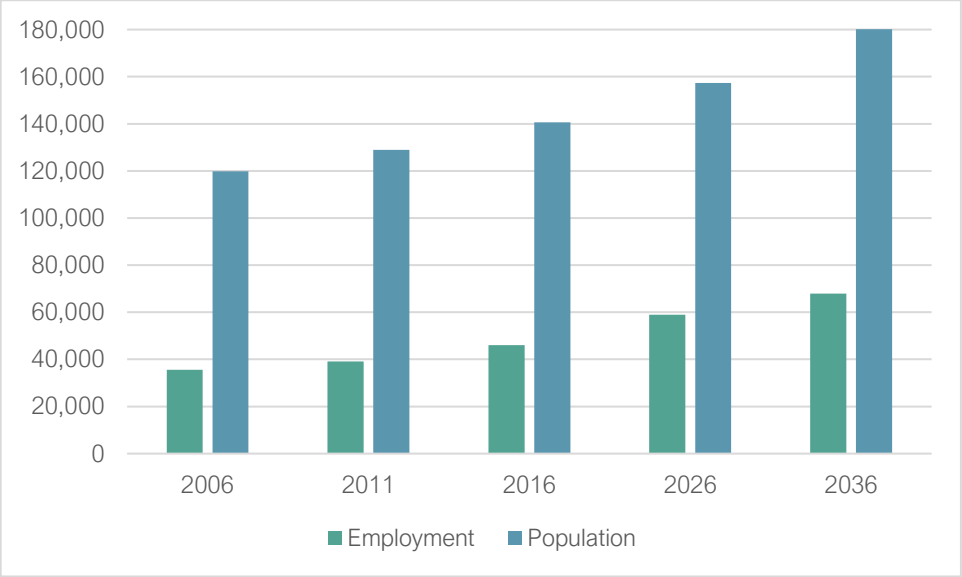
Figure 3.1 provides a summary of growth in population and employment from 2006 to 2016 and projections through to 2036 for the Randwick LGA, based on Australian Bureau of Statistics (ABS) data. The population of the area is forecast to grow from approximately 140,000 in 2016 to 180,150 in 2036. The population has grown by 17 per cent since 2006 and is expected to grow a further 28 per cent from 2016 to 2036. Based on 2019 NSW Population Projections, the average annual growth rate between 2016 to 2041 (25-year change) is expected to be 0.7 per cent.

By 2036, numbers of jobs within the LGA are expected to reach close to 68,000. The number of employed persons in the LGA (by place of work), has steadily increased between 2006 and 2016.

Data from the Eastern City District Plan (ECDP) shows that the population of the Eastern District is forecast to increase in population from 1,013,200 in 2016 to 1,338,250 in 2036 (32 per cent increase)[1]. The increase in population by 325,050 people during this time accounts for approximately 19 per cent of the Greater Sydney total (1,740,400). The population increase of Randwick City comprises 10 per cent of the total forecast population growth of the Eastern City District.

[1] Draft Housing Strategy -Appendix A - Demographic Analysis, Randwick City Council

Figure 3.1: Population and Employment Growth in Randwick



Source : ABS, Census data from 2006 to 2016, Population and employment projection data by Travel Zones from 2011 to 2056 (TfNSW)

Randwick City contained 52,872 jobs between 2017-2018. The healthcare and social assistance industry generated 13,583 local jobs in 2017 - 18, followed by education and training (11,872 jobs) There are 13,198 local businesses and more than 18 different industries.

Figure 3.2 shows the population growth currently expected over the next 20 years by travel zones (TZ)[2] for the Randwick LGA. It is shown that the population is forecast to increase by a total of around 40,000 people between 2016 and 2036 across nine TZs, including:

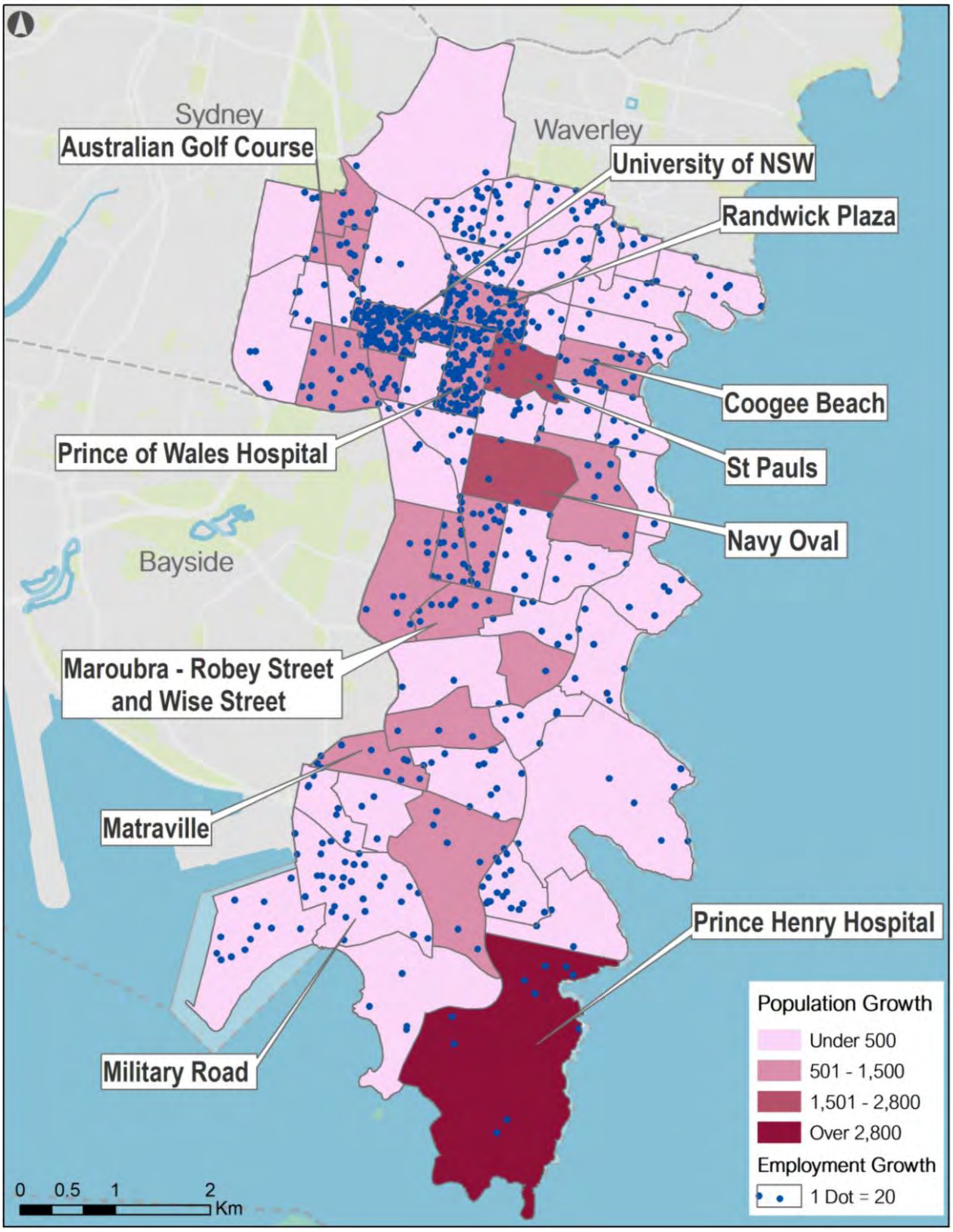
- Prince Henry Hospital
- Navy Oval
- St Pauls
- Prince of Wales Hospital
- Kensington Park
- Matraville
- Maroubra - Robey Street and Wise Street.

Other travel zones are only expected to have minimal population increase. The quantum of this growth as projected by TfNSW is aligned with the increased projected by ABS as cited earlier.

Figure 3.2 also shows forecast employment changes, which are mostly focused around the TZs of the UNSW, Randwick Plaza, Prince of Wales Hospital and Military Road. There are increases of approximately 2,900 jobs in the TZs of UNSW followed by around 1,640 to 1,750 in the TZs of Prince of Wales Hospital and Randwick Plaza by 2036. The other highest employment growth is forecast to happen in the Military Road TZ with 608 new jobs. Other travel zones are not expected to experience substantial employment growth.

[2] Travel Zones (TZs) are the spatial base of TfNSW's Transport Data Centre's (TDC) data collection, transport modelling and analysis.

Figure 3.2: Forecast Population and Employment Growth (2016 to 2036)



Source: ABS, Regional Population Growth, Australia

3.3. Demographics

3.3.1. Socio-economic conditions

The Socio-Economic Indexes for Areas (SEIFA) Index of Disadvantage measures the relative level of socio-economic disadvantage based on a range of Census characteristics. The index is derived from attributes that reflect disadvantage such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. A higher score on the index means a lower level of disadvantage. A lower score on the index means a higher level of disadvantage.

The map below shows the SEIFA index for the LGA based on Statistical Area Level 1 (SA1)[3] polygons and the graph shows the index score and percentiles of each suburb within the LGA.

The percentile of 99 for Clovelly indicates that approximately 99 per cent of Australia's suburbs have a SEIFA index lower than this area (more disadvantaged). As the both graph and map illustrate, there is an obvious difference between the eastern and western sides of the LGA in terms of the SEIFA index scores. Some suburbs like Clovelly, Coogee and Randwick are significantly more advantaged compared to other suburbs like South Coogee, Malabar and Kigsford. The spatial differences in disadvantage has immediate implications for the provision of transport infrastructure and services in the LGA, as disadvantaged communities are more likely to be more dependent on public transport and expenditure on transport (fuel, fares, etc.) would make up a higher proportion of household income.

Figure 3.3: SEIFA Index at a SA1 Level

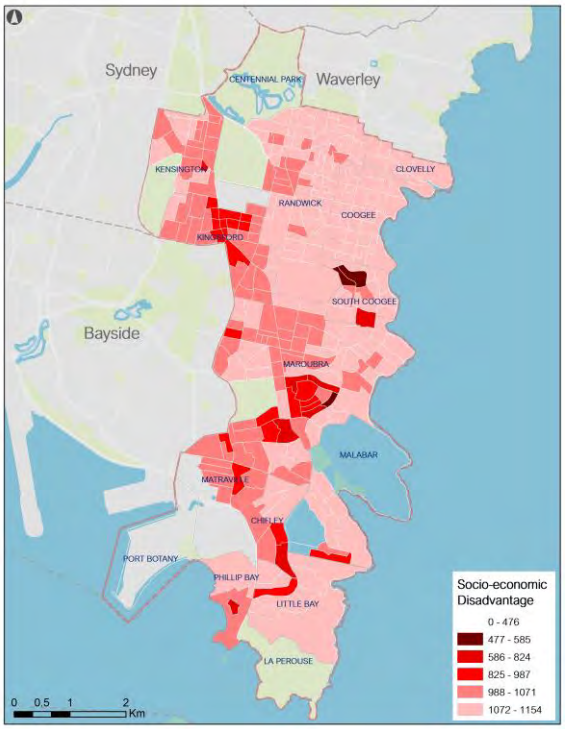
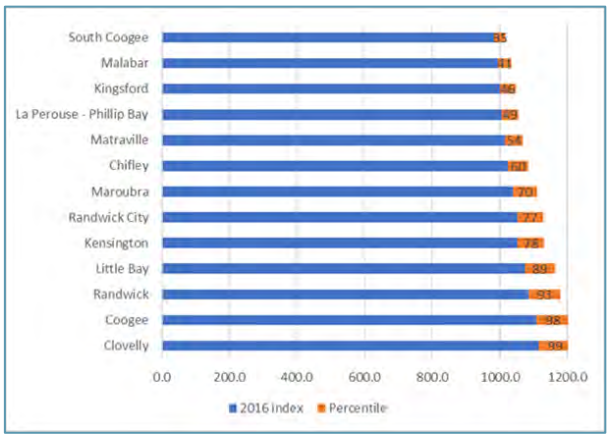


Figure 3.4: SEIFA Index and Percentile for Randwick LGA Suburbs



Source: ABS, Census of Population and Housing 2016

[3] Statistical Areas Level 1 (SA1) are geographical areas built from whole Mesh Blocks. The SA1s have generally been designed as the smallest unit for the release of census data. SA1s have a population of between 200 and 800 people with an average population size of approximately 400 people.

3.3.2. Car Ownership

The ability of the population to access services and employment is strongly influenced by access to transport. Analysis of household car ownership in the LGA from the 2016 Census compared to Greater Sydney in Figure 3.5 shows that 40 per cent of households owned one car, while 17 per cent did not own a car, compared with 35 per cent and 11 per cent respectively in Greater Sydney. Furthermore, the analysis shows 33 per cent of households had access to two or more vehicles in 2016, compared to 46 per cent in Greater Sydney.

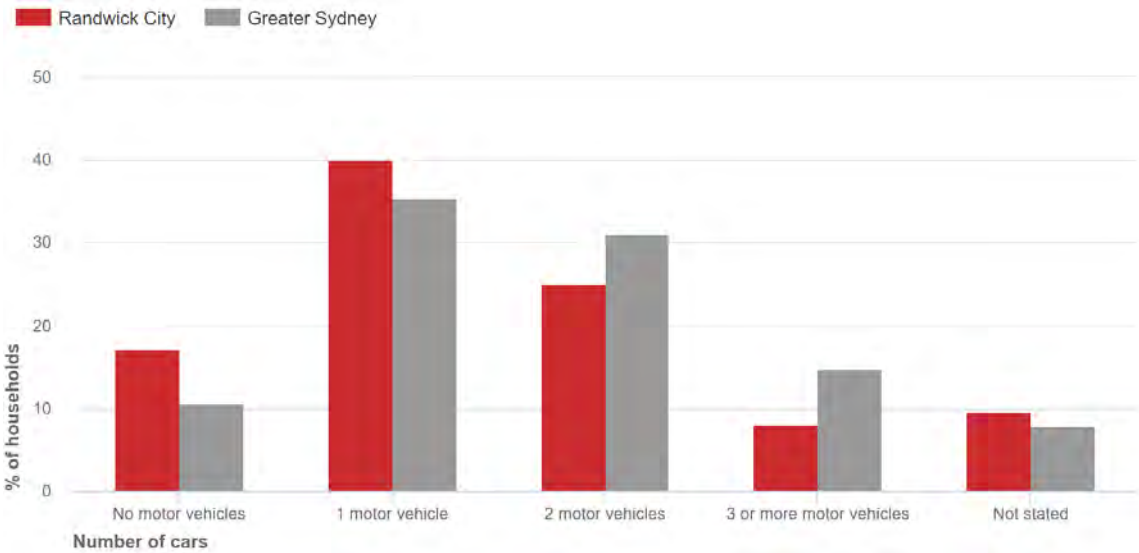
Figure 3.6 shows a comparison of car ownership between suburbs within the LGA.

Key findings from this analysis include:

- Between 25 to 30 per cent of households in Kingsford and Kensington have no motor vehicle.
- Only around six per cent of household in Little Bay have no motor vehicle, potentially due to poor accessibility to frequent public transport (refer to Section 4 below).
- Clovelly, Coogee and Randwick have a higher percentage of one-vehicle ownership in comparison to the LGA-wide rate.
- La Perouse households have the highest percentage of households owning three or more cars.

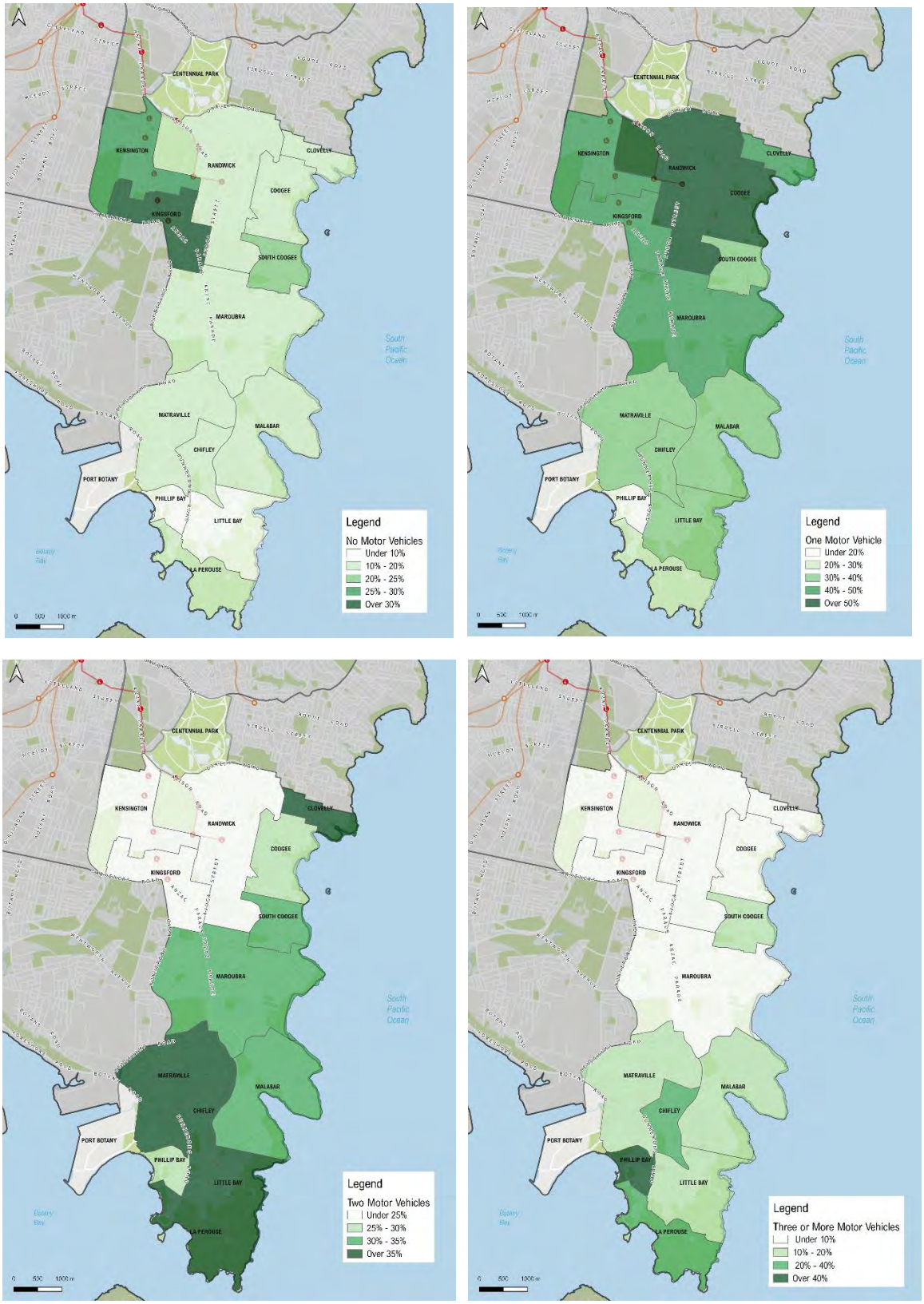
Accordingly, there are clear spatial variances in car ownership within the LGA in terms of suburbs that are farther south having a higher rate of ownership of multiple cars than other suburbs in the LGA, coinciding with a lack of frequent public transport in these areas (refer to Section 4.2 below).

Figure 3.5: Comparison of Car Ownership Percentage Between Randwick and Greater Sydney



Source: https://profile.id.com.au/randwick/car-ownership

Figure 3.6: Comparison of Car Ownership Percentage Between Suburbs



Source: GTA Consultants based on ABS 2016 Census data

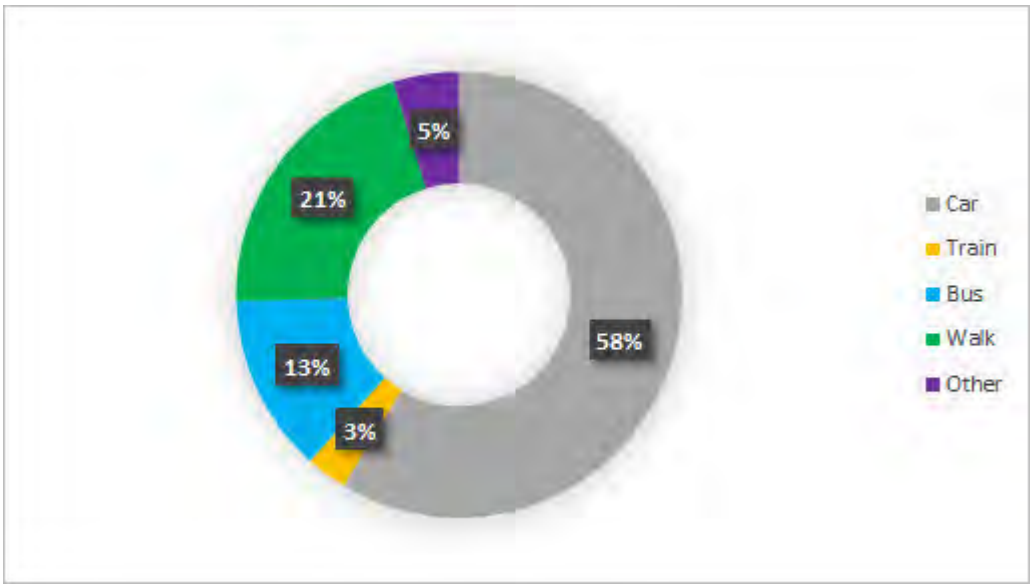
3.4. Travel Patterns and Demand

3.4.1. Mode Split

Figure 3.7 shows the all-day travel mode share for residents in the study area based on the TfNSW Household Travel Survey Data from 2018-2019. It is shown that 58 per cent of all trips are undertaken by private vehicle (car driver, car passengers and taxi). Private vehicle trips are likely a reflection of the isolated location of the southern suburbs from other parts of Greater Sydney as well as the absence of a high frequency and rapid transit network (trains, metro, light rail or frequent buses). Nonetheless, this mode share is still lower than the 69 per cent of all trips in Greater Sydney via private vehicle.

A further 13 per cent of trips are undertaken on the bus network with only three per cent of trips by train as there is no train station serving the LGA. Across Greater Sydney, bus mode share is lower than Randwick at six percent, whereas the portion of trips by train is higher than Randwick at six per cent. About 21 per cent of trips are undertaken by walking and the average distance of these trips is less than one kilometre. This figure is very similar to the Greater Sydney walking mode share of 18 per cent.

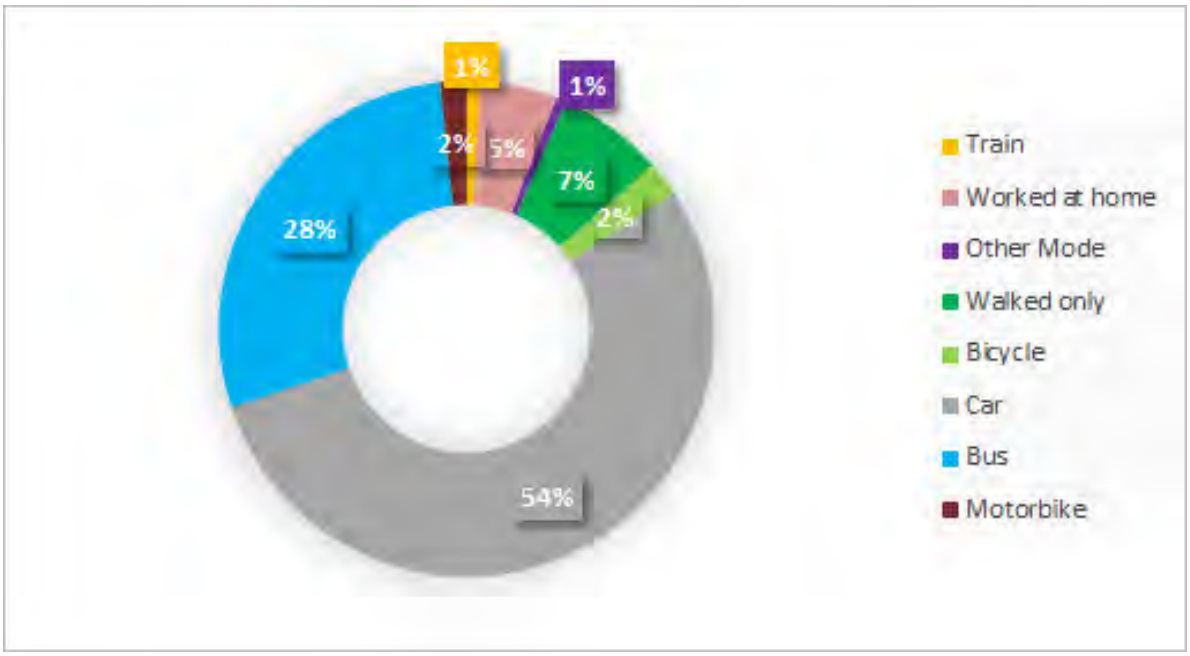
Figure 3.7: Mode Share for All Trips by Residents in Randwick LGA



Source: Household Travel Survey (HTS), TfNSW

Figure 3.8 shows the mode share for journey to work trips based on census data in 2016. Approximately 56 per cent of commute trips were made by private vehicle versus 29 per cent on public transport (comprising mainly bus at 28 per cent) and 9 per cent by active transport. Figure 3.8 illustrates that approximately five per cent of residents do not commute to work as they work from home.

Figure 3.8: Mode Share Journey to Work

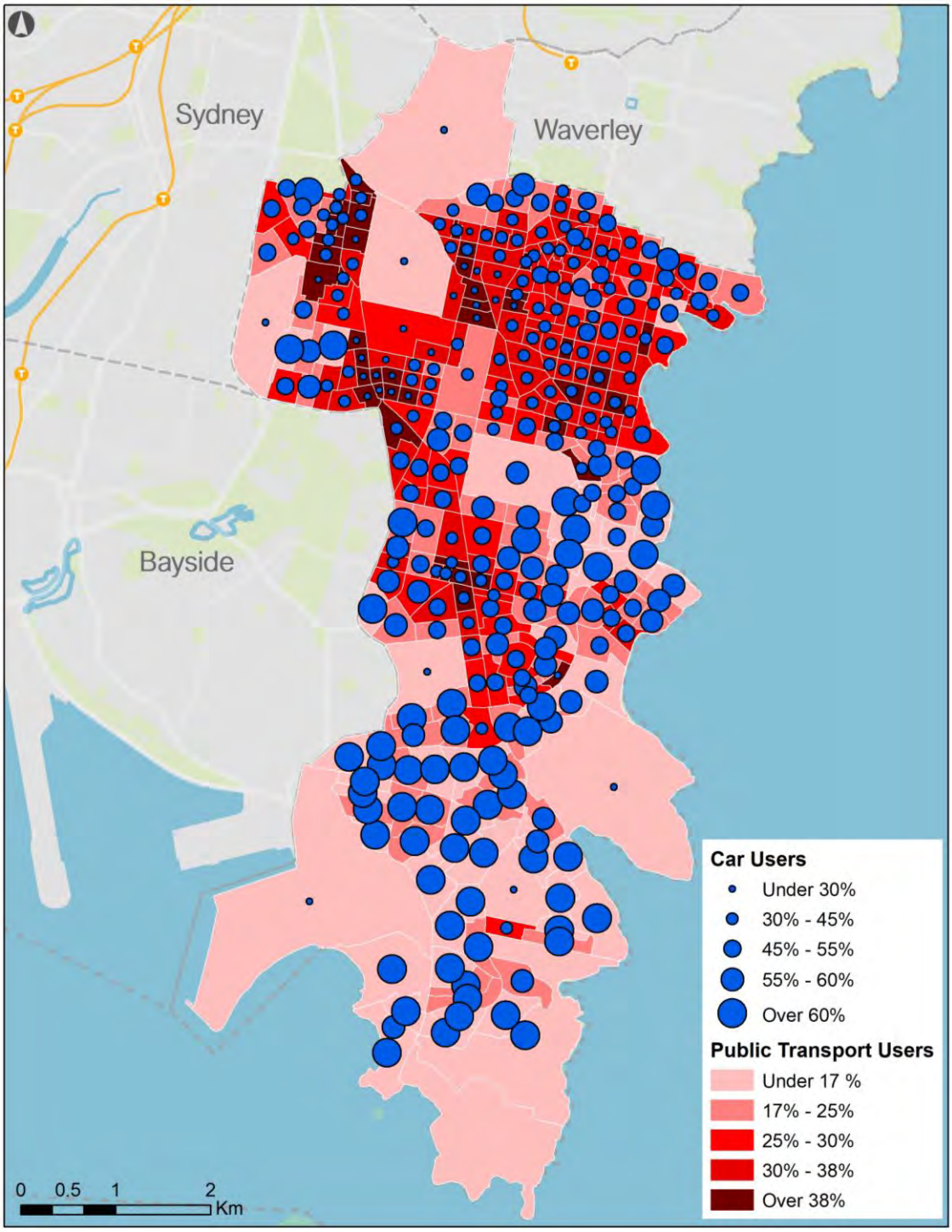


Source: ABS - 2016 Census of Population and Housing

Figure 3.9 below illustrates the percentage of the LGA's residents who use public transport to travel to work in comparison with those who drive to work based on Statistical Area 1 polygons (SA1). The map shows that 38 to 50 per cent of residents living mostly within the northern part of the LGA are using public transport for their commute. This part of Randwick City is well serviced by frequent bus services toward destinations such as the Sydney city centre.

As expected, in areas in the south of the LGA and away from Anzac Parade which have a lower level of access to the frequent and rapid public transport network, a much higher proportion of residents (in some cases over 80 per cent) uses the car to travel to and from work. These areas are usually characterised by low density living, mostly single dwellings with plenty of on-street and off-street parking available and served poorly or not at all by public transport (see sub-section 4.2.1 below for an analysis of bus frequencies).

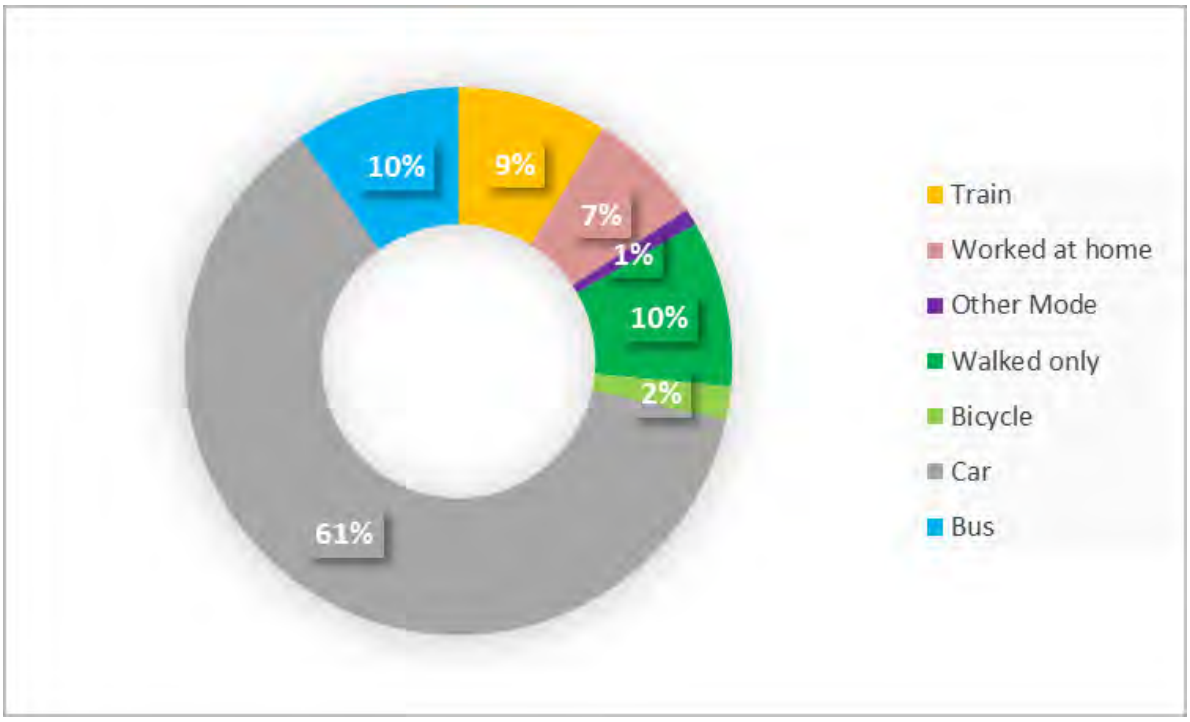
Figure 3.9: Car Use vs. Public Transport Use Map (Journey to Work)



Source: GTA Consultants based on ABS 2016 Census data

Figure 3.10 illustrates the method of travel for those who travel from outside into the LGA for work based on data extracted from the 2016 Census. Of the 41,556 people who work in the LGA, approximately 61 per cent travel by private vehicle including car as a driver and car as a passenger, while 19 per cent of them used a bus or train to travel to work. Twelve per cent used active transport to go to work, comprising ten per cent walking and two per cent cycling to work.

Figure 3.10:Workers' Method of Travel to Place of Work within Randwick LGA

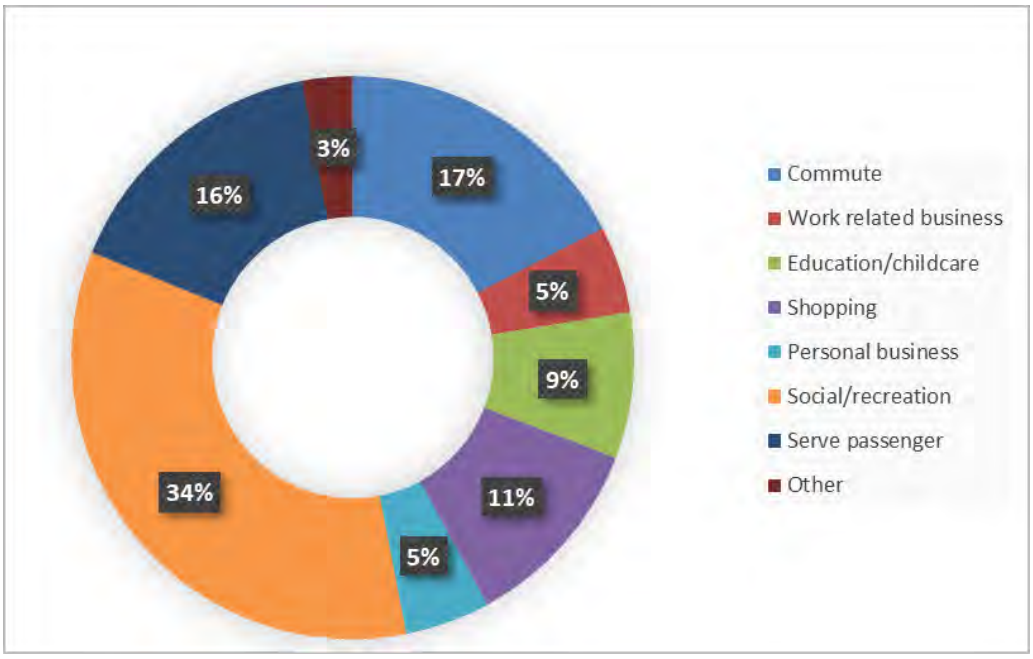


Source: ABS 2016 Census

3.4.2. Trip Purpose

All trip purposes for residents in the LGA based on Household Travel Survey data are shown in Figure 3.11 for 2018/ 2019. The most common trip purpose was social or recreational activities (34 per cent), followed by commuting and serving passengers (e.g. dropping someone off) at 17 per cent and 16 per cent of all trips respectively, followed by shopping at 11 per cent. Trips for education are only nine per cent of all trips, despite the presence of UNSW campuses throughout the LGA.

Figure 3.11:Trip Purpose for the Randwick LGA

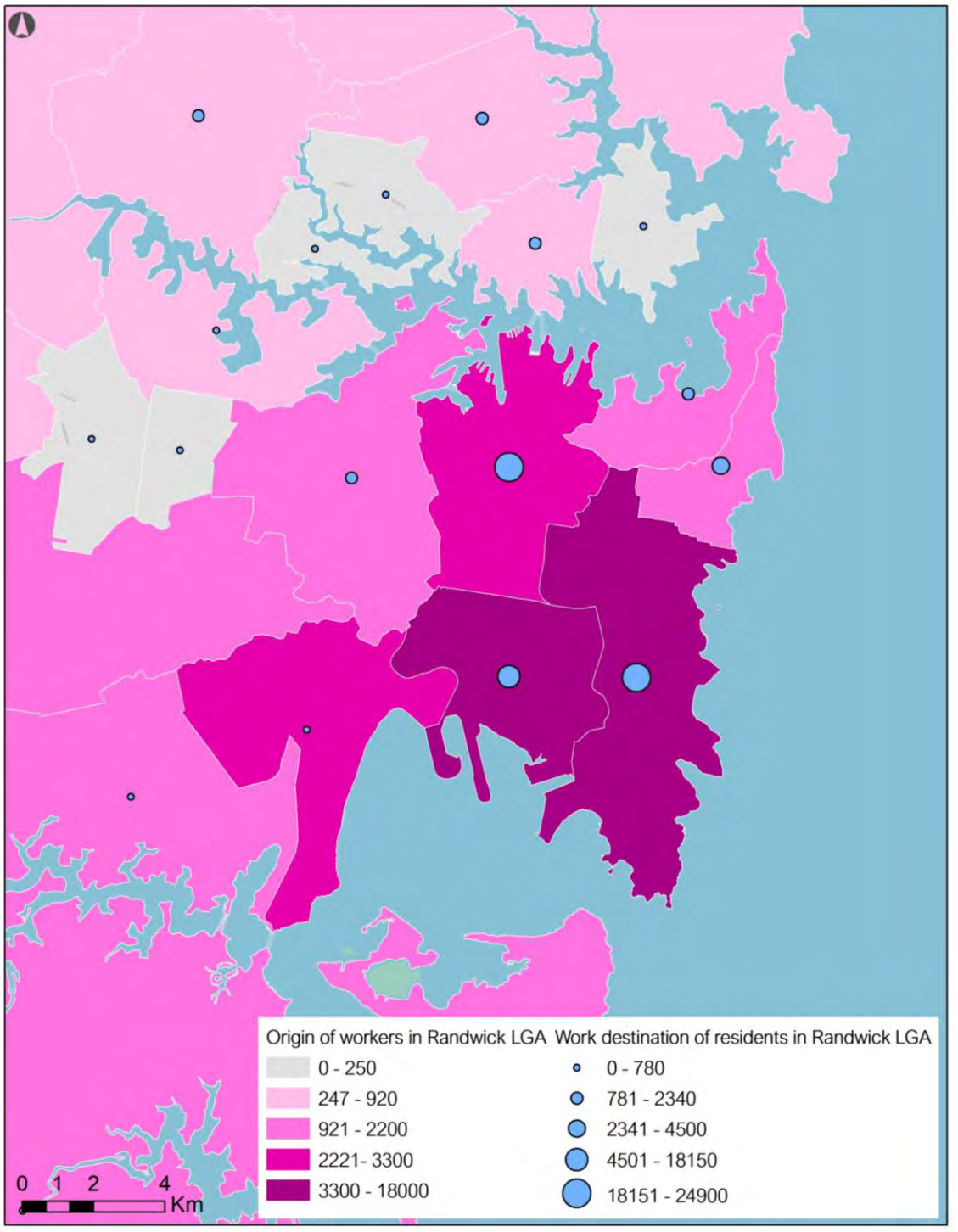


Source: Household Travel Survey (HTS), TfNSW

3.4.3. Work Origin and Destination

As shown in Figure 3.12, those who work in the LGA predominantly live within the LGA itself or in the adjoining LGAs of Bayside and City of Sydney. This trend equally extends to the work destination of residents in the Randwick LGA as the predominant work destinations are in Randwick, Bayside and the City of Sydney LGAs. This trend suggests not only a strong rate of trip containment for work purposes (see sub-section 3.4.4 below) but that the journey to work distances for those living in or working in the LGA are shorter compared to other parts of Greater Sydney.

Figure 3.12:Origin of workers and work destinations of residents in Randwick LGA



3.4.4. Trip containment

The proportion of individuals living and working in the same labour market region is referred to as the level of self-containment and is seen as a positive as it reduces the length of trips and can also lead to greater flexibility at what time the trips are undertaken (e.g. outside peak times).

Trip containment has important environmental consequences in its capacity to increase the likelihood of transport to work via methods other than private cars, given distances between home and work are probably shorter. Despite the shorter distances, car use may be the only viable commuting option unless appropriate public transport and safe active transport facilities is available between nearby areas within the LGA, rather than a focus on transport infrastructure and services for trips toward employment destinations outside of the LGA.

Figure 3.13 shows that that 39 per cent of workers live and work in Randwick while approximately 61 per cent of workers in Randwick live outside the area. As a comparison, Greater Sydney has a 43 per cent trip containment for workers at a Statistical Area Level 4 (SA4)[4].

Figure 3.13: Percentage of Residential Location of Local Workers, 2016

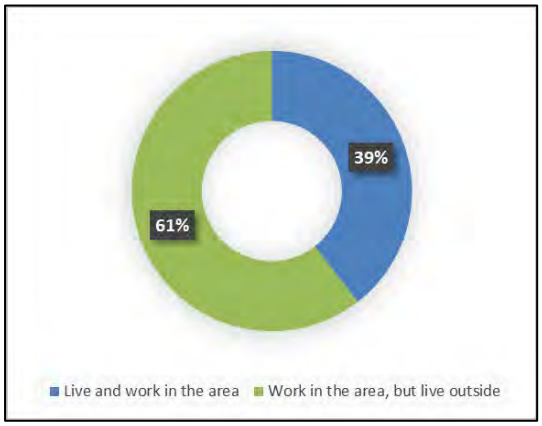
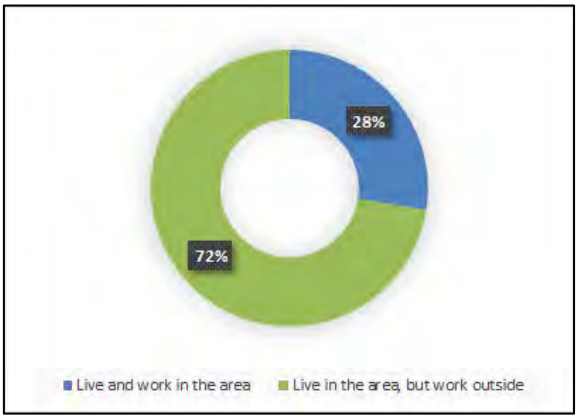


Figure 3.14: Percentage of Employment Location of Randwick Resident, 2016



Source: ABS, Census of Population and Housing 2016

In comparison, Figure 3.14 shows the employment location of local Randwick City residents. As evident in this figure, 28 per cent of residents also work in Randwick, while 72 per cent of residents work outside the LGA, which makes having good transport connections to major employment centres an ongoing priority. To provide some comparative context, 73 per cent of residents within the North Sydney LGA travel outside of the LGA for work, while 77.5 per cent of Inner West Council Residents commute outside of the LGA, indicating that comparable LGAs close to the Sydney city centre have similar trip containment rates as Randwick LGA.

[4] SA4s are geographical sub-regions and have been designed for the output of a variety of regional data

4. EXISTING TRAVEL NETWORKS

4

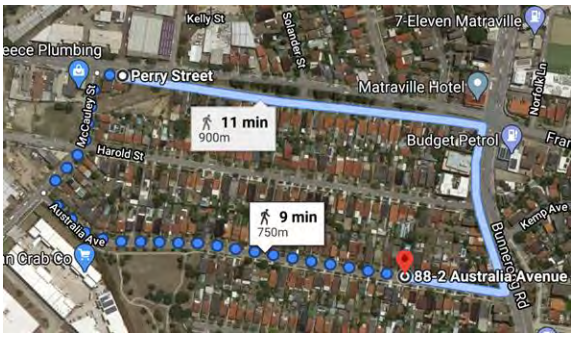
4.1. Active Transport Network

4.1.1. Walking

Nearly all streets within the Randwick City have sealed footpaths on both sides. In general, pedestrian access to most key destinations is intuitive without the need to take large detours. Key intersections have signalised pedestrian crossings, while other intersections have zebra crossings or refuge islands. Overall, walking access within the LGA is good, however, there are still examples of selected street blocks that have limited permeability and require detours. Examples of blocks that require long detours can be found in Avoca Street, Randwick where there is a large block without through lanes or active transport links (Figure 4.1). Similar gaps in pedestrian permeability can be seen in Harold Street and Perry Street, Matraville where the block size ranges from 500 to 800 metres in length (Figure 4.2).

Figure 4.1: Avoca Street, Randwick

Figure 4.2: Harold Street and Perry Street, Matraville

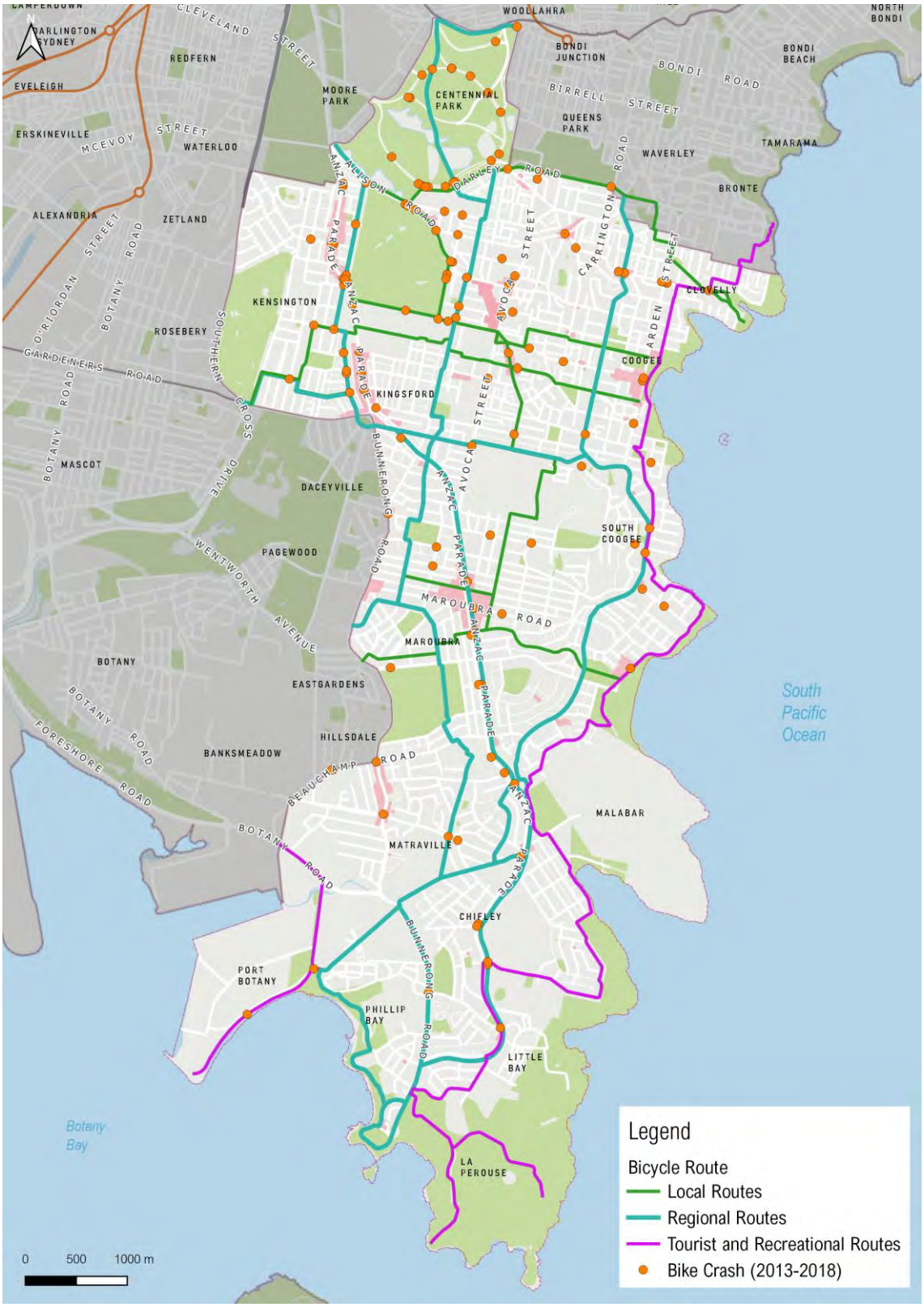


4.1.2. Cycling

Figure 4.3 shows the bicycle network across the LGA and the locations of crashes which involved a bicycle. The map shows the regional bicycle routes provide better north-south connectivity than east-west links across the LGA. The map shows an obvious lack of local bicycle routes especially in the southern suburbs including Matraville, Little Bay and Chifley. The LGA also has a north-south tourist and recreational bicycle route along the coast which is connected to regional bicycle routes.

Bicycle crash points occur around the town centres including Kingsford, Kensington and Randwick, indicating that even though many of these points occur along or near 'regional' or 'local' routes, it is not the classification of the route that has a bearing on safety, rather it is the quality of bicycle route separation from general traffic that is a determinant of cycling safety. For instance, the regional route along Houston Road in Kingsford features only painted cycle lanes that have no protection from general traffic lanes and a mixture of angled and parallel parking lanes, despite its purpose as a regional route for a greater volume of cycling movements.

Figure 4.3: Existing Bicycle Routes and Bike Crashes within Randwick LGA



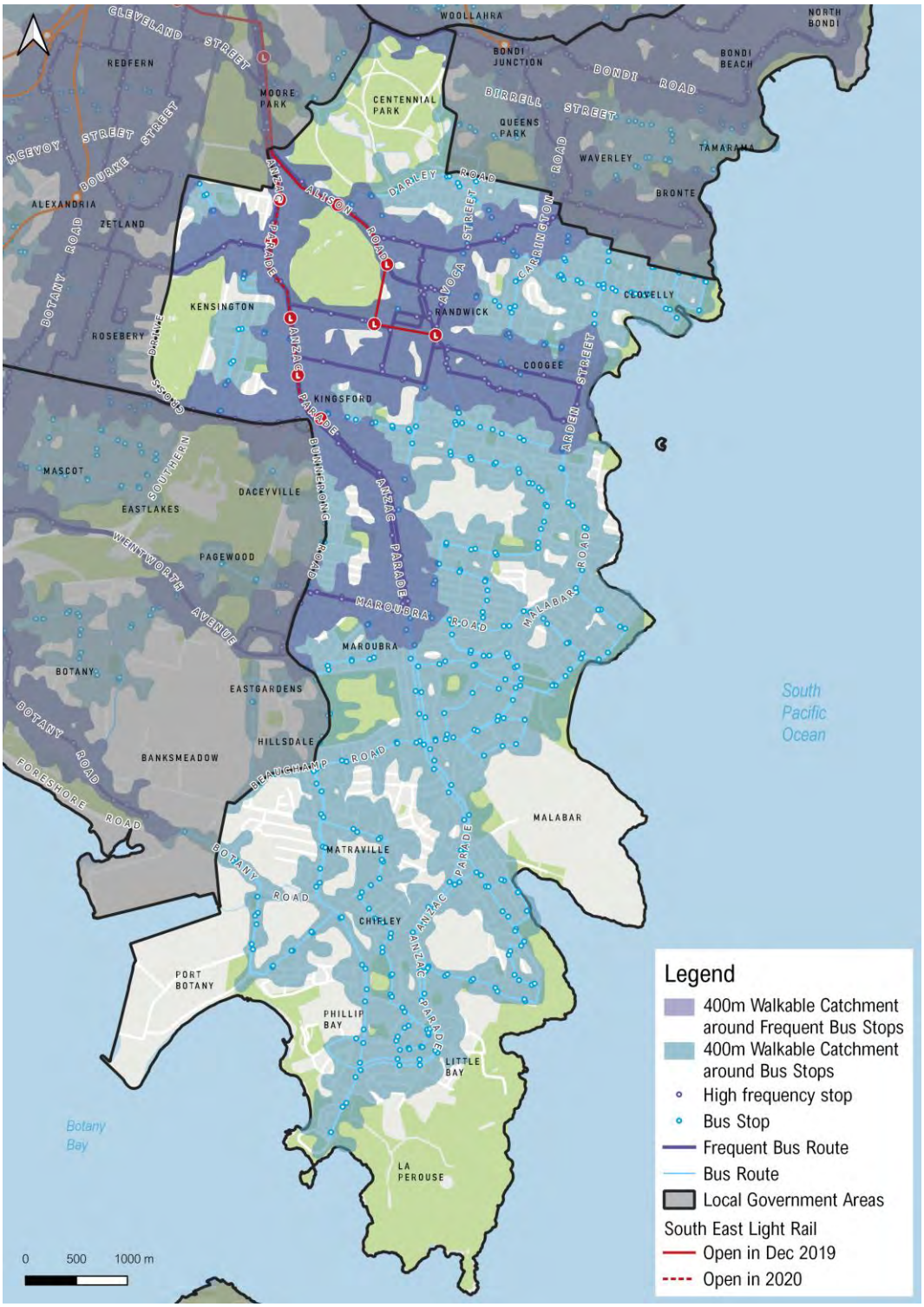
Source: GTA Consultants based on data from Randwick City Council

4.2. Public Transport Network

4.2.1. Bus

Figure 4.4 shows the walking catchments from high frequency bus stops (i.e. bus stops served by routes that have a headway of 15 minutes or better all-day) as well as all other bus stops within the LGA. The map shows Kingsford, Kensington, Coogee and Randwick have a better coverage of 400-metre walking accessibility to frequent bus stops than other parts of the LGA. However, the vast majority of the LGA only has access to infrequent public transport (i.e. a headway of more than 15 minutes) within a 400-metre walk. Furthermore, some parts of Matraville and Little Bay are beyond a 400-metre walk to a bus stop, irrespective of service frequency.

Figure 4.4: Walkable Catchment from Bus Stops



Source: GTA Consultants based on TfNSW timetable data from March 2019.

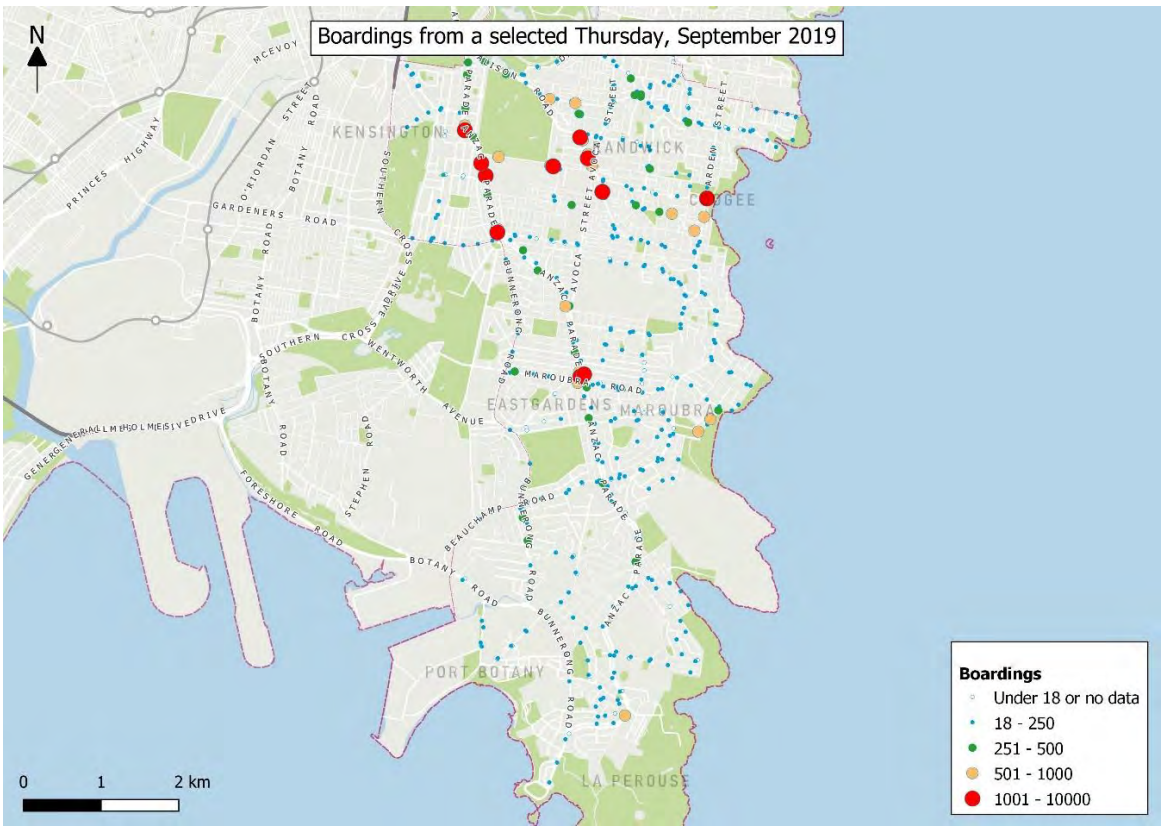
4.2.2. Public Transport Patronage

Bus and rail boarding and alighting statistics in the study area are shown in Figure 4.5 to Figure 4.8 below, based on Opal data obtained from TfNSW for a selected Thursday and Saturday in September 2019. It is worth noting that the Opal data received anonymises trips from stops with fewer than 18 boardings or alightings on unique trip pairs, which explains the numerous white dots indicating 'fewer than 18 or no data' boardings in Figure 4.5 to Figure 4.8 below. Patronage from the Sydney City and Southeast Light Rail that opened in December 2019 was not made available.

Key findings from this patronage analysis are:

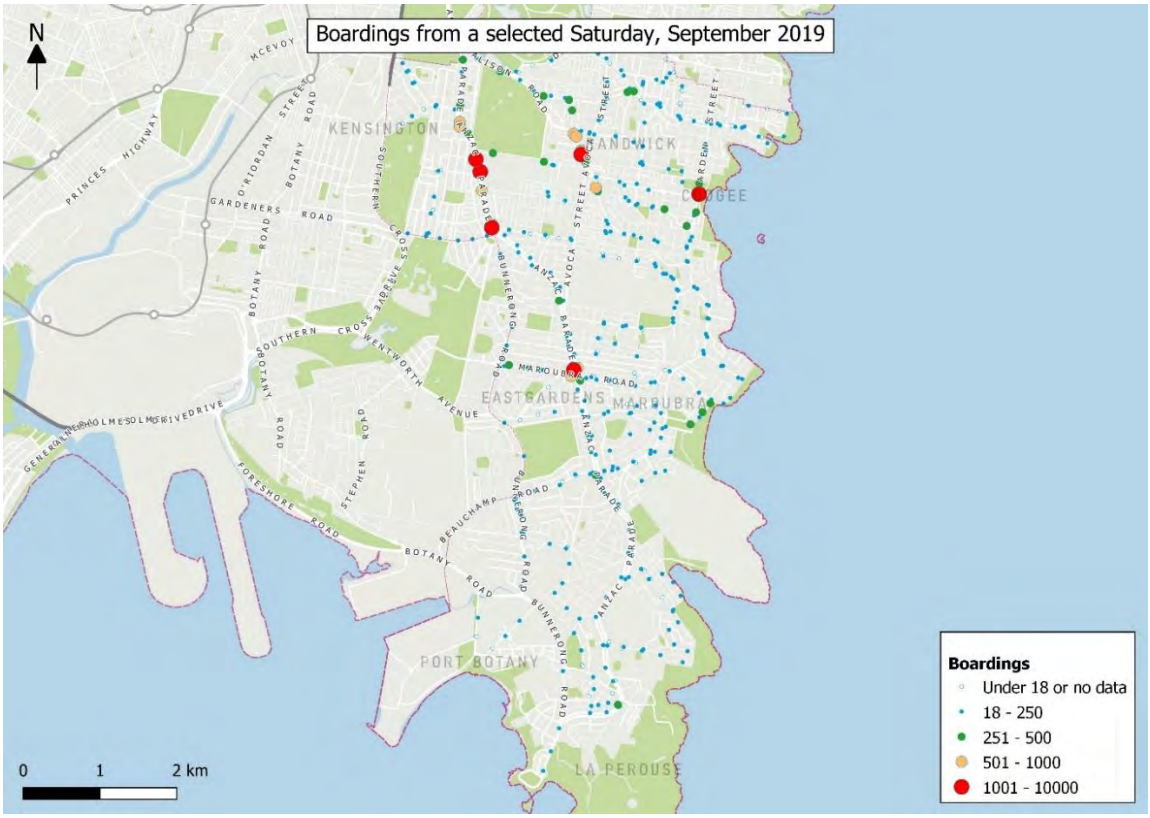
- Major boarding locations on both the Thursday and Saturday are concentrated in the town centres of Coogee, Eastgardens, Randwick, Kingsford and Kensington, with no significant concentrations of boardings south of Eastgardens or outside of town centre environments. This suggests that boarding patterns are responsive to service frequency due to the absence of frequent bus services in the southern half of the LGA, and that the agglomeration of people, services and jobs in town centres contribute to higher boarding volumes.
- As regards alightings, asides from a significant concentration of activity in Randwick and Kingsford, alightings are distributed at stops all throughout the LGA, suggesting marked differences in boarding and alighting behaviour among public transport users in Randwick.

Figure 4.5: Public Transport Boardings, Selected Thursday in September 2019



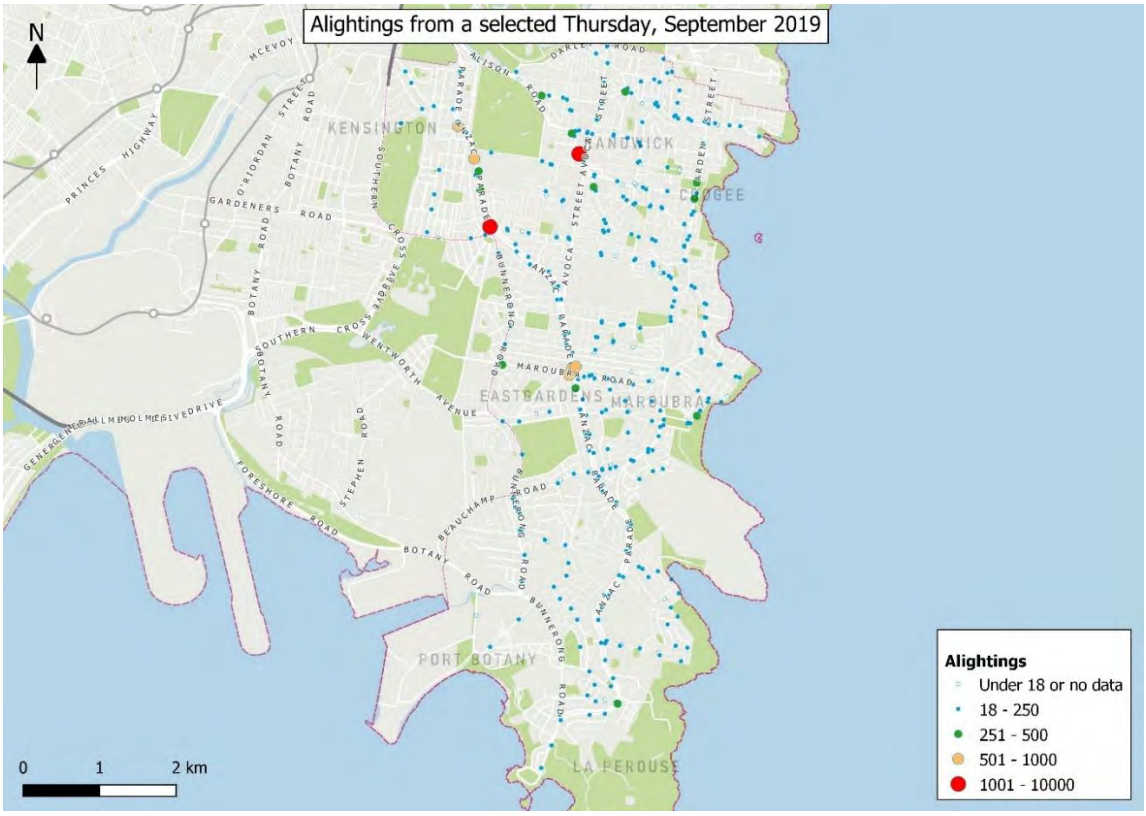
Source: GTA Consultants based on TfNSW data

Figure 4.6: Public Transport Boardings, Selected Saturday in September 2019



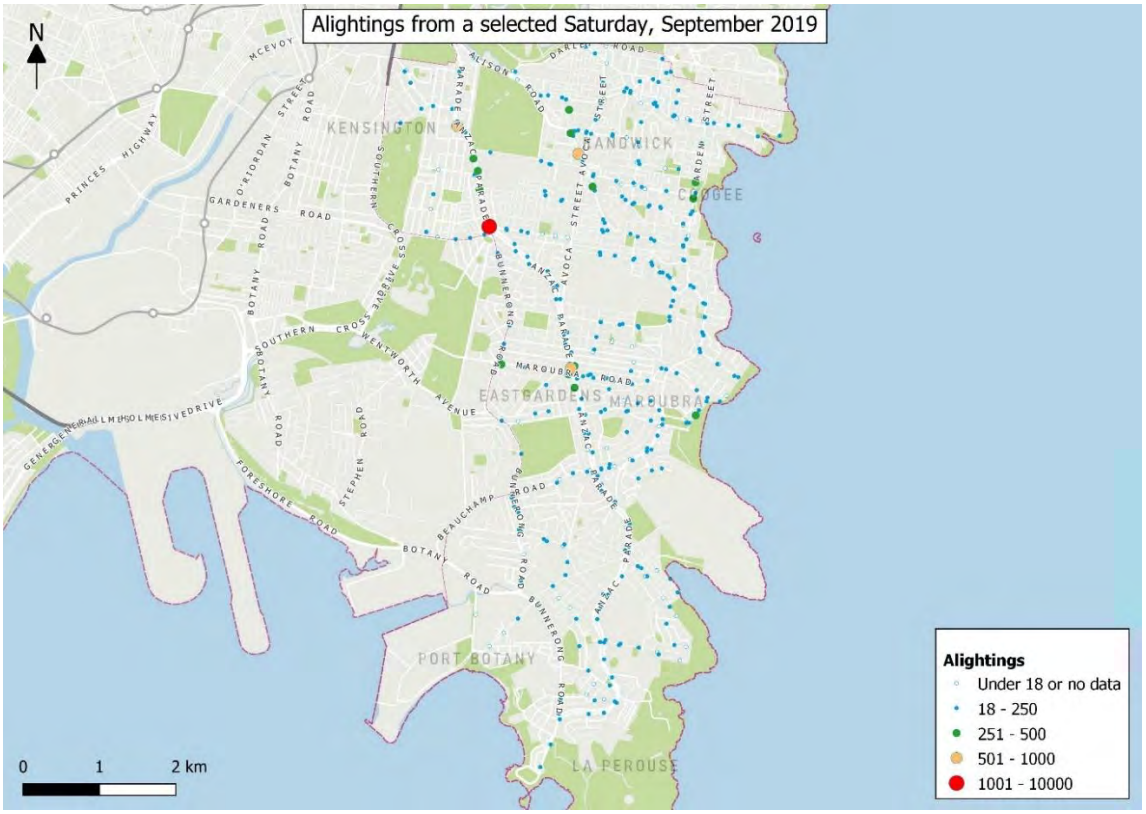
Source: GTA Consultants based on TfNSW data

Figure 4.7: Public Transport Alightings, Selected Thursday in September 2019



Source Data: Transport for NSW

Figure 4.8: Public transport alightings, selected Saturday in September 2019



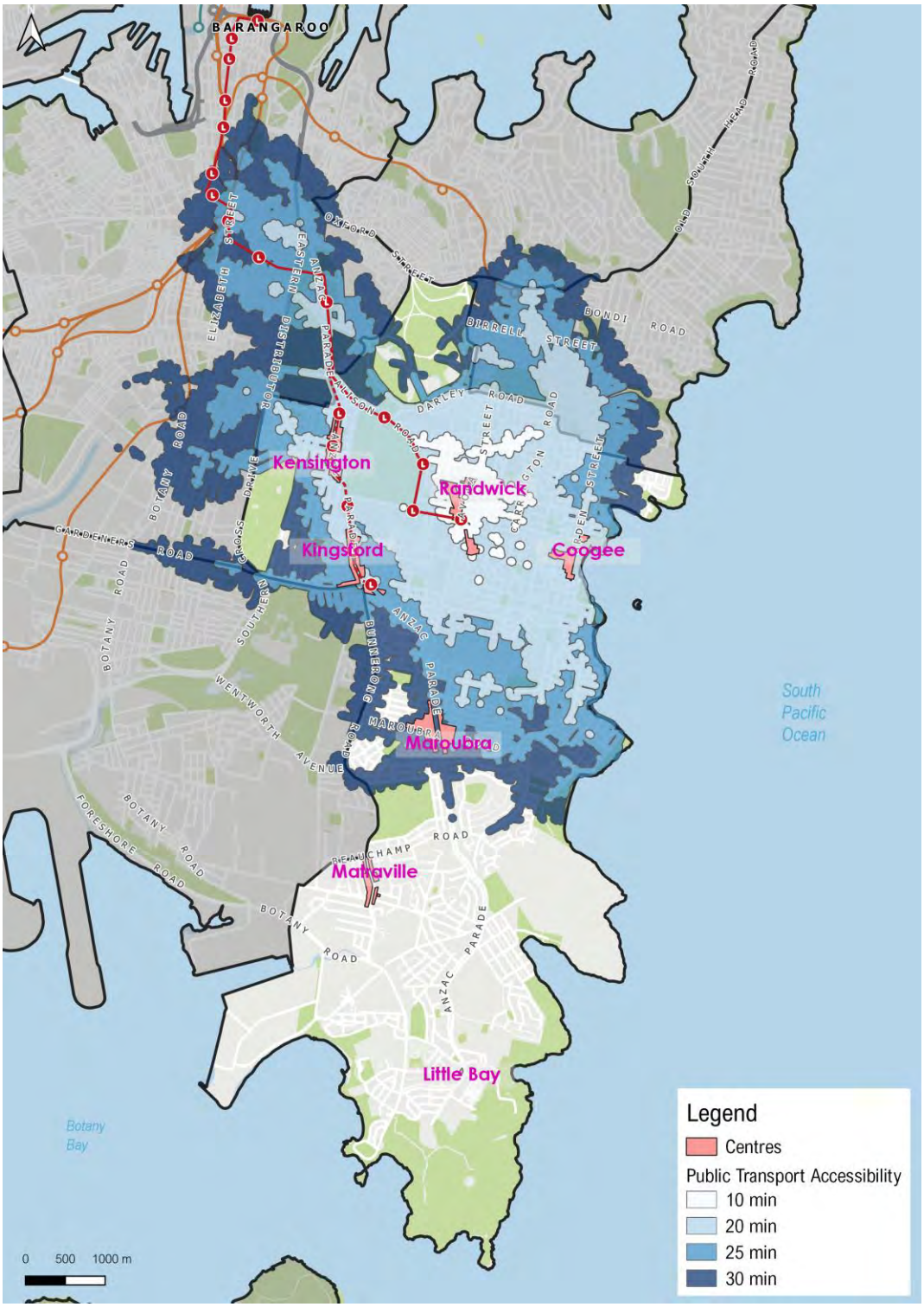
Source Data: Transport for NSW

4.2.3. Accessibility

Thirty-minute public transport accessibility from selected centres, including Randwick and Maroubra as Strategic Centres, Kingsford, Kensington and Matraville as Town Centres, and also Coogee and Little Bay as Neighbourhood Centres within the LGA is in Figure 4.9 to Figure 4.13. This analysis is based on timetable data from March 2019 which is the most recent publicly available General Transit Feed Specification (GTFS) dataset, so it does not account for any recent changes to the bus network as well as the opening of the light rail line. The extracted data is related to a weekday (Wednesday) at 10:00am.

Figure 4.9 illustrates the 30-minute catchment of public transport from the Randwick Centre. It shows the easy access to areas north and northwest of Randwick (e.g. the Sydney CBD and Bondi Junction) and highlights the lack of public transport access to suburbs in the south of the LGA (including Matraville and Little Bay). These areas have no frequent or direct bus services to Randwick which lowers accessibility and consequently attractiveness of public transport for their residents.

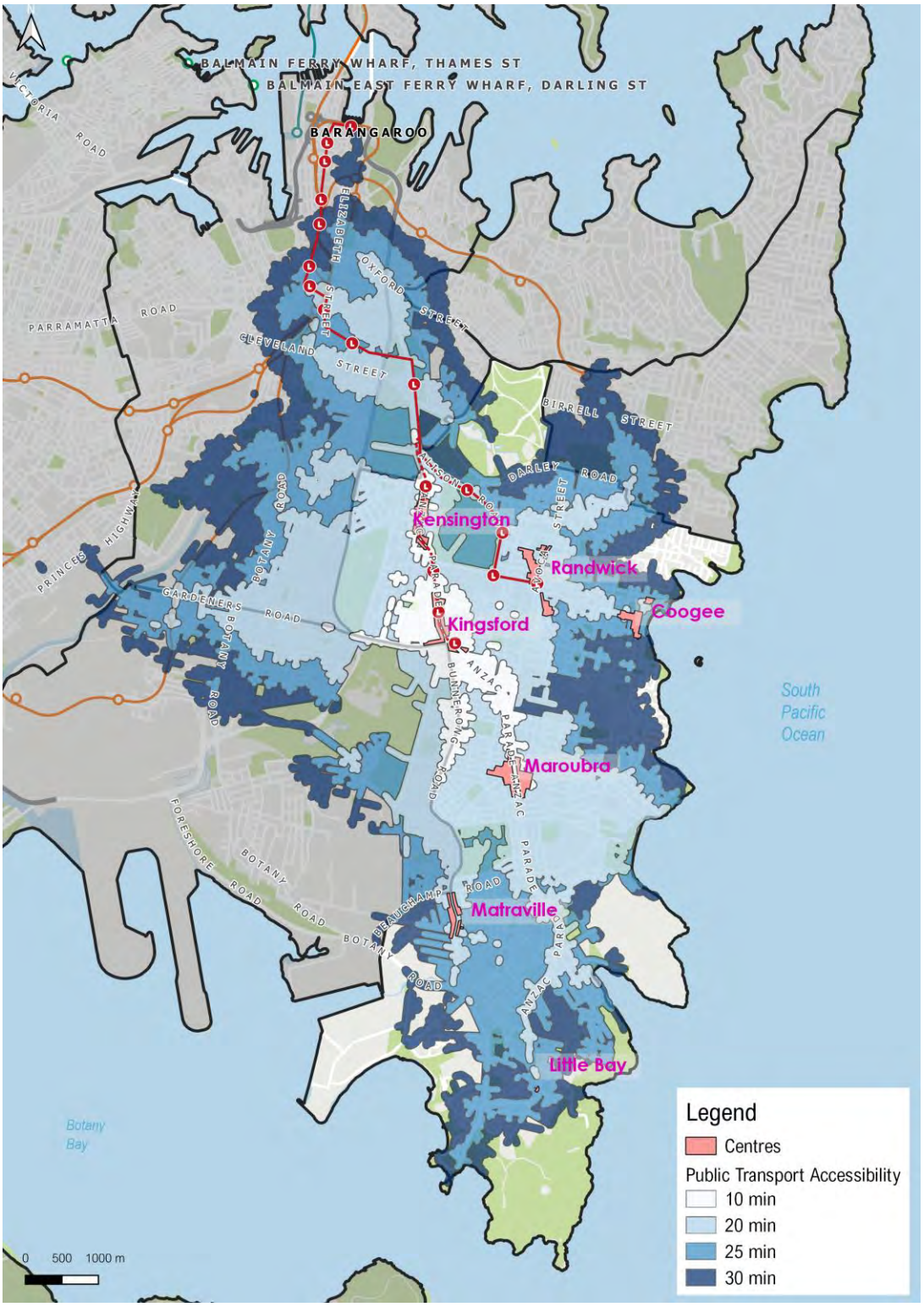
Figure 4.9: Public Transport Accessibility from Randwick



Source: GTA Consultants based on data extracted from Targomo, using TfNSW timetable data from March 2019.

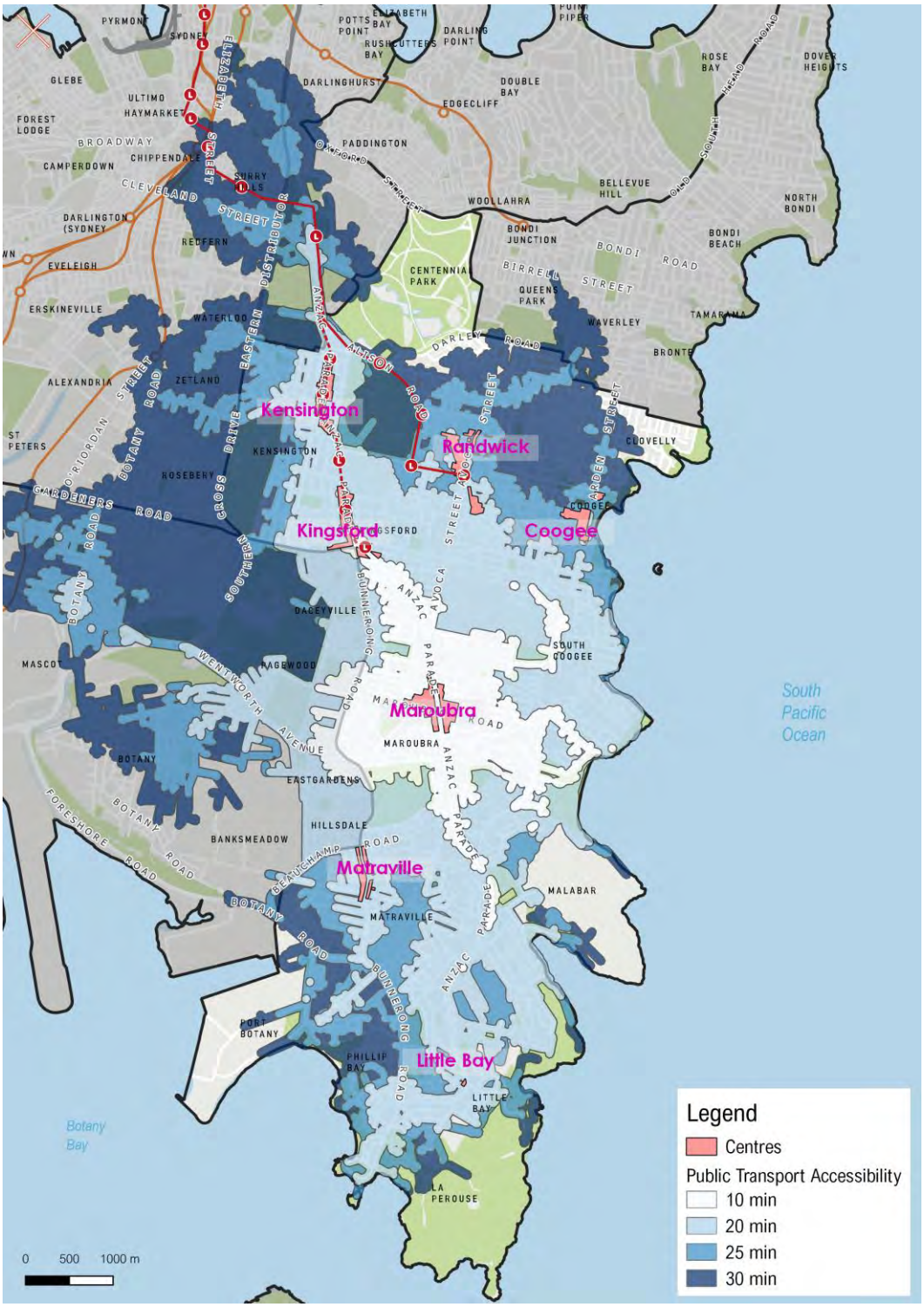
Figure 4.10, Figure 4.11 and Figure 4.12 show that residents from the Kingsford, Maroubra and Kensington centres can access the Sydney CBD within 30 minutes along with all the LGA by bus. However, the figures show that the public transport network is focused on access to the Sydney CBD but not other employment destinations (e.g. Sydney Airport, Port Botany), leaving those areas difficult to access by public transport.

Figure 4.10:Public Transport Accessibility from Kingsford



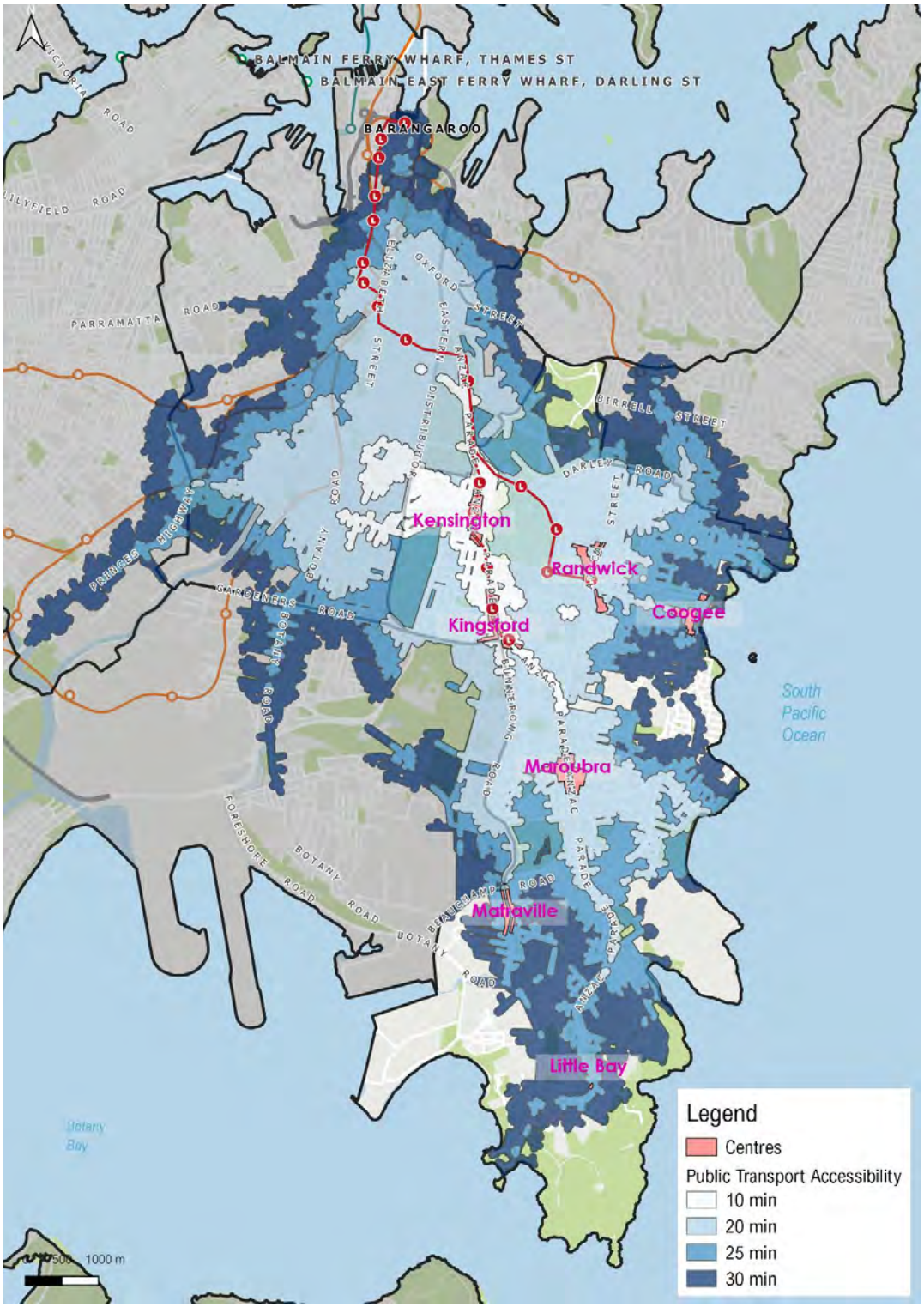
Source: GTA Consultants based on data extracted from Targomo, using TfNSW timetable data from March 2019.

Figure 4.11:Public Transport Accessibility from Maroubra



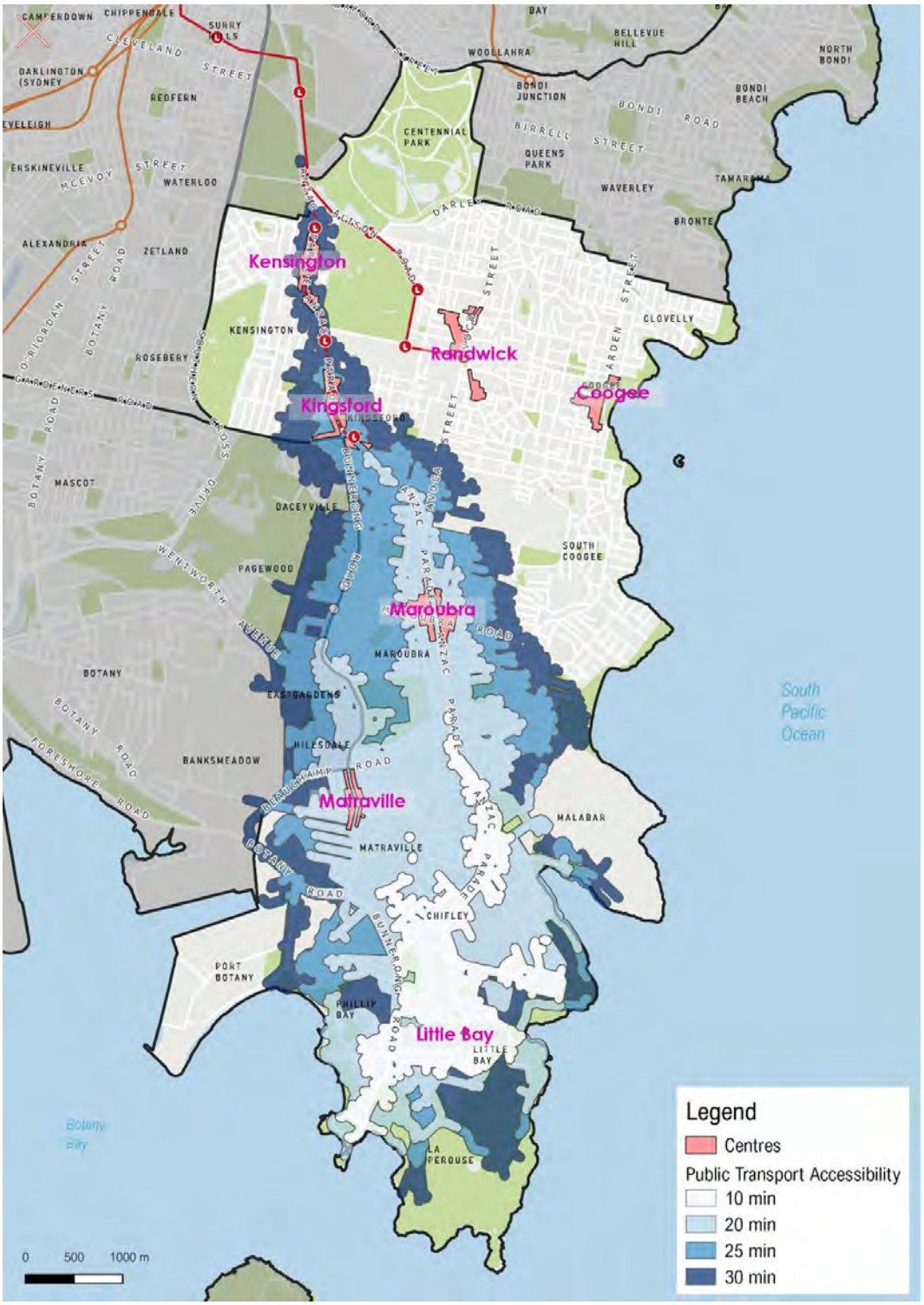
Source: GTA Consultants based on data extracted from Targomo, using TfNSW timetable data from March 2019.

Figure 4.12:Public Transport Accessibility from Kensington



Source: GTA Consultants based on data extracted from Targomo, using TfNSW timetable data from March 2019.

Figure 4.13:Public Transport Accessibility from Little Bay



Source: GTA Consultants based on data extracted from Targomo, using TfNSW timetable data from March 2019.

Figure 4.13 shows the overall poor level of public transport accessibility from Little Bay to the northern suburbs of the LGA, including Coogee, Randwick and most of Kensington, highlighting a dearth of frequent bus routes from the southern parts of the LGA to the north as well as long journey times.

4.3. Road Network

4.3.1. Hierarchy

Major north-south roads in the LGA comprise Anzac Parade, Bunnerong Road, Malabar Road, Avoca Street and Arden Street intersecting with major east-west roads including Alison Road, Coogee Bay Road, and Rainbow Street.

Anzac Parade plays a key role in the transport network in the subject area. This arterial road provides one continuous north-south connection through the LGA. Bunnerong Road is an alternative north-south connection. These two major north-south roads have intersections with east-west roads which have different traffic volumes such as Maroubra Road and Beauchamp Road.

Key roads illustrated in Figure 4.14 are described in Table 4.1 below.

Figure 4.14: State and Regional Roads

Source: GTA Consultants based on TfNSW data

Table 4.1: State and Regional Road Functions

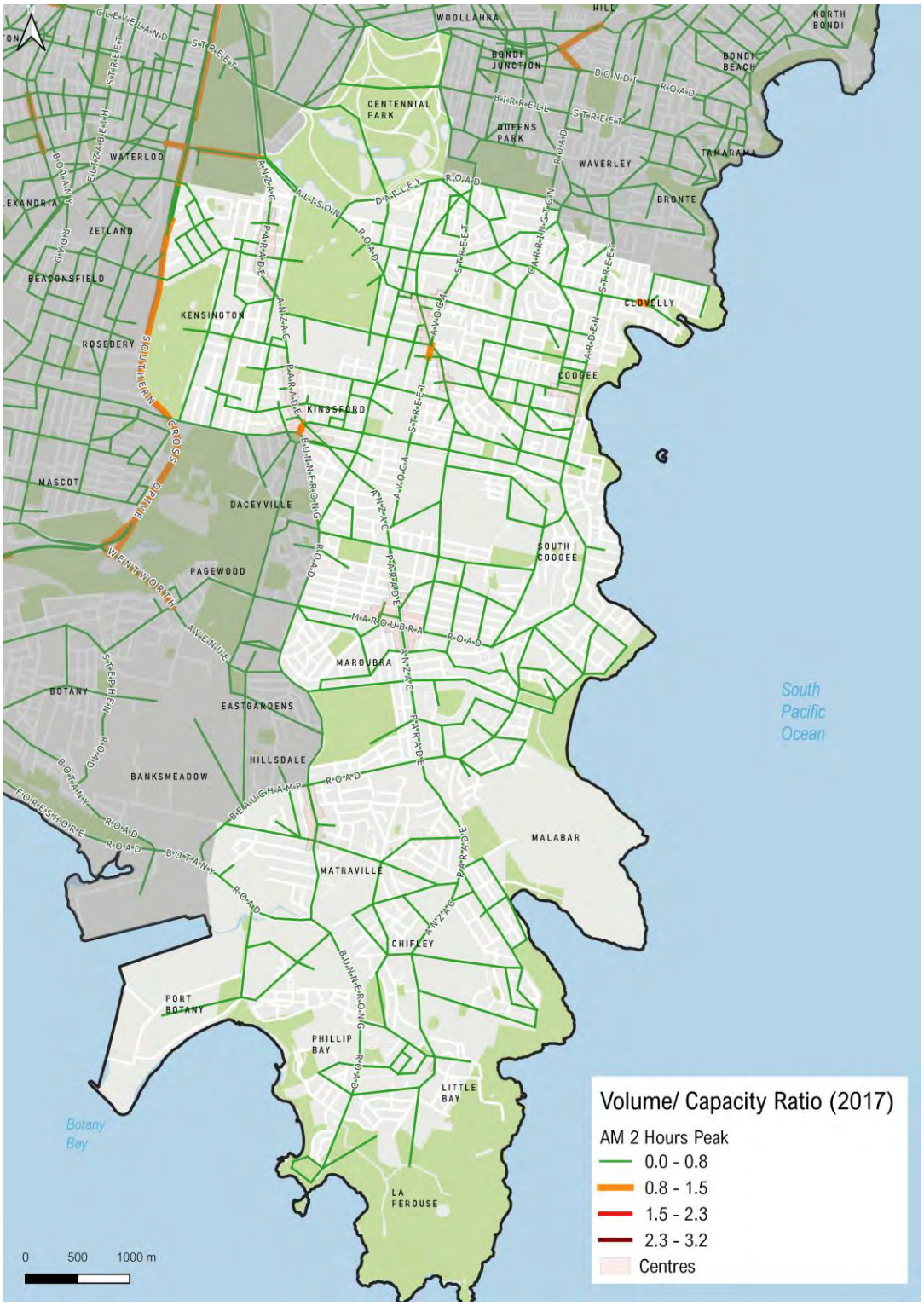
Road Name	Classification	Key Function
Anzac Parade	State/Regional	A southward extension of Flinders Street at Moore Park and close to the entrance to the Eastern Distributor, it is a north-south state/ regional road connecting Surry Hills in the north to Philip Bay in the south. It passes through Kensington, Kingsford, Maroubra Malabar, Chifley, and Little Bay and ends in La Perouse in the south. Major landmarks along Anzac Parade include the University of New South Wales (UNSW) and the National Institute of Dramatic Art (known as NIDA). The pedestrian and cycle bridge called Albert Cotter Bridge across Anzac Parade provides access to events at the Sydney Cricket Ground and Sydney Football Stadium. Light rail on Anzac Parade connects Moore Park to Randwick town centre. A second light rail branch line is due to open by mid-2020 connecting Moore Park to Kingsford town centre.
Avoca Street	State	A north-south state road connecting Queens Park in the north to Anzac Parade in the south (north end of Maroubra).
Alison Road	State	An east-west state road connecting Moore Park to Randwick and Coogee Beach.
Bunnerong Road	State	A state road with a north-south direction starting at Kingsford in the north and ending at Little Bay and Phillip Bay in the south.
Malabar Road	Regional	An arterial road beginning at South Coogee, it is a north-south road providing a link to south of Maroubra.
Arden Street	Regional	A regional north-south road linking Macpherson Street at Bronte in the north to Malabar Road in the south.
Coogee Bay Road	Regional	A regional road starting at Prince of Wales Hospital in Randwick, continuing towards the east, and ending at its intersection with Arden Street (Coogee Beach).
Rainbow Street	State/Regional	An east-west regional road linking Kingsford town centre in the west to Malabar Road in the east. Between Kingsford and Avoca Street, Rainbow Street is classified as a state road.

4.3.2. Performance

The road network within the LGA comprises both State and Regional roads. Volume capacity ratios (V/C) for a number of key roads for a two-hour morning and afternoon peak are shown in Figure 4.15 and Figure 4.16 respectively. This data is from 2017, based on strategic STFM modelling data rather than actual traffic counts. V/C ratios provide an indication of not only the traffic volume but also the physical capacity of the road network to carry the traffic. As the maps illustrate, the V/C at most of the key roads across the LGA are within an acceptable range of up to 0.8 (i.e. the volume is no more than 80 per cent of capacity) except some roads which exhibit congestion characteristics including Gardeners Road within the Kingsford Town Centre in both the AM and PM peak north and southbound and Avoca Street between Belmore Road and Cuthill Street in the AM peak, as their V/C ratios are 1 and 1.2, respectively.

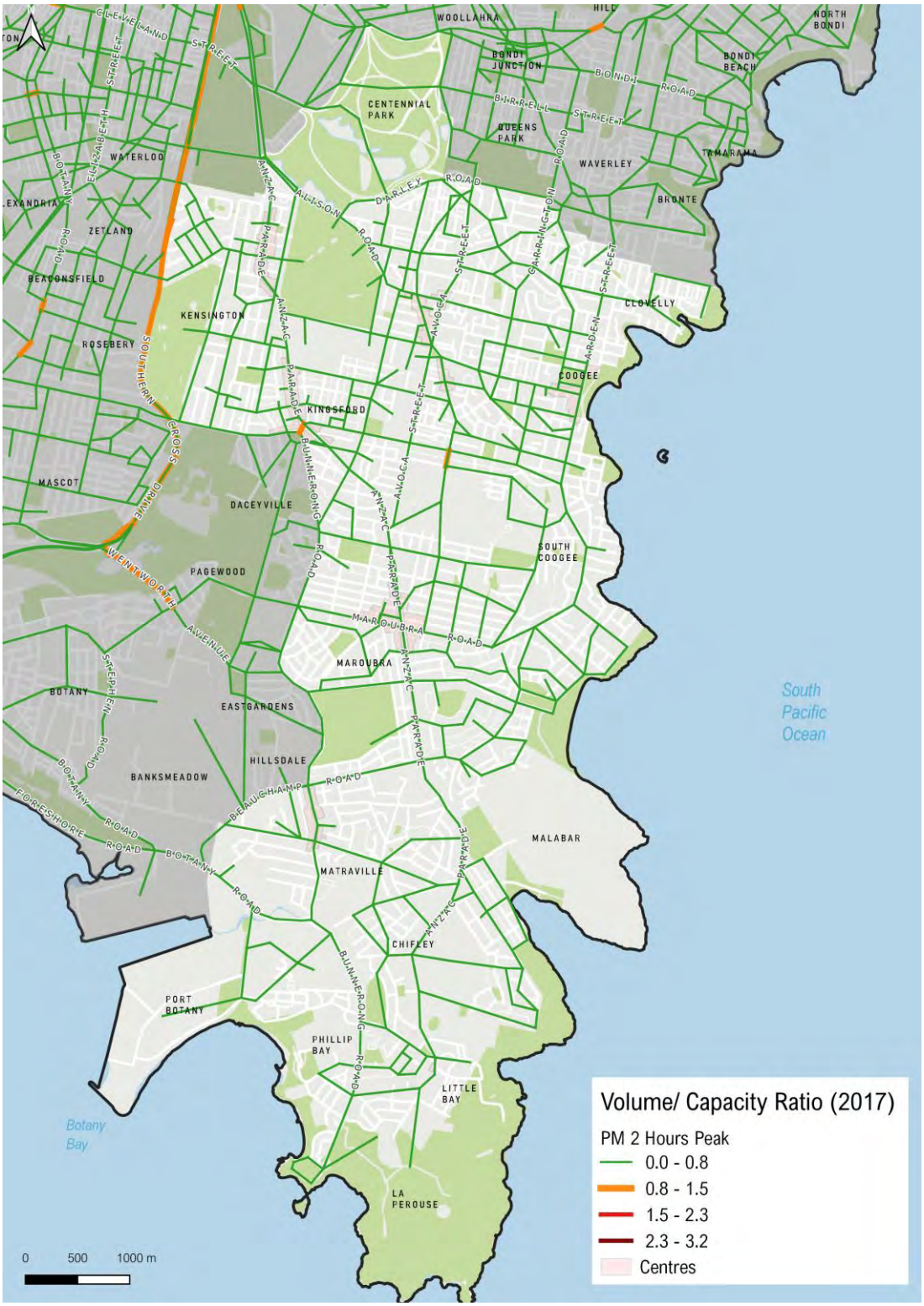
The maps also show Avoca Street exhibits congestion issues northbound in the PM peak while Southern Cross Drive at the western border of the LGA has a high V/C ratio in the AM and PM peak. Clovelly Road between Burnie Street and Keith Street was also congested in the AM peak, potentially due to the convergence of Burnie Street and Clovelly Road into one intersection to and from Clovelly Beach.

Figure 4.15: Volume/ Capacity Ratio (AM peak)



Source: GTA Consultants based on STFM data from TfNSW

Figure 4.16: Volume/ Capacity Ratio (PM peak)



Source: GTA Consultants based on STFM data from TfNSW

4.4. Freight

4.4.1. Network

Figure 4.17 shows freight journey volumes that have been extracted from TfNSW's interactive telematics visualisation showing heavy vehicle counts on roads in NSW during 2018. The data covers heavy vehicles enrolled in the Intelligent Access Program (IAP), which is a telematics application used for high productivity vehicles and Special Purpose Vehicles (SPVs) in NSW. The visualisation shows aggregated freight journey data in Randwick collected from vehicles enrolled in the IAP. As such, Figure 4.17 is likely to undercount actual freight volumes but nonetheless provides an initial understanding of freight journey activity in the LGA.

Port Botany, identified as a trade gateway in the Randwick LSPS, is vital to Greater Sydney's economy, and its surrounding industrial land is vital to supporting the growth of the Port and airport. These three locations are shown in Figure 4.17. The industrial zoned land surrounding the port provides for both industrial, manufacturing and warehousing uses, as well as for urban services, which include car repair, equipment hire and waste management.

Port Botany is a principal freight trip generator not only to and from the LGA but also throughout NSW. Therefore, Botany Road which is one of the main accesses to the port that is located in the LGA carried more than 50,000 heavy vehicle movements between January to December 2018 as shown in Figure 4.17.

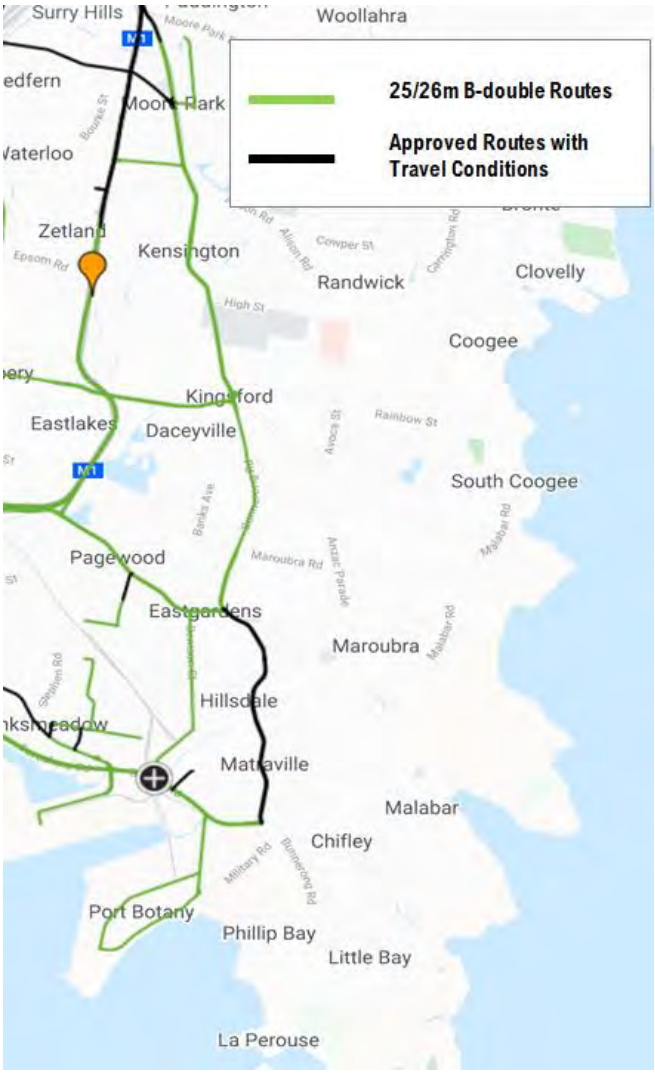
The movement of freight throughout the LGA is focused along higher order roads such as Anzac Parade, Bunnerong Road, Malabar Road, Alison Road and some streets like Avoca Street and Arden Street. These roads provide freight access to commercial centres along with other facilities like UNSW and hospitals located in Randwick, which are also major freight trip attractors in the LGA. The freight requirements for these centres and land uses must also accommodate articulated vehicles with multiple loading docks and zones to manage deliveries; Figure 4.18 shows the location of B-double routes in the LGA.

Figure 4.17:Freight Journey Counts Map, January to December 2018

Source: GTA Consultants based on data from Freight Data Hub, TfNSW

Freight access for articulated trucks to centres like Matraville, Kingsford and Kensington is provided by Bunnerong Road, which subsequently extends toward Port Botany. This freight route forms part of the 25/26-metre long B-double truck route within the restricted vehicle access network that is shown in Figure 4.18.

Figure 4.18:B-double Routes within Randwick LGA



Source: TfNSW

4.5. Road Safety

4.5.1. Crash Data

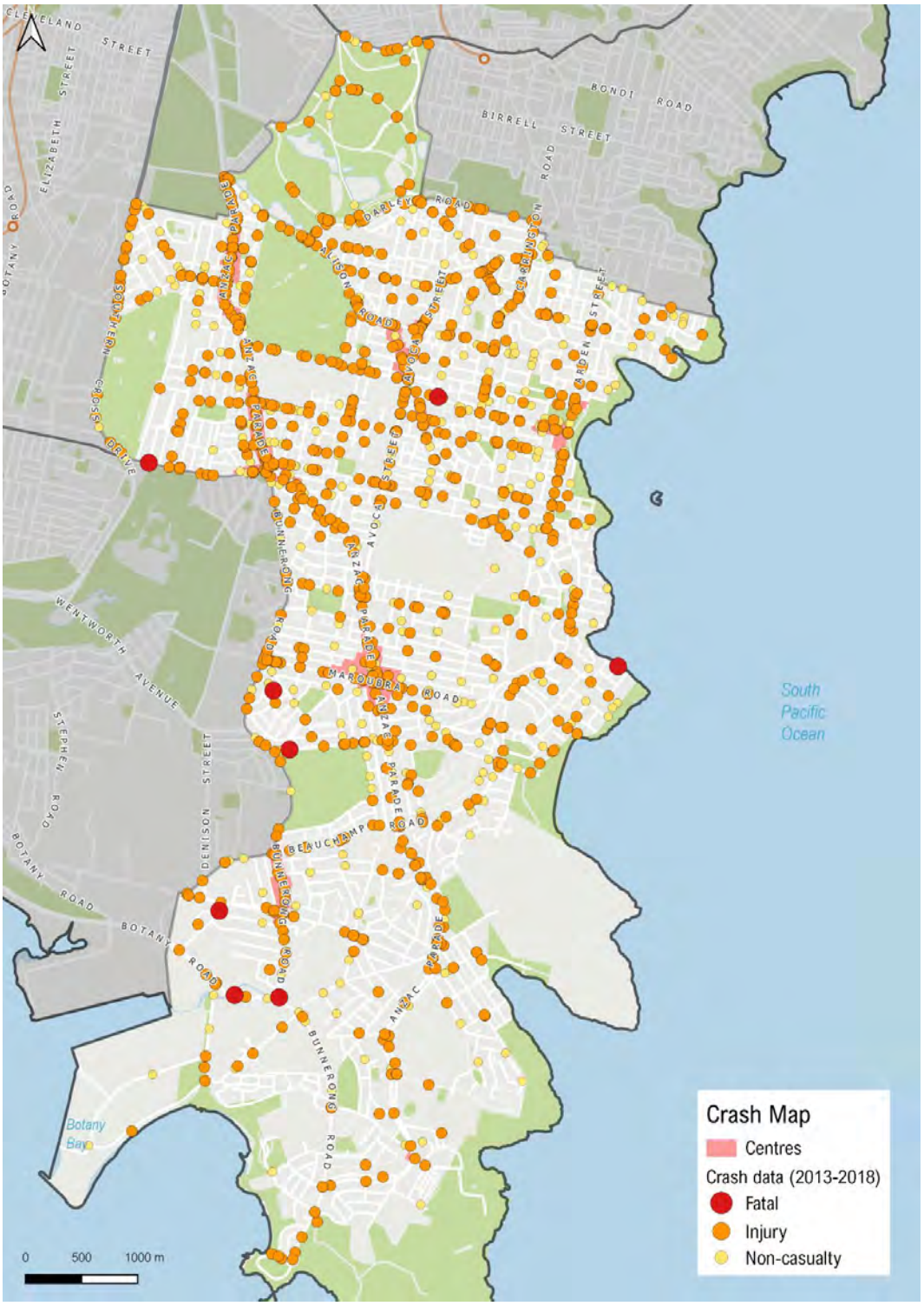
A crash map of the study area for a five-year history from 2013 to 2018 is shown in Figure 4.19. Over 2,000 crashes were recorded in the study area during this period. These include crashes up to 100 metres outside of the LGA boundary.

Further analysis of the crash history of the study area indicates that the most frequent location for crashes is along the major roads including Anzac Parade, Bunnerong Road with one fatality and Alison Road with one fatality.

It can be seen there are no fatal crashes on Anzac Parade from 2013 to 2018, although the number of injury-causing crashes are substantial. Two fatal crashes are recorded at Botany Road including one at the intersection with Bunnerong Road.

Figure 4.19 shows a large number of injury and non-casualty crashes occurred near town centres, which indicates a conflict between different transport modes within the road corridor (i.e. between pedestrians and vehicles) as a large volume of users using different transport modes compete for limited road space in these centres. A non-casualty crash is when at least one vehicle is towed away where there is no death and no person injured. Crashes involving a person injured is recorded as an injury crash.

Figure 4.19:Five-year History Crash Map



Source: GTA Consultants based on data from TfNSW

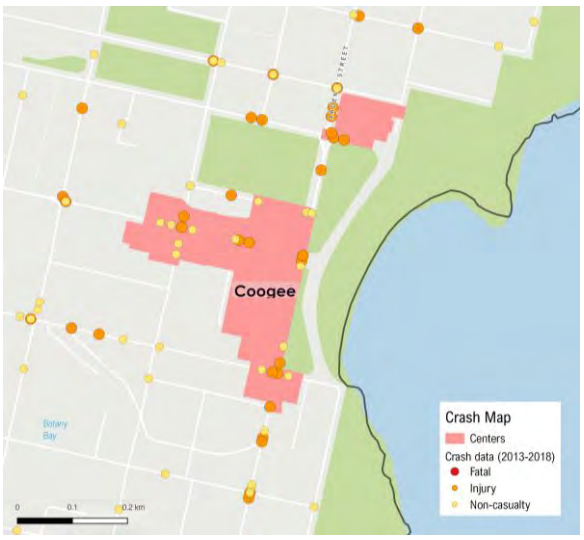
Figure 4.20: Five-year History Crash Map - Kingsford

Figure 4.21: Five-year History Crash Map - Kensington

Source: GTA Consultants based on data from TfNSW

Figure 4.22: Five-year History Crash Map - Little Bay

Figure 4.23: Five-year History Crash Map - Coogee



Source: GTA Consultants based on data from TfNSW

Figure 4.24: Five-year History Crash Map - Randwick

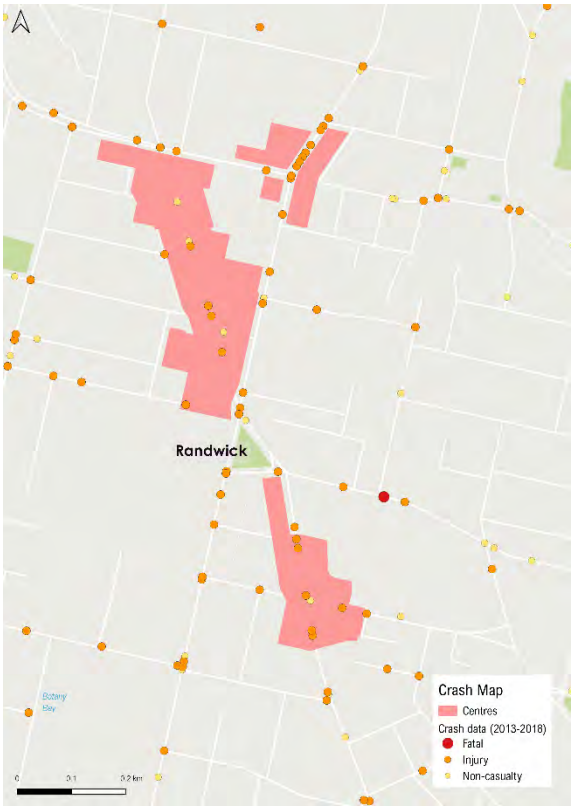
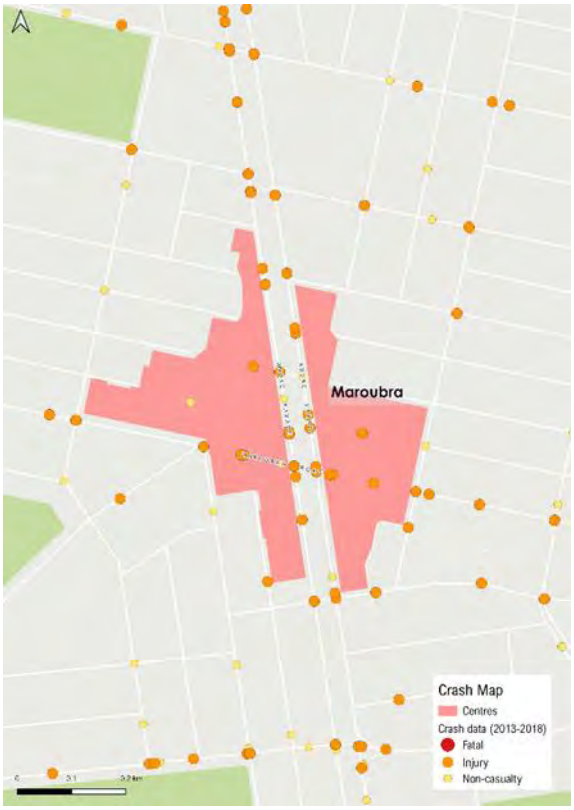


Figure 4.25: Five-year History Crash Map - Maroubra



Source: GTA Consultants based on data from TfNSW

Figure 4.26:Five-year History Crash Map - Matraville

Source: GTA Consultants based on data from TfNSW

Table 4.2 shows a summary of crashes and casualties from 2013 to 2018. The numbers under the 'crashes' column show the number of crash incidents whereas the numbers under 'casualties' show the number of people injured or killed in those crashes. In terms of severity of crashes, 702 crashes resulted in no injuries while of the remaining 1,385 crashes, 413 caused serious injury and eight involved fatalities. Based on crash and casualty summary reports from TfNSW, two fatalities involved pedestrians and one fatality involved a cyclist during this period.

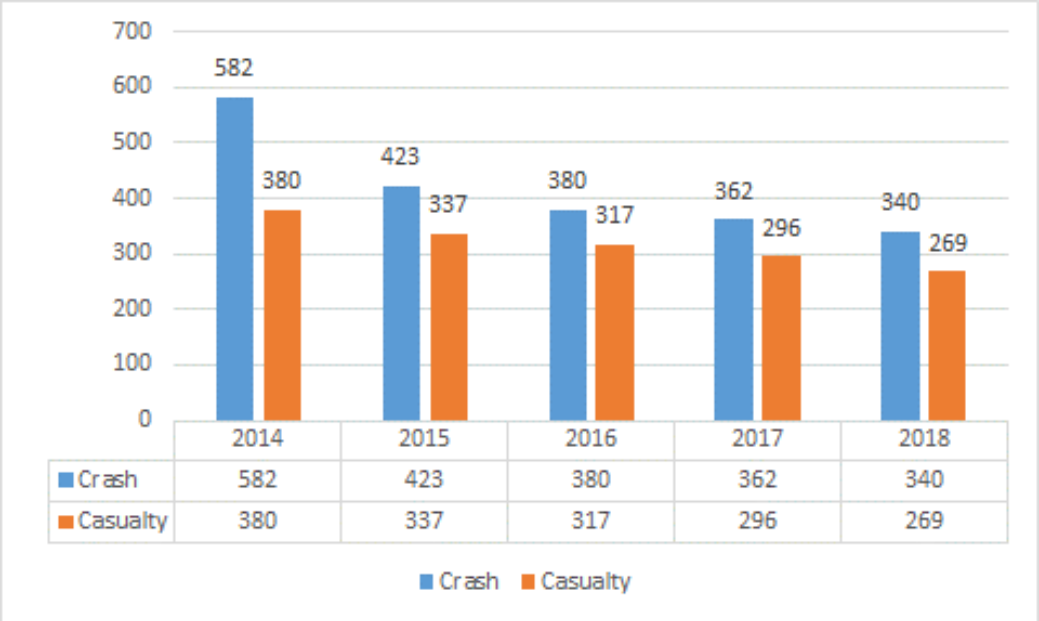
Table 4.2: Summary of Crashes and Casualties from 2013 to 2018

Crashes				Casualties			
Fatal		8	(0.4%)	Fatalities		10	(0.5%)
Injured	Serious Injury	413	(19.8%)	Injured	Serious Injury	432	(20.7%)
	Moderate Injury	536	(25.7%)		Moderate Injury	612	(29.3%)
	Minor/Other Injury	427	(20.5%)		Minor/Other Injury	545	(26.1%)
Non-casualty		702	(33.6%)				
Total		**2087**	**(100%)**	**Total**		**1599**	**(100%)**

Source: Crash and Casualty Summary for Randwick LGA- Data from Centre for Road Safety, Transport for NSW

The trend in crashes and casualties within the crash history period is shown in Figure 4.27. The graph shows the number of both casualties and crashes recorded have decreased from 586 in 2013 to 340 crashes in 2018.

Figure 4.27:Trends of Crashes and Casualties from 2013 to 2018



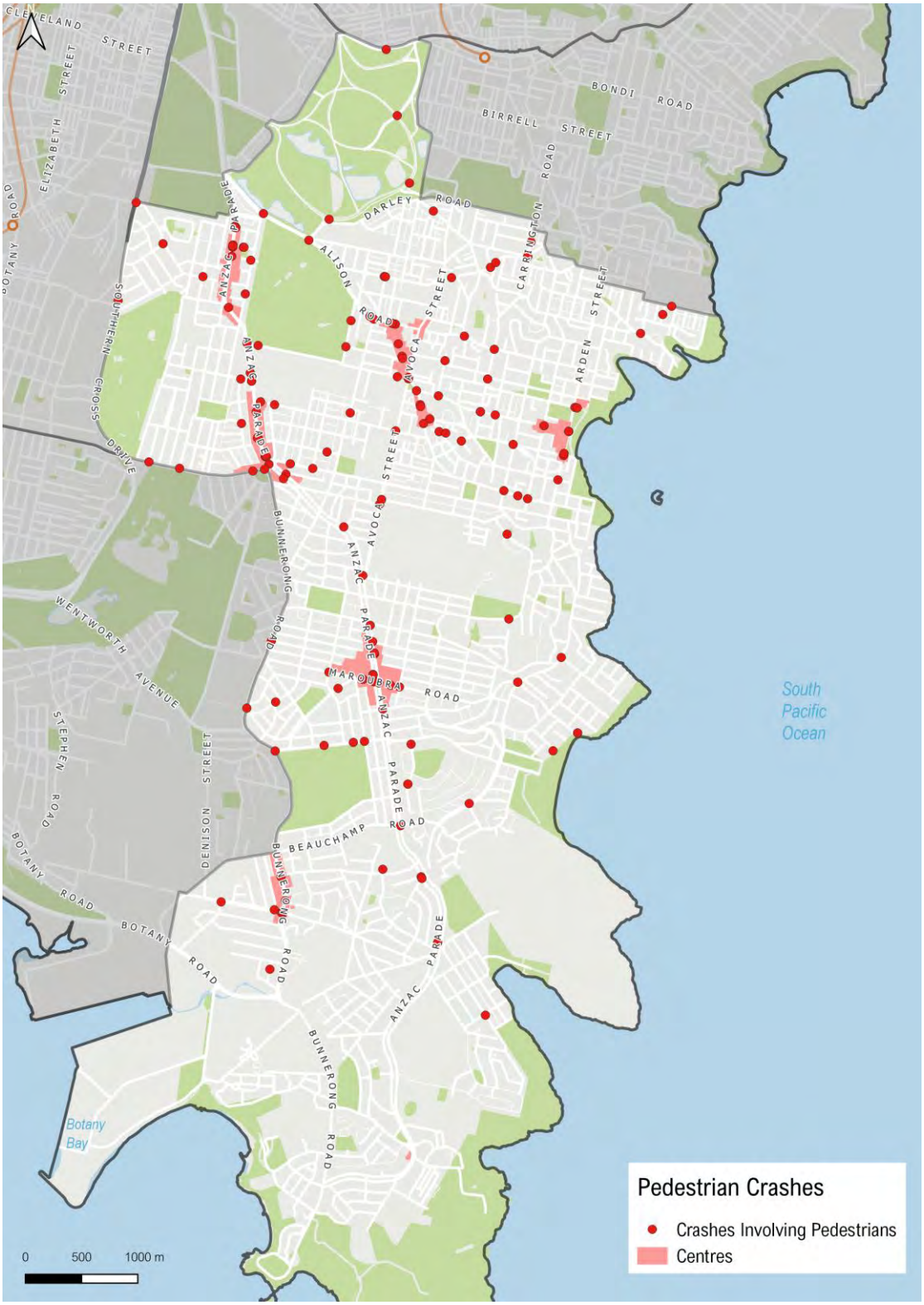
Source: Crash and Casualty Summary for Randwick LGA-Data from Centre for Road Safety, Transport for NSW

4.5.2. Crashes Involving Pedestrians – 2013 to 2018

Figure 4.28 shows the distribution of crashes involving pedestrians within the Randwick LGA. As expected, the map illustrates a large number of crashes occurred around Randwick, Kingsford, Kensington, Coogee and Maroubra town centres likely due to higher pedestrian activities and demands within these areas mixing with high volumes of traffic.

In addition, a large number of these pedestrian crashes happened along roads with higher speed and traffic volumes like Anzac Parade and Alison Road with a posted speed limit of between 50-60 km/h.

Figure 4.28:Map of Crashes Involving Pedestrians

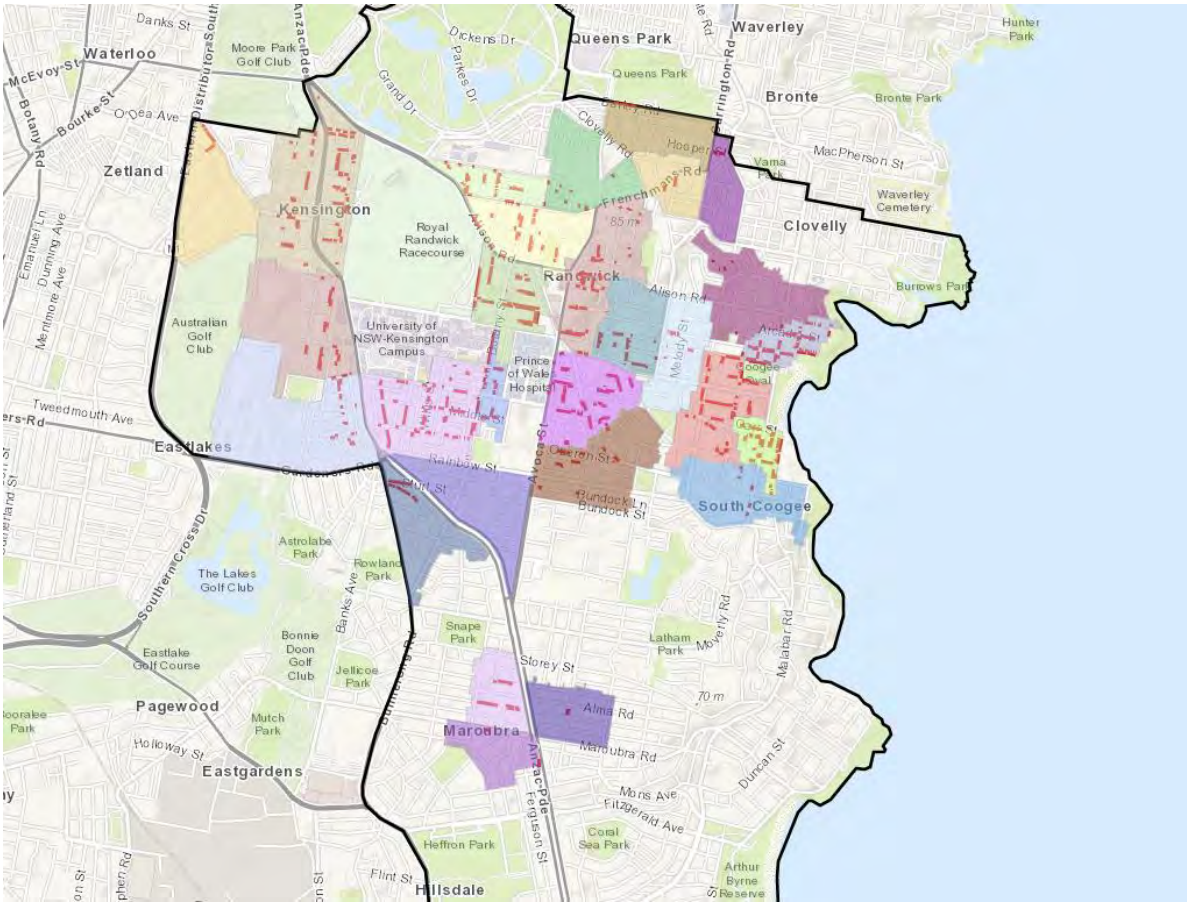


Source: GTA Consultants based on data from TfNSW

4.6. Parking

A significant part of parking management in the LGA concerns the provision and management of resident permit parking zones that exist primarily in the northern parts of the LGA, as well as Maroubra (Figure 4.29).

Figure 4.29:Resident Parking Permit Zones in Randwick



Source: Randwick City Council. Map extracted from Randwick City Council website, red lines indicate parking spaces subject to a resident parking permit restriction while the different coloured polygons represent different resident parking management zones

These zones allow residents of dwellings with no off-street parking in these zones to be issued with a maximum of two permits per dwelling that exempts the residents' vehicles from the prevailing time restrictions on a street. Residents of properties built after 14 June 2013 without off-street parking are generally not eligible for a permit.[5]

4.7. Existing Movement and Place Classification

The primary function of Randwick City's existing road network has been assessed under the NSW Movement and Place Framework. The framework indicates the level of movement activity and place activity on the network and classifies locations in terms of the intensity of these activities. Figure 4.32 presents a high-level assessment based on version 0.1 of the *Practitioner's Guide to Movement and Place*, published by the New South Wales Government Architect.

[5] https://www.randwick.nsw.gov.au/services/parking/parking-permits

The Movement and Place Framework classifies sections of roads and streets to understand movement dominated and place dominated locations, and where they interact. Roads and streets are broadly classified into one of four categories, and are defined as:

- Civic spaces – streets at the heart of communities and have a significant meaning, activity function, or built environment. They are often in major centres, tourist and leisure destinations, and community hubs. These streets are often pedestrian priority, shared spaces.
- Local streets – the majority of streets within our transport network which often have important local place qualities. Activity levels are less intense, however, these streets can have significant meaning for local people.
- Main streets – both significant movement functions and place qualities. Balancing the functions of these streets is a common challenge.
- Main roads – routes central to the efficient movement of people and freight. They include motorways, primary freight corridors, major public transport routes, the principal bicycle network, and key urban pedestrian corridors. Place activity levels are less intense, however, these roads and routes can have significant meaning to local people.

Source: Movement and Place Practitioners Guide 0.1 (NSW Government Architect, 2020)

Measures used to identify the primary function of a road or street, be it movement or place, are defined as follows:

Figure 4.30: Measures of movement significance

	THROUGH	TO/FROM	WITHIN
WALKING	Large amounts of people walking on the street segment to a destination outside the local area	Presence of destinations along the street segment that are accessed by foot	Opportunities for people dwelling on the street segment e.g. footpath dining
CYCLING	On a principal bicycle route in Greater Sydney or regional bicycle route identified in a council bike plan in regional NSW	Centre or place that connects directly to a principal bicycle route (Greater Sydney), regional bicycle route (regional NSW) or school	Opportunities for people cycling to move around the centre or place in a low stress/ speed environment
PUBLIC TRANSPORT	City shaping, city serving or coach service — High-frequency and direct scheduled service on road segment	Centre serving route — Regular scheduled service with more regular stopping patterns	Local or on-demand serviced — Time-limited local scheduled service or on-demand services
FREIGHT	On a designated strategic freight route	Connects to a logistics hub	Regular loading and deliveries occur
PRIVATE VEHICLE	Majority of vehicles travel through this segment without parking or loading	Majority of vehicles have a destination or origin in this segment	Presence of vehicles making trips that start and end within the neighbourhood

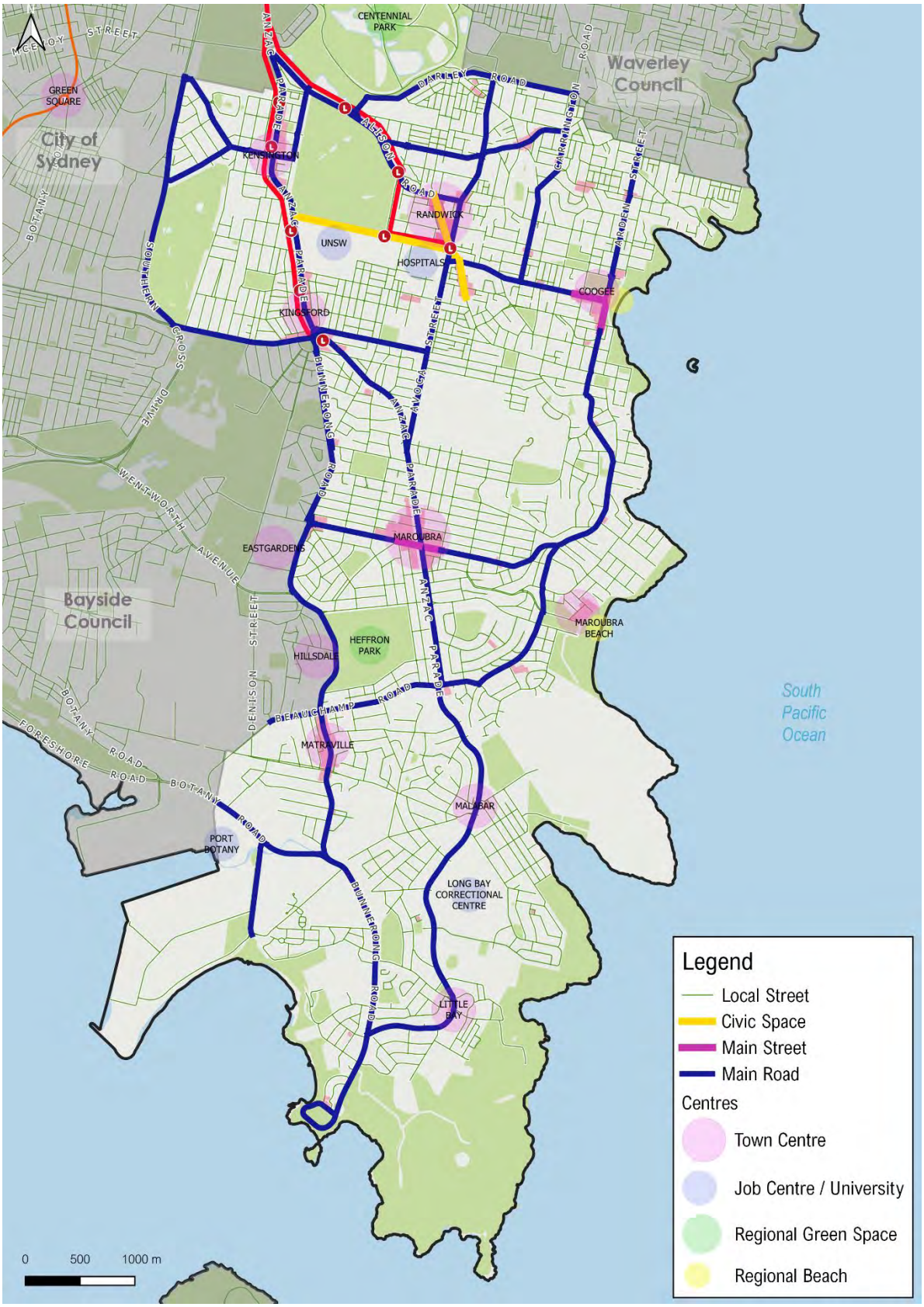
Source: Movement and Place Practitioners Guide 0.1 (NSW Government Architect, 2020)

Figure 4.31: Measures of place intensity

	PLACE INTENSITY ASPECT/DESCRIPTION	MEASURE
ACTIVITY	People – living	Population density (ppl/ ha)
	Where do people live? (more/less)	Population projections (ppl/ha)
	People – working	Job density (jobs/ha)
	Where do people work? (more/less)	Job projections (jobs/ha)
	People – visiting	Number of visitors
	People – moving People in areas most likely to use public transport	Public transport (catchments)
PHYSICAL FORM	Density – existing Potential to host activity	Building volume (footprint + height)
	Density – possible Potential to host activity	Floor space ratio (max floor area/site)
	Street layout Capacity to host walking	Intersection density Average pedestrian and cycle crossing spacing
	Land use – existing Where are the most vs the fewest uses?	% of single vs multiple uses by LEP zones
	Land use – proposed Where are the highest intensity uses?	Business zones (LEP zone areas)
MEANING	Common spaces / destinations Where do people go?	Number of shops/other
	Places of common value Where people go?	Heritage places

Source: Movement and Place Practitioners Guide 0.1 (NSW Government Architect, 2020)

Figure 4.32:Existing Movement and Place classification



Source: GTA Consultants

Figure 4.32 shows that the existing road network features a number of significant movement corridors such as Anzac Parade and Bunnerong Road, which provide a through route for buses, freight, and cars. Anzac Parade bisects the strategic centres and town centres of Kensington, Kingsford, and Maroubra which all have notable place activity, however this is reduced by the dominance of movement along this corridor. The intensity of place activity is typified by sparse street front activity, lower walking activity relative to motorised modes, low allocation of road space to active transport, and public space. Areas of high place intensity in Randwick City include The Spot, Randwick Junction, Coogee, and parts of Maroubra where movement performs a less significant function than place.

Section 6.4 sets out the desired future Movement and Place classification, outlined in the South East Sydney Transport Strategy. This future classification highlights a number of gaps in the existing network, such as the current compromise on place activity in strategic and local centres due to the dominance of vehicle movement. While an understanding of the existing Movement and Place classification is important in acknowledging the state of the existing environment, it is the gap between the existing classification and the desired future movement and place intensities that is the key focus for Movement and Place practitioners, as set out in the *Practitioner's Guide*.

5. COMMUNITY CONSULTATION FINDINGS

5.1. Introduction

Engagement with the community and key stakeholders around the future of transport and movement across Randwick City was undertaken amidst the changing conditions brought on by the COVID-19 pandemic. Digitally driven alternatives to traditional face to face engagements were employed to address social distancing requirements.

Together with Randwick City and GTA, the Place Design Group team designed multiple engagement sessions with various stakeholders and community groups to increase the opportunity for community participation and to generate deeper and more useful insights from all stakeholders within Randwick City The engagement projects included:

- Frank Chats Online Survey – An interactive, online survey distributed amongst the community. The survey was open for an extended period of six weeks and received a total of 825 responses.
- Key Stakeholder e-Interviews - A series of seven one-on-one interviews were conducted with invited key stakeholders by Place Design Group. The interviews were conducted via the Zoom platform and included representatives of significant business and community stakeholder groups.
- Precinct Committee eWorkshops - Similar to the eInterviews, a series of three eWorkshops were hosted with three of Randwick City's six existing Precinct Committees that agreed to participate (Maroubra, Randwick, Coogee). Representatives of each precinct were invited to attend their own, small, focused, precinct specific eWorkshops.
- Quick Say Mechanisms – This was a supplementary feature to the Online Survey with Randwick City's Have Your Say website implementing additional quick feedback response mechanisms where the community can provide additional feedback that were not covered in the Online Survey.

Through the various engagement formats conducted by Randwick City and the project team, consistent and meaningful insights are identified which provide an accurate and detailed representation of the communities of Randwick City.

The full Stakeholder Engagement Report can be found in Appendix A.

5.2. Engagement Summary

Overall, 16 prevailing key themes were observed as the overarching insights relevant to the study. Table 5.1 summarises the key themes from the engagement program.

Table 5.1: Survey Responses

#	Key themes	Community/ Stakeholders Interest
1	**Randwick residents love their buses.** Deep concern about loss of bus services to any part of the CBD as a result of the Light Rail.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
2	**There is more concern around the integration**, speed and choice and availability of routes than the cost of public transport.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
3	**The Light Rail is seen as a positive but slow** and is creating traffic issues on Anzac Parade. It is also seen as somewhat of a barrier to pedestrian and cycle movement across the corridor.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders
4	**There is a strong perception that cycling is presently unsafe** in the Randwick LGA. One of the strongest messages is to connect existing cycle and pedestrian paths.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
5	**The other strong message is the creation of better cycling infrastructure** (designated cycleways on and off road).	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
6	**Temporary road closures to test and try out routes and traffic management** are seen as useful starting points.	Commonly raised amongst: 1. eInterviews with key stakeholders
7	**Cycling on footpaths is a perceived safety hazard.**	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
8	**More cycle parking** is required at attractions, especially beaches.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
9	**More end of trip facilities** (showers, lockers etc) are required at the Hospital and University.	Commonly raised amongst: 1. eInterviews with key stakeholders 2. Precinct eWorkshops
10	**People generally feel safe -** There seems to be a perception of a high level of personal safety in Randwick.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders
11	**Issues and awareness of micromobility (ebikes and escooters/hire) are on the rise**. Uncorralled/dockless hire bikes and scooters are seen as a problem though. Geofencing and corral areas might be useful.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops
12	**Better transit options are required to connect a number of places** - Coogee and Clovelly in the north and almost universally from Maroubra South. Whilst many have called for extension to the light rail to these locations (along Anzac Parade) the desire for a Metro to connect to the Sydney CBD and Green Square is also seen as highly desirable.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders 3. Precinct eWorkshops

#	Key themes	Community/ Stakeholders Interest
13	**Movement in terms of both public transport and cycling (and private vehicles) is not solely about north/south movement (Randwick to the CBD).** There are a number of desire lines east/west to connect with the airport, Green Square and other inner city areas.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders
14	**A designated bike path along Anzac Parade all the way to La Perouse is seen as highly desirable.**	Commonly raised amongst: 1. Community Online Surveys 2. Precinct eWorkshops
15	**A connected coastal pedestrian and cycle path is highly desirable.** This should not be entirely street based but connect through open space areas and along the waterfront where possible.	Commonly raised amongst: 1. Community Online Surveys 2. eInterviews with key stakeholders
16	**No real benefit seen for the ferry** - A passenger ferry from Kurnell to La Perouse provides no perceived benefits for those employed in the Port Botany area due to its distance and lack of connection with public transport.	Commonly raised amongst: 1, eInterviews with key stakeholders

6. FUTURE TRANSPORT NETWORK CHANGES

6.1. Committed and Planned Transport Projects

6.1.1. Future Transport 2056 and South East Sydney Transport Strategy

Future Transport 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW, which will guide transport investment over the longer term. It will be delivered through a series of supporting plans, including the place-based South East Sydney Transport Strategy.

The key transport initiatives set out in the *South East Sydney Transport Strategy* (SESTS) that have a direct impact on the LGA, as informed by initiatives originally identified in Future Transport 2056, are described in Table 6.1 and Figure 6.1. Significant investment is expected in public transport and active transport in the local area, which will further improve accessibility for all modes.

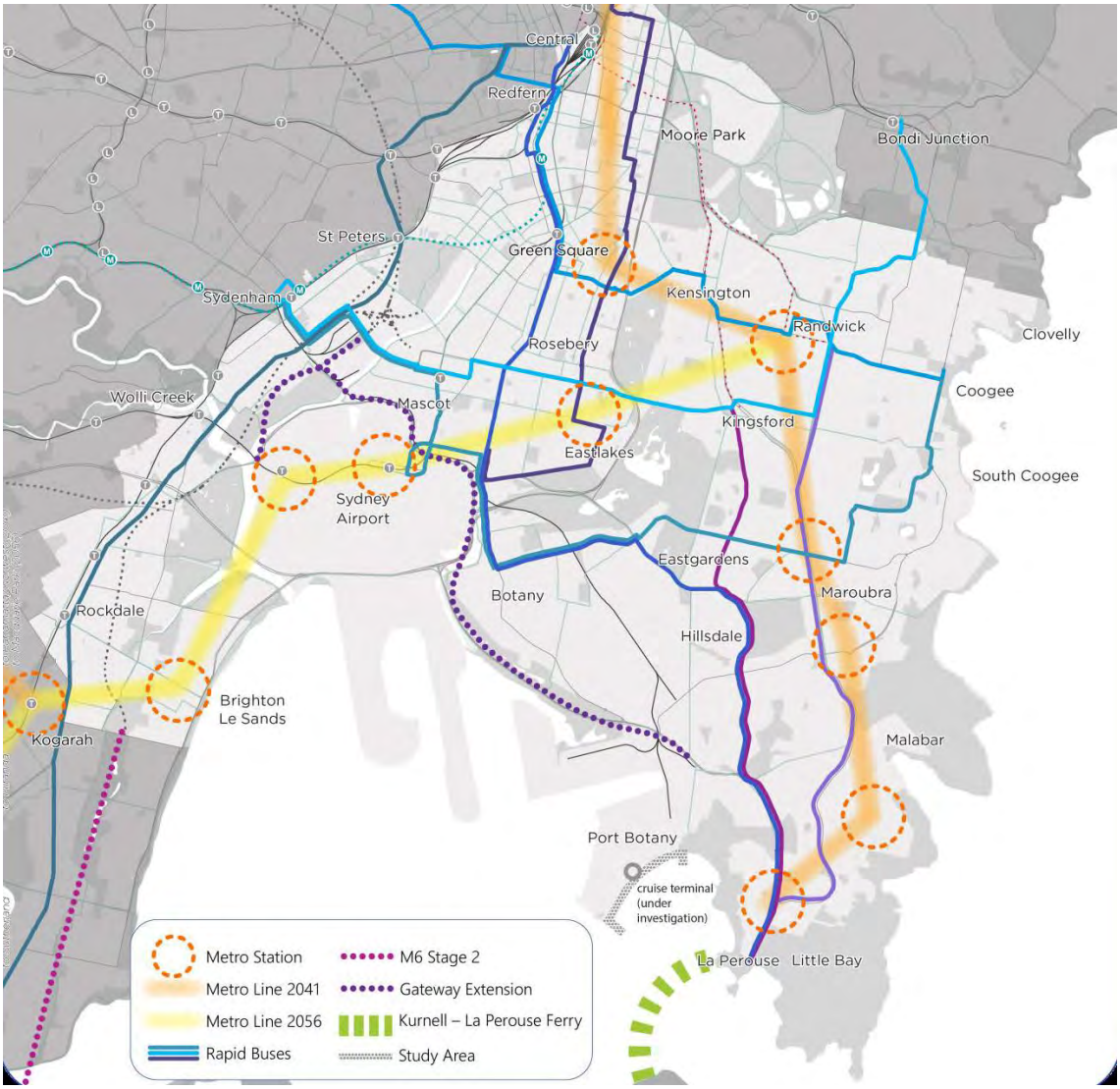
Table 6.1: South East Sydney Transport Strategy – Preferred Scenario Initiatives List

Initiative	Description and Benefit
Metro West Extension to Malabar/La Perouse via Randwick	By 2041, Sydney Metro West would be extended from Sydney CBD to La Perouse (via Zetland, Randwick, Maroubra Junction, Maroubra and Malabar), to provide fast and reliable transit between the Sydney CBD and the South East. The delivery of Metro services will support an uplift in development capacity within South East Sydney, supporting the redevelopment of land near station precincts, the growth of strategic centres and the expansion of the Randwick Collaboration Area. Metro will extend also the 30-minute catchment of the Sydney CBD and the South East's strategic centres by facilitating rapid and frequent north-south travel through Randwick City.
Metro from Kogarah to Randwick	By 2056, a Metro between Kogarah and Randwick (via Eastlakes, Domestic Airport, International Airport and Brighton-Le-Sands) will provide east-west mass transit to strategic centres, employment hubs and recreational destinations, including Sydney Airport. Combined with the north-south Metro West extension, radial Metro connections would be available between Randwick and Kogarah. New
Eight new rapid bus routes	Six of the eight new rapid bus routes proposed in the SESTS serve Randwick City, including • Sydney CBD to La Perouse (via Green Square and Eastgardens) • Bondi Junction to Sydenham (via Randwick and Mascot) • Randwick to La Perouse (via Anzac Parade) • Kingsford to La Perouse (via Bunnerong Road) • Coogee Beach to Bays Precinct (via UNSW and University of Sydney) • South Coogee to Sydenham (via Sydney Airport). The function of these rapid bus routes is to provide a network of high frequency bus lines with high-quality on-road priority that links strategic centres, employment hubs and residential areas within and outside the LGA. The routes proposed principally use north-south and east-west axes and will improve the customer experience through reduced journey times and increased reliability and comfort.
Delivery of the Principal Bicycle Network	By 2056, the Principal Bicycle Network in South East Sydney, including in Randwick City will be implemented to connect the Sydney CBD, Randwick and Port Botany and also includes support links which will provide cycleway access between Randwick, Clovelly, Maroubra and Malabar. The delivery of this network will support the SESTS' vision for active transport to become a mode of choice, especially for trips of shorter distances.

Initiative	Description and Benefit
Sydney Gateway Extension to Port Botany	This infrastructure initiative will support the reliability and efficiency of passenger and freight access to Sydney Airport and Port Botany. This includes road improvements around the airport and Port Botany to enhance the efficiency of the network of new major corridors and new road connections to other parts of Sydney's motorway network.

Source: *South East Sydney Transport Strategy*, Transport for NSW, 2020

Figure 6.1: South East Sydney Transport Strategy – Preferred Scenario



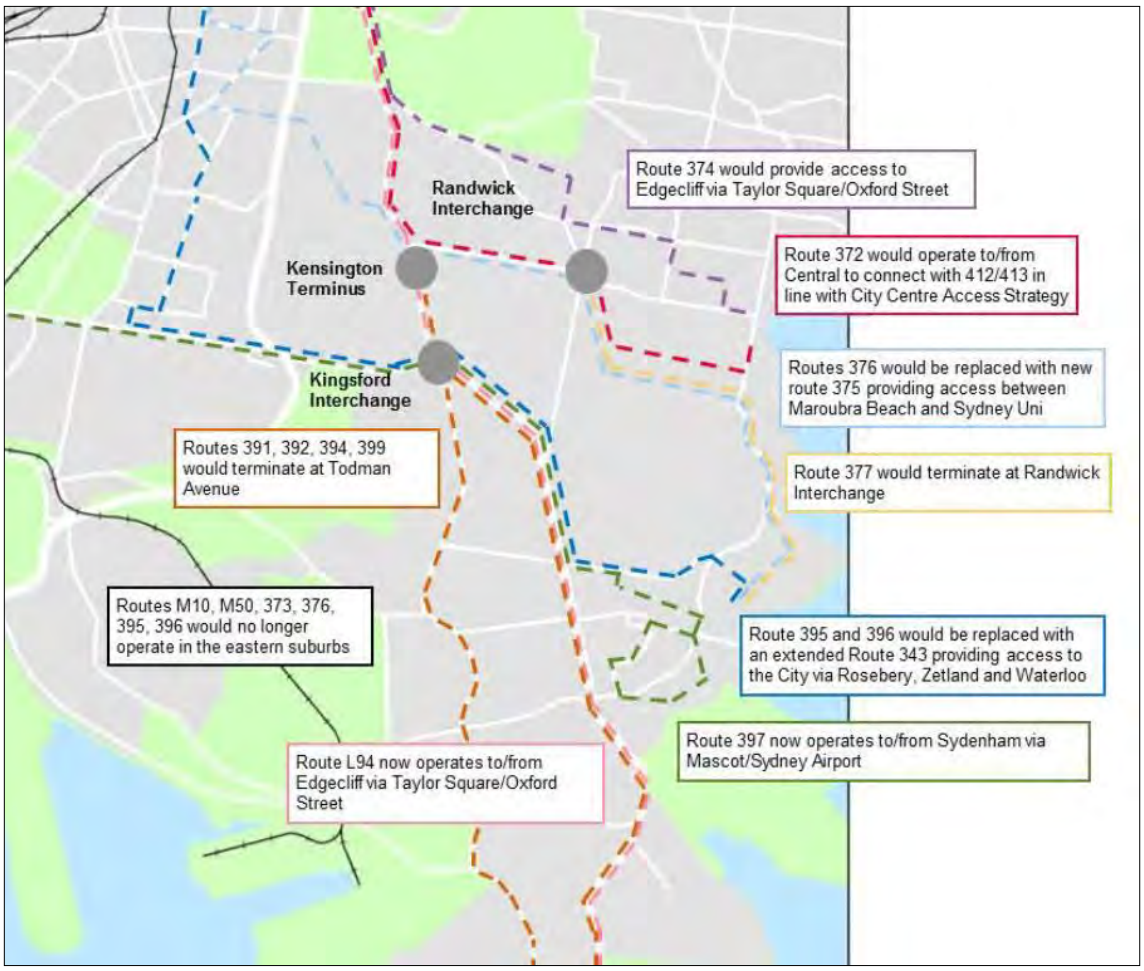
Source: South East Sydney Transport Strategy, Transport for NSW, 2020

6.1.2. Sydney CBD and South East Light Rail and Impact on Bus Routes

The CBD and South East Light Rail (CSELR) forms part of the Sydney Light Rail network which includes the L1 Inner West Light Rail line. The alignment for the CSELR travels from Circular Quay, through George Street within Sydney CBD, Surry Hills, Moore Park before splitting off as two separate branches along Anzac Parade through to Kingsford (L3) and along Alison Road, Wansey Road and High Street towards Randwick (L2). CSELR provides a turn-up-and-go service with services every four minutes in each direction in peak periods.

The bus network is proposed to be redesigned to deliver an integrated public transport network within Inner Sydney. This includes the removal of bus services that would be duplicated by CSELR and modifying routes to feed into the CSELR where possible. Proposed bus route changes drafted in the CBD and South East Light Rail Project Environmental Impact Statement, Volume 2 of Technical Paper 1 dated 2013, are illustrated in Figure 6.2. The document is the only officially released bus route change and it is expected to be redesigned and updated to cater for current and future needs and demands, based on monitoring and evaluation of the light rail operation.

Figure 6.2: Bus Route Changes Proposed by TfNSW



Source: *CBD and South East Light Rail Project Environmental Impact Statement* (2013), Volume 2, Technical Paper 1, Transport for NSW

The opening of the light rail is an opportunity to reorganise the bus network more widely. Under the draft changes, most of the CBD buses that run along Alison Road and Anzac Parade in duplication of the light rail route would no longer travel to the CBD. Some would stop at Todman Avenue, Kensington and others would terminate on Belmore Road. This draft redesign will provide more frequent and reliable public transport services and public transport customers would experience less congestion along these roads.

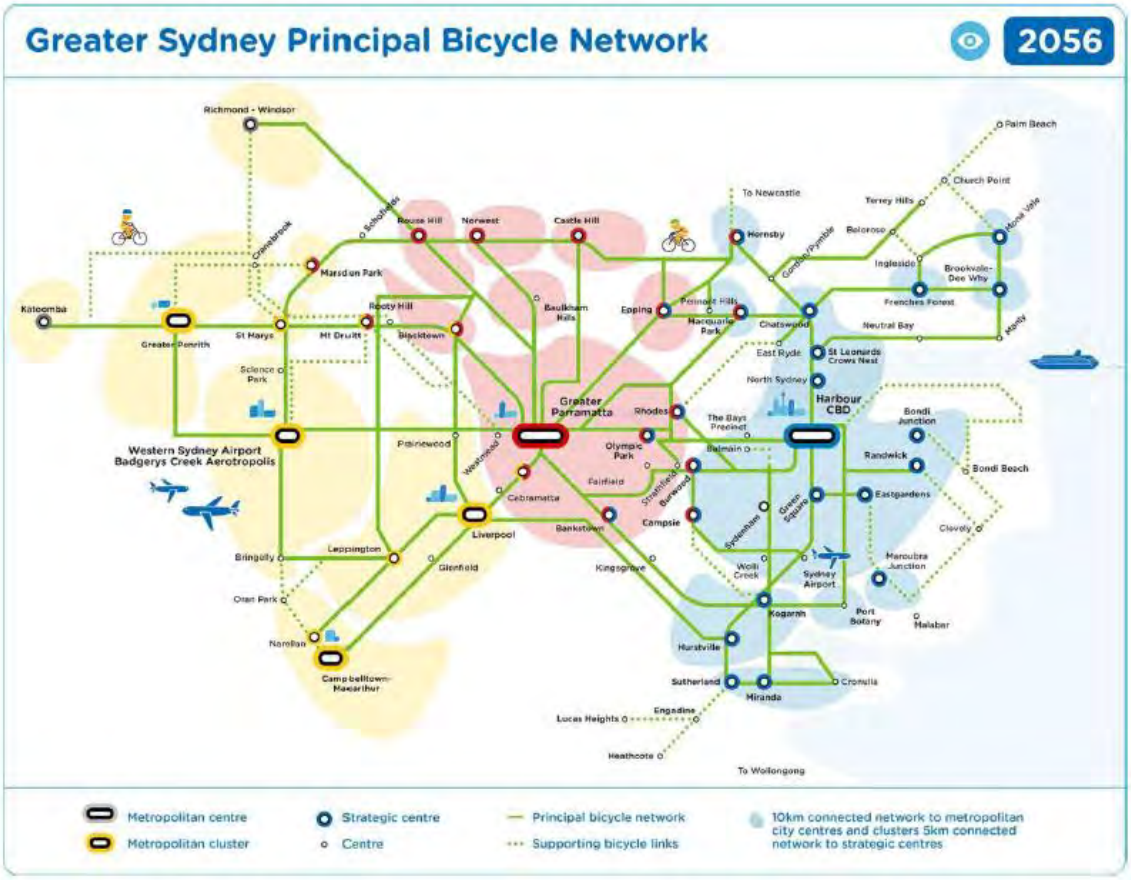
As the figure illustrates, some routes could change as a result of the CSELR to improve east-west connections, including connections to the light rail and to the heavy rail network. For instance, route 397 which would connect Malabar to/ from Sydenham via Mascot/ Sydney Airport.

The operation of CSELR will also impact on school buses, for instance, the special school buses travelling from Central Station to Sydney Girls' and Sydney Boys' High Schools would be replaced by light rail.

6.1.3. Greater Sydney Principal Bicycle Network 2056

A key part of Future Transport 2056 is the Greater Sydney Principal Bicycle Network, which outlines the major existing cycling routes as of 2018 and proposes the future proposed cycling network that will progressively be implemented by 2056. By 2056, the Principal Bicycle Network is intended to allow people to travel within and between the three major cities and associated centres across Greater Sydney, so more short trips less than 10 km in length are done by bicycle rather than the private car, contributing to better public health outcomes, relieving congestion and improving accessibility to major destinations. The 2056 Principal Bicycle Network is shown below.

Figure 6.3: Greater Sydney Principal Bicycle Network 2056



Source: Future Transport 2056, Transport for NSW

In relation to this study, Figure 6.3 shows bicycle connections between the Sydney CBD, Randwick and Port Botany as part of the principal bicycle network and also supporting links which will provide cycleway access between Randwick, Clovelly, Maroubra and Malabar. The proposed links would supplement the existing cycleway network across the LGA.

6.1.4. Bicycle Route Construction Priority

Randwick City developed a map of bicycle route priorities in 2015 based on community feedback. The map is shown in Figure 6.4. These priorities are indicative and might be changed due to funding availability.

Figure 6.4: Bicycle Routes Construction Priority 2015

Source: Randwick City Council

Anzac Bikeway - Mid 'A' is proposed as a priority route to provide Anzac Parade with median refuge island crossings and bicycle and pedestrian paths between Fitzgerald Avenue and Sturt Street. This route will provide an extension to the Anzac Bikeway - North, serving as a north-south route for cyclists to and from the Kingsford light rail terminus. The Anzac Bikeway is identified as one of the busiest cycle routes in the LGA according to the *Bicycle Routes Construction Priority 2015* document, with the potential to grow in popularity with the operation of light rail and increasing densification around the route.

The Todman Avenue and Lenthall Street link (Route 3 in Figure 6.4) will provide connectivity between Green Square and the Kensington light rail stop at Todman Avenue. This cycleway would support better accessibility to Kensington Town Centre from places outside of the LGA.

South Coogee to Kingsford (Route 4 in Figure 6.4) will provide a bicycle link which will connect South Coogee with the Kingsford light rail terminus. This link will not only cater for short trips around the light rail but also provide a connection between the light rail and Coogee Beach.

Coogee to Randwick and UNSW link (Route 5 in Figure 6.4) contains cycleways along Dolphin Street, Judge Street, Coogee Bay Road and High Street which link Coogee to the Randwick light rail stop and to UNSW.

Anzac Bikeway - Mid 'B' (Route 6 in Figure 6.4) along Anzac Parade would comprise a protected bicycle lane along the centre of this boulevard and function as an extension of the north south bike access from Kingsford light rail terminus. This proposed infrastructure includes median island refuges and bicycle and pedestrian paths between Bunnerong Road and Fitzgerald Avenue.

Centennial Park to Gordons Bay (Route 7 in Figure 6.4) will provide a link between Centennial Park and Gordons Bay Clovelly Road, Burnie Street, Winchester Road, Brandon Street, Knox Street, Varna Street, Leichhardt Street, MacPherson Street to Darley Road, Queens Park and Centennial Park.

A route from Hillsdale to Maroubra Beach (Route 10 in Figure 6.4) will provide an east-west bike link between Eastgardens/ Hillsdale and Maroubra Beach, including a link to the Anzac Bikeway. This will run through Donovan Avenue, O'Sullivan Avenue, Haig Street, Mons Avenue.

6.1.5. Sydney Gateway

The Sydney Gateway is a proposed new toll-free connection that will provide a high capacity connection from Sydney Airport and Port Botany to the new WestConnex St Peters Interchange once completed[6].

The project will be delivered in stages (Stage 1 and Stage 3) and includes:

- connection to St Peters Interchange via a four-lane road in each direction with two bridges over Alexandria Canal
- connection to the International Airport terminal via a four-lane raised road in each direction with bridges to cross Canal Road and the freight rail line
- an airport freight access route
- an alternative shared cycle and pedestrian pathway
- widening of Qantas Drive
- an elevated 'flyover' road to the Domestic Airport terminals.

Stage 2 is the Port Botany Rail Duplication, which is being delivered separately by the Australian Rail Track Corporation.

6.1.6. Ferry Wharf at La Perouse

TfNSW has investigated re-establishing public wharves at La Perouse and the Kurnell Peninsula for commercial and recreational use, via a feasibility study.

This study was described as a Priority Regional Project within the Botany Bay, Georges River and Port Hacking Regional Boating Plan (2015).

A passenger ferry service was previously operated between 1890 and 1974. The wharves stopped operating following damage incurred in a major storm.

[6] https://www.rms.nsw.gov.au/projects/sydney-gateway/index.html; https://infrastructurepipeline.org/project/sydney-gateway/

Relevant findings from the study related to the Randwick Integrated Transport Study are:

- The ferry service would also have to operate as a tourist service as the potential commuter demands for this route is low and it is not economically viable to only service commuters.
- The tourism, economic and social benefits from the ferry service would need to be sufficiently large to justify the expected fare revenue shortfall that would not cover operational costs.

While the ferry service would connect Sutherland Shire to Randwick City, it would also encourage more visitors to the south of Randwick City including La Perouse, with associated localised impacts on parking and traffic.

6.2. Future Traffic Conditions

Overall, the road network within the LGA is not expected to have substantial or significant changes to capacity based upon known and planned projects or upgrades in the future. Volume capacity ratios (V/C) for a number of key roads for a two-hour morning and afternoon peak for 2026 are shown in Figure 6.5 and Figure 6.6 respectively. As per existing conditions, this data is based on strategic STFM modelling data rather than actual traffic counts. It is important to note that the future 2026 STFM data does not include any inputs or additional modelling by GTA; the data shown is that forecast by TfNSW.

As the maps illustrate for 2026, the V/C of most of the key roads across the LGA are within an acceptable range of up to 0.8 (i.e. the volume is no more than 80 per cent of capacity) except some areas which exhibit congestion characteristics in the morning peak including:

- Avoca Street at the southern end of Randwick town centre
- High Street at Anzac Parade and UNSW
- Kingsford town centre near the Nineways
- Darley Road near Centennial Park.

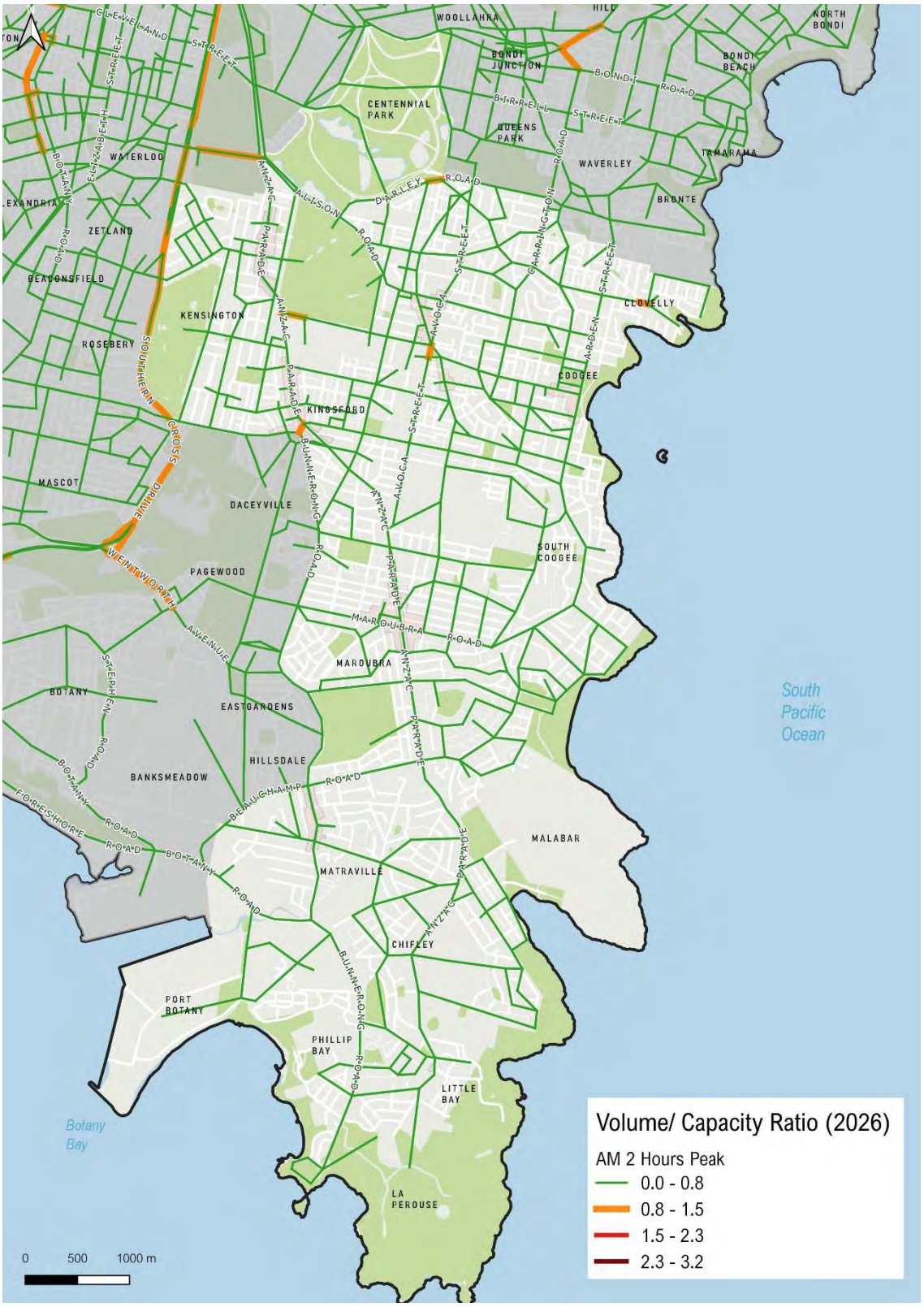
Outside the LGA, sections of Wentworth Avenue are also at or near a V/C of 1, which may impact upon some east-west vehicle movements.

The afternoon peak indicates congestion at the following locations:

- Kingsford town centre near the Nineways
- Avoca Street near Rainbow Street.

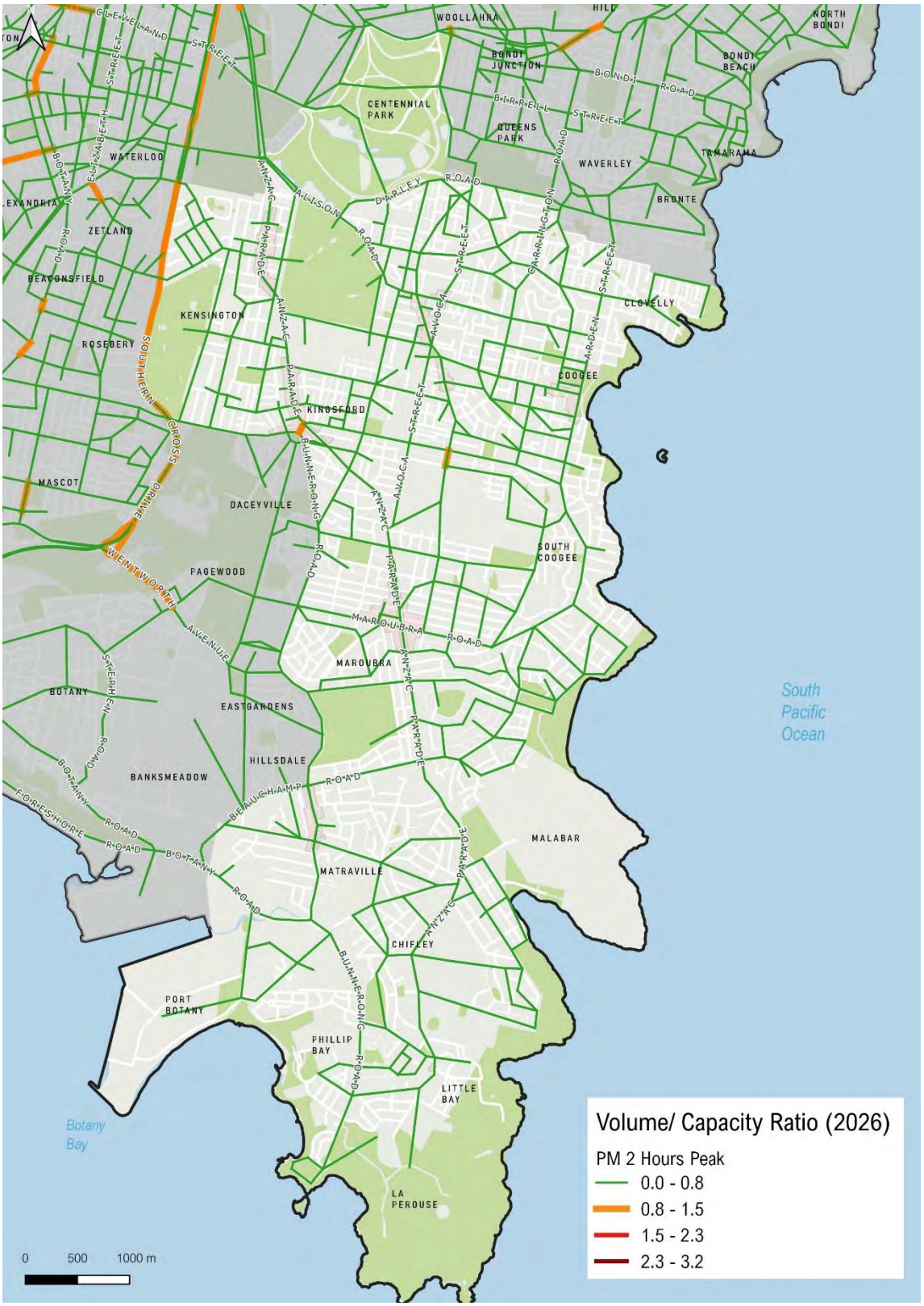
Similar to the morning peak, sections of Wentworth Avenue are also at or near a V/C of 1 in the afternoon peak, which may impact upon some east-west vehicle movements.

Figure 6.5: Volume/ Capacity Ratio 2026 (AM peak)



Source: GTA Consultants based on STFM data from TfNSW

Figure 6.6: Volume/ Capacity Ratio 2026 (PM peak)



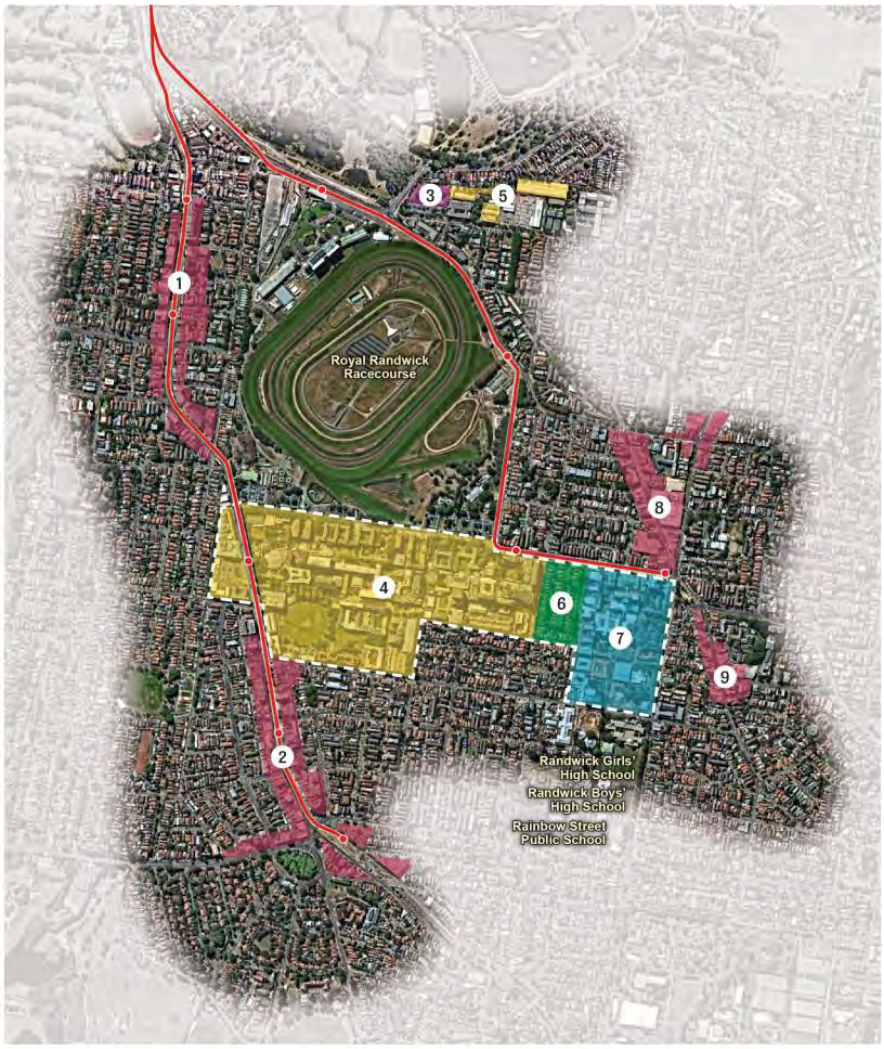
Source: GTA Consultants based on STFM data from TfNSW

6.3. Future Demographic Changes and Land Use Developments

6.3.1. Randwick Strategic Centre and Collaboration Area

The Randwick Strategic Centre is defined in *A Metropolis of Three Cities* as a health and education precinct and also a collaboration area, where a place-based and multi-stakeholder approach is undertaken to solve complex urban issues. The Randwick Collaboration Area contains the cluster of UNSW, Randwick Hospitals Campus and the surrounding town centres of Kensington to Kingsford, Randwick Junction and the Spot and the Royal Randwick Racecourse. These areas are illustrated in Figure 6.7.

Figure 6.7: Randwick Collaboration Area Key Sites



1	Kensington Town Centre	5	UNSW Randwick Campus	9	The Spot
2	Kingsford Town Centre	6	Future Campus Expansion		Light rail and stations (under construction)
3	TAFE NSW Randwick	7	Randwick Hospitals' Campus		Collaboration Area
4	UNSW Kensington Campus	8	Randwick Junction Town Centre		Health and Education Precinct (core activity)

Source: Randwick Place Strategy, Greater Sydney Commission, December 2018

The population and employment numbers for the area are forecast to increase, by 24,000 and 26,000 respectively, between 2016 and 2056.[7] This will result in more trips to/from the area for commuting, education, shopping, and recreation purposes, increasing demand on public transport and the road network.

The projects proposed in Future Transport 2056, as well as the Randwick Health Campus Redevelopment described below, will seek to accommodate this forecast growth.

Randwick Health Campus Redevelopment

The Randwick Health Campus consists of four hospitals:

- Prince of Wales Hospital
- Sydney Children's Hospital
- Royal Hospital for Women
- Prince of Wales Private Hospital.

These are also a number of associated research institutes including the Black Dog Institute, Neuroscience Research Australia and the Bright Alliance.

The redevelopment of the Randwick campus comprises two stages:

- Stage 1: Expansion to the south and construction of a new Acute Services Building (ASB) fronting Botany Street (to the west) and Magill Street (to the south)
  - 2022 - increase of 58 beds and 386 staff (full time equivalent)
  - 2027 - increase of 111 beds and 563 staff (full time equivalent).[8]
- Stage 2:
  - Frontage to Botany Street (to the west) and High Street (to the north).

As part of Stage 1 the new Acute Services Building (ASB) will bridge the physical gap between the Health Campus and UNSW Randwick Campus. The ASB will include a new intensive care unit, operating theatres, extra beds, and a new emergency department. The ASB will enable education, training, and research to be more closely integrated into the health care services provided across the precinct.[9]

6.3.2. Eastgardens- Maroubra Junction Strategic Centre

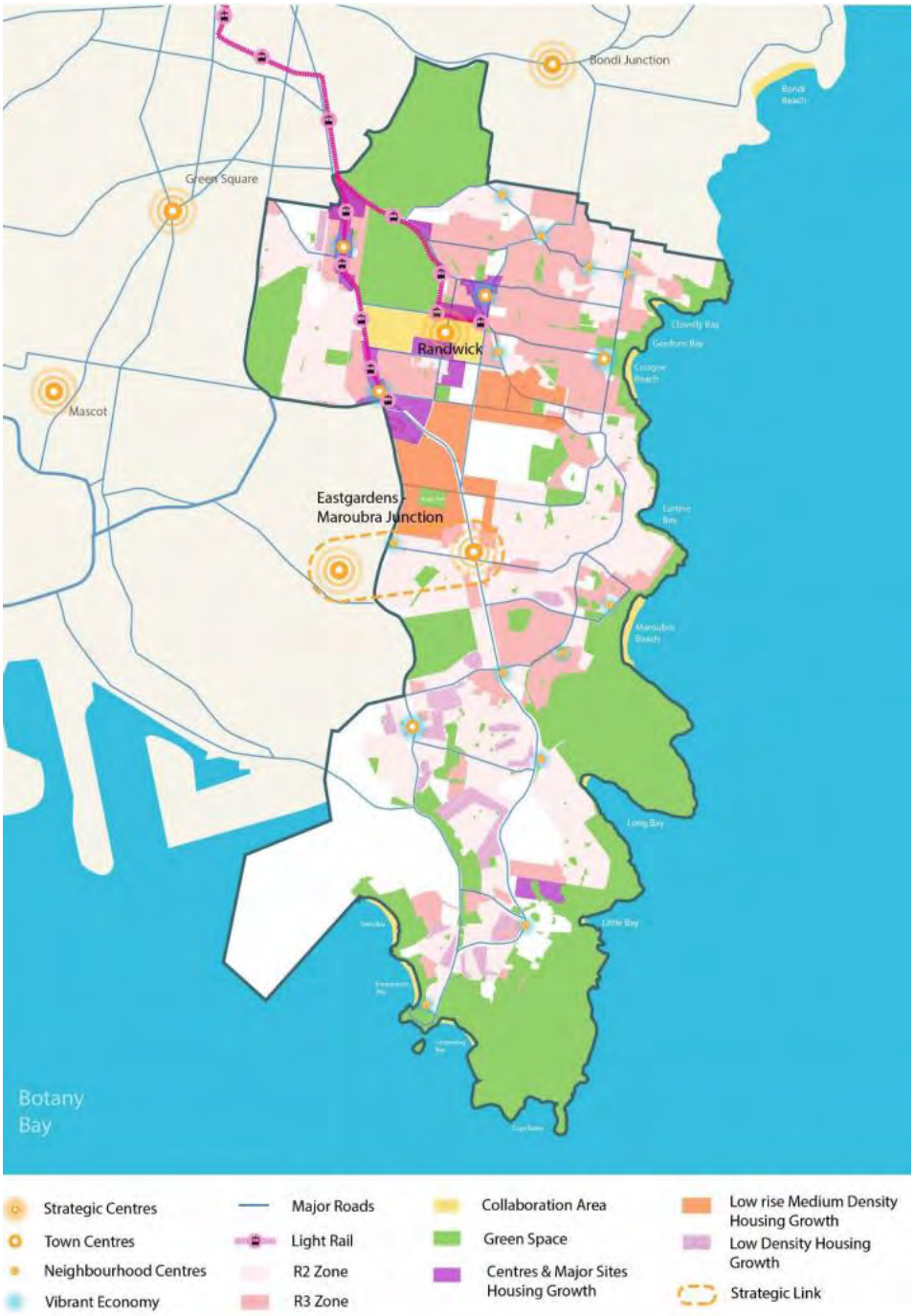
The Eastgardens - Maroubra Junction strategic centre is located approximately nine kilometres south of the Harbour CBD and has a large retail catchment at Westfield Eastgardens and Pacific Square at Maroubra Junction. Maroubra Junction's existing role is to offer retail, health and community services to the local population, with a connection to Eastgardens via Maroubra Road. Eastgardens is changing through the redevelopment of the British American Tobacco Factory site. The centre is a newly identified strategic centre in the Eastern District Plan for both Randwick and Bayside LGAs. The future economic and social role of this strategic centre has not been exactly identified. However, it is expected to attract and generate growth in transport and traffic demands for different trip purposes including shopping, commuting and freight. Planned future transport projects in the next 10 to 20 years, including a light rail extension to Maroubra Junction and the mass transit link to the South East, would support the expected growth.

[7] TfNSW Travel Zone Population and Employment Projections 2019
[8] Transport Assessment – Acute Services Building, Arup 2018
[9] *ibid* at 8

6.3.3. Housing Growth

Council's Housing Strategy sets out the strategic framework for residential growth within Randwick City to 2040. This Strategy has provided a housing growth target of 4,300 dwellings within 6 to 10 years as a short- to medium-term action. The locations of these different housing types are illustrated in Figure 6.8.

Figure 6.8: Short and medium term (0-10 year) housing growth



Source: Randwick Housing Strategy, Randwick City Council

Newmarket Randwick and Little Bay Cove are existing approved development applications for major redevelopment sites that contribute to the aforementioned growth target. The locations of these developments are also shown in Figure 6.9. Newmarket Randwick has development approval for 750 dwellings of which approximately 293 dwellings have been constructed and it is expected to complete in 2021 to 2022. The residents of this new development have walking access to the Randwick light rail stop which is located less than 400 metres away.

Little Bay Cove in Little Bay is a development comprising 450 dwellings of which approximately 224 dwellings have been constructed. It is likely that the remaining approved development capacity of these sites will be realised in the short- and medium-term. This development is not well served by public transport, as evaluated in Section 4.2.3. Developments such as Little Bay Cove will likely continue the high rate of car ownership and vehicle trips, unless public transport connections are improved.

Major sites for housing growth have been identified near the light rail, town centres and strategic centres to capture development uplift and realise housing targets. Providing additional housing in these locations is consistent with objective 14 of A *Metropolis of Three Cities*: integrated land use and transport creates walkable and 30-minute cities. The proposed homes in these areas would have great access to job opportunities via the light rail in the Health and Education Precinct, town centres including Kensington and Kingsford, and to the CBD. Such areas were also chosen to enhance the built form transition and interaction between taller buildings and nearby residential areas such as the UNSW and Hospitals Campus to the north and south. Based on the strategy, this land use planning is estimated to provide about 2,770 new dwellings to the medium-term housing goal of 6 to 10 years.

The strategy also outlines how housing growth from 2027 to 2036 will be accommodated and managed. The long-term housing growth opportunities are identified in Figure 6.9, which are dependent on commitments to transport infrastructure including a mass transit link connecting to Sydney CBD via Randwick and Eastgardens-Maroubra Junction to Malabar, a light rail extension to Maroubra Junction, and an extension of a South East mass transit link to Miranda. Randwick City's long-term housing target is the provision of 8,600 dwellings post 2027. As the map shows, most of the additional housing growth in the long term will be concentrated around Maroubra Junction and Maroubra, which highlights the need for the planned mass transit or light rail connections to Maroubra as proposed in *Future Transport 2056*.

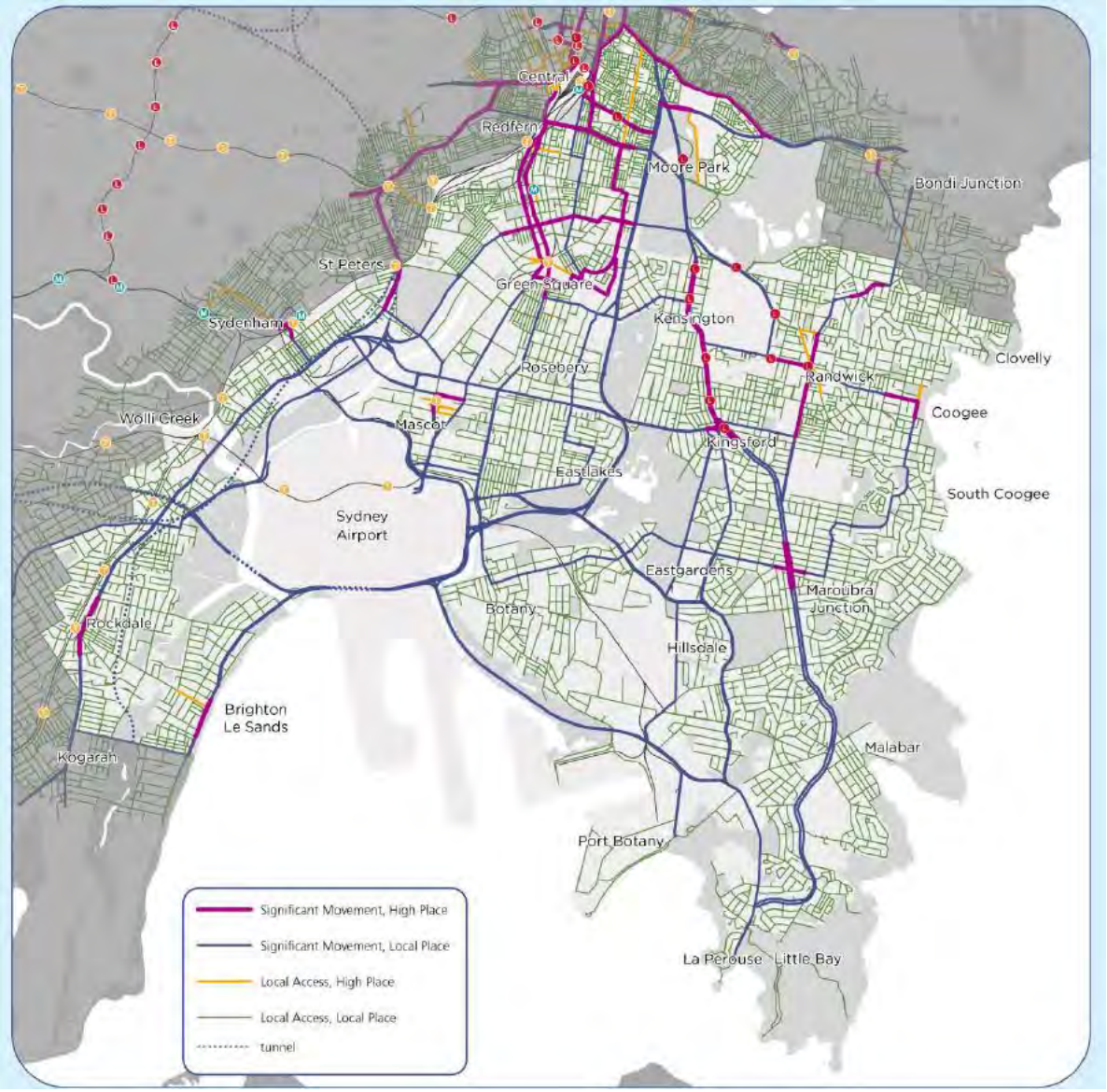
Figure 6.9: Long term (10+ year) housing growth

Source: Randwick Housing Strategy, Randwick City Council

6.4. Future Movement and Place Classification

The future Movement and Place classification for Randwick City is informed by known future changes to the transport network and land uses, as documented in this chapter, and is encapsulated in the work carried out by TfNSW and partner entities (including Randwick City) in the South East Sydney Transport Strategy (SESTS). This future classification can be contrasted with the existing Movement and Place environment from Figure 4.32. Figure 6.10 presents the future Movement and Place classification for Randwick City as adopted in the SESTS.

Figure 6.10:Future Movement and Place classification for South East Sydney, including Randwick City



Source: *South East Sydney Transport Strategy*, Transport for NSW, 2020

In contrast with Figure 4.32, the desired future classification emphasises place activity along key corridors currently dominated by movement. This change is evident in the centres of Maroubra, Coogee, Kingsford and Kensington. The classification from the SESTS indicates a future state which prioritises a stronger place function, which could include reallocation of road space to active transport and public space, greater diversity and intensity of land uses, more street activity and more tree canopy cover. This change is enabled by the initiatives proposed in the SESTS' preferred scenario, such as more intense levels of development at future Metro stations and along rapid bus corridors, resulting in vibrant centres which are major destinations in their own right, rather than movement thoroughfares.

7. IMPACT OF COVID-19 ON TRAVEL BEHAVIOUR

7.1. Introduction

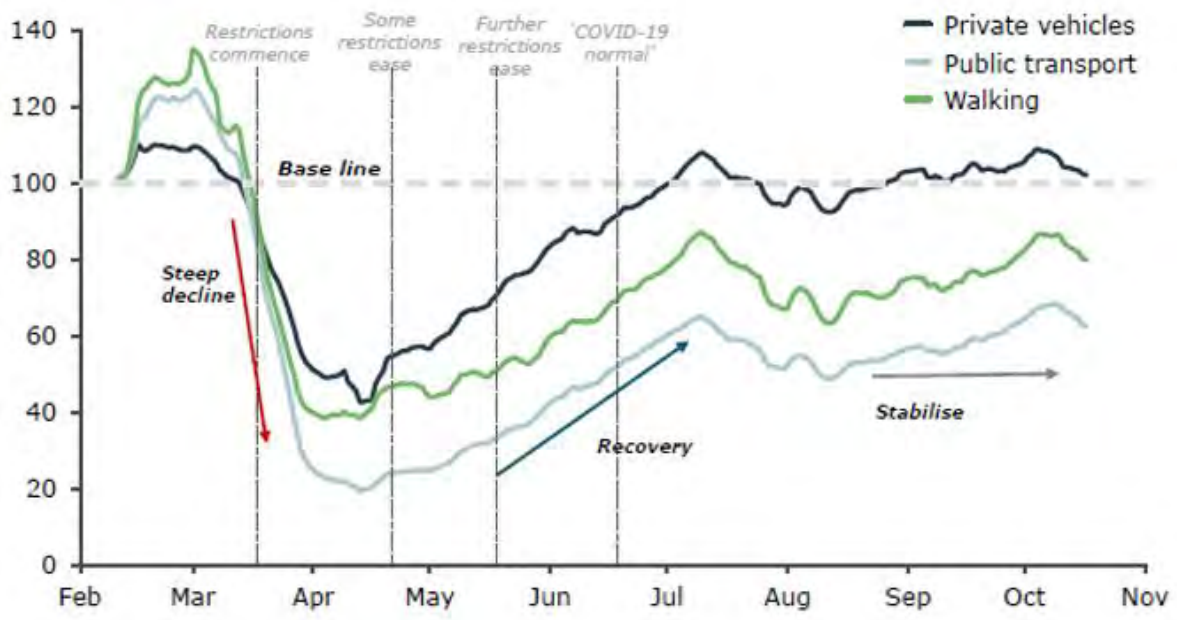
The effects of the global COVID-19 pandemic have had and continue to have far-reaching impacts on personal mobility and travel behaviour in all Australian cities. The impact of the initial lockdowns in March 2020, subsequent government-imposed travel and mobility restrictions and the general fear of contracting COVID-19 outside of people's homes have fundamentally changed the way people travel for work and other purposes in Australia. With continual uncertainty around the duration of this pandemic in the near future, changes to travel behaviour caused by COVID-19 are expected to remain in the interim. This chapter outlines the nature and scale of the travel-related impacts in Australia and sets out potential future implications for cities including Randwick City in the short and longer terms.

7.2. Impacts on travel behaviour in Sydney and Australian cities

7.2.1. Initial shock, recovery and stabilisation

Across all transport modes in 2020, personal mobility demand has undergone a steep decline from the initial impact of the pandemic, to phases of recovery and stabilisation as community transmission cases of COVID-19 reduced and stabilised (Figure 7.1).

Figure 7.1: Transport demand in Sydney, January to October 2020, percentage of baseline demand

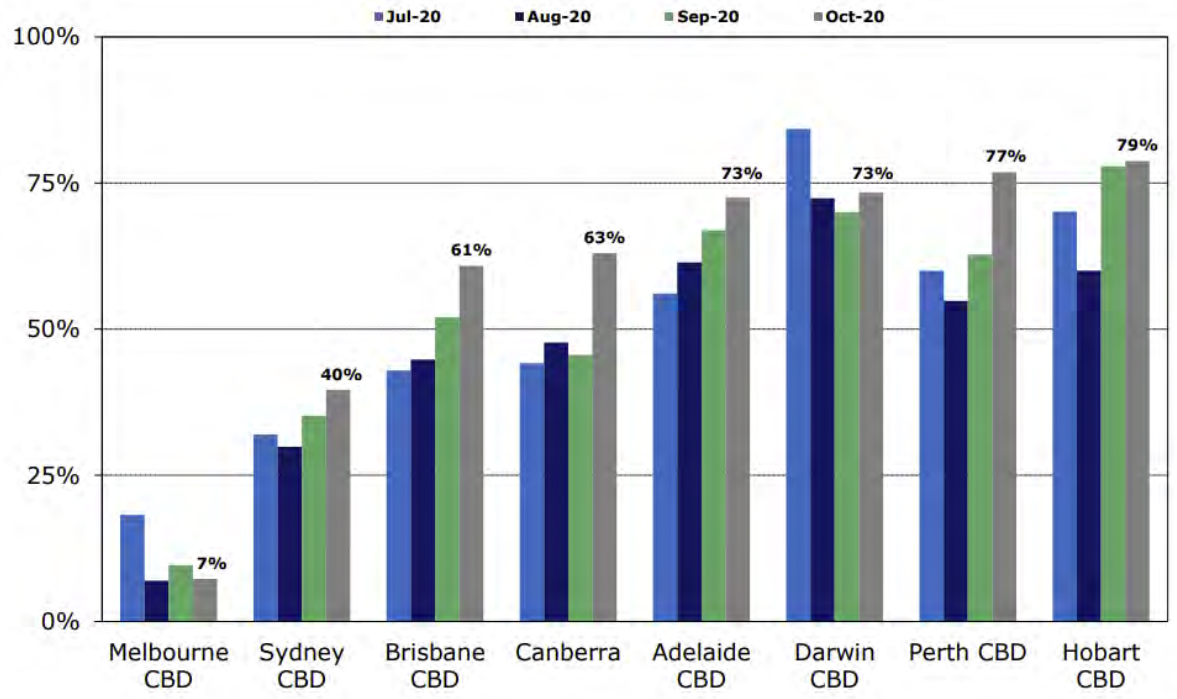


Source: Apple Mobility data - https://covid19.apple.com/mobility and L.E.K. research and analysis in *Infrastructure beyond COVID-19 – A national study on the impacts of the pandemic on Australia* (Infrastructure Australia, 2020)

7.2.2. Uneven recovery

Despite the stabilisation of COVID-19 case numbers and transport demand in Sydney, not all modes have yet returned to their pre-COVID-19 level of demand, with public transport lagging in its recovery compared to driving with driving demand back at or in some cases exceeding pre-COVID-19 levels (Figure 7.1). This trend suggests that the attractiveness of working from home and the fear of COVID-19 infection while using public transport are strong determinants of public transport use rather than actual COVID-19 case numbers. Working from home has caused sharp declines in Sydney city centre office occupancy rates, although this is gradually increasing in line with the slow public transport patronage recovery (Figure 7.2).

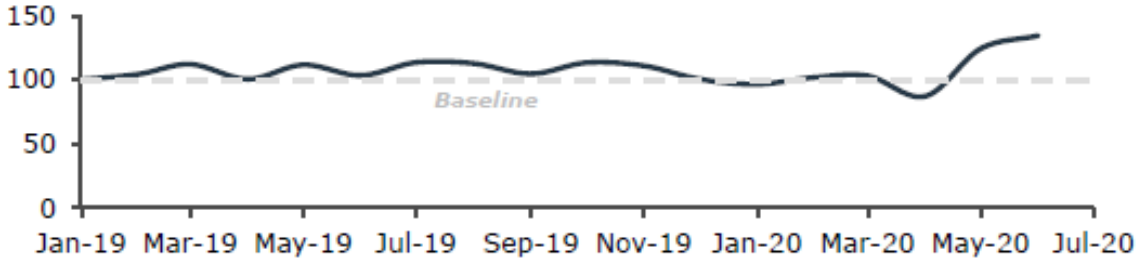
Figure 7.2: Office occupancy levels compared to the pre-COVID-19 period



Source: Property Council of Australia

The shift away from public transport use to more private vehicle use may also become an enduring trend, as demonstrated in the growth of second hand vehicle registrations in NSW in 2020, which suggests more households were purchasing an additional car, shown in Figure 7.3.

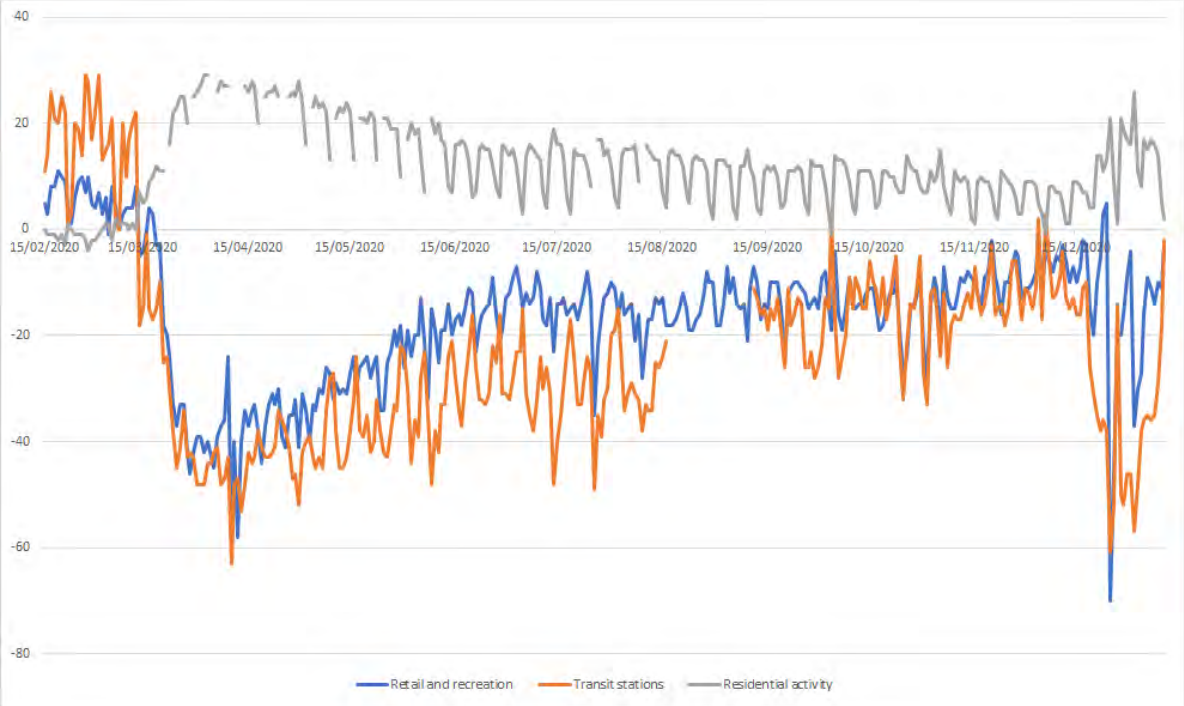
Figure 7.3: Growth in second hand vehicle registrations in NSW, June 2017 – June 2020, percentage of baseline demand



Source: Transport for NSW registration data table 1.3.2 in *Infrastructure beyond COVID-19 – A national study on the impacts of the pandemic on Australia* (Infrastructure Australia, 2020)

In terms of mobility trends for Randwick City, Google Mobility data reveals a similar trend of a steep decline followed by recovery and stabilisation in line with Greater Sydney's transport demand trends in Figure 7.1.

Figure 7.4: Percentage change in visitation to retail and recreational activities, transit stations and residential activity from the baseline in Randwick City



Source: Google LLC "Google COVID-19 Community Mobility Reports". https://www.google.com/covid19/mobility/ Accessed: 14/01/2021

Figure 7.4 shows that visitation to retail and recreational activities as well as transit stations in Randwick City experienced a steep decline during March before going through a recovery and stabilisation process throughout 2020 compared to the baseline. The baseline is defined from a five-week period across January and February 2020. At the same time, Figure 7.4 shows residential activity rising during March 2020, as more people stayed at home due to lockdown measures. This stay-at-home activity declined slightly as the months progressed in 2020 but remained above the baseline throughout the year.

7.2.3. Growth in cycling

While people in Sydney have moved away from public transport, there has also been growth in cycling across the inner areas of Sydney. The City of Sydney reported an increase in cycle traffic of around 25 to 50 per cent as measured by its cycle counters[10]. In response, Transport for NSW has worked with local councils to deliver over 10 km of pop-up cycleways in Sydney to cater for this increased demand and to incentivise socially distanced active transport.

7.2.4. Decentralised freight

The continued popularity of working from home, reduced travel to the Sydney city centre and the fear of contracting COVID-19 while shopping has led to a significant growth in online shopping and home deliveries. Online shopping in NSW grew by 102 per cent in April 2020 compared to April 2019, while usage of Australia

[10] https://www.afr.com/companies/infrastructure/bike-lanes-in-demand-as-cycling-is-rediscovered-20200612-p551xy

Post parcel lockers outside of CBD locations increased by 25 per cent while CBD usage was down by 25 per cent between March and May 2020.[11] This increase in freight to decentralised locations has increased demand for loading in dispersed suburban locations.

7.3. Implications for the future

As Australia embarks on its ongoing recovery from the COVID-19 pandemic and the prospect of a vaccine may encourage more social interaction and mobility, the extent to which the impacts of COVID-19 on travel behaviour become enduring in the longer term is a question that policymakers across all levels of government must grapple with. In light of the trends observed in 2020, GTA has outlined a number of scenarios that may prevail in cities and LGAs throughout Australia, including Randwick City. These scenarios include:

- Hitting the Road – desire for socially distanced transport and the fear of contracting COVID-19 leads to strong growth in car use and ownership that persists beyond the pandemic
- Getting Active – growth in cycling to avoid public transport leads to growing confidence in cycling and discovery of local cycle routes, which drives an ongoing uplift in active travel
- Flex Working – attractiveness of working from home leads to flexible working arrangements post-pandemic (e.g. half a week at home, half a week at the office)
- Back to Business As Usual – the success of Australia's recovery from COVID-19 and the roll-out of a vaccine provides confidence for greater social interaction and mobility on par with pre-COVID-19 trends. Office work returns largely to the office in city centres and public transport patronage returns to pre-COVID-19 levels.

The transport phenomena and future implications associated with each of these scenarios are summarised in Table 7.1 below.

Table 7.1: Potential post-pandemic scenarios

Scenario	What could change?	Implications
Hitting the Road	• Continued high vehicle kilometres travelled and car ownership • Greater traffic volumes and longer peaks • Greater parking demand • Deterioration in road safety due to greater conflicts between vehicles and other users	• Demand for more road capacity to relieve growth in traffic • Demand management techniques such as road or congestion pricing to be explored • Rising parking costs and calls for more parking supply • Road space allocation away from cars becomes more difficult • Growth in tailpipe and greenhouse gas emissions
Getting Active	• Growth in cycling, walking and other forms of micro-mobility for short trips • Increased safety risks to people walking and cycling	• Demand for more safe and socially distanced walking and cycling infrastructure (e.g. wider paths) • Demand for more end-of-trip facilities at workplaces • Greater prevalence of e-mobility devices
Flex Working	• Reduced commuting demand as workers work from home for a part of the week • Variable start and finish times lead to spreading of peak commutes	• Reduced peak demand reduces the need to provide transport capacity based on peak requirements • Reduced interpeak demand due to more virtual meetings • Demand for major transport infrastructure softens. • Push for smaller scale local transport infrastructure

[11] Australia Post 2020 eCommerce Industry Report

Scenario	What could change?	Implications
	• Emergence of satellite offices leads to localised trips	
Business as Usual	• Same mode-share as pre-COVID 19 and associated pressures on transport networks. • Public transport will return to pre-COVID 19 levels.	• Continued impetus for delivery of the current pipeline of public transport and road network infrastructure. • A missed opportunity to build on lessons learnt during the pandemic – e.g. the need for safe and socially distanced active transport infrastructure, less travel for meetings, flexible working arrangements

Given the dynamic nature of the pandemic and the uncertainties that lie ahead, it is likely that the scenarios highlighted above will not play out in a mutually exclusive manner; cities will likely adapt and evolve and pick up on the travel behaviours that have proved advantageous moving forward. This could mean a mix of the possible changes will eventuate, rather than completely going back to business as usual or completely adopting travel behaviours observed at the height of COVID-19 lockdowns. Proactive planning and activity by governments, business and organisations can make the most of the silver lining of COVID-19.

8. SUMMARY OF FINDINGS

8.1. Overview

A summary of the key challenges and opportunities and recommended actions in response to these is presented in Table 8.1 below and are not in any particular order of priority. The identified key challenges and opportunities are based on the preceding analysis of the existing transport conditions and categorises them by travel mode or focus area. The identified issues and opportunities inform the potential future transport changes that are required and the recommended actions for the subsequent Integrated Transport Strategy to be prepared by Randwick City, which will support other key documents such as the SESTS.

Key transport issues and opportunities identified earlier by Randwick City and the Randwick Collaboration Area in documents such as the Discussion Paper from the Randwick Local Transport Working Group[12] and the Randwick Place Strategy[13] have also been set out in Table 8.1, with the purpose of ensuring earlier identified issues and opportunities have alignment with the findings of this Transport Study.

In Table 8.1, agency stakeholders refer to government agency partners involved in the Randwick Collaboration Area. In terms of the proposed timeframes, short term refers to 0-5 years, medium term refers to 5-10 years and long term refers to over ten years.

[12] Randwick Local Transport Working Group (Group priorities, work underway and possible joint initiatives) by Randwick City Council, December 2019

[13] Collaboration Area Randwick Place Strategy by Greater Sydney Commission, December 2018

Table 8.1: Summary of Key Challenges and Opportunities

Area/Mode	Challenges and opportunities	Raised by:	Recommendation	Timeframe
Walking	Limited walking permeability in selected street blocks requiring significant walking detours, especially near town centres, for example, Avoca Street in Randwick and Harold Street and Perry Street at Matraville	• Agency Stakeholders	A1: Council to investigate new mid-block walking links	Long term
	Concentration of crashes, including pedestrians, within and around town centres including Randwick, Kensington, Kingsford and Coogee, as well as in high speed environments such as Anzac Parade and Alison Road	• Council • Agency Stakeholders	A2: Council to investigate safety improvements at identified locations	Short term
	Opportunities to improve public domain and walking amenity in Randwick including the UNSW and Hospitals campuses, along Anzac Parade and at other town centres	• Council	A3: Council and key agency stakeholders to undertake review of potential public domain improvements	Medium term
Cycling	Lack of an integrated cycleway network across the LGA that is supported by safe on-street and off-street protected cycle routes	• Community • Council • Agency Stakeholders	A4: Provision and improvement of safe cycling access between town centres such as Kingsford, Kensington and Randwick	Short term
	Opportunity to have an integrated safe bicycle and pedestrian plan for the LGA that will provide Randwick with connections to existing and new trip generators across the LGA including light rail stops, town centres and housing growth locations	• Community	A5: Council to update the 2015 Bicycle Route Construction Priority List and develop an integrated pedestrian and bike plan for the LGA	Short term
	Lack of local cycleways in the southern part of the LGA	• Gap identified through this Study	A6: Council to investigate implementation of Anzac Bikeway Route 6 'Mid B' and Anzac Bikeway Route 2 'Mid A' from the 2015 Bicycle Route Construction Priority List.	Short term
	Limited east/west cycle connectivity for example, between Anzac Parade to Coogee Beach	• Council	A7: Council to continue planning proposed links between Anzac Parade and Coogee Beach.	Medium term
	Increase end of trip facilities around town centres and frequent public transport stops to support cycling activity and access to the public transport network	• Community • Council	A8: Council to include end of trip facilities in relevant planning documents and new developments	Short term
	Limited wayfinding and maps to support both short- and long-distance trips	• Council	A9: Council to enhance existing bicycle wayfinding plan and combine with walking to develop an active transport wayfinding plan	Short term

Area/Mode	Challenges and opportunities	Raised by:	Recommendation	Timeframe
	In many areas of Randwick, steep topography is a barrier to walking and cycling	• Gap identified through this Study	A10: Council to promote electric micromobility options to replace short vehicle trips where possible	Short term
Intermediate Transit - bus and light rail	Wider distribution of frequent bus services is needed as these services are concentrated in the northern half of the LGA. A lack of frequent services in the southern half results in poor public transport accessibility, e.g. from Little Bay. Increased bus connections from the southern half of the LGA to Port Botany and Sydney Airport should also be explored.	• Community	P1: Council to work with TfNSW and bus operators to increase service frequency in the south, improve interchange opportunities with light rail, and investigate bus access to Port Botany and Sydney Airport.	Short term
	Limited provision of rapid, direct, bus links from the Eastern Suburbs to the Inner West, resulting in long travel times and indirect trips through the Sydney CBD. The Eastern Suburbs to Inner West rapid bus links identified in Future Transport 2056 by TfNSW will address the lack of east-west frequent public transport options, providing better accessibility not only for commuters but also for visitors to Randwick's coastal attractions. This Rapid line will also support the Randwick Strategic Centre, especially access to the Health and Education precinct.	• Community	P2: Council to work with TfNSW, City of Sydney, Bayside Council and bus operators to enable the implementation of the Eastern Suburbs to Inner West rapid bus links identified in Future Transport 2056.	Medium term
	A Green Square to La Perouse rapid bus link identified in Future Transport 2056 by TfNSW will improve 30-minute transport accessibility from the strategic centre of Green Square to the southern suburbs of the Randwick LGA.	• Gap identified through this Study	P3: Council to work with TfNSW, other local councils and bus operators to enable the implementation of the Green Square to La Perouse rapid bus link identified in Future Transport 2056.	Medium term
	Bus route changes following the opening of the L3 Kingsford light rail line provide an opportunity to improve coverage and accessibility across the LGA, and boost service frequency in areas underserved by public transport to connect with the light rail network.	• Gap identified through this Study	P4: Council to work with TfNSW and bus operators to improve service frequency in underserved areas.	Short term
Mass Transit – rail and Metro	Maroubra Junction has been identified as a future strategic centre, with anticipated growth in employment and population. This growth is expected to be supported by the proposed extension of light rail or a future mass transit link. Increased housing through new developments will generate more short walking and cycling trips to and from stations.	• Gap identified through this Study	P5: Council to pursue mass transit solutions with TfNSW to increase public transport travel, and provide supporting active transport infrastructure to connect to stations.	Long term
	The long term provision of a mass transit link from the Sydney CBD to Malabar via Randwick and Maroubra Junction is an	• Community	P6: Council to pursue mass transit to improve travel times by public transport to	Long term

Area/Mode	Challenges and opportunities	Raised by:	Recommendation	Timeframe
	opportunity to link not only strategic centres and town centres within the LGA but also the outer parts of the LGA with the Sydney CBD. This proposed mass transit link would provide a high capacity, quick and frequent public transport link to support projected population and employment growth, including areas with poor public transport accessibility. The Randwick Collaboration Area will also benefit from this mass transit link with faster and more reliable access to other job centres such as the Sydney CBD.	• Gap identified through this Study	strategic centres within Randwick and Metropolitan centres across Sydney	
Road Network	Many traffic crashes occur along major roads including Anzac Parade and Alison Road.	• Gap identified through this Study	R1: Council to work with TfNSW to identify measures for reducing crashes on state and local roads	Medium term
	Crashes involving pedestrians typically occur in or near town centres across the Randwick LGA, with multiple incidents occurring in Randwick, Kingsford, Kensington, Maroubra Junction and Matraville town centres.	• Gap identified through this Study	R2: Council to investigate reducing speed limits in town centres and addressing any critical locations on local roads through urban design and traffic calming treatments	Short term
	Identified congestion pinch points in places such as UNSW, Randwick and the Kingsford Town Centre.	• Council • Agency stakeholders	R3: Council to work with TfNSW to identify measures for improving specific pinch point locations	Short term
Freight	B-double freight movements are concentrated along Bunnerong Road towards Port Botany, although there are high volumes of freight along other corridors such as Anzac Parade. Leverage the opportunity from the Sydney Gateway project to rethink freight access to Port Botany, including reducing B-double truck movements through the LGA in favour of the new road links as part of this project.	• Agency stakeholders • Gap identified through this Study	R4: Potential for Council to work with TfNSW to look at rationalisation of freight routes across the Randwick LGA and to and from Port Botany	Medium to long term
	The development of the Randwick Collaboration Area represents an opportunity to innovate in logistics management in terms of the different freight requirements from small to bulk retail, as well as trial and implement technologies related to mobility as a service, connected and automated vehicles and low carbon transport. Courier deliveries within the Sydney CBD and inner-city locations often occur via kerbside loading zones which are contested with larger trucks as well as conflict with other road users including buses and cyclists.	• Gap identified through this Study	R5: Investigate the potential for a freight hub or distribution centre for the Randwick Collaboration Area.	Medium term

Area/Mode	Challenges and opportunities	Raised by:	Recommendation	Timeframe
	A system could be developed that allows small parcels to be delivered to courier hubs, which would then be dispatched to couriers for last mile delivery to customers. The courier hubs could be located near key freight routes, which would allow easier access for trucks and service vehicles to pick-up and drop-off consignments to the hubs.			
	The Foreshore Road upgrade identified in Future Transport 2056 can provide more road capacity for freight between Port Botany, Sydney Airport and the M1 Motorway, which may contribute to decreasing the volume of trucks passing through the LGA's major roads such as Bunnerong Road and Anzac Parade.	• Gap identified through this Study	R6: Potential for Council to work with TfNSW to look at the implementation of the Foreshore Road upgrade	Medium term
Parking	The existing resident parking permit scheme should be reviewed to evaluate its effectiveness and suitability considering Council's strategic priorities, changing travel behaviours and the multiple functions available within a street.	• Gap identified through this Study	R7: Review of resident parking permit schemes across the LGA	Short term
	As light rail use increases and more developments occur along the corridor, reviewing parking requirements and rates is essential, including the relaxation or removal of minimum parking requirements to facilitate more affordable and compact development near this corridor.	• Council	R8: Review parking requirements along and near the light rail corridor	Short term
	Provision and allocation of share car parking spots, particularly within town centres, UNSW and southern parts of the LGA to assist with reducing parking demand and rates of driving in these locations	• Council	R9: Review provision and allocation of share car parking spots in town centres and at major trip destinations such as UNSW	Short term
	Opportunity to investigate joint parking management practices in the Randwick Collaboration Area for adjacent land uses including UNSW, the Hospital Campus, the Australian Turf Club, and Council.	• Council • Agency Stakeholders	R10: Investigate parking management in the Randwick Collaboration Area	Short term

The figures below indicate the recommendations as referenced by the recommendation number in Table 8.1.

Figure 8.1: Active Transport Recommendations

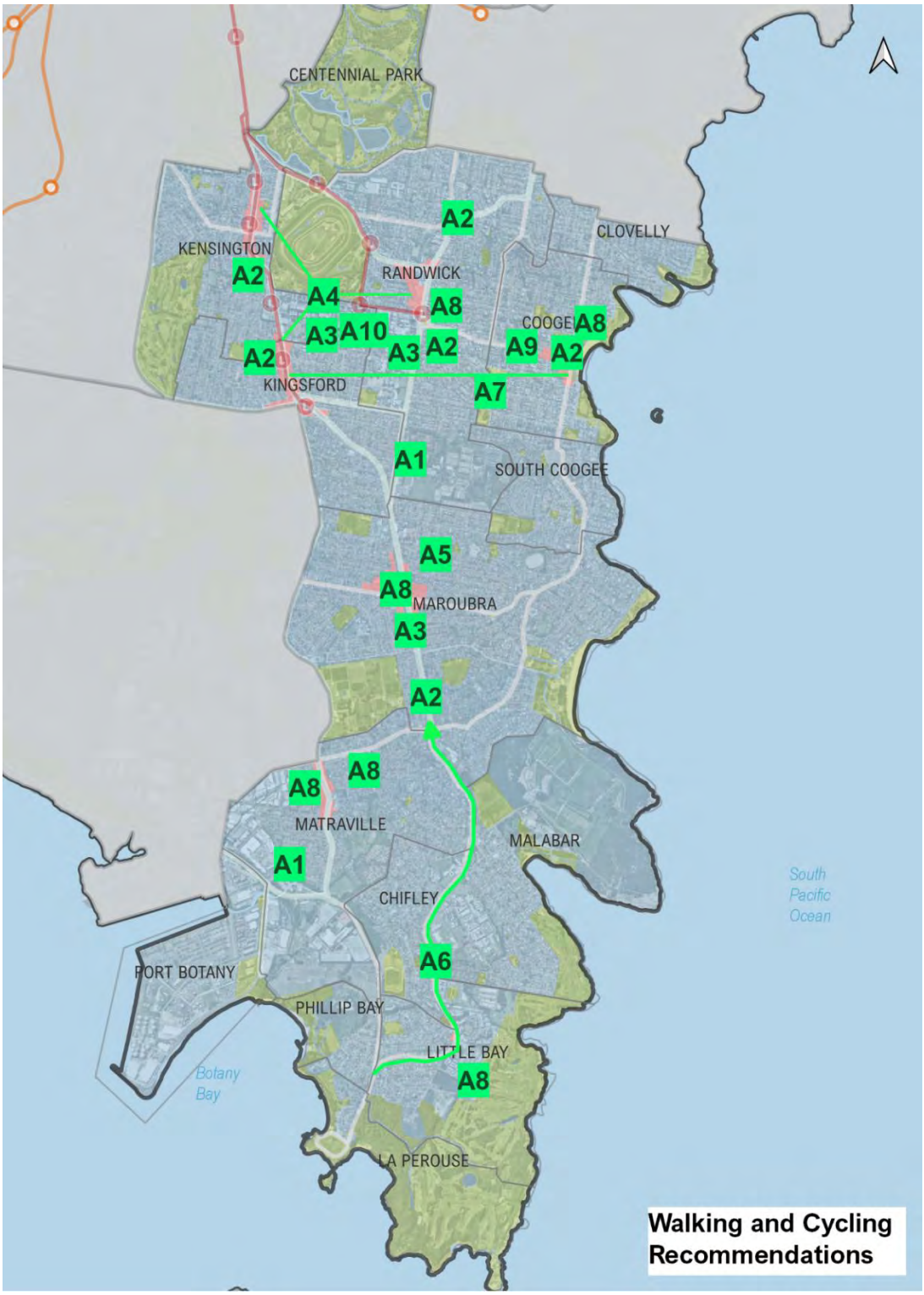
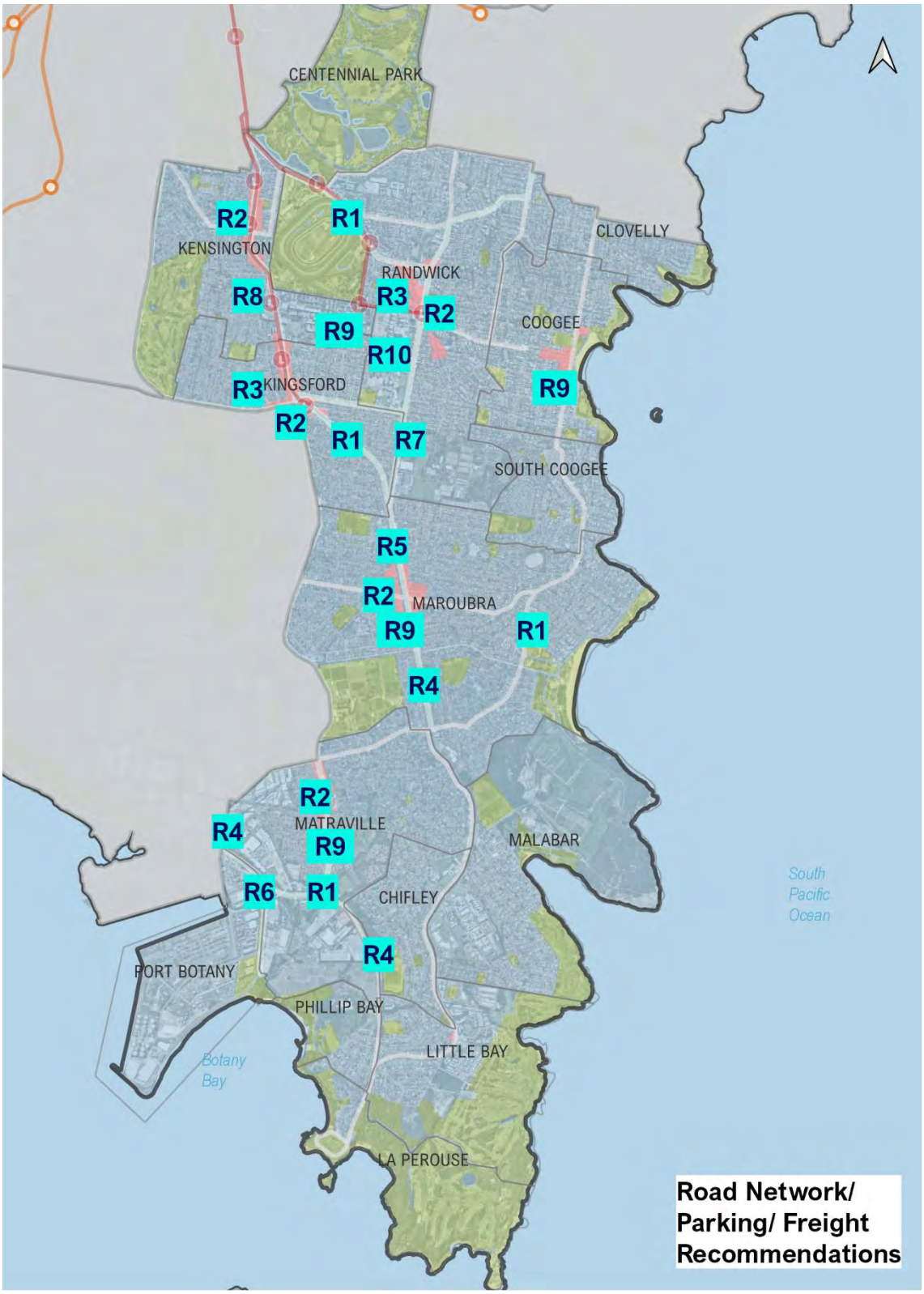


Figure 8.2: Public Transport Recommendations

Figure 8.3: Road, Freight and Parking Recommendations



9. CONCLUSION/ NEXT STEPS

The list of recommendations set out in Section 7 respond to the key challenges and opportunities identified in the analysis of the existing transport network, demographic factors and known future transport and land use changes in Sections 3, 4 and 6. The recommendations are also informed by the community and stakeholder engagement undertaken and summarised in Section 5, which provides clear insight into the major transport and mobility concerns and ideas from those living and working in Randwick City.

Accordingly, the findings from this Randwick Integrated Transport Study establish a platform from which Randwick City can propose, articulate and implement transport actions and policies as part of its development of an Integrated Transport Strategy throughout 2021.

The Integrated Transport Strategy is expected to set out Randwick City's proposed policies and actions to realise its vision for transport and this vision's relationship with place. The Integrated Transport Strategy, while covering the whole LGA, is recommended to include a place-based lens to support spatial variations in movement and place as demonstrated in this Integrated Transport Study, with reference to *Future Transport 2056* and the SESTS.

A. STAKEHOLDER ENGAGEMENT REPORT

A

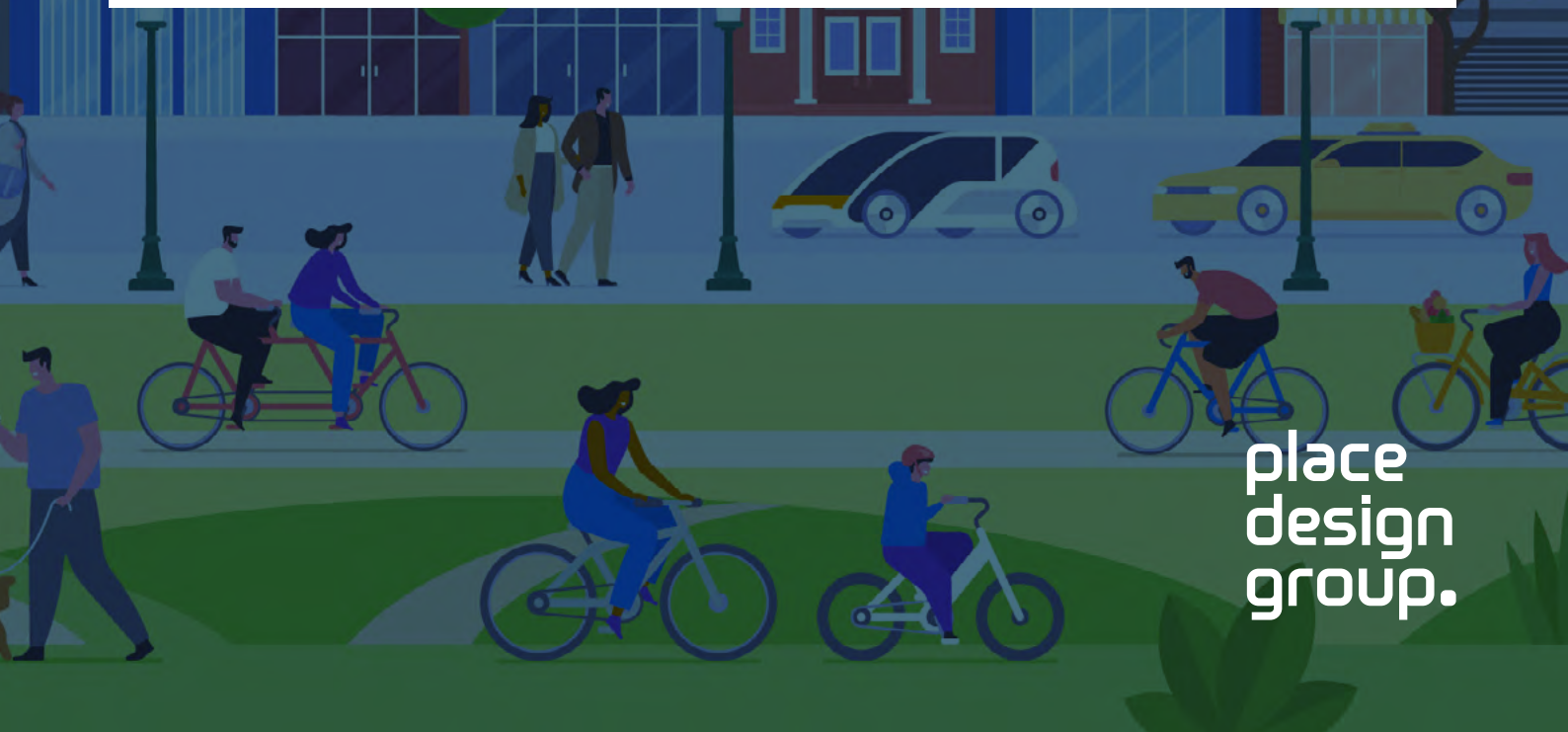
Randwick City Council
a sense of community

Randwick City Integrated Transport Study

Engagement Report

Prepared for GTA Consultants and Randwick City Council

May 2020



place design group.

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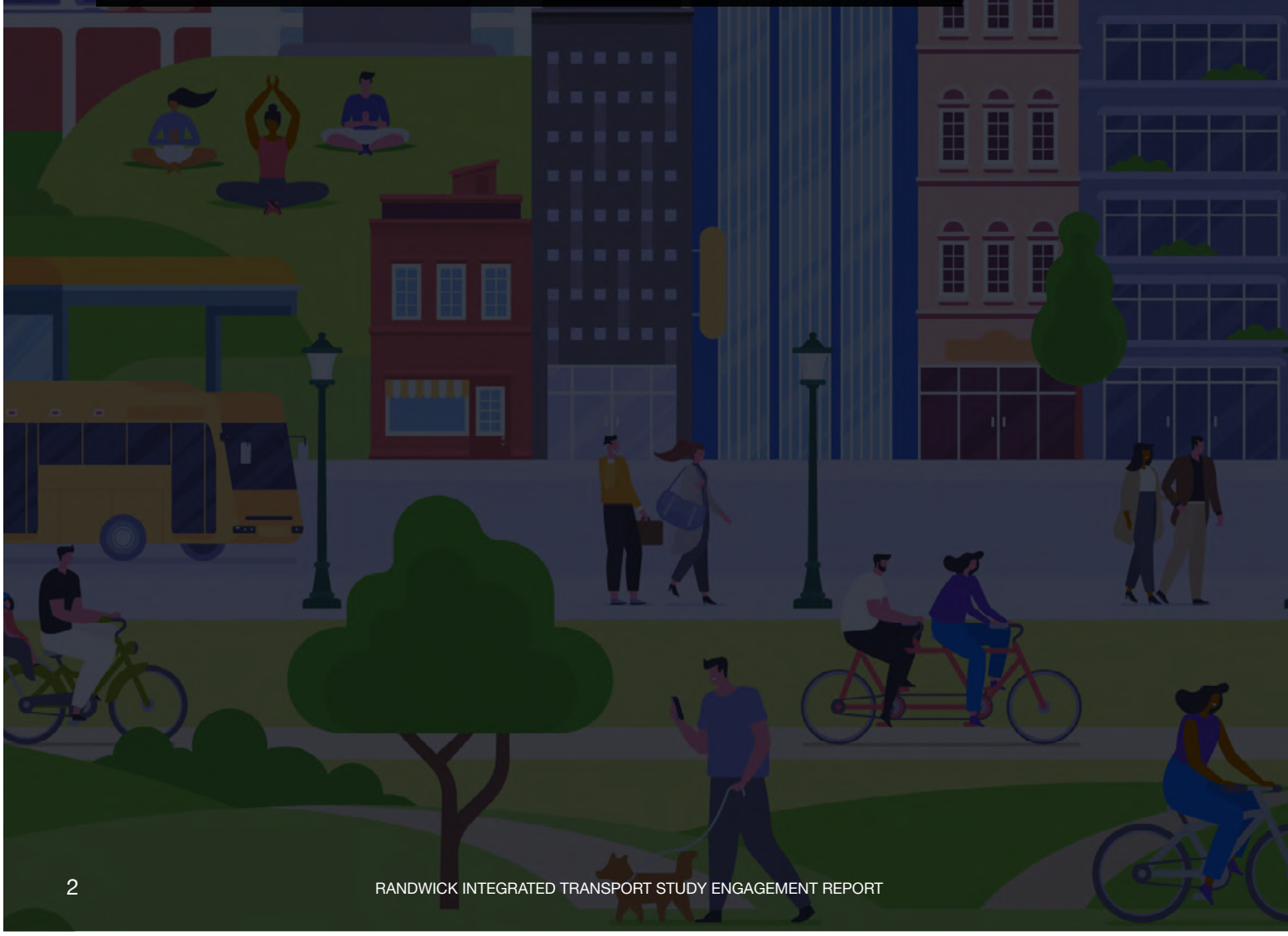
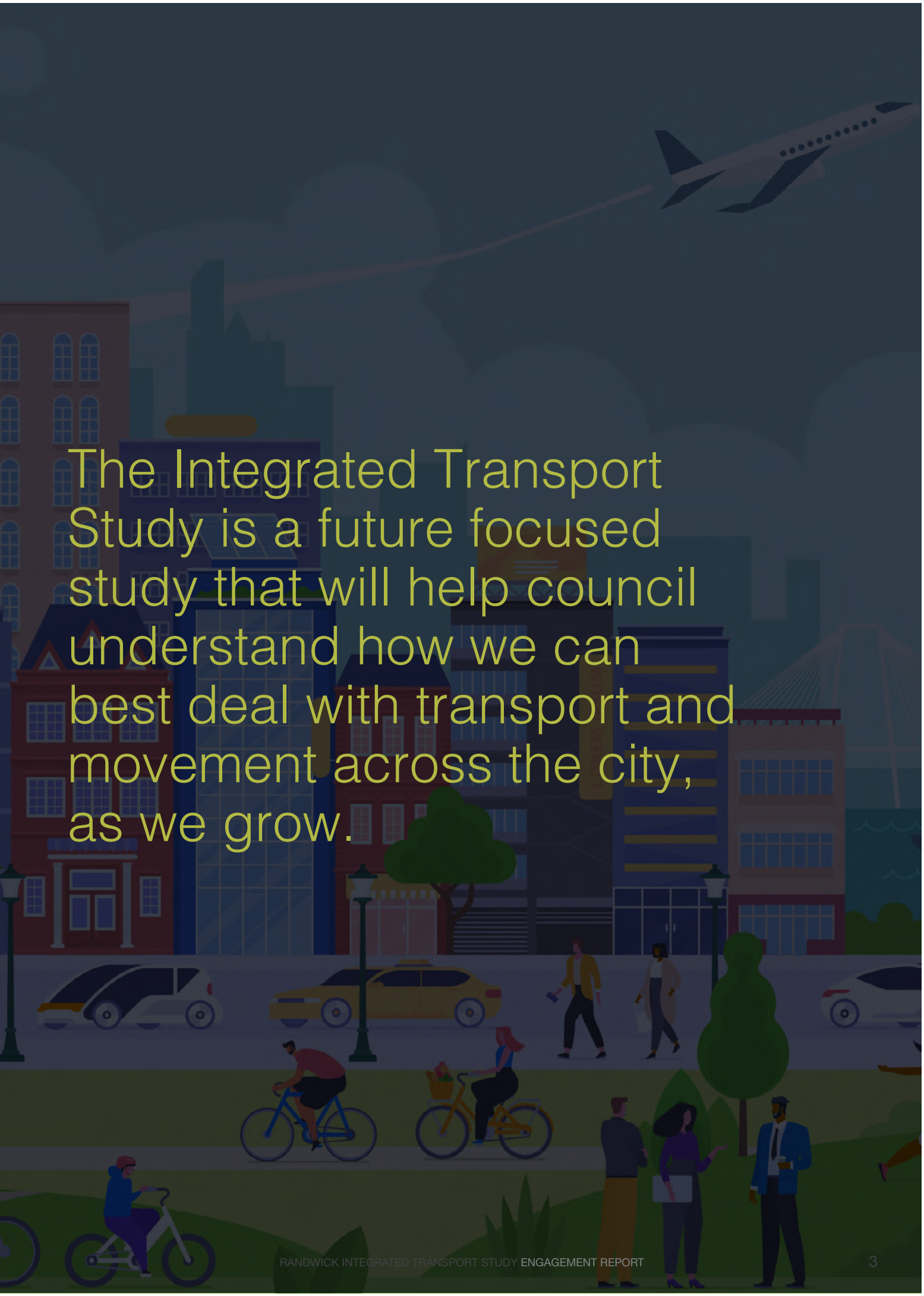




The Integrated Transport Study is a future focused study that will help council understand how we can best deal with transport and movement across the city, as we grow.

1. Introduction & Approach

The Randwick City Integrated Transport Study engagement approach was designed to be widespread and innovative. Simple, and targeted. The engagement period went for six weeks in total and consisted of then following mix of integrated methods and activities:

PART A: Frank Chats Online Survey
PART B: Key Stakeholder eSessions
PART C: Precinct Committee eWorkshops

Whilst COVID took hold of the engagement landscape just as the project commission was commencing, this was seen as no reason to not continue to engage with the community and key stakeholders around the future of transport and movement across the city of Randwick.

Together with council, the project team worked to pivot the thinking, ideas and mode of engagement service delivery so that council could continue with this important project, and the community could have a far reaching, and meaningful say that would help to inform future decision making around transport and movement across the LGA.

On-ground, face to face methods – whilst always preferred – were flipped to a digitally driven alternative, to combat the challenges presented by new social distancing measures.

And it worked well, with the team uncovering a suite of consistent, reinforced and meaningful insights for council reflective of the community.

This engagement approach, sought the use of adaptive tools – starting first with the use of council's existing options where possible. And with those digital methods that were most familiar and more commonly used by community.

The idea was to keep the digital engagement methods as simple, accessible and interactive as possible, to increase propensity for community participation and to generate deeper more useful insights.

At every digital touch point, the engagement strategy was designed for the audience to have a voice, via the use of hosted online interviews, virtual workshop facilitation, and an innovative focus on increased interactivity for the online Frank Chats Survey which included interactive spatial insights mapping and playful content and response mechanisms.

The following pages will identify those insights that came through all engagement works, and we encourage you to read on to learn more from the community about their views around how council might best deal with transport and movement across the city as we grow.

2. Insights: The Randwick Movement Picture

PART A:

Frank Chats Online Survey.

An interactive, online survey was developed in close collaboration with council, to dig deep for quantitative and qualitative insights from the general community. Here, general community values, behaviours, ideas, issues and gaps were identified and analysed.

The Randwick Integrated Transport survey was in market for a timeframe of six (6) weeks – extended at the approval of council for additional time in market that the communities request.

The survey received a total of 825 responses ranging from all corners of the LGA, due to a wide-reaching distribution strategy (council led) which included:

- Council eNews bursts (eComms) seeking feedback from a database of 46K email recipients
- A dedicated 'Have Your Say' online engagement hub project page that remained live for the duration of the engagement phase.
- Media advertising and promotion (on and offline)
- Via council networks (internal and external), community groups and council committees
- Cross promotion through all other engagement methods and touchpoints
- Community advocacy and self-promotion through their own community group and professional networks
- Social Media promotion via council channels, seeking feedback on the survey or via other have your say methods
- Council to add to or amend with any other additional activity

What suburb do you live in?

1. Randwick 25%
2. Coogee 20%
3. Maroubra 18%
4. Outside 2%

What suburb do you work in?

1. Work outside 49.5%
2. I Don't work 26.5% (Retirees possibly)
3. Randwick 9% (POW Hospital)
4. Kensington 5% (UNSW/NIDA)

What do you do in the City of Randwick?

49.5%

Live here but don't work

29%

Live and work/study here (high level of self-containment)

What is your primary mode of transport during the week?

1. Bus 44.5%
2. Private Vehicle 33.5%
3. Walk 7%
4. Cycle 7.5%

What is your primary mode of transport during the weekend?

1. Private vehicle 49.5%
2. Bus 23%
3. Walk 10%
4. Cycle 5%

How long does it take you to get to your main daytime destination? (i.e.work, place of study or visit)

55.5%

30 mins or less

7%

Over 60 mins

How often do you use public transport?

49%

of respondents use PT at least 3 times a week.

How often do you use active transport? (i.e. walk, cycle, eWheel etc)

OVER

60%

of respondents use active transport at least 3 times a week. 40% on a daily basis.

What public and active transport services are currently available to you? (within a 10-minute walk)?

OVER

45%

of respondents noted that a Bus was available within a 10-minute walk.

What would encourage you to use public transport more often?

1. Faster travel times 23%
2. More frequent services 18%
3. Better integration of modes/services 16%
4. More routes 12%

These are issues of service delivery not cost

What would encourage you to walk more in the City of Randwick?

Comfortable streets are key

1. More shade/trees 20.5%
2. Better footpaths 17%
3. Improved street amenities (seating, drinking fountains, etc.) 13%

What would encourage you to cycle more in the City of Randwick?

1. More dedicated cycleways/ separated cycleways 24.5%
2. Being allowed to ride on the footpath 13%
3. Safer cycle crossings 13%

Electric scooters (e-scooters) are currently illegal in NSW. What would encourage you to use e-scooters to move around your neighbourhood if they were legal in NSW?

1. No interest in using them 38%
2. Safe scooting routes 20%
3. Reliable availability of scooters 12%
4. Information on where you can ride them 11.5%

If e-scooters are implemented the way that the bikes for hire have been implemented - just drop them randomly anywhere - they will be another hazard for low-vision pedestrians and yet another eyesore. I'd love to have those hire bikes contained as Prisbane Council has done, and if we're › be blessed with e-scooters to have them not become a litter problem and trip hazard.

Please rank the following transport modes in order of most in need of improvement

1. Bus
2. Light Rail
3. Cycling
4. Car Travel
5. Walking

The greatest responses indicated they believed the light rail is too slow and needs to better integrate with bus services.

What are your main barriers to using public transport?

1. Travel time is too long 33%
2. Services are unreliable 12.5%
3. Inconvenience 12%

Barriers are related to service not cost.

The new light rail network is now operating between Circular Quay and Randwick. Do you agree or disagree with the following statements?

67%

of respondents said they had used the light rail.

Future plans indicate the potential for a new metro train line to be built. In general, how much do you support extending the Metro train line into Randwick City?

NEARLY

50%

of respondents strongly supported the potential for a new metro line.

How much do you feel building the metro into Randwick will make it easier to connect with the CBD and other centres across Sydney?

46%

of respondents strongly supported this statement.

The resident population in the City of Randwick is expected to grow significantly in the future. This will have an impact on transport. It is important that population growth is aligned with infrastructure delivery so we can move around our city quickly and safely. Do you agree or disagree with the following statements?

Most agreed with the statement that the government should spend more money on public transport and that pedestrians should have the priority of movement in local centres.

People agreed the least with the statement that there should be more public car parking.

Parking. It's always an issue that receives a lot of interest. As we grow, we will need to find ways to manage the number of cars on the road and parking to go with it. But we only have so much space. Council will need to find ways to manage and deal with parking across the City of Randwick. Do you agree or disagree with the following statements?

Most agreed with the statement that Parking priority should be given to residents in busy streets.

People agreed the least with the statement more paid parking could help to better manage parking in town centres and at local attractions.

Q - Please tell us where you would like to see more or better public transport – and why.

The Community said…

"Maroubra junction - light rail extension required. Metro rail required. This suburb should be under 20 mins from CBD and needs much better connections with west of Sydney and Randwick / Bondi Junction. Buses are frequent but far too slow. Non-CBD buses are mostly extremely slow and indirect. The eastern suburbs beaches need more frequent connection. - say 353 every 10 mins. Direct bus from Maroubra junction to Randwick Via Avoca Please, it'd take 5 mins and stop people driving. It also would link many people to 'The Spot' which is our closest good quality restaurant area (& it has a great cinema)-big trip generator. Far too much space dedicated to cars. 4 lanes on Maroubra Road/ 4-6 lanes on Anzac Parade creates barriers to all other ways of moving and makes cycling / walking far more dangerous than it should be."

"Kingsford to La Perouse- light rail extension (can't believe it didn't happen!)"

"Buses are needed to get us to Randwick, so we do not have to drive as it is costly parking especially if one needs to visit POW for appointments. Elderly people like me cannot afford costly parking if we are seeing specialists which can take many hours. We need buses to take us there for shopping and into the city with ease and not have to change at Randwick".

"UNSW Kensington to Clovelly has no connection."

"I would like to see improved transport options in the whole southern peninsular."

"La Perouse is an important cycling route and it has become difficult with the light rail. Randwick centre is difficult for pedestrians with multiple barriers to getting efficiently around. Coogee beach is choked with cars and parkiwng."

"I like using the light rail from Randwick to Central, but from Central to Circular Quay is too slow. I find the bus connection from Coogee to the light rail is not adequate and I am concerned that this might even get worse especially is local buses are privatised. I think you should have included this issue in your survey. I find as a senior public transport has been very cheap. No complaints here."

"Better connection from little bay to Green Square."

"Light rail extended to Coogee, Maroubra and La Perouse a priority!"

"I would like to move to the Chifley/Malabar area but am concerned about getting around by public transport, especially the time it will take to catch a bus all the way into the city. It would be amazing if the light rail extended to La Perouse and had express trams during rush hour."

"The light rail has ruined public transport anywhere south of Kingsford especially when bus services will be stopped. Light rail has created way more traffic on Anzac Pde and made my daily commute on the bus to the city much slower. When will bus changes be announced? I do not know anyone local that supports the light rail. It has ruined public transport in South East Sydney."

"The issue is that there is very little in the way of east-west connections, especially to locations outside the Randwick area."

"The light rail has ruined public transport anywhere south of Kingsford especially when bus services will be stopped. Light rail has created way more traffic on Anzac Pde and made my daily commute on the bus to the city much slower. When will bus changes be announced? I do not know anyone local that supports the light rail. It has ruined public transport in South East Sydney."

Q - Please tell us where you would like to see more or better pathways and cycleways – and why.

The Community said…

"Maroubra, better connection to the light rail or extension of the light rail to Maroubra junction."

"Join up and properly signpost the coastal walks through Maroubra/ Malabar/Little Bay, down to La Perouse. Resurrect the Doncaster Ave footbridge into Centennial Park. Properly mark with high placed signs the safe crossing spots on the stupid Light Rail - from the footpath you can't see them ahead, e.g. Robertson Road. Create tree lined walking routes into Centennial Park on busy streets with few trees that lead into the park, e.g. Doncaster, Alison Road."

"With the increase of housing around the Little Bay area, the frequency of buses needs to be improved. The only way to get to this area is by car. Also, there are not enough services going from east to west and vice versa. The majority of services run north/south."

"Extend light rail to Maroubra and La Perouse speed up light rail."

"Keep bikes and other mobile vehicles such as scooters off the footpaths and beach promenade. (disabled needs excepted) Pathway through the Havlock St underpass."

"A beautiful coastal walk/pathway was recently constructed from Maroubra to Malabar. Nevertheless, to get along the coastline from Maroubra to Coogee Beach is impossible, So, very often, I see people taking a very risky walk through the rocks to do that, which is extremely unsafe, especially when the waters are a bit rough."

"Have the coastal walk go along the coast and not through streets."

"Walking around is fine but sharing the footpath with cyclists can sometimes be fraught, as often I have to make way for them, or they come up from behind to overtake me."

"Let's not just think about inside Randwick. Many use public translation get to other areas of the city/inner west. These need to be built upon & not reduced. I.e. from Maroubra to circular quay & the places in between. The light rail is not the be all & end all. It is slow & not convenient to access all areas in the city. Buses need to be continued & services re-vamped."

"All beaches need to be connected to safe bike routes. UNSW needs better bicycle connections to and within the campus. All Centennial Park roads should prioritise bikes and walking. Cars should be excluded from most park spaces. Belmore Road needs bike access. Eliminate most on-street parking spaces. Frenchman's Road needs a bike route - this is the flattest route to Bondi Junction from Randwick and so would make the best bike route. ANZAC Road has plenty of space for extending light rail and bike routes. This should be implemented ASAP and get the parking lots out of the centre! Throughout Randwick, lower street speed limits. Most Randwick roads are too narrow for 50km/h, and feel unsafe. Make 30 km/h the standard except on arterials."

"Need to provide pathways that are safe from cyclists."

"Currently there are not many safe cycle-ways in Maroubra to meet up with the Doncaster Ave and Moore park cycle-ways. Being on the edge of Malabar and Maroubra roads is not a safe option for most of us."

"Beaches to CBD cycleway - would be great to have a designated off-road cycleway to encourage more people to ride to the city or Randwick and it's beaches."

"I would consider cycling to the CBD if there would be dedicated cycleways along Anzac Pde or close by. At the moment into is unsafe to cycle on the road amongst the cars."

"I would love a dedicated cycleway along Anzac Parade all the way from the city to La Perouse."

"I would really, really like to see dedicated separate bikeways, which would make me feel a lot safer and inclined to ride. I ride half the week to work in Chippendale and it's fine from Centennial Park to Chippendale, where there are excellent bikeways, mostly separated from cars."

"Public transport (bus) need not be reduced. There are sufficient bus routes in this area that allow a diversity of people to access (e.g. elderly, single parents, workers, students....etc). There is no need to add the ligh trail in this area as we already have buses that do a great job."

Q - Please click on a place of interest below to identify anything else that is important to know about transport and movement across the city - and why.

The Community said…

"East to west movement is very limited. Often busses, like the 348 and 370 are incredibly crowded. I end up walking to gardeners road to avoid these busses as so often they go by full. These busses fill up at the university and empty at green square, perhaps a shuttle bus would be useful for uni students."

"Riding a bike to the city is dangerous. This needs to be addressed. More cycleways need to be built."

"Light rail travel to city is too slow. Need a metro line.?

"A metro would help to access these suburbs more efficiently and quickly. These suburbs are too crowded with car transport."

"Traffic on Fitzgerald Avenue and Todman Avenue is too fast. Either speed cameras or traffic calming measures would help reduce the speed."

"I have always felt public transport in Kensington has been excellent. The light rail strikes me as entirely unnecessary and a ruinous addition to the suburb. I want to make sure that no bus routes are deleted as a result."

"I believe it is imperative to maintain all the existing Randwick bus services and routes and not cancel any due to the opening of the light rail."

"The corner where Duncan St wraps around past Maroubra Bay Public school and McKeon street intersects with it is a dangerous intersection. There is no pedestrian crossing or light at this corner."

"A metro stop in Randwick suburb would be ideal because of the large and growing population. This could integrate with the light rail. I live on Bligh Place in Randwick, but in my last job it took me 45-50 minutes to get to Barangaroo by public transport - it would be quicker to run! My colleagues who lived much further away than 8km could get there much quicker than I did using public transport. Similarly, a metro stop in Maroubra would be useful."

"I regularly cycle an 18km exercise route from Maroubra via Malabar, Little Bay, Yarra Bay and back up through Matraville to home. Part of it is off road but there are many bits that don't work properly. I cycle respectfully of others on footpaths where I feel unsafe on roads. I would like to take council staff out to show you where all the problem areas are and where bits are needed to join up paths. There's is no good way to cycle into town, so many bits don't join up properly and are dangerous. Again, it is difficult to describe them here, but I could show someone. Please build a cycle path down Anzac parade - the most direct route into town. It's not fair to make cyclists take a long and circuitous route while giving cars the direct route."

"Maroubra Junction for a metro station. Otherwise we are in traffic to city with bus and light rail options."

"A zebra crossing in Avoca St., opposite Milford St. So many people from the shopping centre Cross here. It's very dangerous and I have witnessed people almost being knocked over by cars."

"All our shopping areas and other pedestrian generators such as the Uni, the Hospitals, the beaches need more and safer crossing facilities for pedestrians with slower speeds for cars all our local streets need Safe Streets."

"I live in Randwick so will comment on Randwick but really its the same for all hubs...if you create more car parking spaces more people will drive. To make driving a less attractive option do no increase car parking spaces. Rather improve a variety of public transport options which cater to peak time speedy movers and off peak time families the elderly etc who need to connect easily between modes of public transport or GoGet style vehicles whilst caring for kids with prams shopping carrying bicycles tools etc."

"I know it's not Randwick Council but cycling to Alexandria, Green Square etc is not well linked - riding along Dacey Ave is scary but we're not supposed to ride on the footpath so we get to the other side of the lovely bike paths by Centennial Pk then get a bit stranded. Coming from the other direction along Dacey back to Randwick, there's no easy way to get back onto the bike path next to Alison Rd."

Q – Please tell us your final thoughts on how we can move better around the City of Randwick – now, and into the future…

The Community said…

"Continue to improve pedestrian amenity, safe places to cross intersections, reducing traffic speed and priority to pedestrians is essential."

"More tree cover - it's actively unpleasant to walk next to busy roads with lots of cars, and really nice walking in suburbs with lots of lush trees and plants"

"Dedicated cycleways - North-South along Doncaster Avenue, Bunnarong Road; East-West along Clovelly, Todman, Coogee Bay, Maroubra Roads is essential. And linking with existing City of Sydney cycleways."

"More trees please! Lack of shade definitely makes walking, cycling and waiting for buses much harder..."

"Not missed but I do wish to reinforce my one big hope - please, please drag Randwick into the 21st century and move away from car priority. Since COVID-19 came along, I've never seen so many people out on bikes and walking and it's wonderful to see. Protect the current bus services"

"Be brave, get us out of our cars. People will resist. Cars are too easy. The hardest challenge is that cars are so easy at the point of entry (you get in at your house when you want to). They're not so easy at the point of exit - finding parking close to destination etc. etc. Good PT is the opposite, through networks and changes it takes you exactly where you want to go. Make PT easier to access, add higher quality, faster & more reliable PT to suburbs and you change the perception of how much hassle it adds to access it. In London, you take the tube - the thought of getting in your car and battling traffic only to not find a park anywhere near your destination makes it a no brainer. Tube stop is within 10 mins walk. Service is fast & frequent. Not rocket science!!"

"The light rail is terrible. It was a terrible idea to begin with & it certainly hasn't improved any since it has been put in place. Slower than current modes of transport that already worked. Now the road are a mess & have lost lanes."

"Definitely investment needs to go into accommodating electric bikes. The future of transport in the east. It's growing at an amazing pace."

"Removing parking from shopping centres where the road is quite narrow (Belmore Rd or Perouse Rd) or even creating pedestrian only areas would improve the amenity of some centres. Widening the footpaths makes it easier for pedestrians, enables street tree planting (beyond awnings) and allows for viable outdoor eating."

"Light rail would be perfect if it was faster."

PART B:

Key Stakeholder eInterviews

A series of seven (7) one-on-one interviews were conducted with invited key stakeholders by Place Design Group. Council's Manager of Integrated Transport was also in attendance, as was a member of the GTA project team for each conversation via the Zoom Platform.

The interviews were targeted, hour long conversations with representatives of the significant/major business and community stakeholder groups, as identified by council and the project team. These conversations sought to uncover more site or place specific insights, at a more localised level to drill down on some the generalisations coming out of the survey.

Preliminary insights from the survey were also shared to test, distil and refine the information coming through. These eInterviews were held at a time most convenient for the identified stakeholder, and to increase propensity for participation.

The team remained flexible and conducted the conversations over the course of three weeks to ensure all possible views were captured within the project timeframes. Interviewees and their insights were as follows:

Ports Authority NSW:

- From a heavy vehicle perspective there is a limit to two routes – Foreshore Road and Beauchamp Rd/ Denison St is the secondary route as a critical route.
- Very little goes through Randwick City – mostly all goes through Bayside Council. Only local freight moves through Randwick City.
- Main road users are containers – 20 percent goes by rail. 80 percent is by road.
- There is more residential creeping closer to the Port. Randwick has residents that are a lot closer –noise complaints from Little Bay - that is an issue at that end of the LGA.
- When we see residential DA's – we don't have the same protection that the Airports have. We are trying to get that here so we can deal with it better. But urban creep it is a big issue for us and an operational risk.
- They have done our own traffic studies – traffic is static across the day but commuter traffic is peaking along the Foreshore and Botany Roads, and impacts on our operations from that perspective. The extension of Wentworth Ave has relieved some of that traffic.
- The Wentworth Ave extension to the airport – a lot of the Randwick traffic is now going there instead of along Foreshore Road.
- They are advocating for Public Transport to have nothing to do with the port. Just for the east-west connections. We have a lot of workers that come from the Sutherland and Canterbury Bankstown LGA. This shift assumed to be due to housing affordability.
- There is always a push to have safe cycling routes through the port. They don't encourage cycling through the port. It's still unsafe with trucks and large vehicles moving around and we don't want to see any cyclists moving through the port.

New South Wales Ports

- The Port of Botany is a 24/7 operation
- The role of NSW Ports is more of a regulatory function involving environmental management as well as providing shipping pilots and emergency response services.
- They have up to 20 people on site at any one time. No one comes by public transport as there is none close by.
- The Port of Botany has only around 6 -10 ship movements per day. A passenger service from Kurnell to La Perouse would not pose a problem for the Port.
- Investigations are currently on hold for a potential cruise ship terminal to be located at Yarra Bay.
- Any cruise ship terminal will require public transport links to the city and the airport.

Randwick Children's Hospital

- Cyclists views from the hospital is that it's not such a great trip in. There are a lot of staff that live in the Maroubra area. It's believed that they don't cycle more because they don't feel safe enough.
- 55 percent of staff drive and park
- 25 percent use some form of public transport
- 11 percent walk – and 28 percent walk from adjacent suburbs
- 3 percent cycle – which seems quite low. Perhaps due to the lack of promotion of active transport and lack of EOT facilities – but this is being addressed.
- Providing end of trip facilities for their staff has been slow coming.
- We want to increase the number of cyclists by 2% and walkers by 3% and increase staff using public transport
- It's a 10 to 15 min walk away from where many staff are parking. They are using the side streets of Coogee Bay Road.
- Young doctors generally don't want to wait for bus. They would prefer a Lime Bike – it's cheaper than a taxi and they don't want to wait around late at night.
- They love the light rail but if they miss the window then they are late for their shift – so they can't rely on it.
- The view around the light rail was that they promoted it hard (when it was coming, etc). Use was encouraged, and they wanted people to use it – but there was a lot of disgruntled people enduring the build process, it was taking a long time and considered very disruptive.
- More trees would be fantastic and more seating. More trees for cyclists too. People would enjoy walking through and cycling to/ through the campus under beautiful tree canopy.
- They are focused on getting people out of cars and regulate parking across the hospital.
- A link from the hospital to Green Square would be desirable.
- New South Wales Roads, Transport and Maritime (Transport NSW)
- Main community complaints are the buses are too slow
- Due to construction of the light rail, buses have to divert. Travel times have increased – so they see that as an issue and due to the introduction of the light rail.
- The major problem is the East/West connections
- There are noted issues of congestion along Anzac Pde – mostly heading north bound.
- An off-road cycle Lane on Anzac Rod using the large reserve would be a good idea.
- On eScooters, they feel they do have their merits, and could reduce public car use.
- They feel an extension of light rail to Port Botany could work but at this stage there is not really a commitment to improve public transport there right now.
- Improving East/West connections is the key message here and getting people to change modes from car to public transport.

BIKEast Randwick

They feel there is a need for separated bikeways on key corridors such as:

- Anzac Parade
- Avoca Street
- Bundock Street
- Clovelly Road
- Doncaster Road
- Alison Road
- Fitzgerald Road

- This will help grow the network.
- Reduced traffic speeds in residential areas would assist in making it safer for cyclists.
- It was suggested that temporary street closures and street treatments could work to encourage cyclists to try out other routes in residential areas.
- The creation of a Sydney Bays and Beaches Route through a number of LGAs could help promote cycling. It needs to have consistent signage and branding along its length.
- Better cycling options are required within the Randwick Town Centre.
- There has been exponential growth in the number of take-away food delivery riders/journeys and this needs to be taken into account when discussing the need for safer infrastructure for bikes in Randwick.
- There is a need for more cycle parking facilities at beaches and other attractions and a need for more end of trip facilities.

University of New South Wales

- It's a very interesting time for the University – via COVID but generally, - the future of the University is changing.
- Approximately 30 000 people a day (usually) access the campus daily
- South of UNSW there is no light rail or metro – a couple of bus services, but its quicker to get a car.
- Parking is quick and cheap to park, and similar to public transport costs. But with the convenience factor over public transport, why would you catch public transport if you could drive.
- Their number one job is to be able to get as many people here as easily as possible – to educated them, allow them to research, etc.
- Students take on average 51 minutes to get there – a lot come from out west. Many move here closer to us – Randwick and Kensington.
- Most come from Maroubra, Malabar, Coogee, then Randwick, then Zetland – the link to Green Square is really important as we have a lot of students choosing to live in a more active environment and choosing to study here.
- Better quality bike paths would encourage more walking, cycling.
- Need to improve street scapes and activation across surrounding streets.
- Need better quality experiences in the campus that are safe, active, energised and activated. And we need roads that feel like you are supposed to be walking.
- They won't be putting any more car parking into the university.
- People seem to be enjoying the light rail.
- From a daily operational perspective – most complaints are about the 370 service – it doesn't cater to the pop in the Zetland Area. By the time it gets to Green square, people can't get on the bus. It's an east west service.

BV·15·JD
NEW SOUTH WALES

PART C:

Precinct Committee eWorkshops

Similar to the eInterviews, a series of four (4) eWorkshops were hosted with councils existing Precinct Committees. Representatives of each precinct were invited to attend their own, small, focused, Precinct specific eWorkshops. comprised of two parts

- PART A – Introductions, Session Run-down and the sharing of 'Preliminary Insights'.
- PART B – An eWorkshop consisting of three activities that:

  1. Identified the respective committee's future aspirations for transport and movement

  2. Mapped ideas and issues for the precinct

  3. Mapped Future Directions for the precinct relative to the city at large.

  Four of the six precincts agreed to participate. And the findings were as follows:

Maroubra Precinct Summary

- The Light Rail – is it coming to Maroubra in the future?
- There is concern around loss of busses
- It is a source of frustration to the community that a bike lane was not built at the same time as the light rail was built
- You don't drive a car to get on a bus here – so its not that surprising to me that people don't want more public parking – because people are used to walking.
- I can live in Maroubra without a car
- Cycleways need to be better – so having dedicated off road cycleways are a preference.
- The hair-raising prospect of cycling into Ultimo is a put off.
- Its lovely cycling to La Perouse, because there is not too much traffic
- I don't want to deny my precinct residents' concerns about being connected to the city – but I think to properly integrate us we need to go underground…. If we had unlimited money.
- We need paid parking around the beach.

Randwick & Coogee Precincts Summary

- Buses are under threat and important for moving people . The fear is huge and they work really well, this is how the LGA works .
- Bellmore road is a major thoroughfare and congested and a central shopping area for Randwick – its an area to watch – so be careful what you do there.
- There is one traffic island in Daley road that is a safety hazard. One side of Daley road is shared and the other side is not – cyclist behaviour is an issue and peds are not safe.
- Along Alison Road – getting signage so the cyclists know clearly where they can go now the light rail is in.
- People love bicycles and there is a tendency to ride them on the footpath, which is a big issue of lots of cyclists in densely populated areas – especially around Coogee beach.
- No one polices poor behaviour of cyclists.
- Coogee is the closest beach to the city, it's a small beach. eCycles were ridden to the beach and then dumped at the beach. There is a real issue of people or objects being bottle necked there. Always an issue of late night/early morning and major events transport.
- It's a great method of transport but how we fit it in you have to be careful (talking about eBikes in general)
- In this area in the last few years buses work really well. Buses are fantastic – so the future has to have buses in the future.
- People are watching carefully, light rail could be part of the future but its not a way around Randwick. It's a way INTO Randwick.
- Randwick is particularly walkable. Smaller street and residential – its pretty green and its not CBD – there are no major main roads smashing through it. As long as we can keep everyone following the rules and keep the paths for pedestrians.
- We are not solving London's problem or Sydney's problem – its Randwick's problem at a local level. Put the residents and people first. You have to focus there first.
- eBikes are here and legal, I can see them growing more and more and more.
- Randwick – one thing I love about the area, is how close it is to the city. And using the park is a great part of the start of that journey. Most others have to get across Randwick to get to that park.

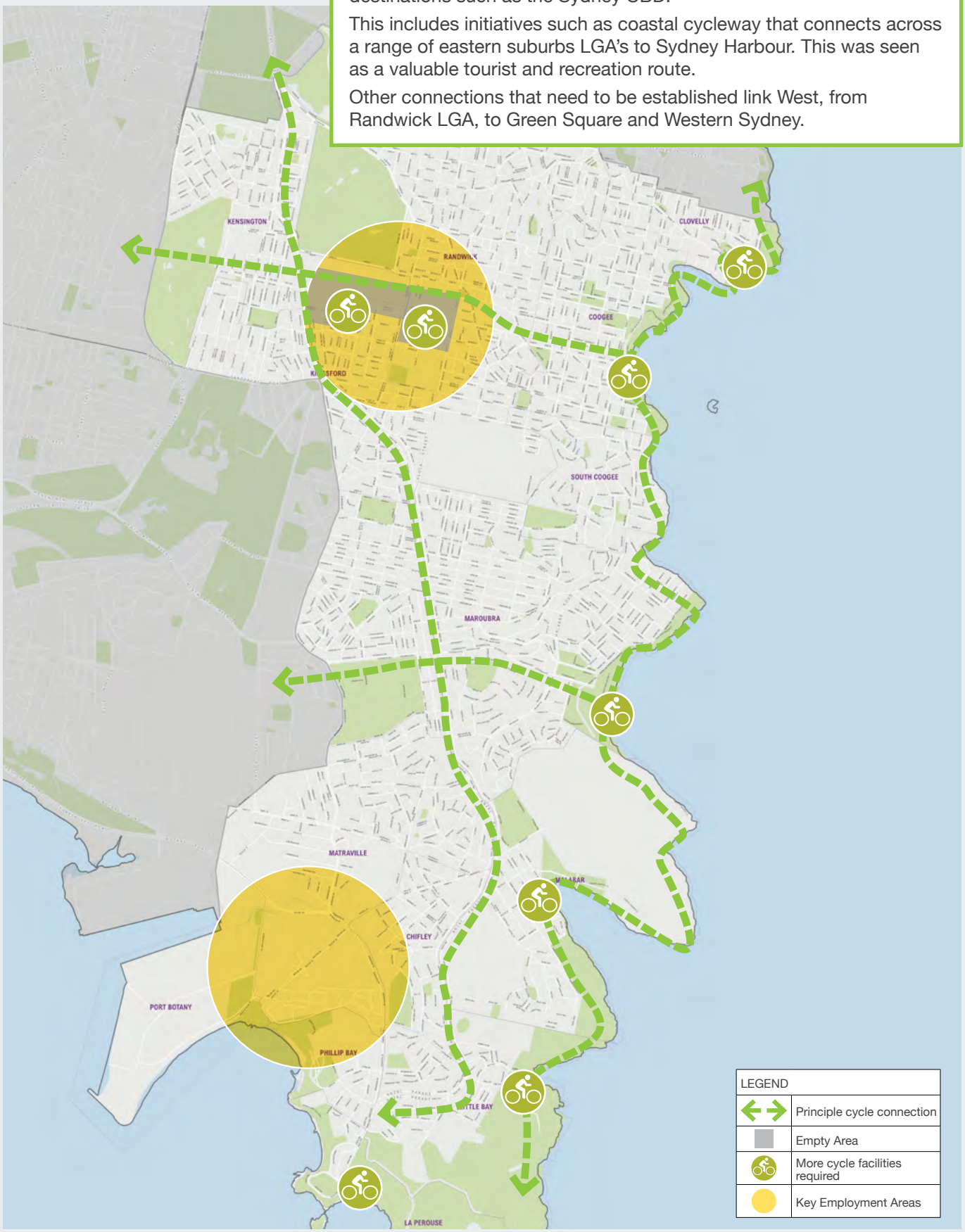
The following plans bring together some of the spatial ideas and elements arising from the various discussions with stakeholders.

Active Transport

Whilst there were many discussions on various black spots for cycling in the LGA such as 'The Spot', the major deterrent to cycling appears to be the lack of dedicated off and on street cycle paths. These paths are needed to provide connectivity both with the LGA to employment clusters such as the University of New South Wales and the Prince of Wales Hospital and Sydney Children's Hospital, and to external destinations such as the Sydney CBD.

This includes initiatives such as coastal cycleway that connects across a range of eastern suburbs LGA's to Sydney Harbour. This was seen as a valuable tourist and recreation route.

Other connections that need to be established link West, from Randwick LGA, to Green Square and Western Sydney.



Movement Desire Lines

The LGA has a high degree of self-containment with nearly 30% of respondents either living and working or studying in the LGA.

For others who transit into and out of the LGA, there are a range of desire lines that align with employment clusters in the North and South of the LGA.

In the South there are strong movement desires lines for people and freight to the airport and to the West of Sydney. There is also a strong desire line along the Southern edge, for workers who live in the Southern suburbs of Sydney, and who work in the LGA.

To the North stronger connections - both via public transport and other forms of movement - have strong desire that link up with places such as Green Square and the western suburbs of Sydney.

3.Prevailing Key Themes

Overall, the following prevailing key themes were observed as the overarching insights relevant to the study. These key themes presented as follows:

1. Randwick people love their buses. Deep concern about loss of bus services to any part of the city as a result of the Light Rail.
2. There is more concern around the integration, speed and choice and availability of routes than the cost of public transport.
3. The Light Rail is seen as a positive but slow and is creating traffic issues on Anzac Parade. It is also seen as somewhat of a barrier to pedestrian and cycle movement across the corridor.
4. There is a strong perception that cycling is presently unsafe in the City. One of the strongest messages is to connect existing cycle and pedestrian paths.
5. The other strong message is the creation of better cycling infrastructure (Designated cycleways on and off road).
6. Temporary road closures to test and try out routes and traffic management is seen as useful starting point
7. Cycling on footpaths is a perceived safety hazard
8. More cycle parking is required at attractions especially beaches.
9. More end of trap facilities are required at the Hospital and University.
10. People generally feel safe - There seems to be a perception of personal safety in the city.
11. Issues and awareness of micromobility (ebikes and escooters/hire) are on the rise. Uncorralled/ dockless hire bikes and scooters are seen as a problem though. Geofencing and corral areas might be useful.
12. Better transit options are required to connect a number of places - Coogee and Clovelly in the north and almost universally from Maroubra South. Whilst many have called for extension to the light rail to these locations (along Anzac parade) the desire for a Metro to connect the south to the city and Green Square is also seen as highly desirable.
13. Movement in terms of both public transport and cycling (and private vehicles) is not solely about north/south movement (Randwick to the CBD). There are a number of desire lines east/west to connect with the airport, Green Spare and other inner city areas.
14. A designated bike path along Anzac Parade all the way to La Perouse is seen as high desirable.
15. A connected coastal pedestrian and cycle path is highly desirable. This should not be entirely street based but connect through open space areas and along the waterfront where possible.
16. No real benefit seen for the Ferry - A passenger ferry from Kurnell to La Perouse - although technically possible - provides no perceived benefits for those employed in the Port Botany area due to its distance and lack of connection with Public Transport
17. More council promotion for community awareness around cycle networks, cycle facilities, cycle groups and safe/family friendly options in the LGA.
18. The LGA has a high level of self containment. Almost 30% of respondents live and work/study in the LGA.

4.Where to from here?

GTA To PROVIDE

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