Gladesville Town Centre
Pedestrian Access & Mobility Plan (PAMP)

City of Ryde & Hunters Hill Council

Final Report | June 2014

ARUP

Executive Summary

The City of Ryde and Hunters Hill Council appointed Arup to prepare a Pedestrian Access and Mobility Plan (PAMP) for the Gladesville Town Centre. The project aims to identify a framework for developing safe and convenient pedestrian routes and fostering improvements in personal mobility.

The development of this PAMP follows the guidelines provided in the document "*How to Prepare a Pedestrian Access and Mobility Plan – An easy three stage guide*," and responds to the main objective of this study: to deliver a PAMP improvement work program that meets the existing needs and to cater for the emergent demand through forecasted population and development growth. Recommendations within this PAMP are linked in a staged action plan to relevant planning and other strategic documents.

A priority PAMP route network through the study area was identified to focus on the development of a continuous and accessible path of travel for pedestrians. The PAMP route network identifies a continuous and comprehensive network for the current state of Gladesville area. The network was defined through:

- Consideration of existing conditions through an analysis of the characteristics of the study area, a review of the existing transport services in the area, a documentation of site observations and a review of relevant state and local policy documents; and
- Consideration of the existing pedestrian facilities usage, current issues and locations for improvement and future demand as outlined through the community consultation process.

Audits were then conducted along the high priority PAMP routes, and the findings of the audits form the basis of the PAMP Action Plan. The key focus of the physical audits is to identify deficiencies in the existing pedestrian network. Factors considered in the audits are detailed below.

- Footpaths provision (are footpaths absent?);
- Footpath quality (are footpaths damaged, cracked or uneven path, narrow, or trip hazards?);
- Kerb ramp provision (are kerb ramps absent? Do existing kerb ramps conform to Australian Standard design?);
- Obstruction / barriers along path (are there poorly placed trees, bus shelters, signage or seating?);
- Pedestrian crossing facilities (are there locations where additional crossing facilities are required or existing are in need of upgrade?);

Recommended actions were then identified in the form of the PAMP Action Plan. These actions are developed primarily through physical field audits undertaken on all the high priority routes identified in the PAMP network as well as through the literature review and consultation comments. The PAMP Action Plan is designed to be a 'living document' in the sense that Council will be able to make changes to and update the program where relevant.

238 individual actions were identified, each of which have been prioritised into high (0-5 years), medium (5-10 years) or low (10-25 years) works. Prioritisation is generally based on the location of the works and the nature of the works, however a number of other criteria were also considered:

- Nature of works (new road crossing / new footpath etc)
- Proximity to key land uses (e.g. schools, bus stops)
- Existing and future levels of pedestrian activity
- Location with respect to hazardous areas
- Staging with other developments
- Community needs / disabled access
- Continuity (provides a key pedestrian link along an existing or planned route)

The estimated cost for the works included in the action plan are summarised in the table below.

Priority	**Responsibility**			
	City of Ryde	***Hunters Hill***	***Both Councils***	***Total***
High	$246,970	$173,722	$8,000	**$428,692**
Medium	$120,793	$37,470	$-	**$158,263**
Low	$54,398	$33,879	$15,000	**$103,277**
Total	**$422,161**	**$245,071**	**$23,000**	**$690,232**

The implementation of this PAMP Action Plan would need to be assessed and implemented based on specific site conditions that reflect the latest pedestrian facilities standards at the time.

The PAMP Action Plan also explores potential funding sources for the works identified in the plan. Potential funding sources include;

- Council (including funding from General Revenue/ Section 94 Plans)
- Developer Contributions (in the form of Condition of Consent or VPA)
- RMS (through the Pedestrian Facilities Program 27401).

The development of the PAMP Action Plan will provide the users of the study area with a safe, continuous and accessible network of footpaths of travel. The development of this PAMP presents an integrated Action Plan that links pedestrian planning and a program for delivery of improvements for the Gladesville Town Centre.

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1 Introduction

1.1 Background

The City of Ryde (CoR) and Hunters Hill Council appointed Arup to prepare a Pedestrian Access and Mobility Plan (PAMP) for the Gladesville Town Centre. The project aims to identify a framework for developing safe and convenient pedestrian routes and fostering improvements in personal mobility.

As part of its Ryde Integrated Transport and Land Use Strategy (RITLUS), CoR identified development of a continuous and comprehensive integrated pedestrian network across the six key centres of Ryde. The Gladesville PAMP is the third PAMP to be undertaken for each of the key centres, namely Eastwood, Macquarie Park, Gladesville, West Ryde, Meadowbank and Top Ryde.

The PAMP provides an opportunity for City of Ryde and Hunters Hill Councils to review their existing footpath provision and to develop a systematic methodology to prioritise footpath construction through a network of connected and safe pedestrian facilities. The main objectives of this study are to deliver a PAMP improvement work program that meets the existing needs and to cater for the emergent demand through forecasted population and development growth.

The PAMP recommendations will be linked to Council DCPs and Section 94 plans in providing consistent footpath approach and delivery throughout the Gladesville town centre area. Providing a highly connected pedestrian network which includes good quality linkages to key destinations will be an important aspect of the PAMP development.

The PAMP study area (Figure 1) contains a number of key land uses which also act as generators of pedestrian activity, including the following key attractors:

- Gladesville Public School;
- Gladesville Hospital;
- Anglican Church;
- Victoria Road retail strip;
- Gladesville shopping village; and
- Open space recreation areas, such as Banjo Patterson Park and Monash Park

Figure 1: Gladesville PAMP Study Area

1.2 Study Objectives

The development of a PAMP will support the Gladesville town centre in achieving the above objectives, by providing for an improved pedestrian environment. The PAMP sits within a strategy that **places active modes such as walking and cycling at the top of the transport hierarchy** and plans from this assumption. The PAMP is an integral part of the improvement in enhancing pedestrian accessibility in the study area.

The PAMP aims to promote the delivery of sustainable transport planning – ensuring planning for pedestrians and cyclists in Gladesville is prioritised over motorised forms of transport. This user-centred approach to transport planning ensures that streets and open space are designed to be human-scale, comfortable and safe environments that create destinations and places people want to travel to and stay in.

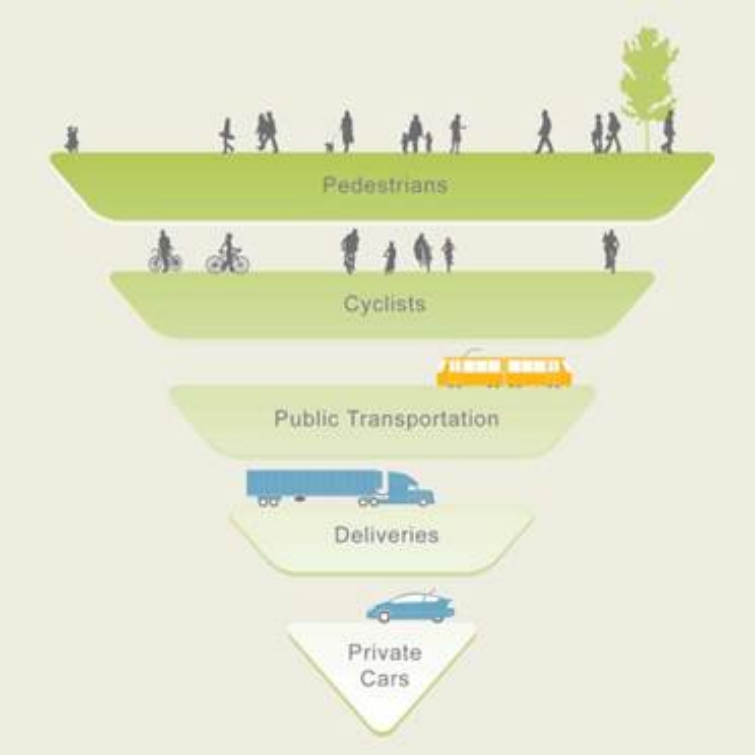


Figure 2: Transport Hierarchy

The key objective of this study is to deliver a PAMP improvement work program that meets the existing needs and to cater for the emergent demand through forecasted population and development growth.

1.3 Methodology

The methodology for the study involved a number of components including the following, outlined in Figure 3:

- Define study area;
- data review;
- questionnaire surveys;

- community consultation;
- PAMP routes development;
- pedestrian audit of routes;
- action recommendations development; and
- consideration of Council policies and funding sources

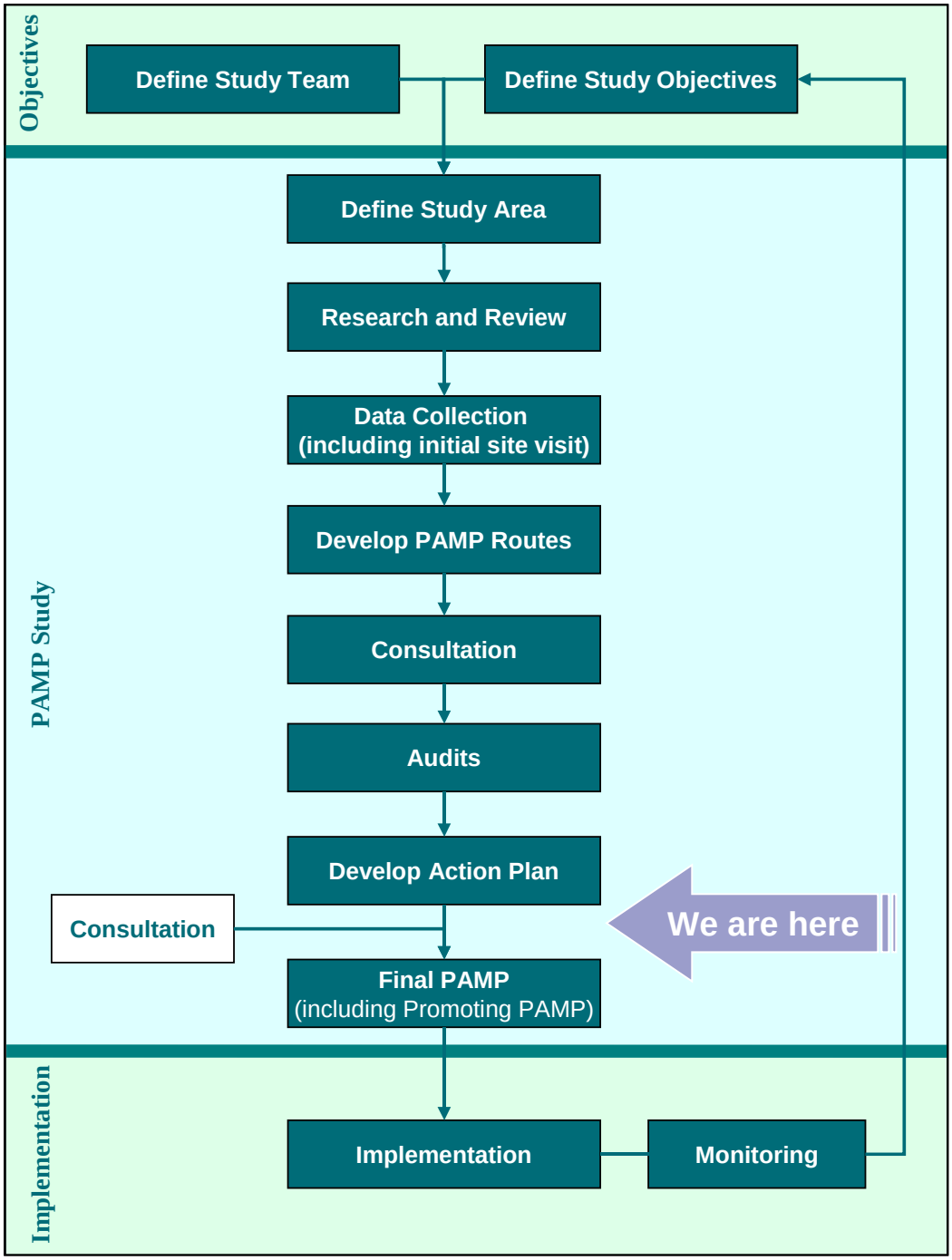


Figure 3: Study Methodology

2 Characteristics of Gladesville

Understanding the characteristics of the study area in terms of users and physical environment provide insight into the key pedestrian attractors and generators and pedestrian needs.

2.1 Demographics and Population

The 2011 Census indicates that the Gladesville suburb has 10,973 residents and supports 5,520 workers. The 2011 Census Journey to Work (JTW) data was used to determine how people travelled to and from the Gladesville town centre. This is summarised in Figure 4.

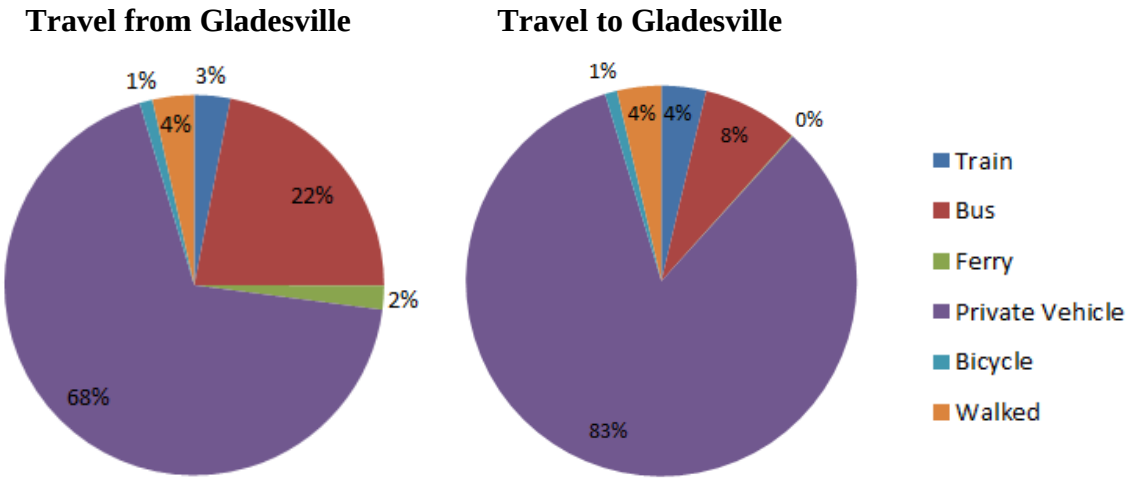


Figure 4: Method of Travel to Work

The data shows that the vast majority of travel to and from the area is by private vehicle. Travel by bus was the next highest mode at 22% for people travelling from Gladesville indicating that high quality pedestrian environments to connect to bus stops are a priority in the area.

2.2 Geography and Topography

The Gladesville area is split between the Ryde and Hunters Hill Local Government Areas, approximately 8 km to the northwest of Sydney City Centre. Victoria Road splits the suburb in half. Moving just beyond Victoria Road, Gladesville is predominantly residential in character.

The topography of Gladesville generally has steep ridgelines and valleys due to the high elevation and proximity to the surrounding rivers. The town centre is set upon a hill at the intersection of Pittwater Road and Victoria Road. While this may limit walking and cycling opportunities from surrounding streets, the road and footpath network in the area is generally built on ridgelines. This provides more gentle changes in elevation when travelling along the footpaths.

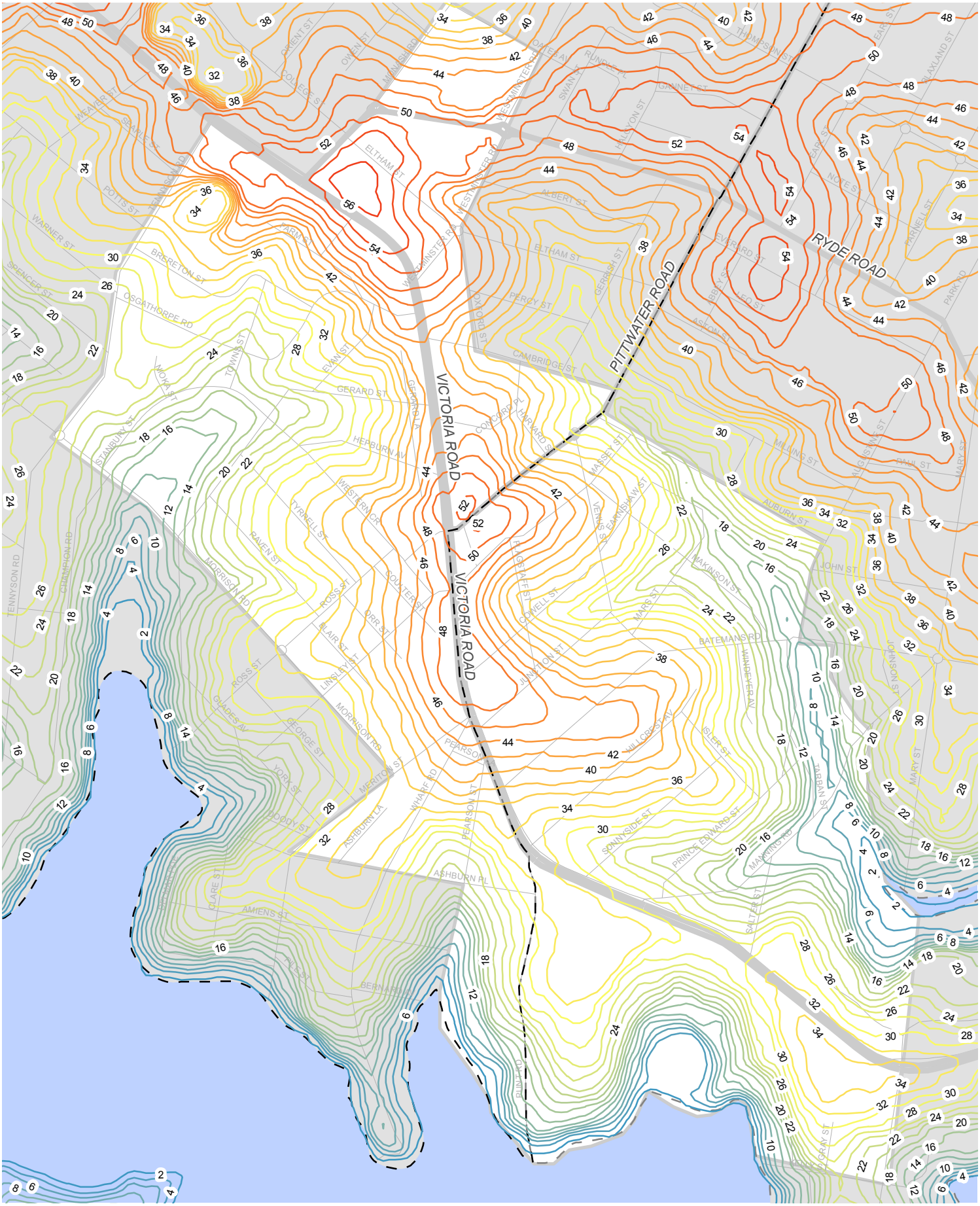
Metres
0 100 200 400

Topography

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads

PAMP Study Area

Elevation (Contours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60



2.3 Pedestrian User Groups

Pedestrian planning often considers a number of facility user groups based on age. These are classified as:

- Pre-school (ages 0-4)
- Infants (ages 5-8)
- Primary (ages 9-11)
- Secondary (ages 12-17)
- Young Adults (ages 18-25)
- Adults (aged 26-59)
- Elderly (aged 60+)

The age profile of Gladesville residents is shown in Figure 6 below. These different user groups affect the travel patterns and times for trip arrival/departures. It is typical for workers to arrive for 9am and leave the area at 5pm, while elderly and shoppers vary in arrival and departure times during the day.

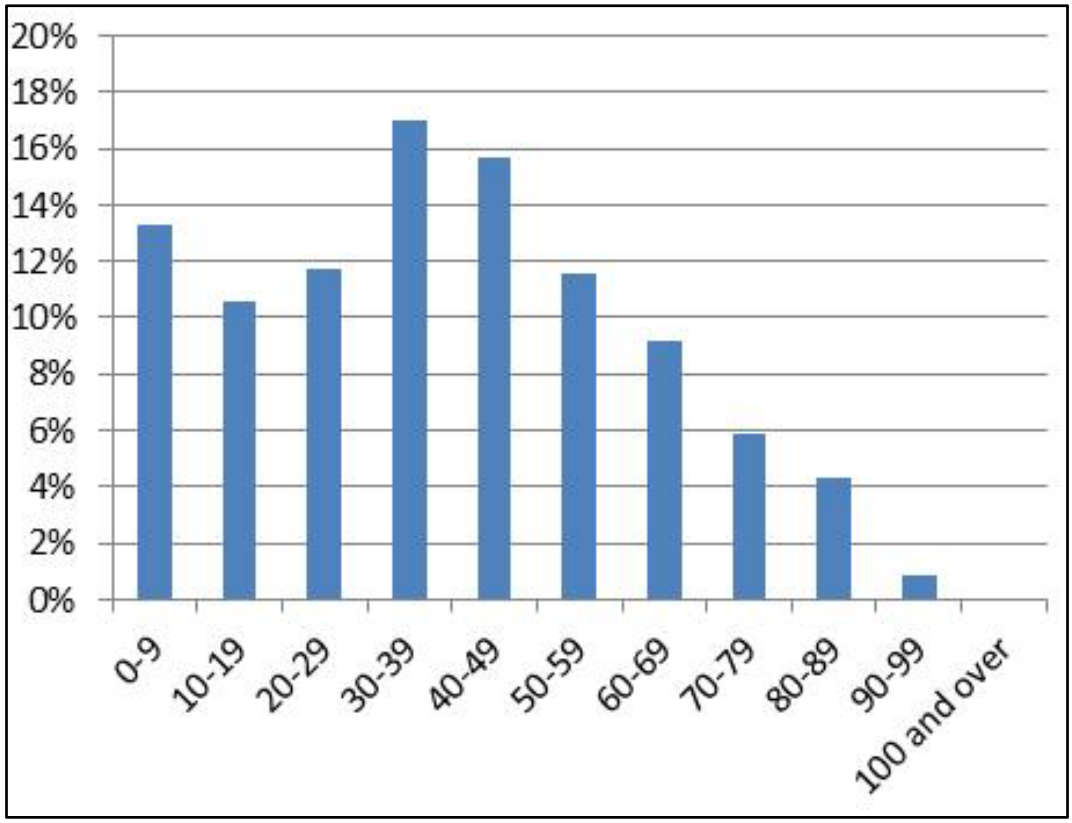


Figure 6: Age Profile for Gladesville

All of the above age groups present opportunities for increased walking however the age groups from pre-school to secondary school and also the elderly tend to rely more heavily on good walking environments. The study area contains schools of varying age groups as well as hosting aged residents at Blandville Court and Gladesville Hospital. This is likely to result in a high desire for walking but will come with a further focus on access and mobility.

2.4 Planning for People with a Disability

Accessibility and connectivity are terms that have special relevance to people with disability. Improvements recommended in the capital works program have particularly considered items that will improve connectivity for all users. For example, a person with a walker might find it impossible to walk from a bus stop to a shopping centre because pram ramps are missing or badly aligned. The addition or realignment of one pram/wheelchair ramp could make it possible for this person to navigate the whole route so making it safer for all.

Everyone, regardless of ability, benefits from the provision of correctly aligned ramps from the active healthy (including stroller users) to those with disability. Everyone using this plan, from the designers of the first concept plans to the project managers organising the final construction, has the responsibility to consider different types of disability. A lack of consideration of these users by anyone in the design and delivery chain makes it difficult for all who follow particularly the end users.

Building Codes and Australia Standards relating to persons with disability are becoming increasingly stringent and public attitudes are changing. When the National Disability Insurance Scheme (NDIS) is fully implemented, more people with a disability will be supported in being more active and will become more visible.

Thus planning and construction will need to focus on making the built environment far more functional for all in the future. Provision above the minimum standard may in many cases save higher costs of retrofitting or even demolition to meet potential higher future requirements. For example, a wheelchair user and accompanying carer needs more space to turn and pass than two people walking side by side. Groups of wheelchair users travelling together would require more space again.

It is never possible to make everywhere accessible. There will always be people who have disability that cannot be catered for either through infrastructure provision or offered an alternative service to compensate. Using the term ‘fully accessible’ may seem offensive to those who cannot access that facility. Both City of Ryde and Hunters Hill Council needs to aim at a reasonable compromise that accommodates the most people possible (including those with disability) as effectively as possible within available budgets. As further improvements are made, more people with disability will benefit.

The *Disability Discrimination Act 1992* (DDA) makes it unlawful for a person to contravene a disability standard. New buildings are required to conform to specifications for physical access in the Australian Standards 1428 and the Building Code of Australia. Where complaints are raised under the DDA Act they go through a conciliation process run by the Australia Human Rights Commission.

The City of Ryde has a strategic plan for Council’s role in the NSW Implementation Plan 2012-14 for the National Disability Strategy (NDS). This PAMP and its implementation will form part of the operation of Council’s plan.

2.5 Transport Facilities

2.5.1 Pedestrians

A successful PAMP must provide a safe pedestrian network for **all pedestrians**. This includes elderly persons, children and people with physical, sensory and intellectual impairments, including intoxicated persons. Current issues that influence the pedestrian environment include:

- vehicle speeds;
- information systems
- the provision and adequacy of footpaths (including obstructions);
- accessible environments;
- shared cyclist/pedestrian footpaths;
- crossing roadways at roundabouts;
- dual mode opportunities;
- footpath lighting and personal safety; and

A historical focus on maximising vehicular capacity and throughput along Victoria Road has resulted in narrow footpaths and long crossing distances unconducive to pedestrian movement. Traffic noise and pollution further detracts from the pedestrian amenity.

Footpaths are generally provided on both sides of the road in the study area, except for some areas such as laneways. There are also a number of signalised crossing facilities provided at the major intersections along Victoria Road. These intersections however often lack pedestrian crossings on all legs, with long pedestrian wait times acting as a barrier to movement.

2.5.2 Public Transport

The area is well served by public transport, with ferry and bus services. There are a number of bus stops located along Victoria Road which are served by regular bus services (operated by Sydney Buses) to the City and Parramatta/Ryde as shown in Table 1. The concentration of bus stops along Victoria Road act as major attractors and generators of pedestrians. Ensuring easy and safe pedestrian access to these is one of the primary goals of the PAMP.

There are also local bus services along Morrison Road and Ross Street, Pittwater Road, and Prince Edward Street. School buses service the streets surrounding Gladesville Public School.

Table 1: Bus Services in Study Area

Route Number	Destination	Number of Services (AM Peak Hour / PM Peak Hour)
500	Ryde	2 / 2
	City	0 / 0
501	West Ryde	4 / 4
	City	4 / 4

Route Number	Destination	Number of Services (AM Peak Hour / PM Peak Hour)
507	Macquarie University	0 / 3
	City	3 / 2
510	Ryde	0 / 2
	City	7 / 0
515	Eastwood	2 / 0
	City	3 / 2
518	Macquarie University	2 / 2
	City	3 / 2
520	Parramatta	0 / 0
	City	0 / 0
536	Chatswood	3 / 2
	Gladesville	4 / 3
538	Woolwich Wharf	2 / 0
	Gladesville	1 / 1
M52	Parramatta	6 / 6
	City	6 / 6
X00	Ryde (from City)	0 / 4
X15	Eastwood (from City)	0 / 2
X18	Denistone East (from City)	0 / 2
Total Services		**52 / 49**

Community bus Top Ryder connects the West Ryde and Gladesville shopping precincts via the Top Ryde and Meadowbank shopping precincts and Ryde Hospital.

Huntleys Point ferry wharf (located southeast of the study area at Huntleys Point Road) also have regular F3 Parramatta River ferry services to Parramatta and Circular Quay.

2.5.3 Roads

Victoria Road is a state arterial road that divides the study area in two, providing access to both the City and Ryde. It forms the major route throughout the suburb and carries a significant volume of traffic on a daily basis. A summary of the daily traffic volumes for Victoria Road (near Huntleys Point Road) is shown Figure 7. This indicates average daily traffic has decreased by 10% from approximately 58,000 vehicles per day in 1999 to approximately 52,000 per day in 2010. Figure 8 indicates the variation in traffic volumes along this road corridor over the course of a typical day, with the peak hour shown to be between 5pm and 6pm.

Traffic volumes along Victoria Road are still considered high. The high traffic numbers along Victoria Road means that the road network will be highly sensitive to any modifications, including changes to signal phasing and pedestrian wait times. This will form a consideration in the development of the PAMP.

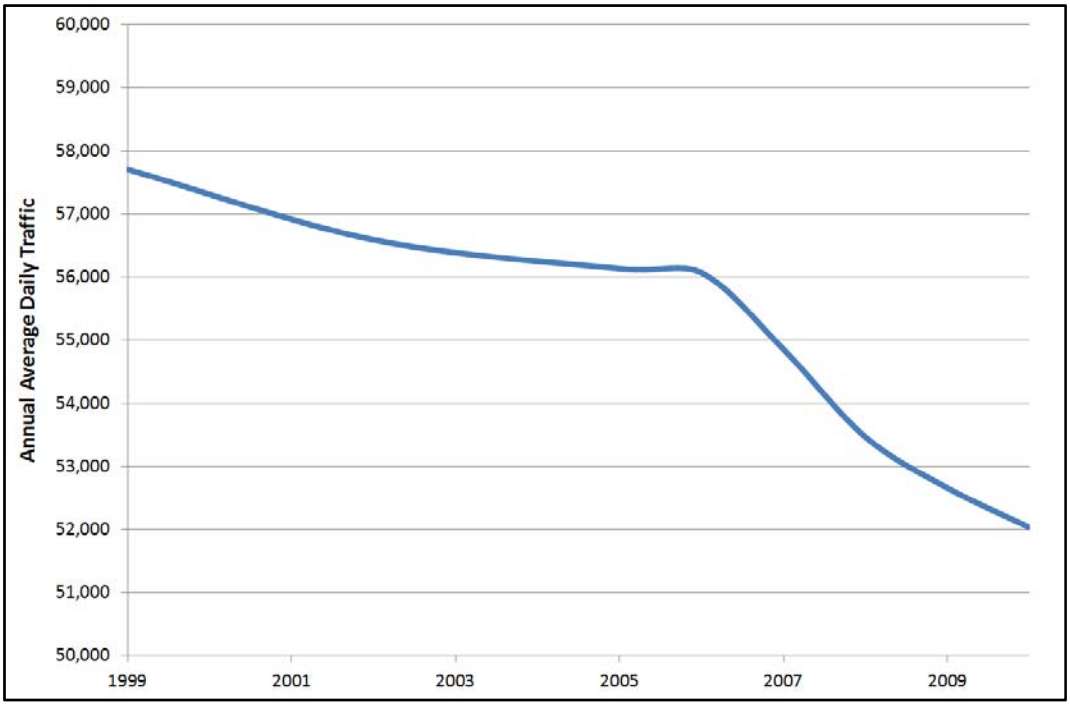


Figure 7: Victoria Road Daily Traffic Volumes

Source: Roads and Maritime

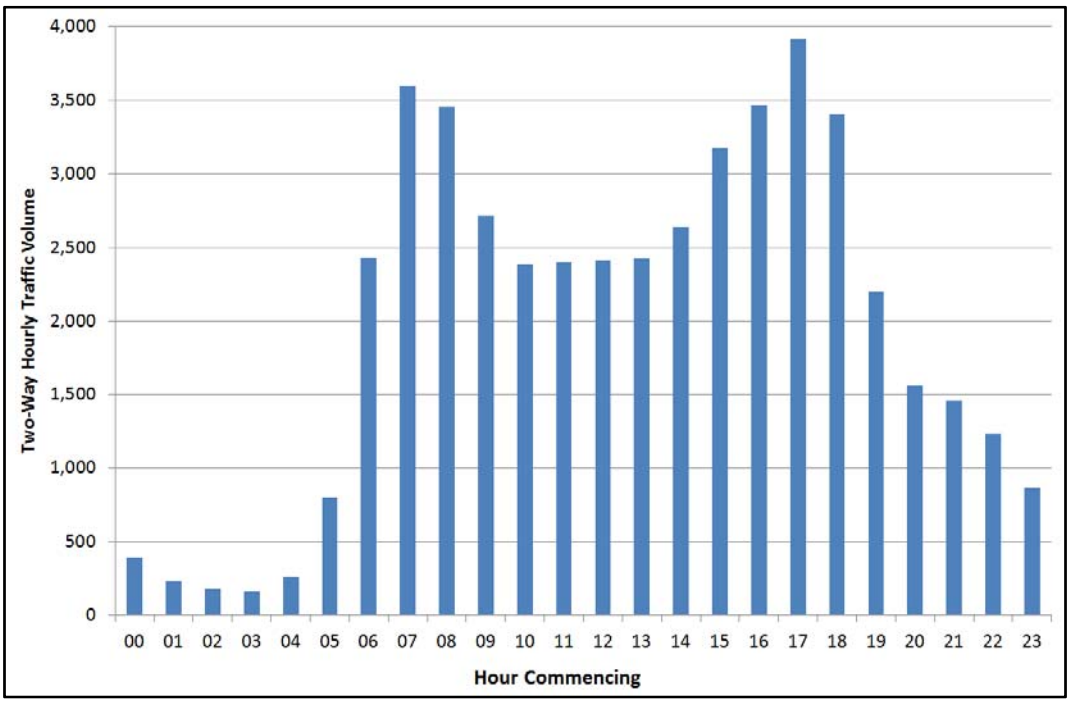


Figure 8: Victoria Road Hourly Traffic Volumes

Source: Roads and Maritime

Pittwater Road and Monash Road / Ryde Road are regional (RMS controlled) sub-arterial roads, connecting to North Ryde and Hunters Hill from Victoria Road. The remaining roads are local Council owned streets within the study area.

The Mortlake Ferry also provides vehicular access southwest of the study area across Parramatta River.

2.5.4 Cycling

There are strong recreational cycling routes within the area. A shared off-road path is located along Tarban Creek and south of Victoria Road from Ashburn Street to the Gladesville Bridge.

2.5.5 Transport Network

Figure 9 presents an overview of the pedestrian and transport network in the study area.

Metres
0 100 200 400

Transport Facilities

LGA boundary
- Hunters Hill
- City of Ryde

PAMP Study Area

Main roads

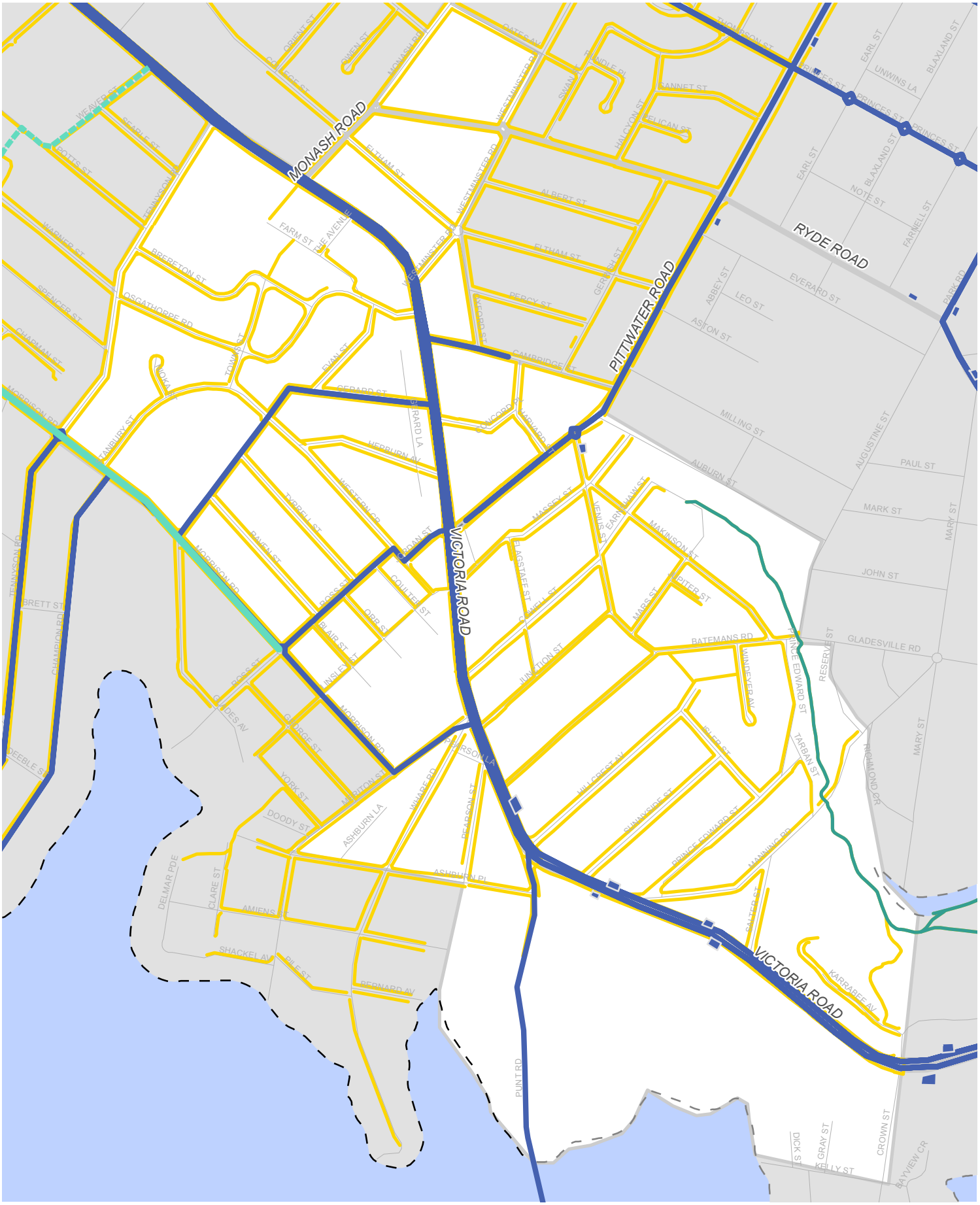
Local roads

Cycleways
- Existing Off-Road Concrete Cycleways
- Existing Paved Cycleways
- Proposed Cycleways

Bus shelters

Bus Routes (TfNSW Bus Routes)

Footpaths



3 Strategic Planning Context

3.1 State Wide Documents

3.1.1 Development and Active Living - Designing Projects for Active Living, 2010

This document highlights the opportunity for facilities in the built environment (including pedestrian facilities) that can increase participation in physical activity and enhance the lives of our communities.

PAMP implication: This PAMP project is consistent with the Active Living principles highlighted within *Development and Active Living - Designing Projects for Active Living* as they promote comfort for walkers; encourage traffic management devices that are pedestrian friendly and supports access provisions for all.

3.1.2 Transport NSW Draft Disability Action Plan 2012-2017

Transport for NSW funds specific programs to deliver pedestrian facilities like bridges over busy roads, pedestrian crossings, fencing and shared paths that are used by many pedestrians (as well as cyclists) for transport, exercise and recreation. The mobility and safety of pedestrians at public transport interchanges is an area of increasing focus. There is an expectation that mobility plans are prepared for all transport interchanges at the design phase to ensure that customers can move safely between modes of transport.

PAMP implication: The PAMP can recommend consideration to apply funds for some of the identified PAMP work along Victoria Road and Pittwater Road.

3.2 Local Context

3.2.1 City of Ryde Integrated Transport and Land Use Strategy (RITLUS) 2007

The City of Ryde Integrated Transport and Land Use Strategy for the Gladesville centre identified the following key objectives for the Gladesville Shopping Centre:

- *be a vibrant, viable and profitable retail centre;*
- *be a place specifically designed for the enjoyment and utility of pedestrians;*
- *be a place which allows convenient access for individuals between work, home, shopping;*
- *be a place which has an improved aesthetic amenity at street level;*
- *have safe, attractive and convenient public spaces which are well used; and,*
- *contain an appropriate mix and arrangement of uses which satisfactorily integrate with existing surrounding activities.*

Identified opportunities include improved safety at pedestrian crossings –separate pedestrian signal phase, pedestrian crossing on all arms of intersection, and kerb ramps designed correctly to the full width of crossing. Walking and cycling treatment- kerb ramps and refuges provision. The development of a continuous and comprehensive integrated pedestrian network across the six key centres of Ryde was identified within the RITLUS and formed a basis for the development of this PAMP.

PAMP implications: Review crossing opportunities as proposed in RITLUS. The PAMP will also analyse the most recent crash clusters and provide recommendations in the Action Plan at areas of high priority.

3.2.2 Hunters Hill Local Environmental Plan 2012 (LEP 2012)

Under this plan the area known as the Gladesville Shopping Village that lies to the north of Pittwater road is zoned B4 Mixed Use. This zone includes the following objectives.

- To provide a mixture of compatible land uses.
- To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
- To ensure that new buildings provide an appropriate transition between the business zones and surrounding residential localities.
- To maximise levels of pedestrian and business activity along street frontages.

The heights and floor space ratio for the B4 zoned land varies however, with the majority of B4 zoned land having a height limits of 19m and a corresponding floor space ratio of 2.5:1, medium to high density residential/commercial development is to be anticipated.

3.2.3 City of Ryde Asset Plan for the Resource Plan 2012/2022

Roadside and Public Spaces Asset Plan for the road reserve for pedestrians, cyclists and public usage for the entire Council area includes the following.

Over the next 4 years relevant actions from Council's Action Plan include:

- Priority for footpath and kerb repairs to locations identified in Councils audit with a condition rating of 4 or 5 (5 point scale)
- Complying kerb ramps for crossing near intersections
- Bus stops retrofits for disability standards compliance (complete by 2022)
- Annual footpath inspection program in priority areas and full LGA condition survey in 2011
- Progressively add seats at every bus stop

PAMP implication: Priority and responsibilities for work would be used for PAMP work program development.

3.2.4 CoR Four Year Delivery Plan 2013-2017

The CoR Delivery Plan sets out in detail the Council's major programs, projects and forward estimates for the next four years.

PAMP implication: $200,000 ($100,000 each over 2014-15 and 2015-16 financial years) has been allocated for the Gladesville PAMP. The 2015/16 capital works budget has allocated $1.54m for town centre upgrade renewal works in Eastwood (Rowe Street construction) and for Victoria Road Gladesville (design and construction).

3.2.5 CoR Public Domain Technical Manual

This manual provides a guide for the future planning and design of the public domain for the town centres of Ryde.

PAMP implication: The technical manual has identified a number of opportunities to enhance the pedestrian network in the Victoria Road corridor, by:

1. **Creating new pedestrian pathways and upgrade existing pathways** to give local pedestrian alternative access to shops and facilities, free from the traffic congestion, noise, pollution and overcrowding associated with Victoria Road
2. **Providing better pedestrian access across Victoria Road**. This may include creating a large pedestrian crossing zone between Cowell and Massey Streets to operate in nonpeak traffic periods (subject to RMS approval)
3. **Providing better pedestrian access along Victoria Road** to provide a better visual and physical connection within the Town Centre. Measures to enhance the pedestrian environment may include:
    - Entry markers or precinct signage at crossings.
    - Specific road treatment at crossings to provide a visual contrast to the general roadways.
    - Increased width of pedestrian crossings.
    - Widening of footpaths at intersections
4. **Enhancing pedestrian safety** by providing sufficient width, lighting and finishes on footpaths

3.2.6 Hunters Hill Council Consolidated Development Control Plan 2013 (DCP)

Chapter 4.4 of Hunters Hill Consolidated DCP 2013 (Gladesville Village Centre) applies to all properties that are located along or just behind Victoria Road and zoned B4 Mixed Use under Hunters Hill Local Environmental Plan 2012. The development objectives for this area are:

(a) Service local communities with a wide range of uses that are appropriate for a village centre which is vibrant and expanding.

(b) Accommodate major developments which combine a mixture of retail, commercial, residential, community and entertainment activities.

(c) Encourage a more cohesive built form, including new buildings that are visually compatible with existing streetscapes and heritage items.

(d) Ensure that new buildings provide an appropriate transition between the village centre and surrounding residential neighbourhoods.

(e) Maximise levels of pedestrian and business activity along all street frontages.

(f) Enhance design quality and safety of the existing public domain.

(g) Provide new pedestrian links and urban spaces which are designed as safe and attractive outdoor rooms, and which encourage access from surrounding neighbourhoods.

(h) Integrate off-street parking and loading areas with built form and without compromising pedestrian or business activity along street frontages.

PAMP implication: This PAMP will consider the objectives of the plan, which include creating a gateway to the core of South Gladesville from the City and the renewal of the Village Centre shopping area with improved amenity and connections. Little streets and lanes will be considered in design for pedestrian activity and amenity and include Massey Street and Lane. Some controls to note in the DCP relevant to the PAMP include:

3.2.7 Hunters Hill Community Strategic Plan 2030

The Hunters Hill Community Strategic Plan 2030 outlines a series of objectives to improve the quality of life for residents of the LGA. The strategy defines service standards to ensure the key objectives are achieved.

PAMP implication: Strategies and objectives outlined in the strategic plan relevant to this PAMP include:

- Plan and integrate bicycle and pedestrian networks with public and private transport systems. This will create safer pedestrian facilities connected to transport nodes, and village centres that are pedestrian friendly
- Ensure no trip hazards are present on footpaths
- Provide seating at all bus stops

3.2.8 Hunters Hill Council Delivery Program and Operational Plan

The Hunters Hill Delivery Program and Operational Plan outlines the principal activities and programs scheduled by the current Council. The plan outlines how the objectives of the Community Strategic Plan 2030 will be achieved:

PAMP implication: Relevant actions to arise out of this strategy for the Gladesville PAMP include:

- Maintain and monitor footpaths to ensure they are safe and accessible
- Implement a ten year kerb ramping program in consultation with Access Committee and others to provide safer pedestrian facilities connected to transport nodes, activity areas and village centres that are pedestrian friendly
- Review DCP's to ensure improved pedestrian and cyclist connectivity
- Promote and advocate for the support of walking and cycling as means of transport

3.2.9 Other Documents

Other documents and strategies (within a local context) considered in the development of this PAMP include:

- City of Ryde Bicycle Strategy 2009
- Hunters Hill Bicycle Plan 2004
- Hunter's Hill Council Development Contributions Plan
- Hunter's Hill Council Urban Design Strategy
- City or Ryde and Hunters Hill Local Environment Plan
- City of Ryde Footpath Construction Expansion Project
- Hunters Hill Council Footpath Construction Renewal Program

3.3 Future Development Application Approvals

The future development applications provide an indication of the location and potential pedestrian activity concentration in Gladesville. Figure 10 shows that most of the development area is focused on the shopping centre in the vicinity of Cowell Street and Pearson Street. Footpath and crossing provision at these locations would need to be designed to cater for the potential high pedestrian flow that would likely result from the higher density development. The identified roads would also form the key pedestrian routes in the area.

A major mixed use development is currently being assessed by Hunters Hill Council at the corner of Cowell and Flagstaff Street in Gladesville. The proposal involves an expansion of the Gladesville Shopping Village to include additional retail floor space and a total of 184 residential apartments. 600 basement parking spaces (access off Flagstaff Street) are proposed for the development, replacing the existing at-grade car park.

Metres
0 100 200 400

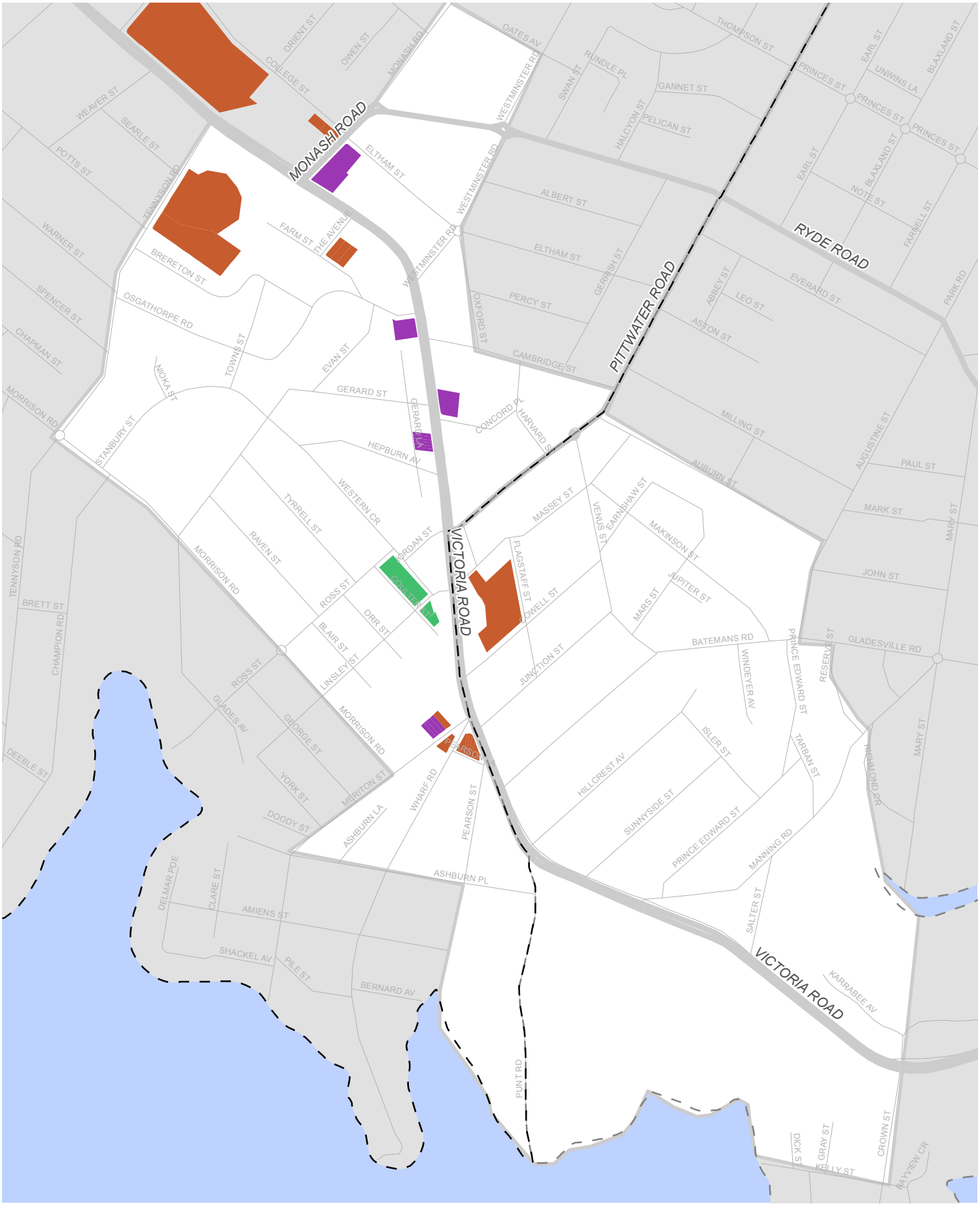
Development Application Locations

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads

PAMP Study Area

Development Locations

Application Approved
Application Under Assessment
Potential Future Application



4 Data Collection and Review

4.1 Pedestrian Trip Generators and Attractors

The Gladesville Town Centre is a defined as a 'specialised centre' by the Department of Planning and Infrastructure within the Sydney Metropolitan Strategy. Gladesville Town Centre supports a mixture of land uses. The primary land use in the corridor is the retail strip along Victoria Road, called Gladesville Shopping Village. Surrounding the Shopping Village are residential areas, predominantly low density, with pockets of medium and high density mixed use fronting Victoria Road. There is also a large amount of green space / open space surrounding the study area. Other significant land uses include:

- The Old Gladesville Hospital site, to the southeast of the study area;
- The Gladesville Public School, sitting behind the retail strip accessed by Linsley Street;
- Gladesville RSL and Community Club located on Linsley Street;
- Gladesville Library on Pittwater Road;
- Gladesville Police Station at Punt Road; and
- Places of worship located along the Victoria Road corridor.

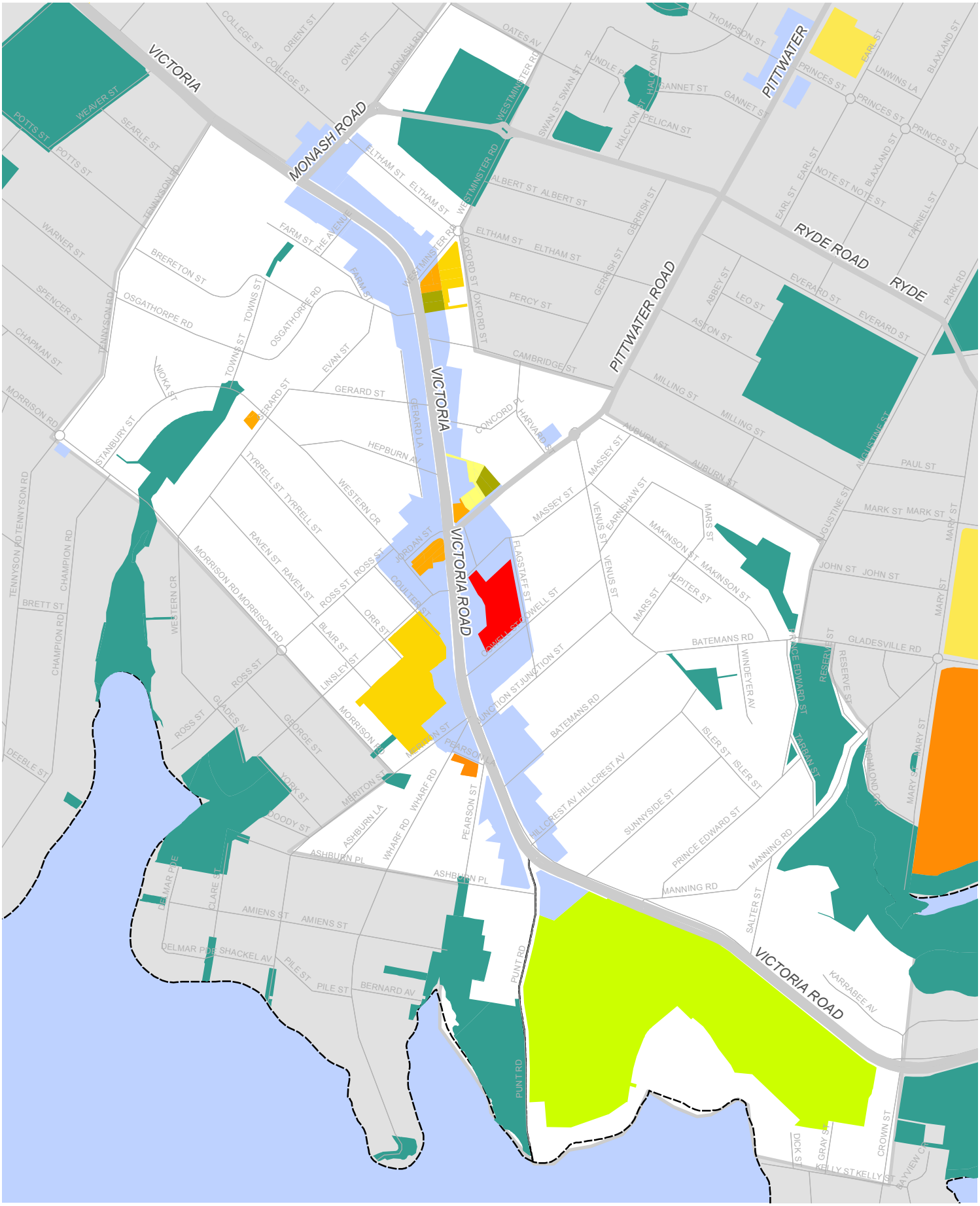
Gladesville Shopping Village is one of the key pedestrian trips attractors in the area. The retail strip provides a wide range of goods and services that draws shoppers from within and outside of the study area.

The key attractors and generators are summarised in Figure 11.

0 100 200 400 Metres

Pedestrian Attractors and Generators

- LGA boundary
- PAMP Study Area
- Main roads
- Local roads
- Gladesville Shopping Village
- Church
- School
- Hospital/ health facility
- Library
- Childcare Centre
- Retail/ Commercial uses
- Green space/ Open space



4.2 Pedestrian Related Crash and Injury Data

Crashes involving pedestrians in the Gladesville study area over the latest five years from 2008-2012 inclusive were analysed. The number of crashes during this time period is shown below in Figure 12. It should be noted that crashes involving pedestrians are usually under-reported and may actually be higher. Details of each crash are detailed in Table 2 and Figure 13:

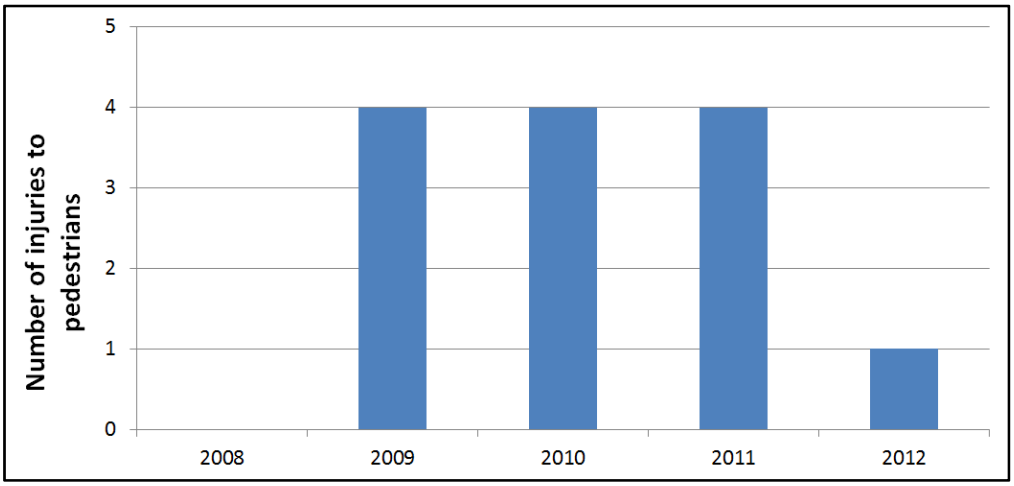


Figure 12: Number of crashes involving pedestrians in the Gladesville study area (2008-2012)

Key results of the pedestrian crash data analysis within the study area are as follows:

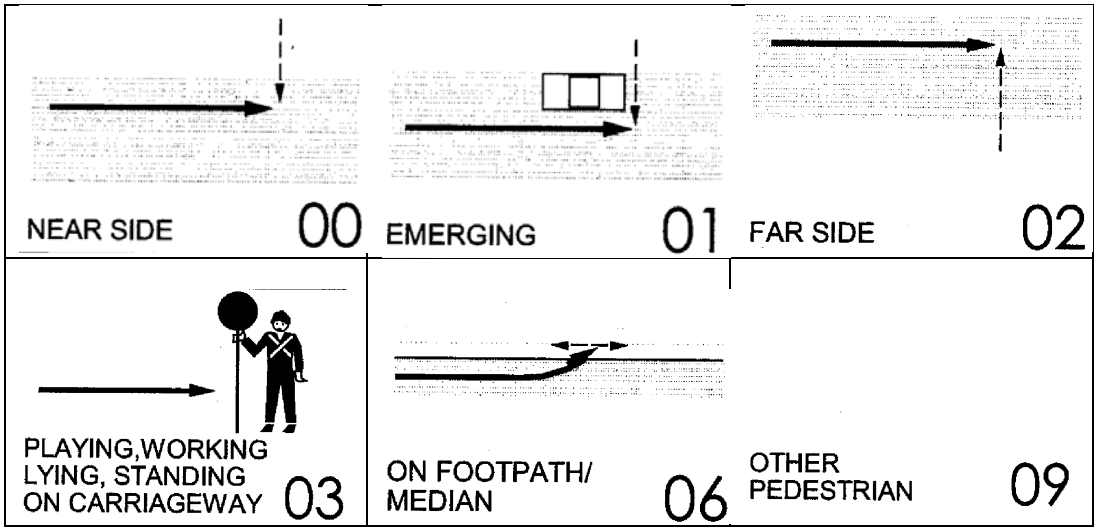
- Over the latest five years of data, there were a total of 13 crashes involving pedestrians, all of which were injuries;
- The majority of crashes (nine in total) occurred at intersections;
- All crashes along Victoria Road occurred adjacent to a bus stop;
- There appeared to be no identifiable crash clusters; and
- The time of the crashes involving pedestrians are spread throughout the day.

Table 2: Investigation of crashes

Location	**Cross Street or Nearby Feature**	**Pedestrian Crash Type (Road User Movement)** *See Table 3 for descriptions of Road User Movement*	**Time and Date of Crash**
Victoria Road	50m east of Tennyson Road	06: On footway/median	07:55 on 2009
Victoria Road	100m west of Salter Street	00: Near side	9:15 on 2009
Victoria Road	100m east of Tennyson Road	02: Far side	23:00 on 2009
Pittwater Road	5m south of Venus Street	09: Other	15:45 on 2009
Victoria Road	5m north of Massey Street	00: Near side	12:00 on 2010
Victoria Road	20m west of Westminster Road	02: Far side	8:20 on 2010
Victoria Road	10m east of Tennyson Road	00: Near side	19:05 on 2010
Victoria Road	5m north of Gerard Street	01: emerging	15:40 on 2010
Victoria Road	210m south of Cambridge Street	00: Near side	17:30 on 2011

Location	Cross Street or Nearby Feature	Pedestrian Crash Type (Road User Movement) *See Table 3 for descriptions of Road User Movement*	Time and Date of Crash
Victoria Road	Right on the spot of Pittwater Road	00: Near side	03:20 on 2011
Victoria Road	13m south of Massey Street	02: Far side	23:20 on 2011
Cowell Street	35m east of Victoria Road	03: On carriageway	21:42 on 2011
Pittwater Road	Right on the spot of Harvard	02: Far side	18:15 on 2012

Table 3: Road User Movement Code Description



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0 100 200 400 Metres

Accidents involving pedestrians

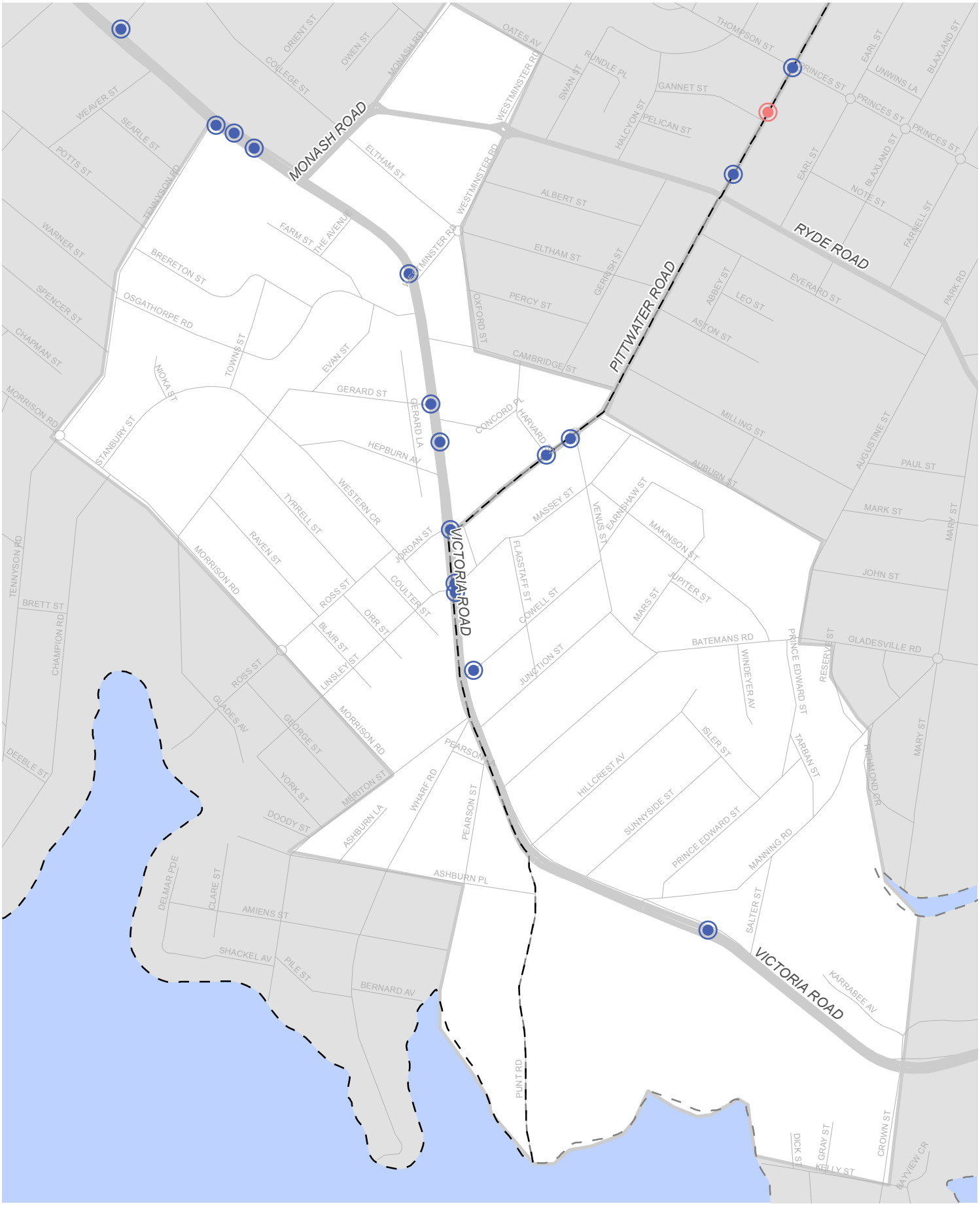
LGA boundary
- Hunters Hill
- City of Ryde

PAMP Study Area

Main roads

Local roads

Crashes involving pedestrians (2008 - 2012)
- Fatal
- Injury



4.3 Initial Site Visit and Observations

Arup, accompanied by representatives from both Hunters Hill and City of Ryde, conducted an initial site visit in November 2013 to understand the existing pedestrian issues, observe pedestrian desire lines, and pedestrian behaviour in the study area. Initial site visit findings are summarised below.

Footpath quality and consistency:

A number of footpaths in the study area were observed to be of a poor or inconsistent quality. Damaged footpaths act as trip hazards and detract from the pedestrian environment.
Some kerb ramps along Victoria Road were observed to be non standard.

Wait times at intersections:

There are a number of signalised pedestrian crossings along Victoria Road. Pedestrians generally have to wait for long periods of time before they may safely cross the road. A number of intersections would benefit from more generous crossing times to allow pedestrians (particularly less mobile users) longer to cross the six lanes of Victoria Road. It is noted that any changes to the traffic signal arrangements would require sign off and approval from the RMS

Footpaths in laneways:

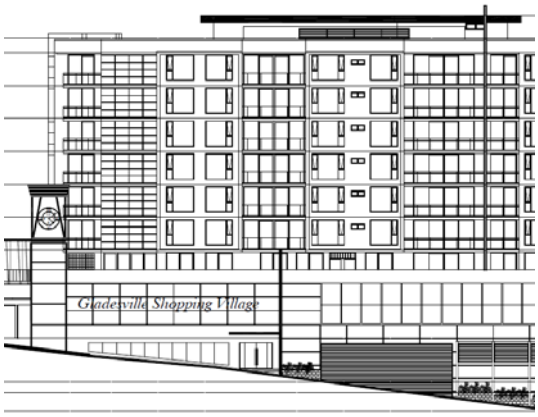
A number of laneways within the study area were observed to have either narrow or no footpath facilities. Some of these laneways provide convenient connections to key land uses in Gladesville, including the Library, Shopping Village and school. Pedestrians were seen walking on the road at these locations, potentially conflicting with passing vehicles.

Victoria Road pedestrian crossings

There is a strong pedestrian desire line across Victoria Road, accessible only via signalised intersections. A number of intersections on Victoria Road are lacking pedestrian crossings on certain legs (sides) of the intersection. This increases the walking time and distances for pedestrians to cross Victoria Road.

Distances between crossing facilities

Beyond the town centre area, pedestrians are faced with long walks to safely cross Victoria Road at dedicated crossing points. For example from Westminster Road at the north of the study area, the next closest crossing point is at Pittwater Road – a 500m walk away. This results in pedestrians crossing Victoria Road 'midblock', often using the central median as a refuge.



Future Development

A number of sites within the study area have been identified for future development. It is important that this PAMP considers the implications of these developments with respect to the adjacent pedestrian environment.

5 Community Consultation

The main purpose of the community engagement process is to collect information on existing pedestrian facilities usage, current issues, locations for improvement and future demand. The information collected is then fed into the PAMP route development, route audit and work program development.

The key to a successful PAMP project is to have comprehensive interrelated engagement processes to optimise participation, enrich feedback and strengthen community ownership. The process of community consultation adopted by this PAMP study is described below.

5.1 Identification of Stakeholders

The study team identified the key stakeholders for the PAMP study in consultation with City of Ryde and Hunters Hill Council:

- Hunters Hill Access Advisory Committee
- Gladesville Hospital
- Gladesville RSL
- Blandville Court
- Ryde Local Area Command
- Gladesville Action Group
- City of Ryde Access Advisory Committee
- Gladesville Public School
- Local residents
- Bike North
- Gladesville Chamber of Commerce

5.2 Methods of Engagement

Arup have developed a three level approach to provide input opportunities from different pedestrian user groups and stakeholders. These are:

1. Online collaborative mapping
2. Online community questionnaires
3. Stakeholder focus group workshop

5.3 Collaborative Mapping

Collaborative mapping is a form of community consultation that Arup has utilised successfully on a series of recent projects. Collaborative mapping provides an online platform to express issues with an easy to use website. The online platform exposes the PAMP to a wide range of age and demographics that is easy to use and also supports easy data collection.

With collaboration at the core of this form of consultation, the interactive map shows where others have commented and allows the community to build up an issues map together. The platform allows for a focused discussion and most importantly allows the community to feel much more involved in the project and understand other's views on the project.

The Gladesville PAMP collaborative map was opened to residents, relevant stakeholders, local users and users outside the local government area or study area

to respond. The survey was open between 22 November 2013 and 6 January 2014. The collaborative map was also used to present the results of the Stakeholder focus group workshops. A total 64 responses were presented on the map, with the majority of comments focused around the retail centre as shown Figure 14.

The majority of the comments provided within the Collaborative Map centred on both pedestrian behaviour and facilities. Many respondents were concerned about the long waiting times at intersections on Victoria Road. A number of comments were received noting the width of Cowell Street and general safety issues at this location. A summary of all comments received on the Collaborative Map is provided as an Appendix A.

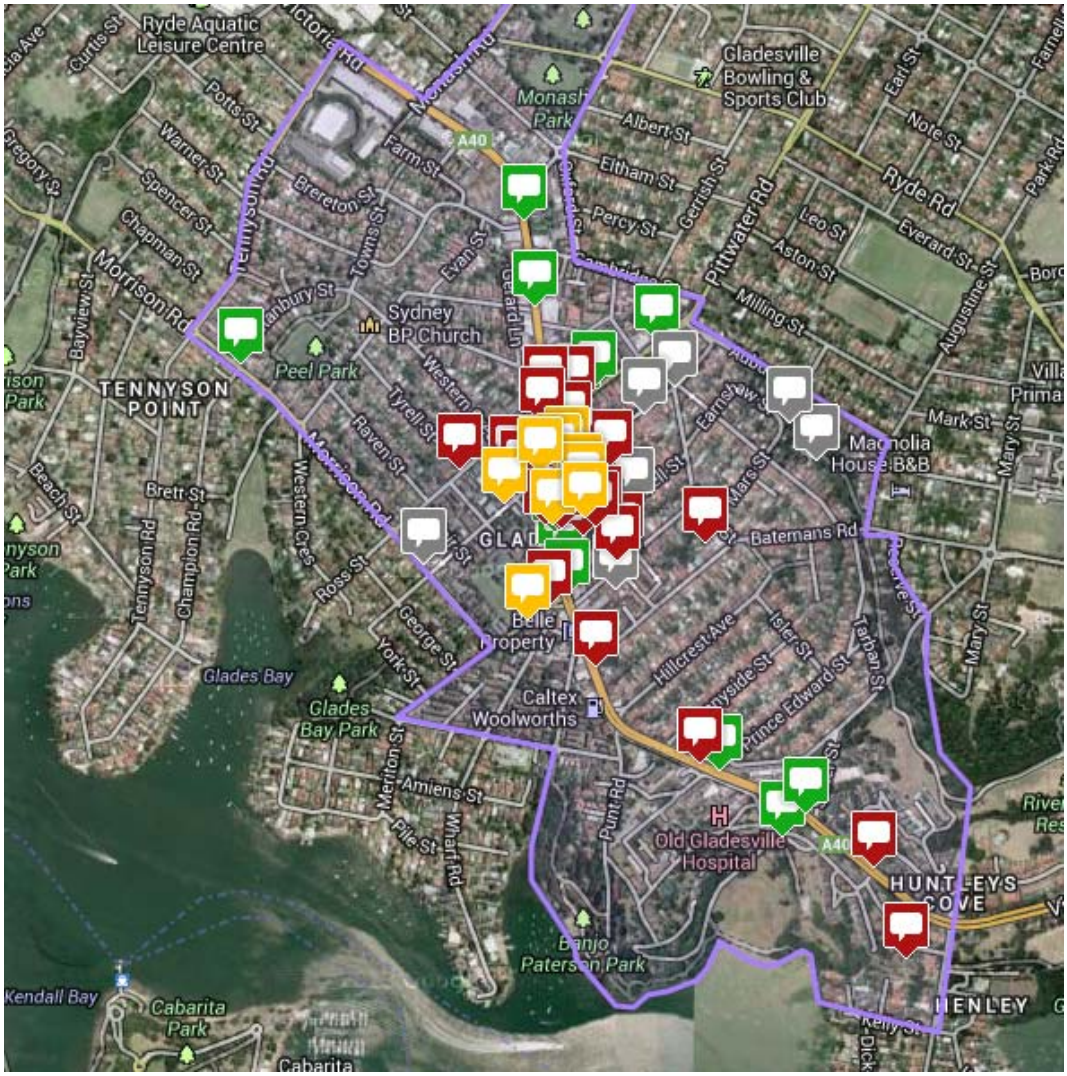


Figure 14: Gladesville PAMP Collaborative Map

https://www.collaborativemap.org/GladesvillePAMP

5.4 On-line Questionnaire Survey

Arup designed an on-line questionnaire to capture the key issues relevant to walking within Gladesville. The survey was posted on the websites of both City of Ryde and Hunters Hill, running concurrently with the Collaborative Map. Hardcopy surveys were provided at Gladesville Library for those without internet access.

The questionnaire provided additional data on pedestrian trip purpose, usage period and non-spatial specific data. A total of **18** completed questionnaires were received, with the full results (along with the survey) provided in Appendix B. A key focus for the questionnaire was to capture an understanding of the general pedestrian amenity.

Respondents were asked to describe how they rated the walking environment in the Gladesville town centre (Figure 15). Only 18% of respondents felt safety is satisfactory in the area, while 12% consider pleasantness to be 'not at all satisfactory'.

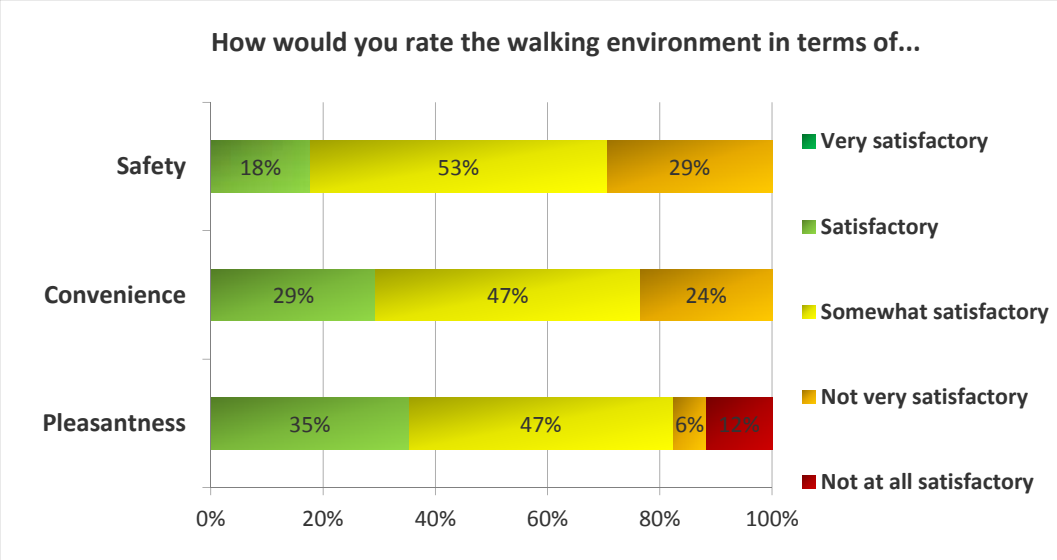


Figure 15: Pedestrian Environment

5.5 Stakeholder Workshop

An important component of the PAMP development is the stakeholder workshop. The group format of the workshop provides an opportunity for generation and exchange of ideas between key stakeholders in the PAMP process. The aim of the workshop was to identify issues pertinent to the PAMP development with specific reference to pedestrian issues within Gladesville Town Centre. The focus group workshop is an essential part of the PAMP process as it allows:

- Opportunity for participants and relevant agencies to contribute to the preparation of the Plan
- Facilitation of the exchange of information
- To increase the information base for the Gladesville PAMP development
- Discussion of the strategic direction of the Gladesville PAMP

- Identification of issues and locations of concerns

The workshop was held at Gladesville Library on Wednesday 4 December 2013. Both an afternoon (2.30pm – 4.00pm) and evening (5.30pm – 7.00pm) session was held to allow all stakeholders to participate. Topics covered in the workshop included:

- Introduction to PAMP;
- Purpose of the workshop;
- Area description and key issues;
- Identified issues to date;
- Aims and objectives of the PAMP;
- Potential pedestrian facilities; and
- Group discussion:
    - The main pedestrian routes in Gladesville
    - Barriers to walking
    - Hazardous locations within the main pedestrian routes
    - Priority of routes
    - Potential facilities improvements and options

The workshop attendance list and summary notes are provided in Appendix C.

A key output of the stakeholder workshop was capturing key issues and feedback on the preliminary draft PAMP routes. The key pedestrian routes and concerns around hazardous locations that were raised in the workshop were incorporated into the development of the PAMP routes.


Selected photos from stakeholder workshop

5.6 Public Exhibition

The draft PAMP was placed on public exhibition from 23 April to 30 May 2014. Placing the draft PAMP on public exhibition is part of the community engagement stream of the PAMP process. The community engagement stream is recognised as a key component of the PAMP as it enables community and stakeholder input to inform the PAMP issues and recommendations. Comments on the draft PAMP allowed for further feedback from the community to finalise the document. Two responses to the draft PAMP were received during the public exhibition period.

In the submission from the Gladesville Chamber of Commerce, a number of issues were noted including:

- Providing enhanced pedestrian access within the town centre;
- Improving pedestrian crossing opportunities across Victoria Road;
- Requirement to widen footpaths on Cowell Street;
- Access to, and within, the redeveloped Gladesville Shopping Village; and
- Providing appropriate street furniture (e.g. seating, disposal bins).

The Chamber of Commerce noted that almost all of the issues contained in the submission were contained in "*this very comprehensive Pedestrian Access and Mobility Plan……The chamber congratulates those who have sought and collated the many opinions of a wide section of the community and hopes the final report will instruct future action in the enhancement of the Gladesville Town Centre*".

The second submission noted that the section of the draft PAMP discussing access for people with disabilities was misleading, particularly use of the phrase 'physical access'. This section of the report (section 2.4) has been updated to reflect the comments outlined in the submission.

5.7 Access Committee Meeting

Arup presented the findings of the draft PAMP report to the City of Ryde Access Committee on Wednesday 4 June 2014. The purpose of the presentation was to seek comments from the Committee on the draft PAMP and to confirm recommendations proposed in the draft PAMP.

Responses from the Committee meeting suggested that members were very happy with the consultation process to date and have understood how their inputs from the engagement methods have been integrated into the draft PAMP report.

6 PAMP Routes

6.1 Route Development

The development of the PAMP routes with priority categories enables Council to best allocate limited resources within competing pedestrian opportunities and facilities. The PAMP routes development is informed by the information base built for the PAMP study and comment received from the community during the consultation stage.

6.2 Route Prioritisation Methodology

The pedestrian routes were prioritised based on factors outlined in the RMS *How to Prepare a PAMP* document, as follows.

- **Land use** – the number of attractors and generators in the area, the type of land use, distance and future developments
- **Traffic impact** –based on the road hierarchy, with State Roads (e.g. Victoria Road) given highest priority
- **Safety** – how safe the public feel about the area, and the accident history of the area;
- **Facility benefit** –the demonstrated usage of the route, based on the nearby attractors and generators with input from observed activities and community consultation;
- **Continuity of routes** –how the route links with the existing pedestrian network, whether it is to or from an existing footpath, or to an attractor and/or generator; and
- **Priority** – The priority relates to the identified route priority.

Particularly, importance was given to feedback provided in the stakeholder workshop and Collaborative mapping. A priority of routes presents the best opportunity to:

- provide links between main attractors and generators
- improve existing pedestrian hazards locations
- formalise existing pedestrian links

It is highlighted that the PAMP network is designed to be a flexible network, where Council is able to adapt and update the network where relevant to suit new developments to continue to be relevant to the Gladesville context.

6.3 PAMP Route

The PAMP route identifies a continuous and comprehensive network for the current state of Gladesville area. The PAMP route also identifies a series of key intersections. It is highlighted that the PAMP network is designed to be a flexible network, where Council will be able to adapt and update the network where relevant to suit new developments to continue to be relevant to the Gladesville context. The network of PAMP routes is summarised in Figure 16.

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PAMP Routes

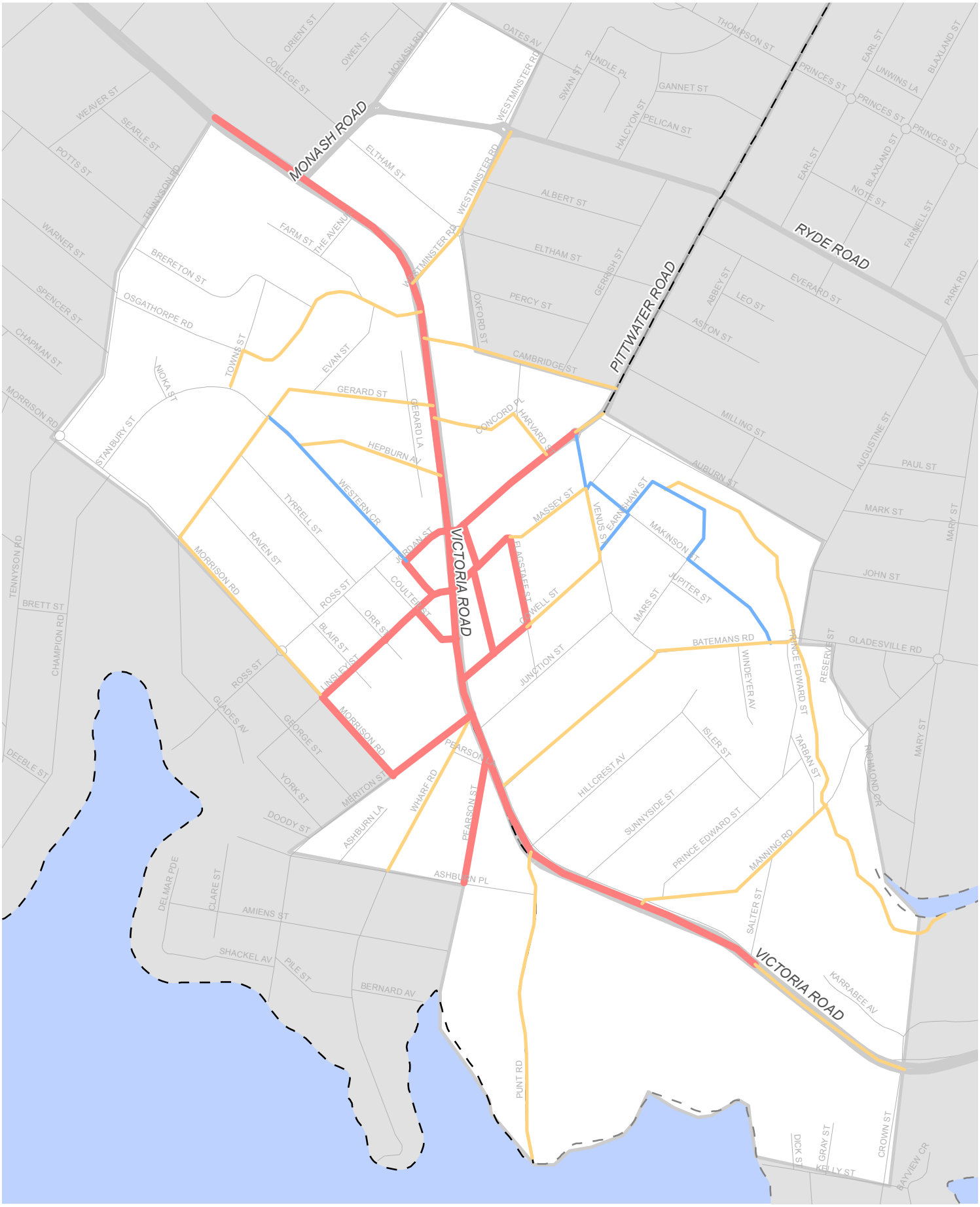
LGA boundary
- Hunters Hill
- City of Ryde

Main roads
Local roads

PAMP Study Area

Draft PAMP Routes
- High
- Medium
- Low

0 100 200 400 Metres



7 PAMP Routes Audit

7.1 Audit Process

A physical access audit of the high priority routes[1] within the study area was completed over two days in January 2014. The audit checklist was developed from the pedestrian facilities standards in AS 1428.1, AS 1428.2, AS 1428.4.1 and Austroads standards.

The key focus of the physical audits is to identify deficiencies in the existing pedestrian network. Factors considered in the audits are detailed below.

- Footpaths provision (are footpaths absent?);
- Footpath quality (are footpaths damaged, cracked or uneven path, narrow, or trip hazards?);
- Kerb ramp provision (are kerb ramps absent? Do existing kerb ramps conform to Australian Standard design?);
- Obstruction / barriers along path (are there poorly placed trees, bus shelters, signage or seating?);
- Pedestrian crossing facilities (are there locations where additional crossing facilities are required or existing are in need of upgrade?);

A full list of the issues arising from the footpath audit is included in Appendix D. Each issue has a unique ID number that links the issues maps to the Staged Work Plan. Photos of the audited issues have been collected, and selected photos have been presented in this report.

7.2 General Audit Findings

The physical field audit demonstrated that footpaths and kerb ramps around the town centre are generally of high quality, as shown in Photograph 1. Outside the core of the town centre however, the footpath quality reduces significantly, with an example in Photograph 2.

Photograph 1: Existing footpaths in Gladesville Town Centre

Photograph 2: Existing footpaths outside of the town centre

[1] Auditing of the medium and low priority routes is outside of the scope of this study

As highlighted through throughout the stakeholder consultation period, pedestrian crossing issues were identified through the audit as a key issue for the study area. The lack of crossing points across Victoria Road, large distances between intersections and long wait times present an unsafe pedestrian crossing environment. Victoria Road's multiple traffic lanes and short allowable crossing times also result in limited crossing opportunities for pedestrians.

7.3 Footpath Audit Findings

Footpath issues that were observed during the audit included:

- Missing footpaths
- Cracked and uneven footpaths due to:
  - Manholes and service pits
  - Driveway crossovers
  - Wear and tear of existing footpaths
- Narrow footpaths widths including:
  - Insufficient pavement widths
  - Obstructions within the footpath

The audit identified that there was only one footpath missing along the high priority routes, located along the western side of Flagstaff Street between Cowell Street and Massey Street (see Photograph 3).

Photograph 3: Flagstaff Street, between Cowell Street and Massey Street (west side)

There were a number of locations throughout the study area where the footpath was identified as uneven or cracked. The footpath is generally uneven due to poor integration with manholes or poor repair after servicing. Cracks, cavities and uneven footpaths also appear due to wear, poor drainage and nearby tree roots. Some locations of where footpaths were in poor condition are shown below.

Photograph 4: Flagstaff Street, between Cowell Street and Massey Street (east side)

Photograph 5: Victoria Road between Monash Road and Tennyson

Photograph 6: Massey Street, between Massey Lane and Flagstaff Street (north side)

Photograph 7: Victoria Road between Manning Road and Salter Street (south side)

The width of the footpath was observed during the audit process against standards to the minimum required width (for DDA compliance) of 1.2m. Examples of locations where footpaths were observed to be narrow are outlined below:

Photograph 8: Wharf Road/Meriton Street

Photograph 9: Coulter Street, between Linsley Street and Victoria Road (south side)

There were also a number of footpaths that met the minimum standards, but contain pinch points that reduce the available width due to obstructions. These obstructions include telegraph poles, roadside signage and service boxes. Some of these locations are outlined below:

Photograph 10: Flagstaff Street, between Cowell Street and Massey Street (west side)

Photograph 11: Massey Street, between Massey Lane and Victoria Road (south side)

Photograph 12: Cowell Street, between Flagstaff Street and Victoria Road (north side)

Photograph 13: Massey Street, between Massey Lane and Flagstaff Street (north side)

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Metres
0 100 200

Footpath Issues (City of Ryde Council)_

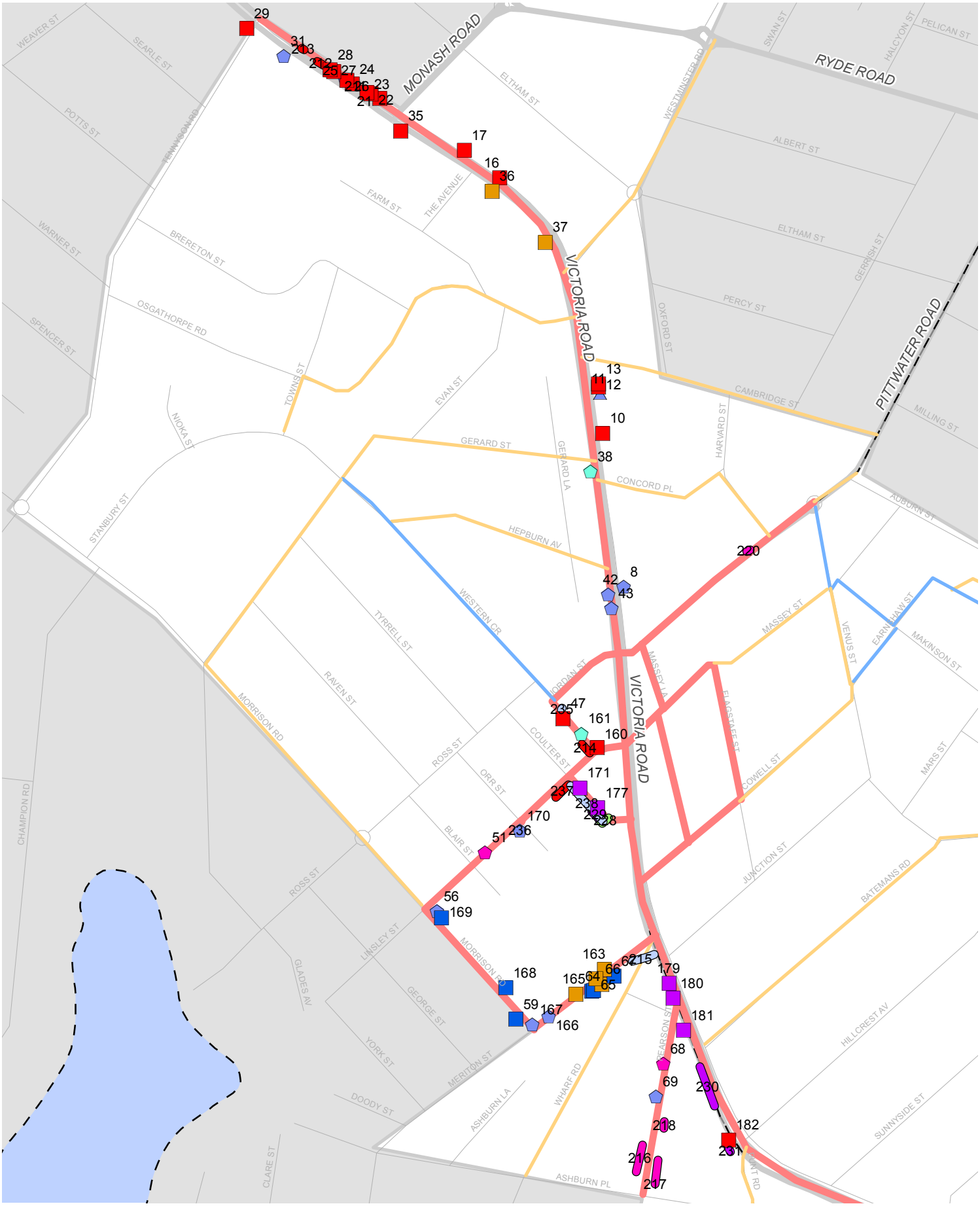
LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads

PAMP Study Area
PAMP Routes
High
Medium
Low

Footpath obstruction - signage pole
Footpath obstruction - service pole/box
Footpath obstruction - service pole/box

Footpath cavity or cracks (Town Centre granite)
Footpath cavity or cracks (other granite)
Footpath cavity or cracks (other)
Driveway crossover cracked/uneven

Footpath uneven
Uneven nature strip
Unsafe cyclist grate drain
Utilities/manhole uneven



Footpath Issues (Hunters Hill Council)_

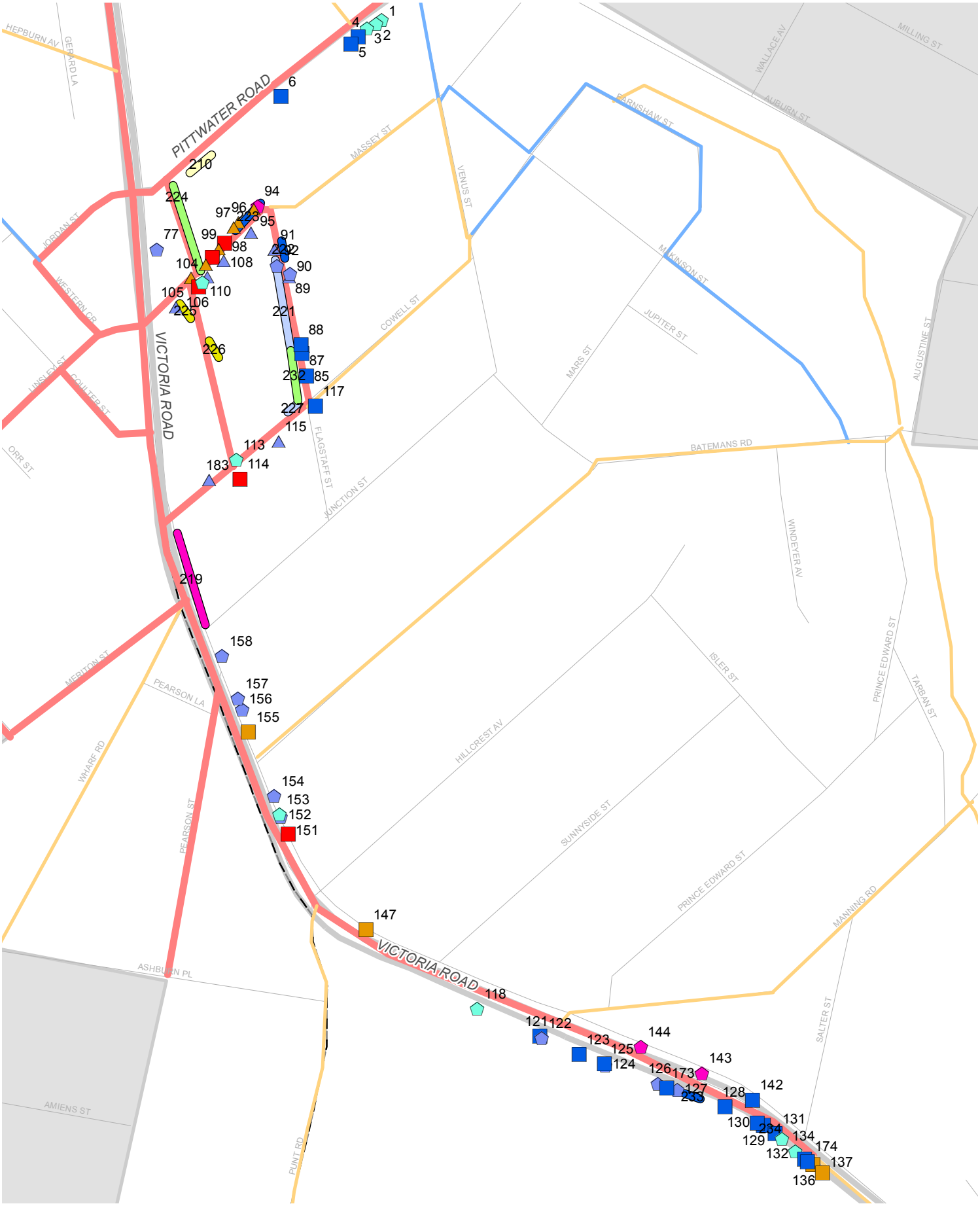
LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads

PAMP Study Area
PAMP Routes
High
Medium
Low

Footpath obstruction - signage pole
Footpath obstruction - service pole/box
Footpath obstruction - service pole/box

Footpath cavity or cracks (Town Centre granite)
Footpath cavity or cracks (other granite)
Footpath cavity or cracks (other)
Driveway crossover cracked/uneven

Footpath uneven
Uneven nature strip
Unsafe cyclist grate drain
Utilities/manhole uneven



7.4 Kerb Ramp Audit Findings

The audit identified that the majority of footpaths along the high priority routes contained suitable kerb ramps. Kerb ramp issues that were observed during the audit included:

- A lip or step between kerb ramp and road
- Steep grades on kerb ramps
- Direction of kerb ramps
- Missing kerb ramps.

Selected photos of these issues are found below.

Photograph 14: Linsley Street, at south corner of intersection at Orr Street

Photograph 15: Linsley Street, at west corner of intersection at Coulter Street

Photograph 16: Cowell Street, between Flagstaff Street and Victoria Road (north side)

Photograph 17: Morrison Road, between Linsley Street and Ross Street (north side)

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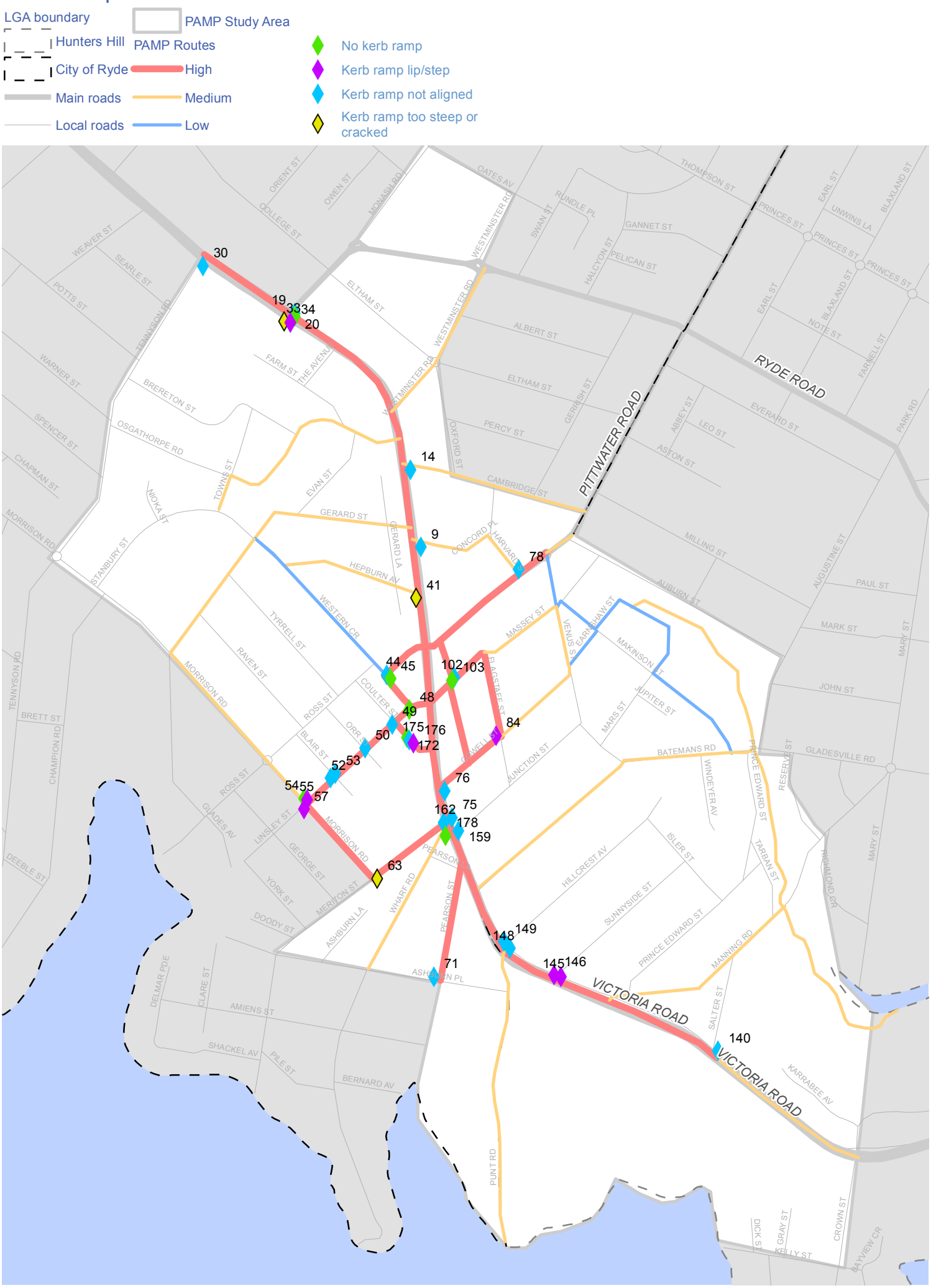
Kerb Ramp Issues



7.5 Bus Stop Issues Audit Findings

Bus stops along the high priority PAMP routes were considered within the physical audit to audit whether bus stops had the following characteristics:

- Bus stop shelter;
- Seating;
- Bus stop signage;
- Paved to the kerb.

Bus stops in the area were generally observed to be of high quality, particularly along Victoria Road. Where shelters were not provided, there were usually shop awnings to provide necessary shelter to bus users.

There were only a limited number of bus stops in the study area that were identified as requiring shelter and/or seating. Some examples of issues with bus stops are shown below.

Photograph 18: Victoria Road, at northeast corner of intersection at Pittwater Road

Photograph 19: Victoria Road, at southeast corner of intersection at Monash Road

Photograph 20: Victoria Road, between Hepburn Avenue and Gerard Street (west side)

Photograph 21: Pittwater Road, between Auburn Street and Venus Street (north side)

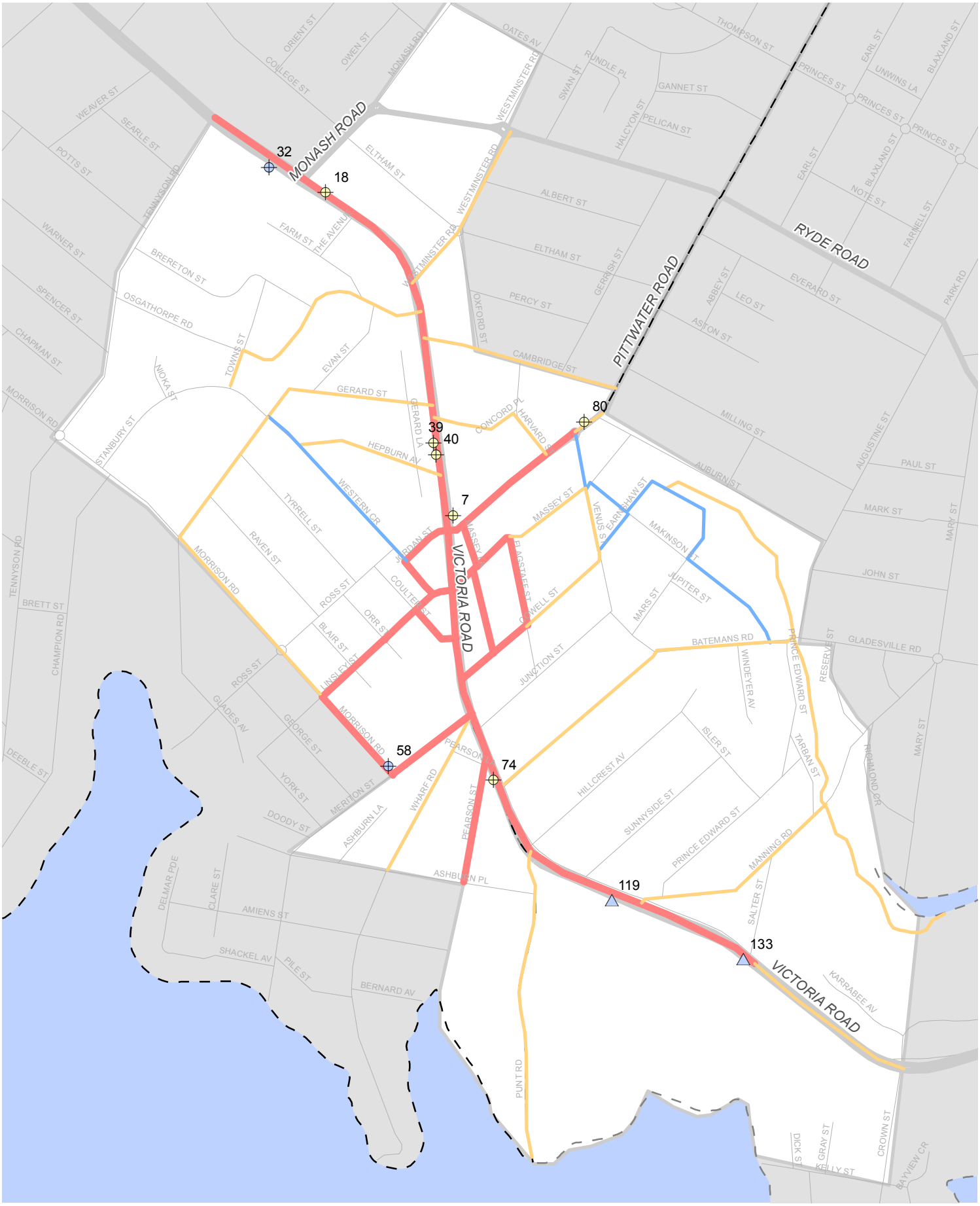
0 100 200 400 Metres

Bus Stop Issues

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads

PAMP Study Area
PAMP Routes
High
Medium
Low

Footpath obstruction - bus shelter
Bus stop: not paved to kerb
Bus stop: no shelter
No lighting
No signage



7.6 Awning Fixtures

Awning fixtures were generally observed to be present at key retail areas along Victoria Road. The physical audit highlighted that there was limited provision for awnings beyond these locations. It is noted however that the implementation of awning fixtures throughout the whole route network is unrealistic and unfeasible, and the existing awning fixtures provided by bus stops and at entrances to buildings is sufficient.

Implementation of awning fixtures could be considered as further development continues along Victoria Road with active street frontages proposed by the DCP and Public Domain manual.

7.7 Lighting

Through the physical audit, street lighting was observed to be present along the high priority PAMP routes. Only one location during the stakeholder consultation period was identified as poorly lit – that being the connection between Coulter Street and Trim Place. This location should be investigated further by undertaking a night audit (outside the scope of this study).

7.8 Signage

There is limited wayfinding signage present within the town centre, with some examples shown in Photograph 22.

Photograph 22: Existing directional signage in Gladesville town centre

Additional locations for wayfinding signage were also identified through the audit. New locations were mainly identified at locations on the outskirts of the town centre, providing linkages to key destination points. These locations include:

- Pittwater Road near Massey Street;
- Morrison Road near Linsley Street; and
- Victoria Road opposite Trim Place (arcade through to Shopping Village)

A consistent signage strategy is recommended to be adopted across both the City of Ryde and Hunters Hill LGA's.

7.9 Crossing Audit Findings

A series of pedestrian crossing issues were identified during the audit, including:

- Pedestrian refuge designs
- Signalised pedestrian crossings
- Opportunities to provide new crossings on existing pedestrian desire lines

Refuge islands within the study area were generally unprotected and not wide enough to accommodate a wheel chair user or bicycle. Refuge islands without handrails and sufficient width create a false sense of security for users crossing the road. Examples of poor refuge crossing points are shown below.

Photograph 23: Pearson Street, west of Victoria Road intersection

Photograph 24: Cowell Street, west of Flagstaff Street intersection

Photograph 25: Manning Road, north of Victoria Road intersection

Photograph 26: Victoria Road ,between Sunnyside Street and Manning Road

Signalised crossings are only provided along Victoria Road within the study area. The audit noted that a number of signalised intersections on Victoria Road do not contain east-west pedestrian crossings on both the northern and southern approaches. Further detail is described in Section 8.4, addressing additional issues such as waiting and crossing times.

Photograph 27: Victoria Road, between Punt Road and Meriton Street

Photograph 28: Westminster Road northeast of Victoria Road intersection

There were also a number of crossing opportunities noted in the audit and consultation. These locations have a pedestrian desire line with no current provision for pedestrian crossings (i.e. were unsafe to cross). These are further discussed in Section 8.6 of this study.

Photograph 29: Victoria Road, near Salter Street

Photograph 30: Pittwater Road near Massey Lane

8 Assessment of Key Issues

The following sections provide a more detailed overview of some key pedestrian issues for the Gladesville Town Centre. In particular, these issues relate to the future development of the town centre and east-west pedestrian movements across Victoria Road.

8.1 Gladesville RSL Precinct

The Gladesville RSL is a major generator of pedestrian activity in the town centre. The streets surrounding the building, including Coulter Street, Western Crescent and Linsley Street, are narrow with little shading, providing poor pedestrian amenity. A pedestrian connection is provided between Coulter Street and Trim Place, however the footpath is narrow and in poor condition. The potential development of the Gladesville RSL provides an opportunity to enhance the pedestrian environment in the precinct, through the following measures:

- upgrading footpaths in the precinct by providing continuous granite paving in accordance with the City of Ryde Public Domain Manual
- providing an improved connection to Trim Place via Coulter Street by widening the Coulter Street footpath (southern section)
- aligning the kerb ramp at the corner of Coulter Street and Linsley Street to link with the pedestrian desire line
- providing a kerb ramp at the corner of Coulter Street and Western Crescent to provide access across Victoria Road
- providing a pedestrian refuge on Jordan Street opposite Western Crescent to create a pedestrian connection to the RSL

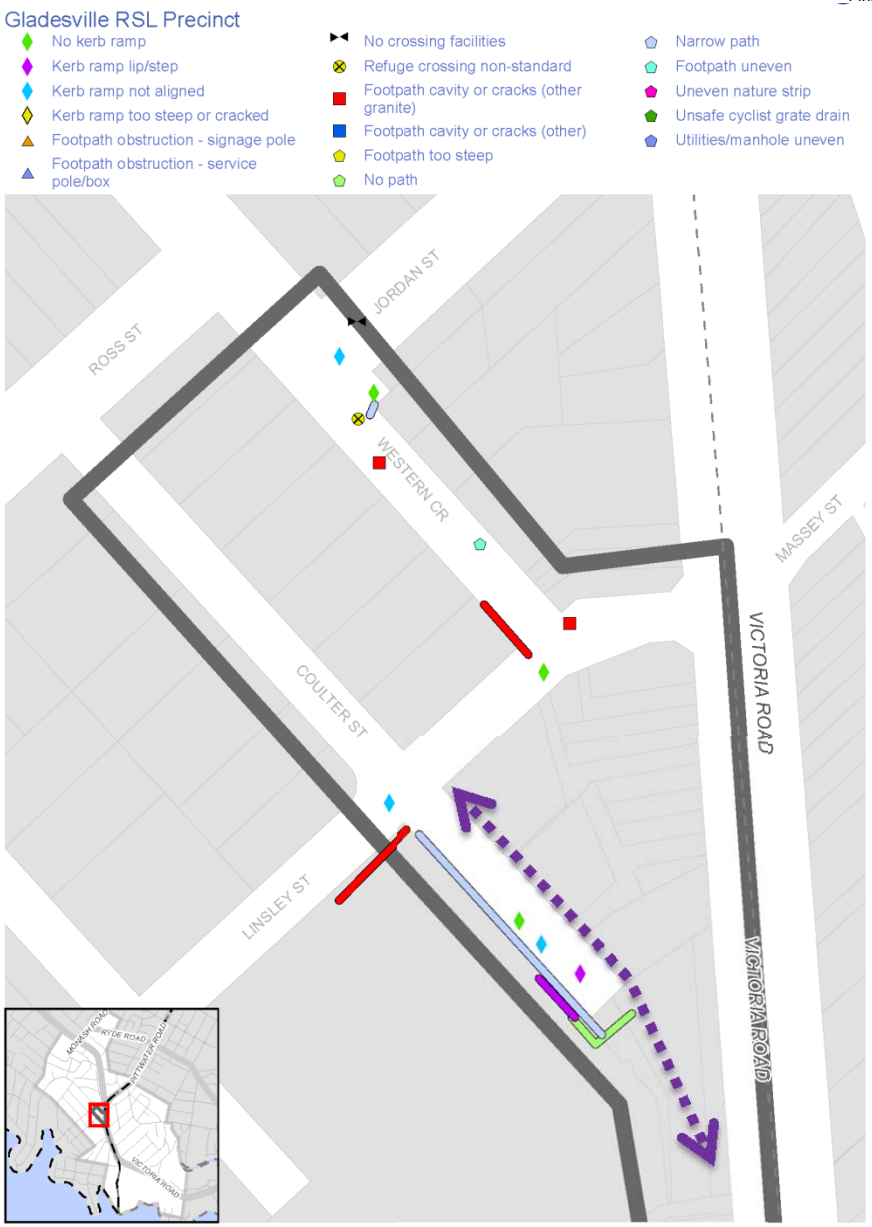


Figure 21: Gladesville RSL precinct recommendations

8.2 Gladesville Shopping Village

The Gladesville Shopping Village is located at the core of the town centre and is the major generator of pedestrian activity in the precinct. The proposed development of the site will require a number of improvements to network to facilitate safe and convenient pedestrian access.

8.2.1 Vehicular Site Access

Three vehicular driveways are proposed along Flagstaff Street, with an additional driveway for service vehicles proposed on Cowell Street. With both Flagstaff Street and Cowell Street to serve as primary pedestrian access points into the site, these vehicular driveways have the potential to detract from the surrounding pedestrian environment.

It is recommended the proposed driveway style entrances are fully integrated with the adjoining footpath. The footpath is to be at one continuous level, with no layback. The treatment will therefore be an area which is designed for pedestrians, across which vehicles can pass slowly. This will provide a visual indicator to drivers to give way to pedestrians on the footpath as required by law.

The locations of the proposed vehicular driveways into the development, and examples of continuous footpath treatments implemented across Sydney, are illustrated in Figure 22.

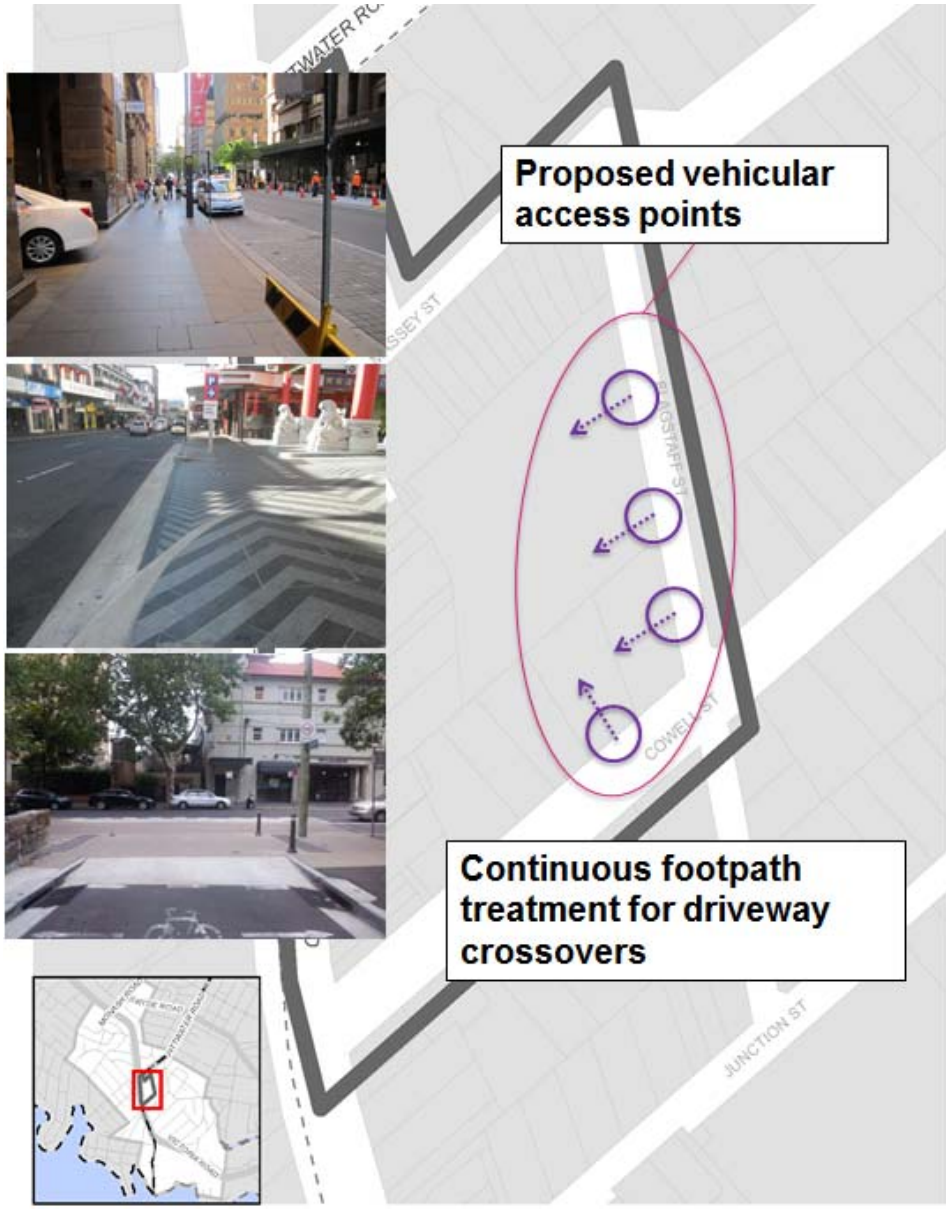


Figure 22: Recommended footpath treatment at driveways

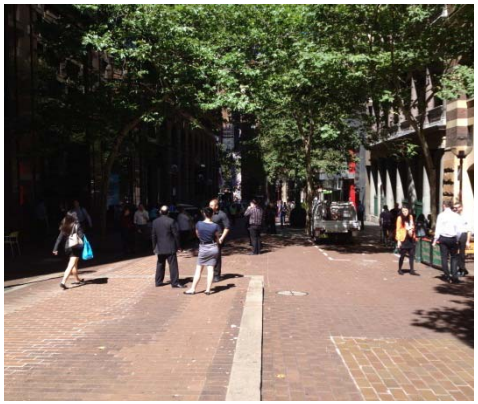
Gladesville Shopping Village

8.2.2 Massey Lane

Massey Lane provides an important pedestrian connection between the proposed development and land uses along Pittwater Road, including bus stops and the Gladesville Library. Currently no footpath is provided on either side of the laneway. Notwithstanding this, observations during site visits indicated significant levels of pedestrian activity along the laneway.

Given the proposed development will result in increased pedestrian activity along Massey Lane, it is recommended a shared zone be installed to enhance the level of pedestrian connectivity and safety. Shared zones are low speed (10km/hr) environments were drivers must give way to pedestrians at all times. The design of shared zone would be similar to that proposed for the right of way adjacent to the development.

The RMS have specific criteria that must be met in order for a shared zone to be introduced. Therefore the introduction of a shared zone on Massey Lane is dependent on this section satisfying relevant RMS criteria. This will be further investigated in the next stage of the PAMP study.



Photograph 31 Shared Zone Examples

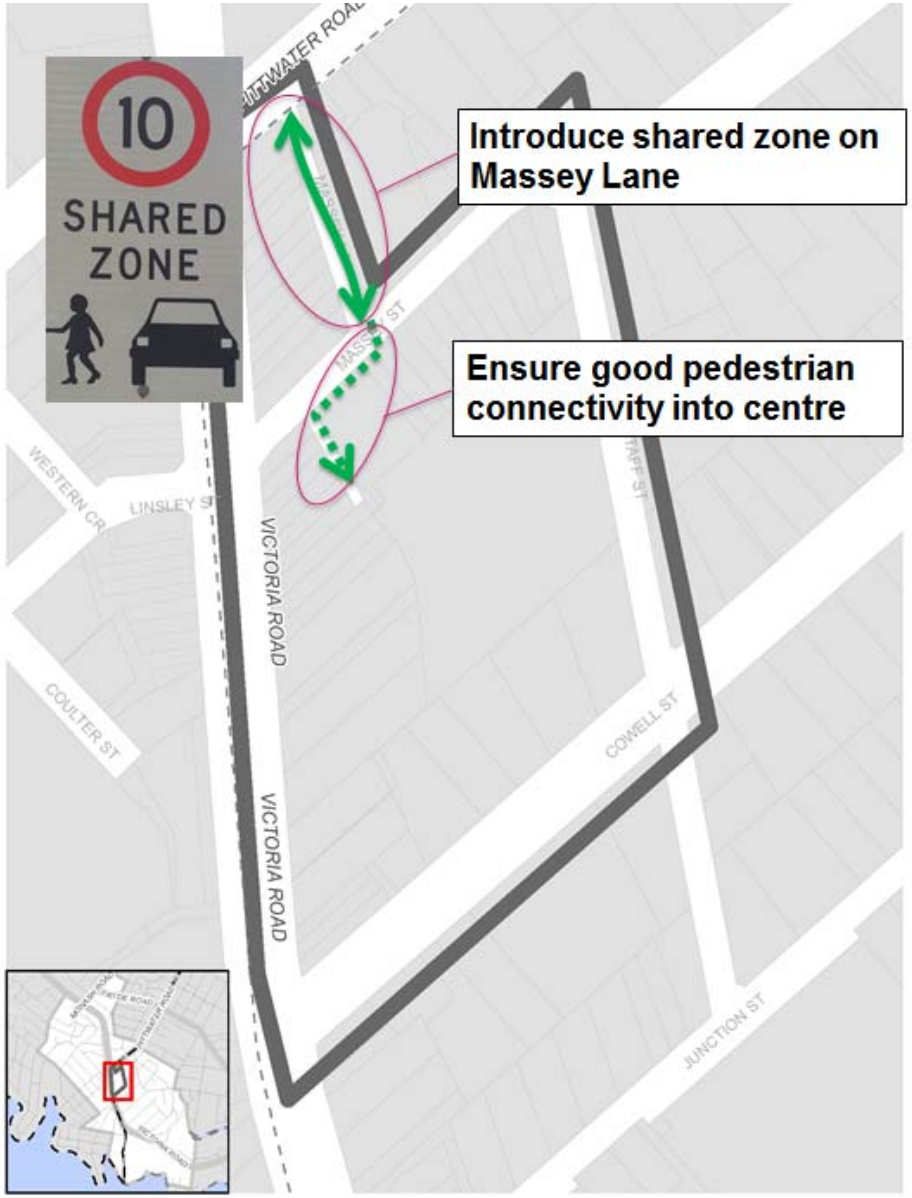


Figure 23: Massey Lane shared zone recommendation

Gladesville Shopping Village

8.2.3 Footpaths

The access audit of the high priority routes identified a number of deficiencies in the footpaths serving the proposed development. This was particularly evident on Flagstaff Street, where obstructions such as street poles reduced the available footpath width to 700mm, well short of the 1.2m minimum required for DDA compliance.

At the southern end of Flagstaff Street no footpath is provided whatsoever up to Cowell Street.

Footpaths on both sides of Massey Street, Flagstaff Street and Cowell Street should be of a minimum standard to ensure:

- a minimum 1.2m clear width is provided;
- no cavities or cracks are present; and
- kerb ramps are located in appropriate locations

Photograph 32 Existing Footpath Deficiencies, Flagstaff Street

Figure 24: Recommendations for upgrades of existing footpaths

8.3 Meriton Street / Wharf Road Development

A number of development applications have recently been submitted for mixed use developments on the block bounded by Victoria Road, Pearson Street, Wharf Road and Meriton Street. If all of these developments were to receive approval, this would add over 160 residential dwellings, retail and commercial tenancies to the precinct.

The proposal for the development of the precinct includes the closure of the northern end of Wharf Road and the creation of a 15m pedestrian plaza. This will enhance the pedestrian environment in the area, complementing the planned retail and commercial activity.

Some additional measures recommended to improve the pedestrian amenity in this precinct include:

- upgrading the existing pedestrian refuge across Pearson Street
- improving the condition of the Meriton Street and Victoria Road footpath, where a number of cracks and uneven surfaces were identified
- providing a suitable pedestrian connection from the new laneway to the existing zebra crossing at Meriton Street and into Gladesville Public School
- providing a new footpath connection linking the Pearson Street eastern footpath to the Victoria Road southern footpath

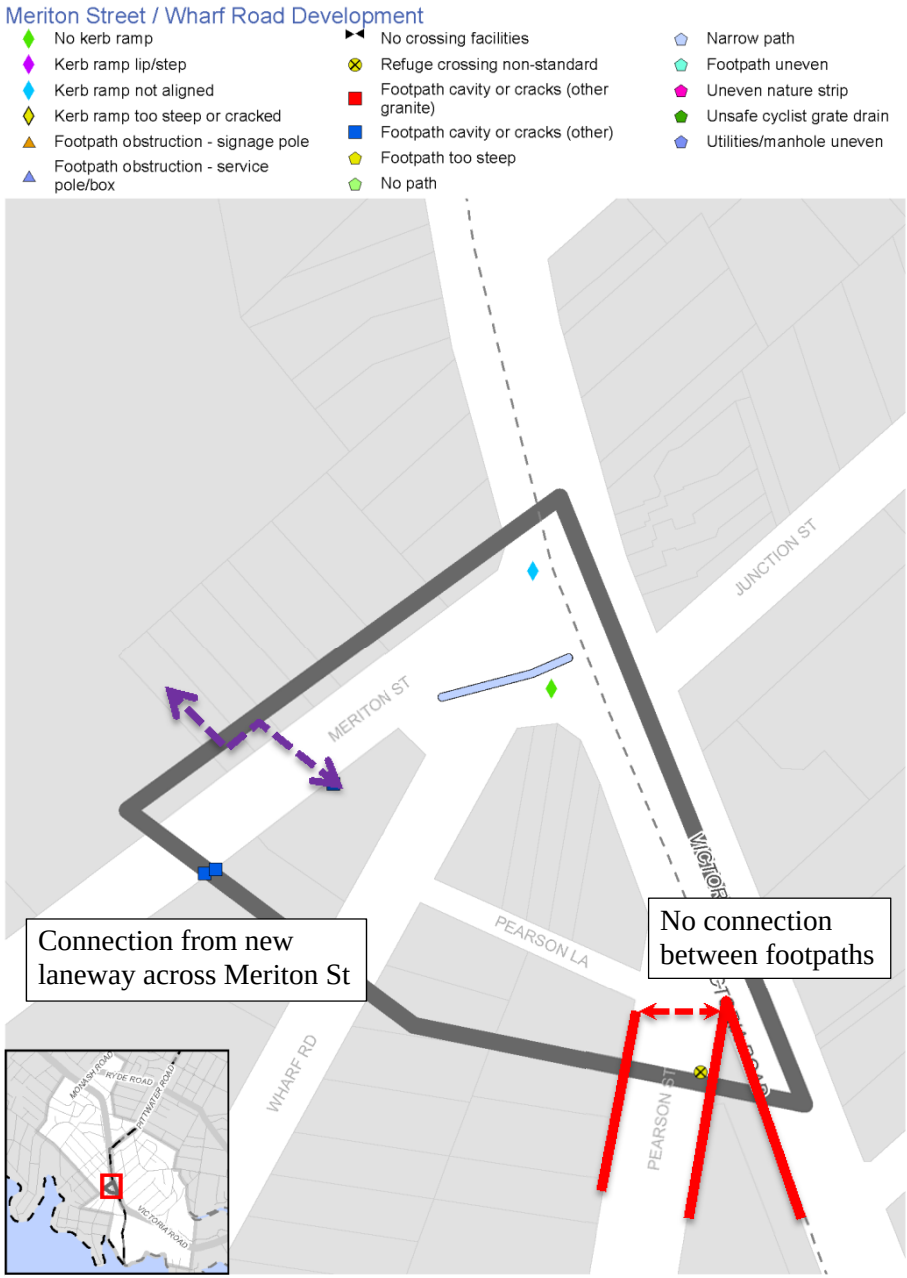


Figure 25: Meriton Road / Wharf Road development recommendations

8.4 Victoria Road East-West Connections

Victoria Road divides the study area in two and acts as a major barrier to pedestrian movement in the town centre. Long wait times, coupled with the short crossing times (green man times) to cross five to six lanes of traffic, were key issues identified during the community consultation period. Elderly and mobility impaired users often find it difficult to cross the road in the time allotted to them, creating a major safety concern. Long wait times reduces the attractiveness of walking as a transport option, and makes pedestrians more likely to undertake risky crossing behaviours outside of the official signal crossing times.

Victoria Road is a regional (RMS controlled) arterial road, with significant traffic volumes during peak hours. These peak hour numbers means that the road network will be highly sensitive to any modifications, including changes to signal phasing and pedestrian wait times.

Outside of peak hours, particularly between 10am and 3pm when there is high pedestrian activity in the town centre, traffic volumes on Victoria Road are considerably lower –50%-60% of that experienced in commuter peaks. There is considered scope to modify the signal phasing during these periods to provide a greater level of pedestrian priority. This includes:

- reducing the overall cycle time of the traffic signals so that pedestrians do not face as long a wait to cross the road; and
- increasing the amount of ‘green time’ allocated to pedestrians when crossing the road

It is recommended Council initiate discussions with the RMS to review the pedestrian crossing timing at signalised intersections along Victoria Road within the town centre. This would provide more generous crossing times to allow pedestrians, particularly the elderly and mobility impaired longer to cross and not feel overly rushed or end up conflicting with moving vehicles.

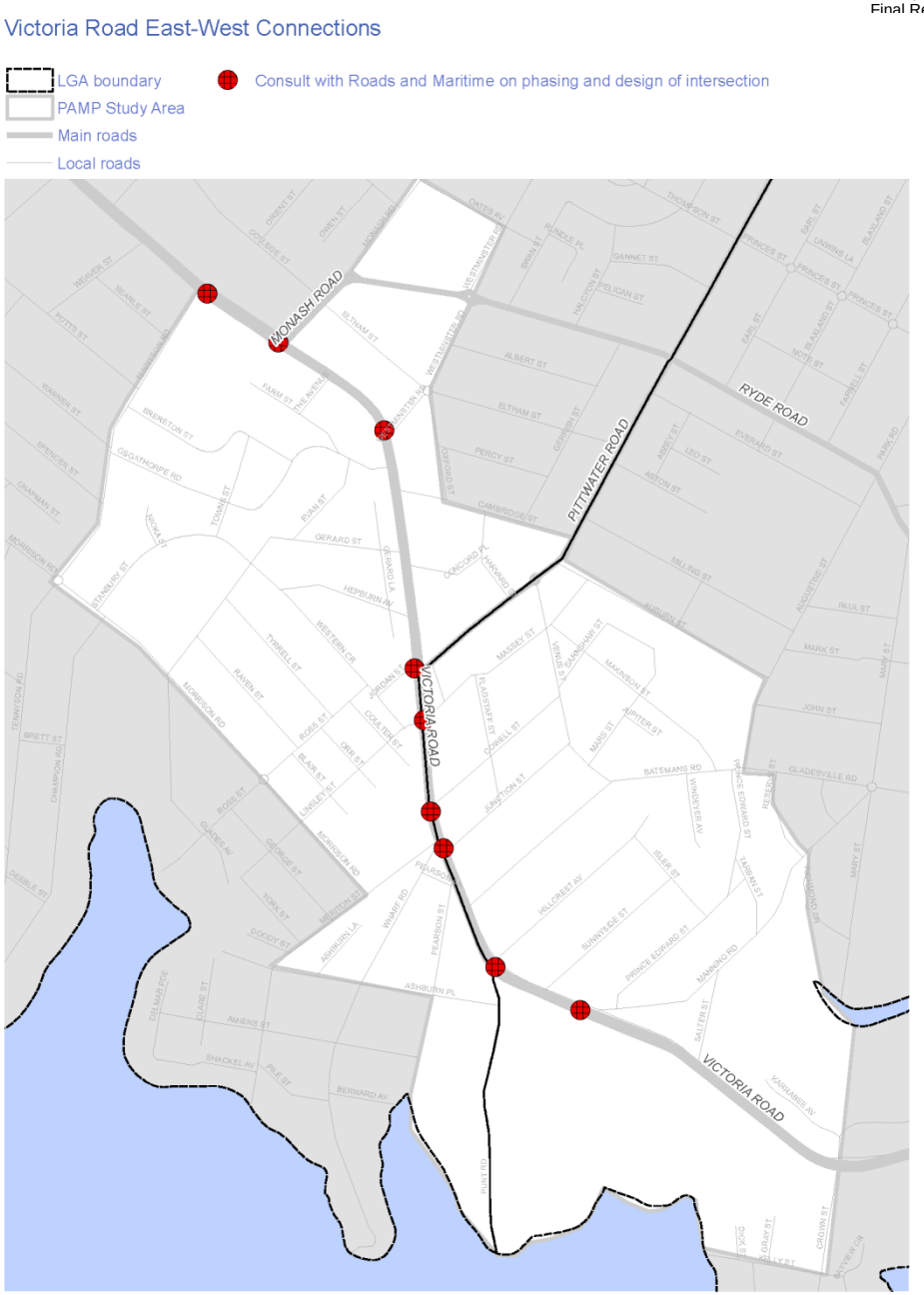


Figure 26 Victoria Road east-west crossings

8.5 Crossing at Roundabouts

There are three roundabouts on the periphery of the high priority routes. While roundabouts are generally poor pedestrian crossing points, there are inadequate safe crossing points at the roundabouts audited. A pedestrian refuge requires kerb ramps, a 2m wide refuge island and handrails to comply with standards and Roads and Maritime guidelines. The following describes the crossing issues at each of the three roundabouts:

Meriton Street / Morrison Road

This intersection is a T-junction, with Meriton Street as the straight alignment through the roundabout. The roundabout provides traffic islands on the Meriton Street northeast and Morrison Road northwest approaches. Both of these approaches provide a cut-out and kerb ramps for pedestrians. The Meriton Street southwest approach has a painted delineation to separate traffic and no crossing provision.

Morrison Road (NW) has a 2.5m wide refuge, with associated kerb ramps approximately 2m from the control line with no handrails. Meriton Street (NE) has a 1.2m wide refuge approximately 3m from the control line with associated kerb ramps approximately 2m from the control line with no handrails.

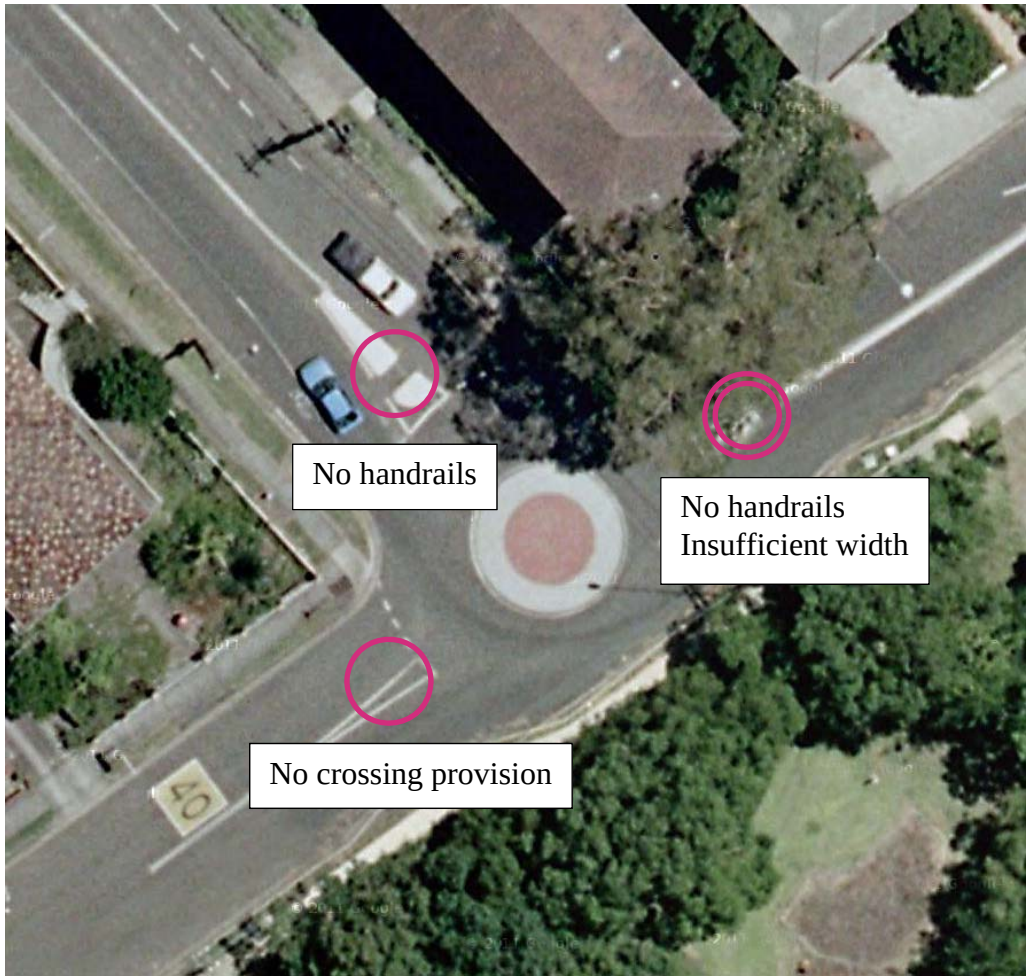


Figure 27: Meriton Street / Morrison Road roundabout

Ashburn Place / Pearson Street

This intersection is a T-junction, with Ashburn Place as the straight alignment through the roundabout. The roundabout provides traffic islands on both Ashburn Place approaches, with no cut-outs or kerb ramps for pedestrians. The Pearson Street approach has kerb ramps at the control line, but no traffic island or painted delineation. This junction therefore provides no standard safe crossing on any approach.

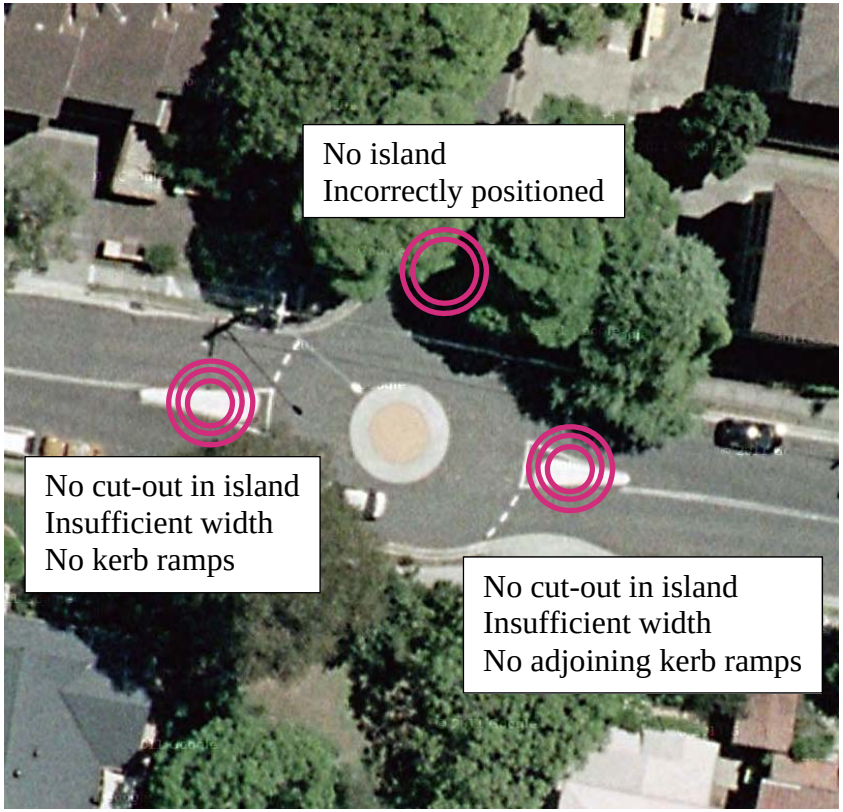


Figure 28: Ashburn Place / Pearson Street roundabout

Pittwater Road / Venus Street

The island on the southern approach of Pittwater Road has a 1.2m wide refuge cut-out for pedestrians approximately 7m from the control line. There are kerb ramps at the control line for the Venus Street approach and no cut-out / kerb ramps on the north approach. Observations during PM peak saw high levels of pedestrian activity in this area due to the medicine centre and shops on Pittwater Road.

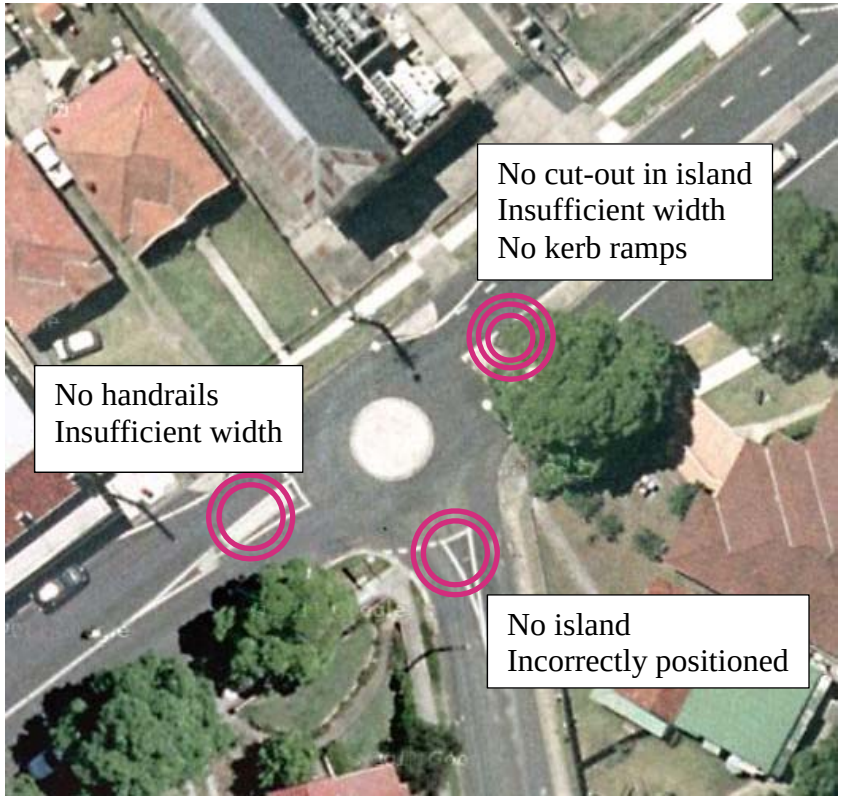


Figure 29: Pittwater Road / Venus Street roundabout

8.6 Crossing Opportunities

In addition to long pedestrian wait times at intersections, a number of locations were identified in the audit which would benefit from the provision of a dedicated pedestrian crossing facility. These are located on existing pedestrian desire lines where there is no nearby convenient crossing. Regardless of the fact that no crossing was available, a number of pedestrians were still observed to cross the road at these locations – an unsafe practice that may result in conflicts.

The potential locations for new crossings within the study area are described below:

- **Victoria Road opposite Salter Street**: Investigate the demand and consult with RMS for a signalised intersection with pedestrian crossings across Salter Street and Victoria Road. This would provide access across Victoria Rod to the nearby bus stops.
- **Victoria Road opposite Gerard Street**: Investigate the demand and consult with RMS for a signalised intersection to provide a connection to city-bound bus stops and development at 297-307 Victoria Road.
- **Pittwater Road near Massey Lane**: Provide pedestrian refuge to reinforce connection between Gladesville Library and Gladesville Shopping Village via Massey Lane.
- **Jordan Street opposite Western Crescent**: Provide pedestrian refuge to create a pedestrian connection to the Gladesville RSL
- **Flagstaff Street opposite Massey and Cowell Streets**: Provide pedestrian refuge to enhance access to the Gladesville Shopping Village
- **Westminster Road / Pittwater Road intersection:** Consult with RMS to provide a pedestrian crossing leg on the western side of the intersection, across Pittwater Road

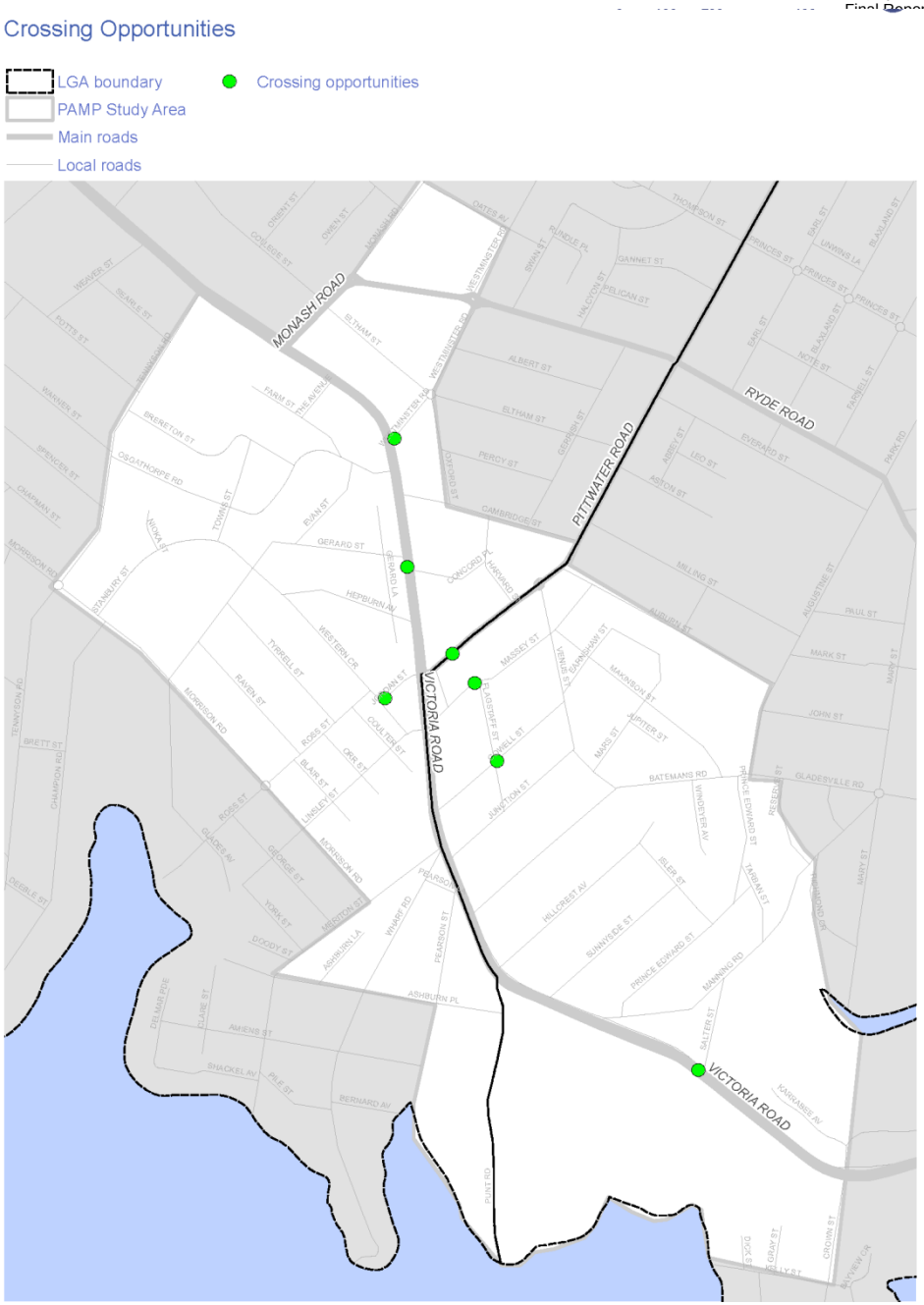


Figure 30 Crossing opportunities

9 Recommended PAMP Staged Action Plan

Developing a prioritised Staged Action Plan within the PAMP helps to link pedestrian improvements to state and local government planning instruments and Council's requirements under Sections 94 of the Environmental Planning and Assessment Act 1979 (NSW). The Staged Action Plan places the PAMP action recommendations into a clear format that is required for Council and RMS funding approval processes.

The recommended PAMP Work Program is designed to be a 'living document' in the sense that Council will be able to make changes to and update the program where relevant to suit the Gladesville Town Centre context. The action plan outlined in this document contains 238 individual measures to enhance pedestrian connectivity and movement within the study area.

9.1 PAMP Actions

Possible actions for Council to be developed as part of the PAMP process are wide ranging and should be guided by the NSW Safe System Approach[2] that has an overarching objective of safe travel; that is, fewer fatalities and serious injuries on NSW Roads. Within the NSW Safe System Approach, most relevant to this PAMP is "Safer Roads". This PAMP study and the resulting action recommendations focus on the engineering actions and recommendations. The action recommendations are developed primarily through physical field audits undertaken on all the high priority routes identified in the PAMP network as well as through the literature review and consultation comments.

The location of specific issues were identified in the audit and presented in the Staged Action Plan of Appendix D. The locations of all issues were also registered in the GIS database with coordinates. The main issues and recommended actions are summarised in Table 4 below.

Table 4: Break down of issues and general recommended actions

Issue	Action	Cost (per item or m^2)
Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	$ 13,500
Bus stop: not paved to kerb and no shelter	Bus stop upgrade to accessible (seat, shelter, paving, lighting)	$ 13,500
Footpath obstruction - bus shelter	Investigate location, bus stop design and relocate/remove shelter to ensure adequate width	$ 13,500
No path (other areas)	Install new minimum 1.2m wide footpath to AS	$ 360
Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	$ 920
Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	$ 920
Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	$ 293

[2] RMS NSW: Source: www.rms.nsw.gov.au

Issue	Action	Cost (per item or m^2)
Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	$ 347
Footpath uneven	Footpath grinding	$ 25
Footpath too steep	Developer to address	n/a
Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	n/a
Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	$ 139
Pavers uneven	Remove pavers and install new footpath - paving type as per Gladesville Domain Manual	$ 393
Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	$ 160
Footpath obstruction - service pole/box with space on nature strip	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	$ 293
Footpath obstruction - service pole/box without space to kerb	Consultation with service provider to relocate	n/a
Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	n/a
No kerb ramp	Install new kerb ramp to AS design	$ 1,500
Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	$ 1,500
Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	$ 1,500
Kerb ramp too steep or cracked	Investigate location and install a new kerb ramp if able to do so	$ 1,500
Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	$ 3,500
No crossing facilities	Investigate location and install refuge with kerb ramps	$ 8,000
Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	n/a
No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	$ 300,000
Unsafe cyclist grate drain	Repair as required	$ 253

9.2 Crossing recommendations

Crossing facility issues have location specific recommended actions and are linked with surrounding issues that would likely be corrected at the same time. The issues have been separated by location and responsibility into the following:

- Table 5: City of Ryde Crossing Recommendations
- Table 6: Hunters Hill Crossing Recommendations
- Table 7: Shared Council Crossing Recommendations

City of Ryde Council has the primary responsibility of the enhancement for the following crossings:

Table 5: City of Ryde Crossing Recommendations

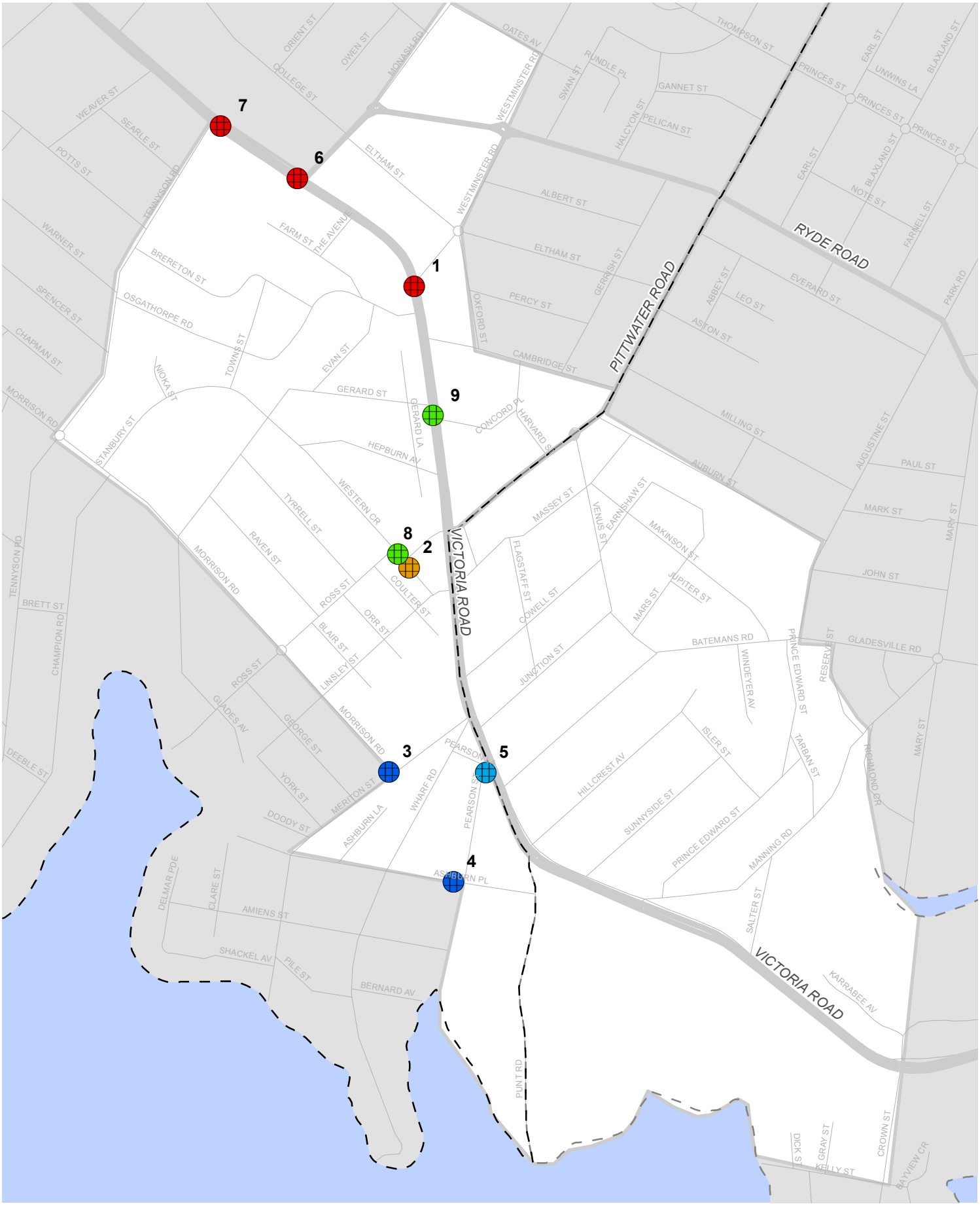
Location Number	Existing Facility	Location	Issue	Recommendation
1	Signalised intersection	Westminster Road / Pittwater Road intersection	Long wait time, no pedestrian signalised arms on east and north approach	Consult with Roads and Maritime on phasing and design of intersection
2	Crossing point paint non-standard (red)	Western Crescent / Jordan Street intersection	Refuge crossing is not standard and likely confuses all road users	Consider providing properly marked zebra crossing if warrant met or remove
3	Roundabout	Meriton Street / Morrison Road intersection	No standard/safe crossing points	Investigate roundabout design and provide refuges to standards
4	Roundabout	Ashburn Place / Pearson Street intersection	No standard/safe crossing points	Investigate roundabout design and provide refuges to standards
5	Side-road refuge	Pearson Street near Victoria Road	Non-standard refuge	Provide safe refuge to AS, as part of development contributions
6	Signalised intersection	Monash Road / Victoria Road intersection	Long wait time, no pedestrian signalised arm on west approach	Consult with Roads and Maritime on phasing and design of intersection
7	Signalised intersection	Tennyson Road / Victoria Road intersection	Long wait time, no pedestrian signalised arm on east approach	Consult with Roads and Maritime on phasing and design of intersection
8	Location between two T-junctions	Jordan Street (opposite Western Crescent)	No safe crossing point from Jordan Street to south side of Western Crescent	Investigate potential demand and location for a crossing
9	Location between two T-junctions	Victoria Road (between Gerard Street and Stansell Street)	Long distances to nearby crossings from bus stops	Investigate potential demand and location for a signalised crossing, including consultation with RMS

Metres
0 100 200 400

Crossing Recommendations (City of Ryde Council)

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads
PAMP Study Area

Consult with Roads and Maritime on phasing and design of intersection
Investigate potential demand and location for a crossing
Investigate roundabout design and provide refuges to standards
Consider providing properly marked zebra if warrant met or remove
Align kerb ramps and provide tactiles within island
Provide handrails and align kerb ramps
Provide safe refuge to AS as part of development DA contributions



Hunters Hill Council has the primary responsibility of the enhancement for the following crossings:

Table 6: Hunters Hill Crossing Recommendations

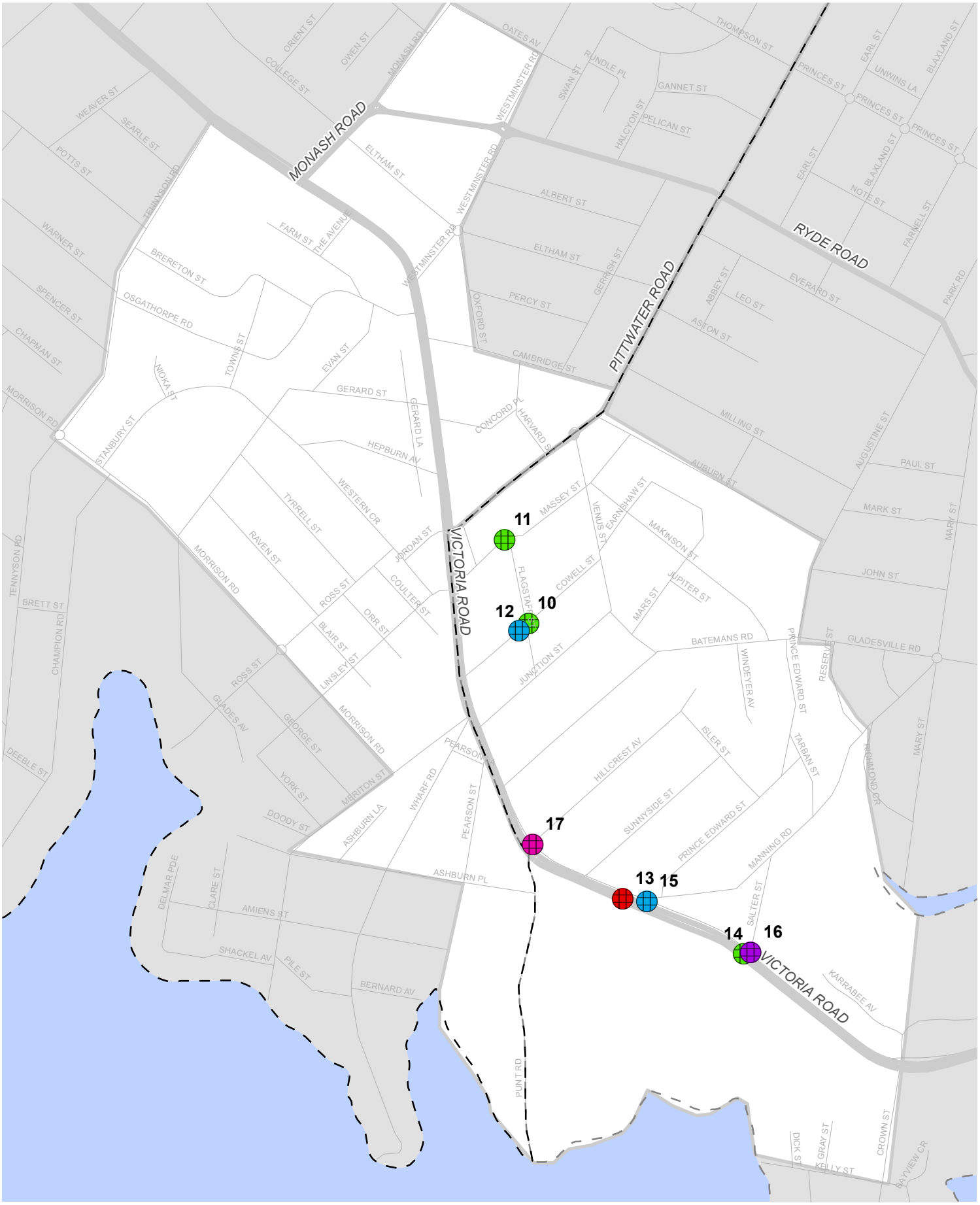
Location Number	Existing Facility	Location	Issue	Recommendation
10	One-way street into priority junction	Cowell Street, east of Flagstaff Street	No crossing provided	Provide pedestrian refuge subject to road design
11	One-way street into priority junction	Massey Street, west of Flagstaff Street	No crossing provided	Provide pedestrian refuge subject to road design
12	Two-way street at curve	Cowell Street, west of Flagstaff Street	Non-standard refuge provided	Provide safe refuge to AS, as part of development contributions
13	Signalised mid-block crossing	Victoria Road, between Punt Road and Sunnyside Street	Unsafe refuge provided and long wait times at signals	Consult with Roads and Maritime on phasing and design of intersection
14	Location between two T-junctions	Victoria Road (near Salter Street)	Long distances to nearby crossings from bus stops	Investigate potential demand and location for a signalised crossing, including consultation with RMS
15	Side-road refuge	Manning Road near Victoria Road	Non-standard refuge	Widen traffic island to minimum 2m width and provide handrails
16	Side-road refuge	Salter Street near Victoria Road	Non-standard refuge and non-aligned kerb ramps	Provide handrails and align kerb ramps
17	Side-road refuge	Hillcrest Avenue near Victoria Road	Non-standard refuge and non-aligned kerb ramps	Align kerb ramps and provide tactile within island

Metres
0 100 200 400

Crossing Recommendations (Hunters Hill Council)

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads
PAMP Study Area

Consult with Roads and Maritime on phasing and design of intersection
Investigate potential demand and location for a crossing
Investigate roundabout design and provide refuges to standards
Consider providing properly marked zebra if warrant met or remove
Align kerb ramps and provide tactiles within island
Provide handrails and align kerb ramps
Provide safe refuge to AS as part of development DA contributions



City of Ryde and Hunters Hill Council have shared responsibility for the enhancement of the following crossings:

Table 7: Shared Council Crossing Recommendations

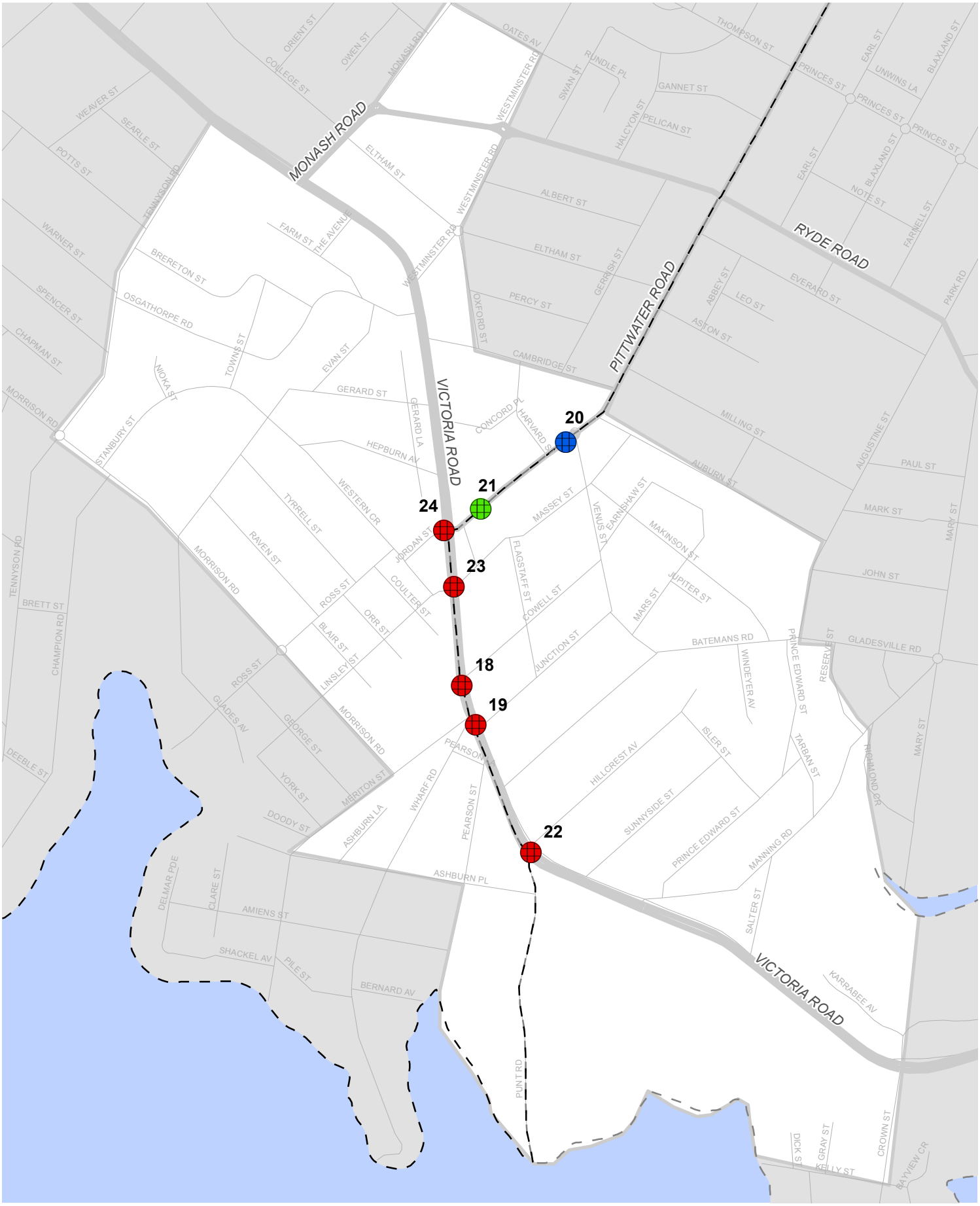
Location Number	Existing Facility	Location	Issue	Recommendation
18	Signalised intersection	Cowell Street / Victoria Road intersection	Long wait times, no pedestrian signalised arms on north approach	Consult with Roads and Maritime on phasing and design of intersection
19	Signalised intersection	Meriton Street / Victoria Road intersection	Long wait times, no pedestrian signalised arms on south approach	Consult with Roads and Maritime on phasing and design of intersection
20	Roundabout	Pittwater Road / Venus Street intersection	No standard/safe crossing points nearby	Investigate roundabout design and provide refuges to standard
21	Two-way road	Pittwater Road, near Massey Lane	No crossing provided near bus stops and library	Provide pedestrian refuge subject to road design
22	Signalised intersection	Victoria Road / Punt Road intersection	Long wait times, no pedestrian signalised arms on north approach	Consult with Roads and Maritime on phasing and design of intersection
23	Signalised intersection	Victoria Road, between Massey Street and Linsley Street	Long wait times, no pedestrian signalised arms on north approach	Consult with Roads and Maritime on phasing and design of intersection
24	Signalised intersection	Victoria Road / Pittwater Road intersection	Long wait times at intersection	Consult with Roads and Maritime on phasing of intersection

Metres
0 100 200 400

Crossing Recommendations (Both Councils)

LGA boundary
Hunters Hill
City of Ryde
Main roads
Local roads
PAMP Study Area

Consult with Roads and Maritime on phasing and design of intersection
Investigate potential demand and location for a crossing
Investigate roundabout design and provide refuges to standards
Consider providing properly marked zebra if warrant met or remove
Align kerb ramps and provide tactiles within island
Provide handrails and align kerb ramps
Provide safe refuge to AS as part of development DA contributions



9.3 Implementation Priority

Each of the measures recommended in the action plan has been prioritised into high, medium or low works. Prioritisation is generally based on the location of the works and the nature of the works, however a number of other criteria were also considered:

- Nature of works (new road crossing / new footpath etc)
- Proximity to key land uses (e.g. schools, bus stops)
- Existing and future levels of pedestrian activity
- Location with respect to hazardous areas
- Staging with other developments
- Community needs / disabled access
- Continuity (provides a key pedestrian link along an existing or planned route)

The works were assigned a priority of as shown in Table 8.

Table 8: Staged Action Plan Priority

Work Priority	Description	Staging of Works
1 – High Priority	Essential works	Short term works (0-5 years)
2 – Medium Priority	Desirable works	Medium term works (5-10 years)
3 – Low Priority	Low impact works that are dependent on funding	Long term works (10-25 years)

In the context of the Gladesville Town Centre, it is important to consider the staging of upcoming developments when prioritising future pedestrian works. It is practical for Council to undertake these works concurrently with the construction of new development areas. It has been assumed that the development precincts considered in this PAMP (Gladesville Shopping Centre, Gladesville RSL Precinct and Meriton Road/Wharf Road) will all take place within the next five years. Therefore every action directly associated with any of these developments has been listed as a high priority – aligning with the development of the site.

10 Action Plan Costs and Funding

10.1 Cost Estimates

The estimated cost for the works included in the work program are summarised in Table 9 below. This takes into consideration the unit costs for works outlined in Section 9.1 of this report.

Table 9: PAMP Work Program Cost Summary

Priority	**Responsibility**			
	City of Ryde	***Hunters Hill***	***Both Councils***	***Total***
High	$246,970	$173,722	$8,000	**$428,692**
Medium	$120,793	$37,470	$-	**$158,263**
Low	$54,398	$33,879	$15,000	**$103,277**
Total	**$422,161**	**$245,071**	**$23,000**	**$690,232**

Given the significant cost associated with the provision of new pedestrian crossings at existing signalised intersections, these actions have been itemised separately below. It is important to note that this PAMP should act as a mechanism for Council to approach the RMS to investigate the provision of additional pedestrian crossings. The cost of undertaking these works (approximately $300,000 per crossing) would be the responsibility of the RMS given the location of the crossings on State Roads.

Table 10: Signalised Crossing Recommendations

Intersection	**Intersection Approach**	**Priority**	**Council Responsible**
Victoria Road / Tennyson Road	South	Low	City of Ryde
Victoria Road / Monash Road	North	Low	City of Ryde
Victoria Road / Westminster Road	North	Low	City of Ryde
	East	High	City of Ryde
Victoria Road / Linsley Street	South	Medium	Both Councils
Victoria Road / Cowell Street	South	Medium	Both Councils
Victoria Road / Meriton Street	South	Medium	Both Councils

The actions by priority are presented in Figure 34 to Figure 36.

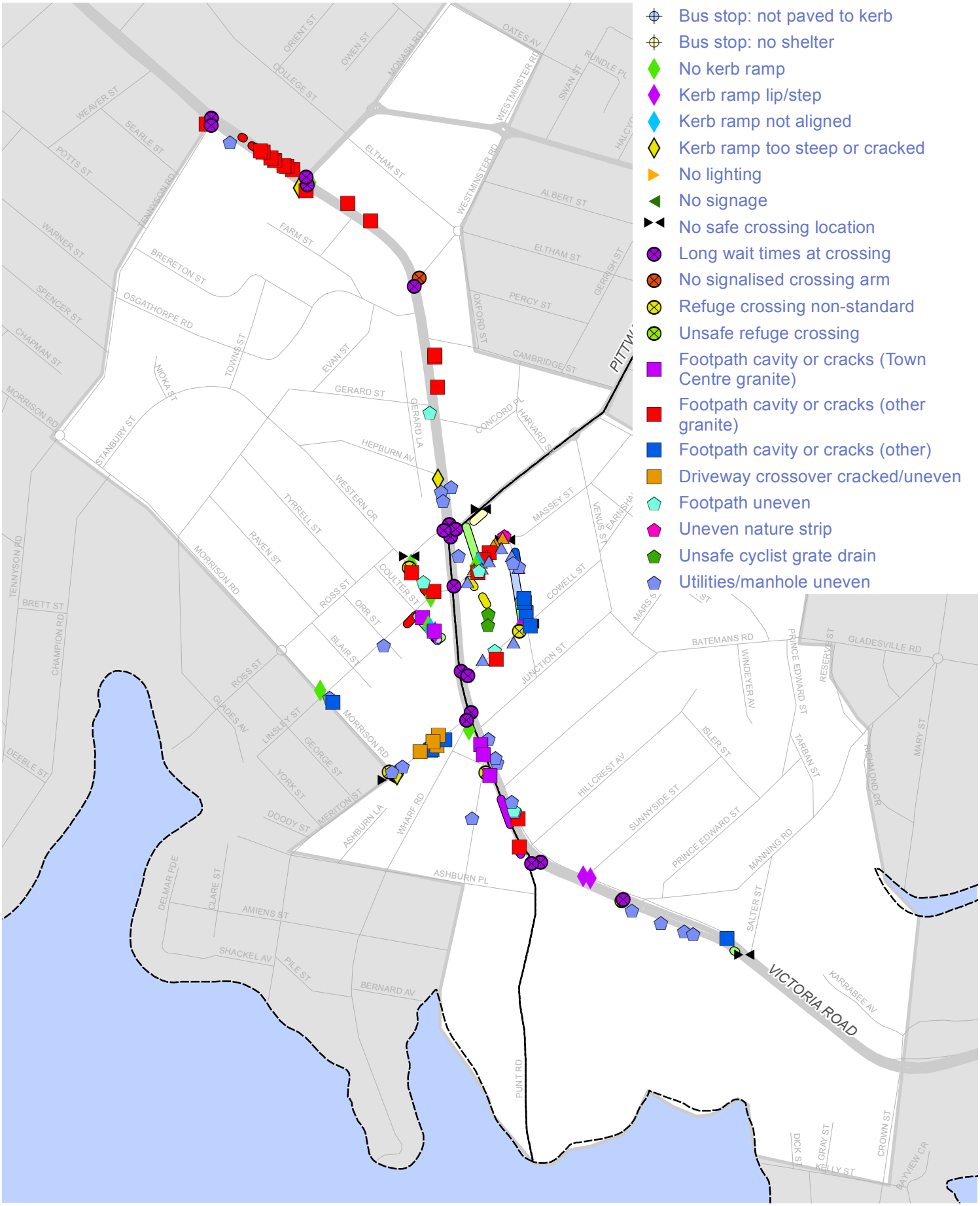
High Priority Works

Metres
0 100 200 400

- LGA boundary
- PAMP Study Area
- Main roads
- Local roads

High Priority Issues

- Footpath obstruction - signage pole
- Footpath obstruction - service pole/box with space on nature strip
- Footpath obstruction - service pole/box with no space on nature strip
- Footpath obstruction - bus shelter
- Bus stop: not paved to kerb
- Bus stop: no shelter
- No kerb ramp
- Kerb ramp lip/step
- Kerb ramp not aligned
- Kerb ramp too steep or cracked
- No lighting
- No signage
- No safe crossing location
- Long wait times at crossing
- No signalised crossing arm
- Refuge crossing non-standard
- Unsafe refuge crossing
- Footpath cavity or cracks (Town Centre granite)
- Footpath cavity or cracks (other granite)
- Footpath cavity or cracks (other)
- Driveway crossover cracked/uneven
- Footpath uneven
- Uneven nature strip
- Unsafe cyclist grate drain
- Utilities/manhole uneven



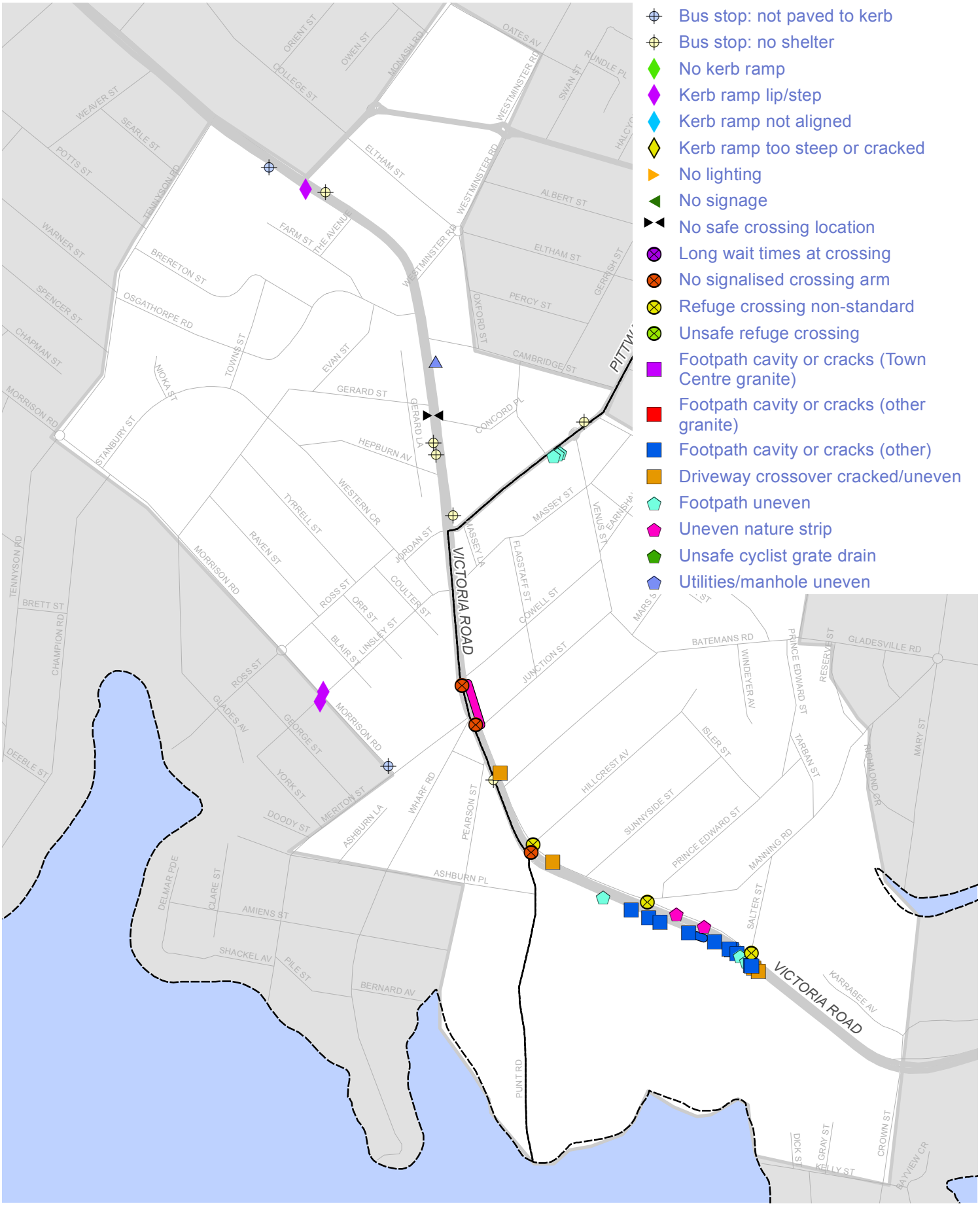
Medium Priority Works

Metres
0 100 200 400

- LGA boundary
- PAMP Study Area
- Main roads
- Local roads

Medium Priority Issues

- Footpath obstruction - signage pole
- Footpath obstruction - service pole/box with space on nature strip
- Footpath obstruction - service pole/box with no space on nature strip
- Footpath obstruction - bus shelter
- Bus stop: not paved to kerb
- Bus stop: no shelter
- No kerb ramp
- Kerb ramp lip/step
- Kerb ramp not aligned
- Kerb ramp too steep or cracked
- No lighting
- No signage
- No safe crossing location
- Long wait times at crossing
- No signalised crossing arm
- Refuge crossing non-standard
- Unsafe refuge crossing
- Footpath cavity or cracks (Town Centre granite)
- Footpath cavity or cracks (other granite)
- Footpath cavity or cracks (other)
- Driveway crossover cracked/uneven
- Footpath uneven
- Uneven nature strip
- Unsafe cyclist grate drain
- Utilities/manhole uneven



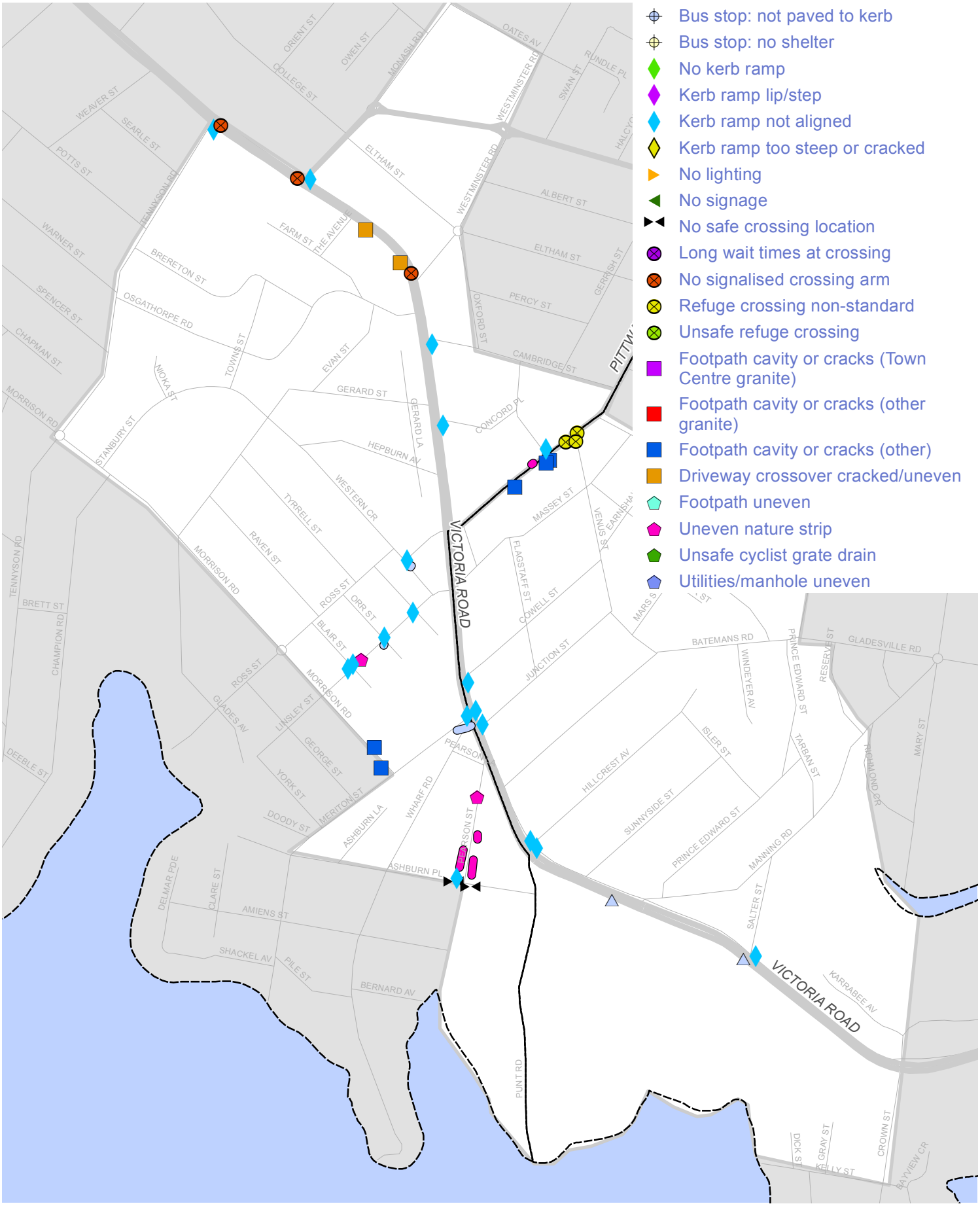
Low Priority Works

Metres
0 100 200 400

- LGA boundary
- PAMP Study Area
- Main roads
- Local roads

Low Priority Issues

- Footpath obstruction - signage pole
- Footpath obstruction - service pole/box with space on nature strip
- Footpath obstruction - service pole/box with no space on nature strip
- Footpath obstruction - bus shelter
- Bus stop: not paved to kerb
- Bus stop: no shelter
- No kerb ramp
- Kerb ramp lip/step
- Kerb ramp not aligned
- Kerb ramp too steep or cracked
- No lighting
- No signage
- No safe crossing location
- Long wait times at crossing
- No signalised crossing arm
- Refuge crossing non-standard
- Unsafe refuge crossing
- Footpath cavity or cracks (Town Centre granite)
- Footpath cavity or cracks (other granite)
- Footpath cavity or cracks (other)
- Driveway crossover cracked/uneven
- Footpath uneven
- Uneven nature strip
- Unsafe cyclist grate drain
- Utilities/manhole uneven



10.2 Funding Sources

10.2.1 Roads and Maritime Services

Local Government Pedestrian Facilities (27401)

The development of the PAMP presents a Staged Action Plan that is in a format that is consistent with the requirements for applying for 50/50 funding from the RMS. All future RMS funding will be determined on an annual basis.

The main RMS funding arrangements for local government are documented in *Council Projects Funded by the RTA Memorandum of Understanding* (June 2009). The main funding sources relevant to pedestrian facilities include the Pedestrian Facilities Program 27401 and Blackspot facilities under Program 26301 (with funding requirements detailed in Attachment C of the MoU).

The works on Local and Regional Roads that are eligible generally for 50/50 RMS/Council funding include:

a) Preparation of Pedestrian Access and Mobility Plans

This document

b) Upgrading of existing pedestrian infrastructure

- Kerb ramps with tactile indicators built in accordance with AS1428 - 1 & 4 and RMS guidelines
- Cris-cross “scramble” crossings (exclusive pedestrian phase)
- Pedestrian priority systems

c) New pedestrian crossing treatments and facilities

- New signals for pedestrian access, convenience and safety
- Work to support pedestrian malls and shared zones
- Kerb extensions / blisters
- Raised pedestrian crossings
- Other pedestrian road crossing facilities

State operated roads

RMS will fund any upgrades of State controlled roads. This includes the provision of new pedestrian crossing legs at intersections. There are two State roads within the study area – Victoria Road and Pittwater Road.

10.2.2 Developer Contributions

A number of recommendations have been outlined in this PAMP which directly relate to upcoming or proposed developments within the Gladesville Town Centre. Given the nexus between the development and the requirement for the improvement of pedestrian facilities in their immediate proximity, the Action Plan has attributed the full cost of these works to the relevant developer.

The planning mechanisms in place for Council to require the developer to contribute funds for pedestrian improvements measures are outlined below.

Section 94 Contributions

Section 94 of the Environmental Planning and Assessment Act 1979 (NSW) allows Council to extract contributions from developers to provide for public facilities and services in the form of the dedication of land free of cost and/or payment of a monetary contribution.

Under Section 94, the consent authority may levy the developer for contribution to public services. Section 94 states:

"*Where a consent authority is satisfied that a development, the subject of a development application, will or is likely to require the provision of or increase the demand for public amenities and public services within the area, the consent authority may grant consent to that application subject to a condition requiring:*

(a) The dedication of land free of cost; or

(b) The payment of a monetary contribution, or both."

A link between development and the need for a public amenity can be developed through the extent to which a development creates a need for a particular service or facility. Should developments increase pedestrian volumes to warrant facilities such as a pedestrian crossing or pedestrian signals, funding could be sought through Section 94 Contributions for the provision of such facilities.

Voluntary Planning Agreements (VPAs)

VPAs may involve monetary contributions, partial or full construction of new facilities, expansion, upgrades, augmentations, embellishments, fit-outs and resourcing of existing facilities or any other public benefit as agreed to by the Council from the potential developers.

The application of VPAs as a funding source for PAMP works would be agreed to between Council and developers on a case by case basis.

Conditions of Consent

In addition to requirements for pedestrian infrastructure as a condition of consent, developers would install new kerb ramps and driveway crossings as part of the DA approval process. These facilities are required to be installed in line with CoR's Public Domain Manual referred to in the DCP Section 4.5. See previous Section 10 for further information on funding initiatives.

10.3 Cost Apportionment

Based on the available sources of funding for measures contained within the PAMP Action Plan, costs of the works have been apportioned to the following parties:

- Council
- Roads and Maritime Services (RMS)
- Developers (through Section 94 or similar contributions)

These costs are summarised in Table 11 (responsibility of City of Ryde), Table 12 (responsibility of Hunters Hill) and Table 13 (shared responsibility).

Table 11: PAMP Cost Apportionment (City of Ryde)

Priority	City of Ryde Council	RMS	Developer Contributions
High	$94,906	$91,089	$60,975
Medium	$114,397	$6,397	$0
Low	$27,546	$26,852	$0
Total	**$236,848**	**$124,337**	**$60,975**

Table 12: PAMP Cost Apportionment (Hunters Hill)

Priority	Hunter Hill Council	RMS	Developer Contributions
High	$16,023	$13,921	$143,777
Medium	$19,950	$17,521	$0
Low	$30,440	$3,440	$0
Total	**$66,413**	**$34,881**	**$143,777**

Table 13: PAMP Cost Apportionment (Both Councils)

Priority	Council (both CoR and HH)	RMS	Developer Contributions
High	$4,000	$4,000	$0
Medium	$0	$0	$0
Low	$7,500	$7,500	$0
Total	**$11,500**	**$11,500**	**$0**

11 Concept Plans for Key Locations

Concept plans for three priority locations have been developed as part of this PAMP to assist both City of Ryde and Hunters Hill Council in implementing the works identified in the Action Plan. Note that these concept plans are indicative only. A summary of the locations identified are shown in Table 14 below.

Table 14: Concept Plan Locations

Location Description	Issue	Action
Jordan Street near Western Crescent	Lack of crossing facilities	Provide pedestrian refuge
Manning Road at Victoria Road	Poor crossing facilities	Provide pedestrian refuge
Pittwater Road at Venus Street	Poor crossing facilities	Provide pedestrian refuge and alternative stair route

Relevant standards were used for concept design for all the works. Wherever possible, the most conservative and practical guidelines were used. The standards used are listed below:

- RTA Technical Direction TDT 2011 / 01a Pedestrian Refuges
- RTA Supplement for AS 1742.10–2009 Manual of uniform traffic control devices Part 10: Pedestrian control and protection
- RTA Supplement for Austroads Guide to Road Design Part 4: Intersections and Crossing–General
- RTA Supplement for Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings
- AS 1428.1–2009 Design for access and mobility Part 1: General requirements for access–New building work

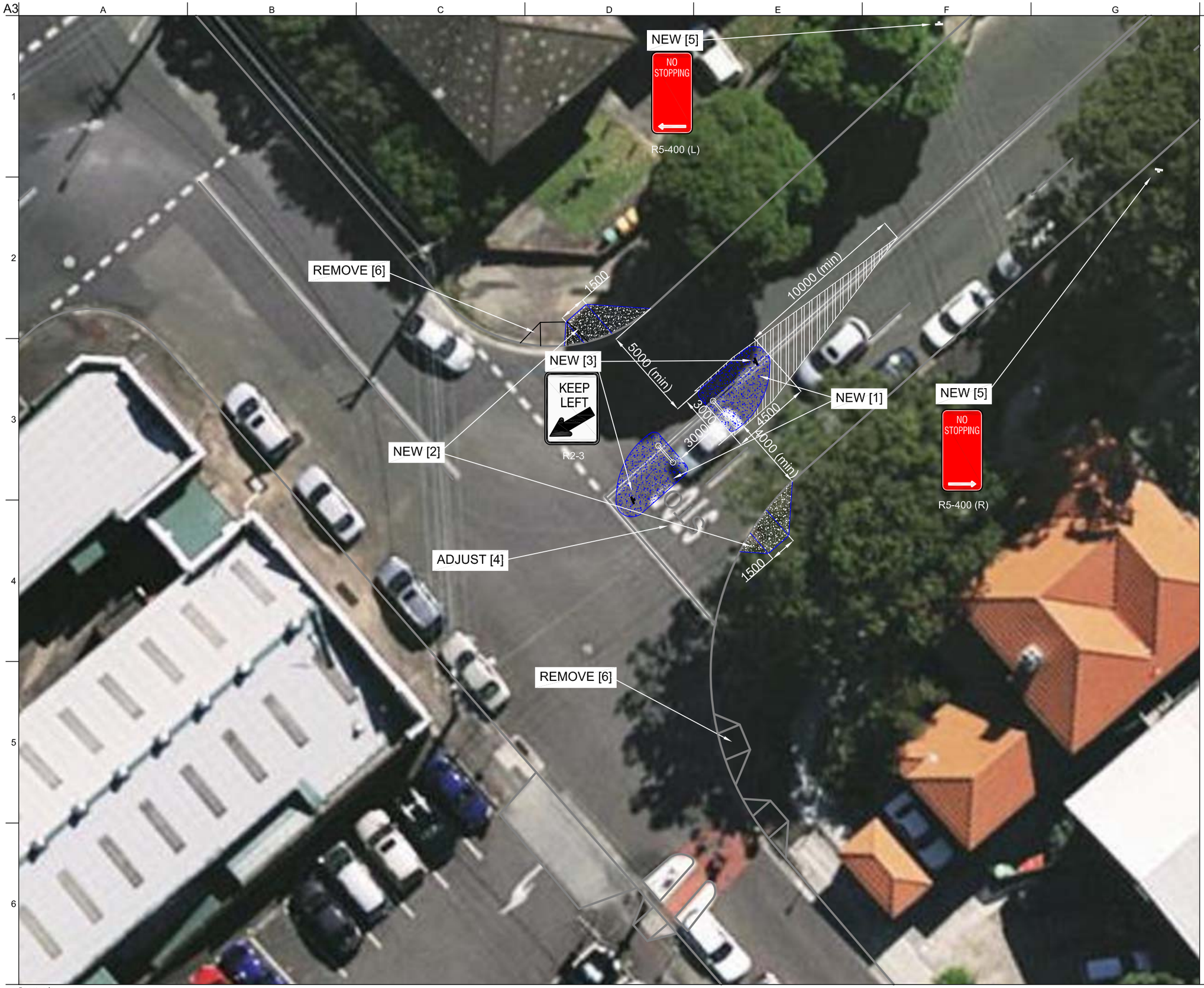
11.1 Jordan Street at Western Crescent

Works proposed for location involves introducing a pedestrian refuge on Jordan Street at Western Crescent. The pedestrian facilities audit identified this location as requiring a formal crossing facility to accommodate the pedestrian desire line along Western Crescent to and from the Gladesville RSL Precinct.

A summary of the works include:

1. Construction of two traffic islands to align to traffic lanes and provide the desirable 3m width for mid-block pedestrian refuges including:
    - frangible pedestrian assist handrails to be provided on each island;
    - Deflective linemarking and associated reflectors to provide appropriate delineation to islands;
2. Kerb ramps provided outside of existing services within the existing pedestrian desire line – the ramp grade should be no more than 1 in 8;
3. ‘Keep Left’ signs to further delineate traffic from the islands
4. Adjusting the position of the ‘STOP’ linemarking to be in the centre of Jordan Street westbound traffic lane;
5. Removal of 4 on-street parking bays on the southern side of Jordan Street to accommodate the new crossing facility and ‘No Stopping’ signage 20 metres from the kerb ramps/crossing location; and
6. Removal of existing kerb ramps on Western Crescent.

A3



Legend

- New raised medians
- Linemarking
- New plain concrete

Notes

- Existing kerbs to remain in place
- Existing line marking needs refresh
- Stop line marking needs to be re-centred
- All dimensions are in millimetres
- No Stopping signage to be placed at least 20m from crossing location

Issue	Date	By	Chkd	Appd
A	20/06/14	JT	JM	AH
For Information				

ARUP

Arup, Level 10, 201 Kent St
Sydney, NSW, 2000
Tel +61(02)9320 9320 Fax +61(02)9320 9321
www.arup.com.au

Client
City of Ryde and Hunters Hill Council

Job Title
Gladesville
Pedestrian Access and Mobility Plan

Drawing Title
Concept Plans - Site 8
Jordan Street Refuge Crossing

Scale at A3 1:200

Discipline Transport

Drawing Status
Concept Plan

Job No	Drawing No	Issue
233532-00	**SKT001**	**A**

Do not scale

© Arup

11.2 Manning Road at Victoria Road

The pedestrian facilities audit noted that the existing pedestrian refuge at the Manning Road / Victoria Road intersection does not comply to relevant standards. Pedestrians have a clear desire line along the eastern side of Victoria Road and often cross Manning Road within the inadequately provided refuge island.

A concept plan has been developed which identifies the works required at this location, which include:

1. Construction of two traffic islands to align to traffic lanes and provide the desirable 3m width for mid-block pedestrian refuges including frangible pedestrian assist handrails to be provided on each island;
2. Removal of a section of existing traffic island to accommodate the 3m width;
3. Removal and reinstatement of the ‘Give-way’ and ‘Keep Left’ signs to correctly delineate traffic from the islands;
4. Kerb ramps provided outside of existing services within the existing pedestrian desire line – the ramp grade should be no more than 1 in 8; and
5. Removal of existing kerb ramps on Manning Road.

A3

Legend

- Existing medians to remove
- New raised medians
- Linemarking
- New plain concrete

Notes

- Existing kerbs to remain in place
- Existing line marking needs refresh
- All dimensions in millimetres

Issue	Date	By	Chkd	Appd
A	20/06/14	JT	JM	AH

For Information

ARUP

Arup, Level 10, 201 Kent St
Sydney, NSW, 2000
Tel +61(02)9320 9320 Fax +61(02)9320 9321
www.arup.com.au

Client
City of Ryde and Hunters Hill Council

Job Title
Gladesville
Pedestrian Access and Mobility Plan

Drawing Title
Concept Plans - Site 15
Manning Road Refuge Crossing

Scale at A3 1:200

Discipline Transport

Drawing Status
Concept Plan

Job No	Drawing No	Issue
233532-00	**SKT002**	**A**

Do not scale

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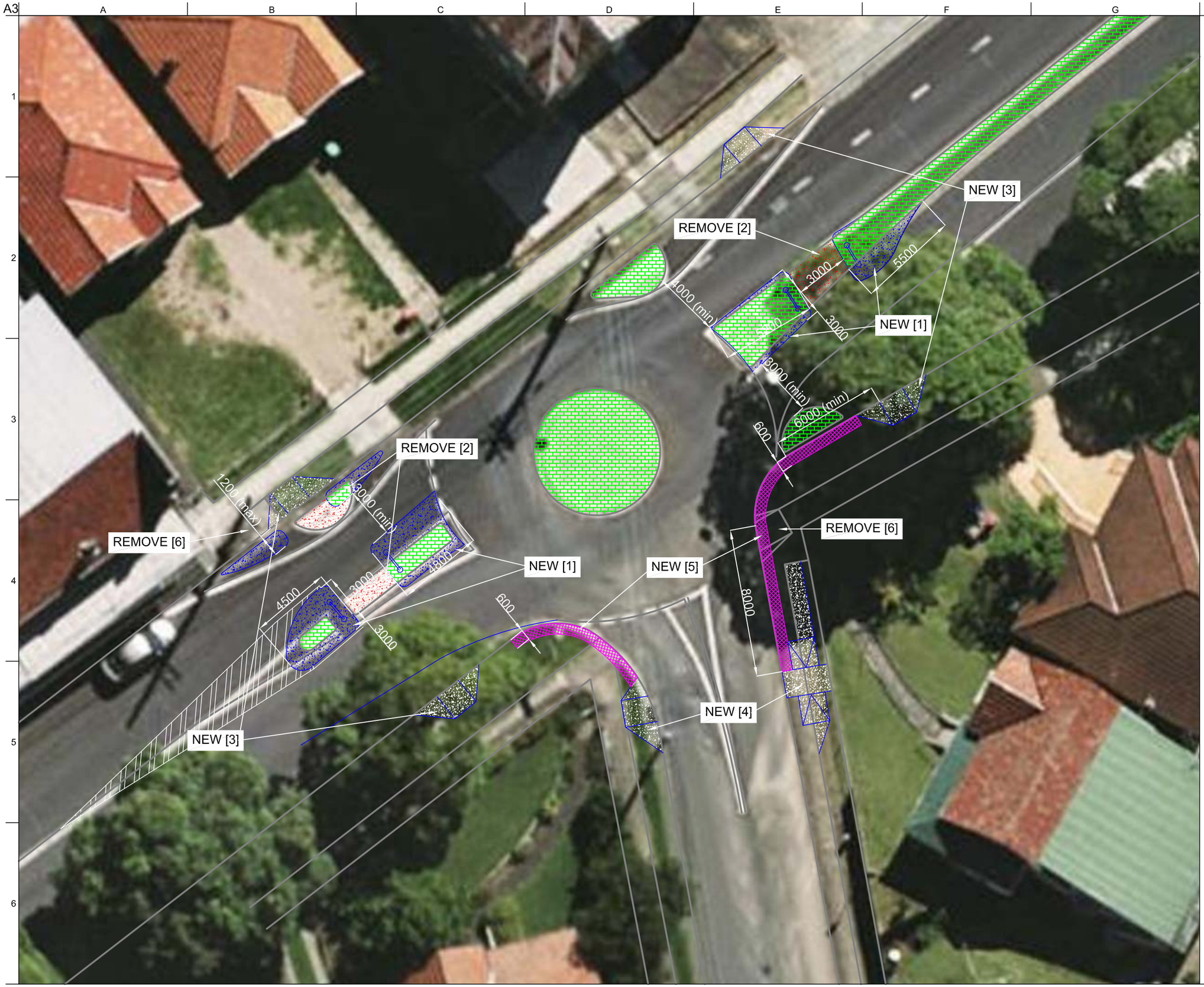
11.3 Roundabout on Pittwater Road and Venus Street

The pedestrian facilities audit noted that the existing pedestrian refuges and kerb ramps at the roundabout at Pittwater Road and Venus Street do not comply with relevant standards. The roundabout offers little protection to crossing pedestrians and forces pedestrians along the southern side of Pittwater Road to walk within the circulating lane of the roundabout to cross. Bus facilities are also provided in close proximity to the intersection and crossing connections are required to shops and community facilities.

A concept plan has been developed which identifies the works required at this location, which include:

1. Widening of two traffic islands on the Pittwater Road approaches to correctly delineate traffic to the roundabout and provide the desirable 3m width for mid-block pedestrian refuges (islands to include frangible pedestrian assist handrails on each island);
2. Removal of sections of existing traffic islands to accommodate the 3m width break;
3. Kerb ramps provided outside of existing services to align with refuge island breaks within the existing pedestrian desire line – the ramp grade should be no more than 1 in 8; and
4. Kerb ramps provided at least 5m behind give-way line, clear of existing services – the ramp grade should be no more than 1 in 8 including extension of connecting footpaths;
5. Pedestrian barriers by low level planter boxes or similar landscaping to ensure pedestrians do not walk within the roundabout; and
6. Removal of existing kerb ramps on Venus Street and Pittwater Road.

A3



Legend

- Existing medians to remove
- New raised medians
- Linemarking
- New plain concrete
- Existing islands to remain
- New planter boxes

Notes

- Existing kerbs to remain in place
- Aerial basemap out of date (south-east approach line marking updated)
- Existing line marking needs refresh
- All dimensions are in millimetres

Issue	Date	By	Chkd	Appd
A	20/06/14	JT	JM	AH

For Information

ARUP

Arup, Level 10, 201 Kent St
Sydney, NSW, 2000
Tel +61(02)9320 9320 Fax +61(02)9320 9321
www.arup.com.au

Client

City of Ryde and Hunters Hill Council

Job Title

Gladesville
Pedestrian Access and Mobility Plan

Drawing Title

Concept Plans - Site 20
Roundabout at Pittwater Road
and Venus Street

Scale at A3 1:200

Discipline Transport

Drawing Status

Concept Plan

Job No	Drawing No	Issue
233532-00	**SKT003**	**A**

Do not scale

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12 PAMP Implementation

12.1 Implementation

The Staged Action Plan identified through the PAMP study would need to be assessed and implemented based on specific site conditions and reflect the latest pedestrian facilities standards at the time of implementation. The Staged Action Plan would be considered by both City of Ryde and Hunters Hill Council for inclusion in their works programs for implementation according to the timeframe identified. Work program items that are under the sole responsibility of developers are expected to be implemented at timeframes to coincide with the proposed developments.

12.2 Future Actions and Maintenance

As the pedestrian network is developed, it will be important to monitor the progress of the network over time. In particular, it will be important to further develop an understanding of travel patterns and behaviour and the role that walking plays. Monitoring will relate to the following three areas:

- Route conditions and overall route quality;
- Changes in demand; and
- Implementation of work program.

Monitoring of the quality of pedestrian routes could be undertaken by establishing an ongoing regular Route Quality Audit process, with the results catalogued and regularly updated. The quality of routes would be measured against the existing design criteria as part of a "look and see" audit process. This will enable the overall quality of routes to be improved, problems to be addressed and resources to be targeted appropriately. Council would monitor the PAMP deliverables as per the works schedule.

A typical Route Quality Audit would involve an assessment of route conditions and would be undertaken by a person familiar with pedestrian design issues and involve a site visit along the specified route. A simple site visit report form could be developed that allows the auditor to note down a series of checks of the route against the design criteria specified. The route should also be reviewed in light of possible land use changes and Council works.

13 Summary

Arup has prepared a Pedestrian Access and Mobility Plan (PAMP) for the Gladesville Town Centre on behalf of Hunters Hill and City of Ryde Councils. The project aims to identify a framework for developing safe and convenient pedestrian routes and fostering improvements in personal mobility.

A priority PAMP route network through the Gladesville Town Centre was identified to focus on the development of a continuous and accessible path of travel for pedestrians. The priority PAMP route network was defined through:

- An analysis of the existing characteristics of the study area, a review of the existing transport services in the area, a documentation of site observations and a review of relevant state and local policy documents; and
- Consideration of the existing pedestrian facilities usage, current issues and locations for improvement and future demand as outlined through the community consultation process.

A pedestrian facilities audit was conducted along high priority PAMP routes. The focus of the audit was to identify deficiencies in the existing pedestrian network, with factors considered including:

- Footpaths provision;
- Footpath quality;
- Kerb ramp provision;
- Obstruction / barriers along path; and
- Pedestrian crossing facilities;

Based on the findings of the audits, a Staged Action Plan was developed which identified 238 individual measures to enhance pedestrian connectivity and movement within the study area. These actions were prioritised on a series of criteria and cost estimates were provided for each of the actions.

The implementation of this PAMP Action Plan would need to be assessed and implemented based on specific site conditions that reflect the latest pedestrian facilities standards at the time.

Appendix A

Collaborative Map Comments

Receipt Number	Description	Additional	Category	Sub Categories
CM1	When Ryde Council lays pavers in Jordan St another agency digs them up to lay cables and replaces them with bitumen.	This has happened on both sides of Jordan St and also outside the Presbyterian Church in Pittwater Rd and spoils the good work Council has done. The hotchpotch of pavers and bitumen looks ugly and creates and uneven surface. Council should send the bill for remediation to the offending agency.	Pedestrian facilities	Footpath surface
CM2	School children are often waiting many minutes to cross Morrison Road in the mornings. There is a crossing 1 block up .		Pedestrian crossings	No crossing
CM3	Narrow footpath on eastern side of Massey St is worsened by signpost and power pole needs widening.		Pedestrian facilities	Footpath width
CM4	make a walking path connection from crown close to bedlam bay foreshore walk in Gladesville Hospital		Pedestrian facilities	Cycling path
CM5	More passive recreational space in this area- shaded seating, green space , community square/plaza - with good access, lighting		Behaviour	Pedestrian behaviour
CM6	Removal of public garbage bins - 'rubbish attracts rubbish'. Bin free areas improve local amenity & fosters more responsible waste disposal.		Behaviour	Pedestrian behaviour
CM7	Access for people for a disability need to be priority - dist, crossing, times, access routes, kerbs, ramps- can enable whole community.		Pedestrian crossings	Other
CM8	Opportunity for Gladesville to be innovative and progressive - by really prioritising transport modes other than cars.		General	
CM9	High pedestrian volumes near RSL		Behaviour	Pedestrian behaviour
CM10	Difficult to cross this section of Victoria Road		Pedestrian crossings	No crossing
CM11	No footpath on Massey Lane, unsafe walking environment		Pedestrian facilities	Footpath surface

Receipt Number	Description	Additional	Category	Sub Categories
CM12	Narrow footpath on Flagstaff Street		Pedestrian facilities	Footpath width
CM13	Poor light and uneven/narrow footpath. Tree roots are damaging the footpath surface		Pedestrian facilities	Lighting
CM14	Long waiting times for pedestrians		Pedestrian crossings	Poor crossing
CM15	No opportunity for crossing		Pedestrian crossings	No crossing
CM16	Major pedestrian crossing movement with poor access for people in wheelchairs		Pedestrian crossings	Poor crossing
CM17	Narrow footpath		Pedestrian facilities	Footpath width
CM18	Traffic/pedestrian interactions are safety concerns		Behaviour	Motorist behaviour
CM19	Fencing in centre of Victoria Road presents poor pedestrian connectivity		Pedestrian facilities	Other
CM20	Security issues at Trim Place - poor lighting and dark laneway		Pedestrian facilities	Lighting
CM21	Access for people in scooters very poor		Pedestrian facilities	Footpath surface
CM22	Access to Coles car park very steep, and the street adjacent to Better Electrical not very accessible		Pedestrian facilities	Footpath surface
CM23	No crossing into Gladesville Library - introduce zebra crossing or pedestrian refuge		Pedestrian crossings	No crossing

Receipt Number	Description	Additional	Category	Sub Categories
CM24	Refuge island needs better marking		Pedestrian crossings	Poor crossing
CM25	Ramp going from arcade to Coles Shopping Centre is too steep and slippery when wet		Pedestrian facilities	Footpath surface
CM26	Lighting in and around Coulter Street is not good. Footpath near car park is difficult for mobility impaired users		Pedestrian facilities	Lighting
CM27	High traffic from Morrison Road makes this crossing on Meriton Street dangerous		Behaviour	Motorist behaviour
CM28	No crossing opposite bus stops		Pedestrian crossings	No crossing
CM29	Inadequate waiting space at bus stop into City		Pedestrian facilities	Bus stop
CM30	Pedestrian safety at Cowell Street crossing is a concern		Pedestrian crossings	Poor crossing
CM31	School zone signals needed		General	
CM32	Crossing lights should have countdown timers		Pedestrian crossings	Other
CM33	High traffic associated with the school		Behaviour	Motorist behaviour
CM34	Unsafe interactions between pedestrians and vehicles in laneway		Behaviour	Motorist behaviour
CM35	Provide improved pedestrian links and routes to shared path along Tarban Creek		General	

Receipt Number	Description	Additional	Category	Sub Categories
CM36	Better access needed from bus stop to library & child care - no kerb/ramp provided		Pedestrian facilities	Kerb ramps
CM37	Very poor access to/within car park		Pedestrian facilities	Other
CM38	Bus stop too far from main shopping centre		Pedestrian facilities	Bus stop
CM39	Provide more seating / shading on Hunters Hill side		General	
CM40	Crossing should be provided to encourage pedestrian access to Hospital and School		Pedestrian crossings	No crossing
CM41	Provide pedestrian refuge to help access to library / bus stop		Pedestrian crossings	No crossing
CM42	Don't locate bus stops in the middle of the footpath		Pedestrian facilities	Bus stop
CM43	Improve pedestrian access across Victoria Road to shops		Pedestrian crossings	Poor crossing
CM44	Pedestrian overpass		Pedestrian crossings	Other
CM45	Widen footpaths along Cowell Street		Pedestrian facilities	Footpath width
CM46	Gladesville's major Pedestrian Access Point. Footpath too Narrow needs to be made into a Mall for future Access to new Shopping Centre		Pedestrian facilities	Footpath width
CM47	High Volume of Pedestrians. Better access required for Current and Future Shopping Centre, should be Plaza Location.	Massey St is Level, access should be to Shopping Centre Plaza in Massey Street and Betta Electrical should have Plaza not Cowell Street	Behaviour	Pedestrian behaviour

Receipt Number	Description	Additional	Category	Sub Categories
CM48	New Development should have Pedestrian Plaza Here not Cowell St. Level access to Shops and Massey Street		General	
CM49	Install parking rails for bicycles along both sides of Victoria Rd, and at all major entrances to shopping mall(s).	Suggest following the Dutch practice of locating cycle parking immediately adjacent to entries to shops etc	General	
CM50	Phasing of lights at Jordan St encourages people to cross to centre of road even though there is no safety island		Pedestrian crossings	Other
CM51	Cars park on and across footpath, pedestrians need to work on road to get past		Behaviour	Motorist behaviour
CM52	Blind corner and steep descent create conflict between pedestrians and cyclists: clear vegetation from inside corner		General	
CM53	Provide cycle parking rails at all entries to shopping mall, and in plaza	Following European practice, cycle parking should be placed as close as possible to entries, to encourage cycling in place of car use.	General	
CM54	Pedestrian crossing are required at all bus stops		Pedestrian crossings	No crossing
CM55	Sign-post all pedestrian approaches to the shopping precinct		Pedestrian facilities	Other
CM56	Improve footpath surface and kerb ramps, and mark Stop signs and lines at all side streets to encourage walking to the shops		Pedestrian facilities	Kerb ramps
CM57	Designate footpath as Shared User Path to encourage visitors to cycle to shops		Pedestrian facilities	Cycling path
CM58	Mark 'counter-flow' cycle lanes in all one-way streets, including the full length of Massey St	Counter-flow cycle lanes (as used in Leichhardt) give more direct access to cyclists, and so help to reduce car use	General	
CM59	Reduce pedestrian waiting times to cross road - very slow.		Pedestrian facilities	Other

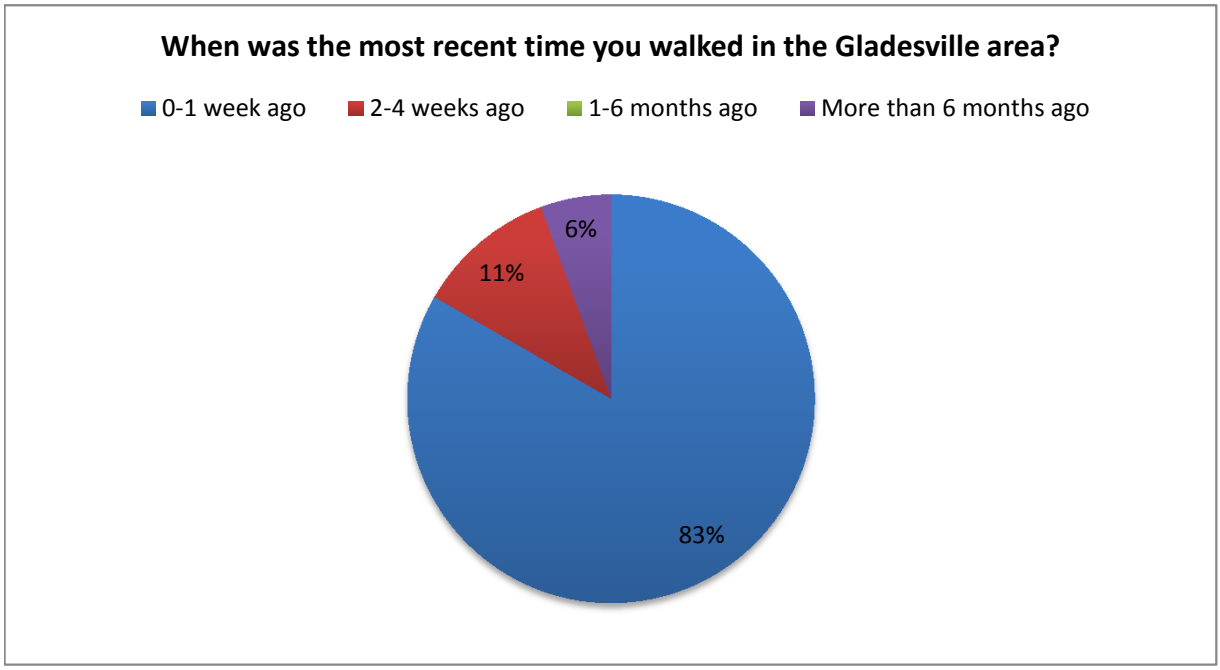
Receipt Number	Description	Additional	Category	Sub Categories
CM60	Narrow width and uneven levels of paving at points. Also telegraph poles in middle of footpath.		Pedestrian facilities	Footpath width
CM61	Limited visibility in some directions, and traffic issues for pedestrians on this corner.	Drivers fail to stop at Stop sign, and other Drivers proceed too fast around the corner from the car park exit. With increased traffic from proposed new development, need to investigate traffic lights at this intersection.	Pedestrian crossings	Poor crossing
CM62	Footpath width too narrow for volume of pedestrians to the shopping centre. (Ie alongside bakery shop)		Pedestrian facilities	Footpath width
CM63	Get rid of the Venus st stop sign. Too many stop signs make this junction confusing & dangerous		General	
CM64	Very poor visibility of cars here given high volume of pedestrians crossing over this street.		Pedestrian crossings	No crossing

Appendix B

Questionnaire Survey

Gladesville Pedestrian Access and Mobility Plan (PAMP)

When was the most recent time you walked in the Gladesville area?		
Answer Options	**Response Percent**	**Response Count**
0-1 week ago	83%	15
2-4 weeks ago	11%	2
1-6 months ago	0%	0
More than 6 months ago	6%	1
	answered question	**18**
	skipped question	**0**

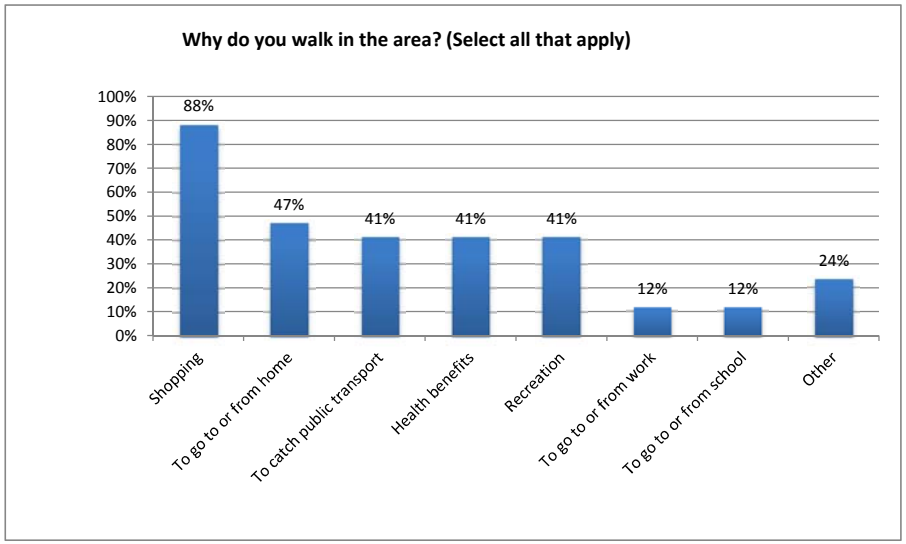


Gladesville Pedestrian Access and Mobility Plan (PAMP)

Why do you walk in the area? (Select all that apply)		
Answer Options	**Response Percent**	**Response Count**
To go to or from home	47%	8
To go to or from work	12%	2
To go to or from school	12%	2
To catch public transport	41%	7
Shopping	88%	15
Health benefits	41%	7
Recreation	41%	7
Other (please specify)	24%	4
	answered question	17
	skipped question	1

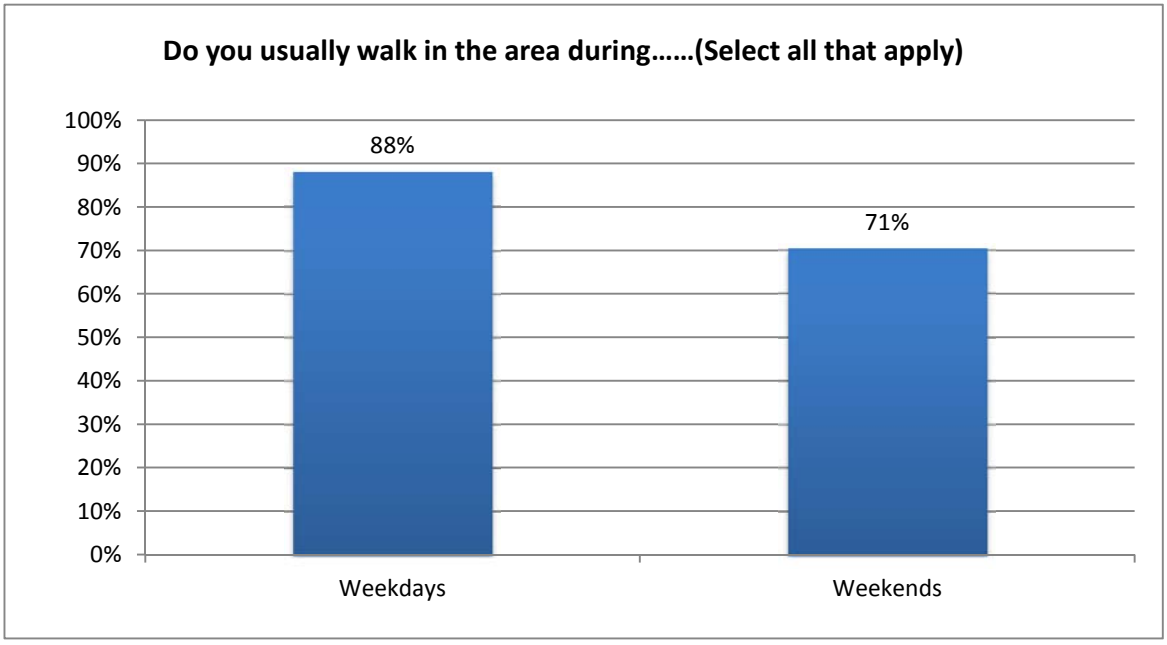
Number	Response Date	Other (please specify)	Categories
1	Dec 6, 2013 12:08 AM	collect mail from the post office and banking	
2	Nov 29, 2013 8:53 PM	Walk the dog	
3	Nov 24, 2013 10:34 PM	To get lunch during lunchbreak	
4	Nov 23, 2013 4:57 AM	Have previously frequently walked in the area to take my children to school and to catch public transport to my work.	

Shopping	88%
To go to or from home	47%
To catch public transport	41%
Health benefits	41%
Recreation	41%
To go to or from work	12%
To go to or from school	12%
Other	24%



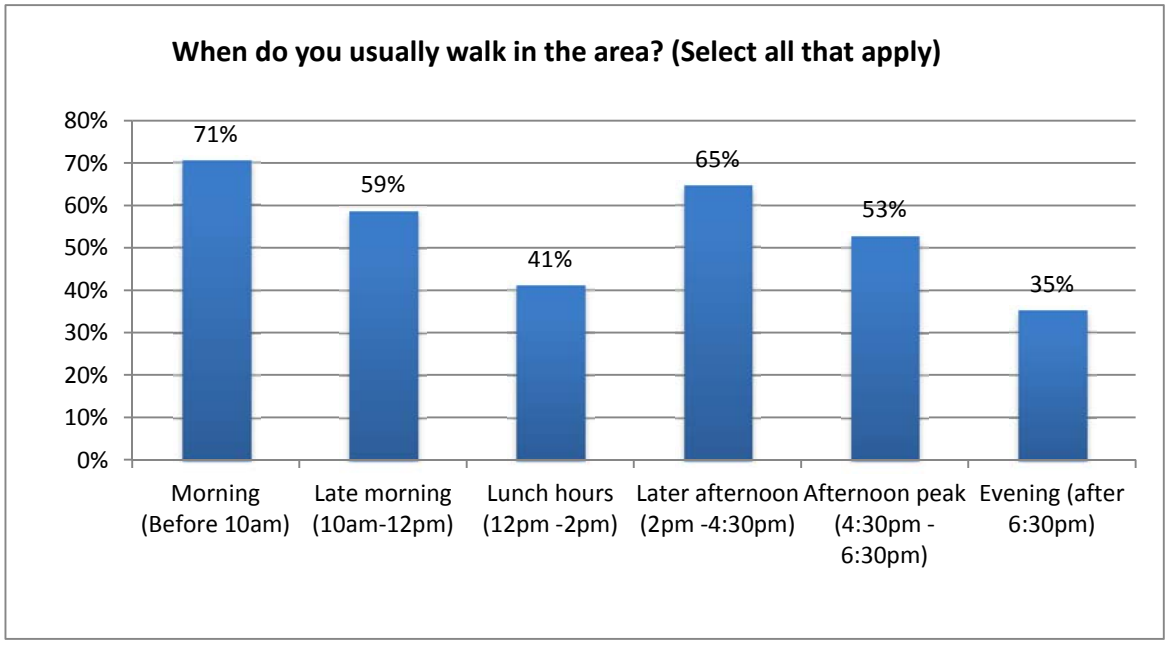
Gladesville Pedestrian Access and Mobility Plan (PAMP)

Do you usually walk in the area during……(Select all that apply)		
Answer Options	**Response Percent**	**Response Count**
Weekdays	88%	15
Weekends	71%	12
	answered question	17
	skipped question	1



Gladesville Pedestrian Access and Mobility Plan (PAMP)

When do you usually walk in the area? (Select all that apply)		
Answer Options	**Response Percent**	**Response Count**
Morning (Before 10am)	71%	12
Late morning (10am-12pm)	59%	10
Lunch hours (12pm -2pm)	41%	7
Later afternoon (2pm -4:30pm)	65%	11
Afternoon peak (4:30pm -6:30pm)	53%	9
Evening (after 6:30pm)	35%	6
	answered question	17
	skipped question	1

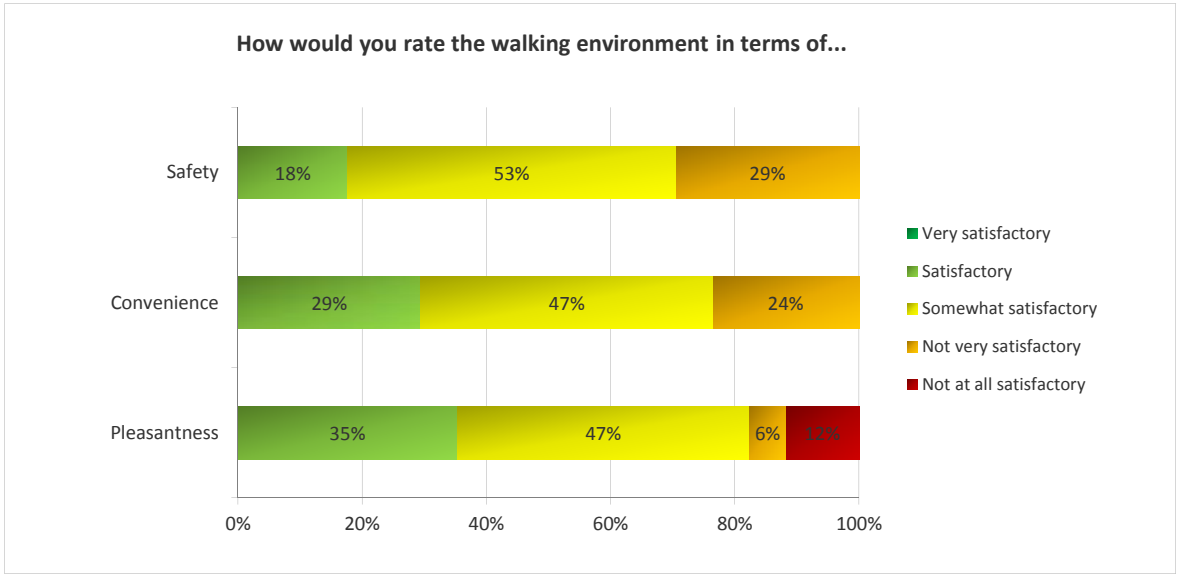


Gladesville Pedestrian Access and Mobility Plan (PAMP)

How would you rate the walking environment in terms of...

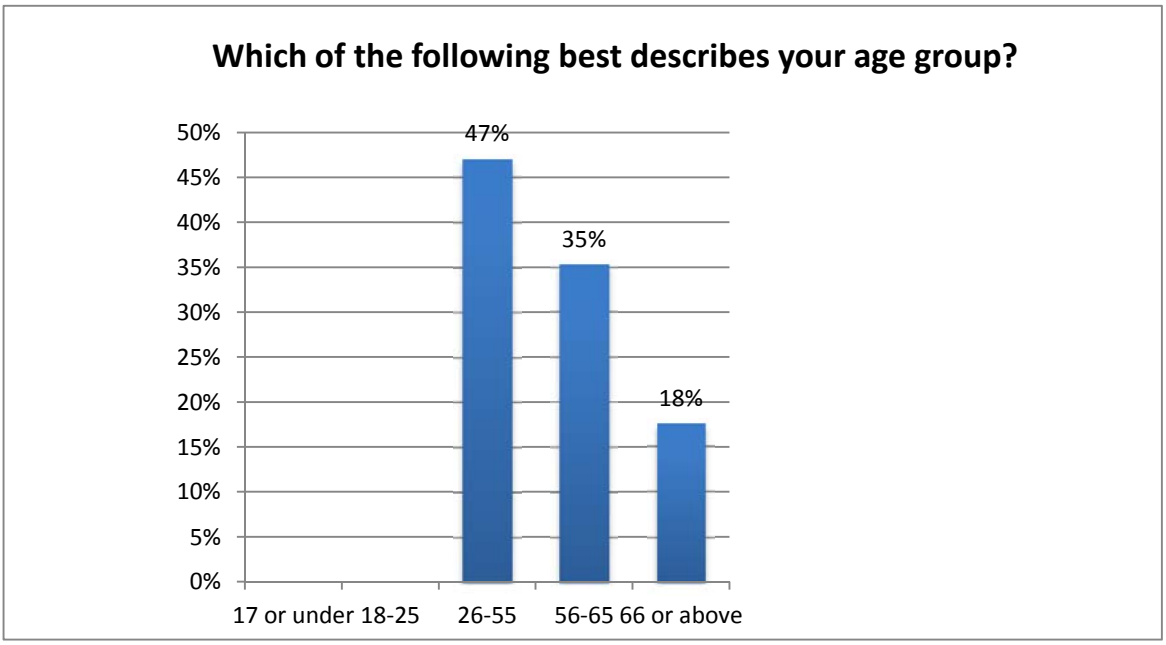
Answer Options	Not at all satisfactory	Not very satisfactory	Somewhat satisfactory	Satisfactory	Very satisfactory	Response Count
Pleasantness	2	1	8	6	0	17
Convenience	0	4	8	5	0	17
Safety	0	5	9	3	0	17
					answered question	17
					skipped question	1

	Not at all satisfactory	ot very satisfactor	mewhat satisfacto	Satisfactory	Very satisfactory
Pleasantness	12%	6%	47%	35%	0%
Convenience	0%	24%	47%	29%	0%
Safety	0%	29%	53%	18%	0%



Gladesville Pedestrian Access and Mobility Plan (PAMP)

Which of the following best describes your age group?		
Answer Options	**Response Percent**	**Response Count**
17 or under	0%	0
18-25	0%	0
26-55	47%	8
56-65	35%	6
66 or above	18%	3
	answered question	17
	skipped question	1



Gladesville Pedestrian Access and Mobility Plan (PAMP)

Do you have any other comments you would like to make relating to pedestrian facilities within the area and ways of improving them? Please specify the location wherever appropriate.

Answer Options	Response Count
	13
answered question	13
skipped question	5

Number	Response Date	Response Text
1	13/12/2013	Many footpaths are too narrow, poorly lit, damaged by tree roots, have trees or shrubs protruding over the footpath from resident's boundaries, and/or are covered in leaf matter - making them dangerous.
2	11/12/2013	Pedestrian light phasing along Victoria Road through seems to favour cars at all times of the day - Flagstaff St is extremely poor and unsafe for pedestrians entering or leaving the shopping centre - footpath too narrow along Massey St. - delivery areas to shopping centre (behind National and Commonwealth Bank area) are extremely dangerous - no safe and adequate linkage for pedestrians from Coles shops to Victoria Rd. - ramp to arcade too steep - Pittwater Rd carpark unsafe for pedestrians going to library - need flashing pedestrian lights at some crossing to alert drivers sooner - extend bus stop zone at Cowell St intersection (maybe separate out red and normal bus stop areas) - extend crossing time at Crown St (too short)
3	9/12/2013	The pedestrian crossing on Morrison Rd and Linley Streets is still very dangerous. I walk my children to an from school every day and we often have people drive through the crossing when we are standing ready to go. Cars drive along morrison road too in school drop off/pick up times.
4	8/12/2013	Waiting time to cross Victoria Rd is too long for pedestrians 'Walk' phase is too short for elderly and disadvantaged pedestrians The footpath on the Hunters Hill side is too narrow, the surface is unsatisfactory, and excessively obstructed by poles Access to Coles etc is quite unsatisfactory. In particular: * The footpath down Massey St it far too narrow: suggest converting Massey St to a shared user zone to allow pedestrians to share the roadway * Access down the arcade is inconvenient because of the ramp at the lower end * Final access to the Coles entry is scary because the laneway is also used (illegally?) by cars, some of which park adjacent to the entry, and occasionally by delivery trucks.
5	6/12/2013	Would be good to make the footpaths more pram friendly. eg wider, less pot holes, more 'dip' bits to cross from one side so I'm not having to go off the high curb. Some streets in Gladesville (Boronia Park end) only have footpaths on one side of the road. this makes it difficult to go for a walk. I often end up having to walk on the road. which isnt safe with a 2yr old. And is why I don't walk after 5pm. It would al be good to have pram access to Field of Mars from the Monash Rd entry point. I suspect it's not cost-effective for you, but thought I'd ask anyway.
6	6/12/2013	- the pedestrian crossing at the newsagents in the centre of Gladesville is dangerous. There is something that just doesn't work with light placement as every time the lights change cars, trucks and buses drive through the red lights and or stop across the crossing - many seem unaware that the crossing is even there. - Gladesville is very windy and without due care when constructing larger buildings the wind tunnel effect will be exacerbated. - it would be good to have wider set backs from the main road and more trees and plant barriers. - on the Hunter's Hill side of Victoria Road heading towards Gladesville Bridge the foot path is narrow and very uneven - this should be rectified - it would be of great convenience to have a pedestrian crossing somewhere near Stansell Street. Many people dash across the road near the food businesses at great risk to themselves. - with any new developments it would be fantastic to have a green space included at the moment Trim Place is the only outdoor public sitting space. Having the little coffee kiosk there is great.

7	5/12/2013	Crossing Victoria Road is very cumbersome. Moving trolleys around the Hunters Hill council car park and right-of-way behind BWS is not easy. Over all there is little by way of a welcoming pedestrian precinct.
8	4/12/2013	1. Morrison Road between Champion and Western Cres hasd a poor, broken, partly missing footpath on south side. This needs replacement with a combined bicycle / footpath as per many Ryde Council plans. 2. Missing footpath between Linsley Road and Glade Cres through the Glades Bay Reserve. This dirt track used by many mothers and school kids and anyone following the round the bay walk is long overdue for upgrading. It is not a pleasant experience when the grass is long and wet. 3. Motorists often ignore the red lights at the left turn from Victoria Rd into Linsley street. Better signage is needed. 4. The pedestrian crossing at Morrison Rd at Linsley St continues to be a very dangerous location due to cars trying to beat pedestrians to the crossing. Traffic calming devices might be useful here. .
9	3/12/2013	Too many people grow hedges that protrude onto the footpath - in Hillcrest Ave for example. This narrows the footpath and makes it very difficult for visually impaired pedestrians. Difficult to walk down the footpaths in Bateman's Road because of the effort to grow trees on very narrow pedestrian way. Need to instal lights (perhaps solar) in the lanes that lead out of Harding Memorial Park in Hillcrest Ave. Without some lighting, there are safety issues for young and old walkers. The traffic lights that govern the two pedestrian crossings on Victoria Road at the shopping centre are extremely frustrating for pedestrians, especially around beginning and end of school day. Why do we not have a plan to build an attractive pedestrian elevated walkway over Victoria Road? We have to think of some imaginative and cost effective way of preventing traffic from splitting the Gladesville precinct!
10	29/11/2013	All plans need to keep in mind stroller access, especially road curbs. There are still road curbs, ie at the back of the Mitre 10 store in Gladesville, where many prams must go each day to school, which arer wheels friendly. Also the building works on Victoria Rd near Batemans Rd have been particularly disruptive for prams and even just pedestrians. There are often trucks blocking the path with no thought to pedestrian access. A few times I've had to walk my 2 kids past on the actual road because there was no other way. Crossing to the other side is not an option there. This sort of path blockage is unacceptable for all the new building works about to begin in Gladesville.
11	28/11/2013	Crossing Morrison Road at Champion Road is a nightmare in the mornings for school children catching an eastbound bus. Morrison is so much busier at peak hours now and I have seen kids waiting to cross for what seems like many minutes while I, in my car am waiting a fair while to turn into Morrison. you can say well, the kids should walk up to Tennyson and cross at the roundabout, but they don't do this - the bus stop is right opposite. So far, they have been lucky but I feel some day some child will be hurt or killed.
12	24/11/2013	Shopping Centre Access is via steep hills, no level access. Massey Street only Level access but then down steep roadway to shopping centre. New Shopping Centre will not address this problem. Access down hill in Cowell Street, or Flagstaff Street. Older people have terrible problems
13	23/11/2013	Walking from Sunnyside St Gladesville, along Victoria Rd to Gladesville Public School or Gladesville shopping village is not pleasant. It could be improved with soft landscaping and trees for shade. The area around the corner of Cowell St and Victoria Rd is not very safe for school children crossing the road to Gladesville Public School.

Appendix C

Stakeholder Workshop Minutes

Minutes

ARUP

Project title	Gladesville PAMP	Job number	233532
Meeting name and number	Stakeholder Workshop	File reference	
Location	Gladesville Library	Time and date	2.30pm and 4 December 2013 5.30pm
Purpose of meeting	To facilitate the exchange of ideas in the preparation of the Gladesville PAMP		

Attendees

Yvonne Battenham - Hunters Hill Advisory Committee
Tony Keevers - Gladesville Hospital
Vera Vevrica - Resident at Blandville
Linda Chen - Resident at Blandville
Yong Su - Resident at Blandville
Christine Hannan - Hunters Hill Ryde Community Services
Sonya Sodbinow - Hunters Hill Disability Access Committee
Yvonne Dornan - Gladesville Chamber of Commerce
Reg Cain - Gladesville Chamber of Commerce
Richard Quinn - Mayor of Hunters Hill Council
Meredith Sheil - Deputy Mayor – Hunters Hill Council
Doris Rose Carrall - City of Ryde Access Committee
Russell Young - Resident of Cowell Street
Gui wen Wang - Resident of Massey Street
Geoff McIntyre - Resident of Waruda Place
Piers Paulbury - Local resident
Meryl Bishop – City of Ryde Council
Tania Gamble - Hunters Hill Council
Annie Talve - CRED Consulting
Sarah Reilly - CRED Consulting
Shane Carne - Ryde Local Area Command
Kim Johnston - Friends and Gladesville Library
Kerry Smith - Hunters Hill Council
Sam Cappelli - City of Ryde Council
Judi Partland - Gladesville Public School
Alister Sharp - Bike North
Mark Rothwell - Gladesville Action Group
Evonne - City of Ryde Access Committee
Gilbert Ortiz - City of Ryde Council
Garry Hankinson - City of Ryde Council
Margaret Kelly - Hunters Hill Council
Joshua Milston - Arup
Safiah Moore – Arup
Tom Zarimis - Philon – representing Gladesville RSL

Apologies

Circulation: Those present

Prepared by: Joshua Milston

Date of circulation

Date of next meeting

Minutes

Project title	Job number	Date of Meeting
Gladesville PAMP	233532	4 December 2013

1. Council welcome the participants

- Outline of PAMP process in Council
- Overview of planned development in Gladesville centre – Meryl Bishop (CoR)

2. Arup PAMP background presentation

- Introduction of participants
- Introduction of PAMP
- Aims and objectives of workshop

3. Group Discussion

3.1 Town Centre

- Better enforcement of 40km/hr speed limit through town centre
- High pedestrian volumes in the area around Massey Street and Linsley Street need to be recognised through an improved pedestrian network

3.2 Victoria Road

- Pedestrian crossing lights should have countdown timers
- Long pedestrian wait times to cross Victoria Road should be improved, particularly outside of peak hours
- Possibility of sinking a section of Victoria Road to create a pedestrian plaza area?
- A pedestrian overpass should be constructed to allow improved access across Victoria Road
- The fences in the middle of Victoria Road restricts pedestrian connectivity
- Crossing opportunities should be improved in the north of the study area, particularly between Pittwater Road and Westminster Road
- A pedestrian crossing of Victoria Road should be provided near Salter Street to provide access to the bus stops
- Bus stops should be located closer to the town centre – i.e. near Massey Street / Linsley Street

3.3 Access for Mobility Impaired Users

- PAMP should prioritise measures improving access for mobility impaired users
- Generally poor access for people in wheelchairs throughout study area

3.4 Massey Street / Massey Lane

- Massey Street footpath is currently too narrow given it is the major gateway to the town centre
- Improved access to the shopping centre should be provided along Massey Street
- Footpath should be installed on Massey Lane to provide access to the shopping centre

3.5 Cowell Street

- Footpath should be widened
- Access to the Coles car park on Cowell Street is very steep and should be improved
- Poor lighting and damaged footpath due to tree roots makes this an unsafe walking environment

3.6 Linsley Street

- Poor connections to the RSL club
- Lighting near the RSL and Coulter Street should be improved
- There are high traffic volumes associated with the school

3.7 Gladesville Shopping Centre

- Interactions between pedestrians and vehicles in the laneway servicing the shopping centre are a concern
- The existing ramp providing access from Massey Street into the shopping centre is steep and unsafe
- New shopping centre development should be designed to ensure access for pedestrians is prioritised
- Adequate on-site parking should be provided for the new development
- The new vehicle access points on Flagstaff Street to the shopping centre will create an unsafe pedestrian environment
- Bicycle parking should be provided within the development

3.8 Pittwater Road

- Provide pedestrian refuge or zebra crossing to improve access to Gladesville Library
- No kerb ramp is provided adjacent to bus stops – improved access should be provided here

3.9 General Comments

- Narrow footpaths in certain locations
- More pedestrian open space areas should be provided within the Hunters Hill LGA
- Public rubbish bins detract from pedestrian amenity – remove where appropriate
- Bus shelters should not be located in the middle of the footpath – creates an obstacle for pedestrians
- Poor pedestrian access with Coulter Street car park, particularly for mobility impaired users

4. Next Steps

- Public Exhibition of the Draft PAMP (April 2014)
- Action Plan prioritisation
- Final PAMP following stakeholder consultation and feedback (June 2014)
- Implementation of the PAMP
- Ongoing communications between Council and other agencies

5. Meeting Closed

- Concluding remarks from Arup and Council

Appendix D

Action Plan

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
1	31	Pittwater Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill
2	29	Pittwater Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill
3	29	Pittwater Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill
4	27	Pittwater Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Low	10 - 25 years	$293	Hunters Hill
5	25	Pittwater Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Low	10 - 25 years	$293	Hunters Hill
6	15	Pittwater Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Low	10 - 25 years	$293	Hunters Hill
7	265A	Victoria Road	East	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
8	265C	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
9	278	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
10	311	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
11	317	Victoria Road	East	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	City of Ryde
12	317	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
13	317	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
14	312-330	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
15	363	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	High	0 - 5 years	$300,000	City of Ryde
16	392-424	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	2	50% Council / 50% RMS	High	0 - 5 years	$1,840	City of Ryde
17	401-411	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
18	407-411	Victoria Road	East	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
19	417	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
20	417	Victoria Road	East	No kerb ramp	Install new kerb ramp to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
21	427-433	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
22	427-433	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
23	427-433	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	4	50% Council / 50% RMS	High	0 - 5 years	$3,680	City of Ryde
24	435-439	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	2	50% Council / 50% RMS	High	0 - 5 years	$1,840	City of Ryde
25	478-484	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
26	478-484	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
27	441	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
28	441	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
29	486-488	Victoria Road	West	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
30	459	Victoria Road	West	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
31	455-457	Victoria Road	West	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
32	478-484	Victoria Road	West	Bus stop: not paved to kerb and no shelter	Bus stop upgrade to accessible (seat, shelter, paving, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
33	434	Victoria Road	West	Kerb ramp too steep or cracked	Investigate location and install a new kerb ramp if able to do so	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
34	428A	Victoria Road	West	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Medium	5 - 10 years	$1,500	City of Ryde
35	428A	Victoria Road	West	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
36	392-424	Victoria Road	West	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	1	Council	Low	10 - 25 years	$347	City of Ryde
37	336-384	Victoria Road	West	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	1	Council	Low	10 - 25 years	$347	City of Ryde
38	288-290	Victoria Road	West	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	High	0 - 5 years	$25	City of Ryde
39	260-274	Victoria Road	West	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
40	254	Victoria Road	West	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
41	246	Victoria Road	West	Kerb ramp too steep or cracked	Investigate location and install a new kerb ramp if able to do so	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
42	238-244	Victoria Road	West	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
43	232	Victoria Road	West	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
44	1B	Western Crescent	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
45	1B	Western Crescent	East	No kerb ramp	Install new kerb ramp to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
46	1B	Western Crescent	South	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	High	0 - 5 years	$3,500	City of Ryde
47	1B	Western Crescent	West	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
48	2	Linsley Street	West	No kerb ramp	Install new kerb ramp to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
49	2	Coulter Street	West	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
50	5	Linsley Street	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
51	11	Linsley Street	North	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	1	50% Council / 50% RMS	Low	10 - 25 years	$139	City of Ryde
52	13	Linsley Street	West	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
53	11	Linsley Street	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
54	28	Morrison Road	North	No kerb ramp	Install new kerb ramp to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
55	28	Morrison Road	West	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Medium	5 - 10 years	$1,500	City of Ryde
56	21	Morrison Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
57	26	Morrison Road	South	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Medium	5 - 10 years	$1,500	City of Ryde
58	23	Meriton Street	East	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
59	25A	Meriton Street	West	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Low	10 - 25 years	$293	City of Ryde
60	2A	Meriton Street	West	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	Developer Contributions	High	0 - 5 years	$3,500	City of Ryde
61	25A	Meriton Street	South	No crossing facilities	Investigate location and install refuge with kerb ramps	1	Developer Contributions	High	0 - 5 years	$8,000	City of Ryde
62	23	Meriton Street	North	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	Developer Contributions	High	0 - 5 years	$3,500	City of Ryde
63	2A	Meriton Street	South	Kerb ramp too steep or cracked	Investigate location and install a new kerb ramp if able to do so	1	Developer Contributions	High	0 - 5 years	$1,500	City of Ryde
64	11	Meriton Street	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	High	0 - 5 years	$293	City of Ryde
65	11	Meriton Street	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	High	0 - 5 years	$293	City of Ryde
66	11	Meriton Street	South	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	1	Council	High	0 - 5 years	$347	City of Ryde

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
67	7	Meriton Street	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	High	0 - 5 years	$293	City of Ryde
68	9-13	Pearson Street	West	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	1	50% Council / 50% RMS	Low	10 - 25 years	$139	City of Ryde
69	19	Pearson Street	West	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
70	17	Ashburn Place	West	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	Low	10 - 25 years	$8,000	City of Ryde
71	17	Ashburn Place	West	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
72	14	Ashburn Place	East	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	Low	10 - 25 years	$8,000	City of Ryde
73	153A	Victoria Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	Developer Contributions	High	0 - 5 years	$3,500	City of Ryde
74	151	Victoria Road	West	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
75	179	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Both Councils
76	199-201	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Both Councils
77	251A	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
78	20	Pittwater Road	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	City of Ryde
79	33	Pittwater Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Low	10 - 25 years	$3,500	Both Councils
80	38-42	Pittwater Road	North	Bus stop: no shelter	Bus stop upgrade to accessible (seat, shelter, lighting)	1	Council	Medium	5 - 10 years	$13,500	City of Ryde
81	36	Pittwater Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Low	10 - 25 years	$3,500	Both Councils
82	17	Venus Street	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Low	10 - 25 years	$3,500	Both Councils
83	11	Cowell Street	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	Developer Contributions	High	0 - 5 years	$8,000	Hunters Hill
84	10	Cowell Street	West	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	Hunters Hill
85	15	Cowell Street	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	3	Developer Contributions	High	0 - 5 years	$879	Hunters Hill
86	1-7	Flagstaff Street	East	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
87	1-7	Flagstaff Street	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	2	Developer Contributions	High	0 - 5 years	$586	Hunters Hill
88	1-7	Flagstaff Street	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	3	Developer Contributions	High	0 - 5 years	$879	Hunters Hill

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
89	2	Flagstaff Street	East	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
90	2	Flagstaff Street	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
91	2	Flagstaff Street	West	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
92	2	Flagstaff Street	West	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
93	15A	Massey Street	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	Developer Contributions	High	0 - 5 years	$8,000	Hunters Hill
94	15A	Massey Street	North	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$139	Hunters Hill
95	15	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
96	4A	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
97	4	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
98	7A	Massey Street	North	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	2	Developer Contributions	High	0 - 5 years	$1,840	Hunters Hill
99	7	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
100	5A	Massey Street	North	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	2	Developer Contributions	High	0 - 5 years	$1,840	Hunters Hill
101	5	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
102	3A	Massey Street	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	Hunters Hill
103	3	Massey Street	West	No kerb ramp	Install new kerb ramp to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	Hunters Hill
104	1A	Massey Street	North	Footpath obstruction - signage pole	Relocate signage to ensure adequate footpath width	1	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
105	1C	Massey Street	South	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
106	1A	Massey Street	South	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	Developer Contributions	High	0 - 5 years	$920	Hunters Hill
107	3	Massey Street	South	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
108	7	Massey Street	South	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
109	11	Massey Street	South	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
110	1A	Massey Street	South	Footpath uneven	Footpath grinding	1	Developer Contributions	High	0 - 5 years	$25	Hunters Hill

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111	223A	Victoria Road	Intersection	Unsafe cyclist grate drain	Investigate further	1	Developer Contributions	High	0 - 5 years	$253	Hunters Hill
112	4-6	Cowell Street	West	Unsafe cyclist grate drain	Investigate further	1	Developer Contributions	High	0 - 5 years	$253	Hunters Hill
113	2C	Cowell Street	North	Footpath uneven	Footpath grinding	1	Developer Contributions	High	0 - 5 years	$25	Hunters Hill
114	2C	Cowell Street	South	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	3	Developer Contributions	High	0 - 5 years	$2,760	Hunters Hill
115	9	Cowell Street	South	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
116	8	Cowell Street	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	Developer Contributions	High	0 - 5 years	$3,500	Hunters Hill
117	11	Cowell Street	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	2	Developer Contributions	High	0 - 5 years	$586	Hunters Hill
118	113	Victoria Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill
119	109	Victoria Road	South	Footpath obstruction - bus shelter	Investigate location, bus stop design and relocate/remove shelter to ensure adequate width	1	Council	Low	10 - 25 years	$13,500	Hunters Hill
120	107	Victoria Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	High	0 - 5 years	$3,500	Hunters Hill
121	105	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
122	105	Victoria Road	South	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
123	105	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	2	50% Council / 50% RMS	Medium	5 - 10 years	$586	Hunters Hill
124	105	Victoria Road	South	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
125	105	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
126	103	Victoria Road	South	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
127	103	Victoria Road	South	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
128	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
129	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	3	50% Council / 50% RMS	Medium	5 - 10 years	$879	Hunters Hill
130	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	2	50% Council / 50% RMS	Medium	5 - 10 years	$586	Hunters Hill
131	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
132	103	Victoria Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill

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133	103	Victoria Road	South	Footpath obstruction - bus shelter	Investigate location, bus stop design and relocate/remove shelter to ensure adequate width	1	Council	Low	10 - 25 years	$13,500	Hunters Hill
134	91	Victoria Road	South	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	Medium	5 - 10 years	$25	Hunters Hill
135	74	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
136	12-18	Karrabee Avenue	South	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	2	Council	Medium	5 - 10 years	$694	Hunters Hill
137	12-18	Karrabee Avenue	South	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	2	Council	Medium	5 - 10 years	$694	Hunters Hill
138	103	Victoria Road	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	High	0 - 5 years	$8,000	Hunters Hill
139	105	Victoria Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Medium	5 - 10 years	$3,500	Hunters Hill
140	12-18	Karrabee Avenue	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Hunters Hill
141	12-18	Karrabee Avenue	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Medium	5 - 10 years	$3,500	Hunters Hill
142	103	Victoria Road	North	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	High	0 - 5 years	$293	Hunters Hill
143	103	Victoria Road	North	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	1	50% Council / 50% RMS	Medium	5 - 10 years	$139	Hunters Hill
144	2	Manning Road	North	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	1	50% Council / 50% RMS	Medium	5 - 10 years	$139	Hunters Hill
145	117	Victoria Road	North	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	Hunters Hill
146	117	Victoria Road	North	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	Hunters Hill
147	125	Victoria Road	North	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	1	Council	Medium	5 - 10 years	$347	Hunters Hill
148	129	Victoria Road	East	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Hunters Hill
149	133	Victoria Road	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Hunters Hill
150	133	Victoria Road	Intersection	Refuge crossing non-standard	Provide handrails and extend width of refuge island to minimum 2m	1	50% Council / 50% RMS	Medium	5 - 10 years	$3,500	Hunters Hill
151	139	Victoria Road	East	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	Hunters Hill
152	141	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
153	141	Victoria Road	East	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	High	0 - 5 years	$25	Hunters Hill
154	143	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill

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155	153	Victoria Road	East	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	2	Council	Medium	5 - 10 years	$694	Hunters Hill
156	157	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
157	157	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
158	165	Victoria Road	East	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	Hunters Hill
159	167-171	Victoria Road	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Hunters Hill
160	2	Linsley Street	North	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
161	2	Linsley Street	North	Footpath uneven	Footpath grinding	1	50% Council / 50% RMS	High	0 - 5 years	$25	City of Ryde
162	179	Victoria Road	West	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	50% Council / 50% RMS	Low	10 - 25 years	$1,500	Both Councils
163	9	Meriton Street	North	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	4	Council	High	0 - 5 years	$1,388	City of Ryde
164	11	Meriton Street	North	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	3	Council	High	0 - 5 years	$1,041	City of Ryde
165	19	Meriton Street	North	Driveway crossover cracked/uneven	Consultation with land owner to repave the driveway	3	Council	High	0 - 5 years	$1,041	City of Ryde
166	21	Meriton Street	North	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
167	2A	Meriton Street	North	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Developer Contributions	High	0 - 5 years	Unknown	City of Ryde
168	1	Morrison Road	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Low	10 - 25 years	$293	City of Ryde
169	19	Morrison Road	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	High	0 - 5 years	$293	City of Ryde
170	10	Linsley Street	South	Utilities/manhole uneven	Council to contact utility provider for further works to be carried out by utility provider.	1	Council	High	0 - 5 years	Unknown	City of Ryde
171	1	Coulter Street	North	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	1	Developer Contributions	High	0 - 5 years	$920	City of Ryde
172	1	Coulter Street	North	No kerb ramp	Install new kerb ramp to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	City of Ryde
173	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
174	74	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	1	50% Council / 50% RMS	Medium	5 - 10 years	$293	Hunters Hill
175	1	Coulter Street	North	Kerb ramp not aligned	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	City of Ryde
176	1	Coulter Street	North	Kerb ramp lip/step	Remove existing kerb ramp and install new kerb ramp – upgrade to AS design	1	Developer Contributions	High	0 - 5 years	$1,500	City of Ryde

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177	1	Coulter Street	North	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	1	Developer Contributions	High	0 - 5 years	$920	City of Ryde
178	167-171	Victoria Road	West	No kerb ramp	Install new kerb ramp to AS design	1	50% Council / 50% RMS	High	0 - 5 years	$1,500	City of Ryde
179	140	Victoria Road	West	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	2	50% Council / 50% RMS	High	0 - 5 years	$1,840	City of Ryde
180	161	Victoria Road	West	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	2	50% Council / 50% RMS	High	0 - 5 years	$1,840	City of Ryde
181	153	Victoria Road	West	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	2	50% Council / 50% RMS	High	0 - 5 years	$1,840	City of Ryde
182	133	Victoria Road	West	Footpath cavity or cracks (Type 2 street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	1	50% Council / 50% RMS	High	0 - 5 years	$920	City of Ryde
183	2A	Cowell Street	North	Footpath obstruction - service pole/box with spa	Install new minimum 1.2m wide extension to footpath on surrounding nature strip	1	Developer Contributions	High	0 - 5 years	$293	Hunters Hill
184	7	Pittwater Road	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	High	0 - 5 years	$8,000	Both Councils
185	363	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Low	10 - 25 years	$300,000	City of Ryde
186	421	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Low	10 - 25 years	$300,000	City of Ryde
187	459	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Low	10 - 25 years	$300,000	City of Ryde
188	168-176	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Medium	5 - 10 years	$300,000	Both Councils
189	173	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Medium	5 - 10 years	$300,000	Both Councils
190	129	Victoria Road	Intersection	No signalised crossing arm	Consultation with RMS to provide signalised pedestrian arm	1	RMS	Medium	5 - 10 years	$300,000	Both Councils
191	8	Western Crescent	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	High	0 - 5 years	$8,000	City of Ryde
192	286	Victoria Road	Intersection	No crossing facilities	Investigate location and install refuge with kerb ramps	1	50% Council / 50% RMS	Medium	5 - 10 years	$8,000	City of Ryde
193	107	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Hunters Hill
194	129	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
195	2	Punt Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
196	179	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
197	175	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils

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198	168	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
199	164-166	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
200	204	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
201	263A	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
202	226	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
203	263A	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
204	226	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	Both Councils
205	334	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	City of Ryde
206	417	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	City of Ryde
207	434	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	City of Ryde
208	486-488	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	City of Ryde
209	486-488	Victoria Road	Intersection	Long wait times at crossing	Consultation with RMS to consider shorter waiting times for pedestrians. Further traffic modelling and investigation may be required. Consider options of changing signal phasing during off peak times.	1	50% Council / 50% RMS	High	0 - 5 years	Unknown	City of Ryde
210	7	Pittwater Road	South	Pavers uneven	Remove pavers and install new footpath - paving type as per Gladesville Domain Manual	30.8	50% Council / 50% RMS	High	0 - 5 years	$12,104	Hunters Hill
211	435-439	Victoria Road	East	Footpath cavity or cracks (Type 2 Street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	5.0	50% Council / 50% RMS	High	0 - 5 years	$4,590	City of Ryde
212	445-447	Victoria Road	East	Footpath cavity or cracks (Type 2 Street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	11.7	50% Council / 50% RMS	High	0 - 5 years	$10,746	City of Ryde
213	451	Victoria Road	East	Footpath cavity or cracks (Type 2 Street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	4.4	50% Council / 50% RMS	High	0 - 5 years	$4,077	City of Ryde
214	2	Linsley Street	West	Footpath cavity or cracks (Type 2 Street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	19.1	50% Council / 50% RMS	High	0 - 5 years	$17,534	City of Ryde
215	1	Meriton Street	East	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	36.2	50% Council / 50% RMS	Low	10 - 25 years	$5,790	City of Ryde

ID	Closest Street Address	Street Name	Side of road/ Intersection	Issues	Action	Length(m) / Unit	Potential Funding Source	Works Priority	Timeframe	Indicative costing	Council Responsible
216	35	Pearson Street	West	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	43.6	50% Council / 50% RMS	Low	10 - 25 years	$6,055	City of Ryde
217	12	Pearson Street	East	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	38.3	50% Council / 50% RMS	Low	10 - 25 years	$5,318	City of Ryde
218	4	Pearson Street	East	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	11.1	50% Council / 50% RMS	Low	10 - 25 years	$1,539	City of Ryde
219	185-187	Victoria Road	East	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	105.8	50% Council / 50% RMS	Medium	5 - 10 years	$14,700	Hunters Hill
220	14-16	Pittwater Road	North	Uneven nature strip	Backfill nature strip to ensure footpath is level with surrounding nature strip	5.5	50% Council / 50% RMS	Low	10 - 25 years	$762	City of Ryde
221	6-8	Flagstaff Street	West	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	100.4	Developer Contributions	High	0 - 5 years	$16,064	Hunters Hill
222	2	Flagstaff Street	East	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	19.8	Developer Contributions	High	0 - 5 years	$5,797	Hunters Hill
223	13	Massey Street	North	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	40.9	Developer Contributions	High	0 - 5 years	$11,977	Hunters Hill
224	2	Massey Lane	East	No path (other areas)	Introduce shared zone along Massey Lane. To include thershold treatments (block pavers) at either end and appropriate signage indicating shared zone operation. Subject to compliance with RMS criteria for the introduction of shared zones	98.7	Developer Contributions	High	0 - 5 years	$50,000	Hunters Hill
225	1C	Massey Street	South	Footpath too steep	Developer to address	20.3	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
226	231	Victoria Road	South	Footpath too steep	Developer to address	21.2	Developer Contributions	High	0 - 5 years	Unknown	Hunters Hill
227	10	Cowell Street	North	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	13.2	Developer Contributions	High	0 - 5 years	$2,119	Hunters Hill
228	172B	Victoria Road	South	No path (other areas)	Install new minimum 1.2m wide footpath to AS	23.6	Developer Contributions	High	0 - 5 years	$8,513	City of Ryde
229	1	Coulter Street	South	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	15.0	Developer Contributions	High	0 - 5 years	$13,813	City of Ryde
230	122-124	Victoria Road	West	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	66.7	50% Council / 50% RMS	High	0 - 5 years	$61,372	City of Ryde
231	133	Victoria Road	West	Footpath cavity or cracks (Type 1 Street)	Install new footpath to kerb - paving type 1 (Grey granite with sandstone-coloured granite banding to kerb)	10.1	50% Council / 50% RMS	High	0 - 5 years	$9,337	City of Ryde
232	10	Cowell Street	West	No path (other areas)	Install new minimum 1.2m wide footpath to AS	56.1	Developer Contributions	High	0 - 5 years	$20,198	Hunters Hill
233	103	Victoria Road	South	Footpath cavity or cracks (other)	Remove existing path and install new footpath to match existing - minimum 1.2m wide	18.1	50% Council / 50% RMS	Medium	5 - 10 years	$5,312	Hunters Hill
234	103	Victoria Road	South	No path (other areas)	Install new minimum 1.2m wide footpath to AS	5.8	Council	High	0 - 5 years	$2,102	Hunters Hill
235	1B	Western Crescent	East	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	3.3	50% Council / 50% RMS	Low	10 - 25 years	$524	City of Ryde
236	10	Linsley Street	South	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	2.2	50% Council / 50% RMS	Low	10 - 25 years	$353	City of Ryde
237	2	Coulter Street	East	Footpath cavity or cracks (Type 2 Street)	Install new footpath to kerb - paving type 2 (grey granite to kerb)	27.8	50% Council / 50% RMS	High	0 - 5 years	$25,540	City of Ryde
238	1	Coulter Street	South	Narrow path	Investigate footpath widening (1.2m minimum) associated with future Development Applications)	76.9	Developer Contributions	High	0 - 5 years	$12,310	City of Ryde