

ASHFIELD PEDESTRIAN ACCESS & MOBILITY  
PLAN

**REPORT**

PREPARED FOR Ashfield Council

19/01/2016

X14382

ORIGINAL

TRANSPORTATION



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# TABLE OF CONTENTS

1	EXECUTIVE SUMMARY .....	1
2	INTRODUCTION .....	3
2.1	Background	3
2.2	Objectives	3
2.3	Structure of this Study	4
2.4	Methodology	4
2.5	Project Steering Group	6
3	RESEARCH, REVIEW AND DATA COLLECTION .....	7
3.1	Strategic Planning Context	7
3.1.1	Australian Pedestrian Charter	7
3.1.2	Disability Discrimination Act, 1992	8
3.1.3	Commonwealth Disability Standards for Accessible Public Transport	8
3.1.4	NSW Walking Strategy	9
3.1.5	Transport for NSW – Sydney’s Walking Future	9
3.1.6	NSW Road Safety Strategy	9
3.1.7	NSW Long Term Transport Master Plan	10
3.1.8	Ageing Strategy 2020	11
3.1.9	Transport NSW Disability Action Plan 2012-2017	11
3.1.10	Development and Active Living – Designing Projects for Active Living, Premier’s Council for Active Living NSW, 2010	11
3.1.11	Previous Studies & Projects	11
3.2	Characteristics of Ashfield	12
3.2.1	Study Area and Existing Infrastructure	12
3.2.2	Functional Road Hierarchy	14
3.2.3	Connectivity with Public Transport	15
3.2.4	Cycle Routes	15
3.2.5	Key Pedestrian Traffic Generators & Attractors	17
3.3	Guidelines for Pedestrian Facilities	19
3.4	Identification of Stakeholders	21
3.5	Community Correspondence	21
4	ASSESSMENTS, CONSULTATION AND FINDINGS .....	23
4.1	Initial Site Visit Findings	23
4.2	Route Activity Hierarchy	24
4.2.1	Identification of Pedestrian Needs	24
4.2.2	Route Development	24
4.2.3	PAMP Routes	24
4.3	Community Consultation	27
4.3.1	Methods of Engagement	27
4.3.2	On-line Questionnaire Survey	27
4.3.3	Key Stakeholders Consultation	28
4.3.4	Public Exhibition	30
4.4	PAMP Routes Audit	32
4.4.1	Audit Process	32
4.4.2	General Audit Findings	32
4.4.3	Footpath Audit Findings	34
4.4.4	Kerb Ramp Audit Findings	35

4.4.5	Crossing Audit Findings	39
4.4.6	Lighting	44
4.4.7	Signage	46
4.4.8	Awning Fixtures	46
4.5	Crash Data Analysis	46
4.6	Priority Focus Areas	50
5	ACTION PLAN.....	55
5.1	Generic Recommendations	55
5.2	Implementation Priority	58
5.3	Action Plan: Recommended Facilities (Prioritised)	60
5.4	Funding	73
5.4.1	Roads and Maritime Services (RMS)	73
5.4.2	Developer Contributions	73
<b>5.5</b>	Implementation and Maintenance	74
5.5.1	Footpath Maintenance	74
5.5.2	Maintenance of other Pedestrian Facilities	75
5.5.3	Follow-up Activities	75
6	CONCLUSIONS AND RECOMMENDATIONS.....	76

## TABLES

Table 3-1:	Design Standards	19
Table 3-2:	Summary of Community Correspondence	21
Table 4-1:	Stakeholders Responses	28
Table 4-2:	Public Exhibition Responses	30
Table 4-3:	Priority Focus Locations	52
Table 5-1:	Priority Scoring	59
Table 5-2:	Prioritised Recommendations	60
Table B-6-1:	Footpath Requirements by Street Type	90
Table B-6-2:	Footpath Width Requirements	91
Table B-6-3:	Footpath & Ramp Gradients	93

## FIGURES

Figure 2-1:	PAMP Methodology	5
Figure 3-1:	Study Area	13
Figure 3-2:	Road Hierarchy	14
Figure 3-3:	Ashfield LGA Cycling Map	16
Figure 3-4:	Key Pedestrian Attractors and Generators within Ashfield LGA	18
Figure 4-1:	Pedestrian Route Hierarchy	26
Figure 4-2:	Example of footpath in Ashfield CBD	33
Figure 4-3:	Example of lifted pavement outside the CBD (opposite 76 Moonbie St)	33
Figure 4-4:	Discontinued Footpath (8 Elizabeth St, Ashfield)	34
Figure 4-5:	Holden St / Armstrong St Intersection – No Pedestrian Connectivity	35
Figure 4-6:	Queen St / Armstrong St Intersection – No Pedestrian Connectivity	36
Figure 4-7:	Pembroke St / Omond St Intersection (Southern Leg) – Unaligned Ramps	36
Figure 4-8:	Holden St / Palace St Intersection (North-west Corner) – Non-Standard Ramp	36
Figure 4-9:	Hawthorne Pde / Tressider Ave Intersection – Missing Pram Ramp	37
Figure 4-10:	Location of Identified Ramp Issues	38

Figure 4-11:	Pedestrian Refuge on Prospect Rd, between Smith St & Short St	39
Figure 4-12:	Grosvenor Crsnt / Sloane St Intersection – Misleading pedestrian refuge, 10m west from a zebra crossing	40
Figure 4-13:	Elizabeth St / Charlotte St Intersection – Long Wait Times for Pedestrians	40
Figure 4-14:	Liverpool Rd/ Elizabeth St/ Grosvenor Crsnt Intersection – Small dimensions of islands at the north-western (left) and south-eastern (right) corners of the Intersection	41
Figure 4-15:	Croydon Rd – No Pedestrian Facilities	41
Figure 4-16:	Victoria St (South of Seaview St) – Potential crossing location	42
Figure 4-17:	Location of Identified Crossing Issues	43
Figure 4-18:	Bland St (near Brown St) – Poor Lighting in Tunnel	44
Figure 4-19:	Denman Ave – between Bland St & Chandos St – Poor Lighting	44
Figure 4-20:	Location of Lighting Issues	45
Figure 4-21:	Signage provided, but no indication of the Greenway	46
Figure 4-22:	Crash Locations	47
Figure 4-23:	Proportion of Crashes per Suburb	48
Figure 4-24:	Number of Pedestrian Crashes within Ashfield LGA per Year	49
Figure 4-25:	Crash Evolution along times of the day within Ashfield LGA (2005- 2013)	50
Figure 4-26:	Findings & Re-occurring Issues as Raised by the Community	53
Figure 4-27:	Priority Focus Area	54
Figure 5-1:	Example of an effective Wayfinding Scheme in Wollongong	58
Figure 6-1:	Ashfield Accessible Pedestrian Pathways Study - Priority Pathways	80
Figure 6-2:	West Connex Railway Project	82

Figure 6-3: Accelerated Footpath Repair Program

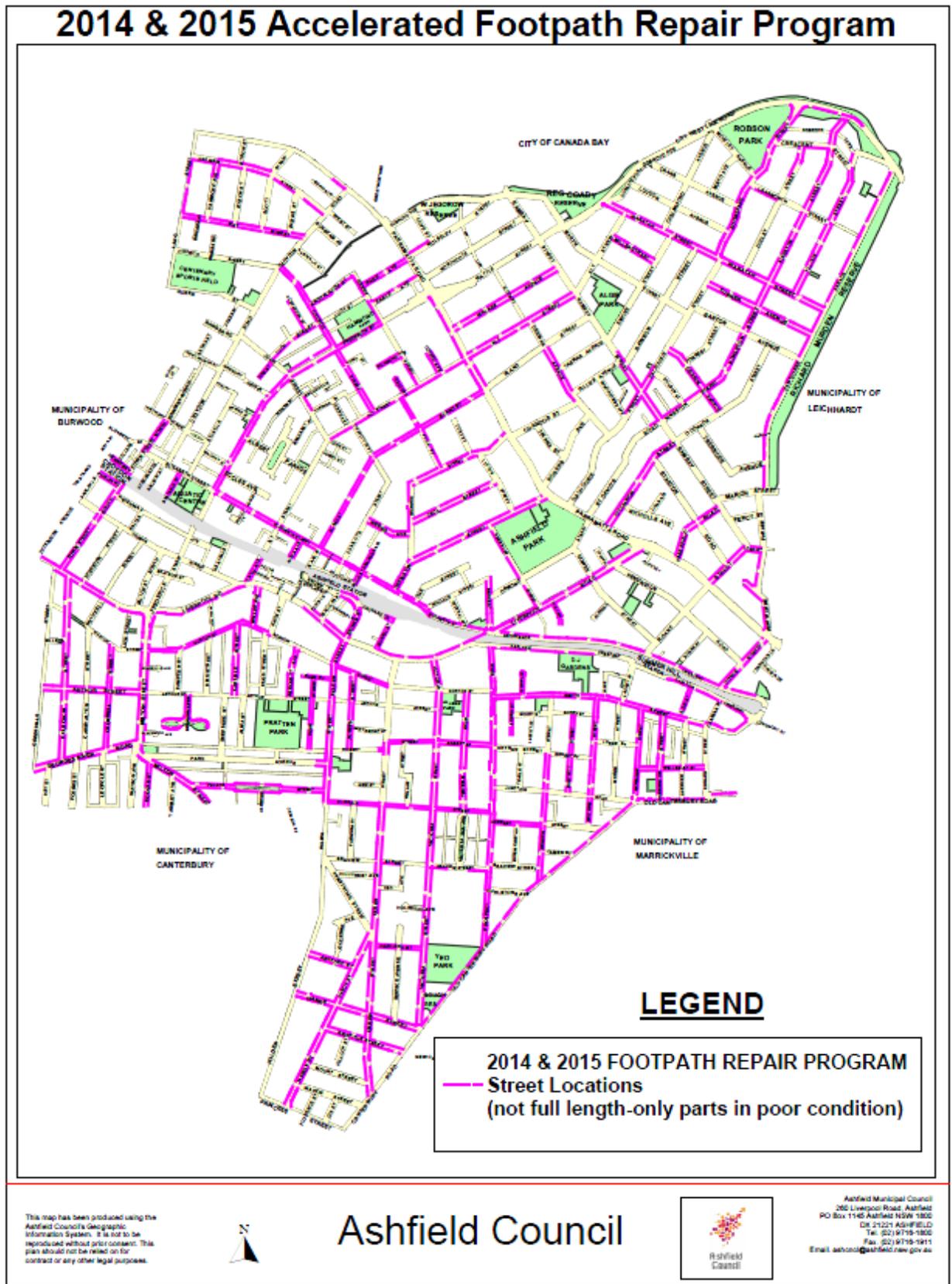


Figure 6-4: Town Centre Public Domain Master Plan	84
Figure 6-5: Priority Upgrade Areas	85
Figure 6-6: Greenway Map	86
Figure 6-7: Bus Shelter Program Map	87
Figure 6-8: Footpath Widths for Various Users	88
Figure 6-9: Kerb Ramp Design – Ashfield Council	92
Figure 6-10: Example of an RMS Standard Pedestrian Refuge	94
Figure 6-11: Example of an RMS Standard Midblock Crossing	95
Figure 6-12: Ashfield LGA Population Density (Persons per Hectare)	96
Figure 6-13: Age Profile in Ashfield LGA & Greater Sydney	98
Figure 6-14: Ashfield LEP 2012 Land Zoning Map	99
Figure 6-15: Ashfield Dwelling Density	100
Figure 6-16: Employment Status in Ashfield LGA & Greater Sydney	101
Figure 6-17: Walk to Work Data for Ashfield LGA	102
Figure 6-18: Journey to Work Data for Ashfield LGA	103
Figure 6-19: Ashfield LGA Crash Locations	104
Figure 6-20: Bus Route Map	106
Figure 6-21: Key Traffic Generators & Attractors	108
	114

## APPENDICES

APPENDIX A	LITERATURE REVIEW – PREVIOUS STUDIES & PROJECTS
APPENDIX B	DESIGN STANDARDS
APPENDIX C	CHARACTERISTICS OF ASHFIELD
APPENDIX D	CRASH DATA
APPENDIX E	BUS SERVICES
APPENDIX F	PUBLIC CONSULTATION
APPENDIX G	KEY PEDESTRIAN ATTRACTORS AND GENERATORS
APPENDIX H	KEY STAKEHOLDERS

# 1 EXECUTIVE SUMMARY

Ashfield Council appointed Calibre Consulting to prepare a Pedestrian Access and Mobility Plan (PAMP) for its Local Government Area (LGA). The project's main objective is to develop a long-term strategy and action plan for the development of pedestrian routes and facilities within the LGA in a coordinated and strategic approach that provides safe, convenient and connected pedestrian routes and infrastructure to the community, supporting improvements in personal mobility.

The development of this PAMP follows the guidelines provided in RMS' *"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. The 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 the LGA. 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
- 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 all 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 and to recommend upgrades and mitigation measures.

Recommended actions have been identified in the form of the PAMP Action Plan. These actions were 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, from the local community and stakeholders, through a series of actions, including public exhibition of a number of documents prepared by the study team in coordination with the Project Steering Group

The RMS' "How to Prepare a Pedestrian and Accessibility Mobility Plan" was used as a guide to determine the prioritisation of the proposed pedestrian infrastructure improvements. Based on this document, and together with Ashfield Council's representatives, another scoring system, more appropriate to the local conditions was utilised based on the following criterion:

- Pedestrian Route Hierarchy
- Focus Areas
- Safety/ Level of Risk

The development of the PAMP Action Plan provides 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 Ashfield LGA.

The Action Plan is composed of 199 individual actions, each of which have been prioritised as follows:

- High priority works (0-5 years): total of 20 items
- Medium priority works (5-10 years): total of 87 items
- Low priority works (10-25 years): total of 78 items

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 Section 94, Condition of Consent or VPA)
- NSW Roads and Maritimes Services (RMS) (through the Pedestrian Facilities Program 27401 and Blackspot Facilities under Program 26301)

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.

The following recommendations are made as part of the Ashfield PAMP:

- Adopt the recommended Action Plan for the ongoing construction of pedestrian and access mobility facilities
- Review and make recommendations with regards to the program of works for pedestrian and access mobility infrastructure for future Ashfield Council delivery programs and annual operational plans commensurate with the recommended Action Plan and subject to available funding
- Where appropriate, apply to RMS for pedestrian and access mobility infrastructure funding
- Provide sufficient funds in future Delivery Programs and Annual Operational Plans for the ongoing maintenance of pedestrian and access mobility infrastructure
- Ensure all pedestrian and access mobility infrastructure is either constructed or provided in accordance with the current guidelines and standards
- Ensure that pedestrian and access mobility infrastructure is included in future land development commensurate with the Council's Section 94 Contributions Plan, inclusive of shared paths for pedestrians and cyclists

## 2 INTRODUCTION

### 2.1 BACKGROUND

Ashfield Council appointed Calibre Consulting to prepare a Pedestrian Access and Mobility Plan (PAMP) for its Local Government Area (LGA). The project aims to identify a framework for developing safe and convenient pedestrian routes and fostering improvements in personal mobility.

This is the first comprehensive PAMP to be prepared for the LGA and will provide an opportunity for Ashfield Council to review the 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 are proposed to be linked to Council DCPs and Section 94 plans in providing a consistent footpath approach and delivery throughout the Ashfield LGA. Providing a highly connected pedestrian network which includes good quality linkages to key destinations will be an important aspect of the PAMP development.

#### Who is a Pedestrian?

Besides an “average walker”, the RTA’s (RMS) “How to Prepare a Pedestrian Access and Mobility Plan – An Easy Three Stage Guide” also identifies a pedestrian as one of the following:

- a person driving a motorised wheelchair that cannot travel over 10 kilometres per hour (on level ground)
- a person in a non-motorised wheelchair;
- a person pushing a motorised or non-motorised wheelchair
- a person in or on a wheeled recreational device or wheeled toy

This study also considered users of mobility scooters (with its specific needs).

### 2.2 OBJECTIVES

The PAMP study aims to co-ordinate investment in safe, convenient and connected pedestrian routes to enhance the overall pedestrian network. The study will provide Ashfield Council with a framework for developing pedestrian routes or areas identified by the community and key stake holders as important for enhanced, sustainable safety, convenience and mobility. The following key objectives are listed in the RMS Guide: How to Prepare a Pedestrian Access and Mobility Plan, and appropriately adopted for this study:

- To facilitate improvements in the level of pedestrian access and priority, particularly in the town centre
- To reduce pedestrian access severance and enhance safe and convenient crossing opportunities on major roads
- To identify and resolve pedestrian crash clusters
- To facilitate improvements in the level of personal mobility and safety for pedestrians with disabilities and older persons through the provision of pedestrian infrastructure and facilities which cater to the needs of all pedestrians
- To provide links with other transport services to achieve an integrated land use and transport network of facilities that comply with best technical standards
- To ensure pedestrian facilities are employed in a consistent and appropriate manner throughout NSW
- To link existing vulnerable road users plans in a co-ordinated manner (e.g. Bike plans, maintenance programs, accessible public transport, etc.)
- To ensure that facilities remain appropriate and relevant to surrounding land use and pedestrian user groups
- To accommodate special event needs of pedestrians
- To meet obligations under the Commonwealth Disability Discrimination Act (1996)

## **2.3 STRUCTURE OF THIS STUDY**

This study is structured as follows:

- Section 3 includes the research, review of previous reports and documents associated with the study area and the PAMP, as well as the data collection process
- Section 4 discusses the details of the assessments and consultation undertaken for this study. The section also includes their associated findings
- Section 5 presents the recommendations for improving pedestrian facilities. This includes prioritisation of the implementation and a recommended Action Plan. In addition, the section also provides guidance regarding funding options available to implement the recommended Action Plan
- Section 6 provides the conclusions of the study and associated recommendations

## **2.4 METHODOLOGY**

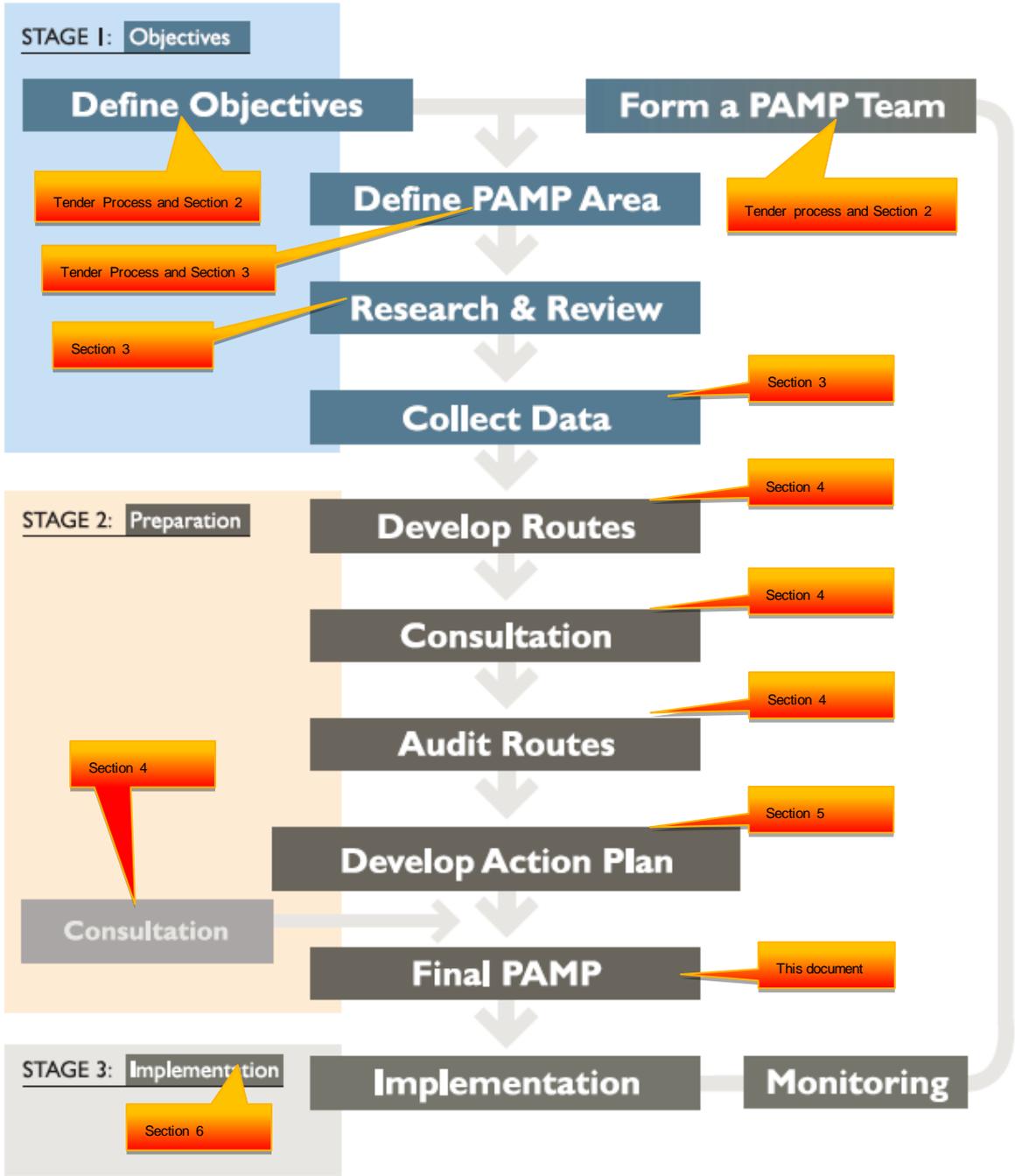
The Ashfield LGA PAMP has been developed according to RTA's (RMS) "How to Prepare a Pedestrian Access and Mobility Plan – An Easy Three Stage Guide". The methodology for the study involved a number of components including the following, outlined in Figure 2-1 below.

Figure 2-1: PAMP Methodology

## HOW TO PREPARE A PAMP METHODOLOGY

The Diagram, How to Prepare a PAMP- Methodology shows the three broad stages involved in the process:

- Stage 1: Objectives
- Stage 2: Preparation
- Stage 3: Implementation



(Source: "How to Prepare a Pedestrian Access and Mobility Plan – An Easy Three Stage Guide", RMS)

## 2.5 PROJECT STEERING GROUP

A Project Steering, made up of high level stakeholders and experts, was created to provide guidance on the PAMP's key issues along its key milestones, such as confirmation of objectives, identification of the Study Area, consultation process, stakeholders, and sign-off.

The development of the PAMP was overseen by a Project Steering Group (PSG), convened after the Inception Meeting with Council. The Project Steering Group was composed of the following organisations:

- Ashfield Council Access Committee
- Ashfield Council Project Manager
- Ashfield Council Traffic Services Department
- Ashfield Council Planning Department
- Ashfield Council Sustainability & Resource Recovery Department
- Roads and Maritime Services (RMS)
- NSW Police
- Calibre Consulting

The Department of Education and Communities was also contacted to participate in the PSG and provide input to the study. Due to lack of resources no representative of this agency took part in the study.

A first meeting was conducted on 3 December 2014, with full attendance. The following meeting was conducted on 27 February 2015.

## 3 RESEARCH, REVIEW AND DATA COLLECTION

### 3.1 STRATEGIC PLANNING CONTEXT

The PAMP is being prepared such that it aligns with National, State Government and Council policies in relation to the development of pedestrian access and mobility plans and the wider context of transport and urban planning. These policies provide a strategic framework to improve the pedestrian network so that it encourages walking throughout Ashfield LGA. The following list presents all relevant standards and guidelines, which includes national, State Government and Council policies, as well as previous studies and projects undertaken by Council for which a literature review was undertaken. It should be noted that objectives shown in Section 2.2 were formulated based on the literature review. The documents reviewed have been separated into two categories including:

1. Strategic Planning Context
2. Previous Studies & Projects

A summary of the Strategic Planning Context is listed and discussed below. The previous studies and projects are discussed in Appendix A.

The following is the list of documents that have been reviewed prior to commencing the PAMP. A summary of each is also provided in this section:

- Australian Pedestrian Charter (National Level)
- Disability Discrimination Act, 1992
- Commonwealth Disability Standards for Accessible Public Transport
- Transport for NSW – Sydney’s Walking Future
- NSW Walking Strategy
- NSW Road Safety Strategy
- NSW Long Term Transport Master Plan
- Ageing Strategy 2020
- Transport NSW Disability Action Plan 2012-2017
- Ashfield Council LEP & DCP

#### 3.1.1 AUSTRALIAN PEDESTRIAN CHARTER

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The Pedestrian Council of Australia promotes pedestrians through the Australian Pedestrian Charter. This Charter has the following key objectives and principles all of which are relevant and applicable to the preparation of the current PAMP, noting that some are secondary and applied indirectly.

##### **Charter Objectives**

- Create a physical, social, economic, legal and psychological context in which more Australians will be encouraged to walk more often and to walk further
- Re-assert the rights and freedoms which pedestrians once enjoyed by which are now being usurped and threatened by private motorised traffic and associated infrastructure
- Promote the personal, social and environmental benefits of walking as a safe, healthy, enjoyable and accessible form of transport, exercise and recreation
- Encourage the planning, design and development of neighbourhoods in which safe, attractive and convenient walking conditions are provided as a fundamental right
- Ensure that in the planning of our communities’ access to basic amenities and services are not dependent on car ownership but is always available to those on foot, bicycle, wheelchair and public transport

## Main Principles

- Accessibility that considers the design of facilities for the most vulnerable pedestrians, such as older people, children and those with disabilities
- Sustainability and the Environment with walking as the most environmentally sustainable form of transport to replace short car trips that contribute disproportionately to air pollution
- Health and Wellbeing with walking as a low-impact form of exercise to counter the modern sedentary lifestyle. It is highly accessible, available for all age groups, and is a proven method of promoting better health
- Safety and Personal Security with places for walking designed to maximise personal security with good sightlines and better lighting scaled to pedestrian needs. Safety in numbers will be achieved by encouraging more street activity and the natural surveillance of pedestrian space by other walkers
- Equity with walking as the only transport mode available to almost everybody at any time and without charge

The PAMP's objectives can generally be summarised as improving facilities, safety conditions and connectivity for all pedestrians. Both sets of objectives are in line, noting that achieving the PAMP's objectives will directly and indirectly work towards achieving the objectives of the Charter.

### 3.1.2 DISABILITY DISCRIMINATION ACT, 1992

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One of the key aspects of the Federal Disability Discrimination Act (1992) is the provision of equal services to all. The act legislates the right for equal participation of all members of the community in daily life and is composed of three topics: equality, independence and functionality. The objectives of the act include the following:

- To eliminate, as far as possible, discrimination against persons on the ground of disability
- To ensure that persons with disabilities have the same rights to equality as the rest of the community
- To promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community

As such, any proposed pedestrian network should provide equal access for all, wherever possible. Not always will be possible to provide access everywhere. There will always be people who have disability that cannot be catered for either through infrastructure provision or offered an alternative service to compensate. Ashfield Council should aim to accommodate 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. 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. The PAMP's objectives are in line with the objectives set out in the Act particularly the following PAMP objectives:

- To meet obligations under the Commonwealth Disability Discrimination Act (1996)
- To facilitate improvements in the level of personal mobility and safety for pedestrians with disabilities and older persons through the provision of pedestrian infrastructure and facilities which cater to the needs of all pedestrians

### 3.1.3 COMMONWEALTH DISABILITY STANDARDS FOR ACCESSIBLE PUBLIC TRANSPORT

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The Disability Discrimination Act 1992 seeks to provide equity for people with disabilities, which includes suitable access to public transport services. The purpose of the Commonwealth Disability Standards for Accessible Public Transport is to ensure that public transport operators and providers remove discrimination from public transport services. The standards prescribe certain sections of various Australian Standards and include specific requirements for access paths, manoeuvring areas, ramps, surfaces, handrails, lighting, street furniture, bus stops and other infrastructure. The current PAMP incorporates these principles with attention being placed in and around public transport infrastructure including bus stops and train stations.

### 3.1.4 NSW WALKING STRATEGY

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In September 2011, the NSW Government released NSW 2021 A Plan to Make NSW Number One. This set of documents includes a target to increase walking for short trips and a commitment to develop a NSW Walking Strategy. Walking programs were also reviewed as part of the Long Term Transport Masterplan for NSW. "Sydney's Walking Future, Connecting People and Places" was subsequently released by Transport for NSW (refer to next sub-section). The Ashfield PAMP is in line with both strategies as it recommends realistic measures to encourage walking within the LGA.

### 3.1.5 TRANSPORT FOR NSW – SYDNEY'S WALKING FUTURE

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This strategic document provides assurances regarding the following components, representing a step towards an integrated transport system in NSW.

- Promotion of walking for transport, including signage on walking routes and improved information online and at interchanges to help customers to plan their journey
- Support the connection of people to places through safe walking networks around centres and public transport interchanges
- Engagement with partners across government, with councils, non-government organisations and the private sector to maximise effectiveness of actions
- Promotion of the many benefits of walking for health and well-being, the environment and communities
- Investment in new walking links that connect people to places and public transport with adequate facilities
- The Transport Access Program will continue to deliver benefits to all pedestrians getting to, from and around public transport interchanges. Upgrades will improve pedestrian safety, personal security and amenity
- Engagement with and support councils to deliver cost effective improvements to local walking networks
- The needs of pedestrians will be prioritised in the planning, design and construction of new transport and urban development projects
- Pedestrian safety will be improved through a new Pedestrian Safety Strategy, which will encompass all existing safety programs and also explore new measures
- Support community based initiatives that promote walking as a vital part of the transport mix and get people walking more for transport

The Ashfield LGA PAMP is consistent with the principles outlined in this document as they support growth linked to safety and comfort for all walkers, while encourages the integration of different modes of transport. The intention to improve accessibility throughout the LGA will act towards achieving the above objectives, albeit predominantly indirectly as a result of the improved infrastructure and accessibility.

### 3.1.6 NSW ROAD SAFETY STRATEGY

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NSW Road Safety Strategy was prepared in 2012 by Transport for NSW. The strategy covers the potential to address fatal and serious injury crashes on the road network through improved intersection design, eliminating or shielding road users from road side objects or opposing vehicles and by considering pedestrians and bicycle riders particularly in urban areas.

The NSW Safer Roads program targets infrastructure safety works programs including safety barriers, highway route reviews, local roads, pedestrian safety measures and motorcycle recreational routes.

Pedestrians are considered at risk road users due to the lack of protection provided by the vehicle in the event of a crash, which results in more severe outcomes. Pedestrians account for 14% of the NSW road toll. At least 33% of pedestrian fatalities between 2008 and 2010 were alcohol impaired and 40% of pedestrian fatalities were aged 60 years or more.

A strong desire for pedestrian safety exists across the road network including the provision of 40km/hr High Pedestrian Activity Areas which are being progressively rolled out and 10km/hr Shared Zones, pedestrian fencing and other infrastructure treatments, along with safer vehicles which are pedestrian friendly. These all contribute to the achievement of the targets of this strategy. The key measures in the NSW Roads Strategy to improve pedestrian safety include:

- Improve pedestrian crossing safety, including reviewing signal phasing for pedestrians
- Work with local government to undertake road safety audits to address the maintenance and upgrade of pedestrian facilities
- Support the NSW Long Term Transport Master Plan and the walking investment program to address the infrastructure needs of pedestrians
- Trial innovative technology solutions to address pedestrian safety, including vehicle to person systems and vehicle based pedestrian detection systems
- Land use planning guidelines to consider pedestrian requirements, especially at transport hubs and new residential developments
- Research pedestrian distraction devices and the effects within the road environment
- Develop communications and awareness campaigns to promote safety with pedestrians and other road users; and
- Review the application of shared paths and safer interaction between pedestrians and bicycle riders

Additional measures aimed at enhancing mobility and access for older road users include:

- Work with road authorities to provide facilities for older road users including improved pedestrian access, longer green light phasing and local education campaigns
- Deliver communication campaigns to target older pedestrian safety
- Utilise lower speed limit schemes for high pedestrian activity areas and roads with high volume of on-road cyclists
- Improve the safety of pedestrians and bicycle riders through the utilisation of lower speed limit schemes, including 40km/hr high pedestrian activity areas and shared zones

During the preparation of the PAMP it is important to be mindful of the intentions and recommended measures listed in the NSW Road Safety Strategy. Nevertheless, it is also important to note that many of the measures may not be applicable or appropriate, given that, for example, an “innovative technology solution” may not be required or identified as beneficial/ realistic within the LGA.

### 3.1.7 NSW LONG TERM TRANSPORT MASTER PLAN

Transport for NSW published the NSW Long Term Transport Master Plan in 2012. The plan included the objectives of increasing walking particularly for short, local trips to achieve improved environmental outcomes, health benefits and to reduce traffic congestion. When homes and jobs are within walking distance of each other and within easy walking distance of public transport, accessibility to jobs and services increases and commuting is easier. More people walking to catch the train, bus or ferry also means less pressure on town centre streets, busy bus services and commuter car parking. When planning new developments, the surrounding transport infrastructure should have a network of pedestrian connections that consider:

- Personal safety and security, including adequate lighting and activated public spaces
- Adequate footpath widths
- Safe and convenient pedestrian crossings of roads at intersections and midblock locations
- Convenient and legible access to public transport
- Good signage and way-finding to support efficient pedestrian movement

The NSW Long Term Transport Master Plan is mostly applicable to greenfield areas such that the appropriately required pedestrian infrastructure can be incorporated. Nevertheless, the objectives outlined in the Master Plan are all relevant and directly applicable to the existing pedestrian infrastructure throughout the Ashfield LGA. These objectives have therefore been adopted where possible.

### 3.1.8 AGEING STRATEGY 2020

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The NSW Ageing Strategy released in 2012 identifies people aged over 65 as the fastest growing population group in NSW. An estimated 2 million community transport trips are provided each year to help older people access recreation, shopping, medical care, community services and social activities in NSW. This travel demand will continue to grow with this population group forecast to double by 2050. As a user group, older pedestrians are over represented in fatal crashes. It is therefore necessary to promote safe walking routes that are designed with consideration for the older aged groups. This is particularly true within the Ashfield LGA. As such, the ageing population and their needs have been a significant consideration incorporated into the PAMP.

### 3.1.9 TRANSPORT NSW DISABILITY ACTION PLAN 2012-2017

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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. Public education campaigns also target key risk groups such as older road users and the safe operation of motorised wheelchairs and mobility scooters. 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.

The PAMP takes into consideration the need to facilitate connectivity for pedestrians to and from public transport interchanges. The PAMP therefore includes an assessment of all train and light rail stations as well as bus stops.

### 3.1.10 DEVELOPMENT AND ACTIVE LIVING – DESIGNING PROJECTS FOR ACTIVE LIVING, PREMIER'S COUNCIL FOR ACTIVE LIVING NSW, 2010

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This State document provides focus and insight into the opportunity for facilities in the built environment, including pedestrian facilities, which have the power to enhance the participation in physical activity and ameliorate the lives of members of communities. Although aimed predominantly at new development, the checklist provides a valuable tool against which the existing built form can be evaluated. The Ashfield LGA PAMP is consistent with the principles outlined in this document as they promote comfort for walkers and encourage pedestrian friendly traffic management devices and as such support access provisions for all.

### 3.1.11 PREVIOUS STUDIES & PROJECTS

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The following is a list of studies and projects that have previously been undertaken. Each of the studies and reviews have been assessed to determine the extent of work previously or currently been undertaken, as well as to provide guidance as to the general direction that Council is undertaking in relation to pedestrian infrastructure as well as grasping Council's procedures. The literature review of each of the documents is provided in Appendix A.

- Ashfield Accessible Pedestrian Pathways Study (2002)
- Traffic Management Plan (2002)
- Ashfield Pedestrian Access Mobility Plan (2003)
- Access Assistance Map – Ashfield Town Centre (Mobility Map) (2010)
- Ashfield Traffic & Parking Study (2012)
- Summer Hill Flour Mill Preferred Project Report – Traffic & Transport (2012)
- Cycling Map
- Aging & Disability Services Directory
- Community Correspondence Regarding Pedestrian Matters
- 2014 & 2015 Ashfield Accelerated Footpath Repair Program

- Ashfield Town Centre Renewal Project
- Greenway Missing Links Map
- Bus Shelter Program
- Map Info Data

General implications for the PAMP: There is a strong planning policy framework in place with many strategic and local projects completed and underway, which are already playing a pivotal role to the study area in improving the pedestrian environment. The PAMP will need to compliment this work and assist the region achieve its goals.

## 3.2 CHARACTERISTICS OF ASHFIELD

The largest suburb of the LGA is **Ashfield**. Its town centre is a vibrant retail area, under the process of revitalisation. Ashfield Station is located in this suburb. To its south lies Ashbury and Hurlstone Park.

To the north of Parramatta Road, stands the “garden suburb” conservative area of **Haberfield** with its attractive town centre. Marion Light Rail Station is located on its eastern side, adjacent to Leichhardt LGA

**Croydon and Croydon Park** stand at the western part of the LGA, west of Frederick Street. Croydon Station is located on its western part, adjacent to Burwood LGA.

**Summer Hill** stands on the eastern side of the LGA, with its special architectural heritage, between Parramatta Road, Liverpool Road and Victoria Street and the municipalities of Leichhardt and Marrickville. Summer Hill Station and Lewisham West Light Rail Station are located within this suburb.

The LGA is split by the Inner West railway tracks, creating some barriers for pedestrian mobility. The topography of the LGA is generally flat, with very few steep streets. The town centres’ access and mobility are limited in terms of walking and cycling opportunities only due to the split of the railway tracks. 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. The assessment of the characteristics investigates the following aspects:

- Key suburbs and geography
- Population density throughout Ashfield LGA
- Demographics
- Land use and housing as shown in Council's LEP land zoning map
- Employment Status and Journey to Work data within the Ashfield LGA

The assessment of the above data provides extensive information pedestrian patterns throughout Ashfield, including the need to cater for the elderly and the key pedestrian desire lines between residences and key attractors such as places of employment, shops, schools, public transport and community facilities such as clubs and churches. The data obtained forms one of the fundamental determinants used in prioritising pedestrian routes to be assessed as part of the PAMP. The detailed data obtained is presented in Appendix C.

### 3.2.1 STUDY AREA AND EXISTING INFRASTRUCTURE

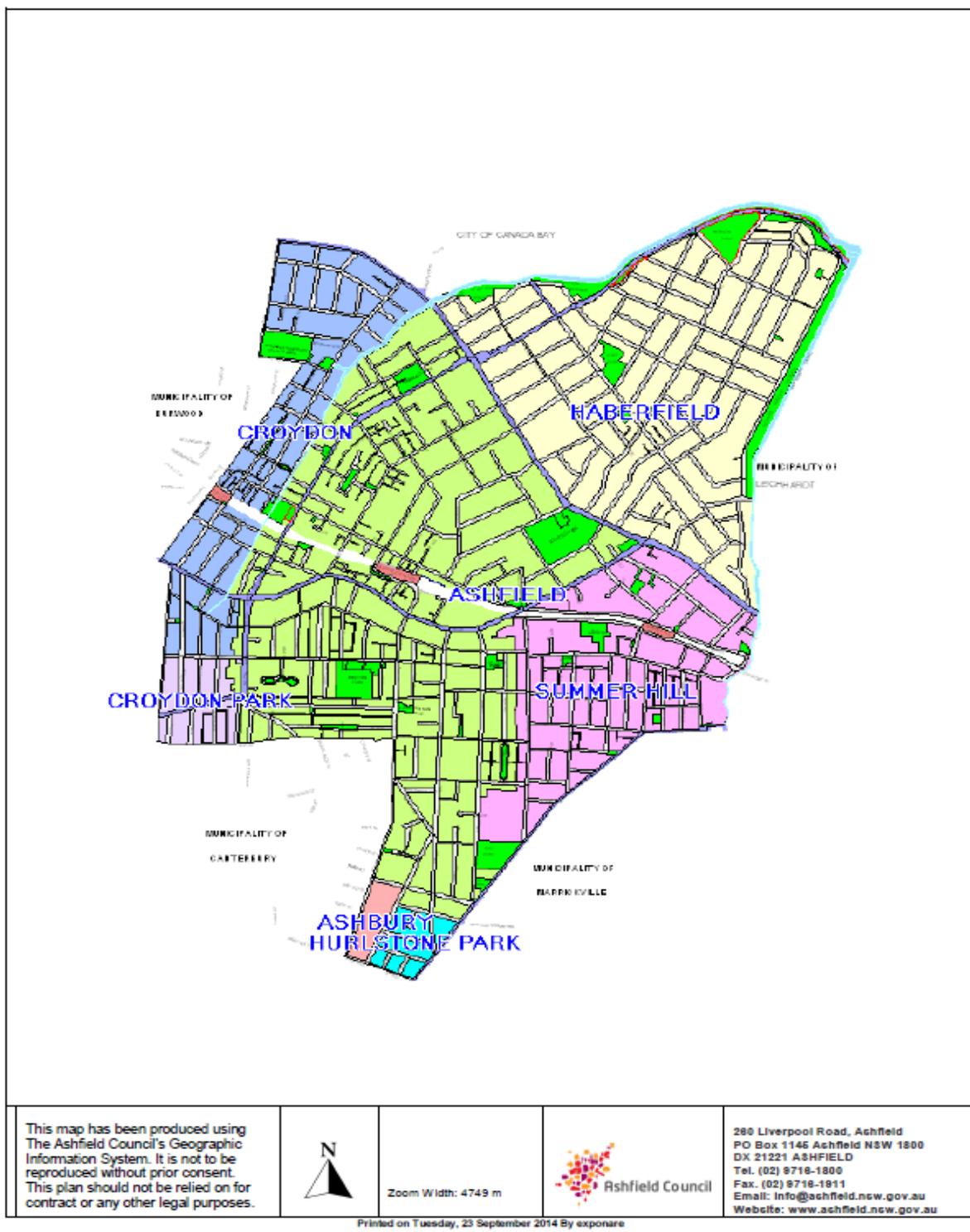
The study area was selected by Calibre Consulting in partnership with Ashfield PAMP Steering Group. The study area comprises the whole LGA, with special focus on Ashfield’s four town centres: Ashfield, Croydon, Summer Hill and Haberfield. The PAMP study area contains a number of key land uses which also act as generators of pedestrian activity, including the following key attractors:

- Town Centres

- Train stations: Ashfield (and bus interchange), Croydon and Summer Hill
- Light rail stations: Marion, Taverners Hill; Lewisham West; and Hawthorne (within Leichhardt LGA)
- Ashfield Mall (with significant redevelopment of site including residential/ commercial mixed use)
- Schools, parks, churches and clubs
- Retirement villages, nursing homes and hospitals/ medical centres

Figure 3-1 shows the study area.

Figure 3-1: Study Area



### 3.2.2 FUNCTIONAL ROAD HIERARCHY

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The following diagram shows the road network within the LGA according to the roads' hierarchy. While the road classification does not necessarily indicate key pedestrian routes, it provides guidance in term of the most appropriate traffic facilities taking into account vehicular movements. For Example, a zebra crossing on Parramatta Road is considered inappropriate. High traffic numbers along State/ Arterial Roads will mean that the road network is highly sensitive to changes. The PAMP will need to be pay particular attention to this ensuring that improvements to the pedestrian network do not exaggerate traffic congestion issues. The road hierarchy is shown below in Figure 3-2 below.

Figure 3-2: Road Hierarchy

### 3.2.3 CONNECTIVITY WITH PUBLIC TRANSPORT

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#### **Railway**

Ashfield is well served by three train stations, as follows:

- Ashfield Train Station and bus interchange is accessible from Brown Street (at the Hercules Street intersection) or from Station Street. The station is served by the Inner West & South Line of the Sydney Trains network. There is semi-secure cycle parking provided with racks available on both the northern and southern sides of the station. The station is the twentieth most patronised railway station in Sydney, with an average of 10,390 passengers boarding per day. In addition, the bus interchange is served by Sydney Buses, with five routes (406, 462, 464, 466 and 491) and NightRide, with three routes N50, N60 and N61
- Croydon Train Station is accessed via Meta Street, being the 96th most patronised railway station in Sydney, with an average of 2,370 passengers boarding per day. It is served by the Inner West & South Line of the Sydney Trains network
- Summer Hill Train Station can be accessed via Grosvenor Crescent and Carlton Crescent. Summer Hill is the 62nd most patronised railway station in Sydney, with an average of 3,610 passengers boarding per day. The station is served by the Airport, Inner West & South Line of the Sydney Trains network

#### **Inner West Light Rail**

The Inner West Light Rail services Ashfield through three stations, all opened in 2014

- Marion Light Rail Station is located adjacent to Marion Street and Hawthorne Parade at the border of Leichhardt and Haberfield, providing transfer to bus routes 436, L37, 438/L38 and 439/L39
- Taverners Hill Light Rail Station is located adjacent to Parramatta Road and the Hawthorne Canal at the border of Lewisham, Summer Hill, Haberfield and Leichhardt and provides transfer to bus routes 461, 480 and 483)
- Lewisham West Light Rail Station is located on the border of Lewisham and Summer Hill and provides transfer to Lewisham Train Station and bus route 413. At present the surrounding area is experiencing vigorous urban renewal
- Hawthorne Light Rail Station is located within Leichhardt LGA, adjacent to Hawthorne Canal. It has been included in this study, nevertheless, due to its proximity to schools, churches and nursing homes within our study area

#### **Bus Services**

Ashfield is also well served by a good bus services network connecting between residential areas, key attractors such as places of business, shops and schools as well as being well interconnected with railway and light rail stations. The services are listed and illustrated in Appendix D.

#### **Taxis**

Taxi ranks are mainly located close to the railway and light rail stations within Ashfield LGA.

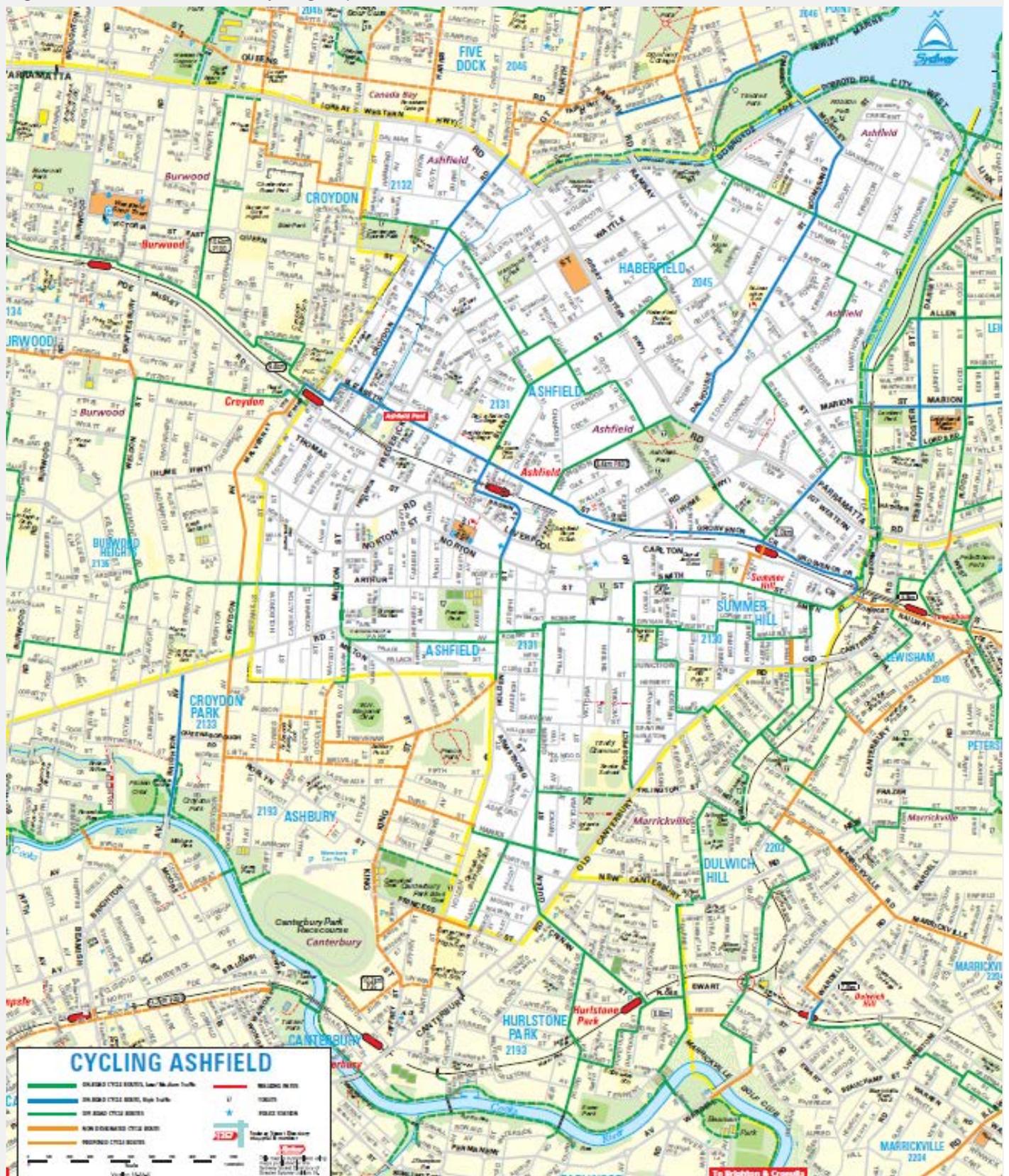
Implications for the PAMP: The study area is clearly well serviced by public transport, particularly by trains and more recently Light Rail, as well as cycling routes, in particular The Greenway. There is a concentration of bus stops along Liverpool Road that act as major attractors and generators of pedestrians. Ensuring easy and safe pedestrian access to these and other attractors is one of the primary goals of the PAMP.

### 3.2.4 CYCLE ROUTES

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The Ashfield LGA Cycling Map provides information in relation to bike routes, both on (such as Elizabeth Street and Dalhousie Street) and off-street (such as the one along Hawthorne Parade) routes, as well as non-designated routes (such as along Lackey Street). The bicycle route map is shown in Figure 3-3 below.

Figure 3-3: Ashfield LGA Cycling Map



(source Ashfield Council)

### 3.2.5 KEY PEDESTRIAN TRAFFIC GENERATORS & ATTRACTORS

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The Ashfield Town Centre is defined as a 'specialised centre' by the Department of Planning and Infrastructure within the Sydney Metropolitan Strategy. It supports a mixture of land uses. The primary land use in the corridor is the retail strip along Liverpool Road. The retail strip provides a wide range of goods and services that draws shoppers from within and outside of the study area. Surrounding this area are residential areas, predominantly low density, with pockets of medium and high density mixed use.

Croydon, Summer Hill and Haberfield town centres are also important attractors. There is also a large amount of green/ open space / open space within the study area. The development of routes will be largely based upon the location and importance of the attractors. The following lists the number of key attractors and is followed by a figure illustrating their location within the LGA. A complete list of key attractors is provided in Appendix G.

- Public Transport – three train stations (one bus interchange) and four light rail stations
- Five shopping centres
- Seven clubs
- Thirteen schools
- Twenty-one retirement villages/ nursing homes/ hospitals/ residential centres / medical centres
- Two major Future Development Application Approvals
- Thirteen recreation Areas
- Eighteen churches.

Key generators and attractors are listed as follows and shown in the Figure 3-4 below.

Figure 3-4: Key Pedestrian Attractors and Generators within Ashfield LGA

### 3.3 GUIDELINES FOR PEDESTRIAN FACILITIES

The level and nature of use as well as the following environmental factors contribute to the level of service provided by the pedestrian facilities. They can have an important effect on the pedestrian perception to utilise a particular route or decide to walk or use other means of transport. These factors include:

- Comfort factors include weather protection, climate control, arcades, transit shelters & other pedestrian amenities
- Convenience factors including walking distances, pathway directness, grades footpaths ramps, directional signage, directory maps, and other features making pedestrian travel easy and uncomplicated
- Safety is provided by separation of pedestrians from vehicular traffic, horizontally in malls and other vehicle free areas, and vertically using overpasses/underpasses
- Traffic control devices can provide for time separation of pedestrian and vehicular traffic
- Security features include lighting, open lines of sight, and the degree and type of street activity
- Economy aspect relate to user costs associated with travel delays and inconvenience, and to the rental value and retail development as influenced by pedestrian movement

It is important that pedestrian facilities are designed to high standards that comply with relevant standards and recognised guidelines to ensure their safety. Construction of these facilities to high standards can also reduce overall maintenance costs for the life of the facility. Table 3-1 below provides details of the standards and guidelines to be considered for design purposes.

Table 3-1: Design Standards

Pedestrian Facility	Design and Construction Standards
Footpaths and shared paths	Cement and Concrete Associations' "Guide to Residential Streets and Paths, 2004" Austroads Guide to Road Design and Guide to Traffic Management – various parts
Kerb ramps (pram ramps)	Australian Standard AS1428.1 Design for access and mobility – General requirements for access Austroads Guide to Road Design and Guide to Traffic Management – various parts
Pedestrian Crossings (zebra)	Australian Standard AS1742.10 Manual of uniform traffic control devices (Part 10: Pedestrian control and protection) Austroads Guide to Road Design and Guide to Traffic Management – various parts
Pedestrian Refuge	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts Austroads Guide Information for Pedestrian Facilities
Children's crossings	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Pedestrian Actuated Traffic Signals (midblock)	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Pedestrians at signalised intersections	Australian Standard AS2353 Pedestrian push-button assemblies

Pedestrian Facility	Design and Construction Standards
	Australian Standard AS1742.14 Manual of uniform traffic control devices – Traffic signals Austroads Guide to Road Design and Guide to Traffic Management – various parts
Traffic islands	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Medians	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Kerb extensions	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Pedestrian fencing	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts
Tactile markers	Australian Standard AS/NZS 1428.4 Design for access and mobility – Means to assist the orientation of people with vision impairment – Tactile ground surface indicators Austroads Guide to Road Design and Guide to Traffic Management – various parts
Warning Signs	AS1742.10 Manual of uniform traffic control devices – Pedestrian control protection Austroads Guide to Road Design and Guide to Traffic Management – various parts

Notwithstanding the above, it must be noted that standards and guidelines more often apply to green field sites. The reality applied to brown field sites - such as in Ashfield – is one of compromise. This means that even if a solution is not implemented according to standards, it should be realistic, with safety as the highest and first criteria.

### 3.4 IDENTIFICATION OF STAKEHOLDERS

As discussed in sub-section 3.2.5, the study team identified a number of attractors and generators of pedestrian movements. From this, a list of key stakeholders was produced in consultation with the Project Steering Group. The complete list consisted of thirteen schools; twenty-eight child care centres; seven clubs; twenty-two retirement villages/ nursing homes/ hospitals/ residential centres / medical centres; eighteen churches; one shopping mall; nine agencies and others. All key stakeholders are listed in Appendix H.

### 3.5 COMMUNITY CORRESPONDENCE

Correspondence received by Council from local residents between 2011 and 2014 was also part of the data collection process and was utilised to review and assess the local pedestrian facilities. Council provided the study team with a total of 22 comments/ queries/ requests submitted by local residents/ agencies/ businesses, associated with pedestrians and safety within the LGA.

Table 3-2 below summarises the content of the documentation submitted by local residents, as well as the outcome of each. The data provided was fully incorporated into this study, adding another layer of information regarding the community’s needs and expectations.

Table 3-2: Summary of Community Correspondence

ID	Location	Issue	No. of comments	Response
C1	Bland Street, intersection with Denman Ave	Pedestrian crossing/ parking	1	Council has recently reconstructed the pedestrian crossing. The new design and location provides a much safer environment for pedestrians.
C2	Croydon Road, intersection with Church Street	Pedestrian crossing	1	ID 33: non-standard speed hump resembles crossing. Install blisters or garden bed.
C3	Croydon Road - Various Locations	Pedestrian safety	3	Install pram ramps (ID 37, 34, 31 & 30)
C4	Denman Ave, Haberfield Public School	Non-compliant crossings / refuge and speed humps	3	Review the design of crossings / refuge islands as well as speed humps (ID 187, 188 and 189)
C5	Ramsay Street, intersection with Dobroyd Parade	Pram ramp	1	Pram ramps are addressed as part of the footpath repair program.
C6	Elizabeth Street, between Brown Street and Frederick Street	Narrow-in footpath	1	No action.
C7	Elizabeth Street, intersection with Edwin	Pedestrian crossing	1	No action

ID	Location	Issue	No. of comments	Response
	Street			
C8	Elizabeth Street – Full Length	Pedestrian safety	1	No action
C9	Fox’s Lane, both ends	Pedestrian safety crossing	1	No action
C10	Frederick Street – Full Length	Pram ramps	1	No action
C11	Junction Street, intersection with Bartlett Street	2 <sup>nd</sup> pedestrian crossing	1	No action
C12	Frederick Street, intersection with Henry Street	Assessment of existing zebra crossing	1	Refer to RMS to review design. Potential to install kerb blisters (ID 74)
C13	Ashfield Baptist Homes/ Palace Street	Pedestrian crossings	2	Review existing pedestrian facilities (ID 180)
C14	Marion Street, intersection with Hawthorne Parade	Pedestrian crossing	1	Install pram ramps to cross Hawthorne Parade (ID 86)
C15	Croydon Road, intersection with Queen Street	Pedestrian crossing difficult. No pram ramps	1	Install pram ramps (ID 190)
C16	Elizabeth Street, Aquatic Centre	Pedestrian crossings / traffic calming devices	1	Refer request for speed humps on approach to crossing to Traffic Management Strategy
C17	Liverpool Road, intersection with Victoria Street	Review of signals for pedestrians	1	Refer to RMS to review design and signal phasing to increase green time (ID 193)

## 4 Assessments, Consultation and Findings

### 4.1 INITIAL SITE VISIT FINDINGS

Calibre Consulting conducted an initial site visit in 11 November 2014 to understand the existing pedestrian issues, observe pedestrian desire lines, and pedestrian behaviour in the study area. The study area already presents a range of opportunities for pedestrian movement. Ashfield Council wishes to increase and enhance these facilities through the development and implementation of this PAMP as well as other initiatives such as redevelopment of key sites when they occur. There is already an extensive paved footpath network throughout the town centres which includes footpaths on both sides of many of the streets as well as through site connections, signalised intersections and non-signalised pedestrian crossings.

Opportunities to enhance pedestrian facilities are presented by development activities within the LGA such as the Summer Hill Flour Mills development, Woolworths redevelopment, Trinity Grammar School, WestConnex, as well as other important developments. Appendix A provides more information about the Summer Hill Flour Mills and West Connex projects. It is important that this PAMP considers the implications of these developments with respect to the adjacent pedestrian environment. Redevelopment of key sites within the LGA where improvements to the public realm can be included provide significant opportunities to improving the pedestrian network. During the planning and design phases for these developments, it will be important to ensure that public domain improvements and pedestrian connections are well integrated and serve pedestrian desire lines. The key developments anticipated to taking place or anticipated to take place along with their likely implications in terms of pedestrian safety and connectivity are presented in greater detail in Appendix A.

A significant factor to consider in terms of implementing the works schedule is the limited funding available. Funding from other sources, such as the RMS is also limited.

The findings associated with this initial site visit are as follows:

- **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 the key roads were observed to be non-standard or discontinued. This makes it difficult and dangerous to cross the road for people in wheelchairs or in prams
- **Wait times at intersections:** There are a number of signalised pedestrian crossings along Parramatta 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 and / or frequent crossing times to allow pedestrians (particularly less mobile users) longer to cross the six lanes of Parramatta Road. It is noted that any changes to the traffic signal arrangements would require sign off and approval from the RMS
- **Liverpool Road and Elizabeth Street pedestrian crossings:** There is a strong pedestrian desire line across both roads, accessible only via signalised intersections, with relatively high waiting times. A number of non-signalised intersections on the road are lacking pedestrian crossings on certain approaches. This increases the walking time and distances for pedestrians to cross them
- **Speed environment:** The existing 40 km/h high pedestrian activity area (HPAA) in the Summer Hill Town Centre has improved safety since its introduction. The application of HPPAs to other areas will be assessed in this study as well

## 4.2 ROUTE ACTIVITY HIERARCHY

### 4.2.1 IDENTIFICATION OF PEDESTRIAN NEEDS

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The following approach was adopted in the development of a hierarchy of pedestrian needs.

#### **Primary Pedestrian Activity Zone**

In general, this is typically a main commercial area, such as Ashfield Town Centre. During the day, pedestrians are attracted to this area from the vicinity and other locations. There is a high level of pedestrian activity, e.g. between shops and to and from car parking. In the Ashfield context, the railway stations play an important part in the build-up of pedestrian activity

#### **Secondary Pedestrian Activity Generators**

The components of this category include schools, shops, parks and sporting facilities, hospitals, aged care facilities, clubs and community facilities such as churches not located within the Primary Pedestrian Activity Zone. These land uses will attract activity, but in general only during certain periods of the day or/ and week.

#### **Tertiary Pedestrian Activity Generators**

These include the same land uses associated with the Secondary Activity Generators but with a lower level of activity, such as nursing homes and small child care centres.

#### **Pedestrian Routes**

These are routes from residential areas to the zones and generators. They are trunk or collector level routes that do not obviously reach every property but instead form a network of routes accessible to a large proportion of the local community. These routes take account of the existing road network and topographical constraints, thus providing a direct and convenient routes to major trip generators.

#### **Pedestrian Routes Hierarchy**

A pedestrian route hierarchy was developed by Ashfield Council and is utilised in this study. The hierarchy will feed directly into the PAMP Routes hierarchy.

The pedestrian route hierarchy will assist with understanding the importance of each route, as well as to assist the study with the planning of treatments and facilities along the routes. The hierarchy process was based on a number of factors such as land zoning, attractors, bus routes, roads hierarchy, among others.

### 4.2.2 ROUTE DEVELOPMENT

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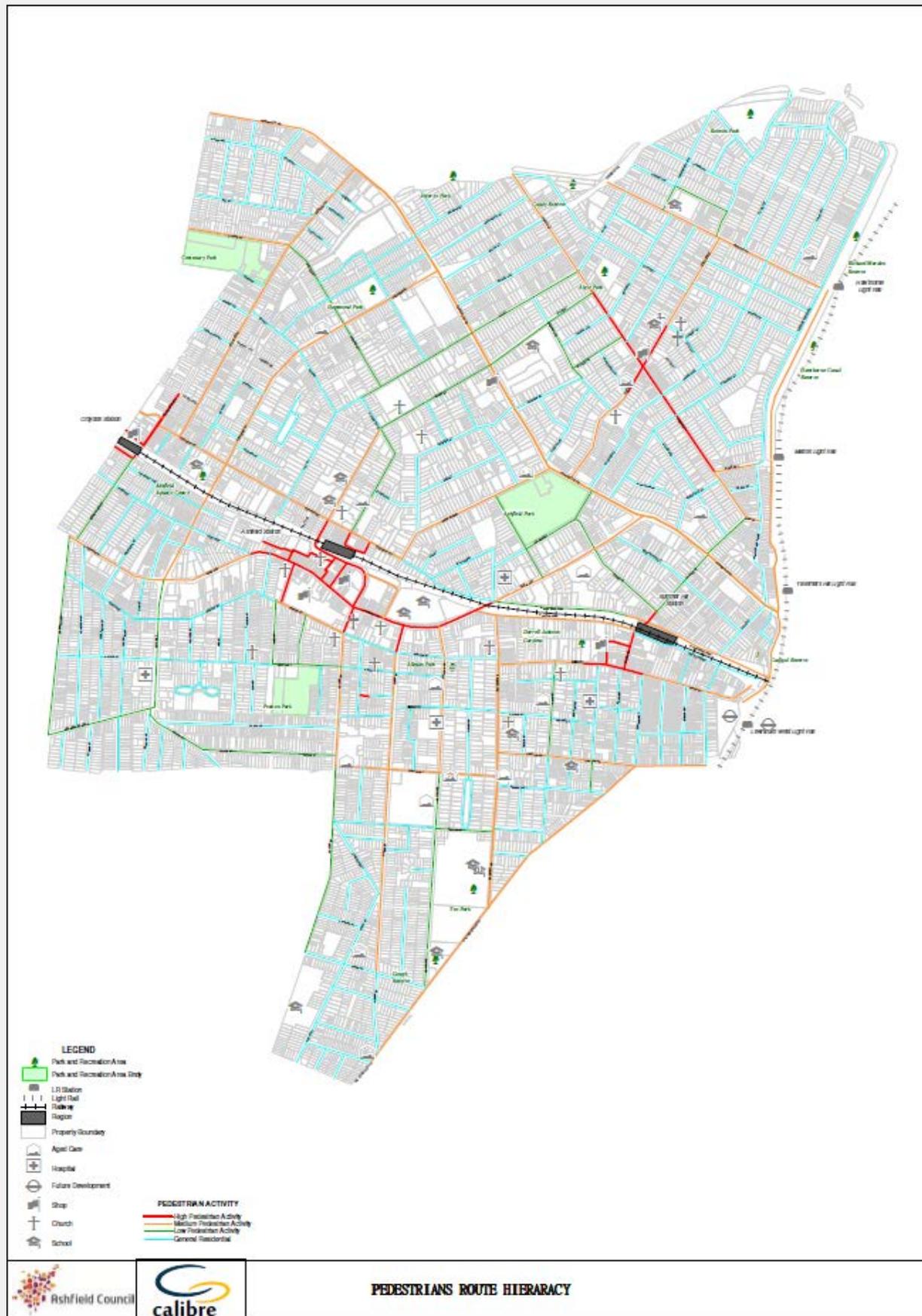
The development of the PAMP routes with priority categories enables Council to best allocate limited resources within competing pedestrian opportunities and facilities. The PAMP routes development is based on the information developed for the PAMP study and comment received from the community and stakeholders during the consultation stage. It is highlighted that the PAMP network is designed to be a flexible network, where Council is able to adapt and update the network to suit new developments. This ensures that the network continues to be relevant as the LGA changes and develops.

### 4.2.3 PAMP ROUTES

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The PAMP route identifies a continuous and comprehensive network for the Ashfield LGA. 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 is able to adapt and update the network to suit new developments. This ensures that the network continues to be relevant as the LGA changes and develops. The network of PAMP routes is summarised in Figure 4-1 below.

Figure 4-1: Pedestrian Route Hierarchy



## 4.3 COMMUNITY CONSULTATION

Consultation with key stakeholders and the local community has been an integral and significant part of the development of the PAMP so as to ensure that it will meet their needs and expectations now and in the future. The consultation process also included key stakeholders and the local community as it is crucial to have their input and local knowledge and ensure that their needs and expectations would be contemplated into the PAMP. In this regard, the aim of the consultation process were to:

- Assist in understanding stakeholders and community needs across the LGA and in particular for each of Ashfield's town centres
- Provide information about the project process to key stakeholders and the local community
- Involve the community in the planning process, increasing the sense of ownership of the project outcomes

Community Consultation with the community and key stakeholders ensures that the development of the PAMP is aimed at meeting the needs of the community now and into the future. The information collected in this process then feeds 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 in the following subsections.

### 4.3.1 METHODS OF ENGAGEMENT

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This PAMP utilised three types of approach to provide input opportunities from different pedestrian user groups and stakeholders. These were:

- Online community questionnaires
- Key Stakeholders Consultation
- Public Exhibition

### 4.3.2 ON-LINE QUESTIONNAIRE SURVEY

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Calibre Consulting designed an on-line questionnaire to capture the key issues relevant to walking within the Ashfield LGA. The survey was maintained on Council's website between 27 January 2015 and 13 March 2015. Hardcopy copies of the survey were provided at Ashfield Council Civic Centre for those without internet access.

The questionnaire provided additional data on pedestrian trip purpose, usage period and non-spatial specific data. A total of five completed questionnaires were received, all online. The survey is provided in the appendices section. The main findings of the survey are detailed as follows:

- The majority of the respondents are in the 45-60 year age group (60%)
- Local shopping and commuting were the main trip purposes when walking within Ashfield (60% and 40% respectively)
- The majority of the respondents identified Ashfield and Haberfield as the area they spend most time (40 % each)
- The safety of the existing pedestrian paths was rated between "satisfactory" to "not at all satisfactory"
- The convenience of the existing pedestrian paths was rated "satisfactory"
- The pleasantness of the existing pedestrian paths was rated between "satisfactory" and "not at all satisfactory"
- The existing pedestrian crossings were considered well located by 40% of respondents
- Uneven footpath and badly designed footpath were the two most voted barriers to walking in Ashfield
- Respondents chose "provision of pram ramps" as most important improvements to the existing pedestrian paths

The surveys and results are provided in Appendix F.

### 4.3.3 KEY STAKEHOLDERS CONSULTATION

Calibre Consulting prepared a letter for consultation with the key stakeholders within the study area. The letter consisted of a qualitative questionnaire aiming to find more specific information about the pedestrian facilities within the study area and in particular around the stakeholder's site.

A total of 13 stakeholder's responses to the questionnaires were received by the study team. The findings of this process are summarised in Table 4-1 below. Ten issues were considered out of the scope of this study and were referred to Council.

Table 4-1: Stakeholders Responses

ID	Location	Issue	Response
S1	Holden Street, in front of Ashfield Baptist Homes	Request for pedestrian crossing	Investigate potential for crossing (warrants) or refuge near Palace Street (ID 180)
S2	Throughout	Improve access to taxi ranks (including mobility ramps)	Review taxi ranks, particularly to provide mobility ramps (ID168)
S3	Charlotte Street (at No. 40)	Footpath is damaged and hazardous	No action – Addressed as part of footpath repair program
S4	Charlotte St / Elizabeth St Intersection	Insufficient green time to cross at Elizabeth St for elderly	Refer to RMS to review pedestrian green time (ID 191)
S5	St Vincent's Church Ashfield	Damaged footpath in front of church.	No Action: Addressed as part of footpath repair program
S6	Charlotte St	Pedestrian Crossing is unsafe	Repaint pavement & replace damaged sign at crossing. Investigate potential school crossing upgrade (ID 181)
S7	Charlotte Street	No lights, signs or supervisor at crossing.	Repaint pavement & replace damaged sign at crossing. Investigate potential school crossing upgrade (ID 181)
S8	Alt St & Fredrick St (near Henry St)	Footpath damaged difficult for disabled	No action: Addressed as part of footpath repair program
S9	Henry St (near Frederick St)	Cars overtaking near crossing after turning into Henry St	Refer to Council's Traffic Management Strategy for review.
S10	Henry St & Frederick St	No bus shelters	No action: Addressed as part of bus shelter program

ID	Location	Issue	Response
S11	Gower St, Summer Hill	Footpath damaged & poor lighting due to trees	No action: Included as part of footpath repair program
S12	Carlton Cres / Lackey St, Summer Hill	Request all red phasing for pedestrians	No action
S13	Gower St / Sloane St	Request for zebra crossing	No action
S14	LGA	Footpaths too narrow	No action (refer to Section 4.4.3)
S15	Bland St (near school)	Request crossing near school	Pedestrian crossing already exists on Bland St catering for several schools.
S16	19 Victoria St Ashfield	Request for ramp for wheelchairs in front of site	Investigate potential to introduce pick up / drop off for mobility impaired. Included in the Action Plan ID 169
S17	Croydon Station	Accessibility is an issue	accessibility to station being addressed by TFNSW as part of station upgrade
S18	Edwin St north / Elizabeth St Intersection	Crossing is unsafe	No action: works being undertaken at time of inspection
S19	Way-finding signs	Request way-finding signs to the Exodus Foundation	No action
S20	Barton St & Kingston St	Pram ramp only provided on one side	Introduce pram ramps on all approaches. Included in the Action Plan ID 7
S21	Ramsay St (at Papas)	Pram ramp too steep	No action
S22	Algje Park	Footpath required for wheelchairs plus seating	refer to Council to address as part of the parks plan of management.
S23	Dalhousie St (near Papas at bus stop)	Narrow footpath is difficult for wheelchairs	No action: meets minimum requirements of Austroads
S24	Driveway at Papas	Poor sight distance leaving Papas driveway due to bus shelter	No action: adequate sight distance provided in accordance with AS 2890.1
S25	Dalhousie St / Ramsay St intersection	Insufficient time for less ambulant pedestrians	Refer to RMS to review pedestrian green time (ID 192)
S26	St David's Church	Pedestrian crossing request	No Action: Pedestrian Refuge

ID	Location	Issue	Response
			already installed in front of church
S27	Ramsay St & Dixon St	Pram ramps too steep for wheelchair	No action
S28	Martin St & Rawson St	No pram ramp	No action: not included in the identified pedestrian routes. Referred to Council

#### 4.3.4 PUBLIC EXHIBITION

A public consultation process was held between 10 and 28 August, with both online and hardcopies provided to the local community. The local community was provided with relevant information about the study in course and requested for feedback. Information provided consisted of the following:

- Map of the LGA with all key attractors
- Pedestrian Route Hierarchy (map)
- Pedestrian Crashes within Ashfield LGA
- Re-occurring crash patterns involving pedestrians over five years (map)
- Professional findings and re-occurring pedestrian issues from the community (map)
- Spreadsheet containing identified pram ramp and footpath issues (identified prior to any recent footpath work)
- Priority Focus Areas (map)
- Explanation and details to the local community about the purposes of the PAMP and the public consultation

In addition, a “Have Your Say” feedback request also formed part of the documents exhibited and consisted of two questions regarding the PAMP:

- Do you have any comments on the identified pram ramp and footpath issues (refer to Figure 6)?
- Do you have any comments on the priority focus areas (refer to Figure 7)?

All documents are provided in Appendix F.

A total of eleven responses were received via the following ways:

- Emails sent to Calibre Consulting: eight responses
- Letter sent to Calibre Consulting: one responses
- Response sent to Council: two responses

Responses usually included more than one comment/ request regarding the proposed PAMP and the figures exhibited. These are presented in Table 4-2 below. A total of four comments were considered out of the scope of this project and referred to Council.

Table 4-2: Public Exhibition Responses

ID	Location	# comms	Issue	Response
P1	Queen St/ Norton St Intersection	2	Due to the proximity of two large schools, treat the intersection with a higher	Change priority from “Low” to “Medium”

ID	Location	# comms	Issue	Response
			priority	
P2	Victoria St	1	Due to proximity of two large schools, consider the section of Victoria Rd between Norton St and Liverpool Rd with "High Pedestrian Activity"	Change hierarchy to "High"
P3	Victoria Rd, close to Trinity Grammar School	3	Pedestrian crossing on Victoria Rd to cater for the number of students of Trinity Grammar School	Investigate the installation of pedestrian facility on Victoria Rd south of Seaview or south of Clissold St (ID 178). Extend the "Medium Route Hierarchy" on Victoria Street south, until south of Seaview St
P4	Norton St – Smith St – Short St	1	Pedestrian crossing and footpaths along these streets. Pram ramps are discontinued at intersections	install standard pram ramps (IDs 119, 121, 123, 124, 126 and 185)
P5	Prospect Road (between Smith St and Short St)	1	Pedestrians have difficulty to cross the street, despite the presence of a pedestrian refuge (non-standard)	Review design of refuge near Smith St (ID 179)
P6	Frederick St/ Henry St Intersection	1	Cars and motorbikes speed along Frederick St and do not respect the pedestrian crossing at the intersection with Henry St. Flash lights were requested.	Location is a State Road under the care and control of the RMS. To be referred to the RMS for review of safety of the pedestrian crossing.
P7	Liverpool Rd/ Elizabeth St Intersection	1	Islands at the intersection are unsafe Pedestrian button is poorly designed	This is a signalised intersection on a State Road. Refer to RMS for investigation including provision of compliant ramps and rebuilding of kerbs. (ID182) Recommend moving the priority focus are from "Medium" to "High"
P8	Liverpool Rd, intersection with Wests Ashfield	1	Long wait for pedestrians at the intersection	Refer to RMS to review design and minimum green time (ID 183)
P9	Liverpool Rd/ Murrell St Intersection, close to Ashfield Public School	1	No pedestrian facilities	Currently there are pram ramps at the intersection across Murrell St. Pedestrians are not encouraged (rightly so) to cross Liverpool Rd at this location. To increase safety, consider / assess upgrading the pedestrian facility across Murrell Street (kerb extension, for example) (ID 184).

ID	Location	# comms	Issue	Response
P10	Croydon Rd – Full length	1	No pedestrian crossings or ramps along the stretch of road	Install pram ramps (ID 37, 34, 31 & 30)
P11	Holden St between Clissold St & Armstrong St. Pedestrian movements associated with Ashbury Public School & shops	2	Dangerous to cross street	Review intersection design at Armstrong Street to improve pedestrian facilities. Potential to signalise intersection. Also consider improved pedestrian facilities on Holden Street near Trevenar Street. (ID 2 and 180)

## 4.4 PAMP ROUTES AUDIT

### 4.4.1 AUDIT PROCESS

A physical access audit of the routes within the study area was completed during 6 days during February and March 2015. 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 (e.g. are footpaths absent?)
- Footpath quality (e.g. are footpaths damaged, cracked or uneven path, narrow, or trip hazards?)
- Kerb ramp provision (e.g. are kerb ramps absent? Do existing kerb ramps conform to Australian Standard design?)
- Obstruction/ barriers along path (e.g. are there poorly placed trees, bus shelters, signage or seating?)
- Pedestrian crossing facilities (e.g. 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 audits is included in the Action Plan, in Section 5. Each issue has a specific identification number (ID). Photos of the audited issues have been collected, and selected photos have been presented in this report.

### 4.4.2 GENERAL AUDIT FINDINGS

The field audit demonstrated that footpaths and kerb ramps around the Ashfield Town Centre are generally of good quality, as shown in Figure 4-2 below. Outside the core of the town centre however, the footpath quality reduces significantly, with many trip hazards and therefore, safety risks to pedestrians (refer to Figure 4-3).

Figure 4-2: Example of footpath in Ashfield CBD



Figure 4-3: Example of lifted pavement outside the CBD (opposite 76 Moonbie St)



As highlighted 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 key roads, large distances between intersections and long wait times present an unsafe pedestrian crossing environment. Liverpool Road's short allowable crossing times also result in limited crossing opportunities for pedestrians.

#### 4.4.3 FOOTPATH AUDIT FINDINGS

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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

Some streets within the Study Area with missing footpaths present a risk to pedestrians, as they must then choose to cross the street with no formal protection or continue along a non-formalised footpath as shown in Figure 4-4 below.

Figure 4-4: Discontinued Footpath (8 Elizabeth St, Ashfield)



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. Adequate measures to treat footpath deficiencies are being carried by Council under its Accelerated Footpath Repair Program and are therefore not included in this study.

The width of the footpath was observed during the audit process against standards to the minimum required width (for DDA compliance) of 1.2m. Some audited footpaths were found to be narrow, as in the case of sections of Clissold Street and the footpath at the corner of the Elizabeth Street / Charlotte St Intersection). 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 poles, controller boxes, roadside signage and service boxes. These items were not included in the Action Plan as any recommended mitigation measure would be unrealistic and not implemented, due to physical constraints, typical of brownfield areas.

#### 4.4.4 KERB RAMP AUDIT FINDINGS

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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 and unaligned kerb ramps
- Missing kerb ramps

Examples of the above are shown below in Figure 4-5 to Figure 4-9. Figure 4-10 provides a map of all of the identified Ramp Issues located within the study area.

Figure 4-5: Holden St / Armstrong St Intersection – No Pedestrian Connectivity



Figure 4-6: Queen St / Armstrong St Intersection – No Pedestrian Connectivity



Figure 4-7: Pembroke St / Ormond St Intersection (Southern Leg) – Unaligned Ramps



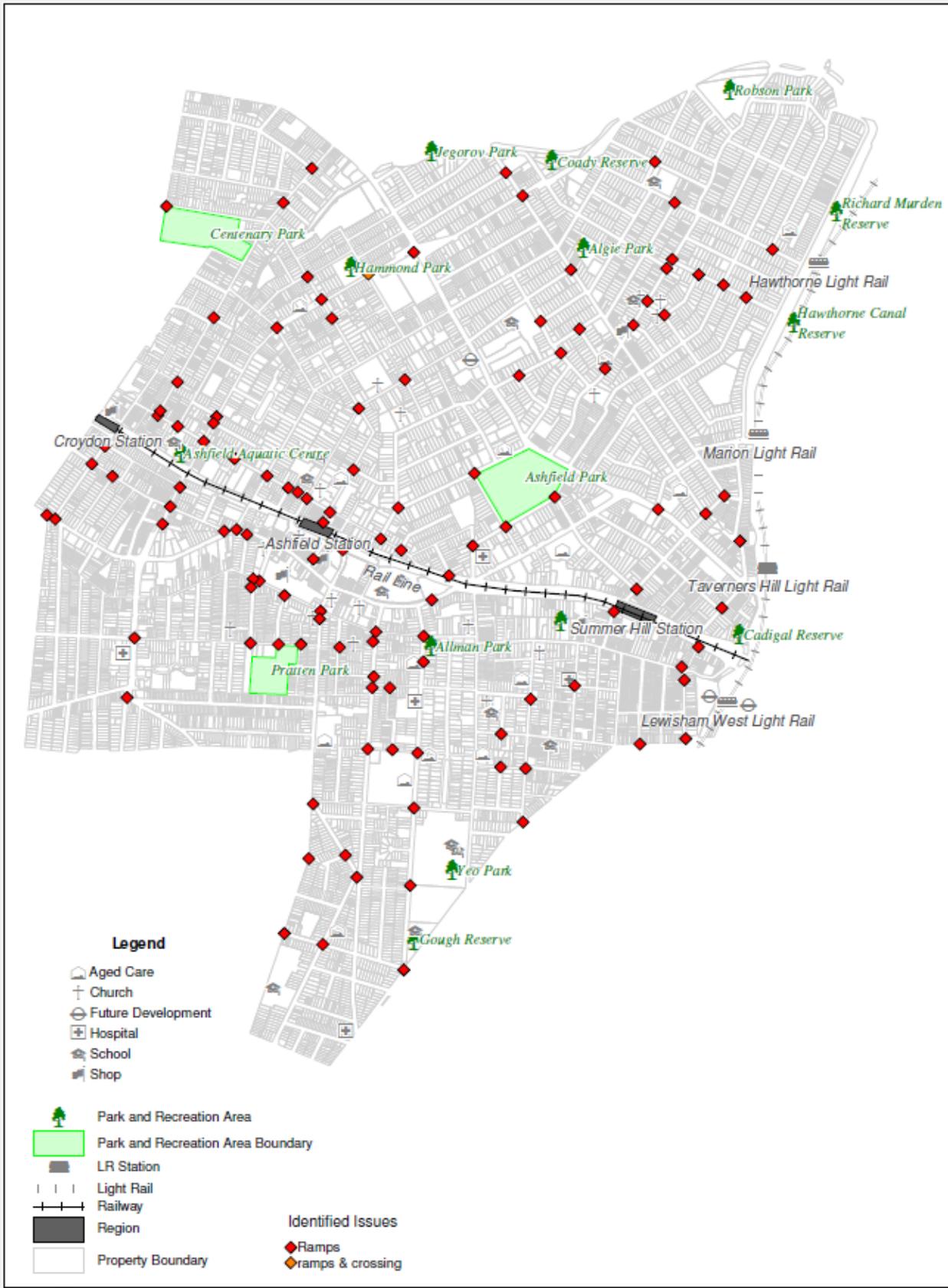
Figure 4-8: Holden St / Palace St Intersection (North-west Corner) – Non-Standard Ramp



Figure 4-9: Hawthorne Pde / Tressider Ave Intersection – Missing Pram Ramp



Figure 4-10: Location of Identified Ramp Issues



**calibre** LOCATION OF IDENTIFIED RAMP ISSUES

#### 4.4.5 CROSSING AUDIT FINDINGS

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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, in particular in midblock

##### **Pedestrian Refuges**

Pedestrian 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. While roundabouts are generally poor pedestrian crossing points, there are inadequate safe crossing points at some of the roundabouts audited. This is due to the fact that many of these facilities were implemented prior to the current standards. The upgrade of each facility would not be feasible due to many physical constraints. There are locations where adequate storage is not provided for pedestrians, such as corners or islands at intersections, usually at RMS-controlled roads and intersections. Examples of poor refuge crossing points are shown in Figure 4-11 and Figure 4-12.

Figure 4-11: Pedestrian Refuge on Prospect Rd, between Smith St & Short St

Figure 4-12: Grosvenor Crsnt / Sloane St Intersection – Misleading pedestrian refuge, 10m west from a zebra crossing



### Signalised Crossings

Signalised crossings are provided at a number of intersections within the study area. The audit noted that a number of signalised intersections do not contain pedestrian crossings on at least one approach. In addition, long wait times, coupled with the short crossing times (green man times) to cross the street, were key issues identified in the audits as well as during the consultation period. The combination of these result in insufficient storage at the corners of the intersections.

Figure 4-13: Elizabeth St / Charlotte St Intersection – Long Wait Times for Pedestrians



The islands at the signalised intersection of Liverpool Road, Elizabeth Street and Grosvenor Crescent have islands with insufficient storage for pedestrians waiting to cross. This results in pedestrians being exposed to vehicles running along the roads.

Figure 4-14: Liverpool Rd/ Elizabeth St/ Grosvenor Crsnt Intersection – Small dimensions of islands at the north-western (left) and south-eastern (right) corners of the Intersection

#### **Potential Locations for Pedestrian Facilities**

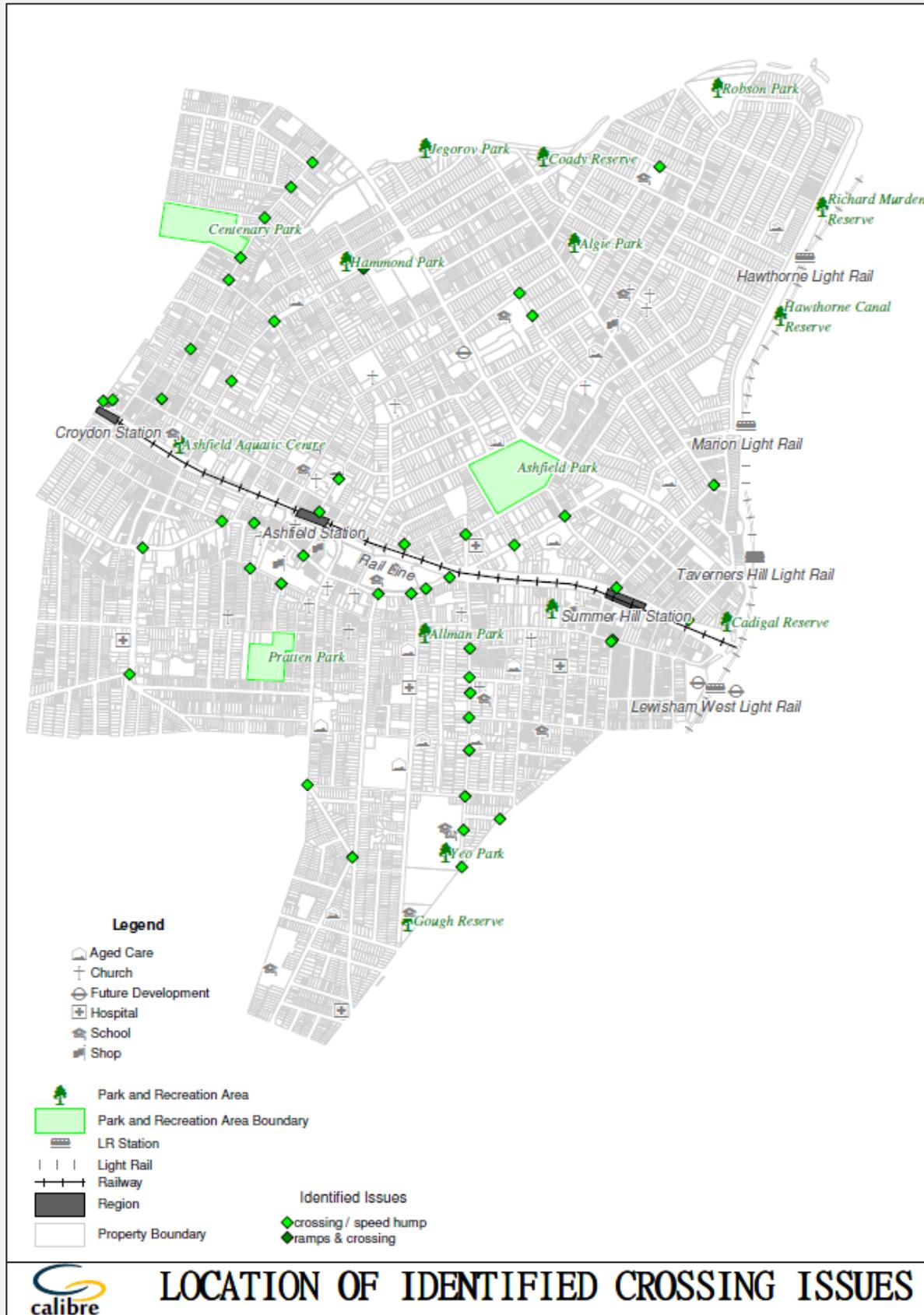
There were also a number of crossing opportunities noted in the audit and consultation. These locations have a pedestrian desire line with no current provision for pedestrian crossings (i.e. were unsafe to cross).

Figure 4-15: Croydon Rd – No Pedestrian Facilities

Figure 4-16: Victoria St (South of Seaview St) – Potential crossing location

Figure 4-17 below shows all of the identified issues associated with crossing facilities within the study area.

Figure 4-17: Location of Identified Crossing Issues



## 4.4.6 LIGHTING

Through the physical audit, adequate street lighting was observed to be present along the high priority PAMP routes. Two locations were observed to be poorly serviced, shown in Figure 4-18 and Figure 4-19.

Figure 4-18: Bland St (near Brown St) – Poor Lighting in Tunnel

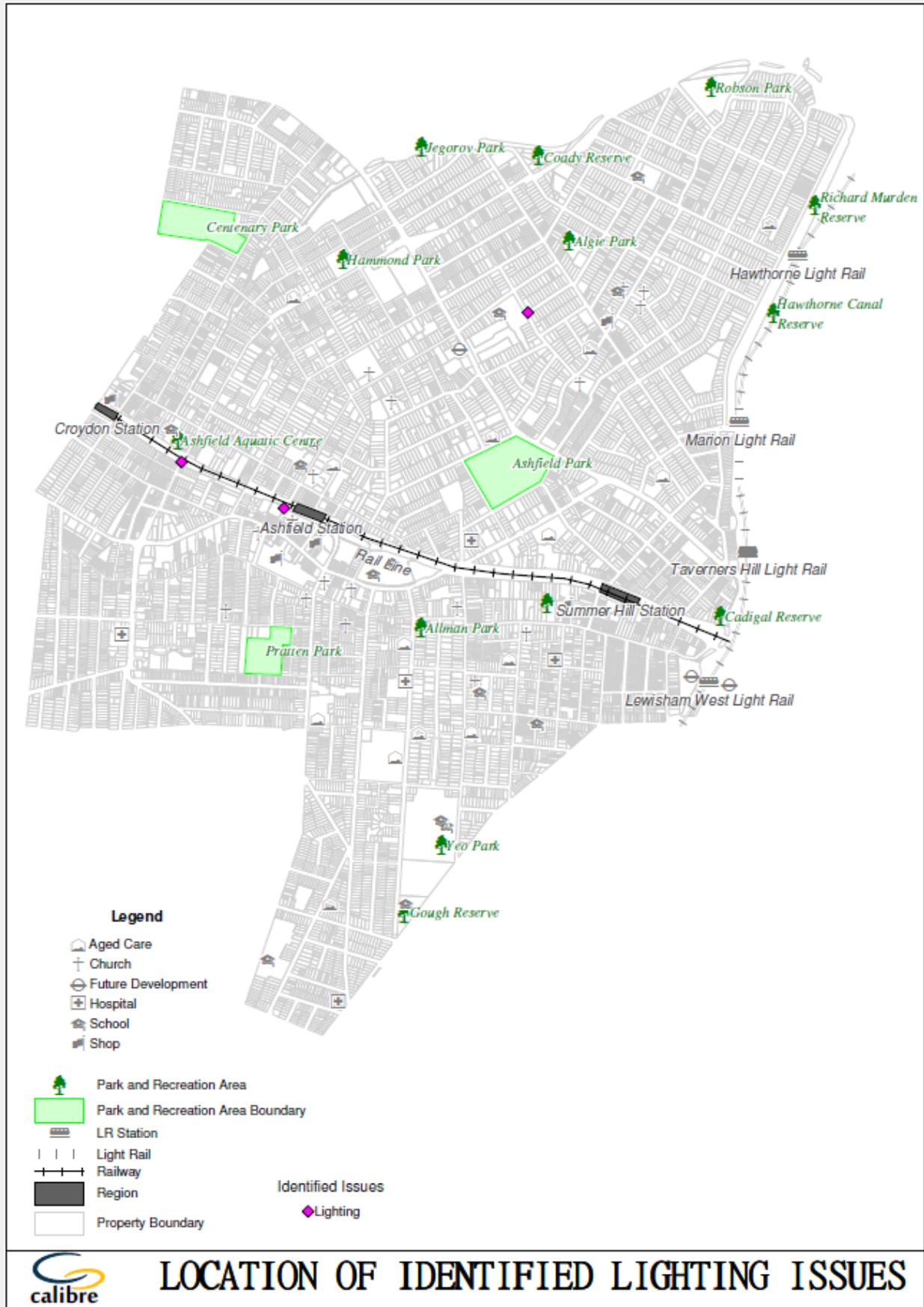


Figure 4-19: Denman Ave – between Bland St & Chandos St – Poor Lighting



Figure 4-20 below shows a map with the location of all the identified lighting issues within the study area.

Figure 4-20: Location of Lighting Issues



# LOCATION OF IDENTIFIED LIGHTING ISSUES

#### 4.4.7 SIGNAGE

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There is limited way-finding signage present within the town centres, indicating the main attractors within the LGA, such as schools, aged care facilities, places of worship, parks, in particular The Greenway, with an almost absence of signage indicating its accesses.

Figure 4-21: Signage provided, but no indication of the Greenway



In general, it is recommended that a consistent signage strategy be adopted across Ashfield LGA.

#### 4.4.8 AWNING FIXTURES

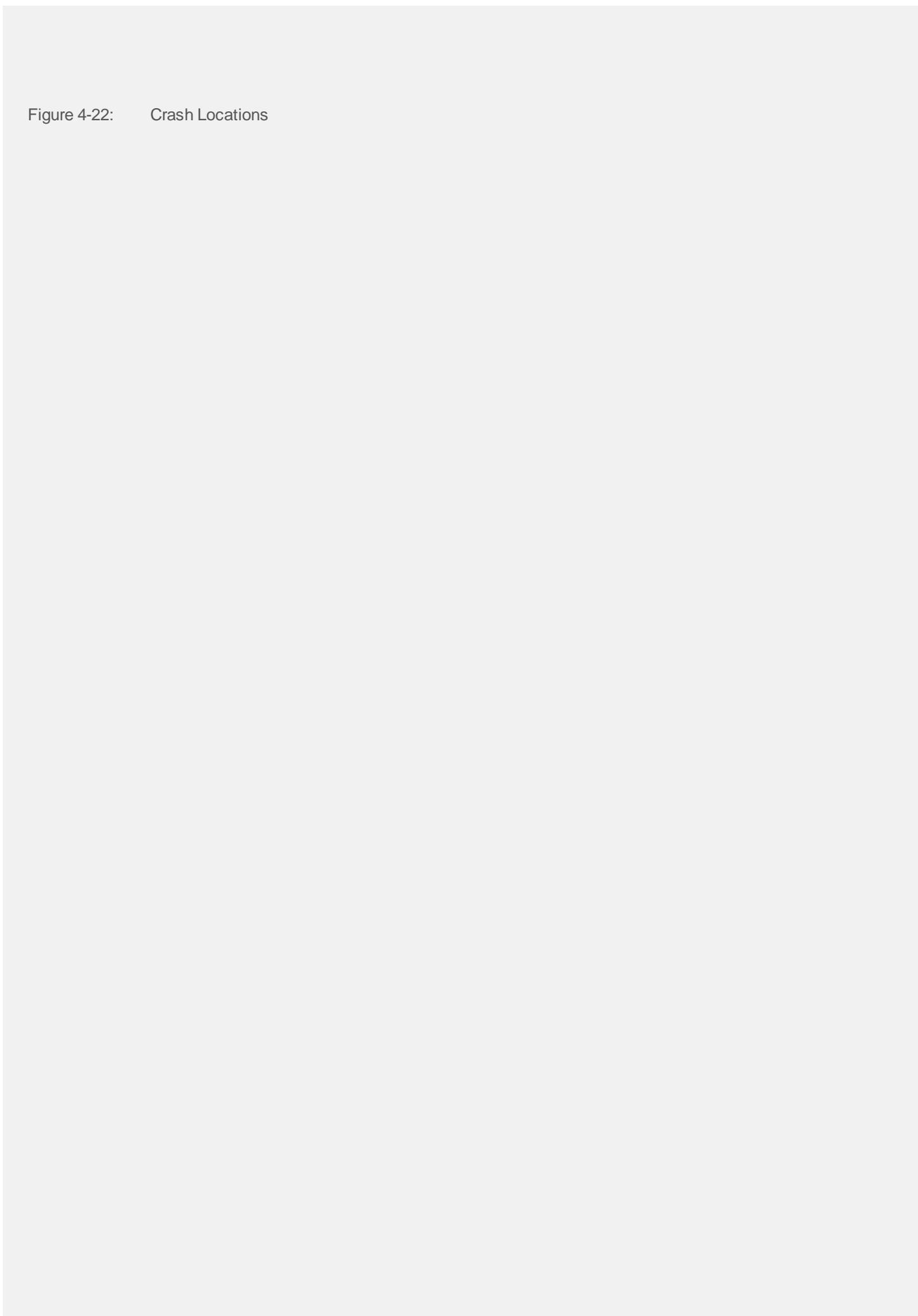
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Awning fixtures were generally observed to be present at key retail areas along Liverpool Road, as well as along sections of roads within the LGA commercial centres (Ashfield, Haberfield, Summer Hill and Croydon). The physical audit highlighted that 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 within the town centres with active street frontages proposed by the DCP and Council's projects, such as Ashfield Town Centre Renewal.

### 4.5 CRASH DATA ANALYSIS

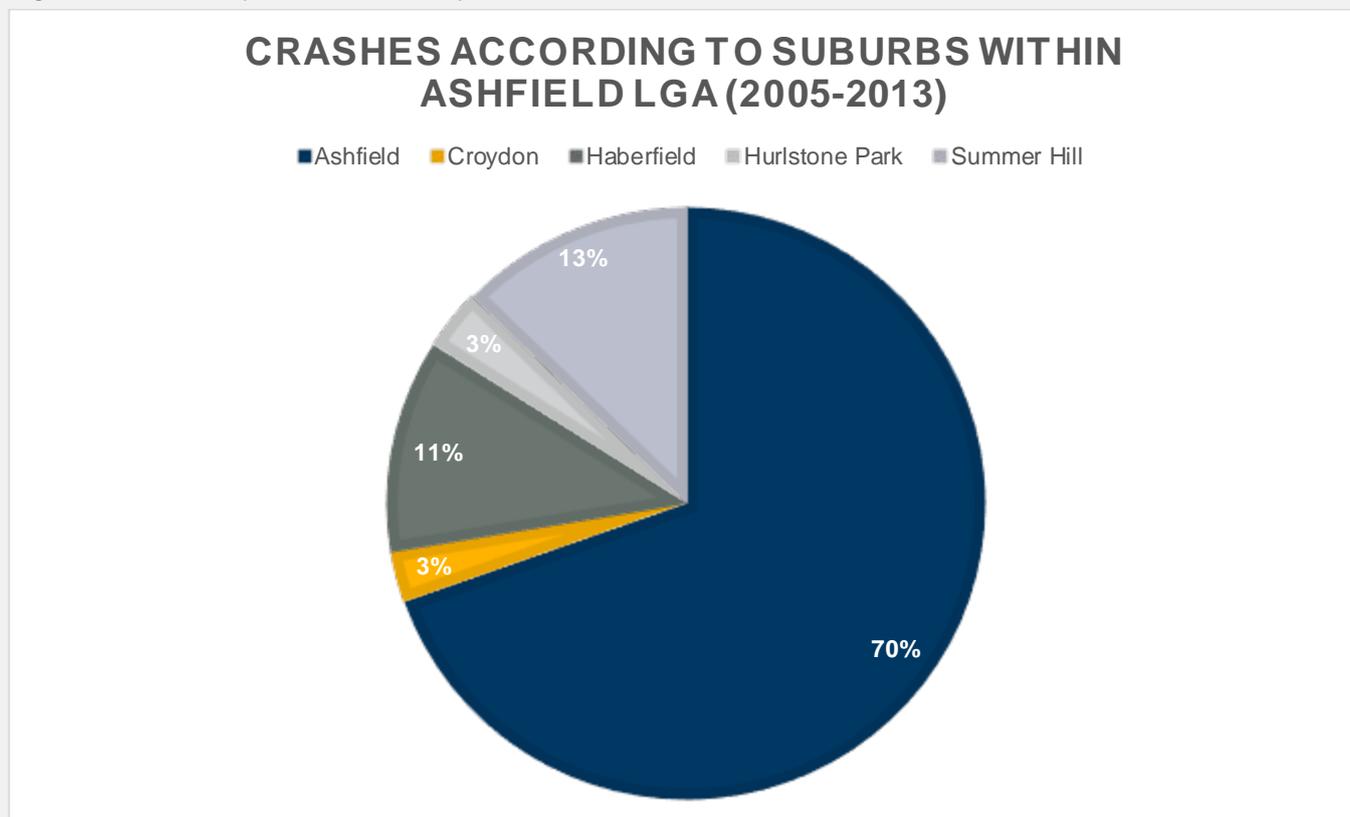
Crashes involving pedestrians within the Ashfield LGA over a recent nine year period for which data was obtained (i.e. between 2005 and 2013) have been analysed. The crash data is provided in Appendix D. The location of the crashes are spread throughout the LGA as shown in Figure 4-22 below.

Figure 4-22: Crash Locations



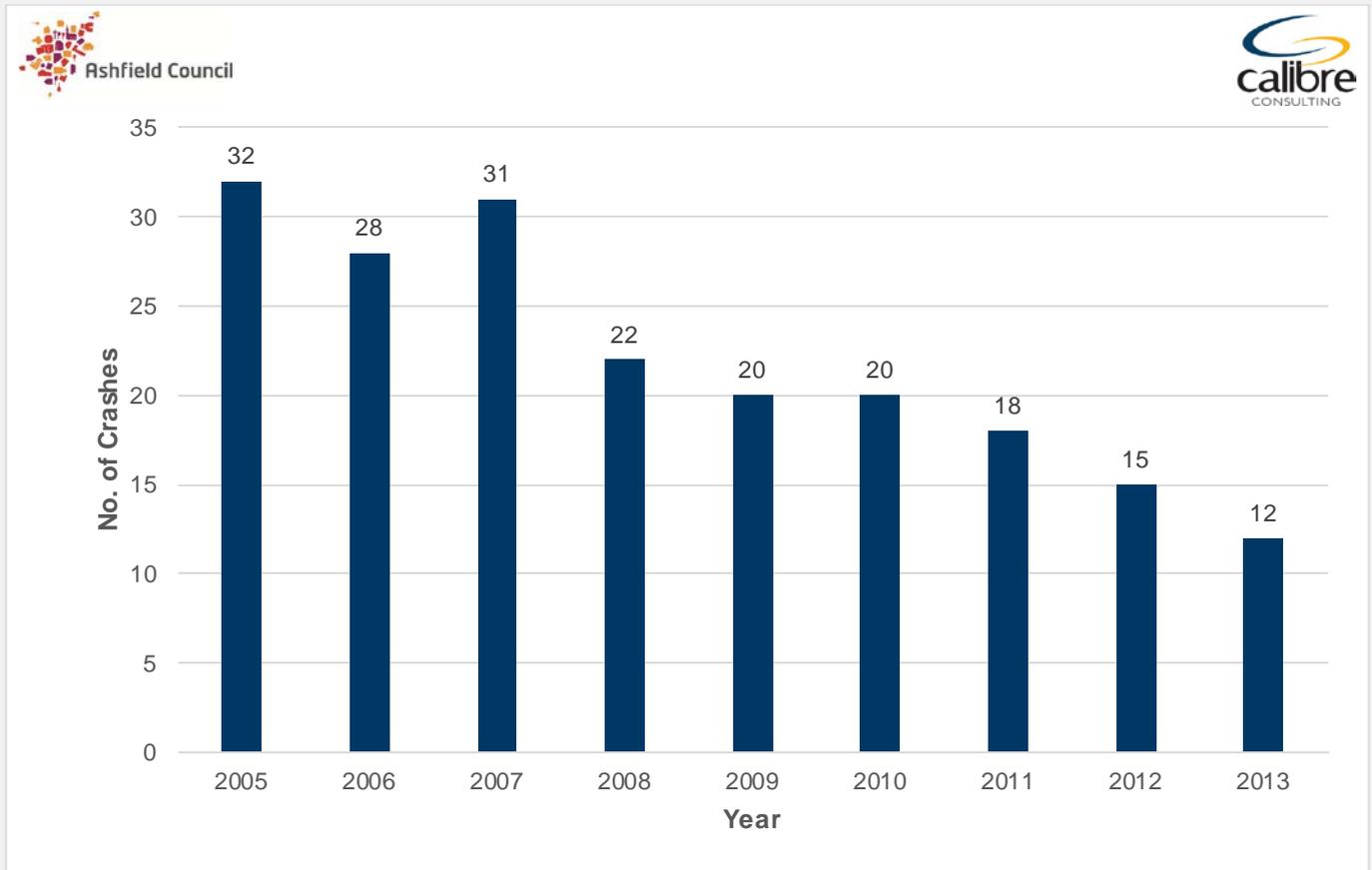
An analysis of crash data involving pedestrians identifies crash clusters. The notable crash clusters are located along Parramatta Road, Liverpool Road, Frederick Street, Ramsay Street and around Ashfield Town Centre and Haberfield Town Centre. The split of the crashes along the main suburbs is shown in Figure 4-23 below.

Figure 4-23: Proportion of Crashes per Suburb



The graph above indicates that the vast majority of crashes has occurred within the suburb of Ashfield. It should be noted that this area consists of a significantly higher pedestrian activity compared to the other suburbs given that it is the main centre for the LGA. The number of crashes during this time period is shown below in Figure 4-24.

Figure 4-24: Number of Pedestrian Crashes within Ashfield LGA per Year

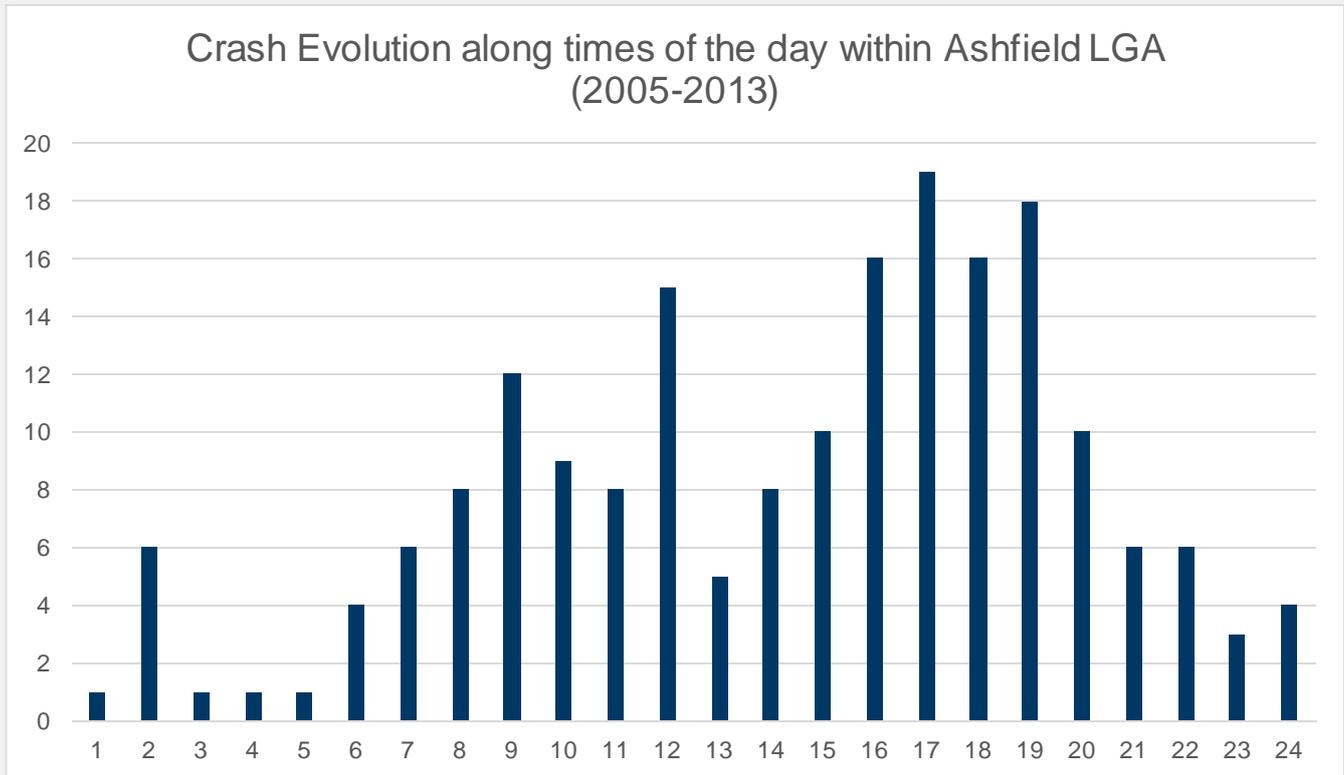


Key analysis of the pedestrian crash data:

- Over the latest nine years of crash data, there were a total of 2,304 crashes; of these, 189 crashes involved pedestrians, including 193 injuries and five fatalities
- The fatalities are summarised as follows:
  - Close to the intersection of Liverpool Road and Edwin Street (south), Croydon, on 18 May 2011, weekday early morning
  - Close to the intersection of Milton Street and Arthur Street, Ashfield, on 18 November 2010, weekday, at evening
  - Intersection of Liverpool Road and Gower Street, Summer Hill, on 30 April 2009, weekday, during early evening
  - Intersection of Dobroyd Avenue and Waratah Street, on 24 October 2007, weekday, during early morning
  - Close to the intersection of O'Connor Street and Barton Street, Haberfield, on 26 March 2007, weekday, in the afternoon
- There was an average of 21 crashes involving pedestrians each year, with a gradual decline over the nine year period, in particular in 2008 and 2013

A large proportion of the pedestrian collisions listed above occurred on Liverpool Road between Holden Street and Knox Road. It is acknowledged that RMS' introduction of a pedestrian fence along this section of Liverpool Road has played a significant role in reducing the number of pedestrian collision. The time of the crashes involving pedestrians are shown in Figure 4-25 below.

Figure 4-25: Crash Evolution along times of the day within Ashfield LGA (2005-2013)



As detailed in the above figure, the majority of crashes occurred during the morning and evening peak traffic periods. However, a spike occurred at 12pm which is typically considered to be lunch time. This indicates that the crashes occurred during the peak pedestrian activity times. Suggested treatments for the crash clusters along high priority PAMP routes are presented in the Action Plan in the appendices section.

## 4.6 PRIORITY FOCUS AREAS

In coordination with Council, this study has adopted the concept of “Focus Areas” which have been prioritised in three categories: “High”, “Medium” and “Low”. The Priority Focus Areas has been formulated by combining the priorities based on the audits with the concerns raised by the community that have been confirmed as requiring further attention. The priority focus area locations have been selected based on a broad criteria that includes at least one or more of the following:

- High level of pedestrian activity;
- A perceived high vehicular speed or volume;
- A documented crash history demonstrating a pattern of collisions meriting further attention;
- A perceived safety concern; or
- A location in which Council has received several requests to review pedestrian safety or connectivity.

Each of the priority Focus Areas are listed in the Table 4-3 below. The location of the concerns raised by the community that have been confirmed to merit further attention are shown in Figure 4-26 below. The Priority Focus areas are shown in Figure 4-27.

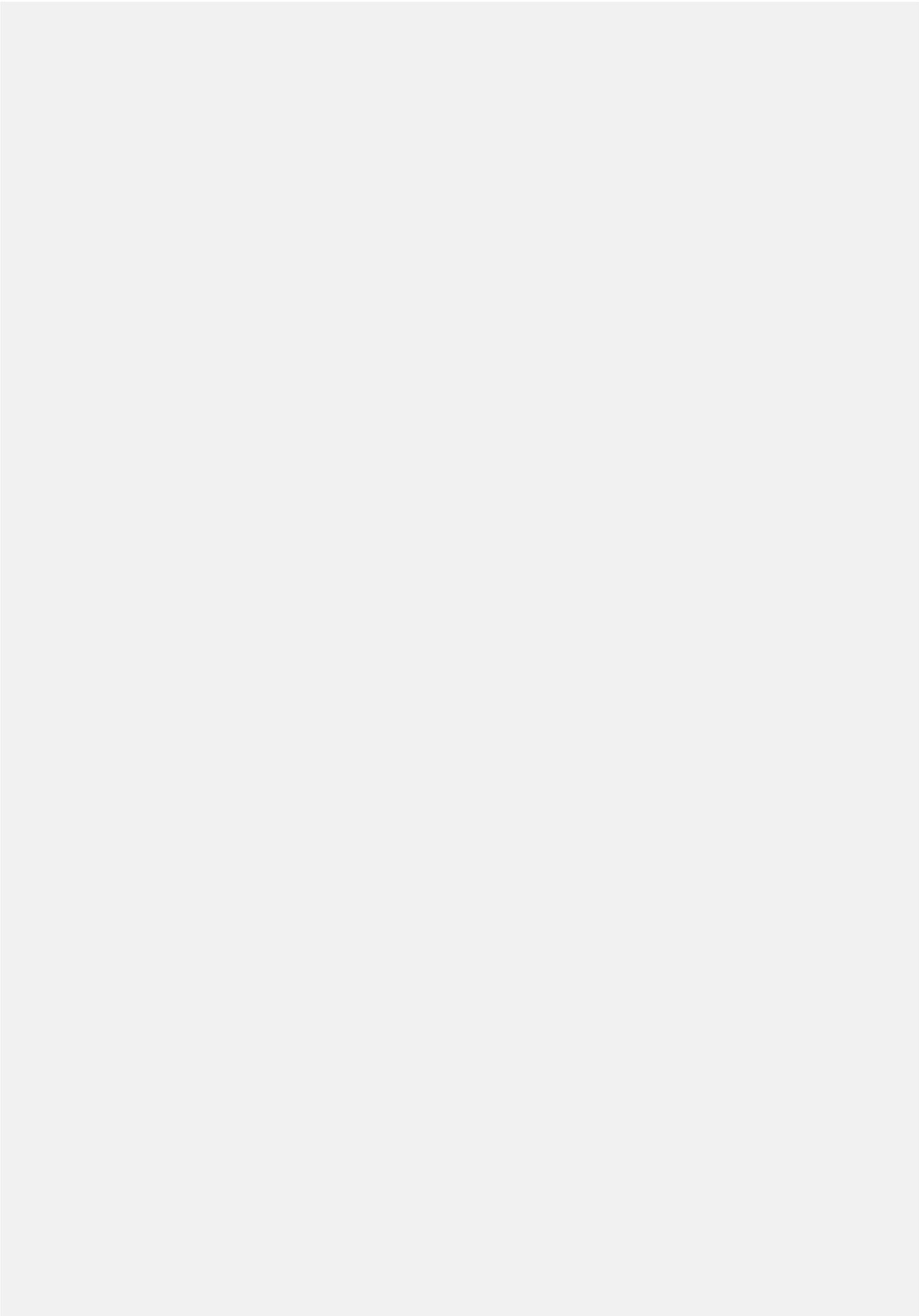


Table 4-3: Priority Focus Locations

Location	Reason why location is included	ID
Milton St / Norton St Intersection	high pedestrian activity area.	195
Holden St between Arthur St & Liverpool Rd	high pedestrian activity area.	93
Church St / Alt St intersection	high pedestrian activity area.	196
Croydon Rd, 30m south of Church St	perceived safety concern.	33
Ramsay St / Alt St Intersection	high pedestrian activity area, high vehicular volume & speed & safety concern	197
Ramsay St / Marion St Intersection	high pedestrian activity area.	194
Lackey St / Smith St	high pedestrian activity area & safety concern	198
Edward St at Laneway south of Smith St	anticipated increased pedestrian activity	53
Edward St / Smith St Intersection	anticipated increased pedestrian activity	54
Smith St / Carlton Cres / Grosvenor Cres intersection	high pedestrian activity area, high vehicular speed & safety concern	198
Prospect Rd / Drynan St / Robert St Intersection	pedestrian safety concerns	141
Frederick St / Henry St Intersection	relatively high ped volumes, vehicular volumes and speed	74
Frederick St / John St intersection	relatively high ped volumes, vehicular volumes and speed	75 & 76
Frederick St / Elizabeth St intersection	relatively high ped volumes, vehicular volumes and speed	72
Elizabeth St / Bland St Intersection	relatively high ped volumes, vehicular volumes and speed	10
Elizabeth St / Charlotte St Intersection	relatively high ped volumes, vehicular volumes and speed	90
Elizabeth St / Wood St Intersection	relatively high ped volumes, vehicular volumes	176
Ramsay St / Dalhousie St	relatively high ped volumes, vehicular volumes	50
Dalhousie St / Dickson St	high pedestrian activity area & several requests to Council	44
Denman Ave / Yasmar Ave intersetion	pedestrian safety concerns	188 & 189
Queen St / Armstrong St Intersection	several requests made to Council, high vehicle volume & Speed, and safety concerns	146 & 147
Holden St / Clossold St / Trevenar St / Palace St Intersections	several requests made to Council, high vehicle volume & Speed, and safety concerns	180
Prospect Rd 30m north of Seaview St	safety concerns	145
Liverpool Rd / Miller Ave Intersection	relatively high ped volumes, vehicular volumes & safety concerns	108
Liverpool Rd / Hercules Rd Intersection	relatively high ped volumes, vehicular volumes & safety concerns	106
Holden St / Liverpool Rd Intersection	relatively high ped volumes, vehicular volumes	93
Norton St / Queen St Intersection	high pedestrian activity area, high vehicular speed & Safety concern	122, 148 & 186
Norton St / Victoria St Intersection	high pedestrian activity area, high vehicular speed & Safety concern	172
Sloane St / Grosvenor Cres Intersection	high pedestrian activity area & Safety concern	48 & 159
Smith St / Nowranie St Intersection	high pedestrian activity area & Safety concern	164
Liverpool Rd / Elizabeth St / Grosvenor Cres Intersection	relatively high ped volumes, vehicular volumes, safety concerns & requests made to Council	103 & 182
Old Canterbury Rd / Edward St Intersection	relatively high ped volumes, vehicular volumes, safety concerns & requests made to Council	127

Figure 4-26: Findings & Re-occurring Issues as Raised by the Community



**PROFESSIONAL FINDINGS AND RE-OCCURRING PEDESTRIAN ISSUES FROM THE COMMUNITY**



## 5 ACTION PLAN

This section identifies the pedestrian facilities improvements proposed as part of this PAMP study. Pedestrian infrastructure implementations are classified according to the following categories:

- **Amenity:** represents the attractiveness of an area for pedestrians. Improvements could involve upgrading an existing footpath surface or introducing landscaping or art feature along walkways
- **Safety:** addresses safety issues for pedestrians from traffic or other physical hazards including trip hazards, as well as perceived safety issues for pedestrians such as walking along or crossing busy roads
- **Information:** relates to way-finding signage, maps, brochures and pamphlets
- **Accessibility:** relates to routes that do not comply with the DDA standards and other issues including steep gradients and access via steps
- **Connectivity:** new links between streets and land uses
- **Severance:** regarding pedestrians crossing busy roads or railway lines
- **Access to adjacent land uses:** relates to blockage of new pedestrian access to land uses

PAMP Actions have been designed in consideration of the NSW Safe System Approach as outlined below.

### NSW Safe System Approach

- **Safe Travel:** Fewer fatalities and serious injuries on NSW roads
- **Safe Speed:** Speeds set at a level more forgiving of human error and reflecting risk to road users
- **Safer People:** Positive road user behaviours that reduce the risk and severity of crashes
- **Safer Roads:** Roads designed, constructed and maintained to reduce the risk of crashes harm to people if a crash does occur
- **Safer Vehicles:** Vehicles designed, constructed, and maintained to reduce the risk of crashes and harm to people if a crash does occur

## 5.1 GENERIC RECOMMENDATIONS

The route audits undertaken during the PAMP study identified a number of issues that were common to all surveyed areas. As a result a set of generic recommendations is given as follows with a brief explanation regarding their suitability.

### **Kerb Ramp Upgrades**

The audits identified complying and non-complying kerb ramps at intersections and mid-block within the study area. Compliance was based on the criteria set out in RTA Technical Direction Ref: TDT 2002/08 and associated drawing MD.R173.B01.A. Many of the kerb ramps were non-complying but those that were especially critical to pedestrian movement or difficult negotiate were recommended for upgrade. Reference to the RTA Technical direction should be made when upgrading these kerb ramps.

### **Pedestrian Refuges**

It was noted whilst conducting the routes audits for this study that some of the streets would benefit from having pedestrian refuges installed. All proposed refuges should be built to RMS/ Austroads/AS 1428 standards and be capable of accommodating a waiting mobility scooter/cyclist and kerb.

### **Kerb Blisters**

In some specified areas where road widths allow, it may be possible to accommodate kerb blisters on both sides of the intersection. This has the added benefit of reducing crossing distance, slowing the speed of turning traffic and increasing the amount of available public realm/pavement.

Both pedestrian refuges and kerb blisters have been selected as a preference over new signalled pedestrian crossings due to their ability to provide least resistance to the line of pedestrian travel at side street intersections and also because of less onerous requirements with regard to traffic modelling and warrants.

### **Paving/Surface Upgrades**

The routes audits recorded the quality and condition of the pavement surface and where this posed a significant hindrance to pedestrian access, upgrading or replacement has been suggested. Ashfield Council is currently undertaking its Accelerated Footpath Repair Program (AFRP) (refer Appendix A). Any locations that have already been flagged under the AFRP will therefore be excluded from the PAMP given that they are already being addressed.

Replacement paving surfaces should be a smooth finish with gradients complying with AS1428.2 (Design for Access and Mobility). In general surfaces should be paving or an in-situ concrete finish and should extend from the adjacent property boundary to the back of the kerb, where appropriate

### **Signalised Pedestrian Crossing Times**

The audits picked up a number of signalised intersections that would benefit from more generous crossing times (green man times) to allow pedestrians, in particular the elderly and less able bodied, longer times to cross and not feel overly rushed or end up being caught in the central refuge between two to three lanes of traffic. E.g. signalised intersection on Liverpool Road and Elizabeth Street.

### **Wheelchairs and Wheeled Electric Carts (mobility scooters)**

The current design standard for mobility that relates to Wheelchairs, either self-propelled or motorised is AS 1428 - Standards for Access and Mobility. In general, when designing for access for wheelchairs and wheeled electric carts the following should be considered:

- Pavement cross fall - gradients steeper than 1:40 make it difficult to push wheelchairs and maintain a consistent line of travel
- Compliance with AS 1428 and RMS guidelines on kerb ramp gradients widths and alignments allowing for the dimensions of a mobility scooter
- Maintaining a clear path of travel free from obstacles such as posts, poles and street furniture

The dimensions of a mobility scooter are not listed within AS 1428 (only wheelchairs are listed). A brief look at several mobility scooter manufactures suggests allowing for approximately 1600x730x130mm.

### **Street Tree Planting**

In general, areas that are directly fronted by residential properties with existing tree planting on or next to their property boundary provide an ample level of greening to the street without requiring additional street trees within the tight verge widths. In commercial frontage areas, awnings also make street tree planting unfeasible. In other areas where these conditions do not exist it may be desirable to try to establish new street tree planting for enhanced amenity. Where street trees are used these should be selected for their hardiness to surviving harsh urban environments. New tree planting should provide as much space for root expansion as possible and tree centres should be a minimum of 500mm from the back of the kerb to minimise damage from passing vehicles.

### **Bus Shelters**

The audits identified many bus stops with no shelters or waiting seats. Council is currently introducing compliant bus shelters throughout the LGA under the Bus Shelter Program and have therefore been excluded from the PAMP (refer Appendix A).

Bus shelters should be modified or replaced so that minimal obstruction into the line of travel is made. This is especially important where shared paths are proposed. Bus shelter design should be in accordance with the Australian Human Rights Commission - Guideline for promoting compliance of bus stops with the Disability Standard for Accessible Public Transport.

**Queuing Bus Passengers**

The footpaths adjacent to the bus stops on Liverpool Road. Further thought should be given to alleviate overcrowding/overspilling of pedestrians along the footways.

**Outdoor Dining**

There is a number of existing outdoor dining areas around the LGA's town centres that are well used and in general do not hinder pedestrian access. Any new areas of outdoor dining should be focused towards areas of public realm that have space to accommodate dining without compromising access to either pedestrians on foot or mobility scooters.

**Wayfinding**

A key component in increasing walkability and participation in walking is well planned and designed wayfinding. The goal of increasing walking is greatly enhanced by an integrated signage system linked to strategically placed maps which show destination routes and walking distances and times.

As a model, Parramatta City Council has installed a best practice mapping system throughout its CBD which identifies key destinations, walking times and also links to public transport, thereby fostering walking as an integral part of the community's day to day lifestyles. Alternatively, the following picture shows an example of a simple wayfinding scheme present at Wollongong Town Centre, which could be implemented at Ashfield LGA. It is recommended that Ashfield Council consider developing a wayfinding strategy for its LGA that will greatly enhance and compliment improvements to walkability throughout the study area and beyond.

Figure 5-1: Example of an effective Wayfinding Scheme in Wollongong



#### **40km/h High Pedestrian Activity Area (HPAA)**

HPPAs are areas with high pedestrian concentration and activity, usually close to shopping zones, public transport hubs, touristic areas, etc., with a maximum speed limit of 40km/h at all times, creating – together with appropriate measures - a safer road environment for all road users, particularly for pedestrians, cyclists and children.

In addition to the existing HPPA already in place in a number of streets on Summer Hill, this study recommends the implementation of additional HPPAs on a number of sections of roads, as follows:

- Ashfield:
  - Brown Street
  - Hercules Street
  - Norton Street, between Knox Street and Queen Street
  - Holden Street, between Liverpool Street and Arthur Street
- Haberfield:
  - Ramsay Street, between Yasmar Avenue and O'Connor Street
  - Dalhousie Street, between Denman Street and Deakin Avenue

It is recommended, therefore, that Roads and Maritime Services (RMS), with Ashfield Council's support, assess, design and implement the HPPAs as per the guidelines set by Transport for NSW (TfNSW), including appropriate warning signage, kerb extensions, pavement markings, pedestrian refuges and speed humps, subject to design and approval by the relevant agencies.

## **5.2 IMPLEMENTATION PRIORITY**

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

The RMS’ “How to Prepare a Pedestrian and Accessibility Mobility Plan” was used as a guide to determine the prioritisation of the proposed pedestrian infrastructure improvements. Based on this document, and together with Ashfield Council’s representatives, another scoring system, more appropriate to the local conditions was utilised based on the following criterion:

- Pedestrian Route Hierarchy
- Focus Areas
- Safety/ Level of Risk

It is important to note that there are limitations to the any prioritisation methodology. For example, generators have different weights, which is not accounted for in the methodology. Also, sometimes a pedestrian facility may be urgently required but the weighting system may not provide a score that is significantly higher than for the same facility at a less critical location. During the scoring process, consideration was taken in regards to this.

In the context of Ashfield town centres (in particular Ashfield and Summer Hill), 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.

The overall priority was determined by the sum of the score of each criterion where:

- High: (more than 17) - considered Essential Works, Short Term Works (0-5 years)
- Medium: (between 8 and 17) – considered Desirable Works, Medium Term Works (5-10 years)
- Low: (less than 8) – considered Low Impact Works, dependable on funding, Long Term Works (10-25 years)
- The highest possible score is 25).

The scoring criteria is summarised in Table 5-1 below.

Table 5-1: Priority Scoring

Criterion	Level	Scoring
Pedestrian Route Hierarchy	High	10
	Medium	6
	Low	2
Focus Area	High	10
	Medium	6
	Low	2
Safety/ Level of Risk	High	5
	Medium	3
	Low	1

### 5.3 ACTION PLAN: RECOMMENDED FACILITIES (PRIORITISED)

In total there have been 199 recommendations, identified in the following Action Plan.

Table 5-2: Prioritised Recommendations

ID	Street	Closest street address	Suburb	Issue	Recommended Action / Comments	Focus Area Score	Ped. Hierarchy Score	Risk Score	Total Score	Priority	Cost
42	Dalhousie St	between Denman Ave & Deakin Ave	Haberfield shopping hub	vehicular speed in high pedestrian area	investigate potential introduction of 40km/hr	10	10	5	25	high	medium
48	Grosvenor Crsnt	Sloane St (at intersection)	Summer Hill	non-standard crossing not on pedestrian desire-line	relocate further west, replacing existing speed hump	10	10	5	25	high	high
159	Grosvenor Crsnt	Sloane St (at intersection)	Summer Hill	break in median resembles refuge	remove break in median	10	10	5	25	high	medium
91	Hercules St		near Ashfield Station	vehicular speed in high pedestrian area	investigate potential introduction of 40km/hr	10	10	5	25	high	medium
103	Liverpool Rd	Elizabeth St	Ashfield	insufficient storage in both islands for pedestrians crossing	refer to RMS: review design	10	10	5	25	high	n/a
197	Ramsay St	Alt St (at intersection)	Haberfield	non-compliant pedestrian crossing. Priority unclear	uninstall island in crossing	10	10	5	25	high	low
10	Bland St	Elizabeth St (at intersection)	Ashfield	No pram ramps	install pram ramps and standard kerbs	10	10	3	23	high	medium
182	Liverpool Rd	Elizabeth Street - Grosvenor Crescent	Ashfield	No ramps on both islands	refer to RMS: Provide compliant ramps and rebuild kerbs	10	10	3	23	high	medium
201	Bland St	Elizabeth St (at intersection)	Ashfield	Short green for pedestrians crossing	refer to RMS: to review pedestrian green time	10	10	1	21	high	n/a
199	Smith St	Carlton Crescent (at intersection)	Summer Hill	poor pedestrian connectivity at roundabout	assess best intersection layout given the future Flour Mill development. Works by developer	10	6	5	21	high	high
14	Brown St		near Ashfield Station	vehicular speed in high pedestrian area	investigate potential introduction of 40km/hr	6	10	5	21	high	medium

99	Liverpool Rd	349-351	Ashfield	Pedestrians jay-walk to cross Liverpool Road	Install pedestrian fencing on the northern side only, complementing the existing fencing on median	6	10	5	<b>21</b>	high	high
106	Liverpool Rd	Hercules Street	Ashfield	Pedestrian crossings - insufficient storage	Refer to RMS: review phasing for pedestrians	6	10	5	<b>21</b>	high	n/a
122	Norton St	between Knox St & Queen St	near Ashfield Station	vehicular speed in high pedestrian area	investigate potential introduction of 40km/hr	10	6	5	<b>21</b>	high	medium
123	Norton St	Holden Street	Ashfield	Western crossing: non-aligned ramps, post blocking on the northern side and northern ramp with non-compliant lip	Repair ramp and assess possibility of relocating post	10	10	1	<b>21</b>	high	medium
93	Holden St	between Arthur St & Liverpool Rd	near Ashfield Station	vehicular speed in high pedestrian area	refer to Council's Traffic Management Strategy: investigate potential introduction of 40km/hr	10	6	5	<b>21</b>	high	medium
186	Norton St	between Knox St & Queen St	near Ashfield Station	vehicular speed in high pedestrian area	refer to Council's Traffic Management Strategy: investigate potential introduction of 40km/hr	10	6	5	<b>21</b>	high	medium
198	Lackey St	Smith St (at intersection)	Summer Hill	no pram ramps to cross Lackey Street	install pram ramps & investigate potential to extend pedestrian fencing	10	10	1	<b>21</b>	high	low
200	Liverpool Rd	Holden Street	Ashfield	short green for pedestrians crossing	refer to RMS: to review pedestrian green time	10	10	1	<b>21</b>	high	low
13	Brown St	In front of car park	Ashfield	No ramp on the western side of the car park entrance	Provide ramp	6	10	3	<b>19</b>	high	low
44	Dalhousie St	Dickson St (at intersection)	Haberfield	No pram ramps	install pram ramp	6	10	3	<b>19</b>	high	medium
74	Frederick St	Henry St (at intersection)	Ashfield	Non-compliant pram ramps & wide crossing	install standard ramp & kerb. Review design to potentially add kerb blisters	10	6	3	<b>19</b>	high	medium
163	Smith St	106		Crossing resembles speed hump	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	6	10	3	<b>19</b>	high	medium
164	Smith St	Nowranie St (10m west of)		speed hump resembles crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a	6	10	3	<b>19</b>	high	high

					pedestrian crossing.						
176	Wood St	Elizabeth St (at intersection)	Ashfield	No pram ramp	review intersection design. Potential for raised kerb instead of painted	6	10	3	19	high	medium
194	Ramsay St	Marion St (at intersection)	Haberfield	vehicular speed in high pedestrian area	refer to Council's Traffic Management Strategy: investigate potential introduction of 40km/hr	10	6	3	19	high	medium
90	Charlotte St	Elizabeth St (at intersection)		insufficient green time	refer to RMS: review pedestrian green time	6	10	1	17	medium	n/a
50	Dalhousie St	Ramsay St (at intersection)	Haberfield	insufficient green time	refer to RMS: review pedestrian green time	6	10	1	17	medium	n/a
108	Liverpool Rd	Miller Avenue	Ashfield	On Miller Avenue, eastern side, close to the intersection, a superfluous ramp misleads pedestrians	Refer to RMS: remove ramp	6	10	1	17	medium	low
148	Queen St	Norton Street	Ashfield	Non-compliant ramps	Rebuild ramps	6	10	1	17	medium	medium
2	Armstrong St	Seaview Street & Holden Street	Ashfield	Inadequate pedestrian connectivity	refer to Council's Traffic Management Strategy: Review intersection design to potentially install signals to facilitate pedestrians	6	6	3	15	medium	high
33	Croydon Rd	Church St (30m south of)	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy	6	6	3	15	medium	medium
75	Frederick St	John St (at intersection)	Ashfield	Missing or non-compliant ramps	Refer to RMS: install pram ramp	6	6	3	15	medium	low
76	Frederick St	John St (at intersection)	Ashfield	faded crossing	Refer to RMS: repaint crossing	6	6	3	15	medium	low
77	Frederick St	Mackay St (at intersection)	Ashfield	No pram ramp	Refer to RMS: install pram ramp	6	6	3	15	medium	low
146	Queen St	Armstrong St (at intersection)	Ashfield	No pedestrian connectivity to cross	review intersection design with a view to providing pedestrian facility	6	6	3	15	medium	high
147	Queen St	Armstrong St (at intersection)		No pram ramp	pram ramps	6	6	3	15	medium	medium
151	Ramsay St	between Yasmar Ave & O'Connor St	Haberfield shopping hub	vehicular speed in high pedestrian area	investigate potential introduction of 40km/hr	0	10	5	15	medium	medium

169	Victoria St	19	Ashfield	Request for wheelchair / mobility ramp	install ramp for pick up / drop off for mobility impaired residents	6	6	3	<b>15</b>	medium	medium
190	Armstrong St	Seaview Street & Holden Street	Ashfield	misleading no ramp - Armstrong Street southern approach, western side	Provision of ramps at the roundabout	6	6	3	<b>15</b>	medium	medium
16	Carlton Crsnt	Lackey St	Summer Hill	Half side of the path is sloped, effective width is < 1.2m	Works by developer	0	10	3	<b>13</b>	medium	n/a
43	Dalhousie St	Deakin Ave (30m south of)	Haberfield	No ramp for accessible parking	install ramp or relocate / remove accessible parking	0	10	3	<b>13</b>	medium	medium
46	Dalhousie St	Winchombe Ave (at intersection)	Haberfield	No pram ramp to cross Dalhousie	install pram ramp	0	10	3	<b>13</b>	medium	medium
55	Edwin St N	93	Croydon	faded crossing	repaint crossing	0	10	3	<b>13</b>	medium	low
87	Henessey St	Meta St (10m south of)	Croydon	faded marking at crossing	repaint pavement	0	10	3	<b>13</b>	medium	low
180	Holden St	Palace Street	Ashfield	difficult to cross	investigate potential for crossing (warrants), refuge or pram ramps	2	6	5	<b>13</b>	medium	medium
184	Murrell St	Liverpool Rd	Ashfield	unsafe crossing across Murrell St	review pedestrian facility design. Potential to provide kerb extension.	0	10	3	<b>13</b>	medium	medium
35	Liverpool Rd	Victoria Street	Ashfield	Short green for pedestrians to cross; post on the south-western corner is blocking pedestrians;	refer to RMS: to review pedestrian green time & relocate post	0	10	3	<b>13</b>	medium	n/a
113	Liverpool Rd	Victoria Street	Ashfield	Short green for pedestrians to cross; post on the south-western corner is blocking pedestrians;	refer to RMS: to review pedestrian green time & relocate post	0	10	3	<b>13</b>	medium	n/a
165	Station St	Wood St (at intersection)	Ashfield	No pram ramp east of station	install pram ramps east of station	0	10	3	<b>13</b>	medium	medium
166	Station St	Wood St (at intersection)	Ashfield	no crossing or refuge east of station	assess potential need for pedestrian facility	0	10	3	<b>13</b>	medium	medium
172	Victoria St	Norton St	Ashfield	Non-compliant ramp	Rebuild compliant ramp	6	6	1	<b>13</b>	medium	low
196	Church St	Alt St (at intersection)	Ashfield	no pedestrian connectivity to cross Alt Street near the Church	investigate warrants for crossing	10	2	1	<b>13</b>	medium	medium

100	Liverpool Rd	Carlton Crescent	Ashfield	Short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	10	1	11	medium	n/a
110	Liverpool Rd	Queen Street	Ashfield	Short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	10	1	11	medium	n/a
111	Liverpool Rd	Thomas Street	Ashfield	short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	10	1	11	medium	n/a
183	Liverpool Rd	West's	Ashfield	short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	10	1	11	medium	n/a
12	Bland St	Railway Underpass	Ashfield	poor lighting	improve lighting during day and night	0	10	1	11	medium	medium
15	Carlton Crsnt	Lackey St	Summer Hill	Kerb ramps not aligned to the travel path	Works by developer	0	10	1	11	medium	n/a
67	Frederick St	Albert Pde	Ashfield	non-standard refuge: insufficient median width	Refer to RMS: review design to remove island and refuge, install kerb blister or widen refuge	0	6	5	11	medium	high
78	Frederick St	Railyway Underpass (under)	Ashfield	poor daytime lighting	Refer to RMS: provide daytime lighting	0	6	5	11	medium	medium
83	Grosvenor Crsnt	Dover Street	Ashfield	non-standard refuge: insufficient median width	review design to remove island and refuge, install kerb blister or widen refuge	0	6	5	11	medium	high
101	Liverpool Rd	Cavill Street	Ashfield	Ramps and median not aligned	Refer to RMS: Align ramps and median	0	10	1	11	medium	low
112	Liverpool Rd	Thomas Street	Ashfield	Non-aligned ramps	Refer to RMS: Align the north-eastern ramp	0	10	1	11	medium	low
114	Liverpool Rd	West's	Ashfield	North-eastern side: ramp not aligned in the north	Refer to RMS: Align the ramp	0	10	1	11	medium	low
115	Liverpool Rd	West's	Ashfield	short green for pedestrians crossing	refer to RMS to review pedestrian green time	0	10	1	11	medium	n/a
120	Norton St	A'Beckett Ave	Ashfield	wide long crossing	review kerb radius to reduce crossing distance	0	6	5	11	medium	medium
185	Norton St	A'Beckett St	Ashfield	wide crossing	review kerb radius to reduce crossing distance	0	6	5	11	medium	medium
125	Norton St	Hugh Street	Ashfield	long crossing	Kerb extension	0	6	5	11	medium	medium
126	Norton St	Knox Street	Ashfield	Non-compliant & unaligned ramps	redesign ramps, ensuring drainage is maintained	0	10	1	11	medium	medium
131	Old Canterbury Rd	Hurlstone Ave (at intersection)	Summer Hill	wide crossing	Refer to RMS: review design options to introduce refuge and / or kerb blisters	0	6	5	11	medium	medium
141	Prospect Rd	55		crossing resembles speed humps	review design	2	6	3	11	medium	medium

145	Prospect Rd	Seaview St (30m north of)		non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	2	6	3	11	medium	medium
158	Sloane St	Gower Street	Summer Hill	Non-aligned ramps on Gower Street approach	Realign ramps	0	10	1	11	medium	low
161	Sloane St	Ramsay Street and Lord Street	Haberfield	Confusing crossing arrangement for pedestrians and cyclists	Redesign intersection providing clear alignments and facilities to pedestrians and cyclists	0	6	5	11	medium	medium
191	Liverpool Rd	Carlton Crescent	Ashfield	Post on the Carlton Crescent approach and south-western corner is blocking pedestrians	Refer to RMS: Relocate posts or pram ramp and rebuild ramp on the south-western corner	0	10	1	11	medium	medium
195	Milton St	Norton St	Ashfield	vehicular speed in high pedestrian area	refer to Council's Traffic Management Strategy: investigate potential introduction of 40km/hr	10			10	medium	medium
11	Bland St	Julia Street	Ashfield	Missing ramps on Julia Street and one the Bland Street, north-western side	Install ramps on Julia Street and Bland Street, north-western side	0	6	3	9	medium	medium
24	Church St	Lang St (at intersection)	Croydon	No pram ramps	install pram ramp(s)	0	6	3	9	medium	medium
28	Croydon Rd	46	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
29	Croydon Rd	112	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
30	Croydon Rd	Anthony St (at intersection)	Croydon	No pram ramp (south) & directs to centre (west)	install pram ramps (south) & modify splitter (west)	0	6	3	9	medium	medium
31	Croydon Rd	Australia St (at intersection)	Croydon	No pram ramp	install pram ramp	0	6	3	9	medium	medium
32	Croydon Rd	Bay St (10m north of)	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium

34	Croydon Rd	Dalmar St (at intersection)	Croydon	No pram ramp	install pram ramp	0	6	3	9	medium	medium
36	Croydon Rd	Elizabeth St (60m north of)	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
37	Croydon Rd	Elizabeth St (at intersection)	Croydon	No pram ramp	install pram ramp	0	6	3	9	medium	medium
38	Croydon Rd	Gregory Ave (at intersection)	Croydon	no pram ramp on Croydon Rd	install pram ramp north of Gregory Ave	0	6	3	9	medium	low
39	Croydon Rd	Queen St (25m north of)	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
178	Croydon Rd	Queen St (at intersection)	Croydon	No pram ramp to cross Croydon Rd	install pram ramps	0	6	3	9	medium	medium
40	Croydon Rd	West St (5m south of)	Croydon	non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
41	Dalhousie St	Barton Ave (20m north of)	Haberfield	No pram ramp	install pram ramp	0	6	3	9	medium	low
45	Dalhousie St	Martin St (15m south of)	Haberfield	No pram ramp or crossing	install pram ramp or crossing	0	6	3	9	medium	medium
187	Denman Ave	Bland St (at intersection)	Haberfield	non-standard refuge with speed hump	remove or replace with standard crossing or refuge	2	2	5	9	medium	medium
188	Denman Ave	Yasmar Ave (at intersection)	Haberfield	non-standard refuge with speed hump	remove or replace with standard crossing or refuge	2	2	5	9	medium	medium
54	Edward St	Smith St	Summer Hill	unaligned & missing ramp	Works by developer	0	6	3	9	medium	n/a
58	Elizabeth St	91	Ashfield	No pram ramp	introduce pram ramp	0	6	3	9	medium	low
59	Elizabeth St	Alt St (at intersection)	Ashfield	missing & poorly positioned ramps	install & relocate ramps.	0	6	3	9	medium	medium
71	Frederick St	Eccles Ave (at intersection)	Ashfield	Non-compliant (north) & missing ramp (south)	install standard pram ramp and kerb	0	6	3	9	medium	medium
129	Old Canterbury Rd	Hanks St (at intersection)	Summer Hill	No pram ramps	Refer to RMS: install pram ramps	0	6	3	9	medium	medium
130	Old Canterbury Rd	Henson St (at intersection)	Summer Hill	Non-compliant (north) & missing (south) ramp	Refer to RMS: install standard ramp	0	6	3	9	medium	medium
132	Old	Prospect Rd (at intersection)	Summer Hill	non-standard refuge:	Refer to RMS: review design	0	6	3	9	medium	medium

	Canterbury Rd	intersection)		insufficient median width							
136	Orpington St	Elizabeth Street	Ashfield	No ramps on Elizabeth Street	Install ramps on one of the approaches of Elizabeth Street	0	6	3	9	medium	medium
137	Orpington St	Intersection with Chandos Street	Ashfield	No ramp on Orpington Street	Provide ramps on Orpington Street	0	6	3	9	medium	medium
138	Orpington St	Pembroke Street	Ashfield	No connectivity (ramps) on Orpington Street approaches	install missing ramp, realign others & repaint pavement	0	6	3	9	medium	medium
140	Prospect Rd	31		non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
142	Prospect Rd	154		non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
143	Prospect Rd	Herbert St (10m south of)		non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
144	Prospect Rd	Junction St (15m south of)		non-standard speed hump resemble crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing.	0	6	3	9	medium	medium
179	Prospect Rd	near Smith Street	Summer Hill	non-compliant refuge	review design of refuge	0	6	3	9	medium	medium
150	Queen St	Robert Street	Ashfield	insufficient pedestrian facilities to cross Queen St	review intersection design with a view to providing pedestrian facility	0	6	3	9	medium	high
152	Ramsay St	Bland Street	Haberfield	No ramps on Ramsay Street	Install ramps on one of the Ramsay Street approaches	0	6	3	9	medium	medium
154	Ramsay St	Northcote Street	Ashfield	No ramps on Northcote Street	Provide ramps on Northcote Street	0	6	3	9	medium	medium
160	Sloane St	Lord St (at intersection)	Haberfield	No pram ramp	install pram ramp	0	6	3	9	medium	low
174	Waratah St	Tillock St (at intersection)	Haberfield	No pram ramp to cross Waratah St	install pram ramp	0	6	3	9	medium	medium
192	Elizabeth St	Alt St (at intersection)	Ashfield	many students crossing at this location.	Consider crossing warrants for student 50m north on Alt St	0	6	3	9	medium	high
82	Gower St	Liverpool Rd	Ashfield	Short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	6	1	7	low	n/a

104	Liverpool Rd	Frederick Street	Ashfield	short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	6	1	7	low	n/a
109	Liverpool Rd	Pembroke Street	Ashfield	short green for pedestrians crossing	refer to RMS: to review pedestrian green time	0	6	1	7	low	n/a
9	Bland St	Charlotte St (at intersection)	Ashfield	Unaligned pram ramps	align pram ramps	0	6	1	7	low	low
19	Chapman St	Carlton St	Summer Hill	Kerb ramp lip > 5mm	Works by developer	0	6	1	7	low	n/a
26	Clissold St	Queen Street	Ashfield	South-eastern corner ramp's lip is not compliant (on Clissold Street)	Rebuild ramp	0	6	1	7	low	low
27	Clissold St	William Street	Ashfield	Non-aligned and non-compliant ramps	redesign ramps	0	6	1	7	low	medium
49	Denman Ave	Yasmar Ave (at intersection)	Haberfield	No pram ramp to cross Denman Ave	install pram ramp	2	2	3	7	low	low
189	Denman Ave	Yasmar Ave 20m north	Haberfield	non-standard speed hump being used as a pedestrian crossing	refer to Council's Traffic Management Strategy: review design to clarify that it is not a pedestrian crossing or assess the need for a crossing.	2	2	3	7	low	medium
60	Elizabeth St	Benalla Ave (at intersection)	Ashfield	Non-compliant pram ramps	install standard pram ramps and kerb	0	6	1	7	low	medium
61	Elizabeth St	Eccles Ln (at intersection)	Ashfield	Non-compliant pram ramps	replace kerb and ramp	0	6	1	7	low	medium
62	Elizabeth St	Etonville Pde (5m south of)	Croydon	Non-compliant pram ramps	install standard pram ramp and kerb	0	6	1	7	low	medium
64	Elizabeth St	Nixon Ave (at intersection)	Ashfield	Non-compliant pram ramps	install standard pram ramps	0	6	1	7	low	medium
68	Frederick St	Beatrice Street	Ashfield	Non-aligned ramp (eastern side)	Refer to RMS: Rebuild ramps	0	6	1	7	low	low
69	Frederick St	Bunnings (at intersection)	Ashfield	Non-compliant pram ramps	Refer to RMS: install standard pram ramp	0	6	1	7	low	medium
70	Frederick St	Church St (at intersection)	Ashfield	Non-compliant pram ramps	Refer to RMS: install standard pram ramp and kerb	0	6	1	7	low	medium
73	Frederick St	Heighway Ave	Ashfield	Non-compliant pram ramps	Refer to RMS: Rebuild ramps	0	6	1	7	low	medium
79	Frederick St	Thomas St	Ashfield	Non-compliant pram ramps	Refer to RMS: Rebuild ramps	0	6	1	7	low	medium
84	Haberfield Rd	Parramatta Rd (at intersection)	Haberfield	Non-compliant pram ramps	Refer to RMS: install standard pram ramp	0	6	1	7	low	medium
92	Holden St	19	Ashfield	The southern ramp at the driveway is not compliant	Rebuild ramp	0	6	1	7	low	low

98	Junction Rd	Teakle St (at intersection)	Summer Hill	Non-compliant pram ramps across Junction St	install pram ramps	0	6	1	<b>7</b>	low	medium
102	Liverpool Rd	Edwin Street	Ashfield	Non-compliant ramps	Rebuild ramps	0	6	1	<b>7</b>	low	medium
105	Liverpool Rd	Greenhills Street	Ashfield	Non-compliant ramps	Rebuild ramps	0	6	1	<b>7</b>	low	medium
107	Liverpool Rd	Highbury Street	Ashfield	North-western ramp not compliant	Rebuild ramp	0	6	1	<b>7</b>	low	low
119	Norton St	A'Beckett Ave	Ashfield	Unaligned ramps	provide compliant ramps	0	6	1	<b>7</b>	low	medium
124	Norton St	Hugh Street	Ashfield	Unaligned ramps	provide compliant ramps. Possible kerb blisters	0	6	1	<b>7</b>	low	medium
128	Old Canterbury Rd	Carrington St (at intersection)	Summer Hill	Non-compliant ramp	Refer to RMS: install standard pram ramp, kerb	0	6	1	<b>7</b>	low	low
127	Old Canterbury Rd	Edward St	Summer Hill	Kerb ramps not aligned to the travel path	Works by developer	0	6	1	<b>7</b>	low	n/a
149	Queen St	Pyrmont Street	Ashfield	Non-aligned ramp (southwest)	Rebuild aligned ramp	0	6	1	<b>7</b>	low	low
153	Ramsay St	Frederick Street and Wattle Street	Ashfield	Non-compliant ramps	Refer to RMS: rebuild ramps	0	6	1	<b>7</b>	low	medium
155	Rawson St	Waratah St (at intersection)	Haberfield	Non-compliant pram ramp	install standard pram ramp and kerb	0	6	1	<b>7</b>	low	low
170	Victoria St	Clissold St (at intersection)	Summer Hill	Non-compliant ramp	install standard pram ramp	0	6	1	<b>7</b>	low	low
3	Arthur St	A'Beckett Ave	Ashfield	No ramps on Arthur Street	Build ramps on one of the Arthur Street's approaches	0	2	3	<b>5</b>	low	medium
5	Arthur St	Rose Street	Ashfield	No ramp or non-compliant ramp	Provide compliant ramps on Rose Street and on one of Arthur Street's approaches	0	2	3	<b>5</b>	low	medium
17	Chandos St	Denman Ave (at intersection)	Haberfield	No pram ramp to cross Denman Ave	install pram ramp	0	2	3	<b>5</b>	low	medium
20	Charlotte St	St Vincent's Primary	Ashfield	several children using this crossing	Refer to RMS: potential to introduce School Crossing Supervisor	0	2	3	<b>5</b>	low	low
181	Charlotte St	St Vincent's Primary	Ashfield	faded marking and damaged sign at crossing	repaint pavement and replace damaged sign	0	2	3	<b>5</b>	low	low
21	Charlotte St	Webbs Ave	Ashfield	missing ramp & non-compliant ramp	install standard pram ramps & kerbs	0	2	3	<b>5</b>	low	medium
23	Church St	14 (beside driveway)	Ashfield	No ramps linking sides	Provide ramps	0	2	3	<b>5</b>	low	medium
57	Edwin St S	Thomas St (at intersection)	Croydon	No pram ramp	install pram ramp	0	2	3	<b>5</b>	low	low

		intersection)									
66	Elizabeth St	Wallace St (30m east of)	Ashfield	Provide crossing / refuge to continue walking	introduce crossing / refuge and / or signage	0	0	5	<b>5</b>	low	high
81	Gillies Ave	Winchcombe Ave	Haberfield	No ramps	Install ramps on the southern and eastern approaches	0	2	3	<b>5</b>	low	medium
94	Holden St	Fifth Street	Ashfield	No ramps on Holden Street	Provide ramps on one side of Holden Street	0	2	3	<b>5</b>	low	medium
96	Hugh St	Arthur Street	Ashfield	Only one (non-compliant) ramp at the intersection	Install ramps on the northern and eastern approaches	0	2	3	<b>5</b>	low	medium
116	Loudon Ave	Chelmsford Ave (20m east of)	Haberfield	no crossing near school	investigate warrants for crossing	0	2	3	<b>5</b>	low	medium
135	Ormond St	Gower Street	Ashfield	Non-compliant ramps	Install compliant ramps on the eastern approach	0	2	3	<b>5</b>	low	medium
162	Sloane St	Stanton Road	Haberfield	Ramps on the western approach are either missing or irregular	Rebuild ramps	0	2	3	<b>5</b>	low	medium
173	Victoria St	Seaview St (at intersection)	Summer Hill	No pram ramp	install pram ramp	0	2	3	<b>5</b>	low	low
175	Watson Ave	Georges River Rd (at intersection)	Croydon Park	No pram ramp	install standard pram ramp and kerb	0	2	3	<b>5</b>	low	low
193	Ormond St	Gower Street	Ashfield	Missing ramps	Install ramps and refuge on the southern approach	0	2	3	<b>5</b>	low	medium
4	Arthur St	Joseph Street	Ashfield	No ramp or non-compliant ramp	Provide compliant ramps on Joseph Street and on one of Arthur Street's approaches	0	0	3	<b>3</b>	low	medium
6	Barton Ave	Forrest Street	Haberfield	Ramps missing: southern approach, western side; western approach	Install ramps	0	0	3	<b>3</b>	low	medium
7	Barton Ave	Kingston Street	Haberfield	Kerb ramps missing on all approaches	Install ramps on all approaches	0	0	3	<b>3</b>	low	medium
8	Barton Ave	O'Connor Street	Haberfield	Kerb ramps missing on all approaches	Install ramps on all approaches	0	0	3	<b>3</b>	low	medium
18	Chandos St	Tinana St (at intersection)	Haberfield	No pram ramp	install pram ramp	0	0	3	<b>3</b>	low	medium
22	Chelmsford Ave	Loudon Ave (at intersection)	Haberfield	Unaligned pram ramp	relocate pram ramp	0	2	1	<b>3</b>	low	low
25	Church St	Lucy Street	Ashfield	Non-compliant ramps on both Lucy Street approaches	Provide compliant ramps on both Lucy Street approaches	0	2	1	<b>3</b>	low	medium

47	Deakin Ave	Forrest Street	Haberfield	Discontinued ramps on the western side of the intersection: the northern ramp leads to a driveway	Rebuild ramps metres to the west	0	2	1	<b>3</b>	low	low
51	Denman Ave	Yasmar Avenue	Haberfield	Poor lighting in front of Haberfield Public School	Upgrade lighting	0	2	1	<b>3</b>	low	medium
52	Dover St	Kensington Street	Summer Hill	Non-compliant ramps; no ramps on Dover Street	Extend kerbs and rebuild ramps; provide ramps on one side of Dover Street	0	0	3	<b>3</b>	low	medium
56	Edwin St S	Heighway Ave (at intersection)	Croydon	Non-compliant pram ramp	install standard pram ramp	0	2	1	<b>3</b>	low	low
80	Georges River Rd	Milton St (at intersection)	Croydon Park	pedestrian crossing button facing wrong direction	Refer to RMS: relocate pedestrian button	0	2	1	<b>3</b>	low	n/a
86	Hawthorne Pde	41	Haberfield	Discontinued ramp; no ramps connecting west-east	Provide ramp in front of #24/26	0	0	3	<b>3</b>	low	low
88	Herbert St	Rosemount Ave (at intersection)	Summer Hill	No pram ramp	install pram ramp	0	0	3	<b>3</b>	low	low
89	Herbert St	Henson St (at intersection)	Summer Hill	No pram ramp	install pram ramp	0	0	3	<b>3</b>	low	low
95	Holden St	Hanks Street	Ashfield	Non-compliant ramps	rebuild ramps	0	2	1	<b>3</b>	low	medium
97	Hugh St	First laneway on western side	Ashfield	Non-compliant ramps	Provide ramps	0	2	1	<b>3</b>	low	medium
117	Milton St	Arthur St (at intersection)	Ashfield	Non-compliant ramp	Refer to RMS: install standard ramp	0	2	1	<b>3</b>	low	low
121	Norton St	Access beside #32	Ashfield	Non-compliant ramps and lowered kerbs	Rebuild kerbs and ramps	0	0	3	<b>3</b>	low	medium
139	Pembroke St	Ormond Street	Ashfield	Non-aligned and non-compliant ramps on western approach	Rebuild ramps	0	2	1	<b>3</b>	low	medium
156	Regent St	Henson St (at intersection)	Summer Hill	Non-compliant pram ramps	install standard pram ramp and kerb	0	2	1	<b>3</b>	low	low
157	Robert St	William Street	Ashfield	No ramp on William Street	Provide ramps on William Street	0	0	3	<b>3</b>	low	medium
171	Victoria St	Harland St	Summer Hill	Non-compliant pram ramp	install standard pram ramp and kerb	0	2	1	<b>3</b>	low	low
1	Armstrong St	Goodwin Street	Ashfield	Non-compliant ramps	Provision of ramps	0	0	1	<b>1</b>	low	medium
53	Edward St	Laneway south of Smith St	Summer Hill	Kerb ramp - poor drainage	Works by developer	0	0	1	<b>1</b>	low	n/a

63	Elizabeth St	Federal Ave (at intersection)	Ashfield	Non-compliant pram ramps	install standard pram ramps	0	0	1	<b>1</b>	low	medium
65	Elizabeth St	Oak St (at intersection)	Ashfield	Non-compliant pram ramps	replace pram ramps	0	0	1	<b>1</b>	low	medium
85	Hardy St	Hanks Street	Ashfield	Non-compliant pram ramps	install standard pram ramp	0	0	1	<b>1</b>	low	medium
118	Moonbie St	Lorne St (at intersection)	Summer Hill	Non-compliant ramp	install standard pram ramp	0	0	1	<b>1</b>	low	low
133	Ormond St	Bruce Street	Ashfield	Non-compliant ramps	providing compliant ramps	0	0	1	<b>1</b>	low	medium
134	Ormond St	Bruce Street	Ashfield	long crossing	provide Kerb extension	0	0	1	<b>1</b>	low	medium
167	Throughout		Throughout	no tactiles at signalised crossings or key generators	review & identify a list of specific locations needing tactile surfaces at signalised crossings and near key generators	n/a	n/a	3	<b>n/a</b>	low	high
168	Throughout		Throughout	poor taxi facilities for people with disabilities	review & identify a list of specific locations needing the installation of mobility ramps	n/a	n/a	3	<b>n/a</b>	low	high
177	Throughout		Throughout	Insufficient wayfinding signage for pedestrians	Consider developing a Wayfinding Scheme	n/a	n/a	1	<b>n/a</b>	low	high

\*Low cost: below \$5,000; medium cost: between \$5,000 and \$20,000; high cost: above \$20,000

## 5.4 FUNDING

### 5.4.1 ROADS AND MARITIME SERVICES (RMS)

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

- Preparation of Pedestrian Access and Mobility Plans - This document
- Upgrading of existing pedestrian infrastructure
  - Kerb ramps with tactile indicators built in accordance with AS1428 - 1 & 4 and RMS guidelines
  - “Scramble” crossings (exclusive pedestrian phase)
  - Pedestrian priority systems
- 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 would fund any upgrades of State controlled roads (e.g. Liverpool Road, Frederick Street). This would include the provision of new pedestrian crossing legs at intersections.

### 5.4.2 DEVELOPER CONTRIBUTIONS

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A number of recommendations have been outlined in this PAMP which directly relate to upcoming or proposed developments within the LGA. 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.

## **5.5 IMPLEMENTATION AND MAINTENANCE**

In order to continue the provision of facilities which improve pedestrian safety along the road network, it is important that sufficient funds be budgeted on an annual basis to maintain these assets in a safe and usable condition. Maintenance costs will vary depending on the location and type of pedestrian facility. However, it is considered that the maintenance needs of pedestrian facilities within the Ashfield LGA could be adequately managed via an annual allocation within the overall maintenance budget.

### **5.5.1 FOOTPATH MAINTENANCE**

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Given that footpaths form the majority of pedestrian facilities throughout the Ashfield LGA, pavement maintenance is a high priority. Footpaths and shared paths require regular inspection and routine maintenance to ensure that the pavement is maintained in a smooth and safe condition. Inspections resulting in a condition rating should be undertaken by Council's officers on an annual basis.

Concrete pavements should have cracks repaired, or whole sections repaired when the extent of cracking or failures is assessed as extreme. Well-constructed concrete paths could be expected to have an average useful life of 50 years. For asphalt or bitumen footpaths, routine maintenance comprises of the repair of crack and potholes, with resurfacing generally five to ten years in accordance with condition assessment undertaken by Council's Officers.

For footpaths that have brick pavers, routine maintenance is comprised of the replacement of damaged pavers and the relaying of a section of pavers as necessary.

### 5.5.2 Maintenance of other Pedestrian Facilities

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Other pedestrian facilities should be inspected by Council's officers on an annual basis, or following receipt of a community complaint, to assess the condition of the asset and identify any maintenance that may be required.

### 5.5.3 Follow-up Activities

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A review of the Ashfield LGA PAMP 2015, including a revision of the proposed works, should be undertaken as part of the development of Council's future Delivery Programs and Annual Operational Plans.

## 6 CONCLUSIONS AND RECOMMENDATIONS

The development of the Ashfield PAMP followed the guidelines provided in RMS' *"How to Prepare a Pedestrian Access and Mobility Plan – An easy three stage guide"*. The recommendations within this PAMP have been linked in a staged action plan to relevant planning and other strategic documents.

A Project Steering, made up of high level stakeholders and experts, was created to provide guidance on the PAMP's key issues along its key milestones, such as confirmation of objectives, identification of the Study Area, consultation process, stakeholders, and sign-off.

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 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
- Consideration of the existing pedestrian facilities usage, current issues and locations for improvement and future demand as outlined through the community consultation process

Community and Stakeholders consultation was undertaken as part of the development of the PAMP for the study area to ensure the new plan meets the needs of the community now and into the future. This consultation involved an on-line survey, stakeholders' consultation and public exhibition.

Other tasks associated with the study included the review and assessment of crash data and review of previous correspondence of local residents to council.

The most common comments from the community and stakeholders regarding pedestrian issues included:

- Poor quality footpaths
- The lack of pedestrian crossing facilities
- Missing pram ramps
- Traffic in the area travelling too quickly

Audits were conducted along all PAMP routes, and the findings of the audits now form the basis of the PAMP Action Plan.

The audit focused on identifying existing facilities, land uses, any shortcomings in the pedestrian environment and potential safety issues. The key issues and constraints included:

- Poor quality footpath surfaces
- Missing pedestrian links
- Lack of pedestrian crossings
- Poor quality pedestrian crossings
- Street furniture in footpaths, blocking the path of pedestrians
- Lack of disabled or pram access
- Lack of a comprehensive way-finding scheme
- Poor lighting in specific locations

Recommended actions have been identified in the form of the PAMP Action Plan. These actions were developed primarily through the physical field audits undertaken on all the priority routes identified in the PAMP network as well as through the literature review and consultation comments, from the local community and stakeholders, through a series of

actions, including public exhibition of a number of documents prepared by the study team in coordination with the Project Steering Group.

The RMS' "How to Prepare a Pedestrian and Accessibility Mobility Plan" was used as a guide to determine the prioritisation of the proposed pedestrian infrastructure improvements. Based on this document, and together with Ashfield Council's representatives, another scoring system, more appropriate to the local conditions, was utilised based on the following criterion:

- Pedestrian Route Hierarchy
- Focus Areas
- Safety/ Level of Risk

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 Ashfield LGA.

The Action Plan is composed of 199 individual actions, each of which have been prioritised as follows:

- High priority works (0-5 years): total of 20 items
- Medium priority works (5-10 years): total of 87 items
- Low priority works (10-25 years): total of 78 items

5 items referred to issues throughout the LGA as opposed to specific locations. As such, they could not be given a score based on whether they were located on the pedestrian road hierarchy or focus area. 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 following recommendations are made as part of the Ashfield PAMP:

- Adopt the recommended Action Plan for the ongoing construction of pedestrian and access mobility facilities
- Review and make recommendations with regards to the program of works for pedestrian and access mobility infrastructure for future Ashfield Council delivery programs and annual operational plans commensurate with the recommended Action Plan and subject to available funding
- Where appropriate, apply to RMS for pedestrian and access mobility infrastructure funding
- Provide sufficient funds in future Delivery Programs and Annual Operational Plans for the ongoing maintenance of pedestrian and access mobility infrastructure
- Ensure all pedestrian and access mobility infrastructure is either constructed or provided in accordance with the current guidelines and standards
- Ensure that pedestrian and access mobility infrastructure is included in future land development commensurate with the Council's Section 94 Contributions Plan, inclusive of shared paths for pedestrians and cyclists

## **APPENDIX A LITERATURE REVIEW – PREVIOUS STUDIES & PROJECTS**

## Ashfield Accessible Pedestrian Pathways Study (2002)

The study was undertaken by Access Australia Consultants on behalf of Ashfield Council. The study included an audit of pedestrian movements in relation to accessible paths of travel within the Ashfield Municipality. The aim of the study was to provide equity of access within the municipality with the objective of improving the level of pedestrian access, including those with disabilities. The outcomes of the study included the following:

- Provision of a prioritised pedestrian network to assist Council resource allocation
- Development of a Mobility Map to advertise and promote accessible pedestrian pathways within the Municipality
- Development of procedures and guidelines for the construction and maintenance of accessible pedestrian paths of travel on Council and local roads within the Municipality
- Recommendations for Council negotiation with the RMS with regard to creating and maintaining accessible pedestrian pathways on MRS arterial roads such as Parramatta Road and Liverpool Road
- Recommendations for Council negotiation with utility providers, such as Telstra, Energy Australia and Sydney Water, with regard to installing and maintaining service covers on pedestrian paths of travel

The study also provided the prioritisation of pedestrian pathways network which includes the following:

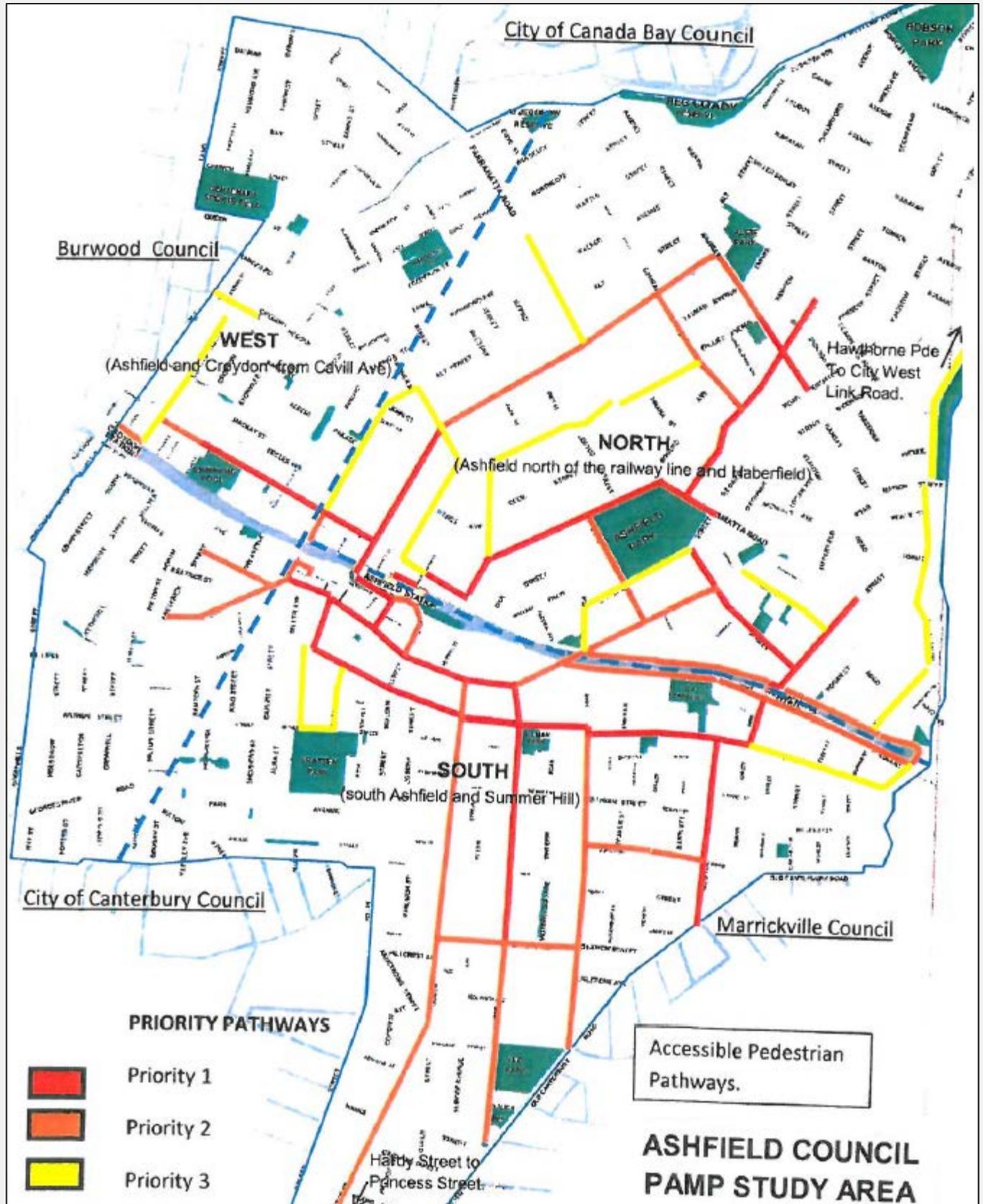
- Priority 1: Pathways radiate from the transport interchanges at Ashfield and Summer Hill Railway Stations. The railway stations, Cardinal Freeman Retirement Village, nursing homes, major schools, shopping areas and some recreational areas were the main generators and attractors
- Priorities 2 and 3: Pathways further extend the proposed accessible pedestrian network to the outer shopping areas, schools and recreational facilities

The document was used in the preparation of this current PAMP predominantly for reference as to which were the previous priority routes identified in the report as well as deficiencies identified. The document serves as a foundation on which to build on and allows for a future assessment of the changing pedestrian needs throughout the LGA by comparing the two PAMPs.

The report included a series of recommendations for ameliorative treatments. Following the completion of the study, recommendations were tabled at Council's Traffic Committee meeting held on Friday 1st March 2002.

The prioritised routes are shown in Figure 6-1 below and listed in further detail in the Ashfield Accessible Pedestrian Pathways Study report.

Figure 6-1: Ashfield Accessible Pedestrian Pathways Study - Priority Pathways



(Source: Ashfield Accessible Pedestrian Pathway Study June 2002)

## **Traffic Management Plan (2002)**

This document is a set of proposals for traffic management improvements. Originally developed in 2001, it was placed under public exhibition in the same year and later discussed in March 2002. The plan includes 23 proposals, 8 of which were implemented. The plan is currently outdated and needs to be renewed. Nevertheless, it provides guidance as to what has previously been considered, supported (or not) and what has been implemented. It provides guidance as to Council's general direction in terms of introducing or enhancing pedestrian facilities.

## **Ashfield Pedestrian Access Mobility Plan (2003)**

The report was prepared by Ashfield Council which included specific areas within the Municipality that define the PAMP. The location and recommended treatment for each of the 6 locations includes the following:

- Pembroke Street / Ormond Street Intersection – Pedestrian Refuge
- Elizabeth Street between Grainger Avenue and Orpington Street – Zebra Crossing
- Orpington Street (near the Ashfield Bowling Club) – Pedestrian Refuge
- Ramsey Street (near Algie Park) – Pedestrian Refuge
- Prospect Road / Norton Street / Smith Street Intersection – Pedestrian Refuge
- Dalhousie Street (bus stop) – Pedestrian Refuge

The list above was scheduled to take place in the 2002 / 2003 budget to be funded jointly by Council and the RMS. All works have since been completed. The report is presented in the appendices along with the detailed design of each treatment. Similarly to other projects previously undertaken, the 2003 PAMP provides guidance as to what Council's general direction is in relation to enhancing pedestrian infrastructure and the types of facilities that are likely to be supported and introduced.

## **Summer Hill Flour Mill Preferred Project Report – Traffic & Transport (2012)**

The Summer Hill Flour Mill Preferred Project Report was prepared as a response to the Department of Planning and Infrastructure's (DoPI) Preferred Project Report advice dated 16 September 2011. The matters addressed that are related to this study includes the assessment of linkages for walking and cycling which should include consideration of public domain upgrades to be included in the VPA. The report included a local precinct audit of pedestrian and cyclist facilities around the site within 800m. Taking into account the key attractors in the area, pedestrian routes were identified and audited. The key findings of the audit included the following:

- Most kerb ramps do not comply with Australian Standards AS1428 - Kerb ramps are not aligned to the path of travel, are too steep or are not provided
- There is a small section of footpath disconnection along Smith Street, outside of the BP workshop
- There is generally a lack of way finding signage along key pedestrian and cycling routes
- On road cycle route road marking logos at major intersections need to be refreshed with reflective paint
- Lewisham train station and the surrounding area needs to be upgraded and revitalised to improve attractiveness and increase pedestrian and retail activity
- The Edward Street / Smith Street Intersection is offset and wide and could be realigned / improved to reduce the crossing distance, improve pedestrian visibility and reduce traffic speed
- The Carlton Crescent / Grosvenor Crescent intersection needs to be upgraded such that pedestrian refuges and kerb ramps are provided at all four arms of the roundabout

A total of 22 treatments were recommended along the pedestrian route, some of which are outside of the study area. The current PAMP incorporates the area surrounding the Flour Mill Site that lies within the Ashfield LGA, identifying treatments and upgrades as well as indicating which treatments should be delivered by the developer.

## WestConnex

This 33 kilometre project was a key recommendation of the State Infrastructure Strategy released in October 2012 and is the largest integrated transport and urban revitalisation project in Australia. WestConnex is one of the NSW Government's key infrastructure projects, with the purpose of reducing congestion and connecting communities.

According to its website, "... It brings together a number of important road projects which together form a vital link in Sydney's Orbital Network. They include a widening of the M4 east of Parramatta, a duplication of the M5 East and new sections of motorway to provide a connection between the two key corridors". Figure 6-2 below illustrates the overall WestConnex Map.



Figure 6-2: West Connex Railway Project

Work is due to start on Stage 1 of WestConnex in 2015, providing “a widened M4, from Church Street, Parramatta to near Concord Road and an extension of the M4 via a tunnel under the Parramatta Road corridor to Parramatta Road and City West Link, Haberfield”, as illustrated in Figure 6-3. Stage 1 will be open to traffic in 2019.

Stage 3 is due to open to traffic in 2023 and will deliver a motorway tunnel with three lanes in each direction between the first two stages, linking the M4 and M5 corridors together. The latest realignment of Stage 3 will continue to support the reduction of traffic on Parramatta Road enabling urban renewal. As a consequence of the project, urban renewal will transform the Parramatta Road corridor, affecting for the better local communities.

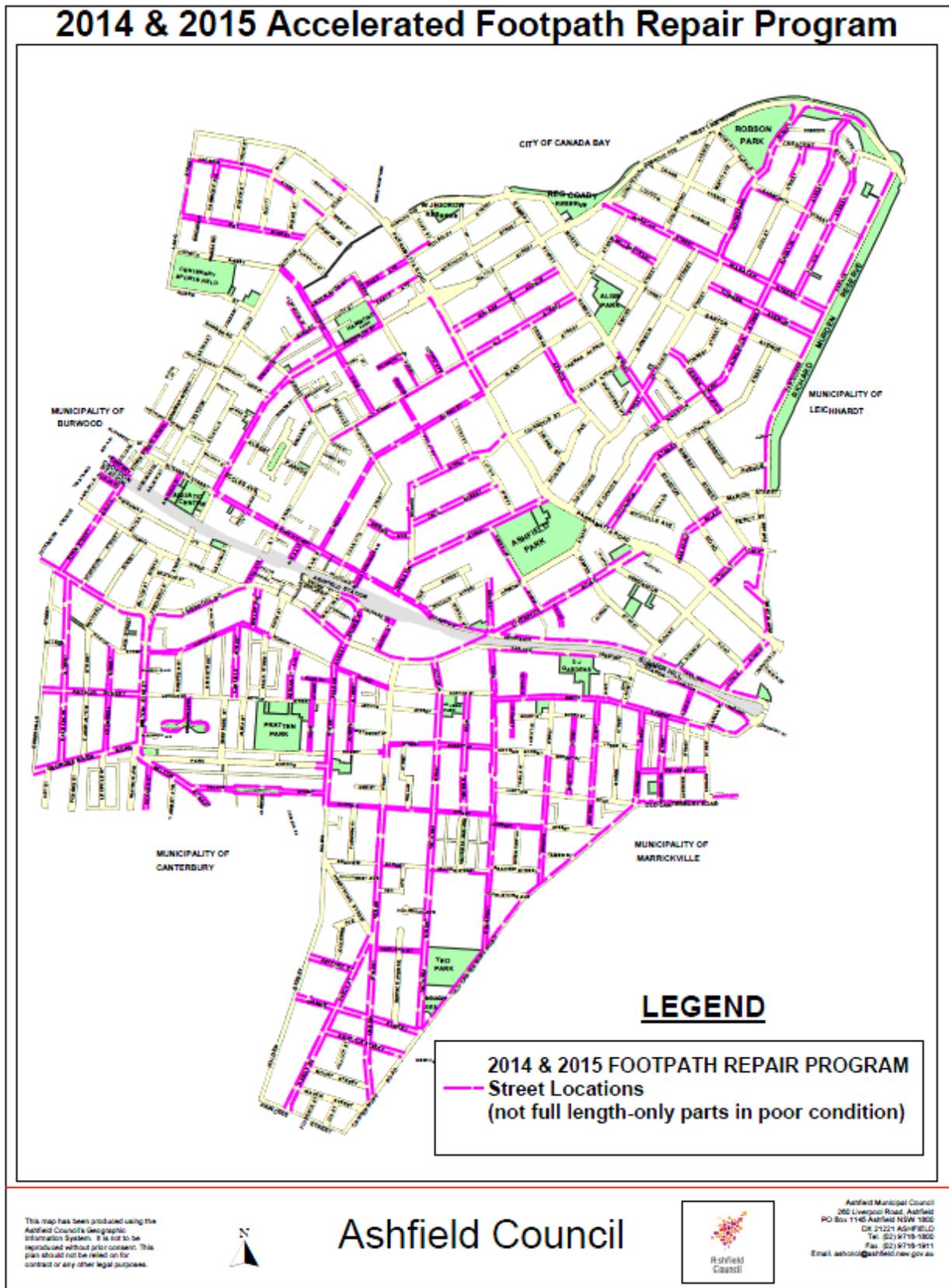
A Draft Parramatta Road Urban Renewal Strategy has been developed and has so far involved close engagement with councils, State government, urban and transport planners, industry stakeholders and a selected Community Panel who have worked together and shared information and views. At present, this strategy includes a Draft Land Use and Transport Concept. Public consultation is ongoing until 12 February 2015. Future studies will feature infrastructure requirements such as transport, water, sewer and drainage networks and for social infrastructure, recreational and other services. The project may impact the study area and overlap some of this study's findings and recommendations. However, the extent of the impact are unknown at this point in time.

The Ashfield PAMP study was initialised prior to the announcement of the WestConnex project. The works associated with the WestConnex have not been considered in the PAMP study as these works or their impacts are still not sufficiently known.

## **2014 & 2015 Ashfield Accelerated Footpath Repair Program**

Ashfield Council developed a footpath repair program, which is still under implementation. It is typical for some of the findings in a PAMP to include the need to repair footpaths. It is therefore envisaged that many of the findings will overlap with the Accelerated Footpath Repair Program (AFRP). Any locations that have already been flagged under the AFRP will therefore be excluded from the PAMP given that they are already being addressed. The streets under this program are identified in Figure 6-3 below and are flagged to have their footpaths repaired under the program.

Figure 6-3: Accelerated Footpath Repair Program



## Ashfield Town Centre Renewal Project

Ashfield Council is in process of developing a Town Centre Renewal Project. The area to be impacted by this study is Ashfield Town Centre, around the Ashfield Railway Station, encompassing roads such as Liverpool Road, Hercules Street and The Esplanade. The proposals include:

- Better lighting and street furniture
- Repaving streets and widening footpaths
- Providing more opportunities for relaxation and outdoor dining in places like Hercules Street and The Esplanade.
- "Greening" the Town Centre
- Activating unused spaces
- Better facilities for cyclists

Figure 6-4 and Figure 6-5 illustrate the latest plans as of December 2014. The findings of the PAMP will be assessed and incorporated into this proposal where appropriate.

Figure 6-4: Town Centre Public Domain Master Plan

Figure 6-5: Priority Upgrade Areas

## Greenway Project

The Greenway Project involves the association of pedestrian and bicycle routes along the border with Leichhardt, on the eastern side of Ashfield, within Richard Murden Reserve and along Hawthorn Parade until Cooks River. According to its website [www.greenway.org.au](http://www.greenway.org.au), "The GreenWay is an urban green corridor in Sydney's Inner West. It is a bush corridor and a hub for community arts and groups, bushcare, walking and cycling. The GreenWay Community is maintaining a campaign to build an off-road shared path from the Cooks River to Iron Cove. This trail was to be built as part of the Inner West Light Rail Extension but was deferred by the state government. As an interim measure we have marked out an alternative route to help people travel along the corridor". The PAMP assesses the existing bicycle routes noting that where deficiencies are found on a temporary route it may not be prudent to improve bicycle infrastructure for a short term period. Figure 6-6 illustrates the location and extension of the Greenway.

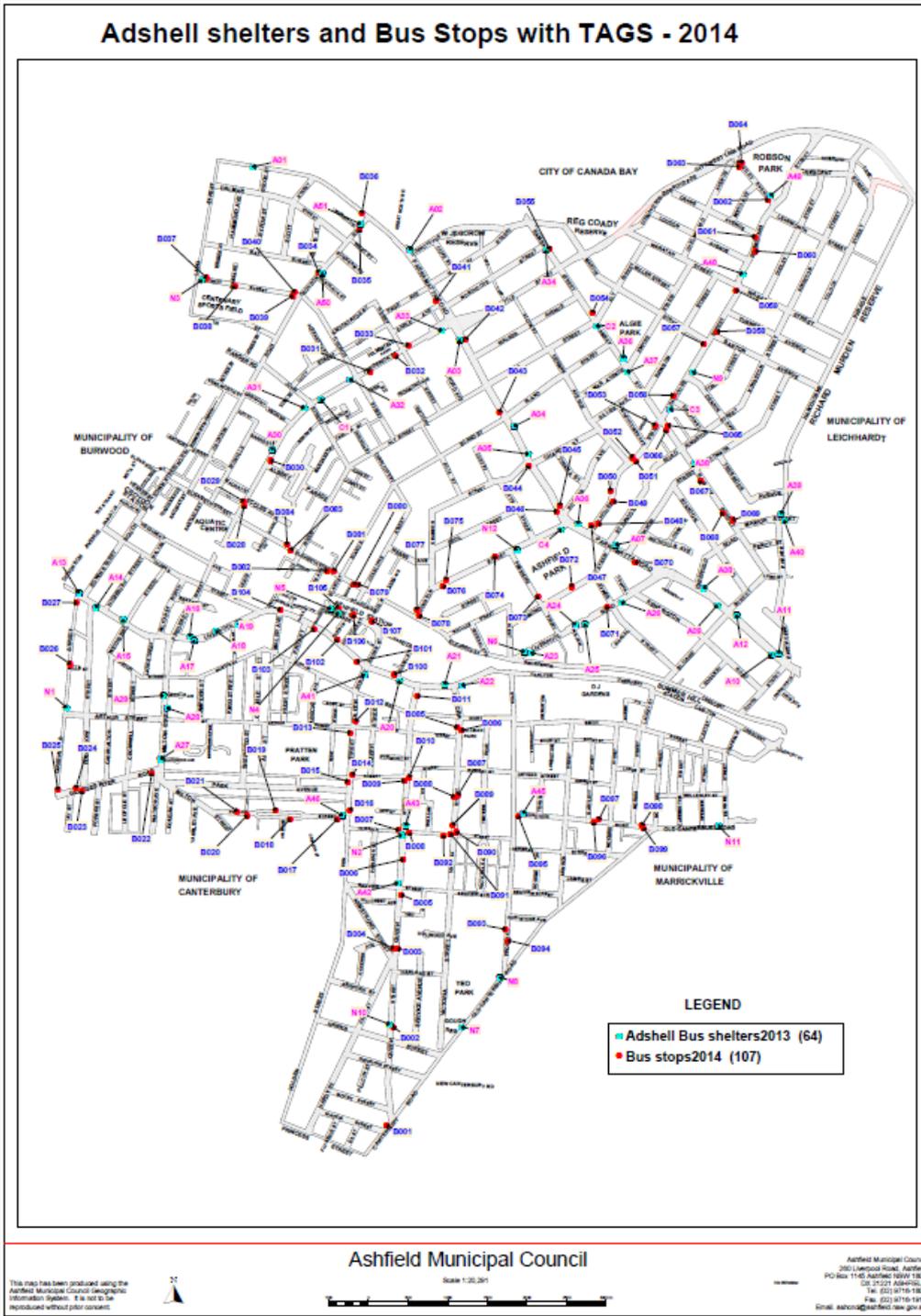
Figure 6-6: Greenway Map

The section relevant to this study extends along Hawthorn Parade to the vicinity of Old Canterbury Road.

# Bus Shelter Program

It is typical for a PAMP to include as part of recommendations the introduction of bus shelters where appropriate. However, given that Council is currently introducing bus shelters throughout the LGA under the Bus Shelter Program, they have been excluded from the PAMP. Figure 6-7 below provides information about bus shelters within Ashfield Council's LGA.

Figure 6-7: Bus Shelter Program Map



## **APPENDIX B DESIGN STANDARDS**

Section 3.3 provides a summarised list of the appropriate standards and guidelines for the design of pedestrian facilities. An overview of these standards and guidelines is provided in this appendix. It should be noted that current standards and guidelines are more directly applicable to new 'greenfield' areas with no constraints. However, the road network throughout the Ashfield LGA was constructed several years ago and are considered to be 'brownfield' areas. The nature of the existing road network therefore consists of several constraints such that the current standards and guidelines cannot always simply be introduced. As such, it is considered best practice to observe the current standards and guidelines as desirable to be adopted where possible.

The RMS provides continuous update to its standards and guidelines in its website. The following links provide information regarding RMS' Technical Directions associated with the design of pedestrian facilities and all issues associated with pedestrian safety.

<http://www.rms.nsw.gov.au/search-results.html?q=technical+directions+pedestrians#gsc.tab=0&gsc.q=technical%20directions%20pedestrians&gsc.page=1>

<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/guidelines/complementary-traffic-material/traffic-transport-technical-direction-documents.html>

Table 3-1 lists the standards and guidelines used to prepare this report. The most relevant items have been discussed below in further detail.

## Path Provisions

A basic requirement to the street system is to provide easily negotiated routes for all people, most commonly provided by footpaths along streets and roads. All roads (except an Access Place) should provide some type of walking facility out of the vehicle path. A path requirement according to the street type is shown in Table B-6-1 below.

Table B-6-1: Footpath Requirements by Street Type

Street Type	Footpath Requirement
Access Place	No path required
Access Street	Path required on at least on side of the road with the provision for a footpath on the other side of the road if required in the future.
Collector Street	Path required on both sides of the road
Trunk Collector Street	Path required on both sides of the road only if connected with the Pedestrian Network

It should be noted that the above table is more appropriately aimed at new developments and should only be viewed as a guide for existing road networks.

## Footpath Widths

The appropriate footpath widths are based on the Austroads publication, Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009. It should be noted that the recommendations in the guide are generally intended to be adopted as part of greenfield locations. Given that the PAMP assess footpaths that are already in existence, the recommendations are viewed as providing guidance as to what are desirable outcomes, noting that they may not always be achievable in existing sites.

In terms of the minimum widths, the guide stipulates the following:

*“The width of the footpath is dependent on its location, purpose and the anticipated demand on the facility. As a guide, the desirable minimum width of a footpath that has very low demand is 1.2m with an absolute minimum of 1m. These widths should be increased at locations where high pedestrian volumes are anticipated, a footpath is adjacent to a traffic or parking lane, a footpath is combined with bicycle facilities, or the footpath is to cater for people with disabilities”.*

Table B-6-2 and Figure 6-8 below summarised the footpath width requirements based on various scenarios.

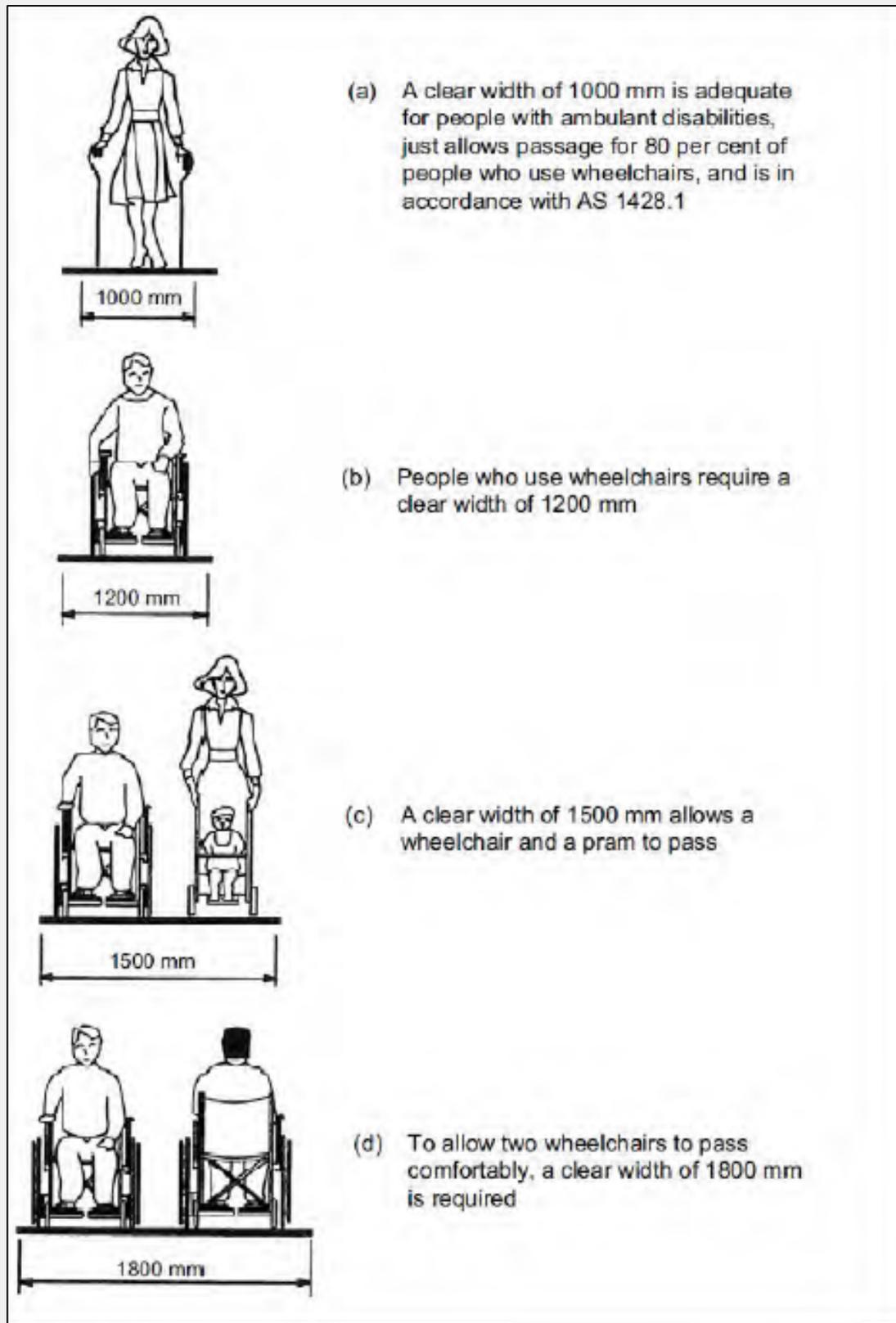
Table B-6-2: Footpath Width Requirements

Situation	Desired width (m)	Comments
General low demand	1.2 to 0.9 (absolute minimum)	General minimum is 1.2m for most roads and streets. Clear width required for one wheelchair. Not adequate for commercial or shopping environments.
High pedestrian volumes	2.4 (or higher based on demand)	Generally commercial and shopping areas.
for wheelchairs to pass	1.8 to 1.5 (Desired minimum)	Allow for two wheelchairs to pass (1.8m comfortable, 1.5m minimum)
for people with disabilities	1 to 1.8 (Desired minimum)	
Shared Paths (Cyclists passing in opposite directions)	2	
Shared Paths (2-way Cyclists, minimal pedestrians)	2.5	
Shared Paths (2-way Cyclists & pedestrians)	3	

(Source: Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009)

The above table is more appropriately aimed at new developments, noting that the Guide is dated 2009, whereby the vast majority of footpaths have been in place for a substantial period of time. Table B-6-2 above and Figure 6-8 below should only be viewed as a guide to “desired” outcome as opposed to a minimum standard.

Figure 6-8: Footpath Widths for Various Users



(Source: Austroads Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths, 2009)

### Maximum Grades

Grades of footpaths and drop kerbs are important as they affect the usability and safety of pedestrian facilities. Long sections of high grade footpath can be difficult for mobility impaired users to negotiate.

High grade drop kerbs can also cause safety issues for mobility impaired users. Users can become vulnerable to general traffic as they attempt to leave the carriageway and proceed up steep ramps. Table B-6-3 below shows the maximum grades for footpaths and drop kerbs.

Table B-6-3: Footpath & Ramp Gradients

Facility Type	Grade	Comment
<b>Footpaths</b>		
recommended maximum	1 in 33	Grades steeper than 1 in 33 require level rest areas at regular intervals
absolute maximum	1 in 20	Grades steeper than 1 in 20 should be considered as ramps for design purposes
<b>Drop Kerb</b>		
recommended maximum	1 in 10	Grades steeper than 1 in 10 may cause wheelchairs to tip backwards
absolute maximum	1 in 8	Should only be used in extenuating circumstances

The above standards are more applicable to new developments given that most paths throughout the Ashfield LGA have been in place for a substantial period of time. The gradients should be viewed as a guide to achieve a “desired” outcome.

### Kerb Ramps

The difference in the level between the footpath and the roadway is a common situation that poses difficulties for pedestrians, particularly with mobility and vision impairments. A kerb ramp provides a smooth change in the level between the footpath and the roadway.

Ashfield Council utilises its own developed standard pram ramp drawing, supported by RMS.

Figure 6-9: Kerb Ramp Design – Ashfield Council

(Source: Ashfield Council)

#### **Additional Features Associated with Kerb Ramps**

- Tactile Paving - Tactile paving should also be provided to indicate the edge of the roadway to sight impaired pedestrians
- Pavement surface
- Signs & line markings
- Tactile Tiling Gratings

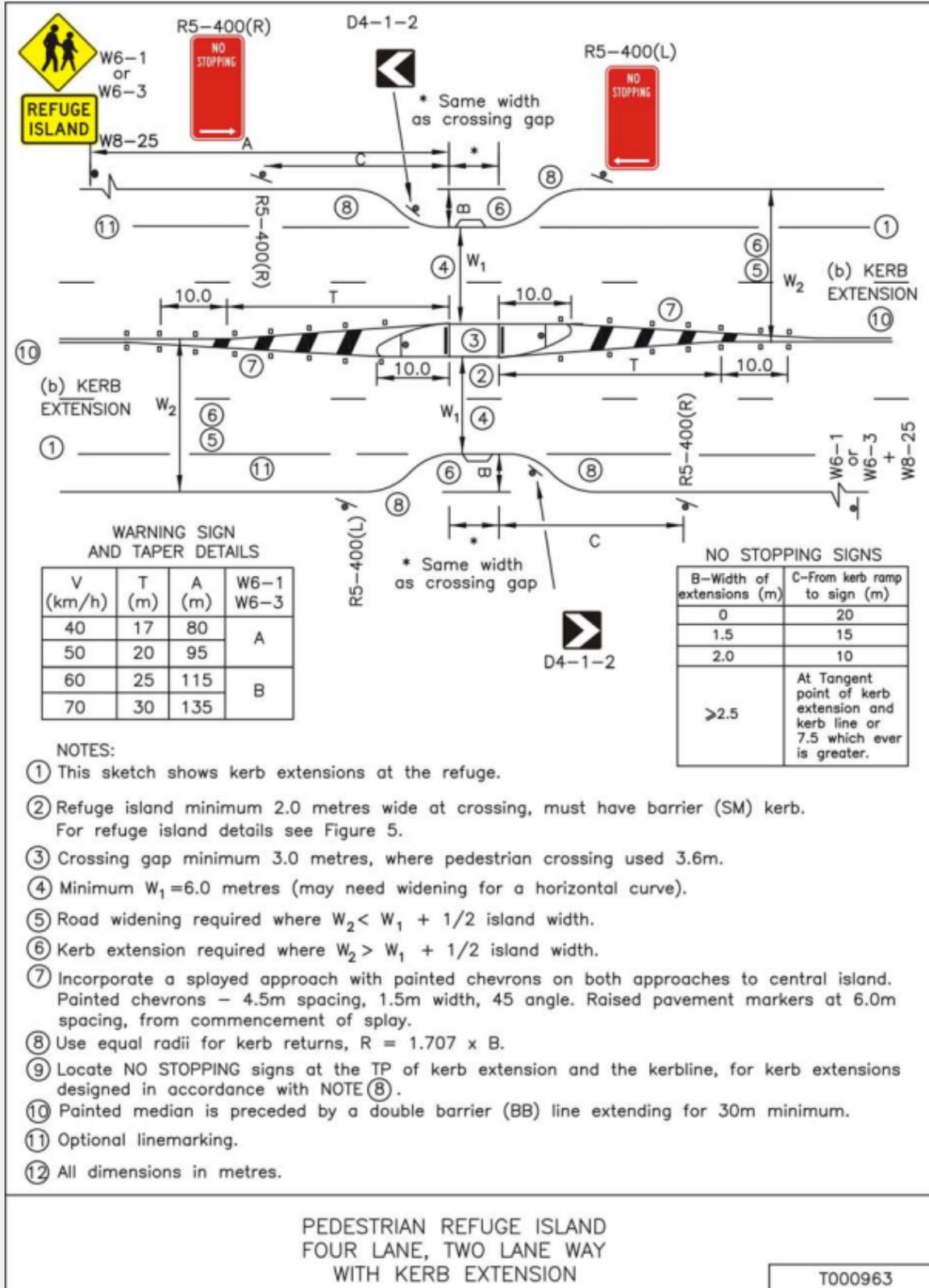
### **Pedestrian Refuges**

Pedestrian Refuges allow a safe point for pedestrians undertaking a staged crossing of a wide or busy road. It is noted that many people do not feel safe when using refuges such that kerb extensions should be considered to reduce the total width of the road at the crossing points rather than using refuges. Austroads Guide to Road Design – Part 4: Intersections and Crossings – General, 2009, stipulates the following:

- Where the refuge connects significant shared use paths the minimum width of refuge of 2m is likely to be inadequate and a greater width should be provided, and warning signs should include a bicycle;
- Street lighting should be provided in accordance with AS/NZS 1158.1; and
- Pedestrian assist handrails may be provided where space is available in the island. If provided, they should be frangible.

The general layout of a pedestrian refuge is provided in below in Figure 6-10.

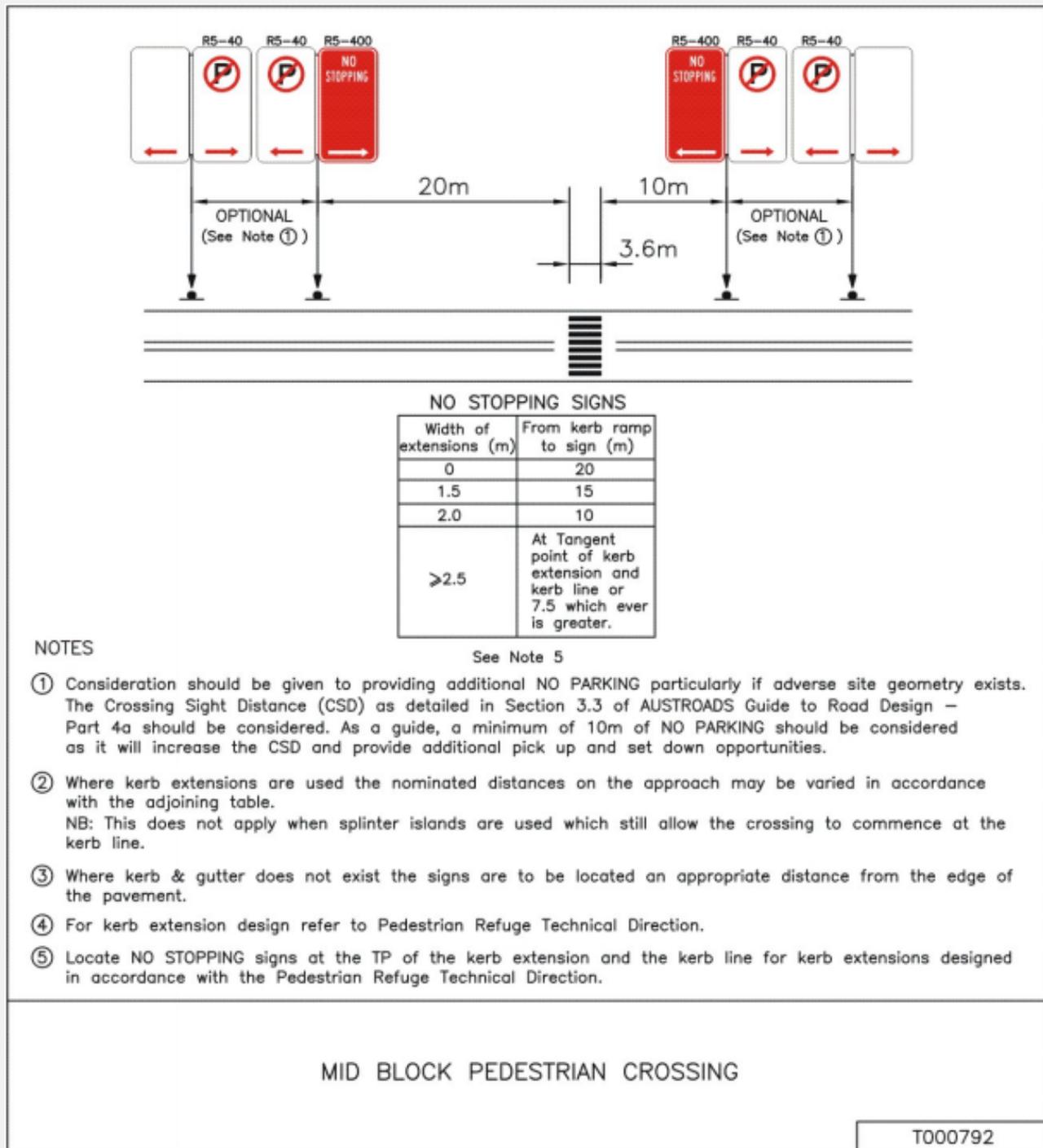
Figure 6-10: Example of an RMS Standard Pedestrian Refuge



(Source: RMS Technical Directions – TDT 2011/01a)

Further to the above, it is acknowledged that kerb extensions without a refuge island may be considered to be a more appropriate treatment in certain areas, particularly in brownfield areas. These treatments are acceptable in accordance with Australian Standards and RMS Technical Directions. There is no minimum carriageway width stipulated, however, it is reasonable that the width cater for the largest vehicles to comfortably travel through the lanes such as trucks or buses. This will generally result in 3.2m wide carriageway widths.

Figure 6-11: Example of an RMS Standard Midblock Crossing

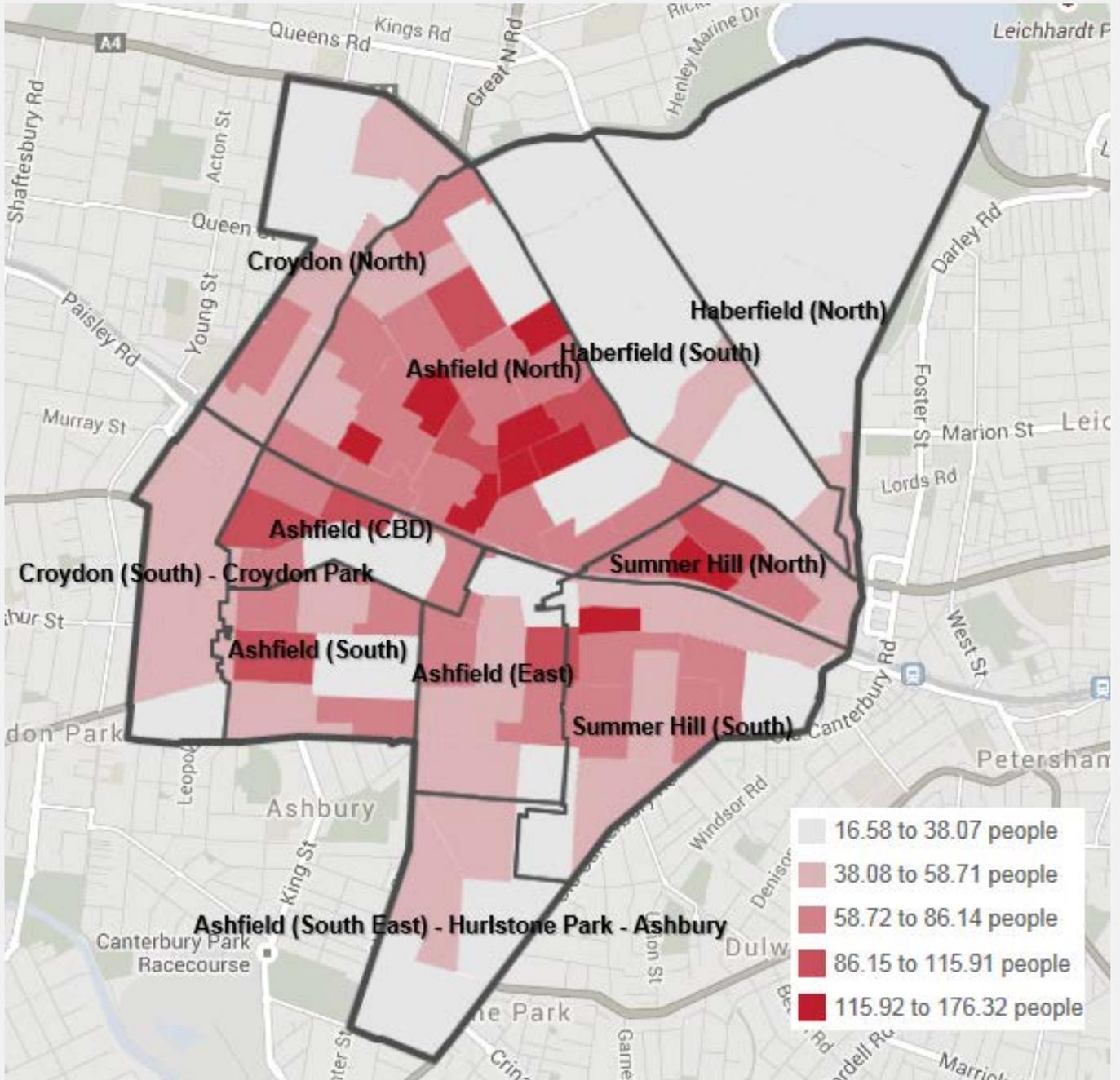


## **APPENDIX C CHARACTERISTICS OF ASHFIELD**

## Population Density in Ashfield Council (2011)

A map showing the population density within Ashfield LGA is provided below. It is clear that the suburbs immediately north of Ashfield Railway Station have significantly higher population density. This is due to the number of apartments in the area. The higher population density areas, which are generally located closer to railway stations, are likely to generate a higher pedestrian traffic volume associated with residential dwellings. This information provides guidance as to where the key pedestrian traffic generators are located and assists in determining the priority of pedestrian routes.

Figure 6-12: Ashfield LGA Population Density (Persons per Hectare)



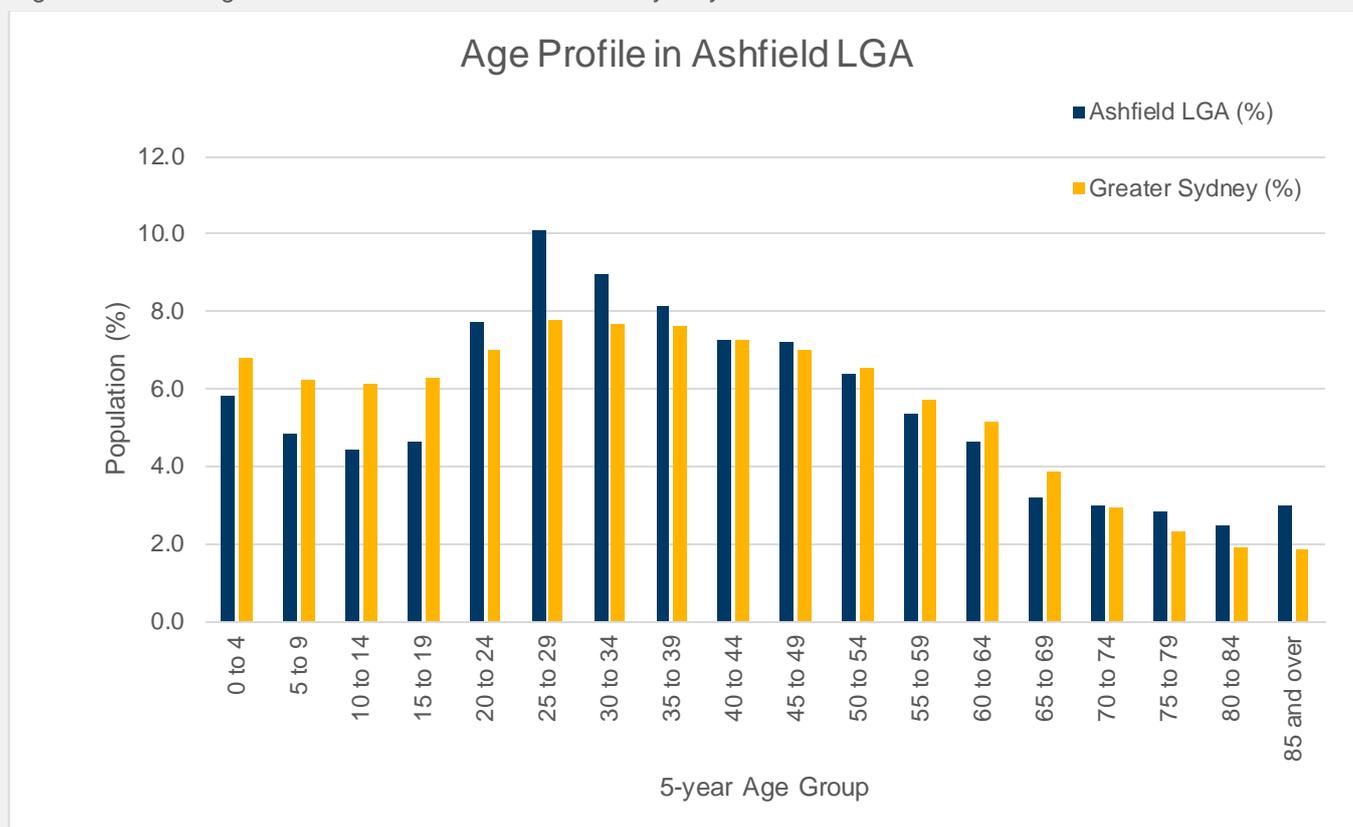
(Source: atlas.id.com.au)

Implications for the PAMP: The population of Ashfield is concentrated around the LGA's town centres, indicating that these areas should receive greater attention in this study.

## Demographics – Ashfield LGA (2011)

The age profile in the Ashfield LGA provides a picture of who the pedestrians are using the facilities throughout Ashfield. In turn, it indicates which user groups the facilities should be designed to accommodate. Figure 6-13 below was taken from 2011 ABS data.

Figure 6-13: Age Profile in Ashfield LGA & Greater Sydney



(Source: Australian Bureau of Statistics (ABS, 2011))

The data above is summarised as follows:

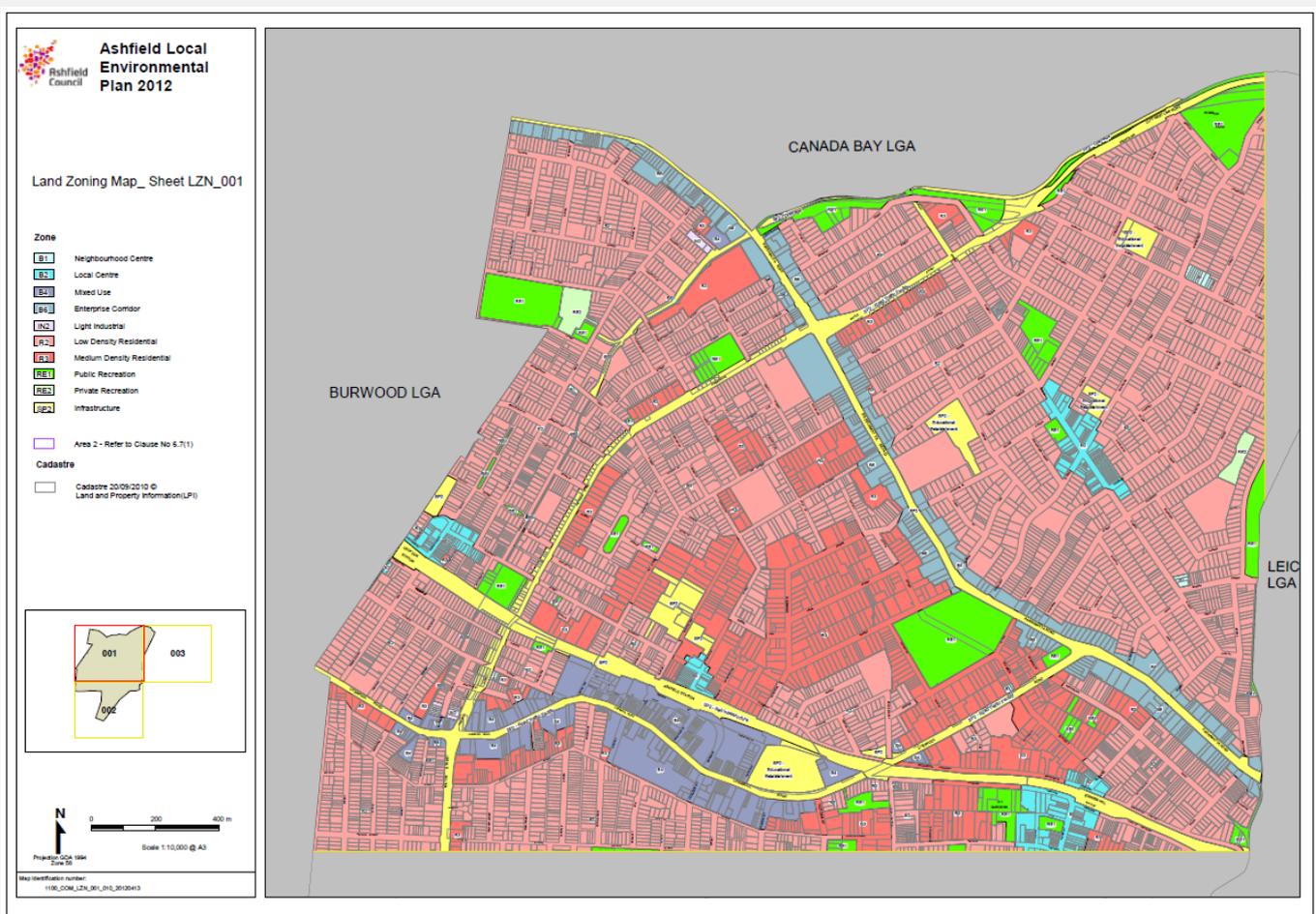
- The proportion of age groups between 0 and 19 is significantly lower than the greater Sydney. This indicates a lower number of school children
- The proportion of people aged 70 and over is higher and increases as the age group increases. This indicates that there are more retired people and potentially more retirement villages and aged care facilities. Retirees are more likely to make short, non-work based pedestrian trips
- The proportion of people between 20 and 45 is also higher indicating that there may be more people in the work force

Implications for the PAMP: Council has a significant aged population with lower than average car ownership. This suggests that there is a high dependency on walking or public transport and given its significant aged population this makes pedestrian mobility and access a key issue, highlighting the increasing need to cater for the elderly.

## Land Use and housing

Ashfield Council's LEP defines the several land uses throughout Council's LGA. The land use data provides further assistance in identifying where key pedestrian traffic generators are located as well as identifying key pedestrian routes. The Land Zoning Map is presented in Figure 6-14 below.

Figure 6-14: Ashfield LEP 2012 Land Zoning Map



From the LEP land zoning map we can identify where the following key traffic generators are located:

- Residential dwellings, noting that the higher the residential density, the higher the pedestrian traffic will be generated
- Commercial Zones – which generate pedestrian traffic predominantly from residential dwellings
- Transport Infrastructure – which generates pedestrian traffic to and from residential dwellings as well as to and from Commercial Zones
- Recreational centres – which generates pedestrian traffic from all of the above, noting that they generally generate the least pedestrian traffic

Figure 6-15 below illustrates the existing (2012) dwelling densities in Ashfield, thereby providing a more detailed insight into residential pedestrian traffic generators.

Figure 6-15: Ashfield Dwelling Density

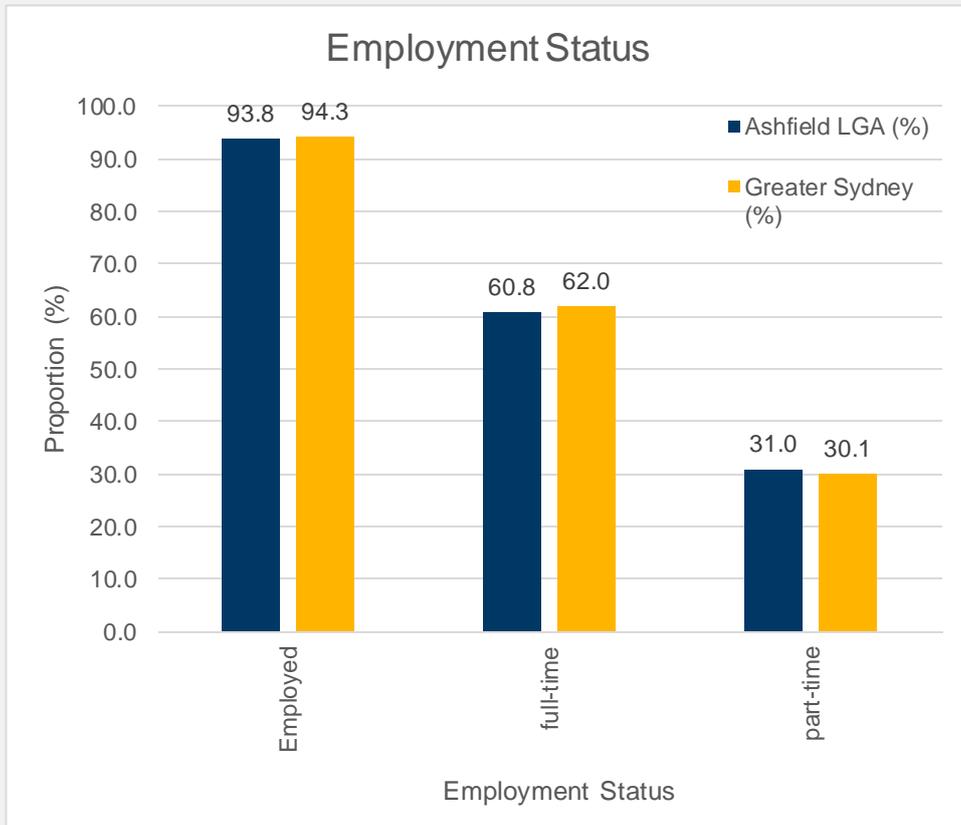
(Source: Ashfield Council, Extract of “Structure Plan” as submitted to State Department of Planning in 2012 as part of Section 64 submission for the draft version of Ashfield LEP)

Implications for the PAMP: The above factors generators viewed in conjunction to their location and proximity to each other generally provide an indication of the most dominant pedestrian routes.

## Employment in Ashfield

A comparison of the employment rates in Ashfield LGA to Greater Sydney is provided in Figure 6-16 below. The data further indicates the characteristics of pedestrians in the area. The statistics indicate that the two are quite similar, however, there are slightly lower proportion of employed people in Ashfield overall, with a lower proportion of full time employees and a slightly higher proportion of part time employees. These statistics are reflective of the larger proportion of people aged over 70.

Figure 6-16: Employment Status in Ashfield LGA & Greater Sydney

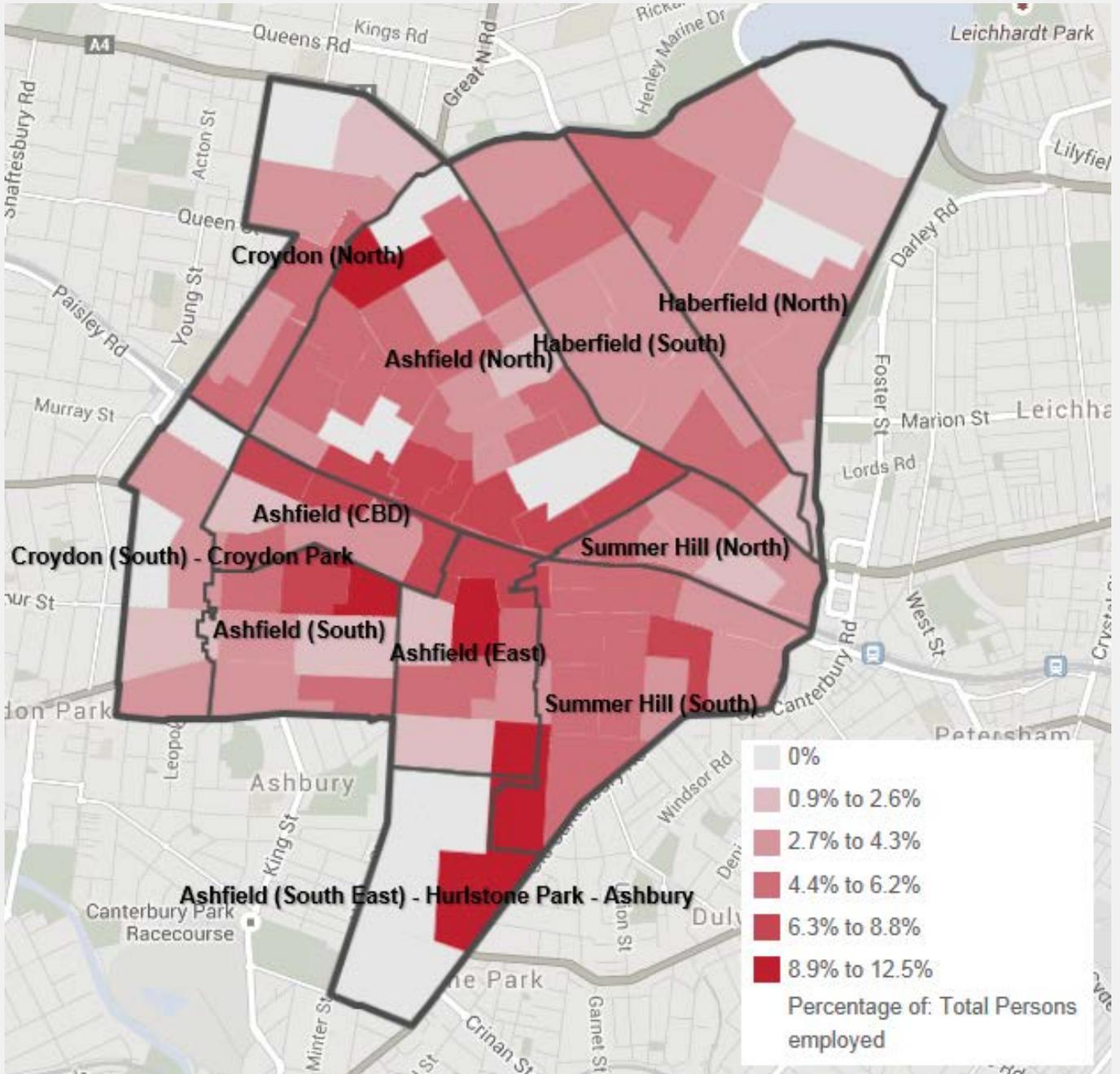


(Source: Australian Bureau of Statistics (ABS, 2011))

### Employees who Walk to Work

Figure 6-17 below shows the locations of where people walking to work reside, thereby providing further indication of dominant pedestrian routes throughout the LGA. The figure indicates that the vast majority are located near business centres such as Ashfield, Hurlstone Park and Croydon Park, Croydon and Summer Hill.

Figure 6-17: Walk to Work Data for Ashfield LGA

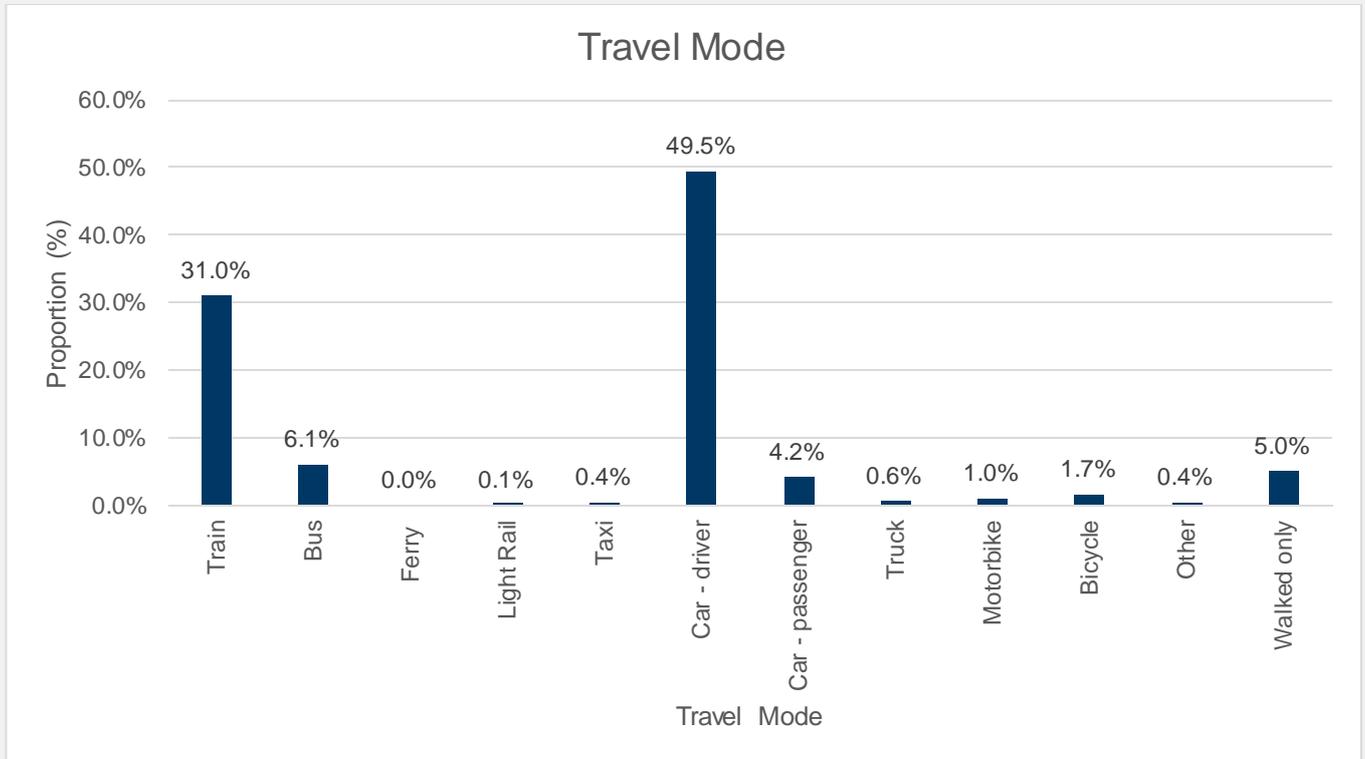


(Source: atlas.id.com.au)

### Journey to Work Data

The journey to work data for Ashfield LGA is presented in Figure 6-18 below. The two main mode shares include data indicates that the vast majority of commuters travel by car (49.5%) or train (31%). The remaining travel modes are all relatively lower with the next highest proportion is travelling by bus (6.1%). It should be noted that the next most popular travel mode is by walking (5%) and is of a similar proportion to the proportion travelling by bus.

Figure 6-18: Journey to Work Data for Ashfield LGA

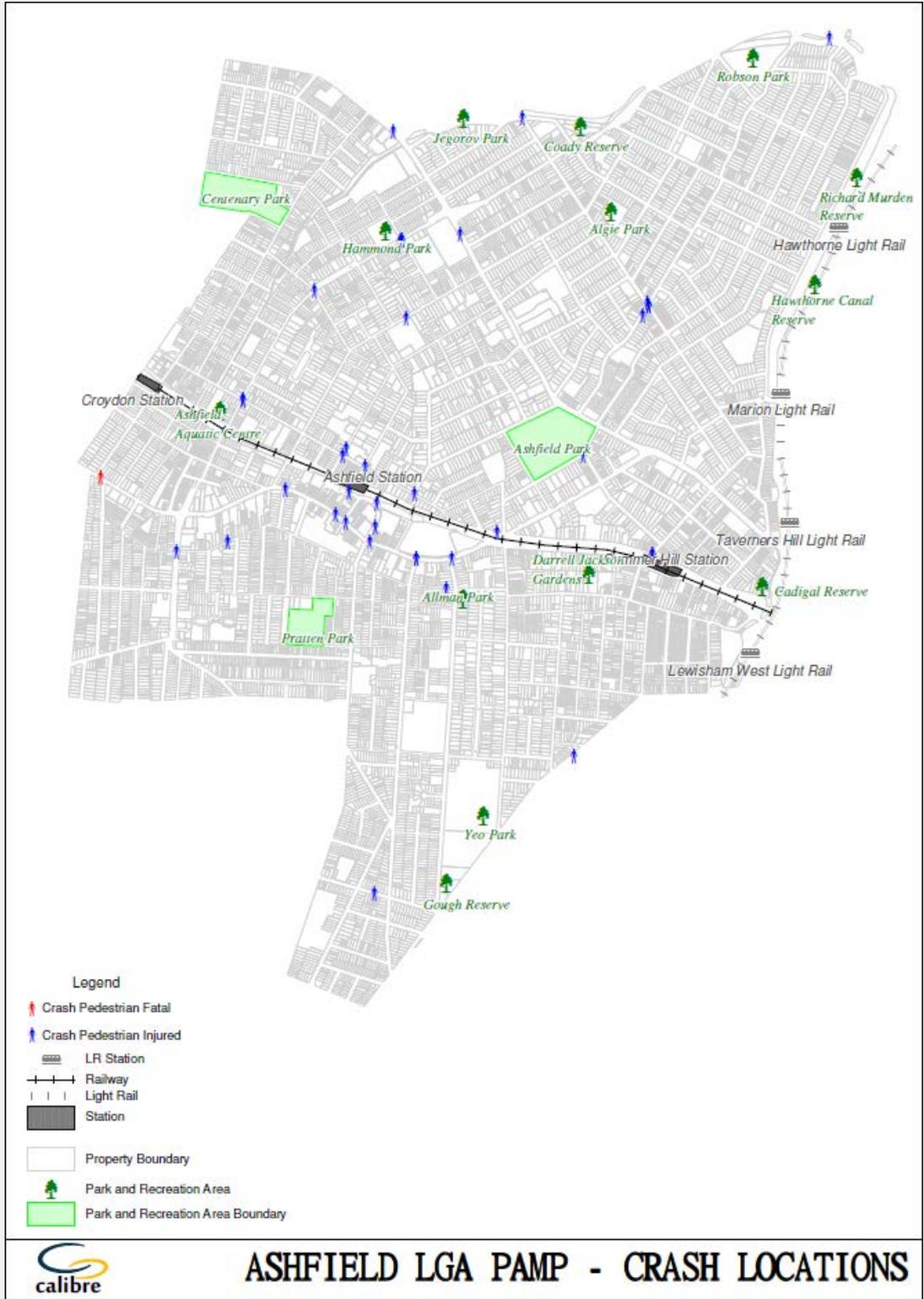


(Source: Australian Bureau of Statistics ABS, 2011)

**Implications for the PAMP:** Relatively low figures for walking and cycling within Ashfield suggest that there is space to encourage the local population towards active transport, reducing the use of private vehicles. The high use of public transport is clearly mirrored in the figure.

## **APPENDIX D CRASH DATA**

Figure 6-19: Ashfield LGA Crash Locations



## **APPENDIX E BUS SERVICES**

Figure 6-20: Bus Route Map

- 406 – Hurlstone Park – Ashfield – Rodd Point – Five Dock
- 413 – Campsie – Ashbury – City
- 418 – Burwood – Ashfield – Dulwich Hill – Tempe – Randwick – Bondi Junction
- 436 – Chiswick – Rodd Point – Leichhardt – City
- 438 – Abbotsford – Leichhardt – City
- 439 – Mortlake – Leichhardt – City
- 460 – Five Dock – Concord Hospital
- 461 – Burwood – Parramatta Road – City – Domain
- 462 – Ashfield – Burwood – Mortlake
- 464 – Mortlake – Burwood – Ashfield
- 466 – Cabarita – Burwood – Strathfield – Ashfield
- 480 – Strathfield – Homebush Road – Ashfield – City
- 483 – Strathfield – South Strathfield – Ashfield – City
- 491 – Five Dock – Canterbury – Bardwell Park – Hurstville
- L37 – Haberfield – Rozelle – City
- L38 (Prepay) – Abbotsford – Leichhardt – City
- L39 (Prepay) – Mortlake – Leichhardt – City

## **APPENDIX F PUBLIC CONSULTATION**

## **APPENDIX G KEY PEDESTRIAN ATTRACTORS AND GENERATORS**

## Public Transport

- Ashfield Train Station and bus interchange: accessible from Brown Street (at the Hercules Street intersection) or from Station Street
- Croydon Train Station: accessible via Meta Street
- Summer Hill Train Station: accessible via Grosvenor Crescent and Carlton Crescent
- Marion Light Rail Station: adjacent to Marion Street and Hawthorne Parade
- Taverners Hill Light Rail Station: adjacent to Parramatta Road and the Hawthorne Canal
- Lewisham West Light Rail Station: on the border of Lewisham and Summer Hill
- Hawthorne Light Rail Station: within Leichhardt, adjacent to the Hawthorne Canal

## Shopping Centres

- Ashfield Mall: Located on 260A Liverpool Road, adjacent to Ashfield Council's Civic Centre. The redevelopment of the site includes residential and commercial mixed use
- Ashfield Town Centre: this retail centre is a vibrant multi-cultural area, which includes sections of Liverpool Road, Elizabeth Street, Hercules Street, Holden Street, Knox Street, among others
- Haberfield Town Centre: includes Ramsay Street, Gilles Avenue, Dalhousie Street and Rawson Street
- Summer Hill Town Centre: it is centred on a small town square, surrounded by cafés and restaurants along Lackey and Smith Streets. At present, the town centre is a 40 km/h high pedestrian activity area
- Croydon Town Centre: its southern part is mainly composed of streets around Croydon Railway Station, with a number of restaurants and cafes, while the older Edwin Street precinct, north of the line, is mainly specialist businesses such as printers. In addition the commercial area along Parramatta Road is mainly used car yards and light industrial

## Clubs

- Ashfield Bowling Club: corner of Parramatta Road and Orpington Street
- Ashfield RS Club: 374 Liverpool Road
- Club Ashfield: 1-11 Charlotte Street
- Polish Club: 73 Norton Street
- Pratten Park Bowling Club: Pratten Park
- UTS Haberfield Rowing Club: Dobroyd Parade
- West Sports Club: 114 Church Street

## Schools

- Ashfield Primary School: Corner Liverpool Road & Murrell Street
- Ashfield Boys High School: 117 Liverpool Road
- Bethlehem College: 18 Bland Street
- Canterbury Boys High School: Holden Street
- De La Salle College: 24 Bland Street
- Haberfield Public School: Bland Street, Haberfield
- St Vincent's Primary School: 30-34 Charlotte Street
- Yeo Park Infants School: Victoria Street, adjacent to Yeo Park
- St Patrick's Catholic School: 9 Drynan Street
- St Joan of Arc Catholic School: 88 Dalhousie Street
- Summer Hill Public School: Moonbie Street, Summer Hill
- Trinity Grammar School: 119 Prospect Road – with proposed redevelopment and student increase
- Dobroyd Point Public School: Waratah Street, Haberfield

### **Retirement villages/ Nursing homes/ Hospitals/ Residential Centres/ medical centres**

- Cardinal Freeman Retirement Village: 137 Victoria Street (major redevelopment expected)
- Grosvenor Centre: 46-56 Liverpool Road
- Sydney Private Hospital: 63 Victoria Street
- United Gardens Private Hospital: 11 Moonbie Street
- Wyoming Aged Care Facility: 47 Grosvenor Crescent
- Ella Centre: 58ADalhousie Street
- Abrina Nursing Home: 19-21 Victoria Street
- Bethel Nursing Home: 31 Clissold Street
- BUPA Nursing Home: 126-128 Frederick Street
- BUPA Nursing Home Ashbury: 16 Hardy Street
- Cardinal Freeman Nursing Home: 4 Clissold Street
- Presbyterian Aged Care: 40 Charlotte Street
- Quong Tart at Gallop House: 48 Arthur Street
- St Joan of Arc Villa: 7 Tillock Street
- Summer Hill Aged Care Facility: 102 Prospect Road
- The Willows Private Nursing Home: 84 Orpington Street
- Windermere Nursing Home: 5 Henson Street
- Woodfield Nursing Home: 14-15 Stanton Road
- Wesley Hospital Ashfield: 91 Milton Street
- Foundation Disability: 14 Bruce Street
- Hurlstone Park Health Care Centre: 234 New Canterbury Road

### **Major Future Development Application Approvals**

The future development applications provide an indication of the location and potential pedestrian activity concentration within Ashfield LGA, in particular within town centres. Major developments include:

- Woolworths development – 202 Parramatta Road
- Summer Hill Flour Mills development – Smith Street, Summer Hill. The redevelopment includes residential and commercial mixed use. Section 2.17 identified the impacts of this development upon the road network

### **Recreation Areas**

- Allman Park: corner of Victoria Street and Norton Street
- Ashfield Park: bounded by Parramatta Road, Orpington Street, Pembroke Street and Ormond Street
- Centenary Park/ Sports Field: bounded by Church Street, Lang Street and Queen Street
- DJ Gardens: between Carlton Crescent and Smith Street
- Pratten Park: between Arthur Street and Robert Street
- Richard Murden Reserve/ Hawthorne Canal Reserve/ Cadigal Reserve: along Hawthorne Parade
- Ashfield Aquatic Centre - Elizabeth Street, Croydon
- Yeo Park/ Gough Reserve: between Victoria Street and Old Canterbury Road
- Robson Park: bounded by Dobroyd Parade, Boomerang Street and Mortley Avenue
- Algie Park: corner of Ramsay Street and Empire Street
- Coady Reserve: Dobroyd Parade
- Jegorov Park: Dobroyd Parade
- Hammond Park: Frederick Street, Henry Street and Lucy Street

## **Churches**

- St John's Anglican Church Ashfield: 64 Bland Street
- Haberfield Baptist Church: 96-98 Dalhousie Street
- St Joan of Arc: 97 Dalhousie Street
- Uniting Church: 180 Liverpool Road and 51 Parramatta Road
- St Vincent de Paul Catholic Church: 12 Bland Street
- St Patrick's Catholic Church: 5 Drynan Street
- St David's Haberfield Uniting Church: 51 Dalhousie Street
- Tongan Uniting Church: 27 Arthur Street
- Ashfield Baptist Church: 19 Holden Street
- Ashfield Presbyterian Church – 3 Knox Street
- St Oswald's Anglican Church and Shalom Community Church: 10 Dickson Street
- Bread of Life Christian Church: 2A Holden Street
- Ashfield Seventh Day Adventist Church: 52 Carlisle Street
- Australian Chinese Christian Church: 117 Liverpool Road
- Summer Hill Church: 2 Henson Street
- Croatian Catholic Centre: 15 Prospect Road
- The Media Evangelism Australia: 7 The Esplanade
- Centre Church for Harvest: 49 Dalhousie Street



## **APPENDIX H KEY STAKEHOLDERS**

## **Schools**

- Ashfield Primary School
- Ashfield Boys High School
- Bethlehem College
- Canterbury Boys High School
- De La Salle College
- Haberfield Public School
- St Vincent's Primary School
- Yeo Park Infants School
- St Patrick's Catholic School
- St Joan of Arc Catholic School
- Summer Hill Public School
- Trinity Grammar School
- Dobroyd Point Public School

## **Childcare Centres**

- Ashfield Baptist Childcare
- Ashfield Child Care Centre
- Ashfield Early Learning Centre
- Ashfield Little Bunnies Day Care Centre
- Blue Ribbon Nannies & Carers
- Chanel's Family Day Care
- Chaya's Family Day Care
- Coscare Child Care Centre
- Croydon Park Cottage
- Ella Community Before & After School Care
- Elstead Nursery Kindergarten
- Goodstart Early Learning Ashfield
- Goodstart Early Learning Haberfield
- Greenhills Early Learning Centre
- Hosanna Child Care Centre
- Kiddie Kapers Child Care Learning Center
- Kids @ Weldon Ashfield Middle Childhood Services
- Kindy Patch Ashfield
- Ku Croydon Preschool
- Marys Kindy- Haberfield
- My Little Friend
- Rainbow Educational Child Care Centre
- Share Children's Activities Centre
- Splash Child Care Centre
- St Johns Preschool Ashfield
- Summer Hill Children's & Community Centre
- The Infants Home Child Care Centres
- The Montessori Academy

### **Clubs**

- Ashfield Bowling Club
- Ashfield RSL Club
- Club Ashfield
- Polish Club
- Pratten Park Bowling Club
- UTS Haberfield Rowing Club
- West Sports Club

### **Retirement villages/ nursing homes/ hospitals/ residential centres/ medical centres/ hospitals**

- Cardinal Freeman Retirement Village
- Grosvenor Centre
- Sydney Private Hospital
- United Gardens Private Hospital
- Wyoming Aged Care Facility
- Ella Centre
- Abrina Nursing Home
- Bethel Nursing Home
- BUPA Nursing Home
- BUPA Nursing Home Ashbury
- Cardinal Freeman Nursing Home
- Presbyterian Aged Care
- Quong Tart at Gallop House
- St Joan of Arc Villa
- Summer Hill Aged Care Facility
- The Willows Private Nursing Home
- Windermere Nursing Home
- Woodfield Nursing Home
- Wesley Hospital Ashfield
- Foundation Disability
- Family Resources and Network Support, Croydon
- Croydon Health Centre

### **Churches**

- St John's Anglican Church Ashfield
- Haberfield Baptist Church
- St Joan of Arc
- Uniting Church
- St Vincent de Paul Catholic Church
- St Patrick's Catholic Church
- St David's Haberfield Uniting Church
- Tongan Uniting Church

- Ashfield Baptist Church
- Ashfield Presbyterian Church
- St Oswald's Anglican Church and Shalom Community Church
- Bread of Life Christian Church
- Ashfield Seventh Day Adventist Church
- Australian Chinese Christian Church
- St Andrews Anglican Church
- Croatian Catholic Centre
- The Media Evangelism Australia
- Centre Church for Harvest

#### **Shopping mall**

- Ashfield Mall

#### **Agencies and others**

- Transport for NSW
- State Transit Authority (STA)
- NSW Taxi Council
- NSW Ambulance
- Fire and Rescue NSW
- Cooks River Alliance
- Greenway Project
- Ashbug
- Ashfield Walking Group