# TOP RYDE CENTRE AND NORTH RYDE SMALL CENTRES PEDESTRIAN ACCESS AND MOBILITY PLAN (PAMP)

FOR

Project

No:

P2320

CITY OF RYDE





16 March 2016

Issue

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Version

No:

002

# **Document Control Sheet**

**Issue History** 

Report File Name	Prepared by	Reviewedby	lssued by	Date	Issued to
P2320 001R Top Ryde PAMP.doc	F. Lau C. Wills	A. Finlay	A. Finlay	17/02/2016	Lara Cumming City of Ry de
P2320 002R Top Ryde PAMP.doc	F. Lau C. Wills	A. Finlay	A. Finlay	1 <b>6/03</b> /2016	Lara Cumming City of Ry de

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# 1. **INTRODUCTION**

## 1.1 BACKGROUND

The City of Ryde (CoR) is exploring ways to identify a continuous and comprehensive integrated pedestrian network across the key centres of Ryde and small centres such as Cox's Road and Blenheim Road shopping centres. *Pedestrian Access and Mobility Plans (PAMPs)* have been developed in recent years for a few key centres, namely:

- Eastwood;
- Macquarie Park; and
- Gladesville.

A PAMP is a comprehensive strategic and action plan to develop pedestrian policies and build pedestrian facilities. It aims to coordinate investment in safe, convenient and connected pedestrian routes by providing a framework



for developing pedestrian routes or areas identified by the community as important for enhanced, sustainable safety, convenience and mobility.

These PAMPs are developed upon the Ryde Integrated Transport and Land Use Strategy. The CoR is continuing in developing PAMPs for the rest of the key centres and selected small centres. To support these initiatives, Bitzios Consulting has been commissioned by CoR to develop PAMPs for Top Ryde Centre, Cox's Road small centre and Blenheim Road small centre.

This report presents the findings of the study and contains:

- An assessment of the existing situation, pedestrian desire lines and activity centres;
- Deficiencies in the existing pedestrian network;
- Community consultation and stakeholder issues;
- An audit of identified pedestrian routes; and
- A list of recommendations to detail further projects for Council to implement.

## 1.2 STUDY OBJECTIVES

The aim of a PAMP is to provide a plan to improve the pedestrian safety and to promote walking within the study area. Key objectives of the CoR PAMP are:

- To facilitate sustainable improvements in the level of pedestrian access and priority, particularly in areas of pedestrian concentration;
- To reduce access severance and enhance safe and convenient crossing opportunities on major roads;
- To identify and propose resolutions to any 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 for the needs of all pedestrians;
- To provide links with other transport services to achieve an integrated network of transport and land use facilities that comply with best practice technical standards;
- To develop a guiding policy and strategy for the key and small centres, linking Council's existing plans in a coordinated manner, (for example: Bike Plans, City of Ryde LEP/DCP, Footpath maintenance and upgrade programs);
- To ensure that pedestrian facilities remain appropriate and relevant to the surrounding land use and pedestrian user groups;
- To enable pro-active infrastructure planning from all available funding sources, and identifying required partnerships with other government agencies;
- To further Council's obligations under the Commonwealth DisabilityAct (1996) with particular focus on the requirements for DDA compliant bus stops; and



 To establish a prioritised works program that includes works schedules, maintenance and upgrade programs to integrate into the City of Ryde Council's four year plan.

### 1.3 **PAMP METHODOLOGY**

This PAMP was prepared in accordance with the document '*How to Prepare a Pedestrian Access and Mobility Plan*' published by NSW Roads and Maritime Services (RMS). This document identifies three stages in the PAMP process (Figure 1.1), namely:

- Stage 1: Objectives definition,
- Stage 2: Community consultation; and
- Stage 3: Implementation



Source: Roads and Maritime Services

### Figure 1.1: PAMP Development Methodology

This PAMP study focuses on one key centre (Top Ryde Centre) and two small centres (Cox's Road and Blenheim Road). The locality of the areas are shown in Figure 1.2 below.





A review of current Council plans and other relevant documents, as well as an analysis of existing community survey and pedestrian crash data was conducted to identify PAMP routes. These routes were then prioritised based on a range of criteria, as discussed in this report. Following community consultation and feedback from CoR, a recommended works program and suggested implementation program was established to improve and/or maintain the pedestrian facilities observed during the audit.

### 1.4 STRUCTURE OF THIS REPORT

This report has been structured to provide:

- Background on the study area such as demographics and existing public transport facilities;
- A review of relevant documentation, crash data, or previous studies in the area;
- The findings of the study investigations, route audits, and stakeholder responses; and
- Recommendations to improve pedestrian facilities and encourage walking within the study area.

# 2. CHARACTERISTICS OF THE STUDY AREA

# 2.1 GEOGRAPHY

The City of Ryde is a Local Government Area (LGA) located 12km northwest of Sydney with an area of 40,651 km<sup>2</sup>. The area is bounded by Terry's Creek, Epping and Marsden Road to the west, Parramatta River to the south, Lane Cove River to the north and Pittwater Road and Lane Cove River to the east. Development is spread evenly throughout the area with 16 suburbs contained within the boundaries and with typically low density residential development with pockets of infrastructure and public recreation areas. The topography of the area is lower in the south-east, south and north east along Parramatta and Lane Cove Rivers and generally slopes upward towards the west and north-west, peaking in Eastwood and Denistone West. For the purpose of this study three precincts have been outlined to focus upon.

*Precinct 1* is located around Top Ryde, the major town centre of the LGA. Top Ryde is built on a plateau with only gentle gradients in the immediate vicinity. *Precinct 2* and *Precinct 3* are located around the small business centres along Cox's Road in North Ryde. North Ryde slopes gently from the south-east to the northwest along Cox's Road with no major undulations.

The LGA is split into three wards; namely:

- West Ward: Melrose Park to Macquarie Park
- Central Ward: Meadowbank to Macquarie Park
- East Ward: Putney/Tennyson Point to Macquarie Park

Figure 2.1 shows the LGA and ward boundaries.



Figure 2.1. City of Dyda LCA



The three precincts chosen by CoR for the PAMP study are located within the Central and East Wards and revolve around centres with high pedestrian generating potential such as schools, shopping centres and public transport hubs.

*Precinct 1* is located in the areas surrounding the Top Ryde Shopping Centre with the area determined by a reasonable walking journey to and from the shopping centre. It contains the following land uses which also act as generators of pedestrian activity:

- Top Ryde Shopping Centre
- Ryde Public School
- Ryde Park
- Bus Interchange

The location of *Precinct 1* is shown in Figure 2.2.



Source: City of Ryde Council

### Figure 2.2: Precinct 1 Area

Victoria Road and Church Street form a major intersection in *Precinct 1*, with Victoria Road connecting the City with Parramatta, and Church Street connecting Strathfield with North Ryde. Other intersections of note include the intersection of Devlin Street and Blaxland Road and the intersection of Devlin Street, Blaxland Road and Lane Cove Road.

*Precinct 2* and *Precinct 3* are located in the areas surrounding the Coxs Road shops and Blenheim Road shops respectively, along Cox's Road, with *Precinct 2* in the west and *Precinct 3* in the East. They contain the following land uses which also act as generators of pedestrian activity:

North Ryde Public School

- North Ryde Golf Course
- Coxs Road Shops
- Holy Spirit Catholic Primary School
- Blenheim Road Shopping Centre
- Religious establishments

The location of *Precinct 2* and *Precinct 3* is shown in Figure 2.3.



Source: City of Ryde Council

### Figure 2.3: Precinct 2 and Precinct 3 Areas

Cox's Road intersects with Lane Cove Road in what is the major intersection in *Precinct 2* and *Precinct 3*, with Cox's Road connecting Lane Cove Road and Pittwater Road, and Lane Cove Road connecting North Ryde to Strathfield. Cox's Road also intersects with other significant intersections at Wicks Road, Badajoz Road and Blenheim Road.

### 2.2 POPULATION AND DEMOGRAPHICS DATA

The City of Ryde LGA has a total population of 114,598 (Australian Bureau of Statistics (ABS) Estimated Resident Population, 2014) across 16 suburbs. It is characterised by predominantly low density residential development with public recreation areas, infrastructure, shopping centres and a band of national park in the north.

The suburbs with the highest populations in the City of Ryde based on the 2011 Census Data (ABS) are Ryde (21%), West Ryde (12%), North Ryde (10%) and Macquarie Park (6%). Eastwood and Gladesville also provided a large portion of the population of Ryde but their full impact is difficult to evaluate as they are

spread over two LGAs. The density of Ryde is an average is 28.32 persons per hectare, that varies between 0.70 and 187.91 persons per hectare. Areas of Ryde, West Ryde, Eastwood and Meadowbank experience the highest population densities. The composition of the population spread in the City of Ryde is shown below in Figure 2.4.



Figure 2.4: City of Ryde Population Breakdown by Suburb

*Precinct 1* covers a very similar area to the region defined as Top Ryde with an approximate population of 5000 people (ABS ERP, 2014). It is characterised by low density residential development, mixed use, high density residential development, public recreation areas and shopping centres. The population density for Top Ryde is 42.03 people per hectare (profile.id, Cityof Ryde), with some variance between the public spaces and high density residential areas.

*Precinct 2* is located towards the western edge of North Ryde with an approximate population of 1500 (atlas.id, City of Ryde). It is characterised bylow density residential development, educational facilities, a golf club, a community centre and shopping centre. The population density for this area is approximately 27 people per hectare (atlas.id, City of Ryde) with variance between the residential and community, shopping, recreational and education centres.

*Precinct 3* is located in central North Ryde with an approximate population of 1200 (atlas.id, City of Ryde). It is characterised bylow density residential development, religious and community services, medical grounds, and a shopping centre. The population density of this precinct is approximately 30 people per hectare (atlas.id, City of Ryde) with variance between the residential and medical, religious, shopping and community centres.

# 2.3 PEDESTRIAN USER GROUPS

Pedestrian planning considers a number of pedestrian facility user groups based on age and assumed capabilities. The ranges are classified as the following:

- Pre-school (ages 0-4)
- Infants (ages 5-8)
- Primary (ages 9-11)
- Secondary(ages 12-17)
- Young Adults (ages 18-25)
- Adults (aged 26-59)
  - Adults (a) from 26-39 years old
  - Adults (b) from 40-59 years old
- Elderly (aged 60+)
  - Elderly (a) from 60-69 years old
  - Elderly (b) f70+ years of age)

The age profile for the City of Ryde LGA is presented in Figure 2.5 below. In comparison to the Greater Sydney area, the City of Ryde LGA has a higher proportion of 20 to 39 year old and 70 years plus residents. Subsequently there are lower proportions in the City of Ryde in all other age ranges with the most significant disparity occurring in the 10-19 years range. With the exception of having noticeably higher proportions of residents in the 20-29 years range and lower proportions of residents in the 10-19 years range, the two samples are comparable with only small differences.



Source: ABS 2011 Census of Population and Housing

## Figure 2.5: Age Profile of the Study Area, compared with Greater Sydney

# 2.4 JOURNEY TO WORK DATA

The Australian Bureau of Transport Statistics (BTS) 2011 Census Journey to Work data provides an indication of popular origins, destinations, as well as the typical mode share for commuters moving from and into the study areas.

## 2.4.1 Precinct 1

One third of workers within the Top Ryde area travel from within the Ryde and Hunters Hill area (33%) with another third of workers travelling from non-neighbouring regions (31%) to the Precinct 1. Other workers to the Top Ryde area come from neighbouring areas, such as Parramatta, Canada Bayand Carlingford among others, in very similar volumes (100-200 workers per day).



In addition, one third of persons employed within the City of Ryde LGA (33%) also resided within the area with a large number also travelling to Sydney Inner City (19%) and non-neighbouring areas (18%). Other areas with a reduced commuter volume from the City of Ryde include Chatswood (8%), North Sydney (4%), Canada Bay (4%) and Parramatta (3%). Overall the data shows that there are a higher volume of non-local journeys to work with similar levels of inbound and outbound commuter trips.

Of the journeys to work to Top Ryde by commuters the overwhelming majority are undertaken by private vehicles with 76% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 15% of trips which is above the average Sydney Greater Metropolitan Area (defined by Bureau of Transport Statistics as including the Illawarra and Newcastle statistical divisions) public transport mode split of 9%, based on the 2010/11 Household Travel Survey. Walking journeys also make up a relatively high 5% of journeys to work. The mode share for persons employed within Precinct 1 is shown inSource: *Australan Bureau of Statistics (ABS) 2011 Journey to Work (JTW) Data* 



Figure 2.6Figure 2.6.

Source: Australian Bureau of Statistics (ABS) 2011 Journey to Work (JTW) Data

### Figure 2.6: Journey to Work Mode Share – Persons Employed in Precinct 1

Of the journeys to work from T op Ryde by commuters residing in Precinct 1 the overwhelming majorityare undertaken by private vehicles with 65% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 27% of trips which is three times the average Sydney Greater Metropolitan Area public transport mode split of 9%, based from the 2010/11 Household Travel Survey. Walking journeys also make up a relatively high 4% of journeys to work. The mode share for persons residing within Precinct 1 is shown in Figure 2.7.



### 2.4.2 Precinct 2

Of the people working in Precinct 2 nearly half live within the Ryde and Hunters Hill area (45%) with nonneighbouring regions (19%) providing the next most workers. Only small proportions of residents travelled from neighbouring areas such as Baulkham Hills (6%), Parramatta (4%) and Hornsby (2%). Overall the data shows that there are a similar quantity of local and non-local journeys to work with similar levels of inbound and outbound commuter trips.

One third of the residents of Precinct 2 travel locally to work in the Ryde and Hunters Hill area (33%). Additionally non-neighbouring regions (18%), Sydney Inner City (16%) and Chatswood (12%) make up the bulk of trips by workers from Precinct 2. Asmall number of workers from Precinct 2 also travel to neighbouring areas, such as Parramatta, North Sydney and the Eastern Suburbs.

Of the journeys to work to Precinct 2 by commuters the overwhelming majority are undertaken by private vehicles with 84% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 10% of trips whilst walking journeys make up 4% of journeys to work. The mode share for persons employed within Precinct 2 is shown in Figure 2.8.





### Figure 2.8: Journey to Work Mode Share – Persons Employed in Precinct 2

Of the journeys to work from Precinct 2 by commuters residing in Precinct 2 the overwhelming majority are undertaken by private vehicles with 69% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 14% of trips and walking journeys also make up 4% of journeys to work. The mode share for persons residing within Precinct 2 is shown in Figure 2.9.







### 2.4.3 Precinct 3

Of the people working in Precinct 3 the majority come from within the Ryde and Hunters Hill area (29%) and non-neighbouring regions (35%). Only small proportions of residents travel from neighbouring areas such as Carlingford (6%), Baulkham Hills (5%), Parramatta (4%) and Chatswood (4%). Overall the data shows that there are a similar quantity of local and non-local journeys to work with more people working in the area than living in the area (greater AM inbound traffic and greater PM outbound traffic).

Around one third of the residents of Precinct 3 travel locally to work in the Ryde and Hunters Hill area (35%). Additionally Sydney Inner City (18%), non-neighbouring regions (15%), and Chatswood (11%) make up the bulk of trips by workers from Precinct 3. Asmall number of workers from Precinct 3 also travel to neighbouring areas, such as Parramatta, North Sydney and Ku-ring-gai.

Of the journeys to work to Precinct 3 by commuters the overwhelming majority are undertaken by private vehicles with 86% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 8% of trips whilst walking journeys make up 3% of journeys to work. The mode share for persons employed within Precinct 3 is shown in Figure 2.10.



Source: ABS 2011 JTW Data

Figure 2.10: Journey to Work Mode Share – Persons Employed in Precinct 3

Of the journeys to work from Precinct 3 by commuters residing in Precinct 3 the overwhelming majority are undertaken by private vehicles with 69% of trips made involving a commuter driving or acting as a passenger. Public transport accounts for 22% of trips and walking journeys also make up 4% of journeys to work. The mode share for persons residing within Precinct 3 is shown in Figure 2.11.



Source: ABS 2011 JTW Data

Figure 2.11: Journey to Work Mode Share – Residents of Precinct 2

Of the categories presented in the data it is expected that public transport journeys (bus and train) will provide additional walking journeys in the precincts. In each precinct the mode share of buses by residents travelling to work is very high which in turn suggests that pedestrian traffic to and from bus stops will be high, highlighting the need to prioritise that bus stops are well connected and serviced by pedestrian facilities. Additionally each precinct has a relatively high rate of walking to work journeys (5% in most cases) which provides an elevated need, along with the high public transport use, for high quality pedestrian facilities in each precinct. Cycling to work by workers of the precincts and workers residing in the precincts is not well represented with approximately 1-2% of commuters travelling by this method.

# 2.5 PLANNING FOR PEOPLE WITH A DISABILITY

Careful consideration is required when assessing the condition and future implementation of pedestrian facilities to ensure that the needs and requirements of all users of anyfacility are considered. The accessibility of those with disabilities along with the connectivity of relevant services and facilities such as public transport, medical facilities and shopping centres, is a vital component of assessing the level of service provided and to be designed pedestrian facilities. The benefits of considered design are not limited to the disabled as all lines of pedestrian transport including walking, running and cycling are aided by thoughtfully planned pedestrian facilities. Alack of consideration in phases of the design process can result in a pedestrian network which excludes or reduces the ability of key user groups to effectively utilities the facilities.

Increasingly design codes and standards, such as the Building Codes of Australia (BCA) and Australian Standards, are stringently considering the needs of the less mobile and implementing requirements for new developments. The impending final implementation of the National Disability Insurance Scheme will allow for the disabled to increase their activities and movement in the community and therefore it is increasingly important that public and pedestrian facilities are designed and constructed accordingly. For this reason it may be important in some instances for designs of new facilities to extend from the minimum required standards to better meet the surrounding conditions and built environment to cater for disabled access and reduce the potential work and cost associated with retrofitting or removal and replacement of aspects of the pedestrian facilities.

Whilst it is not possible to provide pedestrian facilities that allow for all possible user groups to be catered for it is necessary to ensure that priority routes considered are suitable for the maximum number of people from all likely user groups within available budgets and other restrictions. The *Disability Discrimination Act 1992* (DDA) states that it is unlawful to disregard disability standards. Additionally all new infrastructure is to meet updated Australian Standards, such as AS1428, and BCA that set out specific guidelines and requirements for physical access.

The Cityof Ryde outlines in its 2025 Community Strategic Plan that a high priority for the future development of the city is to "To improve connectivity between and accessibility to our suburbs, centres, open spaces and places". The Top Ryde Pedestrian Access and Mobility Plan and its consideration and implementation will play a part in ensuring the council is successful in their stated goals.

# 2.6 TRANSPORT FACILITIES

## 2.6.1 Existing Pedestrian Facilities

Pedestrian accessibility and safety for the maximum amount of user groups are the main targets of a successful PAMP. Particular consideration should be provided to users with restricted mobility, children, sensory and intellectual impairments and the elderlyto ensure that facilities cater for safe and easy use and movement for all. Important factors that play a role in affecting pedestrian movement include:

- Vehicle movement and speeds
- Notification and signposting of desired pedestrian paths
- Condition and access of footpaths
- Adequate crossing provisions (at midblock, roundabouts, intersections, signals etc)
- Lighting and other safety infrastructure

In the City of Ryde LGA it has been a typical focus to increase the vehicular capacity of intersections to reduce congestion, especially in peak times, and travel time for vehicles. As a result intersections are often left with reduced or minimal pedestrian crossing opportunities. For example, some signalised intersections along Victoria Road, Devlin Street and Lane Cove Road do not provide pedestrian crossing facilities on all approaches. However, past improvements such as midblock crossing provisions, including pedestrian refuges and signalised pedestrian crossings, along with pedestrian bridges have improved accessibility for pedestrians.

Generallypedestrian access around major pedestrian generators and attractors in the precincts such as the shopping centres include footpaths on both sides of the road and a variety of crossing provisions including signalised intersections/crossings, pedestrian refuges, zebra crossings and/or pedestrian bridges. However, the condition of the facilities do not encourage pedestrian movement. Manyfootpaths along high prioritised routes such as Victoria Road, Devlin Street, Parkes Street and Coxs Road contain cracking and raised lips between segments that pose trip hazards for less mobile pedestrians. Other barriers to movement are overgrown trees and plants that restrict footpath access in a number of areas, along with bus stops lacking DDA infrastructure such as hardstands and tactile ground surface indicators (TGSI) to assist less mobile bus users, and pedestrian refuges often missing safety handrails.

### 2.6.2 Public Transport

### Trains

The Cityof Ryde contains a train line through the south-western corner of the area with stations at Eastwood, Denistone, West Ryde and Meadowbank, and an underground train line across the north of the area with stations at Macquarie University, Macquarie Park and North Ryde. However, neither train line has reasonable impact on the pedestrian activity of the three study precincts and is therefore not considered in the PAMP. The locality of the train lines in relation to the outlined precincts is shown in Figure 2.12.



Figure 2.12: Train Lines in Operation in the City of Ryde LGA

#### Buses

The bus services connecting the City of Ryde to connecting other areas of Sydney are provided by the State Transit Authority (STA) for Transport for New South Wales (TfNSW). The services and their frequencies alter for each precinct and are shown in Table 2.1-Table 2.3. Service frequencies vary by route, with some routes running exclusively in the morning, afternoon or late night, but in general most routes provide a half hourly or hourly service outside peak periods and a quarter hourly or half hourly service during peak periods. Frequencies on Sundays and Public Holidays are generally every hour. The bus services and the associated stops for each precinct are shown in Figure 2.13.



Figure 2.13: Bus Routes and Stops in the Study Precincts

Pouto Numbor	Destination	Number of Services (2 hours peak hour)		
Koule Nulliber		AM Peak (7-9am)	PM Peak (4-6pm)	
207	Ryde	0	3	
207	Milsons Point	4	0	
450	Macquarie University	3	3	
459	Strathfield Station	3	4	
500	Ryde	2	0	
500	City	0	0	
F01	Ryde/West Ryde	6	10	
501	RailwaySquare	11	6	
507	Macquarie University	3	5	
507	City	3	3	
510	Ryde	0	0	

Douto Numbor	Destination	Number of Services (2 hours peak hour)		
Koule Number		AM Peak (7-9am)	PM Peak (4-6pm)	
	City	1	0	
515	Eastwood	5	2	
515	City	5	4	
510	Macquarie University	3	5	
510	City	7	4	
520	Parramatta	0	0	
520	City	0	0	
524	West Ryde	0	0	
524	Parramatta	0	0	
522	Chatswood/North Ryde	0	4	
555	Olympic Park	7	0	
53/	West Ryde	0	4	
554	Chatswood	8	3	
M41	Macquarie Park	12	17	
1014 1	Hurstville	12	11	
M52	Parramatta	12	13	
IVIJZ	City	22	11	
X00	City to Ryde	0	3	
X15	City to Eastwood	0	2	
X18	City to Denistone East	0	2	
Total Services		126	109	

Source: Sydney Buses Timetables

# Table 2.2: Bus Services and Frequencyfor Precinct 2

Route Number	Destination	Number of Services (2 hours peak hour)		
		AM Peak (7-9am)	AM Peak (7-9am)	
286	Denistone East	0	4	
200	Milsons Point	3	0	
287	Ryde	0	3	
	Milsons Point	4	0	
288	Epping	4	3	
200	City	5	4	
297	Denistone East	4	0	
	City	0	7	
459	Macquarie University	3	3	

Route Number	Destination	Number of Services (2 hours peak hour)		
		AM Peak (7-9am)	AM Peak (7-9am)	
	Strathfield Station	3	3	
506	Macquarie University	4	4	
500	City	4	4	
E22	Chatswood/North Ryde	0	4	
555	Olympic Park	7	0	
534	West Ryde	0	4	
554	Chatswood	8	3	
M41	Macquarie Park	12	17	
	Hurstville	13	12	
Total Services		74	75	

Source: Sydney Buses Timetables

Table 2.3:Bus Services and Frequency for Precinct 3

Route Number	Destination	Number of Services (2 hours peak hour)		
		AM Peak (7-9am)	AM Peak (7-9am)	
204	Denistone East	0	4	
280	Milsons Point	3	0	
207	Ryde	0	3	
207	Milsons Point	4	0	
200	Epping	4	3	
200	City	5	4	
207	Denistone East	4	0	
291	City	0	7	
506	Macquarie University	4	4	
500	City	4	4	
524	West Ryde	0	4	
554	Chatswood	8	3	
Total Services		36	36	

Source: Sydney Buses Timetables

A free public bus services exists, named the Shop Ryder, with two routes. Route 1 operates between Meadowbank and West Ryde and Route 2 operates between Top Ryde and Eastwood. The Shop Ryder routes operate on Wednesdaythrough Saturday with buses operating on a designated 10 stop schedule, but the buses are able to be caught from any STA bus stop along the route. Buses operate five times on the days of operation with the first bus leaving at 8:30 am and the last leaving at 1:00 p.m, generally with an hourly interval. The Shop Ryder bus routes are shown in Figure 2.14.

# BITZIOS



Figure 2.14: Shop Ryder Routes through Top Ryde Precinct 1

### **Disabled Access**

Sydney Buses have developed four policies to aid the safety, accessibility and ease of use of disabled customers. They are as follows:

- MobilityAid Specifications
- Rules for Wheelchairs
- Obligations of the Bus Operator
- Obligations of Other Passengers

The policies outline the weight and size restrictions of mobility aids that buses are safely designed to accommodate along with the general rules of practice for disabled customers and their carers. Accompanying the specifications and rules are the obligations of the bus operator and passengers that outline expected behaviours and actions to ensure that all customers are catered for in a safe, respectful and timely manner.

Disabled access buses are used on manyroutes throughout each precinct and information is provided online, in printed timetables and at bus stops as to whether a service is suitable for disabled access. Online guides and tips are also there for customers to assist in successfully planning a safe journey on the bus.

Overall, bus stops in and around the main shopping precinct of T op Ryde and along Cox's Road are equipped with hardstands, adequate timetable information and seats with shelters included in some locations. T actile Ground Surface Indicators (TGSIs) to assist the visually impaired and other users of bus services are lacking for the overwhelming majority of bus stops in all locations though. Other issues that arose when undertaking the site audits were the lack of hardstands at bus stops, in particular along Wicks Road which is classed as a Regional Route. The lack of a hardstand reduces the amount and groups of people that can access bus

service from that stop whilst increasing the dangers to users who opt to still use the facilities provided. All bus stops in the Top Ryde and North Ryde precincts should be equipped with hardstands to ensure all users are able to access bus services from their most convenient bus stop.

### 2.6.3 Road Hierarchy

The City of Ryde Local Government Area primarily consists of an interconnected series of local roads, in line with the majority of the land use being classed as low density residential development, with two major metropolitan arterial routes responsible for providing vital connection to various regions of Greater Sydney.

The A3 Main Road is a state owned road that connects Mona Vale in the north and Blakehurst in the south, providing the most direct route between the northern beaches and the St George and Sutherland regions of Sydney. The route runs in a north-south orientation and is a two-way road with sections of two lanes, four lanes and six lanes along its length. The top speed limit of the route is 90km/h along Mona Vale Road in the north, but generally the speed limit is either 60 km/h or 70 km/h. The A3 runs through Precinct 1 and Precinct 2 incorporating Church Street, Devlin Street and Lane Cove Road, and forms major intersections in Precinct 1 with Victoria Road and Blaxland Road. The traffic flows along the A3 with relevance to the study areas are shown in T able 2.4 and are captured to the south of Precinct 1 at Concord Road (between Averill Street and Denham Street) and to the south of Precinct 2 at Lane Cove Road (300m south of Bridge Road).

Location		Station ID	Direction	All Days	Weekdays	Weekends
Concord Road	29005	Northbound	47500 (362) <sup>1</sup>	50000 (202)	43400 (103)	
		Southbound	48100 (362)	50900 (200)	44000 (104)	
Lane Cove Road	51234	Northbound	28500 (349)	30500 (201)	25000 (99)	
		Southbound	28100 (351)	29700 (201)	25500 (100)	

Source: RMS Annual Average Daily Traffic (AADT) Data 2012

1 - Number presented in brackets represents the number of days traffic volumes were counted to obtain the average

The traffic volume data along the A3 indicate high traffic volumes, especially heading northbound into Precinct 1 in the direction of the intersections between Church Street and Victoria Road, and Devlin Street and Blaxland Road. As a result the A3 is likely to be highly sensitive to any alterations to the movement, flow and vehicle capacity and therefore this will be taken into consideration as part of the PAMP.

The A40 Main Road is a state owned road that connects Rozelle in the east with Seven Hills in the northwest, providing a heavily used commuter route for vehicles travelling between Parramatta and Sydney. The route runs in an east- west orientation and is one of Sydney's longest sections of road. It is a two way road with sections of four and six lanes with dedicated bus lanes incorporated in sections to cater for the high volume of bus routes travelling on the A40. The speed limit is generally 60km/h or 70 km/h. The A40 runs through Precinct 1 along Victoria Road forming a major intersection with Church Street and Devlin Street. The traffic flows along Victoria Road with relevance to the study areas are shown in Table 2.5 and are captured in Precinct 1 on Victoria Road (between Shephard Street and Belmore Street).

### Table 2.5: Average Daily Traffic Volumes along State Road A40

Location	Station ID	Direction	All Days	Weekdays	Weekends
Victoria Poad	29005	Westbound	25500 (264) <sup>1</sup>	27500 (142)	22500 (76)
		Eastbound	29200 (315)	31900 (169)	25000 (91)

Source: RMS Annual Average Daily Traffic (AADT) Data 2012

1 - Number presented in brackets represents the number of day's traffic volumes were counted to obtain the average

The traffic volume data along Victoria Road indicate relatively high traffic volumes. As a result the A40 is likely to be highly sensitive to any alterations to the movement, flow and vehicle capacity and therefore this will be taken into consideration as part of the PAMP.

Wicks Road, which runs through Precinct 2, is classed as being a regional route by RMS although it is still a council owned road. A summary of the classification of all roads in the City of Ryde is shown in T able 2.6.

### Table 2.6:Road Classifications

Classification	Identified Roads within Study Precincts			
	Precinct1	Precinct2	Precinct3	
State Highway	-	-	-	
State Road	Church Street Devlin Street Blaxland Road Lane Cove Road Victoria Road	Lane Cove Road	-	
Regional Road	-	Wicks Road	-	
Local Road	All Other Roads	All Other Roads	All Other Roads	

Source: RMS Schedule of Classified Roads and Unclassified Roads

### 2.6.4 Cycling Routes

The City of Ryde currently has in place a series of major bicycle routes along with supplementary off road cycling paths and children's cycling tracks to cater for a wide variety of bicycle user groups. Each of the three precincts included in this study contains bicycle infrastructure of different quality, purpose and nature.

#### Precinct 1

Precinct 1 contains one major cycling route which provides a link for cyclists between major centres in the City of Ryde LGA and beyond. The infrastructure on such routes varies at points depending upon the nature of the adjoining road and surrounding environment. The existing major route in Precinct 1 is:

• West East Link – Ermington to Gladesville

This route runs along Morrison Road, providing access across the busy Church Street and an east/west link that does not require anytravel through the busy Top Ryde area. The trip along Morrison Roadis undertaken along an informal on-road bicycle lane.

Also contained within Precinct 1 is a children's bicycle track through Ryde Park that is designed to allow a safe and enjoyable environment for children and families to develop their bicycle skills and other bicycle routes not classed as major routes. The layout of bicycle facilities is shown in Figure 2.15.



Figure 2.15: Precinct 1 Existing Bicycle Facilities

### Precinct 2

Precinct 2 features a major route along commonly used roads with a connected link along local roads. The major route is a connector between the east and north western region of the City of Ryde whilst the link acts as a safe route with minimal exposure for cyclists to vehicles in between local centres in North Ryde. The existing infrastructure is as follows:

East - West Northern Link – North Ryde Epping and Hills

This route utilises the commonly used roads in North Ryde, running along Coxs Road, Lane Cove Road and Kent Road. For the majority of Coxs Road the route is an informal on-road cycling lane. However, for the 110m shop frontage at the Coxs Road shops there is a dedicated on-road cycling lane which is painted green. This provides extra protection for cyclists and awareness of potential cyclists to motorists. Signage and line markings exist in the lead up to the cycling lane and on parking spots that immediatelyjoin the cycling lane. The route continues as informal on-road cycling on Kent Road and Lane Cove Road. Bicycle parking is also available at Coxs Road Shopping Centre.

Local Link – Coxs Road Shopping Centre to Avon Road Shopping Centre

Connected to the major route that runs along Coxs Road is a local link connecting Coxs Road Shopping Centre and Avon Road Shopping Centre in North Ryde. The link runs between Coxs Road and Kathleen Street along a shared alleyway before continuing along Kathleen Street to the end of the link as an on-road cycling lane.

Precinct 2 also has other bicycle routes that are not classed as major routes. The layout of bicycle facilities is shown in Figure 2.16.



Figure 2.16: Precinct 2 Existing Bicycle Facilities

### Precinct 3

Precinct 3 does not contain anymajor cycling routes but does have informal on-road cycling lanes exist along Coxs Road, Blenheim Road and Cressy Road. Bicycle parking is available at Blenheim Road Shopping Centre. The layout of bicycle facilities is shown in Figure 2.17.



Figure 2.17: Precinct 3 Existing Bicycle Facilities

# 3. RESEARCH REVIEW AND DATA COLLECTION

# 3.1 LITERATURE REVIEW

### 3.1.1 Australian Government Department of Infrastructure and Regional Development; Pedestrians and Road Safety

The analysis provides a statistical overview of the crashes involving pedestrians over time in Australia to establish and monitor trends to assist in future planning to reduce incidents. The key statistics and trends identified are as follows:

- From 1995 to 2014 there has been 62% reduction in pedestrian fatalities across Australia
- NSW has highest number of pedestrian fatalities and second highest per capita pedestrian fatality rate (per 100,000 people) between 2005-2014
- Pedestrians over 75 are heavily over represented in statistics for pedestrian injuries and fatalities
- Male pedestrians are twice as likely to be fatally injured in road crashes for all ages except 65+
- Cities have higher numbers of crashes involving pedestrians but lower crash rates per capita
- 60% of fatalities occur at 50 or 60 km/h posted speed zones, with the lowest rate of fatality incurred where posted speed zones are between 0 and 40 km/h
- The peak times for crashes involving pedestrians are 6pm to 9pm on weekdays and 12am to 3am on weekends
- From 2009 to 2013 pedestrians have been 2.5 times more likely to be involved in a fatal crash at non intersection locations when compared to intersection crashes.
- Alcohol, drug and mobile device use of pedestrians has not been included in the data collection

**PAMP Implication:** The key statistics outlined above provide clear areas that must be addressed by any PAMP to ensure that people, locations and times of day that experience heightened levels of crashes are addressed, in order to reduce the likelihood of further incidents.

# 3.1.2 New South Wales Government; Development and Active Living – Designing Projects for Active Living (2010)

This document outlines the role that new developments play in supporting and encouraging modes of transport that involve physical activity. By integrating the principles of active living into a proposed development, pedestrian movement is encouraged which benefits the development and surrounding area. The five principles of active living as set out by the New South Wales Government are:

- Walkability and Connectivity: providing easy, attractive and accessible routes for pedestrians to take between pedestrian generators.
- Active Travel Alternatives: viable transport options to and from the development aside from vehicle use should be promoted and integrated into any design.
- Legibility: the ability of the surrounding environment to inform pedestrians of their location and possible destinations utilising existing facilities.
- Quality Public Domain: providing an environment that is attractive and has a high level of service and priority for pedestrians.
- Social Interaction and Inclusion: promote and provide facilities that supply opportunities for a diverse range of people, including all ages, ethnicities and activity levels, to engage in the environment physically.

**PAMP Implication:** The PAMP outcomes will remain consistent with the principles set out by the New South Wales Government in attempting to reduce the reliance on vehicles in town centres by increasing the attractiveness of travelling by means of physical activity. Connectivity, inclusion, alternatives, quality and legibility are all key components of the desired outcomes.

### 3.1.3 Transport for NSW Disability Action Plan 2012-2017

The accessibility of transport facilities is an increasing priority to ensure the services are able to be utilised by as many people as possible. As a result, the facilities provided for pedestrians on their journey to and from transport facilities require attention to allow for access by all user groups. Transport for NSW has dedicated programs that provide funding for the installation of pedestrian facilities that are likely to be heavily used by pedestrians and cyclists and will improve overall accessibility and safety of journeys to transport facilities.

**PAMP Implication:** The PAMP is able to evaluate certain recommendations and assess whether there is reason to apply to Transport for NSW to fund some of the work identified in this PAMP.

### 3.1.4 City of Ryde Development Control Plan (2014)

The *City of Ryde Development Control Plan* (DCP) 2014 provides the planning controls for developments in the City of Ryde Council Area. The aim of the plan is to ensure that development is consistent and aligns with the natural and cultural heritage values of the City of Ryde while providing for members of the community. The *DCP* covers all three study areas outlined.

Several sections of the Plan are relevant to this study, including those concerning:

- Ryde Town Centre Part 4.4: Ch 3.1 Pedestrian Access + Through Site Links with reference to the safe, direct, accessible and efficient pedestrian links in the Ryde Town Centre;
- Blaxland Road (283-289) Ryde Part 6.4: Ch 2.4 Streetscape, Ch 2.7 Access & Ch 2.10 Tree Preservation – with reference to vegetation presentation, streetscape consistency, landscape treatments and access to the development;
- Construction Activities Part 8.1: Ch 3 Existing Footpath Crossings & Ch 4.1 Safety of Pedestrians and Traffic – with reference to the protection, restoration and safety of footpath facilities;
- Driveways Part 8.3: Ch 3 Damages in the Road and Footway with reference to the use of existing and disused footways for driveway construction; and
- Public Civil Works Part 8.5: Ch 2.2 Construction Standard for Footways, Ch 2.3 Design of Footpath Paving & Ch 2.4 Design of Kerb and Gutter – with reference to the design and construction of footpaths, kerbs and kerb ramps.

**PAMP Implication:** the objectives of the DCP are able to be taken into consideration by the PAMP when making recommendations to ensure all outcomes are feasibly in line with Council's future plans. Of particular note is the aim to improve and identify the direct, safe and accessible routes for pedestrians to, from and around the Ryde Town Centre. Other considerations of note include the desired footpath, kerb and gutter designs and the consistency of streetscapes.

### 3.1.5 City of Ryde Local Environmental Plan (2014)

The *City of Ryde Local Environmental Plan* (LEP) 2014 provides a framework for the development of land with the City of Ryde. The *LEP* aims to support ecologically sustainable development, that is, development which improves quality of life while maintaining vital ecological processes. The objectives of the plan are to ensure the social needs of residents are met and to promote safe and sustainable access opportunities.

The City of Ryde is primarily a low density residential area with pockets of business parks, light industrial, commercial and recreational areas. The *LEP* covers all three precincts outlined.

**PAMP Implication:** It is important that the PAMP provides solutions and recommendations that are for the betterment of pedestrians in a social, physical and sustainable context in the precincts outlined in the City of Ryde. The existing environment and land use of the precincts form an important component when assessing and delivering recommendations.

### 3.1.6 City of Ryde Integrated Transport and Land Use Strategy (2007)

The City of Ryde Integrated Transport and Land Use Strategy 2007 (ITLUS) incorporates, among other documents, Ryde Town Centre Public Domain Plan, City of Ryde DCP (2006) and the Feasibility Study for Access Changes in Ryde Town Centre – Traffic and Transport Review (2007) to provide increased safety, improved facilities, management of through traffic and economic prosperity. The ITLUS accompanies the City Wide Integrated Transport and Land Use Strategy but is relevant to the three outlined study areas covered in this report.

Recommendations from the report with relevance to pedestrian and cyclist welfare include:

- Improved safety at pedestrian crossings;
- Upgraded footpath links;
- Additional pedestrian crossings;
- Improved lighting of pedestrian access ways;
- Separation of vehicle and pedestrian signalised green times; and
- Improved and upgraded safety features such as barriers and guard rails.

**PAMP Implication:** The ITLUS provides key focus areas relevant to the precincts that the PAMP must address. By understanding the existing facilities that in need of improvement the PAMP is able to provide a focused and more thorough analysis of measures to improve each item.

### 3.1.7 Ryde Town Centre Public Domain Plan 2006

The *Ryde Town Centre Public Domain Plan* (2006) aims to provide an attractive and safe place for people to live, work and visit. A diverse array of spaces that allow for commercial opportunities as well as various public spaces will seek to reinforce Ryde Town Centre as a civic and commercial hub of the City of Ryde. Pedestrian provisions and access ways playan important role in the future planning of Ryde Town Centre. These include:

- Equitable access for pedestrians and vehicles;
- Selection of attractive, consistent, reliable and safe paving materials for footpaths;
- Promotion of pedestrian links and open areas through increased presence of strategic landscaping;
- Improve pedestrian access to Ryde Town Centre form Devlin Street including widening of footpaths and safe access to shopping centre;
- Including pedestrian links between keysites in Ryde Town Centre to promote pedestrians to access a variety of sites safely and with ease of access;
- Changes to traffic movement to increase the safety and ease of access for pedestrians along with improved bicycle facilities; and
- Improvement of pedestrian amenities in general to ensure safety is upheld.

Some provisions recommended in the *Ryde Town Centre Public Domain Plan* (2006) have already been implemented, such as pedestrian bridges allowing safe pedestrian access from the western side of Develin Street to Top Ryde Shopping Centre.

**PAMP Implication:** When assessing the Town Centre and necessary improvements the PAMP has specific outcomes that the City of Ryde aim to implement into the future. By considering the vision of the CoR the PAMP will seamlessly fit with other developments and future developments.

### 3.1.8 City of Ryde Bike Plan 2014

The *City of Ryde Bike Plan* (2014) proposes to reduce the reliance of car use for short trips (trips of less than approximately 5km) by improving bicycle facilities and promoting bicycle use in the Ryde area with the assistance of targeted education programs and events. The plan aims to promote and provide access for bicycle use for a variety of uses including riding to work and school, for a variety of bicycle users. Outlined in the plan is the need to improve the environment and safetyfor cyclists, to increase the participation of females

in cycling and to promote the benefits of cycling in a bid to increase bicycle use and reduce car use. The timeframe for establishing a new and improved network is 5 years, with liaison between key local cycling groups and Council parties key to securing the best plan for the future.

Routes have been separated in regional routes (RR), local routes (LR) and local links (LL) to distinguish between the focus on connecting Ryde with its surrounds and providing quality connections within the existing precincts in Ryde. The following cycling routes within the prescribed study zones are planned to undergo upgrades as part of the plan:

- RR04 Chatswood to Burwood Upgrades are proposed to Badajoz Road, Cox's Road and Blenheim Road;
- RR09 Upgrades are proposed to Cox's Road and Cressy Street;
- LR06 Upgrades are proposed to Argyle Avenue, Blaxland Road and Church Street;
- LR12 Upgrades are proposed to Blaxland Road;
- LR14 Upgrades are proposed to Parkes Street;
- LR15 Upgrades are proposed to Morrison Road;
- LL13 Cox's Road Shops to Blenheim Road Shops Upgrades are proposed to Kathleen Reserve Laneway, Kathleen Street and Cutler Parade; and
- LL16 Top Ryde Link Upgrades are proposed to Tucker Street and Smith Street.

In addition to the upgrades to routes, increased provisions are to be introduced into selected areas to increase the priority, availability, quality and safety of bicycle parking. The following areas within the prescribed study zones will receive additional bicycle parking facilities to promote bicycle use to train stations and bus stops as part of the plan:

• Top Ryde Shopping Centre bus stops (Devlin Street and Blaxland Road). This is a high importance project, on par with upgrades to Eastwood, Macquarie Park and Macquarie University train stations.

The following areas within the prescribed study zones will receive public domain priority areas for bicycle parking to promote bicycle use as part of the plan:

- Top Ryde Shopping Centre;
- Cox's Road Shopping Centre; and
- Blenheim Road Shopping Centre.

**PAMP Implication:** When assessing further improvements to cycling access in the City of Ryde the PAMP has a reference to cycling facilities in place and what is planned for the future. This reduces the risk of conducting unnecessary and contradictory work in relation to bicycle facilities.

# 3.1.9 Parsons Brinckerhoff Feasibility Study for Access Changes in Ryde Town Centre – Traffic and Transport Review (2007)

The basis of the report was to assess the options surrounding the pedestrian phasing at Devlin Street/Blaxland Road signalised intersection. However, as this has project has been resolved and implemented with the installation of pedestrian bridges across Devlin Street there is little relevance in the bulk of the document. What was established and reinforced though is the general peak pedestrian times of the day. They are as follows:

- Morning Peak: 8:00 am to 9:00 am
- Midday: 12:00 pm to 1:00 pm
- Afternoon Peak: 3:00 pm to 4:00 pm

These peaks were formalised in the *Transport and Master Plan Study* undertaken by PPK (now Parsons Brinckerhoff) in 1998 and were found not to have changed in 2006 when further investigation was taken.

**PAMP Implication**: The PAMP is able to assess pedestrian flows at peak and non-peak times to understand the existing volumes and the issues these present without having to further count and evaluate pedestrian activity. This reduces the time required on site and analysing data, which can then be focussed on other tasks in the PAMP.

### 3.2 DESIGN STANDARDS

The design standards adopted include a combination of Australian Standards, Austroads Guides and local RMS technical directions and model drawings (see Appendix Afor details). Some of the reference documents used include:

Footpaths and Kerb Ramps:

- Australian Standard AS 1428.4.1 2009: Design for Access and Mobility;
- Austroads Guide to Road Design Part 6A, Pedestrian and Cycle Paths; and
- NSW Bicycle Guidelines (RTA2005).

Crossings:

- RMS model drawings MD R173.B01.A1;
- Austroads Guide to Road Design Part 4. Intersections and Crossings;
- Australian Standard AS 1428.1 2009: Design for Access and Mobility;
- Australian Standard AS 1742.10: Pedestrian Control and Protection;
- RMS Technical Direction TDT 2002/12b (Stopping and Parking Restrictions at Intersections and Crossings);
- RMS Technical Direction TDT 2011/01a (Pedestrian Refuges); and
- Australian Standard AS 1158.4.

Bus Stops:

Disability Standards for Accessible Public Transport 2002.

A full list of references is included in Appendix A

### 3.3 FUTURE DEVELOPMENT APPLICATION APPROVALS

The development applications approved for the near future are an essential inclusion in the PAMP to effectively evaluate the entire pedestrian network to be taken into consideration when developing recommended improvements to pedestrian facilities. Each development application requires individual and collective consideration applied to the likely pedestrian attraction, generation and journeys to capture the potential pedestrian activity concentration. Where new and/or elevated pedestrian activity concentrations occur as a result of new developments improved and/or increased levels of pedestrian facilities may be required. The future development applications with potential impact on the precincts outlined are as follows:

1. 86-94 Blaxland Road (LDA2012/0259): Mixed Use Development containing 24 apartments and ground floor commercial space.

With increased rates of residence and attraction and generation of pedestrians due to the new commercial space, this development is likely to increase the pedestrian activity in the surrounding area. The signalised intersection with pedestrian crossing provisions on each approach between Blaxland Road and Church Street / Tucker Street is likely to see increased pedestrian activity as a result of the development as this is the main access point from the already busy areas found to the north-west of the development site.

- 2. 7-11 Smith Street (LDA2014/378): Residential Flat Building containing 35 apartments.
- 3. 8-10 Smith Street (LDA2013/448): Residential Flat Building containing 16 apartments.

With increased rates of residence this development is likely to increase the pedestrian activity in the surrounding area. The signalised intersection with pedestrian crossing provisions on the western approach along Pope Street and the northern approach along Smith Street is likely to see increased pedestrian activity as a result of the development as this is the only route to Top Ryde Shopping Centre and connecting public transport services.

4. 35-37 Devlin Street (LDA2014/362): Mixed Use Development containing 24 apartments and ground floor commercial suites.

With increased rates of residence and attraction and generation of pedestrians due to the new commercial space this development is likely to increase the pedestrian activity in the surrounding area. The signalised intersection with pedestrian crossing provisions on the Western approach along Victoria Road and the northern and southern approach along Devlin Street is likely to see increased pedestrian activity as a result of the development. Other areas that may see increased pedestrian activity include the pedestrian crossings on each slip lane between Victoria Road and Devlin Street, the pedestrian crossings and island across Church Street and the footpaths along both sides of Devlin Street.

5. 684-686 Victoria Road (LDA2013/179): Residential Flat Building containing 18 apartments.

With increased rates of residence this development is likely to increase the pedestrian activity in the surrounding area. The footpath on the southern side of Victoria Road may experience more pedestrian traffic travelling east to the signalised intersection to cross Victoria Road and Blaxland Road towards Top Ryde Shopping Centre and public transport facilities.

6. 46 Gladstone Avenue (LDA2013/173): Residential Flat Building containing 12 apartments.

With increased rates of residence this development is likely to increase the pedestrian activity in the surrounding area. The alleywayaccess between Gladstone Avenue and Victoria Road is likely to experience increased pedestrian activity. Additionally the footpath on the southern side of Victoria Road may experience more pedestrian traffic travelling east to the signalised intersection to cross Victoria Road and Blaxland Road towards T op Ryde Shopping Centre and public transport facilities.

7. 734 Victoria Road (LDA2014/449): Mixed Use Development containing 26 apartments and 2 commercial suites.

With increased rates of residence and commercial appeal this development is likely to see increased pedestrian activity in the surrounding area. The mid-block signalised crossing to the east across Victoria Street is likely to experience more pedestrian traffic as will footpaths along Church Street as residents and workers move towards the Top Ryde Shopping Centre and Public Transport facilities.

8. 55 Blaxland Road (LDA2014/412): Boarding House containing 91 rooms.

With increased rates of residence and commercial appeal this development is highly likely to see increased pedestrian activity in the surrounding area as boarding houses are considered low cost housing which generallyproduces more pedestrian trips per occupant. The mid-block signalised crossing to the north across T ucker Street is likely to experience more pedestrian traffic as will he signalised intersection with pedestrian crossing provisions on each approach between Blaxland Road and Church Street/T ucker Street as residents and workers move towards the T op Ryde Shopping Centre and Public Transport facilities.

9. 52 Blaxland Road (LDA2013/113): Boarding House containing 20 rooms.

With increased rates of residence and commercial appeal this development is highly likely to see increased pedestrian activity in the surrounding area as boarding houses are considered low cost housing which generallyproduces more pedestrian trips per occupant. The signalised intersection with pedestrian crossing provisions on each approach between Blaxland Road and Church Street / Tucker Street as residents and workers move towards the Top Ryde Shopping Centre and Public Transport facilities.

Overall the key intersections that need to be considered for increased pedestrian movements are the signalised intersections at Pope Street and Smith Street, and Blaxland Road and Tucker Street / Church

Street. These intersections have the most significant quantity of developments, increased levels of occupancy, developments likely to generate pedestrian activity and lie along access routes to Top Ryde Shopping Centre and public transport hubs. The location of the future developments and intersections which are likely to experience increased pedestrian traffic flows are shown in Figure 3.1.



Figure 3.1: Future Development Application Approved Sites

# 3.4 PROPOSED AND CURRENT WORKS

## 3.4.1 City of Ryde Four Year Delivery Plan 2015-2019

The *City of Ryde Four Year Delivery Plan 2015-2019* provides a comprehensive overview of all planned worked and the budgeting strategies for upgrades to a wide variety of assets in the LGA. Included in the plan are a number of works, shown in Table 3.1, that have direct relation to the three precincts included in the PAMP which are as follows:

Table 3.1:	Planned Works for City of Ryde 2015-2019
------------	--

	Period	Base Budget	Special Rate Variation Budget
	2015/16		Church Street (Wandoo Ave - Willandra St)
Road Surface Renewal	2016/17	Church Street (Wandoo Ave - Willandra St) Belmore Street (Victoria Rd - Willandra St)	Cutler Parade (Edmondson St - Chauvel St) Belmore Street (Victoria Rd - Willandra St)
	2017/18	Cutler Parade (Edmondson St - Chauvel St)	Kathleen Street (#11 - Beatrice St) Marilyn Street (Amelia St - Folkard St) Dunbar Street (Samuel St - Samuel St)
	2018/19	Cooney Street (Cul De Sac (S) - Folkard St) Kathleen Street (#11 - Beatrice St) Marilyn Street (Amelia St - Folkard St) Willandra Street (#14 - Cul De Sac (N))	Wicks Road (Ent2 Maq Hos - Farrington Pde) Kent Road (Lane Cove Rd - Pindari St)
	2015/16		
lewal	2016/17	Kent Road (Pindari Street - Gibb Street)	Kent Road (Pindari Street - Gibb Street)
rb Rer	2017/18	Badajoz Road (Cox's Rd - Twin Rd)	Badajoz Road (Cox's Rd - T win Rd)
Road Ke	2018/19	Cox's Road (Wicks Rd - Lane Cove Rd) Belmore Street (Parkes St - Primrose Ave) Princes Street (Turner Ave - Blaxland Rd)	Cox's Road (Wicks Rd - Lane Cove Rd) Belmore Street (Allen Ave - Primrose Ave) Princes Street (Turner Ave - Blaxland Rd)
Footpath Construction - Expansion	2015/16	Samuel Street (#39 Samuel St - opposite)	Samuel Street (#39 Samuel St - opposite)
	2016/17	Jopling Street (Coxs Rd to Blenheim Rd)	Jopling Street (Coxs Rd to Blenheim Rd)
	2017/18	T obruk Street (Cutler Pde - Edmondson St)	T obruk Street (Cutler Pde - Edmondson St)
	2018/19	Amelia Street (Marilyn St - Lorna Ave)	Amelia Street (Marilyn St - Lorna Ave)
Other important works that are outlined in the document include:

- 741 Victoria Road: this site will be redeveloped and will comprise residential, commercial and retail
  mixed use spaces. This is likely to have an increased pedestrian generation and attraction rate on
  completion. It is also likely that new pedestrian facilities will be installed surrounding the property as a
  result of the development.
- 33-41 Blaxland Road: City of Ryde Council is in the process of exploring its options to convert the
  existing empty spaces to prove additional retail, commercial and/or residential space. This is likely to
  have an increased pedestrian generation and attraction rate on completion. It is also likely that new
  pedestrian facilities will be installed surrounding the property as a result of the development.
- Footpath Construction Renewal (no relevant locations)
- Cycle ways Construction Expansion
- Shop Ryder Community Bus Service
- Road Safety Plan
- New Bus Stop Shelters and Seats
- Bus Stop DDA Compliance
- Traffic Calming Devices
- Traffic Facilities Renewal
- Shared Path Signage
- Coxs Road Neighbourhood Centre Renewal

#### 3.4.2 Cycling Routes

The City of Ryde has developed a masterplan that will oversee the upgrade of existing infrastructure and installation of new infrastructure with the intention of increasing bicycle usage over the next 10 years. The cycling routes are separated into three different categories to provide facilities to for cyclists of all levels of ability and for varied purposes of cycling. The bicycle routes and their objectives are set out as below:

- Regional routes: identified as high priority routes that aim to provide high quality and unhindered travel between major centres located in the City of Ryde. The maintenance standard of such routes is to be in line with regional road standards to allow for operational speeds of 30 km/h or greater. The route is separated between dual on road and off road travel paths with prioritised linkage to major transport nodes. The regional cycling routes are designed for allowing for bicycle movement as the first priority and accessibility as a secondary priority.
- Local Routes and Links: identified as medium priorityroutes than aim to provide a quality linkage between residential streets and regional bicycle routes. The pavement maintenance standard is to be in line with local road standards to allow for operational speeds of between 20 and 30km/h. Each local route or link is designed with equal priority to bicycle movement and accessibility.
- Bicycle-friendly Streets and Neighbourhoods: identified as low priority routes that aim to provide local
  residencies short and easy local access in low stress environments. The pavement maintenance is
  dependent upon the traffic volumes experienced by the street and the location of the street with
  relation to the probability of use by bicycles. The design operation al speed of trips along local streets
  is to be below 20km/h with particular attention paid to access rather than movement.

#### Precinct 1

Precinct 1 contains a variety of cycling options for cyclists whilst eliminating exposure of routes to Victoria Road and minimising the exposure to Church Street/Devlin Street/Blaxland Road. Existing bicycle infrastructure and routes are as follows:

- Regional Routes (RR): the only regional route to intercept Precinct 1 is RR04. The route runs along Charles Street before crossing Victoria Road at a signalised crossing on the Eastern approach and continuing along Providence Street via an access alleyfrom Victoria Road. This route acts as a link between Chatswood and Burwood.
- Local Routes (LR): Precinct 1 is intercepted by three Local Routes.
  - 1. LR06 Macquarie Park to Putney: The route runs from Ryde Park in a series of paths and alleys before intercepting Argyle Avenue which provides informal on road facilities. The

route continues as informal on road cycling along Blaxland Road before moving south along Church Street and utilising the signalised intersection to cross Victoria Road. From there the route makes use of a path through a park to connect to local street Wandoo Avenue and continues along Gladstone Street and Morrison Road.

- 2. LR12 Eastwood to Top Ryde: The intercepted area of LR12 and Precinct 1 occurs entirely along the western side of Blaxland Road. The route is accessed via a shared path between cyclists and pedestrians with centre and lane markings provided to ensure users interact safely.
- 3. LR14 West Ryde to Top Ryde: Informal on road cycling along Parkes Street which merges with LR12 at the intersection with Devlin Street provides the access for LR14.
- Local Links (LL): LL16 (T op Ryde Link) runs along T ucker Street before continuing along Pope Street
  and then Smith Street. This acts as a link between LR12 where Church Street becomes Tucker Street
  and RR09 where Smith Street intercepts with Buffalo Road. A footpath separated from the road by a
  pedestrian fence exists on the eastern side of T ucker Street before continuing along the outlined route,
  ensuring cyclists are not required to ride on the road.

#### Precinct 2

Precinct 2 features direct bicycle facilities which predominantly follow the main roads and public transport routes to provide access to Coxs Road shops. Existing bicycle infrastructure and routes are as follows:

- Regional Route (RR): A route connecting Epping and Lane Cove (RR08) passes through Precinct 2, utilising Kent Road and Coxs Road. Lane Cove Road is used briefly to access the signalised crossing provisions at the intersection between Lane Cove Road and Coxs Road. The route is an informal on road cycling route except for a 110 metre dedicated on road cycling lane along the Northern side of Coxs Road in front of the Coxs Road shops.
- Local Route (LR): LR06 uses Wicks Road and Truscott Avenue as access between Marsfield and East Ryde. This route is suggested as off road path adjacent to the road along Wicks Road and informal on road cycling along Truscott Street.
- Local Links (LL): the following local links exist within Precinct 2:
  - LL11 Shrimtpons Creek to Coxs Road: This link connects RR08 with LR10 (Parramatta Valley Cycleway) before continuing to connect with RR03 (Mona Vale to West Ryde). The link continues from RR08 along the footpaths provided on the western side of Lane Cove Road before becoming informal on road cycling along the length of Truscott Road.
  - 2. LL13 Coxs Road Shops to Blenheim Road Shops Link: The outlined route provides a quieter and safer alternative linking Coxs Road shops with the Blenheim Road Shopping Centre. It connects RR08 firstly with LL12 by accessing the alley way from Coxs Road.
  - 3. Road to Kathleen Street before continuing along Beatrice Street. The link continues where it intercepts LL06 along Ryrie Street before reaching RR04 and Blenheim Road Shopping Centre via Edmondson Street and Cutler Parade. The link is informal on road cycling, apart from the initial access to Kathleen Street by an alley way from Coxs Road.

#### Precinct 3

Precinct 3 bicycle paths are as follows:

- Regional Routes (RR):
  - 1. RR04 Chatswood to Burwood: The route runs along Badajoz Road before utilising an existing pedestrian refuge to cross Coxs Road and then continue along Blenheim Road.
  - 2. RR08 Epping to Lane Cove: The route continues through Precinct 3 along only Coxs Road.

 Local Link (LL): The link in Precinct 3 is LL13, connecting Blenheim Road Shopping Centre with Coxs Road shops and providing a safer access than along Coxs Road. The link's layout and characteristics are described in the Precinct 2 bicycle cycling route description.

The classification and schedule of work to be undertaken is shown in Table 3.2 and Table 3.3.

Ref	Location	Description	Design Details
S01	On-road	Separated two-way on-road cycleway	Separated two-way cycleway along one side of roadway. Special bent out treatments at intersections
S03A	On-road	Shared path	T wo-wayshared path 3.0m wide
S03B	Off- road	One-waypair of off-road bicycle paths	One-waypair bicycle paths on footpath with bent-in intersection treatments
S04	On-road	Bicyclelanes	9.0m road - 2 x 1.5m bicycle lanes, 2x 3.0m traffic lanes
S07	On-road	Mixed Traffic	Wide or narrow profile

Source: CoR Bike Plan 2014



# $Table \ 3.3: \qquad Schedule \ of \ Relevant \ Upgrade \ Works$

Route Segment	Location	Treatment Details and Recommendations	
RR	REGIONAL ROUTES		
RR04	Chatswood to Burwood (\$1,688,322)	Via Blenheim Road, Coxs Road, Providence Street, Charles Street	
3	Blenheim Road and Badajoz Road, from Pittwater Road to T win Road	Standard Treatment S04	
8	Providence Road	Standard Treatment S07. Includes ramp at southern end	
9	Charles Street (Victoria Road to Kenneth Road)	Standard Treatment S03B with bent in intersection treatments. Add pedestrian crossing on western leg of Victoria Road.	
RR08	Epping to Lane Cove (\$924,580)	Via Kent Road, Coxs Road	
6	Kent Road	Standard Treatment S04	
7	Lane Cove Road	Standard Treatment s03A. Includes signal adjustments at Coxs Road	
8	Coxs Road - Wicks Road to Kathleen Street Pathway Link	Standard Treatment S01. Special bent-in treatments at intersections	
9	Coxs remainder	Standard Treatment S03A	
LR	LOCAL ROUTES		
LR06	Macquarie Park to Putney (\$558,052)	Via Wicks Road, Ryde Park, Argyle Avenue, Blaxland Road, Church Street, Wandoo Avenue, Gladstone Avenue, Morrison Road	
3	Wicks Road	Standard Treatment S03A	
4	Blaxland Road, Church Street, Wandoo Avenue	Standard T reatment S07. Includes allowance for minor civil and traffic works. Includes new section of shared path along Blaxland Road	
5	Morrison Road	Standard Treatment S03B with bent in intersection treatments.	
6	Victoria Crossing	Signal phasing adjustments, new crossing, bike lamps	
LR12	Eastwood to Top Ryde (\$427,220)	Via Blaxland Road	
4	Blaxland Road to Parkes Street	Standard Treatment S03B with bent in intersection treatments.	
LR14	West Ryde to Top Ryde (\$11,421)	Via Parkes Street	



Route Segment	Location	Treatment Details and Recommendations		
1	Parkes Street	Standard Treatment S07. Includes shared path signage for Blaxland Road and bike lamps at signals at Blaxland Road / /Park Street.		
LL	LOCAL LINKS			
LL11	Shrimptons Creek to Coxs Road Link	Via Lane Cove Road, Trevitt Road		
1	Trevitt Road and Lone Cove Road path	Standard Treatment S07.		
LL13	Coxs Road Shops to Blenheim Road shops Link	Via Kathleen Reserve, Kathleen Street, Wicks Road, Edmondson Street, Cutler Parade		
1	Pathway from shops to Kathleen Reserve, Kathleen Street, Wicks Road, Edmondson Street, Cutler Parade	Standard Treatment S07.		
LL16	Top Ryde Link	via Tucker Street, Smith Street		
1	Tucker Street and Smith Street	Standard Treatment S07		
Source: CoD Pike Dian	ource: CoR Bike Plan 2014			

Source: CoR Bike Plan 2014

# 4. DATA COLLECTION AND REVIEW

# 4.1 PEDESTRIAN TRIP GENERATORS AND ATTRACTORS

The focal point of pedestrian activity in Precinct 1 is the Top Ryde Shopping Centre. Additional pedestrian attractors and generators exist within close proximity to the Top Ryde Shopping Centre in the form of Ryde Public School, Ryde Park, churches and early learning centres. Apart from the residential areas, the main land use is the commercial and retail sector including and surrounding Top Ryde Shopping Centre classed as mixed use. The majority of the remaining area in Precinct 1 is low density residential with small pockets of high density residential area as well. The identified pedestrian generators for Precinct 1 are shown in Figure 4.1.



The greatest generator of pedestrian movement in Precinct 2 is the Coxs Road Shopping Centre. Located within a close proximity of the shopping centre is North Ryde Public School and Holy Spirit Catholic Primary School North Ryde which both generate significant pedestrian activity around starting and finishing times. Additional pedestrian attractors and generators in Precinct 2 include the North Ryde Library, Community Centre, churches and early learning centres. The majority of the remaining area in Precinct 2 is low density residential. The identified pedestrian generators for Precinct 2 are shown in Figure 4.2.



Figure 4.2: Pedestrian Generators Precinct 2

#### Pedestrian Access and Mobility Plan

# Bitzios

Pedestrian activity in Precinct 3 is low when compared with Precinct 1 and Precinct 2. The Blenheim Road Shopping Centre acts as the main pedestrian attractor and generator but there is very little in the way of other infrastructure that generates pedestrian movement surrounding the shops. Two churches and one early learning centre exist within Precinct 3 but overall the vast majority of the land use is low density residential. The identified pedestrian generators for Precinct 2 are shown in Figure 4.3. Figure 4.2



Figure 4.3: Pedestrian Generators Precinct 3

#### 4.2 PEDESTRIAN RELATED CRASH AND INJURY DATA

The crashes involving pedestrians, cyclists and motorcyclists were analysed for the three designated precincts in the City of Ryde LGA for the years 2009-2013. Due to new reporting policies implemented in 2014 and after analysis of these results it was determined the data was minimal and negligible in comparison to the previous reporting procedures and thus 2014 was excluded from the analysis to maintain consistency in data presentation. It should be noted that crashes involving pedestrians are generally under reported and actual incidence rates may be higher than represented in official statistics. The number of crashes and the severity is shown in Figure 4.4.





# Figure 4.4: Number of Crashes Involving Pedestrians, Cyclists and Motorcyclists in each Precinct from 2009-2013

The key outcomes from the crash data analysis of each Precinct for crashes involving pedestrians, cyclists and motorcyclists include:

- A total of 68 crashes were reported between 2009 and 2013 in the Precincts designated for study. Of these crashes 30 involved motorcycles, 7 involved pedal cycles and 33 involved pedestrians (some accidents involved motorcycles and/or pedestrians and/or pedal cyclists).
- Of the 68 crashes observed 66 resulted in injuries (97%).
- Crashes involving pedestrians totalled 33 which is 49% of the total for the categorised crashes analysed.
- The crashes were generally spread along the main traffic corridors of Victoria Road, Blaxland Road, Coxs Road and Lane Cove Road/Devlin Street/Church Street.
- Of the reported pedestrian categorycrashes 41 (60%) were located at an intersection.
- The spread of crashes throughout the day is relatively as expected with fewer crashes between 7 p.m and 7 a.m and more crashes between 10 a.m and 7 p.m. The AM Peak period (7 a.m to 10 a.m) had half of the crashes as observed in the PM Peak (3:00 p.m to 7 p.m), however.

Of the 33 crashes involving pedestrians all incidents resulted in a reported injury. The breakdown of each of these crashes is presented in Table 4.1.

# Table 4.1: Summary of Pedestrian Crashes in Each Precinct in 2009-2013

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Precinct	Location	Cross Street or Nearby Feature	Pedestrian Crash Type (Road User Movement)	Time and Date of Crash
1	VICTORIA RD	70m East of BLAXLAND RD	5: Facing Traffic	22:00 on 15/09/2010
1	EDWARD ST	1m South of BLAXLAND RD	1: Emerging	21:55 on 20/03/2012
1	BLAXLAND RD	190m East of DEVLIN ST	4: Walking with Traffic	20:40 on 09/06/2011
1	BLAXLAND RD	On the Spot of BELMORE LANE	3: On Carriageway	17:18 on 26/11/2009
1	BLAXLAND RD	20m West of EDWARD ST	2: Far Side	16:35 on 06/03/2012
1	NICOLL AVE	On the Spot of NUMBER 8 HN	Near Side	16:10 on 13/10/2013
1	BLAXLAND RD	On the Spot of CHURCH ST	1: Emerging	15:50 on 18/11/2009
1	ARGYLE AVE	50m North of BLAXLAND RD	3: On Carriageway	15:30 on 18/04/2009
1	SMITH ST	1m North of POPE ST	3: On Carriageway	15:00 on 19/12/2012
1	VICTORIA RD	30m West of BELMORE ST	703: Unknown	14:35 on 18/09/2013
1	BLAXLAND RD	50m North of LANE COVE RD	1: Emerging	13:00 on 11/04/2009
1	VICTORIA RD	100m West of DEVLIN ST	7: Driveway	12:50 on 13/08/2013
1	BLAXLAND RD	75m East of CHURCH ST	Emerging	12:45 on 01/02/2010
1	DEVLIN ST	80m South of VICTORIA RD	1: Emerging	12:40 on 16/07/2009
1	BLAXLAND RD	30m West of DEVLIN ST	1: Emerging	11:30 on 10/03/2009
1	VICTORIA RD	110m West of DEVLIN ST	7: Driveway	11:30 on 18/09/2012
1	BLAXLAND RD	On the Spot of TUCKER ST	Emerging	11:30 on 13/06/2012
1	PARKES ST	On the Spot of BELMORE LANE	1: Emerging	10:55 on 27/09/2011
1	LANE COVE RD	15m North of BLAXLAND RD	1: Emerging	10:00 on 22/10/2010
2	LANE COVE RD	1m South of COXS RD	3: On Carriageway	19:15 on 15/02/2010
2	LANE COVE RD	On the Spot of TREVITT ST	1: Emerging	19:00 on 23/07/2013
2	LANE COVE RD	30m South of FORD ST	603: Unknown	18:15 on 28/04/2012
2	WICKS RD	On the Spot of COXS RD	1: Emerging	17:47 on 21/07/2011
2	LANE COVE RD	15m North of COXS RD	8: Unknown	15:45 on 12/05/2009
2	WICKS RD	On the Spot of COONEY ST	1: Emerging	15:35 on 14/11/2012
2	WICKS RD	2m South of COXS RD	3: On Carriageway	14:00 on 20/09/2009
2	WICKS RD	On the Spot of COXS RD	1: Emerging	11:10 on 01/07/2013
2	LANE COVE RD	2m South of COXS RD	1: Emerging	09:06 on 01/09/2009
2	LANE COVE RD	2m North of COXS RD	1: Emerging	07:00 on 01/04/2009
2	WICKS RD	1m North of COXS RD	1: Emerging	05:55 on 24/07/2012
3	BADAJOZ RD	Unknown	1: Emerging	18:00 on 14/05/2013
3	BLENHEIM RD	20m North of COXS RD	1: Emerging	08:45 on 03/03/2010
3	BADAJOZ RD	On the Spot of COXS RD	3: On Carriageway	06:45 on 12/06/2013

The location of the crashes in each Precinct by user group involved are shown in Figure 4.5-Figure 4.7.

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Figure 4.5: Crash Locations in Precinct 1



Figure 4.6: Crash Locations in Precinct 2



Figure 4.7: Crash Locations in Precinct 3

# 5. **PAMP ROUTES**

# 5.1 PRIORITY ROUTE SELECTION

The PAMP routes were initially selected based on the following criteria:

- Proximity to pedestrian trip attractors and generators (such as major bus interchange and shopping centres);
- Location of pedestrian crashes;
- Concerns from communityfeedback; and
- Relation to road hierarchy: routes that were closer to major roads, such as the Victoria Road, Blaxland Road and Lane Cove Road, were selected as priority routes over local streets.

# 5.2 ROUTE PRIORITY

The PAMP routes were prioritised, either as high, medium or low based on the same criteria used for selecting the routes. Higher priority was given to routes within major town centres and key pedestrian links to bus stops, schools and aged care facilities. The route prioritisation system is shown in Table 5.1 Error! Reference source not found..

Table 5.1:	PAMP Route Priority System

Criteria	Major Town Centre	Minor Town Centre	Local Residential Area
Primary link to pedestrian attractors/ generators	High	High	Medium
Secondarylink to pedestrian attractors/generators	High	Medium	Low
Location of pedestrian crashes	High	Medium	Low
Concerns from communityfeedback	High	High	Medium
Relation to road hierarchy	High	Medium	Low

By implementing the route prioritisation system a number of routes were identified in the T op Ryde and North Rude Precincts. In addition to identifying pedestrian routes that were of high importance a number of missing links that would benefit pedestrian movements were also recognised. The priority routes and missing links are presented in Figure 5.1 and Figure 5.2.

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Figure 5.1: Precinct 1 Priority Routes





Figure 5.2: Precinct 2 & 3 Priority Routes

### 5.3 INITIAL SITE VISIT AND OBSERVATIONS

Site audits were conducted in and around the shopping centres located at Top Ryde and North Ryde along Coxs Road and Blenheim Road by Bitzios Consulting Staff in the company of Hazel Myers of the Ryde Access Committee to evaluate the existing conditions of pedestrian facilities and propose upgrades to improve the level of accessibility and connectivity. The audit checklist was created with relevant Australian Standards guidelines, such as AS1428.1, AS1428.2, AS1428.1 and Austroads Standards.

#### Precinct1

An audit was conducted of the priority routes surrounding the Top Ryde Shopping Centre in Precinct 1 on Monday 18th January 2016 between the hours of 9:00 am and 1:00 pm. The findings of the audit revealed that there are a number of connectivity and accessibility issues particularly along Victoria Road. Many kerb ramps along Victoria Road are not well aligned, causing a greater and therefore more dangerous path of travel for pedestrians looking to cross side streets. Sections of footpath along Victoria Road and Devlin Street in particular are uneven, degraded and/or blocked, which increases the likelihood of pedestrians sustaining injuries. Other notable observations were pedestrian path worn into the grass between Blaxland Road and Parkes Street and the reduced size and lack of flashing warning lights for the school zone located along Pope Street.

#### Precinct 2 & 3

An audit was conducted of the priority routes identified in North Ryde in Precinct 2 and 3 on Thursday 21<sup>st</sup> January 2016 between the hours of 9:00 am and 1:00 pm. The findings of the audit revealed that there are connectivity and accessibility issues particularly along Lane Cove Road between Twin Road and Coxs Road. The majority of this stretch has no footpath to connect the signals at Twin Road and the footpath that extends from Coxs Road to Kent Road to two bus stops. Along the length of this section there is a heavily wom pedestrian path through the grass, indicating this path is used frequently by pedestrians. At some locations throughout the North Ryde Precincts the quality of the footpath subsided as did the kerb ramps and their alignment. Of further note was the poor condition of the line marking and lack of associated signage for prescribed bicycleroutes around the signals where Lane Cove Road meets Kent Road and Coxs Road, and the lack of safety handrails installed at pedestrian refuges. Many bus stops in the area also were lacking in key DDA compliant infrastructure.

#### Priority Criteria

Once the photographs of the observed issues during the site audit were taken, sorted and analysed criteria were generated, with reference to the RMS document *How to Prepare a Pedestrian Access and Mobility Plan*, to categorise the issues into levels of severity and importance. By evaluating each photograph against set criteria across a range of categories, a consistent and balanced approach to identifying the issues that require more immediate attention is developed. The criteria and score ranking system are shown in Table 5.2 and Table 5.3.

ID	Scoring Criteria		Score
C1	Connectivity to no destricen	new primary link	10
	Generator/attractor	new secondarylink	8
		existing links	3
		>3 reported per year	15
		3 reported per year	10
C2	Pedestrian crash history	2 reported per year	8
		1 reported per year	5
		0 reported	0
	Concerns from community feedback	5 or more responses	5
C3		less than 5	4
		responses	1
	Relation to road hierarchy	Sidle Iudu	10
C4		collectorroad	8
		local street	3
		school / aged care	10
C5	Land Use	commercial/retail	8
		residential	5
	Pedestrian Safety	essential	8
C6		desirable	3
		little impact	1
		strong desire line	5
C7	Pedestrian Desire Lines	medium usage	3
		very little use	1

Table 5.2:	Criteria for Creating Priority Score	es for Site Audit Photographs
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#### Table 5.3: Works Priority Scores Based on Criteria for Site Audit Photographs

Score	Works Priority
>34	High
25-34	Medium
<25	Low

### 5.3.1 General Audit Findings

The audits of T op Ryde and North Ryde showed that the pedestrian facilities in general are functional with a large quantity of minor deficiencies which can hinder the movement of less mobile pedestrians. In total over 450 locations were identified to have some level of impairment to pedestrian movement with approximately 7% of the deficiencies classed as high priority to repair or alter. The condition of pedestrian facilities within close proximity to major pedestrian generators and attractors, such as shopping centres and schools were generally of the highest standard whilst facilities along connecting routes to these centres are of reduced quality. The roads that possess the highest rate of deficiencies in the existing infrastructure are Coxs Road, Devlin Street, Lane Cove Road, and Victoria Road.

The most common issues identified throughout the auditing process were footpaths containing cracks that hinder pedestrian movement and kerb ramps that are non-compliant or lack connectivity.

#### 5.3.2 Footpath Audit Findings

Deficiencies identified in footpaths audited in Top Ryde and North Ryde were the most common problem along all routes. Of these issues cracks in footpath sections and raised joins in the footpath were the most prevalent with small incidence rates of narrowed footpaths and missing links. Examples of identified deficiencies include:



Incomplete footpaths;

• Missing footpaths where there are paths worn in the grass due to regular pedestrian movements;







- Cracked, uneven and raised footpaths presenting trip hazards arising from issues such as:
  - Service location covers
  - Deteriorated footpath segments
  - Tree roots and soil movement
  - Patch work from previous repair work

AAW230	Argyle Avenue West	Trip Hazard - Uneven Footpath



#### • Narrow footpath widths due to vegetation

VRS120	Victoria Road South	Footpath Restricted by Overgrown Vegetation



VRS120	Victoria Road South	Footpath Restricted by Overgrown Vegetation

The locations of footpath related issues are presented in Figure 5.3 and Figure 5.4.



Figure 5.3: Location of Footpath Issues Precinct 1



Figure 5.4: Location of Footpath Issues Precinct 2 & 3

#### 5.3.3 Kerb Ramp Audit Findings

Many footpaths observed in the auditing process in Top Ryde and North Ryde contained kerb ramps that, although functional for most pedestrian user types, restrict the access for less mobile pedestrians. Kerb ramps provide a vital link between footpaths that assists pedestrians to move out of conflict zones on roadways effectively and easily. However, issues identified such as vegetation growth, alignment issues, missing kerb ramps and obstacles, in many places prevent effective use of kerb ramps. Examples of identified deficiencies include:

Steep kerb ramp



Raised kerb lip



Missing kerb ramp



• Poor kerb ramp alignment

CXN129	Coxs Road North / Ryrie Street West	Kerb Ramp Alignment
	attende to the second se	and the second se
4		
index the		La Tarresson



#### Deteriorated kerb ramp

#### 5.3.4 Bus Stop Audit Findings

Bus stop facilities within each Precinct are largelyinconsistent, with a large number of non-conformities to the DDA guidelines for bus stops. Facilities in and around the major centres, such as at the shopping centres, are of the highest quality and contain a seat, plinth, hardstand and in some cases shelters. Away from the major centres of each Precinct, bus stop facilities would often consist of a single sign with no seat or paved access to the kerb to board or alight the bus. Tactile Ground Surface Indicators (TGSI) to aid the visually impaired are applied to extremely few bus stops with some instances along Lane Cove Road and Coxs Road where recent upgrades have been performed. Examples of identified deficiencies include:



No Hard Stand

No TGSI



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No Seat



Unsafe Hardstand



#### 5.3.5 Lighting Audit Findings

The audits of Top Ryde and North Ryde were conducted during daylight hours. As a result the effectiveness and working order of the lighting of pedestrian facilities cannot be commented on. However, the lighting facilities in place in the Precincts appeared to be sufficient with regular and evenly spaced lighting of the walkways in Ryde Park a noticeable standout for assistance to pedestrians walking through the park in the later hours. The pedestrian paths between Coxs Road to Kathleen Street and Lane Cove Road to Pindari Street, along with the access to Ryde Park from east-west oriented leg of Argyle Avenue, do not contain lighting provisions which mayact as a deterrent to pedestrians from the twilight period until sunrise. Examples of identified deficiencies include:



#### 5.3.6 Signage / Line Marking Audit Findings

A limited range of signage issues were identified during the site audit phase of which the vast majority relate to pedestrian crossings and shared paths. Most pedestrian crossings in Top Ryde and North Ryde are not accompanied by the updated pedestrian crossing signage with very few displaying the new fluorescent signs. The footpath along Coxs Road in North Ryde that allows bicycle movements is poorly marked with almost non-existent line markings and supporting signage whereas the shared path along Blaxland Road towards Top Ryde does not have signage to indicate the start and end of the shared path and to warn cyclists of pedestrians entering from the access path to Samuel Street. The highest priority issue identified is located along Pope Street just to the east of the Smith Street / Pope Street intersection where a small school zone sign is located without flashing warning lights. This sign is not able to be effectively viewed and is in a busy area. Examples of identified deficiencies include:

PSN002	Pope Street North	School Zone Sign is Small and Lacks Flashing Warning Lights





#### 5.3.7 Crossing Audit Findings

A number of deficiencies were identified when assessing the facilities provided for pedestrians to cross roads and intersections in T op Ryde and North Ryde. Missing and poor quality crossing infrastructure compromises the safety of pedestrians, especially the less mobile. Examples of identified deficiencies include:

Uneven pavement

William Street Pavement	

No crossing provisions





#### No safety handrails

#### 5.3.8 Safety Infrastructure Audit Findings

The City of Ryes has implemented a range of pedestrian fencing in locations around the Top Ryde Shopping Centre to enhance the safety of pedestrians. Damage to some sections of this fencing was observed which reduces the effectiveness of the fencing as a safety barrier. Along with damaged fencing and barriers the signalised intersection between Victoria Road and Church Street / Devlin Street was found to be missing push buttons associated with the pedestrian crossing phases. Examples of identified deficiencies include:









The location of all observed issues outside of footpath related issues are presented in Figure 5.5 and Figure 5.6.



Figure 5.5: Site Audit Issue Locations Precinct 1



Figure 5.6: Site Audit Issue Locations Precinct 2 & 3

# 6. COMMUNITY CONSULTATION

## 6.1 **OVERVIEW**

Community consultation is a vital component of establishing a well-informed PAMP for T op Ryde and North Ryde. Encouraging community members to raise issues they encounter each day and listening to the local residents, students, community groups and working population of T op Ryde and North Ryde ensures that the best outcomes are achieved from a technical, operational and communal standpoint. To maximise the exposure to the community to express their concerns and suggestions relating to pedestrian access and mobility and provide comments on the draft PAMP, a range of opportunities were established targeting community involvement. Community consultation opportunities included:

- Inclusion of Access Committee in site audit process;
- Identifying and contacting keypedestrian attractors and generators and contacting bytelephone and email to provide feedback specific to their purpose.
- Establishing an online "survey monkey" survey. The local newspaper and the City of Ryde website provided notification of the survey to the community, and small businesses in North Ryde received flyers to encourage participation;
- Two (2) rounds of communityworkshops were undertaken. One workshop was conducted in Top Ryde and the other in North Ryde; and
- Public exhibition of the Draft PAMP encouraging comments from the community

#### 6.2 IDENTIFICATION OF KEY STAKEHOLDERS

In the initial stages of the PAMP development an effort was made to identify and invite comment from a range of community groups, organisations and businesses in each of the three precincts on the experiences of their staff and customers in relation to the level of accessibility and facilities for pedestrians. A wide variety of stakeholders were contacted to incorporate a diverse and comprehensive cross section of groups and organisations that make up a significant portion of pedestrians. An email address was created specifically for correspondence from the stakeholders with the City of Ryde (RydePAMP@ryde.nsw.gov.au), along with the option of calling Bitzios Consulting staff directly. The key stakeholders identified and contacted by Bitzios Consulting are shown in T able 6.1:

Table 6.1:         Key Stakeholders Contacted for Comment on Pedestrian Facilities				
Stakeholder	Date	Method	Comments/Feedback	
Ryde Public School	7/12/2015	email	Approximately 520 enrolments Mode of travel for student - 50% by car/bus, 50% by foot Some students utilise the public buses on Blaxland Road Approximately 100 attend before and after school care Staff parking on site approximately 40, most staff drive, access via Pope St and Tucker St gates Support unit bus, drop off & pick up on site One small class for special needs, mode of travel small amount by foot Would require ambulance access via Pope St gate, and hence support unit buses are diverted to the kiss & ride at times of emergency B double sighted using Pope & Tucker St and struggled to negotiate the corner Smith St pedestrian signals are too short, school children struggle to complete crossing the road by the end of the flashing period. Two school children were hit (hit and run), did not suffer serious injury due to drivers filtering pedestrian green and flashing red man An informal path through the school between Argyle Avenue and Tucker St is used by public to gain access to the shopping centre. The path is not in good condition with uneven surface. Drivers exiting the new development next to Tucker St gate would have difficulty in seeing the pedestrians on the footpath	
North Ryde Public School	9/12/2015	email & phone	No Response	
Holy Spirit Primary School	14/12/2015	email	No Response	
Bike North	18/12/2015	email	No Response	
Top Ryde Shopping Village Owners	18/12/2015	email	Email distributed to businesses within the Shopping District	
Ryde Business Forum	18/12/2015	email	No Response	
Guide Dog Association	18/12/2015	email	No Response	
Top Ryde Early Learning Centre	11/12/2015	email	No Response	
Early Childhood Health Centre	5/01/2016	email	No Response	
Lilypad Early Learning Centre	5/01/2016	email	No Response	
KU North Ryde Preschool	5/01/2016	email	No Response	

# 6.3 ACCESS COMMITTEE PARTICIPATION IN SITE AUDITS

The Ryde Access Committee members were invited to participate in the site audit process. Their involvement in identifying issues along the priority routes allowed the professional experience of Bitzios Consulting staff to be assisted by experienced individuals with local knowledge and an understanding of pedestrians with mobility challenges. A member of the Access Committee was present on each of the site audit days and provided advice on the challenges each issue presented to elderly and less abled pedestrians, as well as identifying a range of issues.

## 6.4 ONLINE COMMUNITY SURVEY

#### 6.4.1 Methodology

An online survey using SurveyMonkey was set up by Bitzios Consulting, seeking responses from small businesses and residents of the three precinct areas about their experiences as a pedestrian. Notification was provided to small businesses in the Coxs Road and Blenheim Road Shopping Centres in the form of flyers delivered by a Bitzios Consulting staff member. At this time there was also an opportunityfor business owners and staff to air any concerns or ask questions of the processes, face to face. An advertisement was placed in the local newspaper, *The Northerm District Times*, as well as appearing on the Cityof Ryde website. The survey was made available from mid-January to mid-February 2016. A total of 17 responses were received.

The community questionnaire addressed the following topics:

- pedestrian trip journeyorigin
- purpose of trips made by foot within the study area;
- issues with existing crossings, footpaths and kerb ramps; and
- desired upgrades to pedestrian facilities with regards to crossings, kerb ramps, streetscape, directional signage, accessibility, and safety and security.

The Community Questionnaire responses are provided in Appendix B.

The key survey responses are summarised below. It should be noted that there was a strong response by residents, shoppers and workers of Precinct 2 (areas surrounding Coxs Road Shopping Centre), with 59% of the survey respondents identifying this as their place of work, shopping or residence. This is significant as by the population statistics this area contributes only20% of the combined population of the three precincts. In contrast, Precinct 1 contributes 65% of the combined population but only 12% of the responses to the survey.

### 6.4.2 Pedestrian Origin

Respondents were asked to identify their origin of Precinct, with specific interest to Top Ryde Commercial Precinct, Cox's Road Small Business Precinct, Blenheim Road Small Business Precinct and others not specified as shown in Figure 6.1.



#### Figure 6.1: Pedestrian Origin

The vast majority of respondents identified with Coxs Road Small Business Precinct as their precinct of interest. As a result the SurveyMonkey data is more applicable to the Coxs Road Small Business Precinct than other precincts and other areas that received very few responses. All respondents answered this question. Areas represented by the "Other" option were Meadowbank and Marsfield.

#### 6.4.3 Purpose of Pedestrian Trips

Respondents were asked to identify the purpose of common trips taken by foot within the study area. As shown in Figure 6.2, the most frequently cited purposes for walking were for leisure/health, followed by access to shops and transport facilities.



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#### Figure 6.2: **Reasons for Walking**

The results show that half of the respondents use pedestrian facilities to access shopping centres or local shopping precincts. The other methods of travel, including to school, public transport services, work and for leisure purposes, are split fairly evenly in their use. Please note that multiple options were able to be selected for this question and one of the 17 respondents chose not to answer this question.


#### 6.4.4 Pedestrian Satisfaction

Respondents were asked to identify whether they were satisfied with the existing footpaths, kerb ramps and pedestrian facilities. The results are shown in Figure 6.3



Figure 6.3: Pedestrian Satisfaction

Overall respondents were pleased with the existing condition of footpaths with 86% of respondents expressing satisfaction with existing infrastructure in place. Of the respondents who were not satisfied three issues were raised, which included the lack of footpaths on both sides of the road, the uneven nature of footpaths made it difficult to navigate for the less mobile, and footpaths are overgrown with weeds that limit the operating width and trap rubbish.

Similarly the majority of respondents were satisfied with the overall existing condition and infrastructure provided by pedestrian facilities in the three precincts with a satisfaction rating of 71%. Of the respondents who were not satisfied with the pedestrian facilities, issues were raised such as difficulties presented to drivers and pedestrians by the reverse only angled parking at Blenheim Road Shopping Centre and vehicles not giving way at pedestrian crossings near Coxs Road Shopping Centre.

Of the 17 respondents three chose not to answer both Question 3 and Question 4.

## 6.4.5 Pedestrian Facilities

Respondents were asked to consider the main barriers to walking were in their local Precinct. The results are shown in Figure 6.4.



#### Figure 6.4 Main Barriers to Walking

The main barrier identified by respondents was the lack of pedestrian crossing facilities and the safety of those pedestrians crossing roads, with a response rate of 36%. The lack of paved footpaths, condition of footpaths and kerb ramps and poor security and lighting for pedestrians had a similar response rate. Of the 17 respondents six opted not to answer this question.

#### 6.4.6 Desired Improvements

Respondents were asked about which improvements to pedestrian facilities they would most like to see in their area on a ranking scale system, with 1 being the highest priority and 6 being the lowest priority. The results are shown in Figure 6.5.

# What improvements would you most like to see to pedestrian facilities in your area? Please rank in order 1 to 6. (1 being the highest, 6 being the lowest)



#### Figure 6.5 Desired Improvements to Pedestrian Facilities

In the main, the responses for Question 6 were incomplete, with five respondents opting not to respond to the question all together and only four completing the whole question. Each option also attracted different levels of response rates with most receiving eight or nine answers but the option of "additional/improved ketb ramps" only attracting five responses. As a consequence the results displayed for this question may not provide a true and representative indication of the improvements pedestrians seek. From the data displayed though the three options that attracted the most attention from the highest three priority rankings are:

- Additional/Improved Footpaths
- Improved Lighting and Security
- More Accessible Crossings with Audible/T actile Crossing Facilities for Vision or Hearing Impaired

#### 6.4.7 Location Specific Feedback

Question 7 of the SurveyMonkey survey allowed respondents to raise any other issues that they may have encountered in the precinct areas outlined. Six responses were received with four specific to the precinct areas and three specific to pedestrian concerns within the precincts. The responses are provided in Table 6.2:

Fable 6.2:	Community Survey Lo	cation Specific Issues
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Comment	Location
Coxs Road pedestrian crossing in front of CBA. On a daily basis I am likely to be almost hit by a car that has not given way to me while I am on the pedestrian crossing.	Coxs Road Pedestrian Crossing at Commonwealth Bank
Pedestrian crossing on Coxs Road (outside the Library) on a daily basis I will be on the crossing and a car will fail to stop. Suggest a raised crossing like the ones outside the School or Pharmacy	Coxs Road Pedestrian Crossing at Commonwealth Bank
Overgrown trees, bushes. Weeds, rubbish blocking paths. Car speeding around Ryrie St.	Near Ryrie Street

#### 6.5 STAKEHOLDER WORKSHOP

[Workshops will be held with an aim to allow residents and other members of the community access to a presentation and question and answer session with Bitzios Consulting staff. Dates are yet to be determined. This section will be used to discuss the outcomes of the workshops.]

#### 6.6 PUBLIC EXHIBITION

[The Draft PAMP will be exhibited to the public for a period of 28 days in the month of May, 2016. This section will be used to discuss the outcomes of the public exhibition period.]

# 7. DETAILED RECOMMENDED WORKS PROGRAM

# 7.1 WORKS PRIORITY

A priority level has been assigned to each recommended action, taking into consideration its contribution to pedestrian safety, ease of accessibility and the amenity of the surrounding environment. Priority levels were assigned as follows:

- High Priority (H) = Essential for pedestrian safety:
  - for issues that require short term action (0-5 years);
  - for issues that would likely result in pedestrians having to use heavily trafficked streets due to a lack of footpath, deficient pedestrian facilities, or misleading pavement markings or street signage;
  - for locations where there are high pedestrian volumes as well as high traffic volumes that should maintain/improve the level of pedestrian access and mobility in accordance with design standards;
  - for locations where kerb ramps are missing at pedestrian signal crossings at heavily trafficked roads;
  - for areas such as shopping centre car parks, where traffic directional signage is unclear and likely to impede pedestrian safety;
  - for some locations where there is very limited footpath provision near a major pedestrian attractor or generator;
- Medium Priority(M) = Desirable for pedestrian safety, convenience or amenity:
  - for issues that require medium term works (5-10 years)
  - for issues that would likely result in pedestrians having to use local low-trafficked streets due to a lack of footpath, deficient pedestrian facilities, or misleading pavement marking or street signage;
  - for faded pedestrian crossings or narrow kerb ramps across roads through town centres; and
  - for trip hazards near schools, child care centres, or aged care facilities;
- Low Priority (L) = Little impact on pedestrian safety, desirable for pedestrian convenience or amenity:
  - for issues that require longer term works (10-25 years);
  - for minor footpath deficiencies, such as bad lip heights or narrow kerb ramps, in local streets;
  - for outdated symbol signs or faded traffic signs;
  - for minor bus stop deficiencies, such as missing shelters, seating, or bin provision; and
  - for lack of footpath provision in low pedestrian volume streets, where a footpath exists on the other side of the road.

## 7.2 Cost Estimates

The estimated costs of treatments are based on unit rates supplied by Blue Mountains City Council from a previous PAMP undertaken by Bitzios Consulting, in addition to rates used in other PAMP studies for other local councils in NSW. The list of unit costs are shown in Table 7.1. These costs are indicative and should be used as a guide only.

Table 7.1:	Indicative Unit Costs
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Reference (if applicable)	Item	UnitCost
	Install new concrete footpath	\$200 per m2
	Install new asphalt footpath	\$150 per m2
AS 1428.4.1 Austroads Part 4 and 6A	Install new kerb ramp	\$5,000 per item
	Install pedestrian (zebra) crossing sign	\$200 per item
	Pedestrian Lighting	\$1,000 per item

	Clear vegetation (brushcutting/mowing 1m either side of footpath)	\$1.10 per m2
	Remove kerb ramps (part of repair/replacement of footpath)	\$182.62 per m2
	Kerb and Gutter	\$85 per m
	Pavement grinding	\$25 per item
AS 1428.4.1	Install TGSI	\$200 per item
	Erecttraffic sign	\$200 per item
	Line Marking	\$5 per m
	Bollard	\$300 per item
	Handrails	\$200 per item
	Reflective Paint	\$10 per m
	Pedestrian Fencing	\$225 per m

Based on the preliminary cost estimates, the total cost for all recommended treatments (across priority works and priority routes) is shown in Table 6.2 below. These cost estimates do not include the additional funding of works from sources outside of the City of Ryde.

		Priority		
Area	Total	High	Medium	Low
Top Ryde	\$224,094.06	\$46,021.84	\$137,041.22	\$41,031.00
North Ryde	\$280,475.20	\$108,771.00	\$105,055.00	\$66,649.20
Sub Total	\$504,569.26	\$154,792.84	\$242,096.22	\$107,680.20

Table 7.2:Cost Estimate Summary by Priority of Issues

Presented below are the recommended treatments that are considered High priority works for the three precincts included in the PAMP. Table 7.3 shows the issues identified in and around Top Ryde (Precinct 1) and Table 7.4 shows the issues identified in North Ryde (Precincts 2 and 3). The full list of inspected priority routes with recommended works for Top Ryde are provided in Appendix C and North Ryde in Appendix D.



 Table 7.3:
 Top Ryde High Priority Issues, Recommended Treatments, and Estimated Costs

Location	Issue	Priority	Treatment	Cost
Pope Street North	School Zone Sign is Small and Lacks Flashing Warning Lights	High	Install New School Zone Sign	\$200
Tucker Street East	Section Missing in Pedestrian Fencing	High	Replace Damaged Sections of Fence	\$225
Victoria Road North across Devlin Street	No Push Button or Sound for Signalised Pedestrian Crossing	High	Install New Pedestrian Crossing Button	NA
Victoria Road North / Hatton Street East	Trip Hazard - No Kerb Ramp Installed at Intersection	High	Install New Kerb Ramp	\$5,000
Victoria Road North / Hatton Street East	Trip Hazard - No Kerb Ramp Installed at Intersection	High	Covered in VRN051	\$0.00
Victoria Road North / Arras Parade Easy	No Distinction between Footpath and Roadway/Trip Hazard - Uneven Footpath	High	Install New Kerb Ramp and Kerb and Gutter	\$5,850
Victoria Road North	No Distinction between Footpath and Roadway	High	Install New Kerb Layback	\$1,275
Charles Street East across Victoria Road	Trip Hazard - Overgrown Kerb Ramp	High	Remove Vegetation Restricting Width of Kerb Ramp	\$3
Victoria Road South	Trip Hazard - Incomplete Footpath	High	Install New Footpath, Replace Asphalt Footpath, Remove Vegetation	\$1,200
Victoria Road South across Princes Street West	Kerb Ramp has no Adjacent Kerb Ramp	High	Remove Kerb Ramp	\$183
Victoria Road South across Princes Street East	Kerb Ramp Alignment	High	Replace Kerb Ramp to Align with Adjacent Kerb Ramp	\$5,000
Cowell Street North	Kerb Ramp Alignment / Kerb Ramp Leads to Large Pothole / Stop Line Marking Faded	High	Remove Kerb Ramp and Move Stop Sign (add line marking)	\$383
Cowell Street North	Stop Sign is Hidden / Kerb Ramp Alignment / Kerb Ramp Leads to Large Pothole / Stop Sign Line Faded	High	Install New Kerb Ramps	\$10,000
Cowell Street (facing west)	Conditions of Cowell Street Intersection	High	Replace Asphalt Footpath	\$450
Victoria Road South	Trip Hazard - Overgrown Kerb Ramp	High	Remove Vegetation Restricting Width of Footpath	\$3



Location	Issue	Priority	Treatment	Cost
Victoria Road South / Devlin Street	Trip Hazard - Kerb Lip Deterioration	High	Replace Kerb Ramp	\$5,000
Church Lane access to Devlin Street West	Trip Hazard - Steep Ramp Section with no Hand Rails	High	Install Safety Handrails	\$400
Devlin Street West	Trip Hazard - Uneven Footpath	High	Replace Uneven Segments of Footpath	\$2,000
Parkes Street South / Belmore Lane East	Trip Hazard - Elevated Kerb Lip	High	Resurface Concrete Lip to Create Even Transition	\$200
Blaxland Road East	Footpath Blocked Partiallyby Repair Work	High	Move barriers / Replace Uneven Segments of Footpath	\$400
Blaxland Road East	Footpath Incomplete and Blocked Entirelyby Repair Work	High	Move barriers / Replace Uneven Segments of Footpath	\$400
Blaxland Road South across William Street	Trip Hazard - Uneven Road Pavement	High	Replace Uneven Segments of Asphalt	\$2,250
Blaxland Road South / William Street West	Trip Hazard - Elevated Kerb Lip and Deterioration	High	Replace Kerb Ramp	\$5,000
Smith Street / Pope Street South	Lack of Signage to Inform Motorists of Pedestrians and School Zone	High	Watch for Pedestrians and School Zone Signage to be Installed	\$600



 Table 7.4:
 North Ryde High Priority Issues, Recommended Treatments, and Estimated Costs

Location	Issue	Priority	Treatment	Cost
Blenheim Road West across Cutler Parade	Kerb Ramp Alignment	High	Re-Align Footpath North of the Intersection and Install New Kerb Ramp	\$5,000
Blenheim Road West across Cutler Parade	Kerb Ramp has no Adjacent Kerb Ramp	High	Covered in BLW042	\$0
Coxs Road North	Footpath Blocked by Overgrown Vegetation /Shared Path Line Marking Faded	High	Re Mark Shared Path Line Marking and Remove Vegetation Restricting Width of Footpath	\$216
Coxs Road North	Trip Hazard - Uneven Footpath / Line Marking	High	Re Mark Shared Path Line Marking and Replace Uneven Segments of Footpath	\$425
Coxs Road North	Shared Path Line Marking Faded	High	Re Mark Shared Path Lines	\$25.00
Coxs Road North	DDA Non-Compliant - Stairs Used as Access to Bus	High	Install DDA Compliant Ramp, TGSI and Platform	\$1,000
Coxs Road North	Trip Hazard - No Kerb Ramp Installed at Intersection	High	Install New Kerb Ramp	\$5,000
Coxs Road North	Kerb Ramp Alignment	High	Covered in CXN128 & CXN129	\$0.00
Coxs Road South	Trip Hazard - Elevated Kerb Ramp Lip	High	Replace Kerb Ramp	\$5,000
Coxs Road South	Trip Hazard - Elevated Lip on Kerb at Bus Stop	High	Replace Kerb and Guttering	\$680
Coxs Road South across Badajoz Road	No Pedestrian Crossing Provisions at Roundabout	High	No Treatment Required	\$0.00
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Construct New Footpath	\$90,000
Lane Cove Road East	No Footpath Despite Worn Path in Grass To Bus Stop	High	Covered in LRE179	\$0.00
Lane Cove Road East	No Footpath Despite Worn Path in Grass To Bus Stop	High	Install TGSI at Bus Stop	\$200
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Covered in LRE181	\$0
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Covered in LRE182	\$0
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Covered in LRE183	\$0



Location	Issue	Priority	Treatment	Cost
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Covered in LRE184	\$0
Lane Cove Road East	No Footpath Despite Worn Path in Grass To Bus Stop	High Covered in LRE185		\$0
Lane Cove Road East	No Footpath Despite Worn Path in Grass To Bus Stop	High	Install Seat, TGSI, Larger Hardstand and Connecting Footpath	\$1,000
Lane Cove Road East	No Footpath Despite Worn Path in Grass	High	Covered in LRE187	\$0
Lane Cove Road East / Coxs Road South	Trip Hazard - Overgrown Kerb Ramp	High	Covered in LRE192	\$0
Lane Cove Road East / Coxs Road South	Signs to be Installed to go With Line Marking	High	Re Mark Shared Path Line Marking and Add Directional Signage	\$225

# 7.3 EXAMPLES OF KEY UPGRADES

## 7.3.1 Lane Cove Road between Kent Road and Twin Road

As identified in the site audit conducted on the 21<sup>st</sup> January 2016 a worn pedestrian path exists along the south eastern side of Lane Cove Road between Kent Road and T win Road. It is recommended that a footpath be installed that connects the existing footpath along Lane Cove Road to the intersection of Lane Cove Road with T win Road as shown in Figure 7.1. Additionally the two bus stops located along this stretch of road require upgrades.



Figure 7.1: Lane Cove Road Footpath Upgrades

## 7.3.2 Cowell Street Intersection

The intersection at Cowell Street near Victoria Road presents dangers to pedestrians in its existing layout. Pedestrians are directed through the middle of the intersection by a kerb ramp towards the entry and exit driveway laybacks to the Ryde X Club. The intersection also contains large potholes and even road pavement in the direct pedestrian desire line and the stop sign to the left of the northern approach is unsighted due to its current location. A reconfiguration of the intersection is shown in Figure 7.2.



Figure 7.2: Cowell Street Intersection Pedestrian Facility Alterations

#### 7.3.3 Wicks Road Potential Pedestrian Refuge

The section of Wicks Road between Coxs Road and Beatrice Street does not have any existing pedestrian crossing provisions over a span of just over 500m. This section of road was identified as being a priorityroute for pedestrians and contains a number of bus stops. It is proposed that an investigation is conducted into the feasibility of a pedestrian refuge across Wicks Road. An initial concept location is shown in Figure 7.3.



Figure 7.3: Wicks Road Potential Pedestrian Refuge Location

# 8. FUNDING SOURCES

# 8.1 ROADS AND MARITIME SERVICES

Generally RMS will fund works on State Roads including crossings and kerb ramps. State Roads are 100% funded by RMS, while works on Regional and Local Roads are funded 50/50 by RMS and BMCC. In the last two cases, RMS contributes funding for road crossing facilities and kerb ramps only.

Within the study area, the following classifications apply for funding purposes:

- State Roads Church Street, Devlin Street, Blaxland Road, Lane Cove Road and Victoria Road; and
- Regional Roads Wicks Road (as detailed in Table 2.6).

All other roads are considered local roads and are under the jurisdiction of City of Ryde.

Further details of RMS funding can be found in the "Council Projects Funded by The RTA, Memorandum of Understanding" June 2009. The works that are generally eligible for equal contribution between Council and RMS include:

- a) Preparation of Pedestrian Access and Mobility Plan
- b) Upgrade of Existing Pedestrian Infrastructure
  - Kerb Ramps
  - Pedestrian Priority System
- c) New Pedestrian Crossing Treatment and Facilities
  - New signalised pedestrian access points
  - Shared zone areas
  - Kerb extensions and blisters
  - Raised pedestrian crossings

# 8.2 SECTION 94 CONTRIBUTIONS

The Environmental Planning and Assessment Act 1979 makes allowance for a consent authority to extract money for the provision of public amenity or public services. Should a development increase pedestrian activity or demand then it would be reasonable for Council to seek contribution toward improvements to pedestrian facilities in the area provided a link between the development and facility can be reasonable shown. 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."

In relation to the PAMP, Council may consider including some of the works as part of their Section 94 contribution plan.

# 8.3 VOLUNTARY PLANNING AGREEMENTS (VPAs)

VPAs are an agreement between Council and developers that may involve the funding or assistance of pedestrian facility upgrades, expansion, construction or reconstruction. Any VPA is considered on a case by case basis and can become an additional funding source for PAMP Works.

# 8.4 CONDITIONS OF CONSENT

Developments are required to install compliant footpaths, kerb ramps and driveway crossings as part of the Development Approval process with the City of Ryde. Such constructions are required to be compliant with relevant Australian Standards and the City of Ryde's Public Domain Manual.

# 9. IMPLEMENTATION AND MONITORING PROGRAM

The next stages in the PAMP are to:

- organise funding sources to establish a budget and over what timeframe;
- establish an implementation program; and
- monitor implementation of the PAMP and its outcomes.

It is typical to have a monitoring program for the PAMP. This would involve:

- recording of all proposed pedestrian works in a database;
- analysis of crash statistics;
- collection of pedestrian count information; and
- periodic updating of the PAMP every five years.

The monitoring program for the PAMP can include the establishment of an auditing process that assesses and documents the condition of the priority routes established and progress of work recommended in this PAMP regularly. By ensuring a visual audit program is implemented the quality of the routes is able to be maintained and any issues incurred identified and addressed quickly. Assessments of the routes should be conducted by a person or team of professionals with experience in pedestrian facility design and standards to best identify arising issues and develop a suitable course of action. Priorityroutes should also be reviewed and updated as new Council works are proposed and land uses change.

# 10. CONCLUSIONS AND RECOMMENDATIONS

# GLOSSARY OF TERMS AND ACRONYMS

CoR: City of Ryde

PAMP: Pedestrian Access and Mobility Plan

- **DDA:** Disability Discrimination Act
- GIS: Geographic Information System
- DCP: Development Control Plan
- LEP: Local Environmental Plan

**Historical Crash Data**: The data are confined to crashes that conform to the national guidelines for reporting and classifying road vehicles crashes. The guidelines include crashes that meet all of these criteria:

- Were reported to the police
- Occurred on a road open to the public
- Involved at least one moving road vehicle
- Involved at least on person being killed or injured or at least one motor vehicle being towed away.

**PAMP Route:** Key pedestrian routes identified in the study, and prioritised and audited based on their proximity to pedestrian attractors and generators, pedestrian crash clusters, community feedback, and relation to road hierarchy.

**Pedestrian:** Any person walking including: a person driving a motorised wheelchair that cannot travel at 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. (Source: *RMS How to Prepare a Pedestrian Access and Mobility Plan*)

TGSI: Tactile Ground Surface Indicators



Appendix A

**DESIGN STANDARDS** 

# **BITZIOS**

# **DESIGN STANDARDS**

Below is a list of links (where applicable) to all design standards and codes referenced in the PAMP. The design standards adopted include a combination of Australian Standards, Austroads Guides and local RMS technical directions and model drawings.

- Australian Standard AS 1158.4:2009: Lighting for Roads and Public Spaces
- Australian Standard AS 1428.4.1 2009:Design for Access and Mobility
- Australian Standard AS 1742.10: Pedestrian Control and Protection
- Austroads Guide to Road Design Part 4. Intersections and Crossings
- Austroads Guide to Road Design Part 6A, Pedestrian and Cycle Paths
- Disability Standards for Accessible Public Transport 2002

https://www.comlaw.gov.au/Details/F2005B01059

• NSW Bicycle Guidelines (RTA2005).

http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical manuals/nswbicyclev12aa\_i.pdf

• RMS model drawings MD R173.B01.A1.

http://www.rms.nsw.gov.au/business-industry/partners-suppliers/design-documents/modelroaddrawings/mrd-general-concrete-paving.html

 RMS Technical Direction TDT 2002/12b (Stopping and Parking Restrictions at Intersections and Crossings)

http://www.rms.nsw.gov.au/trafficinformation/downloads/td02\_12b.pdf

• RUM Codes (from Definitions and notes to support road crash data, TfNSW June 2014).

http://roadsafety.transport.nsw.gov.au/downloads/definitions-notes.pdf



Appendix B

COMMUNITY CONSULTATION RESULTS

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Community Consultation

Which Precinct are you from?

Answered	17
Skipped	0

	Response	Response
	Count	Percentage
Top Ryde Commercial Precinct	2	12%
Coxs Road Small Business Precinct	10	59%
Blenheim Road Small Business Precinct	3	18%
Other (Please specify the street and/ or suburb	2	12%

Number	Response Date	Other
1	27/01/2016 16:14	Stone Street, Meadowbank
2	27/01/2016 11:40	Torrington Drive, Marsfield

Community Consultation

What are your main reasons for walking?

Answered	16	
Skipped	1	

	Response	Response
	Count	Percentage
to/from bus stop	4	25%
to/from school	3	19%
to/from shops	8	50%
to/from work	5	31%
for leisure/health	4	25%
Other (please specify)	0	0%

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Community Consultation

Are you satisfird with the footpaths and kerb ramps in your area?

Answered	14	
Skipped	3	

ĺ	Response	Response
	Count	Percentage
Yes	12	86%
No	2	14%

Number	Response Date	Other
1	27/01/2016 16:20	although it would be good to have footpaths on both sides of the road
2	27/01/2016 11:41	I have some mobility disability and there are uneven sections.
3	19/01/2016 9:16	Overgrown with weeds, trapping rubbish

Community Consultation

In general, are you stasfied with the pedestrian facilities in your area?

Answered	14	
Skipped	3	

	Response	Response
	Count	Percentage
Yes	10	71%
No	4	29%

Number	Response Date	Other
1	27/01/2016 22:02	I'm often a pedestrian AND driver I park my car outside the shops at Blenheim Road and go about my business there etc. Many, if not ALL, people absolutely hate having to reverse their car into the car spaces. It's difficult to do, especially given cars may be waiting for you to park, and many elderly people cannot park there and drive up to Coxs Road instead. They are unable to turn their head enough to be able to negotiate the reversal, which is tight. When our local community meets up for a street party etc they all agree that they experience this problem. Please, please can you make the cars move forward into the car spaces.
2	27/01/2016 16:21	My house fronts busy See Street opposite the TAFE and there is also a school and two kindergartens. we need traffic calming measures as cars speed up See Street.
3	21/01/2016 13:56	On a daily basis i am likely to be almost hit by a car that has not given way to me while i am on the pedestrian crossing
4	21/01/2016 11:16	Patients from the Macquarie Hospital tend to congregate outside our place of business. This can be very intimadating for myself and also our clients.

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Community Consultation

What are your main barriers walking?

Answered	11	
Skipped	6	

	Response	Response
	Count	Percentage
No footpath/missing link	2	18%
Poor footpath confidition	2	18%
Poor kerb ramps	1	9%
Lack of appropriate pedestrian signage	0	0%
Pedestrian crossing safety/ no pedestrian crossing facility	4	36%
Poor security/lighting	2	18%

Community Consultation

What are your main barriers walking?

Answered	12
Skipped	5

	1	2	3	4	5	6	Total
Additional pedestrian crossing	11.11%	11.11%	22.22%	22.22%	11.11%	22.22%	0
refuge islands)	1	1	2	2	1	2	9
Additional (improved featpaths	25.00%	12.50%	37.50%	0.00%	0.00%	25.00%	0
Additional/ Improved footpaths	2	1	3	0	0	2	ŏ
Additional (improved kerb ramps	0.00%	0.00%	40.00%	20.00%	40.00%	0.00%	E
	0	0	2	1	2	0	5
Improved lighting and ecourity	12.50%	50.00%	12.50%	12.50%	12.50%	0.00%	0
improved lighting and security	1	4	1	1	1	0	ŏ
Improved directional signage	25.00%	0.00%	12.50%	0.00%	25.00%	37.50%	0
improved directional signage	2	0	1	0	2	3	ŏ
More accessible crossings with audible/ tactile crossing facilities	11.11%	33.33%	0.00%	11.11%	22.22%	22.22%	0
for vision or hearing impaired pedestrian	1	3	0	1	2	2	9

## Community Consultation

Are there any particular locations in your local area that you find of concern in regards to pedestrian access and mobility?

Answered	14
Skipped	3

	Response	Response
	Count	Percentage
Yes	10	71%
No	4	29%

Number	Response Date	Other
1	27/01/2016 16:22	See Street opposite TAFE, near the corner of Stone Street needs traffic calming or refuge.
2	27/01/2016 23:43	Agincourt Rd between Balaclava Rd and Corruna rd - uneven surface.
2	21/01/2016 12:57	Coxs road pedestrian crossing in front of CBA. Ona daily basis I am likely to be almost hit by a car that has not given way to me while I am on
3	21/01/2010 15.57	the pedestrian crossing.
	21/01/2016 12:20	Pedestrian crossing on Coxs Road (oustide Library) on a daily basis I will be on the crossing and a car will faail to stop. Suggest a raised
4	21/01/2016 13:39	crossing like the ones otuside the School or Pharmacy
5	21/01/2016 11:19	Cox's Rd mall. Patients from macquarie Hospital are intimidating customer's who come to the mall.
6	21/01/2016 9:20	overgrown trees, bushes. weeds, rubbish blocking paths. Cars speeding around Ryrie Street



Appendix C

SCHEDULE OF WORKS – TOP RYDE

Photograph	Location	Issue	Priority	Treatment	Unit	Cost	Item
20160118_123828	Pope Street North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	0.5	\$100.00	PSN001
20160118_123955	Pope Street North	School Zone Sign is Small and Lacks Flashing Warning Lights	High	Install New School Zone Sign	1	\$200.00	PSN002
DSC_1851	Tucker Street East	Section Missing in Pedestrian Fencing	High	Replace Damaged Sections of Fence	1	\$225.00	TSE003
DSC_1852	Tucker Street West	Damaged Connection in Pedestrian Fencing	Medium	Replace Damaged Sections of Fence	1	\$225.00	TSW004
DSC_1853	Tucker Street West	Damaged Section of Pedestrian Fencing	Medium	Replace Damaged Sections of Fence	1	\$225.00	TSW005
DSC_1854	Tucker Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	TSW006
20160118_093622	Church Street East	Jaywalking Prevention	Low	No Treatment Required	0	\$0.00	CSE007
20160118_093644	Church Street East	Trip Hazard - Step	Low	Apply Reflective Tape/Paint Along Edge	4	\$40.00	CSE008
20160118_093725	Church Street East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	2.5	\$500.00	CSE009
20160118_093935	Church Street East	Kerb Ramp Leads to Parking Space	Low	Install TGSI Where Footpath Becomes Parking Space	1	\$200.00	CSE010
DSC_1858	Church Street East	Trip Hazard - Exposed Kerb Edge	Low	Covered in CSE010	0	\$0.00	CSE011
20160118_094130	Church Street East / Gowrie Street South	Trip Hazard - Steep Kerb Lip	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	CSE012
20160118_094140	Church Street East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	1	\$200.00	CSE013
20160118_094231	Church Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	4	\$800.00	CSE014
20160118_094514	Church Street East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	3	\$600.00	CSE015
20160118_094850	Church Street East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	1	\$200.00	CSE016
20160118_094932	Church Street East	Trip Hazard - Driveway Causes Lip	Low	Resurface to Create Even Footpath	2	\$400.00	CSE017
20160118_094944	Church Street East	Damaged Kerb	Low	Repair Concrete Kerb	0.5	\$100.00	CSE018
20160118_094958	Church Street East	Trip Hazard - Driveway Causes Lip	Low	Resurface to Create Even Footpath	2	\$400.00	CSE019
20160118_095136	Church Street East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	2	\$400.00	CSE020
20160118_094448	Church Street Pedestrian Crossing	Signage - Non-Compliant	Medium	Replace Non-Compliant Pedestrian Crossing Sign	1	\$200.00	CSE021
DSC_1859	Church Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	5	\$750.00	CSW022
DSC_1860	Church Street West	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.25	\$37.50	CSW023
DSC_1861	Church Street West	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	2	\$300.00	CSW024
DSC_1862	Church Street West	Trip Hazard - Steep Kerb Lip	Medium	Replace Concrete Lip	1	\$200.00	CSW025
DSC_1863	Church Street West	DDA Non-Compliant - No TGSI	Low	Install TGSI at Bus Stop	1	\$200.00	CSW026
20160118_112315	Victoria Road North across Belmore Street	Kerb Ramp Alignment	Medium	Install New Kerb Ramps	2	\$10,000.00	VRN027
20160118_112257	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	VRN028
20160118_112215	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	2	\$400.00	VRN029
20160118_112127	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	5	\$1,000.00	VRN030
DSC_1926	Victoria Road North across Devlin Street	No Push Button or Sound for Signalised Pedestrian Crossing	High	Install New Pedestrian Crossing Button	1	NA	VRN031
DSC_1864	Pedestrian Crossing at Victoria Road North acr	Non - Compliant Signage and Incorrect Sign Facing Direction	Medium	Replace Non-Compliant Pedestrian Crossing Signs	2	\$400.00	VRN032
20160118_095231	Victoria Road North	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	20	\$22.00	VRN033
20160118_095311	Victoria Road North	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	50	\$55.00	VRN034
20160118 095353	Victoria Road Mid-Block Signalised Crossing	Trip Hazard - Steep Kerb Ramp	Medium	Install Compliant Kerb Ramp	1	\$25.00	VRN035
DSC_1866	Victoria Road North / Little Church Street East	Trip Hazard - Elevated Kerb Lip	Medium	Replace Concrete Lip	1	\$200.00	VRN036
20160118 095524	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	VRN037
20160118 095537	Victoria Road North	Signage - Unused Pole	Low	Remove Signpost	1	\$200.00	VRN038
DSC 1868	Victoria Road North	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRN039
DSC 1869	Victoria Road North	Trip Hazard - Incomplete Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN040
DSC 1870	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN041
DSC 1871	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Covered in VRN039 and VRN040	0	\$0.00	VRN042
DSC 1872	St Annes Street South across William Street	Kerb Ramp Alignment	Medium	Covered in VRN044	0	\$0.00	VRN043
20160118 100006	William Street East across St Annes Street	Kerb Ramp Alignment	Medium	Replace Kerb Ramp	1	\$5,000,00	VRN044
20160118 100011	St Annes Street North across William Street	Kerb Ramp Alignment	Low	Replace Kerb Ramp	1	\$5,000,00	SAN045
DSC 1875	Victoria Road North / St Annes Street North	Enotnath Blocked Partially by Safety Barrier	Medium	Install New Footnath Section	1	\$200.00	VRN046
DSC 1876	Victoria Road North	Trin Hazard - Lineven Eootnath	Low	Replace Lineven Segments of Footnath	1	\$200.00	VRN047
DSC 1877	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN0/8
DSC 1879	Victoria Road North	Enotnath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	50	\$55.00	VRN049
20160118 100309	Victoria Road North	Trip Hazard - Uneven Epotpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRN050
DSC 1880	Victoria Road North / Hatton Street Fast	Trin Hazard - No Kerb Ramp Installed at Intersection	High	Install New Kerh Ramn	1	\$5,000,00	VRN051
DSC 1881	Victoria Road North / Hatton Street Fast	Trin Hazard - No Kerb Ramp Installed at Intersection	High	Covered in VRN051	0	\$0.00	VRN052
DSC 1882	Victoria Road North	Vehicles Required to Drive on Ecotortath to be Moved	Medium	No Treatment Required	0	\$0.00	VRN052
DSC 1883	Victoria Road North	Trin Hazard - Lineven Footnath	Medium	Replace Uneven Segments of Footnath	1	\$200.00	VRN054
DSC 188/	Victoria Road North	Trin Hazard - Uneven Footnath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN055
DSC 1885	Victoria Road North	Trin Hazard - Uneven Footnath	Medium	Replace Uneven Segments of Footnath	1	\$200.00	VRN056
530_1003	violona Nudu Nutiti	inpinazara onovoni ooipain	wouldin	replace oneven beginents or roupatil	1	Ψ200.00	*1110000

Photograph	Location	Issue	Priority	Treatment	Unit	Cost	Item
DSC_1886	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	VRN057
DSC_1887	Victoria Road North across Blaxland Road	Kerb Ramp Alignment	Medium	Install New Kerb Ramp	1	\$200.00	VRN058
DSC_1889	Victoria Road North / Blaxland Road South	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.1	\$15.00	VRN059
20160118_102007	Victoria Road North	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRN060
20160118_102047	Victoria Road North	Car Yard Wall	Low	No Treatment Required	0	\$0.00	VRN061
DSC_1890	Victoria Road North / Arras Parade Easy	No Distinction between Footpath and Roadway / Trip Hazard - Uneven Footpath	High	Install New Kerb Ramp and Kerb and Gutter	1	\$5,850.00	VRN062
DSC_1891	Victoria Road North	No Distinction between Footpath and Roadway	High	Install New Kerb Layback	15	\$1,275.00	VRN063
DSC_1892	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN064
DSC_1893	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	VRN065
DSC_1896	Victoria Road North	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRN066
DSC_1897	Victoria Road North / Irvine Crescent East	Kerb Ramp Width is Very Large / Trip Hazard - Uneven Road Pavement	Low	No Treatment Required	0	\$0.00	VRN067
DSC_1898	Irvine Crescent	Trip Hazard - Uneven Road Pavement	Low	Resurface to Create Even Road Pavement	2	\$300.00	ICN068
20160118_103128	Victoria Road North	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.1	\$15.00	VRN069
20160118_103139	Victoria Road North / Providence Road Access	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.25	\$37.50	VRN070
20160118_103235	Victoria Road North / Charles Street Intersection	Trip Hazard - Uneven Footpath / Vegetation	Low	Remove Vegetation Restricting Width of Footpath	10	\$11.00	VRN071
20160118_103345	Charles Street East across Victoria Road	Trip Hazard - Overgrown Kerb Ramp	High	Remove Vegetation Restricting Width of Kerb Ramp	3	\$3.30	VRS072
20160118_103422	Victoria Road South across Charles Street	Kerb Ramp Width is Very Large	Medium	Replace Kerb Ramps	2	\$10,000.00	VRS073
20160118_103627	Victoria Road South	Trip Hazard - Incomplete Footpath	High	Install New Footpath, Replace Asphalt Footpath, Remove Vegetation	6	\$1,200.00	VRS074
20160118_103703	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS075
20160118_103720	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	3	\$600.00	VRS076
20160118_103830	Victoria Road South across Lardelli Drive East	Kerb Ramps Operation Affected by Parked Vehicles	Low	Enforcement of Parking Laws	0	\$0.00	VRS077
20160118_103855	Victoria Road South across Lardelli Drive West	Kerb Ramps Operation Affected by Parked Vehicles	Low	Enforcement of Parking Laws	0	\$0.00	VRS078
DSC_1899	Victoria Road South	Safety Barrier and Concrete Base Damaged	Medium	Replace Concrete Base and Damaged Safety Barrier	1	\$1,500.00	VRS079
DSC_1900	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS080
20160118_104026	Victoria Road South	Trip Hazard -Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	VRS081
20160118_104249	Victoria Road South	Trip Hazard -Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	VRS082
20160118_104447	Victoria Road South	Trip Hazard -Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS083
20160118_104650	Victoria Road South across Princes Street Wes	Kerb Ramp has no Adjacent Kerb Ramp	High	Remove Kerb Ramp	1	\$182.62	VRS084
20160118 104752	Victoria Road South across Princes Street East	Kerb Ramp Alignment	High	Replace Kerb Ramp to Align with Adjacent Kerb Ramp	1	\$5,000.00	VRS085
20160118_104827	Princes Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	3	\$600.00	VRS086
20160118_104850	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS087
20160118_104931	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Grind Concrete Lip to Create Even Transition	1	\$25.00	VRS088
20160118_104938	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	VRS089
20160118_105046	Victoria Road South	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	50	\$55.00	VRS090
20160118_105149	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	VRS091
20160118_105154	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	VRS092
20160118 105217	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS093
20160118_105231	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	VRS094
20160118 105241	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS095
20160118 105305	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	VRS096
20160118 105330	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Grind Concrete Lip to Create Even Transition	2	\$50.00	VRS097
20160118_105351	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Repair Concrete Driveway Section	8	\$1,600.00	VRS098
20160118_105415	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	3	\$600.00	VRS099
20160118 105426	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Covered in VRS099	0	\$0.00	VRS100
20160118_105430	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	VRS101
20160118 105523	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS102
20160118 105615	Cowell Street North	Kerb Ramp Alignment / Kerb Ramp Leads to Large Pothole / Stop Line Marking Faded	High	Remove Kerb Ramp and Move Stop Sign (add line marking)	1	\$382.62	VRS103
20160118 105652	Cowell Street North	Stop Sign is Hidden / Kerb Ramp Alignment / Kerb Ramp Leads to Large Pothole / Stop Sign Line Faded	Hiah	Install New Kerb Ramps	2	\$10,000.00	VRS104
20160118 105739	Cowell Street (facing west)	Conditions of Cowell Street Intersection	High	Replace Asphalt Footpath	3	\$450.00	VRS105
20160118 105908	Cowell Street South	Kerb Ramp Alignment	Low	Install New Kerb Ramp	1	\$5,000.00	VRS106
20160118 105957	Cowell Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	VRS107
20160118 110110	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	VRS108
20160118 110137	Victoria Road South	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	1	\$200.00	VRS109
20160118 110249	Victoria Road South	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.00	VRS110
20160118 110258	Victoria Road South	Trip Hazard - Uneven Footpath / Footpath Block by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.00	VRS111
20160118_110310	Victoria Road South	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.00	VRS112

Photograph	Location	Issue	Priority	Treatment	Unit	Cost	Item
20160118_110345	Victoria Road South	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.00	VRS113
20160118_110418	Victoria Road South	Trip Hazard - Overgrown Kerb Ramp	High	Remove Vegetation Restricting Width of Footpath	3	\$3.30	VRS114
20160118_110558	Pedestrian Crossing at Victoria Road South / D	Trip Hazard - Steep Kerb Lip	Medium	No Treatment Required	0	\$0.00	VRS115
20160118_110607	Victoria Road South / Devlin Street	Kerb Ramp Alignment	Medium	No Treatment Required	0	\$0.00	VRS116
20160118_111818	Victoria Road South / Devlin Street	Trip Hazard - Kerb Lip Deterioration	High	Replace Kerb Ramp	1	\$5,000.00	VRS117
20160118_110640	Victoria Road South / Devlin Street	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	20	\$22.00	VRS118
20160118_110818	Victoria Road South / Devlin Street	Trip Hazard - Uneven Footpath	Medium	Remove Vegetation Restricting Width of Footpath	10	\$11.00	VRS119
20160118_110841	Victoria Road South	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	10	\$11.00	VRS120
20160118_110853	Victoria Road South	Footpath Blocked by Overgrown Vegetation / Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	15	\$16.50	VRS121
20160118_110931	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	135	\$27,000.00	VRS122
20160118_111047	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Covered in VRS122	0	\$0.00	VRS123
20160118_111117	Victoria Road South	Trip Hazard - Uneven Footpath	Medium	Covered in VRS122	0	\$0.00	VRS124
20160118_111133	Victoria Road South	Trip Hazard - Uneven Footpath / Footpath Blocked by Overgrown Vegetation	Medium	Covered in VRS122	0	\$0.00	VRS125
20160118_111155	Victoria Road South	Trip Hazard - Uneven Footpath / Footpath Blocked by Overgrown Vegetation, No TGSI at Bus Stop	Medium	Remove Vegetation Restricting Width of Footpath and Install TGSI at Bus Stop	1	\$201.10	VRS126
20160118_111237	Victoria Road South	Trip Hazard - Uneven Footpath / Footpath Blocked by Overgrown Vegetation	Medium	Covered in VRS122	0	\$0.00	VRS127
20160118_111257	Victoria Road South across Belmore Street	Kerb Ramp Alignment / No Safety Handrails Installed	Medium	Install Safety Handrails	2	\$400.00	VRS128
DSC_1927	Devlin Street West / Victoria Road North	Well Worn Pedestrian Path in Grass	Medium	No Treatment Required	0	\$0.00	DSW129
20160118_112544	Devlin Street West	Trip Hazard - Uneven Footpath / Vegetation	Medium	Replace Uneven Segments of Footpath	1.5	\$300.00	DSW130
20160118_112549	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	5	\$1,000.00	DSW131
20160118_112555	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1.5	\$300.00	DSW132
20160118_112603	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	DSW133
20160118_112620	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	75	\$15,000.00	DSW134
20160118_112638	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Covered in DSW134	0	\$0.00	DSW135
20160118_112650	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Covered in DSW134	0	\$0.00	DSW136
20160118_112723	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Covered in DSW134	0	\$0.00	DSW137
20160118_112733	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Covered in DSW134	0	\$0.00	DSW138
20160118_112741	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Repair Concrete Section	2	\$400.00	DSW139
20160118_112749	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Covered in DSW134	0	\$0.00	DSW140
20160118_112846	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Fill Gap in Footpath	0.5	\$100.00	DSW141
20160118_112907	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	20	\$4,000.00	DSW142
20160118_112942	Church Lane access to Devlin Street West	Trip Hazard - Steep Ramp Section with no Hand Rails	High	Install Safety Handrails	2	\$400.00	DSW143
20160118_113002	Devlin Street West	Deteriorated Concrete Wall Impacting on Footpath	Medium	Fill in Concrete Damage	2	\$400.00	DSW144
20160118_113019	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	DSW145
20160118_113031	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	DSW146
20160118_113056	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	DSW147
20160118_113101	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	2	\$400.00	DSW148
20160118_113144	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	DSW149
20160118_113203	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	DSW150
DSC_1928	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	DSW151
20160118_113220	Devlin Street West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	10	\$150.00	DSW152
DSC_1929	Devlin Street West	Inp Hazard - Uneven Footpain	High Madium	Replace Uneven Segments of Footpath	10	\$2,000.00	DSW153
20160118_122650	Devilin Street West	Well Worn Pedestrian Path in Grass	Medium	No Treatment Required	0	\$0.00	DSW154
20160118_122748	Devlin Street West	Trip Hazard - Step	Medium	No Treatment Required	0	\$0.00	DSW155
DSC_1919	Devlin Street East	Inp Hazard - Uneven Footpain	Medium	No Treatment Required	0	\$0.00	DSE150
DSC_1921	Devilin Street East	Damaged Section of Pedestinan Fencing	Medium	Replace Lineuen Segmente of Apphalt	2	\$1,125.00	DSE157
DSC_1922	Devilin Street East	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	2	\$300.00	DSE158
DSC_1923	Deviin Street East	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	20	\$3,000.00	DSE109
DSC 1025	Deviin Street East	Inp nazaru - uneven Foulpain Non Compliant Signage	Modium	Replace Uneven Segments of Aspiral	4	\$000.00 \$200.00	DSE16U
DSC_1920	Playland Poad (Darkos Street North)	nion - Compilant Signage		Replace Non-Compliant Pedestinan Clossing Sign	20	\$200.00 \$220.00	DSN162
DSC_1930	Diaxianu Rodu (Parkes Street North)	Footpath Blocked by Overgrown Vogetation	LOW	Remove Vegetation Restricting Width of Footpath	10	\$350.00	DSN162
DSC_1731	Blayland Road (Parkes Street North)	Well Worn Pedestrian Path in Grass	LOW	No Treatment Required	0	\$0.00 \$0.00	DSN167
20160118 112424	Darkes Street South	Trin Hazard - Unaven Footnath	Medium	Ponlace Uneven Segments of Footnath	1	\$200.00	DSS165
20100110_113020	Parkes Street South / Relmore Lane Fact	Trin Hazard - Elevated Kerh Lin	High	Resurface Concrete Lin to Create Even Transition	1	\$200.00	DSS100
20100110_113030	Parkes Street South / Belmore Lane West	Trin Hazard - Steen Ramo Section with no Hand Rails	Medium	Install Safaty Handrails	2	\$400.00	PSS167
20160118 113043	Parkes Street South across Relmore Street	No Safety Hand Rails Installed / Kerb Ramp Alignment	Medium	Install Safety Handrails	2	\$400.00	PSS168
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Photograph	Location	Issue	Priority	Treatment	Unit	Cost	Item
20160118_113741	Parkes Street South / Belmore Street West	Trip Hazard - Elevated Kerb Lip	Medium	Grind Concrete Lip to Create Even Transition	1	\$25.00	PSS169
20160118_113814	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	PSS170
20160118_113845	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	PSS171
20160118_113854	Parkes Street South across Lee Avenue	Trip Hazard - Uneven Footpath / Kerb Ramp Alignment	Low	Install New Kerb Ramps	2	\$10,000.00	PSS172
20160118_113913	Parkes Street South / Lee Avenue West	Trip Hazard - Steep Kerb Ramp	Low	Replace Uneven Segments of Footpath	2	\$400.00	PSS173
20160118_113953	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	PSS174
20160118_114005	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	3	\$600.00	PSS175
20160118_114048	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	PSS176
20160118_114055	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	PSS177
20160118_114129	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	PSS178
20160118_114208	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	PSS179
20160118_114222	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	PSS180
20160118_114244	Parkes Street South	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	PSS181
DSC_1945	Blaxland Road West	No Signs to Mark Start/End of Shared Path	Low	Install Signage to Notify of Beginning and End of Shared Path	2	\$400.00	BRW182
20160118_115344	Samuel Street Lane	Trip Hazard - Steep Path with No Hand Rails	Low	Install Safety Handrails	15	\$3,000.00	BRW183
20160118_115429	Samuel Street Lane	Trip Hazard - Steep Path with No Hand Rails	Low	No Treatment Required	0	\$0.00	BRW184
20160118_115530	Samuel Street Lane	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	BRW185
DSC_1933	Blaxland Road West	No Warning for Cyclists of Side Path	Medium	Install Signage to Warn Cyclists of Entering Pedestrians	2	\$400.00	BRW186
20160118_115719	Blaxland Road West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BRW187
DSC_1934	Blaxland Road West	Line Marking is in Wrong Position on Service Location Covers	Medium	No Treatment Required	0	\$0.00	BRW188
20160118_120012	Blaxland Road West	Conflict Zones - Shared Path Lanes Become Very Narrow Due to Bus Stop and Signposts	Medium	Install New Traffic Sign With Wider Pole Width	1	\$200.00	BRW189
DSC_1937	Blaxland Road West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BRW190
20160118_120235	Blaxland Road West	Conflict Zones - Shared Path Lanes are removed Due to Bus Stop	Medium	No Treatment Required	0	\$0.00	BRW191
DSC_1938	Blaxland Road West across Blaxland Road to k	Kerb Ramp Alignment	Medium	Remove Pedestrian Refuge and Kerb Ramp	1	\$682.62	BRW192
20160118_120733	Blaxland Road East	Footpath Blocked Partially by Repair Work	High	Move barriers / Replace Uneven Segments of Footpath	2	\$400.00	BRE193
20160118_120746	Blaxland Road East	Footpath Incomplete and Blocked Entirely by Repair Work	High	Move barriers / Replace Uneven Segments of Footpath	2	\$400.00	BRE194
20160118_120857	Blaxland Road East	Trip Hazard - Uneven Footpath	Medium	No Treatment Required	0	\$0.00	BRE195
20160118_120912	Blaxland Road East	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	BRE196
20160118_120947	Blaxland Road East	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1.5	\$300.00	BRE197
20160118_121056	Blaxland Road East	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	3	\$600.00	BRE198
20160118_121149	Blaxland Road East	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BRE199
DSC_1939	Blaxland Road East	Damaged Bollard / Trip hazard - Uneven Footpath	Medium	Replace Damaged Bollard	1	\$300.00	BRE200
DSC_1940	Pedestrian Crossing at Blaxland Road East / La	Non - Compliant Signage	Medium	Replace Non-Compliant Pedestrian Crossing Sign	1	\$200.00	BRE201
20160118_121638	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	2	\$300.00	LCW202
20160118_121650	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	No Treatment Required	0	\$0.00	LCW203
20160118_121726	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	1	\$150.00	LCW204
20160118_121742	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	4	\$600.00	LCW205
20160118_121748	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	2	\$300.00	LCW206
20160118_121803	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Grind Concrete Lip to Create Even Transition	2	\$50.00	LCW207
20160118_121818	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	LCW208
20160118_121836	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	0.5	\$75.00	LCW209
20160118_121842	Lane Cove Road West	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$150.00	LCW210
DSC_1941	Lane Cove Road East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	3	\$450.00	LCE211
DSC_1942	Lane Cove Road East / Curzon Street South	Trip Hazard - Uneven Footpath	Low	Complete Concrete Work	1	\$200.00	LCE212
DSC_1943	Lane Cove Road East	TGSI Leads to Road With No Surrounding Infrastructure	Low	Remove TGSI	1	\$200.00	LCE213
DSC_1944	Lane Cove Road East	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath and Clean Debris	4	\$800.00	LCE214
DSC_1888	Blaxland Road South	Footpath Blocked by Parked Vehicles	Medium	Enforcement of Parking Laws	0	\$0.00	BRS215
DSC_1902	Blaxland Road South across Hatton Street	Trip Hazard - Uneven Road Pavement	Medium	Install New Kerb Ramp	1	\$5,000.00	BRS216
DSC_1903	Blaxland Road South / Hatton Street West	Trip Hazard - Steep Kerb Ramp	Medium	Replace Kerb Ramp	1	\$5,000.00	BRS217
DSC_1904	Blaxland Road South across William Street	Trip Hazard - Uneven Road Pavement	High	Replace Uneven Segments of Asphalt	15	\$2,250.00	BRS218
DSC_1905	Blaxland Road South / William Street West	Trip Hazard - Elevated Kerb Lip and Deterioration	High	Replace Kerb Ramp	1	\$5,000.00	BRS219
DSC_1906	Blaxland Road South	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BRS220
DSC_1907	Blaxland Road South	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BRS221
DSC_1908	Blaxland Road South / Edward Street	Trip Hazard - Elevated Kerb Lip	Medium	Grind Concrete Lip to Create Even Transition	1	\$25.00	BRS222
DSC_1901	Blaxland Road North	Footpath Blocked by Plant Cage	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.00	BRN223
DSC_1909	Blaxland Road North across Blaxland Road	No Safety Hand Rails Installed	Medium	Remove Pedestrian Refuge	1	\$500.00	BRN224

Photograph	Location	Issue	Priority	Treatment	Unit	Cost	Item
DSC_1918	Blaxland Road North	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	BRN225
DSC_1910	Argyle Avenue East	Trip Hazard - Uneven Footpath	Medium	Grind Concrete Lip to Create Even Transition	1	\$25.00	AAE226
DSC_1911	Argyle Avenue East	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.1	\$20.00	AAE227
DSC_1912	Argyle Avenue East	Trip Hazard - Elevated Kerb Lip	Medium	Replace Kerb Ramp	1	\$5,000.00	AAE228
DSC_1913	Argyle Avenue East at School Crossing	Trip Hazard - Elevated Kerb Lip	Medium	Replace Kerb Ramp	1	\$5,000.00	AAE229
DSC_1914	Argyle Avenue West	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	7	\$1,400.00	AAW230
DSC_1916	Argyle Avenue West	Trip Hazard - Uneven Footpath	Low	Covered in AAW232	0	\$0.00	AAW231
DSC_1917	Argyle Avenue West	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	AAW232
DSC_1946	Smith Street / Pope Street South	Lack of Signage to Inform Motorists of Pedestrians and School Zone	High	Watch for Pedestrians and School Zone Signage to be Installed	3	\$600.00	SSW233
DSC_1948	Smith Street West / Curzon Street South	Trip Hazard - Elevated Kerb Lip	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	SSW234
DSC_1949	Smith Street West across Smith Street	Trip Hazard - Steep Kerb Ramp	Low	Level Concrete at Kerb Ramp	1	\$200.00	SSW235
DSC_1950	Smith Street West	Trip Hazard - Uneven Road Pavement	Low	Replace Uneven Segments of Asphalt	1	\$150.00	SSW236
20160118_124042	Smith Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	SSE237
20160118_124049	Smith Street East	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	2	\$50.00	SSE238
20160118_124058	Smith Street East	Trip Hazard - Uneven Footpath	Low	Grind Concrete Lip to Create Even Transition	1	\$25.00	SSE239
20160118_124153	Smith Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	SSE240
20160118_124205	Smith Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1.5	\$300.00	SSE241
20160118_124234	Smith Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	SSE242
20160118_124246	Smith Street East	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1.5	\$300.00	SSE243
20160120_132854	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.5	\$100.00	RYP244
20160120_132903	Ryde Park	Position of Lights	Low	Conditions of Park - No Treatment Required	0	\$0.00	RYP245
20160120_132930	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Conditions of Park - No Treatment Required	0	\$0.00	RYP246
20160120_133009	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Conditions of Park - No Treatment Required	0	\$0.00	RYP247
20160120_133249	Ryde Park	Footpath leads onto Road	Medium	Install Bollards	3	\$900.00	RYP248
20160120_133318	Ryde Park	No Lighting Along Path	Medium	Install Lighting	10	\$10,000.00	RYP249
20160120_133619	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	4	\$600.00	RYP250
20160120_133625	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	4	\$600.00	RYP251
20160120_133636	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	2	\$300.00	RYP252
20160120_133648	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	2	\$300.00	RYP253
20160120_133652	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	3	\$450.00	RYP254
20160120_133701	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	3	\$450.00	RYP255
20160120_133712	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	4	\$600.00	RYP256
20160120_133716	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Asphalt	5	\$750.00	RYP257
20160120_133803	Ryde Park	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.1	\$20.00	RYP258



Appendix D

SCHEDULE OF WORKS - NORTH RYDE

Photograph	Location	Category	Issue	Priority	Treatment	Unit	Cost	ID
20160120_103757	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	ARW001
20160120 103809	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	ARW002
20160120 103910	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	ARW003
20160120 103923	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	ARW004
20160120 104004	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath to Match Level of Driveway	1	\$200.00	ARW005
20160120 104024	Avon Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Service Covers	1	\$200.00	ARW006
20160120 104239	Avon Road West	Footnath	Trip Hazard - Uneven Ecotnath	Low	Replace Lineven Segments of Footnath	1	\$200.00	ARW007
20160120_104435	Avon Road West	Kerh Ramn	Trip Hazard - Overgrown Kerb Ramp	Low	Remove Vegetation Restricting Width of Footnath	5	\$5.50	ARW/008
20160120_104628	Avon Road West across Avon Road	Kerb Ramp	Kerb Ramp has no Adjacent Kerb Ramp	Low	No Treatment Perwired	0	\$0.00	ARW/000
20100120_104020	Avon Road West across Cooney Street	Kerb Ramp	Kerb Ramp has no Annosite Kerb Ramp	Modium	Install New Kerb Pamp	1	\$5,000,00	ARW007
20100120_104034	Aven Read West across Marilyn Street	Korb Ramp	Kerb Ramp Alignment	Low	Alian Kerk Damps and Install Connecting Eastnath	1	\$5,000.00	ADW010
IMC 2020	Padajoz Doad East	Kerb Ramp	Keib Kainp Alignment	Modium	Angri Kerb Ramps and install Connecting Footpath	1	\$5,000.00	DIE012
IMC_2020	Padajoz Road East	Verotation	Eastpath Blocked by Overgrown Vegetation	Low	Replace Kell Kallip	100	\$3,000.00 ¢110.00	DJE012
ING_2029	Dadajoz Road Fast	Feetpetallon	Trip Hazard - Upavan Fastaath	LOW	Remove Vegetation Restricting Width of Footpath	100	\$110.00	DJEUI3
IIVIG_2031	Dauajuz Ruau East	Footpath	Trip Hazard - Uneven Footpath	LOW	Crind Contrate Lin to Create Even Transition	1	\$200.00 ¢0E.00	DJEU14
IIVIG_2032	Dauajuz Ruau East	Footpath	The Hazard - Uneven Footpath	LOW		1	\$25.00	DJEUID
IMG_2033	Badajoz Road East	Footpath	Trip Hazard - Uneven Footpath	LOW	No Treatment Required	0	\$0.00	BJE016
IMG_2034	Badajoz Road East	Footpath	Trip Hazard - Uneven Footpath	LOW	Grind Conrete Lip to Create Even Transition	1	\$25.00	BJE017
IMG_2035	Badajoz Road East	Kerb Ramp	Irip Hazard - Steep Kerb Ramp Section	Low	Install New Kerb Ramp	1	\$5,000.00	BJE018
IMG_2036	Badajoz Road East	Footpath	Trip Hazard - Uneven Footpath	Low	Resurtace to Create Even Footpath	1	\$200.00	BJE019
IMG_2037	Badajoz Road East	Footpath	Trip Hazard - Uneven Footpath	Low	No Treatment Required	0	\$0.00	BJE020
IMG_2038	Badajoz Road East	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	BJE021
IMG_2039	Badajoz Road East	Vegetation	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	50	\$55.00	BJE022
IMG_2040	Badajoz Road East	Pedestrian Refuge	Damaged Safety Hand Handrails Installed	Low	Replace Safety Handrails	1	\$200.00	BJE023
IMG_2020	Blenheim Road East	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	BLE024
IMG_2089	Blenheim Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.5	\$100.00	BLE025
IMG_2022	Blenheim Road East across Jopling Street	Kerb Ramp	Trip Hazard - Steep Kerb Ramp Section	Low	Install New Kerb Ramp	1	\$5,000.00	BLE027
IMG_2023	Blenheim Road East	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	0.2	\$40.00	BLE028
IMG_2027	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.00	BLW029
IMG_2090	Blenheim Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.2	\$40.00	BLE026
IMG_2088	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.5	\$100.00	BLW030
IMG 2007	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	BLW031
IMG 2008	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	BLW032
IMG 2009	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00	BLW033
IMG 2010	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Remove Vegetation Restricting Width of Footpath	1	\$1.10	BI W034
IMG 2011	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.2	\$40.00	BI W035
IMG 2012	Blenheim Road West	Footpath	Trip Hazard - Uneven Ecotnath	Low	Replace Lineven Segments of Footnath	2	\$400.00	BI W036
IMG_2014	Blenheim Road West	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	10	\$11.00	BLW037
IMG_2015	Blenheim Road West	Footnath	Trin Hazard - Uneven Footnath	Low	Grind Conrete Lin to Create Even Transition	1	\$25.00	BLW038
IMG_2016	Blenheim Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Panlace Lineven Segments of Footnath	2	\$400.00	BLW030
IMG_2017	Blonhoim Road West	Footpath	Trip Hazard Upovon Footpath	Low	Pomovo Vogotation Postricting Width of Footpath	5	\$5.50	BLW040
IMG_2017	Blonhoim Doad West across Blonhoim Doad	Footpath	Trip Hazard - Uneven Footpath	Low	Ponlace Uneven Segments of Feetpath	5	\$1.00.00	BLW040
IMG_2015	Blenheim Road West across Cutler Parado	Korh Pamn	Korh Ramn Alignmont	High	Pa-Alian Footnath North of the Intersection and Install New Kerb Pamp	1	\$5,000.00	BLW041
IMC_2005	Plenheim Road West across Cutler Parade	Kerb Ramp	Kerb Ramp Alignment Korb Ramp has no Adjacont Korb Ramp	High	Covered in PLW042	0	\$3,000.00 ¢0.00	DLW042
1016_2000	Coopey Street South	Costasth	Trin Hazard - Unavan Eastaath	Madium	Covered III DEW042	10	\$0.00	DLW043
20160120_104738	Cooney Street South	Fuupain Na Faataath	The Hazard - Uneven Footpath	Medium	Replace Ashpali Palit with New Foolpalit	40	\$0,000.00	CO2044
20160120_104849	Cooney Street South	No Foolpain	Priority Route Identified	Medium	Construct New Footpath	55	\$11,000.00	CUS045
20160120_104909	Cooney Street South	No Foolpain	Phoney Route Identified	Wedium	Covered in CUSU46	0	\$0.00	CUS046
20160120_085904	Coxs Road North	Kerb Ramp	The Hazard - No Kerb Ramp Installed at Pedestrian Crossing	Nedium	Install New Kerb Ramp	1	\$5,000.00	CXINU47
20160120_085917	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	weatum	Resurtace to Create Even Footpath		\$200.00	CXIN048
20160120_090005	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	CXN049
20160120_090034	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	CXN050
20160120_090043	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Covered in CXN050	0	\$0.00	CXN051
20160120_090055	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	CXN052
20160120_090105	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	CXN053
20160120_090125	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	CXN054
20160120_090230	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	1	\$25.00	CXN055
20160120_090239	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	0.25	\$50.00	CXN056
20160120_090305	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	0.25	\$50.00	CXN057
20160120_090313	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	CXN058
20160120_090349	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	No Treatment Required	0	\$0.00	CXN059

Photograph	Location	Category	Issue	Priority	Treatment	Unit	Cost ID	
20160120_105154	Coxs Road North	Vegetation / Line Marking	Footpath Blocked by Overgrown Vegetation /Shared Path Line Marking Faded	High	Re Mark Shared Path Line Marking and Remove Vegetation Restricting Width of Footpath	1	\$216.00 CXN060	
20160120 105248	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath / Line Marking	High	Re Mark Shared Path Line Marking and Replace Uneven Segments of Footpath	2	\$425.00 CXN061	
20160120 105507	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00 CXN062	
20160120 105641	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00 CXN063	
20160120 105652	Coxs Road North	Footpath	Trip Hazard - Uneven Footnath	Medium	Replace Uneven Segments of Footnath	1	\$200.00 CXN064	
20160120 105659	Coxs Road North	Bicycle Lane	Conditions of On-Road Bicycle Lane	Low	Re Mark Yellow "Watch For Bicycles" Text	20	\$100.00 CXN065	
20160120 112453	Coxs Road North	Signage	Non - Compliant Signage	Medium	Renlace Non-Compliant Pedestrian Crossing Sign	4	\$800.00 CXN066	
20160120_112100	Coxs Road North	Footnath	Trin Hazard - Loose Tile	Modium	Penlace Uneven Segments of Footnath	1	\$200.00 CXN067	
20160120_112000	Coxs Road North	Footpath	Trip Hazard - Upeven Footnath	Low	Posurface to Create Even Ecotoath	2	\$400.00 CXN068	
20100120_113111	Coxe Road North	Korh Damp	Trip Hazard Stoon Korb Pamp Soction	Low	Donlaco Korh Damn	1	\$5,000,00 CXN060	
20100120_113124	Coxe Road North	Eootnath	Trip Hazard - Dicep Keip Kalip Section	Low	Replace Uneven Segments of Feetnath	0.25	\$5,000.00 CXN070	
20100120_113139	Coxs Road North	Footpath	Trip Hazard Upovon Footpath	LOW	Crind Conrote Lin to Create Even Transition	0.23	\$30.00 CXN070	
20100120_113210	Coxs Road North	Footpath	Trip Hazard Uneven Footpath	LOW	Deplace Lineven Segments of Festneth	1	\$20.00 CXN071	
20160120_113222	Coxs Road North	Footpath	Trip Hazard Uneven Footpath	LOW	Replace Uneven Segments of Footpath	1	\$200.00 CXN072	
20100120_113304	COXS ROAU NOTIT	Footpath	The Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath		\$200.00 CXN073	
20160120_113401		Foolpain	The Hazard - Uneven Footpain	LOW	Replace Uneven Segments of Footpain	0.5	\$100.00 CXN074	
20160120_113414	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	1	\$200.00 CXN075	
20160120_113421	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath		\$200.00 CXN076	
20160120_113427	Coxs Road North	Footpath	I rip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN077	
20160120_113439	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	0.5	\$100.00 CXN078	
20160120_113458	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	1	\$200.00 CXN079	
20160120_113514	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	3	\$600.00 CXN080	
20160120_113523	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN081	
20160120_113537	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN082	
20160120_113549	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN083	
20160120_113706(0)	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.1	\$20.00 CXN084	
20160120_113714	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	1	\$25.00 CXN085	
20160120_113751	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	2	\$50.00 CXN086	
20160120_113758	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	1	\$25.00 CXN087	
20160120_113815	Coxs Road North	Line Marking	Shared Path Line Marking Faded	High	Re Mark Shared Path Lines	5	\$25.00 CXN088	
20160120_114452	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Grind Conrete Lip to Create Even Transition	1	\$25.00 CXN089	
20160120_114503	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00 CXN090	
20160120_114533	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	2	\$400.00 CXN091	
20160120_114627	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Create Level Ashphalt Surface with Service Covers	2	\$300.00 CXN092	
20160120 114710	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN093	
20160120 114721	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Repair Footpath	4	\$800.00 CXN094	
20160120 114736	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN095	
20160120 114741	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN096	
20160120 114747	Coxs Road North	Footpath	Trip Hazard - Uneven Ecotpath	Low	Replace Lineven Segments of Footnath	1	\$200.00 CXN097	
20160120 114801	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Lineven Segments of Footpath	2	\$400.00 CXN098	
20160120 115427	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.25	\$50.00 CXN099	
IMG 20/2	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Modium	Grind Conrete Lin to Create Even Transition	0.23	\$25.00 CXN100	
IMG_2042	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Modium	Posurface to Create Even Footnath	0.2	\$40.00 CXN101	
IMG_2043	Coxe Road North	Footpath	Trip Hazard Upovon Footpath	Modium	Posurface to Create Even Footpath	0.2	\$100.00 CXN107	
IMG_2045	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Modium	Resurface to Create Even Footpath	0.5	\$100.00 CXN102	
IMC 2045	Coxs Road North	Puc Ston	DDA Non Compliant Stairs Used as Access to Pus	Ligh	Inctall DDA Compliant Damp. TCSL and Distform	0.5	\$100.00 CXN103	
IMG_2040	Coxs Road North	Eastnath	Trin Hazard - Unovan Eastnath	Modium	Deplace Lineven Segments of Feetneth	1	\$1,000.00 CXN104	
IMG_2047	Coxs Road North	Footpath	Trip Hazard Uneven Footpath	Medium	Replace oneven Segments of Footpath	2 0.2	\$400.00 CXN105	
ING_2046	Coxs Road North	Footpath	Trip Hazard Uneven Footpath	liviedium	Resultace to Create Even Footpath	0.2	\$40.00 CXN100	
IIVIG_2049	COXS ROAD NOTIT	Footpath	The Hazard - Uneven Footpath	LOW	Resultace to Create Even Footpath	0.2	\$40.00 CXN107	
IMG_2050	Coxs Road North	Foolpain	The Hazard - Uneven Foolpain	LOW	Replace Uneven Segments of Footpath	0.5	\$100.00 CXN108	
IIVIG_2001	Cuxs Road North	roolpain	The Uses of Uses Sectors	LOW	Replace Uneven Segments of Footpath		\$200.00 CXN109	
IIVIG_2052		Footpath	The mazaru - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	1	\$200.00 CXN110	
IMG_2053	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	LOW	Grind Conrete Lip to Create Even Transition	2	\$50.00 CXN111	
IMG_2055	Coxs Road North	Footpath	Irip Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	2.5	\$500.00 CXN112	
IMG_2056	Coxs Road North	Footpath	Inp Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	5	\$1,000.00 CXN113	
IMG_2057	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	LOW	Resurtace to Create Even Footpath	0.4	\$80.00 CXN114	
IMG_2058	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00 CXN115	
IMG_2059	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	4	\$800.00 CXN116	
IMG_2060	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	0.5	\$100.00 CXN117	
IMG_2063	Coxs Road North	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	20	\$22.00 CXN118	
Photograph	Location	Category	Issue	Priority	Treatment	Unit	Cost	ID
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IMG_2064	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.0	0 CXN119
IMG 2067	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.5	\$100.0	0 CXN120
IMG 2068	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	0.5	\$100.0	0 CXN121
IMG 2069	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Grind Conrete Lip to Create Even Transition	1	\$25.0	0 CXN122
IMG 2070	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Resurface to Create Even Footpath	1	\$200.0	0 CXN123
IMG 2071	Coxs Road North	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1.5	\$300.0	0 CXN124
20160120 114701	Coxs Road North	Kerb Ramp	Trin Hazard - Steen Kerb Ramn Section	Low	Remove Vegetation Restricting Width of Footpath	1	\$1.1	0 CXN125
IMG 2062	Coxs Road North / Jopling Street West	Kerb Ramp	Trip Hazard - Uneven Footnath	Low	No Treatment Required	0	\$0.0	0 CXN126
20160120 113602	Coxs Road North	Kerb Ramp	Trip Hazard - No Kerb Ramp Installed at Intersection	High	Install New Korb Pamp	1	\$5,000,0	0 CXN127
20160120_113602	Coxs Road North	Kerb Ramp	Trip Hazard - Hower Pavement / Overgrown Kerb Ramn	Modium	Ronlaco Korb Ramp	1	\$5,000.0	0 CXN127
20160120_113007	Coxs Road North	Korb Ramp / Vegetation	Korb Damo Alignmont	High	Covorod in CVN128 & CVN120	0	\$3,000,00	0 CYN120
20100120_113910	Coxe Poad North / Truscott Stroot East	Kerb Ramp Korb Damp	Trin Hazard Stoon Korb Damn Soction	Low	Poplaco Korh Damp	1	\$5,000,0	0 CYN127
20100120_113327	Coxs Road North / Truscott Street West	Kerb Ramp	Trip Hazard - Steep Kelb Kallip Section	Low	Replace Keib Kallip Bomovo Vogetation Destricting Width of Ecotoath	1	\$3,000.00 ¢5.5	0 CVN121
20100120_113340	Coxs Road North	Kerb Ramp	Korb Dama Alignment	LOW	Remove Vegetation Restricting Width of Footpath		\$0.00	
20100120_114042	Coxs Road North across Crossy Road	Operational	Nello Ramp Alignment	Modium	No Trastmant Doguirad	2	\$10,000.00	
IIVIG_2073	Coxs Road North across Legling Street	Operational Kash Dassa	No Peuestilail Crossilly Provisions at Roundabout	weaturn		0	\$0.00	
IIVIG_2061	Coxs Road North across Jopling Street	Kerb Ramp	Kerb Ramp Alignment	LOW	Replace Kerb Ramps	2	\$10,000.00	
ING_2078	Coxs Road South	Vegetation / Footpath	Footpath Blocked by Overgrown Vegetation / Trip Hazard - Uneven Footpath	LOW	Remove vegetation Restricting width of Footpath	30	\$33.00	J CXS135
IMG_2080	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Low	Grind Conrete Lip to Create Even Transition	2	\$50.0	J CXS136
IMG_2081	Coxs Road South	Vegetation / Footpath	Footpath Blocked by Overgrown Vegetation / Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	5	\$1,000.0	J CXS137
IMG_2082	Coxs Road South	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	5	\$5.50	J CXS138
IMG_2083	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.0	J CXS139
IMG_2085	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.0	ე CXS140
IMG_2086	Coxs Road South	Vegetation	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	50	\$55.00	ე CXS141
IMG_2087	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.0	0 CXS142
20160120_105801	Coxs Road South	Kerb Ramp	Trip Hazard - Elevated Kerb Ramp Lip	High	Replace Kerb Ramp	1	\$5,000.0	0 CXS143
20160120_095822	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Asphalt with Concrete Footpath	3	\$600.0	0 CXS144
20160120_095946	Coxs Road South	Kerb	Trip Hazard - Elevated Lip on Kerb at Bus Stop	High	Replace Kerb and Guttering	8	\$680.0	0 CXS145
20160120_100108	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	3	\$600.04	0 CXS146
20160120_100150	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	3	\$600.0	0 CXS147
20160120_100538	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	1	\$25.0	0 CXS148
20160120_100558	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	3	\$600.0	0 CXS149
20160120_100617	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	1	\$200.0	0 CXS150
20160120_100637	Coxs Road South	Signage	Non - Compliant Signage	Medium	Replace Non-Compliant Pedestrian Crossing Sign	4	\$800.0	0 CXS151
20160120 100800	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	0.25	\$50.0	0 CXS152
20160120 100806	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	3	\$75.0	0 CXS153
20160120 100823	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Grind Conrete Lip to Create Even Transition	1	\$25.0	0 CXS154
20160120 100918	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.0	0 CXS155
20160120 100924	Coxs Road South	Footpath	Trip Hazard - Uneven Footnath	Medium	Grind Conrete Lin to Create Even Transition	1	\$25.0	0 CXS156
20160120_100931	Coxs Road South	Footpath	Trip Hazard - Uneven Footpath	Medium	Resurface to Create Even Footpath	2	\$300.0	0 CXS157
IMG 2077	Coxs Road South / Cressy Road West	Kerh Ramp	Trin Hazard - Elevated Kerb Lin	Low	Create Level Kerb Lin	05	\$100.0	0 CXS158
IMG 2041	Coxs Road South across Radaioz Road	Operational	No Pedestrian Crossing Provisions at Roundahout	High	No Treatment Required	0.0	0.02	0 CXS159
IMG_2076	Coxs Road South across Cressy Road	Operational	No Pedestrian Crossing Provisions at Roundabout	Medium	No Treatment Required	0	\$0.0	0 CXS160
20160120 131328	Coxs Road to Katherine Parade	Laneway	Conditions of Laneway	Low	Conditions of Laneway - No Treatment Required	0	\$0.0	0 CTK161
20160120_131320	Coxs Road to Katherine Parade	Footnath	Trin Hazard - Lineven Footnath	Low	Renlace Lineven Segments of Footnath	15	0.00 0 0022	0 CTK162
20160120_131404	Cove Road to Katherine Parado	Footpath	Trip Hazard - Unoven Footpath	Low	Ponlace Linevon Segments of Footnath	1.0	\$200.00	0 CTK162
20100120_131432	Coxs Road to Katherine Parade	Footpath	Trip Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	1.0	\$300.00	
IMC 2075	Crossy Dood East across Coxe Dood	Podostrian Dofugo	No Sofaty Hand Handrails Installed	Low	Inctall Safaty Handraile	1.0	\$220.00 \$400.0	0 CVE14F
ING_2075	Cressy Rodu Edst across Coxs Rodu	Pedestrian Reluge	No Safety Hand Handrails Installed	LOW	Install Safety Handrails	2	\$400.00	
IIVIG_2072	Ciessy Road West across Coxs Road	Pedestillari Reluye	Trin Llanged Llanger Frank	LOW	Install Safety Handialis	Z	\$400.00	
IIVIG_2004	Lana Cava Daad East	Footpath	Trip Hazard - Uneven Footpath	LOW	Grind Conrete Lip to Create Even Transition		\$25.00	
20100120_090811	Lane Cove Road East	r uulpain Feetreth	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.0	
20100120_090851	Lane Cove Road East	roolpain	The mazaru - Uneven Footpath	wedium	Replace Uneven Segments of Footpath		\$200.00	J LKE 169
20160120_091118	Lane Cove Road East	Fuutpath	The Hazard - Uneven Footpath	iviedium	Resurrace to Create Even Footpath	1	\$200.0	JLKE1/0
20160120_091145	Lane Love Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.0	J LRE1/1
20160120_091204	Lane Cove Road East	Vegetation	Footpath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	30	\$33.0	J LRE172
20160120_091242	Lane Cove Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.0	J LRE173
20160120_091258	Lane Cove Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.0	J LRE174
20160120_091317	Lane Cove Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	0.5	\$100.0	J LRE175
20160120_091340	Lane Cove Road East	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	30	\$33.0	ປ LRE176
20160120_091356	Lane Cove Road East	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	30	\$33.0	0 LRE177

Photograph	Location	Category	Issue	Priority	Treatment	Unit	Cost	ID
20160120 091431	Lane Cove Road East	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath and Remove Vegetation	2	\$400.00	LRE178
20160120 091502	Lane Cove Road Fast	No Footpath	No Footpath Despite Worn Path in Grass	High	Construct New Footpath	450	\$90,000,00	LRF179
20160120 091612	Lane Cove Road Fast	No Footpath	No Footpath Despite Worn Path in Grass To Bus Stop	High	Covered in LRE179	0	\$0.00	LRF180
20160120 091654	Lane Cove Road East	No Footpath	No Footpath Despite Worn Path in Grass To Bus Stop	Hiah	Install TGSI at Bus Stop	1	\$200.00	LRE181
20160120 091845	Lane Cove Road East	No Footpath	No Footpath Despite Worn Path in Grass	Hiah	Covered in LRE181	0	\$0.00	LRE182
20160120 091950	Lane Cove Road East	No Footpath	No Footpath Despite Worn Path in Grass	Hiah	Covered in LRE182	0	\$0.00	LRE183
20160120 092059	Lane Cove Road East	No Footpath	No Footpath Despite Worn Path in Grass	Hiah	Covered in LRE183	0	\$0.00	LRE184
20160120 092147	Lane Cove Road East	No Footpath	No Footpath Despite Worn Path in Grass	Hiah	Covered in LRE184	0	\$0.00	LRE185
20160120 092351	Lane Cove Road Fast	No Footpath	No Footpath Despite Worn Path in Grass To Bus Stop	Hiah	Covered in LRE185	0	\$0.00	LRF186
20160120 092729	Lane Cove Road Fast	No Footpath	No Footpath Despite Worn Path in Grass To Bus Stop	High	Install Seat TGSL Larger Hardstand and Connecting Footpath	1	\$1.000.00	LRF187
20160120 093117	Lane Cove Road Fast	No Footpath	No Footpath Despite Worn Path in Grass	High	Covered in LRF187	0	\$0.00	LRF188
20160120 090556	Lane Cove Road East / Cooney Street South	Kerb Ramp	Narrow Kerb Ramp	Medium	Replace Kerb Ramp	1	\$5.000.00	LRE189
20160120 091047	Lane Cove Road Fast / Coxs Road South	Kerb Ramp	Trip Hazard - Overgrown Kerb Ramp	High	Covered in LRE192	0	\$0.00	LRF190
20160120_095656	Lane Cove Road Fast / Coxs Road South	Line Marking / Signage	Signs to be Installed to go With Line Marking	High	Re Mark Shared Path Line Marking and Add Directional Signage	1	\$225.00	I RF191
20160120 090920	Lane Cove Road East across Coxs Road	Kerb Ramn	Kerb Ramp Alignment and Width	Medium	Replace Existing Kerb Ramps	4	\$20,000,00	LRF192
20160120_094905	Lane Cove Road to Pindari Street	Laneway	Conditions of Laneway	Low	No Treatment Required	0	\$0.00	LTP193
20160120_095038	Lane Cove Road to Pindari Street	Laneway	Conditions of Laneway	Low	No Treatment Required	0	\$0.00	LTP194
20160120_075050	Lane Cove Road to Pindari Street	Eootnath	Trin Hazard - Uneven Footnath	Low	Resurface to Create Even Footnath	1	\$200.00	LTP195
20160120_073031	Lane Cove Road West	Venetation	Footnath Blocked by Overgrown Vegetation	Medium	Remove Vegetation Restricting Width of Footpath	20	\$22.00	LRW196
20160120_073802	Lane Cove Road West	Footnath	Trin Hazard - Uneven Ecotnath	Modium	Penlace Upeyen Segments of Footnath	1	\$200.00	LRW197
20160120_073047	Lane Cove Road West	Footpath	Trip Hazard - Uneven Footpath	Modium	Grind Conrete Lin to Create Even Transition	1	\$25.00	LRW177
20100120_073703	Lano Covo Road West	Footpath	Trip Hazard Upovon Footpath	Modium	Donair Concrete Sonrice Cover	1	\$200.00	LRW170
20100120_073713	Lane Cove Road West	Korh Damn	Korb Damp Alignmont	Modium	Install Now Korb Damps	2	\$200.00	LIXW177
20100120_074003	Lane Cove Road West	Footnath	Trin Hazard Upovon Footnath	Modium	Poplace Uneven Segments of Footnath	2	\$10,000,00	LIXW200
20160120_074107	Lano Covo Road West	Footpath	Trip Hazard Upovon Footpath	Modium	Poplace Uneven Segments of Footpath	2	\$400.00	LIXW201
20100120_074120	Lane Cove Road West	Footpath	Trip Hazard - Upovon Footnath	Modium	Poplace Uneven Segments of Footpath	2	\$400.00	LIXW202
20100120_074202	Lane Cove Road West	Footpath	Trip Hazard - Uneven Footpath	Modium	Crind Control Lin to Croate Even Transition	1	\$400.00	LIXW203
20100120_094219	Lane Cove Road West	Footpath	Trip Hazard Upovon Footpath	Modium	Banlace Uneven Segments of Feetnath	1	\$20.00	LR W204
20100120_094317	Lane Cove Road West	Fuupain Lino Marking	Shared Dath Line Marking Eaded	Modium	Replace Oneven Segments of Footpath	1	\$200.00	LRW203
20160120_094550	Lane Cove Road West	Line Marking	Sildreu Patri Line Marking Fadeu	Modium	Re Mark Shareu Path Line Markings and Replace Uneven Segments of Foulpath	0.5	\$275.00	LRW200
20100120_094711	Lane Cove Road West	Footpath	Trip Hazard Uneven Footpath	Medium	Resultace to Create Even Footpath	0.0	\$100.00	LRW207
20100120_094710	Lane Cove Road West	Footpath	Trip Hazard Upeven Footpath	Medium	Crind Conrote Lin to Croote Even Transition	0.25	\$30.00	LRW200
20160120_095214	Lane Cove Road West / Kent Dood North	Fuulpalii Kosh Domn	Trip Hazard - Uneven Footpath	Medium	Gillid Collete Lip to Create Even Transition	1	\$25.00	LRW209
20160120_094555	Lane Cove Road West / Kelii Road North	Kerb Rallip Korb Domp	The Hazard - Uneven Footpath	Medium	Lostell New Kerk Demos	0	\$0.00	
20160120_094340	Lane Cove Road West across Kent Road	Kerb Ramp	Kerb Ramp Alignment and Width	Medium	Install New Keld Ramps	2	\$10,000.00	LRW211
20100120_103001	Wicks Road (facing north)	No Crossing	No Pedestrian Crossing Provisions	Madium	Covered III WRW228	0	\$0.00	WRW212
20160120_102958	WICKS Road (lacing south)	No Crossing	No Pedestrian Crossing Provisions	Madium	Investigate Need for Pedestrian Refuge Between Signalised Intersections	0	\$0.00	WRW213
20160120_113808	Bienneim Road East	Kerb Ramp	Power Pole Blocking Kerb Ramp Access / Kerb Ramp Width and Alignment	weatum	Investigate Relocating Power Pole and Install New Kerb Ramps	1	\$5,000.00	BREZ14
20160120_101041	WICKS Road West	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	2	\$400.00	WRW215
20160120_101049	WICKS ROad West	Footpath	Trip Hazard - Uneven Footpath	ivieaium	Replace Uneven Segments of Footpath	2	\$400.00	WRW216
20160120_101345	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	LOW	Replace Uneven Segments of Footpath	2	\$400.00	WRW217
20160120_101413	WICKS Road West	Footpath	Trip Hazard - Uneven Footpath	LOW	Grind Conrete Lip to Create Even Transition	1	\$25.00	WRW218
20160120_101437	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	LOW	Grind Conrete Lip to Create Even Transition	1	\$25.00	WRW219
20160120_101521	Wicks Road West	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	10	\$11.00	WRW220
20160120_101558	Wicks Road West	Bus Stop	DDA Non-Compliant - No Hard Stand	Medium	Install Hardstand and TGSI at Bus Stop	1	\$600.00	WRW221
20160120_101752	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	WRW222
20160120_101823	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	WRW223
20160120_102250	Wicks Road West	Kerb Ramp	Kerb Ramp Width is Large	Medium	No Treatment Required	0	\$0.00	WRW224
20160120_102524	Wicks Road West	Bus Stop	DDA Non-Compliant - No Hard Stand	Medium	Install Seat, I GSI and Larger Hardstand	1	\$1,000.00	WRW225
20160120_102653	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	Medium	Replace Uneven Segments of Footpath	1	\$200.00	WRW226
20160120_102723	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	WRW227
20160120_102730	Wicks Road West	Footpath / Vegetation	Trip Hazard - Uneven Footpath / Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	10	\$11.00	WRW228
20160120_102801	Wicks Road West	Vegetation	Footpath Blocked by Overgrown Vegetation	Low	Remove Vegetation Restricting Width of Footpath	10	\$11.00	WRW229
20160120_102822	Wicks Road West	Footpath / Vegetation	Trip Hazard - Uneven Footpath / Footpath Blocked by Overgrown Vegetation	Low	Replace Uneven Segments of Footpath	1	\$200.00	WRW230
20160120_102853	Wicks Road West	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	3	\$600.00	WRW231
20160120_102403	Wicks Road West across Coxs Road	Footpath	Trip Hazard - Uneven Footpath	Low	Replace Uneven Segments of Footpath	1	\$200.00	WRW232