

# Pedestrian Access and Mobility Plan

Casino, Coraki, Evans Head,  
Woodburn and Broadwater



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# Pedestrian Access and Mobility Plan

## Casino, Coraki, Evans Head, Woodburn and Broadwater

Prepared for: Richmond Valley Council  
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PO Box 119  
Lennox Head NSW 2478  
T 02 6687 7666

PO Box 1446  
Coffs Harbour NSW 2450  
T 02 6651 7666

[info@geolink.net.au](mailto:info@geolink.net.au)

<b>Version History</b>				
<b>UPR</b>	<b>Description</b>	<b>Date Issued</b>	<b>Issued By</b>	<b>Reviewed By</b>
1727140	Initial Draft	6/07/2011	CWH	CMZ
1727927	Final Draft for Public Exhibition	25/07/2011	CWH	CJC
1727336	Final Report	14/09/2011	CWH	CMZ

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# Introduction

## 1.1 General

GeoLINK was engaged by Richmond Valley Council (Council) to prepare a Pedestrian Access and Mobility Plan (PAMP) based on the NSW Roads and Traffic Authority Guidelines *How to Prepare a Pedestrian Access and Mobility Plan* (RTA, 2002) (the Guidelines). The PAMP considers the five settlements:

- Casino;
- Coraki;
- Evans Head;
- Woodburn; and
- Broadwater.

The development of the PAMP was overseen by a Project Steering Group (PSG) that was convened by Council prior to the engagement of GeoLINK. The PSG comprised:

- Council's project manager;
- A combined representative of public transport and Council's Transport Committee;
- A combined representative of disabled persons and Council's Disability Access Committee;
- A representative of the NSW Roads and Traffic Authority; and
- Council's Coordinator, Community Services and Social Planning (at later meetings).

## 1.2 Report structure

This report is structured as follows:

- **Section 1** provides an introduction to the project including outlines of the objectives, study area, scope and methodology.
- **Section 2** summarises the information that informed the PAMP, both existing information as well as new information and how it was collected, in particular the community consultation undertaken.
- **Section 3** presents the results of the PAMP, in particular the prioritised works schedule, and outlines how they were developed.

## 1.3 Background

### 1.3.1 Council responsibilities and assets

In collaboration with the NSW Roads and Traffic Authority, Richmond Valley Council (Council) has a responsibility to provide and maintain a continuous, safe and equitable pedestrian access network throughout its major settlements. The network needs to link with other transport modes such as public transport, cycling and cars, and meet the requirements of *all* pedestrians, in particular vulnerable groups such as:

- Mobility impaired people such as the elderly;
- Vision impaired people;

- Motorised wheelchair or scooter users;
- Non-motorised wheelchair users;
- Pram users; and
- Young people.

The *Richmond Valley Council Transport Asset Management Plan* (RVC, 2011) reports that Council's pedestrian network comprises over 49 km of footpaths and cycleways (shared paths) with a total surface area exceeding 94,000 m<sup>2</sup>. Appendix A of RVC (2011) shows that expenditure on these assets in the 2009-2010 financial year was as follows:

▪ Maintenance	\$21,689
▪ Operation	\$49,978
▪ Renewal	\$90,850
▪ <b>Total</b>	<b>\$162,517</b>

### 1.3.2 Community needs

Council's 2009 *Community Satisfaction Survey* clearly illustrated that the Richmond Valley community ascribes very high importance to the issue of pedestrian safety. The survey results indicated:

- "Pedestrian safety" was rated the equal second most important issue with an average rating of 6.10 out of 7 (equal with "Council's financial management" and close second to "sewer services" with 6.12 out of 7);
- Council's performance in the area of "pedestrian safety" was given an average rating of 3.77 out of 7, a performance gap of 2.33 rating points, i.e. 2.33 rating points below the importance rating;
- Pedestrian safety is in the top five most important issues in all five towns considered under this brief except Broadwater; and
- Over 50 respondents (almost 10%) wrote a specific comment relating to pedestrians, footpaths or scooters.

The report *Building on What We Have – A Facility Needs Review* (RVC, 2009) indicates that the 2006 census found that over 10% of households in Council's LGA do not own a car, further emphasising the need to support and integrate other transport modes such as walking, cycling and public transport services. And numerous comments received in 2009 in relation to Council's *Community Strategic Plan* (RVC, in prep.) were directly related to improving pedestrian facilities.

Additionally, it is widely recognised that encouraging and supporting pedestrian activity across a broad spectrum of the community has unique social, environmental and public health benefits.

## 1.4 Objectives

Council has an obligation to allocate resources across a wide variety of services in the most cost-effective manner. The PAMP aims to meet the following two primary and interrelated objectives to assist Council's broad objective to cost-effectively allocate resources to pedestrian facilities:

- Enable Council to access RTA funding for the implementation of works under the PAMP by satisfying the requirements of the NSW Roads and Traffic Authority Guidelines *How to Prepare a Pedestrian Access and Mobility Plan* (RTA, 2002) (the RTA Guidelines); and
- Ensure the most cost-effective use of the resources and funds that are available for pedestrian facilities by means of a prioritised works schedule.

The RTA Guidelines do not strictly prescribe objectives for PAMPs but rather require that one of the initial steps in developing a PAMP be to define those objectives (see methodology outline in **Section 1.6**). The Guidelines do, however, provide a set of "RTA Guiding PAMP Objectives" listed in full below. The approach of the Project Steering Group, based on their knowledge of pedestrian facilities, conditions, patterns and needs, was to focus primarily on those guiding objectives that are shown in bold type.

1. **To facilitate improvements in the level of pedestrian access and priority, particularly in areas of pedestrian concentration.**
2. **To reduce pedestrian access severance and enhance safe and convenient crossing opportunities on major roads.**
3. To identify and resolve pedestrian accident clusters.
4. **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 that cater to the needs of all pedestrians.**
5. **To provide links with other transport services to achieve an integrated land use and transport network of facilities that comply with best technical standards.**
6. To ensure pedestrian facilities are employed in a consistent and appropriate manner throughout NSW.
7. To link existing vulnerable road user plans in a co-ordinated manner (e.g. bike plans, maintenance programs, accessible public transport, etc).
8. **To ensure that pedestrian facilities remain appropriate and relevant to the surrounding land use and pedestrian user groups.**
9. To accommodate special event needs of pedestrians.
10. To meet obligations under the Commonwealth Disability Discrimination Act (1996).

## 1.5 Study Area and Scope

The PAMP focuses on the needs of pedestrians in the built up areas of Richmond Valley's five major settlements:

- Casino;
- Coraki;
- Evans Head;
- Woodburn; and
- Broadwater.

These built up areas are effectively the "catchments" shown in Figure 2 of each of Council's Locality Plans discussed in **Section 2.5.3**.

In response to specific pedestrian needs identified by the community and/or the Project Steering Group some consideration was made outside of these built up areas, including:

- Shared path to the satellite settlement of Sherwood Park near Casino (adequacy of the existing shared path to the satellite settlement of Gays Hill was also considered however Gays Hill is within the "catchment" of the Casino Locality Plan);
- Shared path between Evans Head and Broadwater settlements;
- Shared path between Evans Head and Woodburn (effectively an extension of the shared path between Evans Head and the Riverside Village that is already being delivered); and
- A recreational shared path between Broadwater and Broadwater Beach Road.

Within the study area outlined above, the scope of the PAMP included consideration of the adequacy and suitability of existing pedestrian facilities as well as the need for new pedestrian facilities. The types of pedestrian facilities considered included:

- Footpaths (generally for pedestrians only);
- Shared paths (for pedestrians and cyclists);
- Kerb ramps and associated tactile indicators where required;

- Pedestrian crossings and refuges;
- Traffic islands and medians (which can act as refuges however they have limited utility for mobility impaired);
- Signage and lighting; and
- Underpasses and bridges.

Consideration of the adequacy and suitability of existing facilities involved an assessment of key features such as obstacles, severe trip hazards, width, grade and cross fall, but did not include a complete condition audit of existing facilities.

Of the works listed in **Appendix D** and **Illustration 3.1** to **Illustration 3.8**, there was a strong emphasis by the community and the Project Steering Group on footpaths, shared paths, kerb ramps and pedestrian crossings and refuges.

## 1.6 Methodology

The methodology used to develop the PAMP was based on the RTA Guidelines and is outlined below.

<b>Stage 1 – Objectives <sup>1</sup></b>	
<b>Step 1</b> Form PAMP Team	Council convened the PAMP Project Steering Group which comprised: <ul style="list-style-type: none"> <li>▪ Council’s project manager (Scott Coster);</li> <li>▪ A combined representative of public transport and Council’s Transport Committee (Helen Green, Casino Bus Services);</li> <li>▪ A combined representative of disabled persons and Council’s Disability Access Committee (Lee Clark, Northern Rivers Regional Officer, Spinal Cord Injuries Australia);</li> <li>▪ A representative of the NSW Roads and Traffic Authority (Penny Sutton); and</li> <li>▪ Council’s Coordinator, Community Services and Social Planning (at later meetings) (Joanne Petrovic).</li> </ul>
<b>Step 2</b> Define PAMP Objectives	The PAMP objectives are described in <b>Section 1.4</b> .
<b>Stage 2 – Preparation</b>	
<b>Step 1</b> Define PAMP area	The PAMP study area (refer <b>Section 1.5</b> ) was determined by Council and largely prescribed in the project brief as comprising: <ul style="list-style-type: none"> <li>▪ Casino;</li> <li>▪ Coraki;</li> <li>▪ Evans Head;</li> <li>▪ Woodburn; and</li> <li>▪ Broadwater.</li> </ul> <p>Based on existing knowledge of pedestrian concentration and the areas that would be expected to require attention, the Project Steering Group refined the study area as described in <b>Section 1.5</b>.</p>

<p><b>Step 2</b> Research and Review</p>	<p>This involved a review of existing background data including</p> <ul style="list-style-type: none"> <li>▪ Regional, state-wide and national documentation such as; <ul style="list-style-type: none"> <li>- <i>How to Prepare a Pedestrian Access and Mobility Plan</i> (RTA, 2002);</li> <li>- <i>Guide to Road Design Part 6A: Pedestrian and Cyclist Paths</i> (Austroads, 2009);</li> <li>- <i>Guide to Road Design Part 6B: Roadside Environment</i> (Austroads, 2009);</li> <li>- <i>Australian Standard 1742.10-2009 Manual of uniform traffic control devices - Pedestrian control and protection</i> (Standards Australia, 2009)</li> <li>- <i>How to Prepare a Pedestrian Access and Mobility Plan</i> (RTA, 2002)</li> </ul> </li> <li>▪ Local information such as: <ul style="list-style-type: none"> <li>- Mapped information (GIS) on existing footpaths, cycleways, public facilities, and land uses;</li> <li>- Locality plans for each of the five settlements</li> <li>- <i>Richmond Valley Council Local Transport Plan</i> (GHD, 2008);</li> <li>- <i>Casino Urban Settlement Strategy 2005</i>; and</li> <li>- <i>Evans Head Urban Settlement Strategy 2006</i>;</li> <li>- <i>Draft Richmond Valley Council Community Strategic Plan</i> (RVC, 2010);</li> <li>- <i>Building on What We Have – A Facility Needs Review</i> (RVC, 2009)</li> </ul> </li> </ul>
<p><b>Step 3</b> Collect Data</p>	<p>This step refers to quantitative data much of which was not available (such as facilities schedules, pedestrian counts, pedestrian origin-destination surveys). Data that were available included:</p> <ul style="list-style-type: none"> <li>▪ Pedestrian accident data (GIS); and</li> <li>▪ Social and demographic/population data (included in the local information gathered under Step 2.1).</li> </ul>
<p><b>Step 4</b> Conduct Site Visits and Plot Maps</p>	<p>Each of the settlements was visited to complement the information gathered up to this point. This included general familiarisation of the settlement and the existing facilities as well as a preliminary identification of possible pedestrian facility needs.</p> <p>Information gathered from the site visits and previous steps was compiled graphically into 'Base Maps' to facilitate discussions with the Project Steering Groups and subsequent community consultation. The Base Maps were continually built on during subsequent steps as further information was obtained and works were identified.</p>
<p><b>Step 5</b> Develop PAMP Routes</p>	<p>The Project Steering Group reviewed the Base Maps and added two key features</p> <ul style="list-style-type: none"> <li>▪ A preliminary Pedestrian Network Hierarchy identifying areas and links designated as high, medium and low priority routes having regard to key factors such as: <ul style="list-style-type: none"> <li>- Current and/or expected level of pedestrian activity;</li> <li>- Links and/or proximity to key land uses and trip generators / attractors such as commercial areas, schools, aged care and health facilities; and</li> <li>- Suitability as 'arterial routes' to outlying areas within or beyond the built up areas of the settlements.</li> </ul> </li> <li>▪ A set of preliminary proposed works based on critical areas and links that the Project Steering Group identified as requiring either new or upgraded pedestrian facilities.</li> </ul> <p>While this step constituted the initial work towards developing a prioritised works schedule, it was equally important in facilitating community consultation (Step 5). In order to stimulate community input and responses, the project team presented the community with a "suggested" Pedestrian Network Hierarchy and some initial proposed works. This provided the community with a clearer understanding of Project Steering Group's current perceptions and the nature and extent of works to be considered in PAMP, while providing ample opportunity to refute, confirm, and/or add to the Project Steering Group's initial work.</p>
<p><b>Step 6</b> Consult with the Community</p>	<p>As described above, this methodology emphasised the use of community consultation to directly identify pedestrian needs rather than infer them from observation. Rather than being a discrete step in the project methodology, community consultation was varied and "open" for as much of the project as possible. The methods used are described in <b>Section 2.6</b>.</p>

<p><b>Step 7</b> Audit the routes</p>	<p>Following the confirmation of the Pedestrian Network Hierarchy and the scope of works necessary to provide adequate pedestrian facilities to service the hierarchy, a thorough route audit was conducted. This involved a physical walk-over of all high and medium priority routes, and combined walk-over and drive-by of low priority routes, to inspect for:</p> <ul style="list-style-type: none"> <li>▪ Adequacy of existing facilities;</li> <li>▪ Suitability and feasibility of proposed works;</li> <li>▪ Refinement of proposed works as necessary; and</li> <li>▪ Identification of further works, generally minor.</li> </ul>
<p><b>Step 8</b> Develop Works Program</p>	<p>A works program was developed by listing all of the proposed works that were confirmed following the route audits, and estimating their potential benefit and capital cost.</p> <p>The potential benefit that is expected to accrue from each works item was estimated based on a number of categories and weighted criteria within each category. The benefit assessment methodology is outlined in more detail in <b>Section 3.4</b>.</p> <p>Capital costs of works items were estimated based on unit rates that are outlined in Appendix C.</p> <p>Works were prioritised based on the estimated cost per unit of expected benefit.</p>
<p><b>Step 9</b> Promote the PAMP</p>	<p>The PAMP was placed on public exhibition for four weeks commencing on 29 July 2011. Comments were received, considered and integrated where appropriate before finalisation of the PAMP.</p>
<p><b>Step 10</b> Finalise the PAMP</p>	<p>Following the integration of comments received during the public exhibition period the PAMP was finalised.</p>

1 – The step “Rate the PAMP’s Objectives” was not included in the project brief and therefore was not adopted in the project methodology

### 1.6.1 Use of pedestrian counts and pedestrian origin-destination surveys

Data collection methods such as ‘pedestrian counts’ and ‘pedestrian origin-destination surveys’ provide quantitative descriptions of the numbers and composition of pedestrians using existing facilities. For these data collection methods to be effective in informing the PAMP, they need to be applied over a significant range of times across days and across the year, and in a large number of locations.

The use of these data collection methods was constrained by the size and diversity of the study area, and the level of resources available. Therefore, the methodology outlined above adopted a cost-effective approach by emphasising community consultation to maximise the use of “local knowledge” and thereby directly identify pedestrian needs rather than infer them from observation.

## Information Sources

### 2.1 Introduction

Following the definition of the study area and objectives, as described in **Section 1**, the main steps required to complete the PAMP were:

- Determine the adequacy and suitability of existing pedestrian facilities; and
- Identify the need for new pedestrian facilities.

The primary source of information for this investigation was community knowledge of the needs of pedestrians as garnered from every-day experience. The community was consulted in a number of ways as described in **Section 2.6**.

Prior to consulting the community, the PAMP was informed by a number of sources of existing information including:

- *How to Prepare a Pedestrian Access and Mobility Plan* (RTA, 2002);
- Pedestrian facility design information;
  - *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths* (Austroads, 2009); and
  - *Australian Standard 1742.10-2009 Manual of uniform traffic control devices - Pedestrian control and protection* (Standards Australia, 2009)
- Local information:
  - Mapped information and existing pedestrian facilities;
  - Locality plans for each of the five settlements;
  - *Richmond Valley Council Local Transport Plan* (GHD, 2008);
  - *Casino Urban Settlement Strategy 2005*; and
  - *Evans Head Urban Settlement Strategy 2006*;
  - *Draft Richmond Valley Council Community Strategic Plan* (RVC, 2010);
  - *Building on What We Have – A Facility Needs Review* (RVC, 2009)

Key elements of these information sources are described below.

### 2.2 How to Prepare a Pedestrian Access and Mobility Plan (RTA, 2002)

This document has been referred to above as the RTA Guideline. The RTA Guideline is a practical manual for people preparing or managing the preparation of a PAMP, presenting a step-by-step approach to pedestrian planning and highlighting the main issues that need to be considered at all stages.

The methodology summarised in **Section 1.6** is based closely on the recommended methodology put forward in the RTA Guideline. The RTA Guideline also provides advice on prioritising the works (see **Section 3.4**), although the categories and criteria used in this PAMP are quite different from those presented as an “example only” in the RTA Guideline. The example provided in the RTA Guideline appears to be more suited to an inner-city application.

The RTA Guideline is available on-line at the following address.

[http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/mobility-plan\\_how-to.pdf](http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/mobility-plan_how-to.pdf)

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

### **2.3.1 Introduction**

The *Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths* (Austroads, 2009) states that:

*[this document] provides guidance for road designers and other practitioners on the design of paths for safe and efficient walking and cycling. The guide provides a brief introduction to planning and the need for a path, describes the types of path and covers the requirements of path users. However, the main focus of Part 6A is the geometric design of paths and related facilities such as intersections between paths, and terminal treatments. Detailed guidance is provided on path location, alignment, width, clearances, crossfall, drainage and sight distance requirements.*

*Austroads (2009)*

### **2.3.2 Path user requirements**

Section 4 of Austroads (2009) outlines the attributes of the walking environment that provide a high level of mobility and safety and thus encourage walking.

The general principles of path user requirements are outlined as follows:

#### Connected

*A well-connected walking environment should:*

- *Integrate walking networks with public transport and ensure short distances to stops from the area served.*
- *Have continuous pedestrian routes to key destinations without barriers that are difficult to cross (e.g. major roads, railways).*
- *Provide good access to key destinations.*
- *Locate pedestrian crossings on pedestrian desire lines where people want to cross to get to public transport interchanges.*
- *Give important pedestrian routes a sufficiently high priority (e.g. short waiting times at signalised crossings on routes to bus and rail interchanges). Where pedestrian flows are very high and consistent (e.g. inner-city routes) consideration should be given to prioritising and wherever practicable coordinating traffic signals to improve the level of service for pedestrians.*

#### Comfortable

*In order to provide an appropriate level of comfort, the walking environment should:*

- *Meet design standards with respect to footpath widths and gradients, provide good quality walking surfaces and appropriate facilities for impaired people*
- *Ensure that parking does not create a problem (e.g. act as a barrier, impede sight distance at roads)*
- *Ensure that cyclists do not conflict with pedestrians*
- *Provide a walking surface that is clear of obstructions and is well maintained (e.g. no broken paving)*
- *Include crossings that are appropriate for the traffic volume and traffic speed environment*
- *Ensure that manhole covers and gratings are not placed in major pedestrian walkways wherever practicable*



- *Ensure that walkways are set back an adequate distance from the roadway*
- *Ensure that surface water does not pond on roads and result in splashing of pedestrians from passing vehicles*
- *Provide adequate lighting to ensure that pedestrians feel safe when using paths at night and do not walk on the edge of the road instead of a path.*

#### Convenient

*A convenient walking environment for pedestrians should:*

- *Be as continuous as practicable (e.g. raise road crossings to footpath level)*
- *Ensure that streets can be crossed easily and safely*
- *Minimise delays to pedestrians at all existing facilities*
- *Include efficient pedestrian signals or phases at signalised intersections*
- *Provide adequate lighting to ensure that pedestrians feel safe when using paths at night and do not have to deviate to less direct routes*
- *Provide adequate and safe storage areas for waiting pedestrians such that the flow of other pedestrians is not impeded.*

#### Convivial

*To be convivial, a walking environment should:*

- *Have a high standard of urban design so that it is attractive to pedestrians*
- *Include interesting pedestrian routes*
- *Ensure that footpaths are substantially free from litter, debris and other deposits*
- *Have a safe environment free from crime and fear of crime.*

#### Conspicuous

*Important aspects of a conspicuous walking environment include:*

- *Clear signposting (direction signs and distances to key destinations)*
- *A coherent layout and design where it is obvious how to get to various facilities (e.g. shops, leisure centre, bus stops)*
- *Readily available supporting information (e.g. published local maps, information boards, tourist information)*
- *Local walking schemes such as Safe Routes to School*
- *Clearly visible street names and sufficient repeater street signs and place name plates.*

*Austrroads (2009)*

Section 4 of Austrroads (2009) continues with more detailed information on the space that facilities must have, such as to provide an adequate level of service for pedestrians. Key considerations of personal space, reach, vision and minimum dimensions necessary to accommodate most people with disabilities include:

- An ellipse measuring 460 mm by 610 mm should be adopted as the 'envelope' occupied by a walking pedestrian, which includes allowance for carrying personal articles, preferences for avoiding bodily contact with others, and body sway [this is accommodated in a footpath of a minimum width of 1.2 m – see **Table 2.1**];
- 1 m should be adopted as the width of the 'envelope' occupied by a walkers and cyclists using a shared path to allow adequate operating space and clearances for passing;
- Users of an average wheelchair (and people on crutches) need an envelope width of 1.2 m of clear for comfortable movement; and
- An area / path 1.8 m wide is required for two wheelchair users to pass each other or for a wheelchair user to turn around.

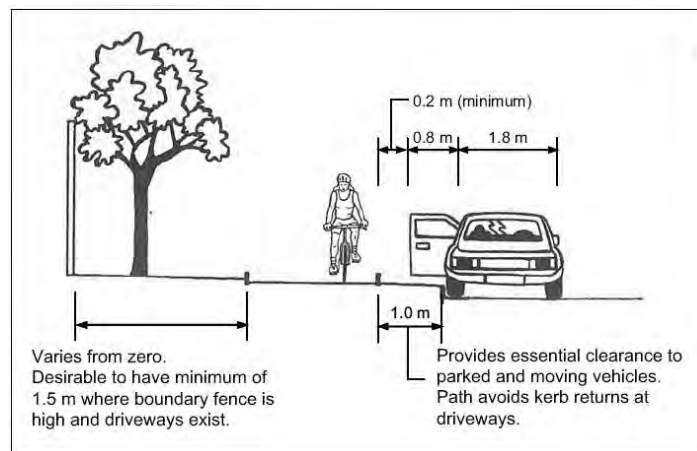
### 2.3.3 Path alignment and location

Section 5 of Austroads (2009) provides guidance on the alignment and location of paths with respect to roadways, property lines, and bridges as well as through public open space. In terms of locating paths within road reserves, which is the situation for almost all of the proposed works under the PAMP, it states:

*The overriding consideration should be the safety of the path users. For this reason it is recommended that where practicable, paths in urban arterial road reservations are located with adequate clearance from both road traffic and the property line so that adequate sight distance is achieved for vehicles and pedestrians leaving driveways and gateways.*

*Austroads (2009)*

Figure 5.1 of Austroads (2009) shows the preferred location of a path within a road reserve as shown in **Plate 2.1**.



**Plate 2.1 Location of path in road reserve (Austroads, 2009)**

### 2.3.4 Path design criteria

Section 6 of Austroads (2009) outlines fundamental design criteria for paths in addition to alignment and location, including:

- Clear width and height;
- Changes in level; and
- Surface treatments.

#### 2.3.4.1 Width

Table 6.1 of Austroads (2009) presents path width requirements as shown in **Table 2.1**, while Table 7.4 presents path widths for shared paths as shown in **Table 2.2**.

**Table 2.1 Width requirements for footpaths (from Austroads (2009))**

<i>Situation</i>	<i>Desired width (m)</i>	<i>Comments</i>
General low demand	1.2 to 1.0 (absolute minimum)	General minimum is 1.2 m for most roads and streets. Clear width required for one wheelchair. Not adequate for commercial or shopping environments.
High pedestrian volumes	2.4 m (or higher based on demand)	Generally commercial and shopping areas.

<b>Situation</b>	<b>Desired width (m)</b>	<b>Comments</b>
For wheelchairs to pass	1.8 to 1.5 (desired minimum)	Allow for two wheelchairs to pass (1.8 m comfortable, 1.5 m minimum) Narrower width (1.2 m) can be tolerated for short distances.
For people with other disabilities	1.8 to 1.0	

Notes:

- Whilst the minimum width may be used where demand is low, it is generally desirable to provide a path that will accommodate two pedestrians side by side.
- More than the minimum width (e.g. up to 5 m) may also be necessary at locations where pedestrian flows are high or where pedestrians gather such as in the vicinity of schools and associated road crossings, at recreation facilities and at important bus stops.
- Where demand is significant, it may be necessary to provide adequate congregation areas clear of the path required for through movement of pedestrians.

**Table 2.2 Width requirements for shared paths (from Austroads (2009))**

	<b>Path width</b>		
	<b>Local access path [low use or 'tidal flow']</b>	<b>Commuter path [moderate and concurrent use in both directions]</b>	<b>Recreational path [heavy and concurrent use in both directions]</b>
Desirable minimum width	2.5	3.0	3.5
Minimum – maximum width	2.5 <sup>1</sup> – 3.0 <sup>2</sup>	2.5 <sup>1</sup> – 4.0 <sup>2</sup>	3.0 <sup>1</sup> – 4.0 <sup>2</sup>

1. A lesser width should only be adopted where cyclist volumes and operational speeds will remain low.

2. A greater width may be required where the numbers of cyclists and pedestrians are very high or there is a high probability of conflict between users (e.g. people walking dogs, roller bladders and skaters etc.).

#### 2.3.4.2 Path clear height

Footpaths should have a minimum clear height (vertical clearance) of 2 m from the surface of the path to any overhead obstructions such as signs or trees. This should be increased to 2.2 m for shared paths and to 2.5 m for stairs or ramps.

Key considerations for changes in level include the following:

- Provide kerb ramps with a smooth change in the level between the footpath and road pavement to allow safe and easy access for pedestrians including people in personal mobility devices and those with a mobility impairment;
- Kerb ramps should have a maximum gradient of 1:10 (1:8 absolute maximum) and should not have a vertical lip at the edge of the drainage channel as it inhibits the free movement of wheelchairs;
- On extended ramps, such as approaches to pedestrian overpasses, rest areas (i.e. flat sections) should be provided at each change in direction and at intermediate points along ramps to break up long flights. AS 1428.2 suggests that the spacing of rest areas range from 9 m for ramp grades of 1:14 to 15 m for grades of 1:20;
- Where the gradient of a path is 1:33, level rest areas 1.2 m long should be provided at a minimum of 25 m intervals. At 1:20 the interval should not exceed 15 m. Between gradients of 1:33 and 1:20 the interval should be interpolated. Paths with a gradient steeper than 1:20 are to be considered as ramps for design purposes. Rest areas are not required on gradients less than 1:33; and
- Adjacent ground for all footpaths should be within 25 mm of the level of the footpath.

#### 2.3.4.3 Path surface treatments

Surface treatments should be stable, firm, even, relatively smooth but slip resistant and should not deviate more than 5 mm from a 500 mm long straight-edge laid anywhere on the surface. Generally concrete or asphalt are the preferred surfaces for footpaths and shared paths.

Subsequent sections provide guidance on path treatments at intersections, in locations remote from roads and in the vicinity of structures and hazards.

## 2.4 Australian Standard 1742.10-2009 Manual of uniform traffic control devices – Pedestrian control and protection (Standards Australia, 2009)

### 2.4.1 Introduction

This standard provides design requirements for a number of different pedestrian facilities. Those facilities that are of direct relevance to the PAMP are:

- Pedestrian crossings (zebra); and
- Pedestrian refuges.

This standard is available for public viewing at Richmond Upper Clarence Regional Library branches in Casino, Kyogle, Coraki and Evans Head via the Standards Australia on-line public library service. Close reference should be made to Figures 1, 2 and 7 in AS 1742.10-2009 to complement the descriptions provided below.

In NSW the *RTA Australian Standard Supplement Australian Standard – AS1742 Manual of uniform traffic control devices parts 1-15* (RTA, 2011) “has been issued to clarify, add to or modify” AS1742 whereby the RTA provides direction that enhances, complements or departs from the requirements of the standard. If there is conflict between RTA (2011) and AS1742, then RTA (2011) prevails.

Note that in AS1742, terms such as “width” or “wide” refer to dimensions *across* the road (i.e. transverse to the direction of vehicle travel) and “length” or “long” refer to dimensions *along* the road (i.e. parallel to the direction of vehicle travel). RTA (2011) does not necessarily follow this convention. The AS1742 convention has been used below.

### 2.4.2 Pedestrian Crossings

Section 6 and Figures 1 and 2 of AS 1742.10-2009 outline the design requirements for pedestrian crossings. These requirements include, but are not limited to, the following:

- The length (i.e. along the road) of a pedestrian crossing must be between 3.6 m and 6.0 m;
- Parking must be banned 25 m from the approach to a crossing and 10 m following a crossing on the relevant side of the road;
- In addition to signs banning parking, various warning signs must accompany the crossing, including advance warning signs between 80 m and 120 m on the approach to a crossing and signs at the crossing itself; and
- Generally, pedestrian crossings should not be installed on arterial roads.

#### 2.4.2.1 Pedestrian Crossing Warrants

RTA (2011) outlines the prescribed ‘pedestrian crossing warrants’ that are vehicle and pedestrian traffic conditions that must be met for a pedestrian crossing to be warranted. In summary, the warrants are as follows:

- Normal warrant. A minimum of 500 vehicles pass the site and 30 pedestrians pass the site in each of three (3) one-hour periods on a typical day, *and*, where the product of these two totals is greater than 60,000.
- Special warrant. A minimum of 500 vehicles pass the site and 30 pedestrians pass the site in each of three (3) one-hour periods on a typical day, *and*, where the product of these two totals is greater than 45,000. In such cases Council needs to justify why the location warrants a pedestrian crossing.
- Reduced warrant for children. A minimum of 200 vehicles pass the site and 30 pedestrians pass the site in each of two one-hour periods immediately before and after school hours.

- Reduced warrant for the aged or physically impaired. A minimum of 200 vehicles pass the site and 30 pedestrians pass the site (where more than 50% are aged or physically impaired) in each of three one-hour periods on a typical day, *and*, where the product of these 2 totals is greater than 60,000.

### 2.4.3 Pedestrian Refuges

Section 9 and Figure 7 of AS 1742.10-2009 outline the design requirements for pedestrian refuges. These requirements include, but are not limited to, the following:

- A pedestrian refuge should comprise two islands raised with kerbing on either side of a walk-through section at pavement (road surface) level;
- The walk-through section should be a minimum of 3 m long (i.e. along the road). The width (i.e. across the road) of the walk-through section is defined by the width of the islands either side of it and should be at least 2 m, or where there are high pedestrian volumes or significant numbers of cyclists or disabled persons, at least 3 m;
- The islands either side of the walk-through section should be a minimum of 3.5 m long (i.e. along the road) or long enough to accommodate signage as necessary; and
- Pedestrian refuges must not unexpectedly constrict the road width or reduce the number of travel lanes. This may require banning parking in the vicinity of the refuge.

## 2.5 Local Information

### 2.5.1 Mapped Information and Existing Pedestrian Facilities

Council has a range of information in mapped format in its GIS database including:

- Cadastre;
- Footpaths, shared paths and tracks;
- Locations and details of traffic accidents;
- Locations and details of traffic counts;
- Public toilets;
- Bus stops and bus routes (Casino only); and
- Parks and reserves.

Field investigations and background research added the following to this existing information:

- Land use
  - Community facilities (e.g. halls, sporting facilities, Council premises etc.)
  - Places of worship
  - Healthcare and Aged Care facilities
  - Schools and Colleges
  - Childcare establishments and Pre-schools
- Bus routes (Coraki, Evans Head, Woodburn and Broadwater);
- Pedestrian crossings; and
- Pedestrian refuges.

Council's existing GIS information and the information gathered by means of field investigations and background research were used to create the maps showing existing pedestrian facilities in the context of surrounding land uses and services – **Illustration 2.1** to **Illustration 2.8**.

### 2.5.1.1 Pedestrian Network Hierarchy

Colour coding of the lines used to show the location of existing footpaths and shared paths on **Illustration 2.1** to **Illustration 3.8** (and proposed footpaths, shared paths, refuges and crossings on **Illustration 3.1** to **Illustration 3.8**) has been used to show the pedestrian network hierarchy. This hierarchy, comprising high, medium and low priority routes (red, blue and green respectively), was developed by the project steering group, and confirmed via community consultation. The pedestrian network hierarchy provides a broad indication of estimated pedestrian volumes (no pedestrian count data was available or gathered) and primary 'arterial' routes between key locations and landuses (e.g. route from the CBD to a hospital).

It is important to note that the location of proposed works within the pedestrian network hierarchy was only one of the categories by which works were prioritised (see **Section 3.4**), and is not the sole criterion by which works have been prioritised.

## 2.5.2 Pedestrian Accident Data

**Illustration 2.1** to **Illustration 2.8** show the locations of previous pedestrian accidents labelled with identifiers that cross reference with the pedestrian accident data summarised in **Appendix E**.

### 2.5.2.1 Pedestrian Accident Clusters

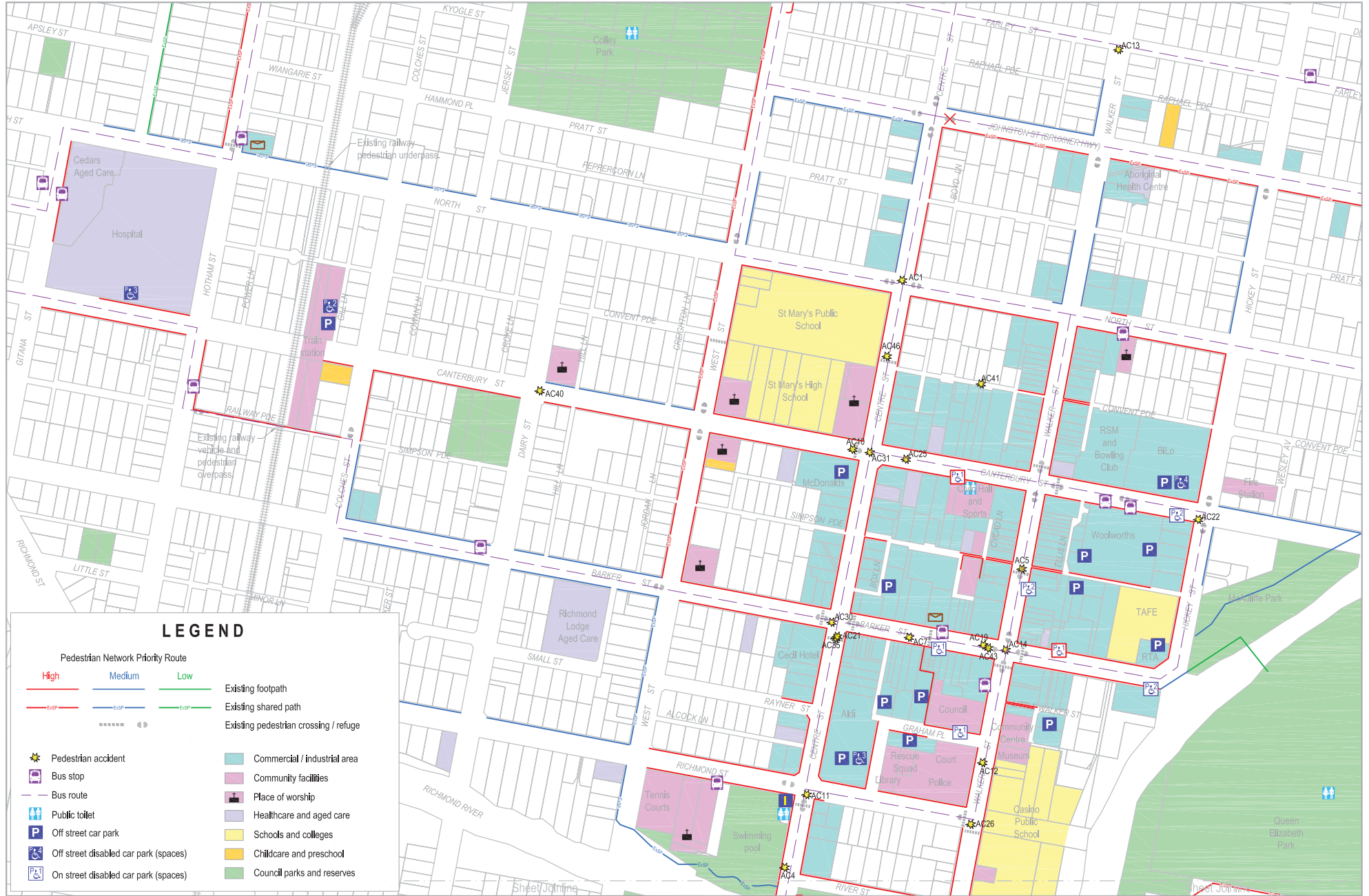
The RTA defines a Pedestrian Accident Cluster as any location up to 100m long with three or more pedestrian accidents over 5 years. Based on this definition, there is one Pedestrian Accident Cluster within the study area, at the roundabout at the intersection of the Bruxner Highway and Barker Street in Casino. The cluster comprises accidents AC21, AC30 and AC35, all of which occurred in fine weather and during daylight hours.

*Anecdotal* evidence gathered from the Project Steering Group and several members of the community indicates that, in addition to these recorded accidents, there have been numerous "near misses" at this location.

It has been suggested that the accidents and anecdotal "near misses" at this location are largely due to a combination of the high volumes of pedestrian and vehicular traffic using the intersection, and the close proximity of each of the three existing pedestrian crossings (with refuges) to the intersection. It is thought, by members of the both project steering group and the community, that the attention of drivers is focussed on navigating the roundabout and other vehicles rather than the potential for pedestrians using the crossings. *Immediately* after travelling through the intersection, drivers focus on navigating the roundabout and avoiding other vehicles, while a pedestrian at the pedestrian crossing is expecting to be given right-of-way by virtue of the crossing. .

A number of proposed works are included in the PAMP in response to this pedestrian accident cluster, anecdotal evidence of "near misses" and the concerns relating to the close proximity of the three existing pedestrian crossings (with refuges) to the intersection. Refer to works items C21, C22 and C23 in **Illustration 3.1** and the tables in **Appendix D**.

Information shown is for illustrative purposes only



### Casino North - Existing Pedestrian Facilities

Illustration 2.1



0 100 m



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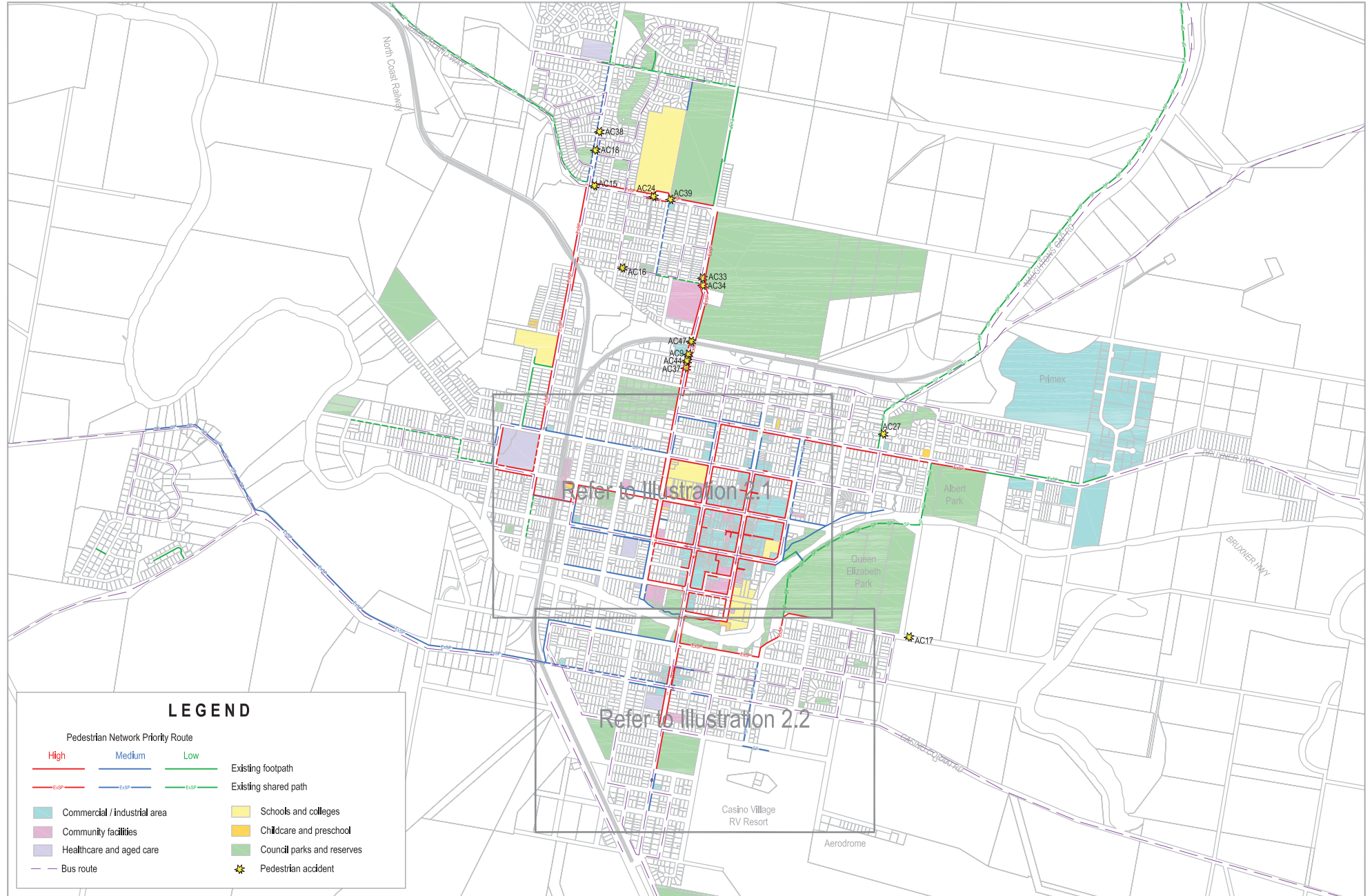
Information shown is for illustrative purposes only



0 100 m



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### LEGEND

#### Pedestrian Network Priority Route

- |  |   |   |                   |
|--|---|---|-------------------|
| <span style="color: red;">—</span> High  | <span style="color: blue;">—</span> Medium  | <span style="color: green;">—</span> Low                      | Existing footpath |
| <span style="color: red;">- - -</span> Existing footpath   | <span style="color: blue;">- - -</span> Existing shared path  | <span style="color: green;">- - -</span> Existing shared path |                   |
| <span style="background-color: cyan; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Commercial / industrial area  | <span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Schools and colleges           |   |                   |
| <span style="background-color: pink; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Community facilities          | <span style="background-color: orange; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Childcare and preschool        |   |                   |
| <span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Healthcare and aged care | <span style="background-color: lightgreen; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Council parks and reserves |   |                   |
| <span style="color: purple;">—</span> Bus route  | <span style="color: yellow;">★</span> Pedestrian accident   |   |                   |

## Greater Casino - Existing Pedestrian Facilities



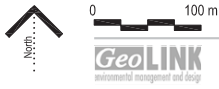
0 400 m

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### LEGEND

- |  |                              |
|--|------------------------------|
| <b>Pedestrian Network Priority Route</b> |                              |
| High                                     | Medium                       |
| Low                                      |                              |
| Existing footpath                        | Existing shared path         |
| Existing pedestrian crossing / refuge    |                              |
| Pedestrian accident                      | Commercial / industrial area |
| Bus stop                                 | Community facilities         |
| Bus route                                | Place of worship             |
| Public toilet                            | Healthcare and aged care     |
| Off street car park                      | Schools and colleges         |
| Off street disabled car park (spaces)    | Childcare and preschool      |
| On street disabled car park (spaces)     | Council parks and reserves   |



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Information shown is for illustrative purposes only

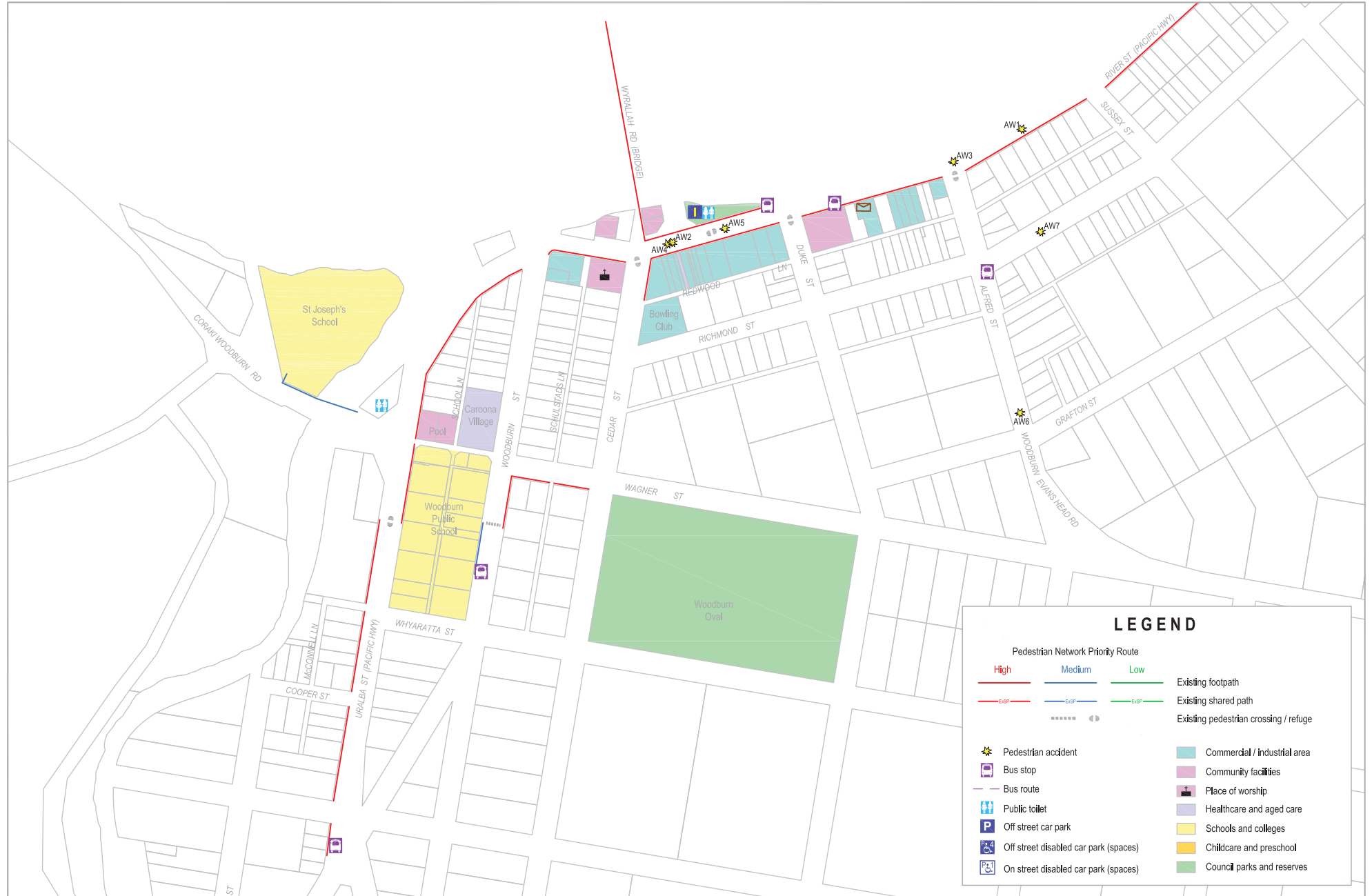


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




### LEGEND

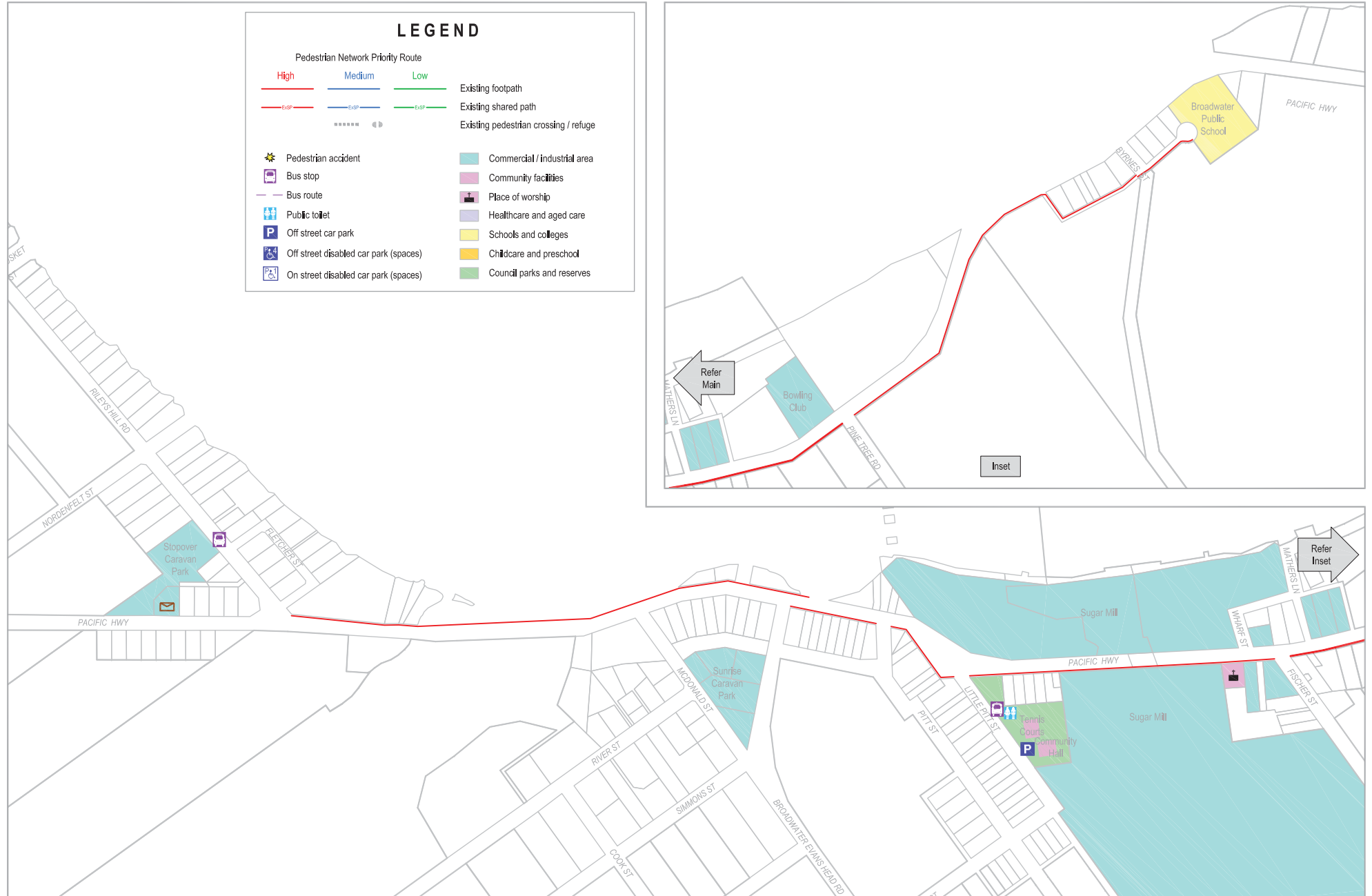
<b>Pedestrian Network Priority Route</b>			
<span style="color: red;">—</span> High	<span style="color: blue;">—</span> Medium	<span style="color: green;">—</span> Low	
<span style="color: red;">- - - - -</span> Existing footpath	<span style="color: blue;">- - - - -</span> Existing shared path	<span style="color: green;">- - - - -</span> Existing pedestrian crossing / refuge	
Pedestrian accident	Bus stop	Commercial / industrial area	
Bus route	Public toilet	Place of worship	
Off street car park	Off street disabled car park (spaces)	Healthcare and aged care	
On street disabled car park (spaces)		Schools and colleges	
		Childcare and preschool	
		Council parks and reserves	

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Information shown is for illustrative purposes only

### LEGEND

Pedestrian Network Priority Route			
<span style="color: red;">—</span> High	<span style="color: blue;">—</span> Medium	<span style="color: green;">—</span> Low	Existing footpath
<span style="color: red;">-ESP-</span>	<span style="color: blue;">-ESP-</span>	<span style="color: green;">-ESP-</span>	Existing shared path
..... >>			Existing pedestrian crossing / refuge
		Commercial / industrial area	
		Community facilities	
		Place of worship	
		Healthcare and aged care	
		Schools and colleges	
		Childcare and preschool	
		Council parks and reserves	



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### 2.5.3 Locality Plans and Urban Settlement / Land Release Strategies

Council has prepared a locality plan (RVC, 2008) for each of the five settlements within the study area to assist in “the delivery of services & functions in a more strategic manner”. Prepared in conjunction with Community Network Groups for each settlement, each plan adopts an overall vision for the local government area and applies this vision in line with the local characteristics of each settlement.

Each plan states the following objectives:

- *The achievement of the community vision*
- *Appropriate and more focused expenditure on delivery of service either core to the expressed community needs or otherwise as desired by the community, to realistically achievable standards*
- *Preservation or achievement of the desired future character of local communities*
- *Integration and/or simplification of existing policies regulating planning, development, building and environmental matters.*

The “Service and Maintenance Plan” outlined in each locality plan assisted in the identification of facilities (e.g. reserves, amenities, sporting facilities etc.) as well as proposed works items, some of which are within the scope of the PAMP. The works items identified in the locality plans that have been included in the PAMP are shown in **Table 2.3**, and are shown in **Illustration 3.1** to **Illustration 3.8** and the prioritised works schedule, **Table D1** in **Appendix D**. The item number for each these works includes an “LP” suffix to indicate that they were originally identified in a locality plan.

The locality plans identified a number of works under the headings of “Footpaths and Cycleways” and “Urban Roads and Bridges”. However, the majority of these works are responses to footpath condition reports (i.e. rehabilitation or replacement) or do not involve pedestrian facilities (they are road upgrades only) and are thus outside of the scope of the PAMP.

The works prioritisation methodology, outlined in **Section 3.4**, includes an “other” criterion which includes consideration of whether or not a proposed works item was originally put forward in a locality plan, and thus such works are given further ‘benefit’ points by virtue of their inclusion in a locality plan.

**Table 2.3 Works items identified in locality plans and included in the PAMP**

<i>Works item identified in Locality Plan</i>	<i>PAMP works item number</i>	<i>Inclusion in PAMP</i>
<b>Casino</b>		
RTA PAMP – Hare Street and Centre Street Casino Pedestrian Refuge	C46 LP and C47 LP	Modification of existing traffic islands on Hare Street. (east of Centre Street.) and Centre Street. (south of Hare Street.)
<b>Coraki</b>		
Adam St – Martin/Richmond (South) 240 m	CK7 LP	Martin St. to Bridge St. is complete so work only necessary between Bridge St. and Richmond Terrace.
<b>Evans Head</b>		
Woodburn Cycleway [shared path] Stage 1 (5 year staged construction)	W13 TP/LP	The shared path between Evans Head and the Riverside Village is already being delivered. PAMP works item W13 TP refers to a shared path between Riverside Village and Woodburn.

Urban Settlement / Land Release Strategies have been developed for Casino and Evans Head to provide for strategically planned residential, commercial and industrial growth within each township. Both strategies identify both in-fill development opportunities as well as larger 'satellite' land release areas. The works proposed in the PAMP will serve infill areas while works servicing 'satellite' areas have only been included when proposed by the community or the Project Steering Group to serve existing settlements. It is expected that develop consent conditions for the 'satellite' land release areas will include the provision of shared path facilities.

#### 2.5.4 Richmond Valley Council Local Transport Plan (GHD, 2008)

The *Richmond Valley Council Local Transport Plan* (GHD, 2008) (the Transport Plan) focuses largely on directing strategic investment in the road and car parking network throughout the LGA, with primary consideration of passenger and road freight vehicles. This is outside of the scope of the PAMP.

However, Section 4.9 of the Transport Plan does identify a number of proposed "cycleways", i.e. shared paths, in Casino, Evans Head and Woodburn. The works items identified in the Transport Plan that have been included in the PAMP are shown in **Table 2.4**, and are shown in **Illustration 3.1** to **Illustration 3.8** and the prioritised works schedules in **Appendix D**. The item number for each these works includes a "TP" suffix to indicate that they were originally identified in the transport plan.

The works prioritisation methodology, outlined in **Section 3.4**, includes an "other" criterion which includes consideration of whether or not a proposed works item was originally put forward in the Transport Plan, and thus such works are given further 'benefit' points by virtue of their inclusion in the Plan.

**Table 2.4 PAMP inclusion of works items identified in the Richmond Valley Council Local Transport Plan (GHD, 2008)**

<i>Works item identified in Richmond Valley Council Local Transport Plan (GHD, 2008)</i>	<i>PAMP works item number</i>	<i>Inclusion in PAMP</i>
<b>Casino</b>		
New cycleway [shared path] on Centre Street between Hare Street and Stapleton Avenue. This has the difficulty of being through the South Casino business area.	C45 TP	None
Continuation of existing cycleway [shared path] on [Sextonville Road] from intersection with [Bruxner Highway] to new residential development at Wooroowoolgan.	C59 TP	Terminated at Lakeside Way at Wooroowoolgan rather than at small collection of houses a further 1 km west along Sextonville Road.
From new development site on Light Street, along Hickey Street to the Lennox Street intersection to meet the existing network.	n/a	Noted on <b>Illustration 3.2</b> but not included in PAMP works program as will be installed by development proponent (Casino RV Village) as part of conditions of consent for upgrade to the facility.
Connect existing cycleway from Hartley Street past sporting fields, over Richmond River to Hickey Street near Casino CBD.	C62 TP	Partly combined with C60 (shared path through Queen Elizabeth Park)
Extend existing cycleway [shared path] from Summerland Way to new residential development north-west of Casino [Fairy Hill]. This could potentially be an off-street facility dependent on the mixture of vehicle traffic and any safety concerns.	C63 TP	None



<b>Works item identified in Richmond Valley Council Local Transport Plan (GHD, 2008)</b>	<b>PAMP works item number</b>	<b>Inclusion in PAMP</b>
<b>Evans Head</b>		
New cycleway [shared path] from Evans Head to Woodburn on the Woodburn-Evans Head Road. This could potentially be an off-street facility dependent on the mixture of vehicle traffic and any safety concerns.	W13 TP/LP	The shared path between Evans Head and the Riverside Village is already being delivered. PAMP works item W13 TP refers to a shared path between Riverside Village and Woodburn.
New cycleway on Currajong Street from Woodburn Street past the industrial estate to connect to Beech Street.	E2 TP E3 TP	This facility is likely to be implemented by the proponent as part of the development conditions for the proposed RSL Aged Care Facility proposed (approval not yet granted).
New cycleway [shared path] on Cypress Street past the high school between Elm Street and Woodburn Street	E11 TP	None
New link on Park Street to connect to existing cycleways [shared paths]	n/a	Completed on Park Street, with short stretch on Booyong Street (north side) between Park Street and Yarran Street to be installed soon.
New cycleway [shared path] on Beech Street to connect to the beach and existing cycleway [shared path]	E7 TP	None
<b>Woodburn</b>		
New cycleway [shared path] from Evans Head to Woodburn on the Woodburn-Evans Head Road. This could potentially be an off-street facility dependent on the mixture of vehicle traffic and any safety concerns.	W13 TP	The shared path between Evans Head and the Riverside Village is already being delivered. PAMP works item W13 TP refers to a shared path between Riverside Village and Woodburn.
New cycleway [shared path] on Richmond Street	W9 TP	A footpath, rather than a cycleway, between Cedar Street and Alfred Street, was considered adequate for the level of use expected by the Project Steering Group and community members.
Potential connection to Coraki-Woodburn Road through the school and past the swimming pool (Wagner Street)	n/a	Not included
Potential link south to the new land release area (potentially off-street).	n/a	Not included

### **2.5.5 Draft Richmond Valley Council Community Strategic Plan (RVC, 2010 Draft);**

The Draft Richmond Valley Council Community Strategic Plan (RVC, 2010 Draft) states:

*The purpose of the Community Strategic Plan is to identify the community's main priorities and aspirations for the future and to plan strategies for achieving outcomes related to those priorities and aspirations.*

*RVC (2010 Draft)*

To meet this primary purpose, the preparation of the plan involved extensive community consultation culminating in the receipt of "some 5,700 comments" based around:

- *current community perceptions*
- *what were the long term goals of the community*

- *what strategies should be put in place to achieve the goals*
  - *what performance indicators could be used to gauge how successful the strategies have been*
- RVC (2010 Draft)*

Community feedback as above was grouped into seven focus areas:

- Environment
- Local Economy
- Community and Culture
- Recreation and Open Space
- Rural and Urban Development
- Transport and Infrastructure
- Governance and Process

**Table 2.5 Strategies and performance indicators of the *Draft Richmond Valley Council Community Strategic Plan (RVC, 2010 Draft)* that relate to the PAMP**

<b>Strategy</b>	<b>Performance Indicator</b>
<b>Focus Area 4 – Recreation and Open Space</b>	
4.2.11 Improved connectivity for pedestrian and bicycle access to parks and sporting facilities	<ul style="list-style-type: none"> <li>▪ Attractive and accessible rivers and riverbanks that are well used for recreation (4.2)</li> </ul>
<b>Focus Area 6 – Transport and Infrastructure</b>	
6.1.2 Develop pedestrian friendly footpath network through completion and implementation of a PAMP Plan	<ul style="list-style-type: none"> <li>▪ Improved footpaths and roads without potholes (6.1)</li> <li>▪ Cycleways throughout the Council area to complement the roads (6.4)</li> </ul>
6.1.3 Provide cycleway network in accordance with recommendations of local transport plan	

### **2.5.6 Building on What We Have – A Facility Needs Review (RVC, 2009)**

*Building on What We Have – A Facility Needs Review* (RVC, 2009) (the Facility Needs Review) applies a comprehensive prioritising framework to assist Council in the strategic allocation of resources. It considers 123 widely varying assets owned or managed by Council including community halls, parks and reserves, sporting facilities and vacant land.

The Facility Needs Review valued each asset based on three value criteria supported by a range of measures:

- Financial value, including the following measures:
  - Market value;
  - Replacement value;
  - Rates, water and sewer charges;
  - Income generated;
  - Maintenance costs; and
  - Insurance costs
- Community use value, including the following measures:
  - Estimation of persons within 400 m;
  - Estimation of persons within 10 km;

- Change in the number of people between 2001 and 2006 censuses;
- In a land release area;
- Club usage;
- Number of occasional bookings;
- Club Tourism; and
- Implied use.
- Intrinsic value, including 100 measures relating to factors such as:
  - Value to youth and children;
  - Value to the aged and disabled;
  - Public transport and access to the asset;
  - Compliance with modern building standards;
  - OH&S/Risk;
  - Influence of the asset in preventing crime;
  - Rural and regional value;
  - Aboriginal cultural significance;
  - Community enthusiasm and support;
  - Public health benefits;
  - Visual amenity;
  - Cultural value;
  - Historical and heritage value; and
  - Environmental value.

Each asset was ranked under each value and the summation of these ranks provided an overall ranking.

**Section 3.4** outlines how the proximity of PAMP works to the assets considered in the Facility Needs Review has been considered in prioritising the PAMP works.

## 2.6 Community Consultation

Community consultation was 'open' from 15 January 2011 with the launch of the project webpage (**Section 2.6.1**) to its formal closure on 27 May 2011. A final round of consultation was provided by the public exhibition of the draft PAMP report for four weeks commencing 29 July 2011.

As discussed in **Section 1.6**, existing information on pedestrian usage patterns and needs, and the resources available to conduct systematic data collection such as 'pedestrian counts' and 'pedestrian origin-destination surveys' were both limited. Therefore, it was determined very early that the PAMP works would be identified mainly on the basis of the advice of the community and input from the Project Steering Group.

An appropriate works schedule was thus developed, by:

- Use of a broad range of consultation mechanisms to gather advice from as wide a cross-section of the community as possible
- The Project Steering Group reviewing and if required modifying all the works proposed by the community; and
- Application of a robust and transparent prioritisation methodology.

This section outlines the broad range of consultation mechanisms used to gather advice from the community.

### 2.6.1 Project webpage and email

The GeoLINK website hosted a webpage devoted to the PAMP project which was a hub for all online community consultation. As well as presenting general information on the project such as background, scope and objectives, it provided:

- Downloads of project information as it became available, in particular various draft versions of **Illustration 3.1** to **Illustration 3.8** as they were developed over the course of the project;
- Announcements on key project milestones such as the Community Open Days and closure of community consultation.
- Links to key supporting documents such as *How to Prepare a Pedestrian Access and Mobility Plan* (RTA, 2002) and *Richmond Valley Council Local Transport Plan* (GHD, 2008);
- Links to the webpage for the *Ballina Shire Council Pedestrian Access and Mobility Plan* (BSC, 2004) as a local example of what a completed PAMP “looks” like;
- Email, mail and telephone contact details for the project team;
- The on-line project subscription process where people could sign up for project updates; and
- Links to the on-line surveys for individuals and businesses (see **Section 2.6.4**).

A dedicated project email, [RVCPAMP@geolink.net.au](mailto:RVCPAMP@geolink.net.au), was established to send out project updates, receive comments and reply to those comments within one working day.

### 2.6.2 Promotion of opportunities to comment

A wide range of avenues were used to promote the opportunities for the community to provide input on the PAMP, including the following.

- Three Project Update emails were sent out: the first on 17 February 2011 to announce the project, emphasise the importance of community feedback and direct people to the project webpage; the second on 5 April 2011 to promote the Community Open Days, and; the third on 19 May 2005 to encourage further feedback on the draft maps prior to consultation closing. These emails were distributed to a list of over 260 email addresses comprising addresses that were:
  - Included with submissions via email or mail or the on-line survey;
  - Provided by people subscribing to the project via people who provided comments, people who subscribed to the project via the webpage;
  - The publicly available part of Council’s Coordinator, Community Services and Social Planning network of emails comprising mainly community groups, schools and churches; and
  - The extensive email network of Council’s Coordinator, Community Services and Social Planning.
- The Casino Chamber of Commerce and Business and the [www.casino.com.au](http://www.casino.com.au) website were included in the Project Update email list and agreed to pass on project update emails throughout their networks.
- Two media releases were prepared by GeoLINK distributed by Council through Council’s standard media distribution list. One was released on 14 January 2011 to announce the project, emphasise the importance of community feedback and highlight the ways the community could provide advice. The other was released on 4 April 2011 to announce the Community Open Days.
- Two announcements in Council’s regular newspaper columns that coincided with the media releases.
- Three letters to each member of Council’s Community Network Groups in each of the five settlements. The first was sent on 1 February 2011 to announce the project, emphasise the importance of community and provide the project team’s contact details, the second was sent on 29 March 2011 to promote the Community Open Days and the third was sent on 20 May 2011 to encourage further feedback on the draft maps prior to consultation closing.
- Council’s Coordinator, Community Services and Social Planning announced the PAMP to the members of various committees which she oversees and provided advice on the ways in which comments could be made by individuals. A number of the committees provided formally minuted comments which are recorded in **Section 2.6.5**.

- The Project Manager met with Council's Disability Access Committee on 4 April 2011 to discuss the project, receive comments directly and assist with the mobility audit of Casino.

### 2.6.3 Email, mail and telephone comments

Only six community members provided their comments by email, one by mail and one by telephone. The low response rate via these avenues was presumably due to the availability of other methods, such as the Community Open Days and the on-line survey.

### 2.6.4 Online survey

The web-based [www.surveymonkey.com](http://www.surveymonkey.com) was used to generate two on-line surveys to capture the needs and comments of individuals in the community and businesses respectively. The surveys are summarised below with the results, including written comments, provided in full in **Appendix A**.

#### 2.6.4.1 Survey for individuals

The survey for individuals in the community comprised the following questions.

1. Name and email address (optional)
2. About which town would you like to make comments?  
[Single choice]
  - Casino
  - Coraki
  - Broadwater
  - Evans Head
  - Woodburn
3. Please rank the quality of existing pedestrian facilities in [town] for the following groups  
[Scale: Very Poor; Poor; Acceptable; Good; Very Good]
  - General pedestrians
  - Elderly and zimmer frame users
  - Wheelchair and scooter users
  - Children and pram users
4. Please rank how *important* you feel the following items are in relation to pedestrian access and mobility in [town].  
[Scale: Not at all important; Not very important; Don't know; Important; Very important]
  - Provision of new footpaths in town
  - Provision of pedestrian and cyclist links to nearby areas
  - Management of vehicle traffic
  - Removal of trips and obstacles
  - Provision of access ramps
  - Provision of pedestrian crossings and refuges
  - Better links with other transport modes (car parks, taxi ranks, bus shelters etc.)
  - Better safety measures such as lighting and higher visibility
  - Tactile indicators (for the vision impaired)
  - Directional way signage
  - Furniture (e.g. seating, bubblers, shelters)
5. Do you have any further comments regarding pedestrian facilities in [town]  
[Open response]

Only 45 people responded to the survey, so it is difficult to draw conclusions that would direct the development of specific works. However, points of note include:

- 32 people commented on Casino, 10 on Evans Head, two on Coraki, one on Woodburn and none on Broadwater.
- Pedestrian facilities were considered “poor” or “very poor” for all user groups in towns other than Casino, where the response was mixed from “very good” to “very poor”, although still with an emphasis on “poor” and “very poor”. One possible explanation of the high proportion of negative perceptions is that those within the community who do have a view that the facilities are satisfactory may not have been encouraged to volunteer that view. This explanation of the results for Evans Head is supported by anecdotal evidence from the Spinal Cord Injuries Australia representative on the Project Steering Group who reported that Evans Head has a widespread reputation in the wheelchair community for being an ideal place to holiday due to good disability access.
- The importance of the various “items” (i.e. Question 4 above) was generally high which is not surprising, although those that were occasionally ranked lower in Casino and Evans Head (where the number of respondents gives some spread) included:
  - Provision of new footpaths (associated with comments favouring maintenance of existing footpaths rather than provision of new ones);
  - Provision of pedestrian and cyclist links to nearby areas;
  - Better links with other transport modes (car parks, taxi ranks, bus shelters etc.); and
  - Better safety measures such as lighting and higher visibility.

One of the main benefits of the survey is the 40 written comments provided, many of which identified specific works.

#### 2.6.4.2 Survey for businesses

The survey for businesses posed the following questions.

1. What is your Business Name and Address?
2. Under which of the following general categories does your business operate?  
[Single choice]
  - Aged care / Health care
  - Community services
  - Education
  - Hospitality
  - Place of worship
  - Professional services
  - Retail
  - Other (please specify)
3. Approximately how many people would visit your premises on average?  
[Scale: 0-100; 100-300; More than 300]
  - Weekdays
  - Saturdays
  - Sundays
4. How far would you estimate visitors walk to reach your premises?  
[Scale: Very few visitors; Some visitors; A lot of visitors]
  - The final 100 metres (e.g. from nearby car-parking)
  - The final 100-500 metres (eg. from a car park down the road)
  - More than 500m (e.g. walk across the town)

5. What is the proportion of special-user groups visiting your premises?  
[Scale: Very few visitors; Some visitors; A lot of visitors]
  - Elderly
  - Mobility impaired (e.g. wheelchair, scooter or zimmer user)
  - Vision impaired (i.e. blind or with poor eyesight)
  - Children and pram users
6. Do you feel that pedestrian facilities around your premises are adequate?  
[yes, no]
7. How do you feel pedestrian facilities around your premises might be improved?  
[Open response]

Only 14 responses were received across 12 businesses so it is difficult to draw conclusions that would direct the development of specific works. Almost half the businesses reported that “some visitors” or “A lot of visitors” walk more than 500 m to reach their premises indicating that there is at least a perception of a high level of walking. The main benefit of the survey came from a total of 12 written comments provided, many of which identified specific works.

### 2.6.5 Advice from Council Committees

Council’s Coordinator, Community Services and Social Planning announced the PAMP to the members Council’s various committees. A number of the committees provided formally minuted comments including the following all of which, unless otherwise noted, were included in the PAMP. The Project Steering Group included representatives of the Transport Advisory Committee and Disability Access Committee to provide on-going input from these committees in addition to any minuted advice.

- Women’s Advisory Committee 14 February 2011
  - Footpath/ cycle way that goes South and West of the Casino Hospital and that goes to the Casino Hospital from the railway crossing in Casino.
  - The ability to use Prams in Casino was generally “shocking”.
  - A pathway to join the West Street Cycleway and Richmond Lodge in Casino.
  - The need for a crossing in Johnston Street (not included, see **Section 3.3**)
  - Crossing of Canterbury Street, Casino (near McDonalds) should be moved back from the intersection slightly to ensure that as cars turn they would not run into school children.
- 55+ Advisory Committee 21 February 2011
  - Some of the crossings in Casino with safety islands are not disability accessible (these were picked up by the Disability Access Committee audit).
  - There are plenty of footpaths that need maintenance around Casino and there is a need to look particularly at the ones where aged persons live.
  - There is a need for a footpath/cycle way from the proposed RSL retirement village in Evans Head to and from the CBD.
  - There is a need for improved footpaths and cycle ways from aged care facilities to the CBD. A particular reference was made in relation to the Aged Care Living in Shepherd Street, Casino that has no access to town but could link to the Casino High School or Barling Street shared path.
- 55+ Community Advisory Committee 16 May 2011.
  - Lighting for the shared path on Beech Street, Evans Head.
- Transport Advisory Committee 25th May 2011
  - Crash barrier/ rail to protect pedestrians at the Woodburn toilet block where the new footpath is to be installed
  - A low priority footpath along Dairy Street in South Casino (not included, see **Section 3.3**).

- Disability Access Committee 7 March 2011
  - A pedestrian crossing between St Josephs and Coraki High School (this was substituted with a pedestrian refuge as the RTA warrants would not be met in this location, see **Section 2.4.2.1**)
- Disability Access Committee 2 May 2011
  - A linking path to the shared path up the embankment opposite the entrance to the RSL in Evans Head.

### 2.6.6 Community Open Days

Three Community Open Days were held to provide both for people for whom 'workshops' or evening presentations may be unsuitable and those who may be disinclined to provide feedback online or by email, mail or telephone. Also, these open days can capture feedback from people who would not generally comment on projects or may not have been aware of the PAMP.

Two project staff members set up stalls with display information comprising draft versions of **Illustration 3.1** to **Illustration 3.8**. The stalls were held at the following times and locations:

- 9 am to 1 pm on 2 April 2011 Woodburn in Riverside Park near the Tourist Information Office;
- 9 am to 1 pm on 9 April 2011 Evans Head outside Siam Thai on Oak Street at the end of Oak Street arcade; and
- 9 am to 1 pm on 16 April 2011 Casino outside the ANZ bank on Walker Street near the crossing immediately south of Simpson Parade.

The display information prompted discussion by showing the nature and extent of the PAMP, and the current status of proposed works, while the informal setting allowed two-way discussion to be directed by community members onto issues of specific concern to them. Approximately 60 to 80 people provided around 70 comments over the course of all the open days.



## Results

### 3.1 Introduction

The primary purpose of the PAMP is to develop a prioritised works schedule in line with the objectives set out in **Section 1.4**. These works are presented in **Appendix D**, and **Illustration 3.1** to **Illustration 3.8**, and discussed in **Section 3.4** below.

### 3.2 General comments

During community consultation the following general comments not relating to specific works items were received:

- A number of comments related to the choice and management of vegetation at or near pedestrian crossings, in particular those at
  - The intersection of Barker Street and Centre Street (i.e. the Cecil Hotel). These crossings are proposed to be either removed entirely or relocated further from the intersection under the PAMP;
  - South Casino CBD; and
  - Woodburn Street immediately south of Oak Street in Evans Head. This crossing is proposed to be removed as part of the Evans Head CBD upgrade project (see **Section 3.3**).
- Improved general maintenance of existing pedestrian facilities, mainly footpaths, was proposed by a number of people, some of whom suggested that this is more important than provision of new facilities.
- The ability to use prams in Casino was considered poor, most probably due to inadequate provision of kerb ramps and maintenance of trip hazards although the specific reasons were not put forward.
- It is generally recognised by Council and the community that footpaths in Coraki are in poor condition largely due to subsurface conditions associated with the nearby river and soil types.
- Disabled access to public telephone boxes can be limited due to a lack of linking paths from adjacent footpaths or level differences between the concrete slab of the box and the surrounding footpath.

### 3.3 Comments not included in works program

A small number of comments were received that had merit and may require some response, but were not addressed in the works program for various reasons. They are as follows.

- The footpath in the vicinity of Chill Cafe on Woodburn Street in Evans Head is subject to periodic flooding for extended periods, most likely due lack of cross fall, a localised depression and poor management of downpipes nearby, forcing footpath users onto the roadway. This is a significant issue but not strictly within the scope of the PAMP and has therefore been referred to Council's RAMS process for footpath maintenance.
- The adequacy of lighting at pedestrian crossings at Centre Street near Convent Parade and at the South Casino CBD was questioned. Both crossings were observed to already have flood lighting, however the need and potential to increase the illumination provided by these lights should be investigated. This was not included in the works program as it was considered a minor item.
- An upgrade of Simpson Parade in Casino was suggested due to increasing levels of vehicle and pedestrian traffic. Because there is inadequate width for a continuous widening of the footpath, these upgrade works would be limited to a resealing of the road pavement, with some isolated stretches of pavement widening. Such an upgrade constitutes road works only and is not considered appropriate to be included in the PAMP, but should be considered in Council's roads program.

- Lighting at the corner of Bruxner Highway and Sextonville Road and at the corner of Sextonville Road and Lakeside Drive (Woorooloogan Estate) was proposed. This is outside of the scope of the PAMP and should be considered in Council's roads program.
- A pedestrian crossing on Johnson Street, Casino was proposed, however the Project Steering Group indicated that the RTA would not allow a crossing on a main arterial road such as this because of the high volume of vehicle traffic and the potential disruption to traffic flow. It is also noted that AS1742 recommends against pedestrian crossings on arterial roads (see **Section 2.4**). In response to an identified need to provide for pedestrians crossing Johnson Street, a number of pedestrian refuges have been proposed in the PAMP.
- Pedestrian crossings on Woodburn Street and Cashmore Street near the IGA at Evans Head were proposed, however Council investigations showed that the standard RTA "warrants" are not met at either location. The RTA warrants are discussed in **Section 2.4.2.1** and the results of Council's traffic study are summarised in **Appendix B**. There are existing pedestrian refuges on Woodburn Street either side of Cashmore Street, and the works program includes a pedestrian refuge on Cashmore Street near the IGA supermarket.
- A pedestrian crossing on Currajong Street near Woodburn Street at Evans Head was proposed, however the standard RTA "warrant" will not be met at this location. The RTA warrants are discussed in **Section 2.4.2.1**. A pedestrian refuge has been proposed at this location in the PAMP.
- It was proposed that the crossing on Woodburn Street near Oak Street in Evans Head should be moved further south away from the intersection. As part of the Evans Head CBD upgrade there will be a number of upgrades to pedestrian facilities including footpath "blisters" (extension of the footpath onto the roadway at locations where pedestrians are likely to need to cross) and pedestrian refuges that will reduce pedestrian exposure significantly. These works will include the removal of this crossing as the standard RTA "warrant" is not met at this location. The RTA warrants are discussed in **Section 2.4.2.1** and the results of Council's traffic study are summarised in **Appendix B**.
- Footpaths servicing Dairy Street, Jubilee Park and the Casino Showground in South Casino were proposed, however the Project Steering Group considered potential demand for such facilities to be low.

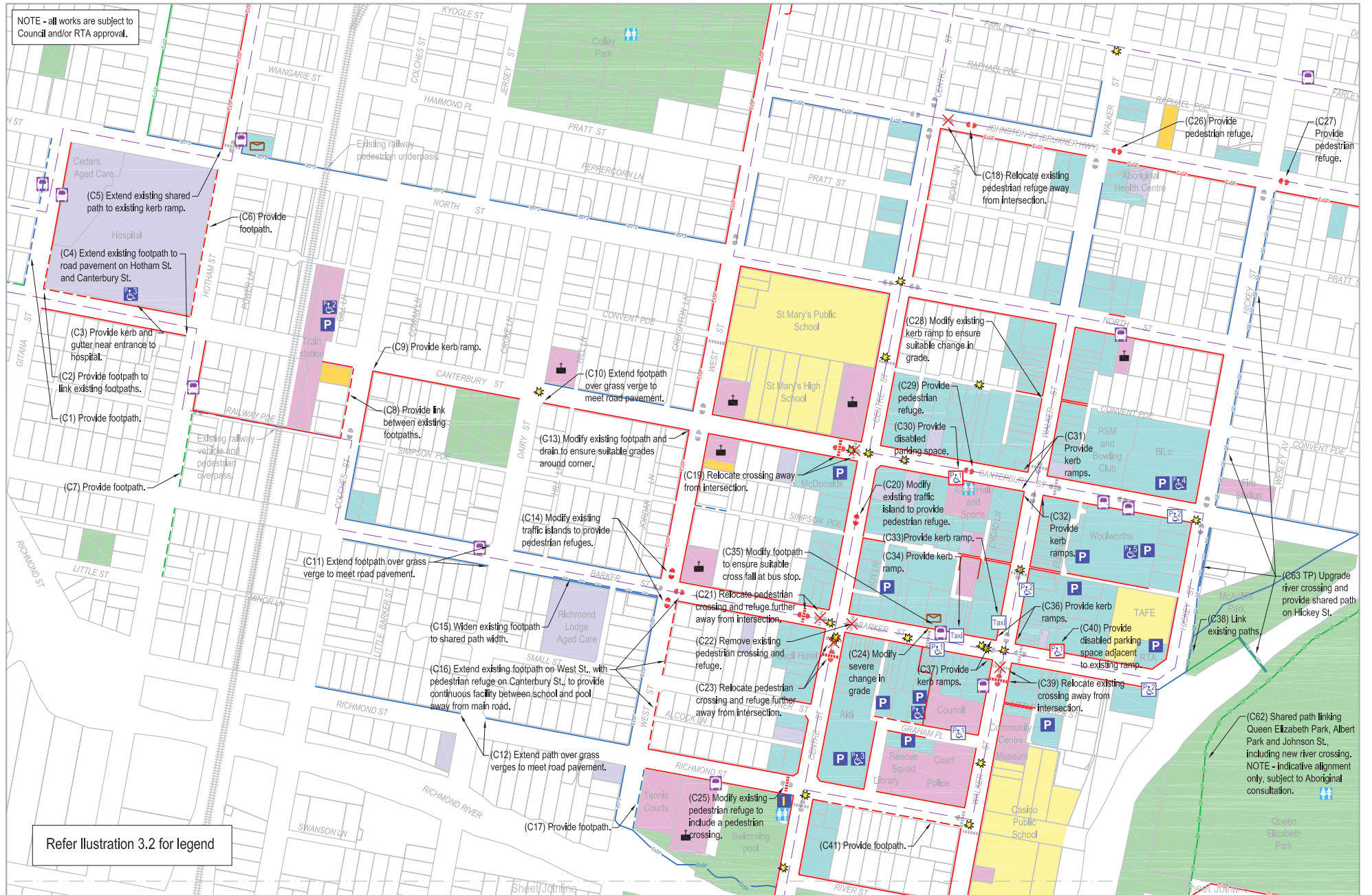
### 3.4 Prioritised Works Schedule

The prioritised works schedule comprises works within the study area and scope of the PAMP (see **Section 1.5**) that were identified by three primary mechanisms:

- Presented by the Project Steering Group members based on their experience;
- Proposed by the community (see **Section 2.6**) based on local knowledge and observations. Almost all community comments relating to specific works are included in the works schedule, and those not included are discussed in **Section 3.3**; and
- Identified during field audits (see **Section 1.6**).

All works were reviewed and refined by the Project Steering Group before inclusion in the schedule. All works are shown in **Illustration 3.1** to **Illustration 3.8**.

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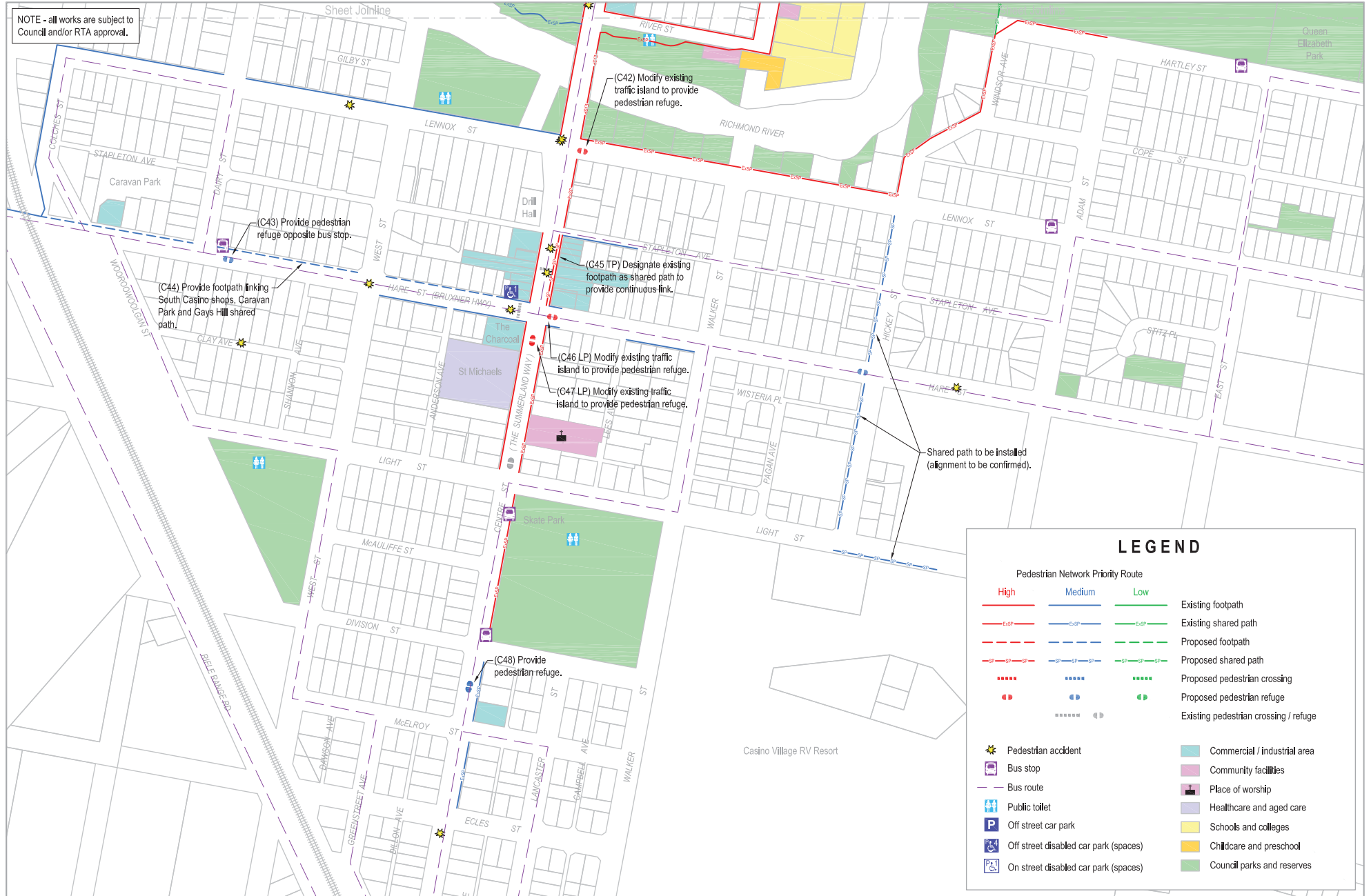
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NOTE - all works are subject to Council and/or RTA approval.



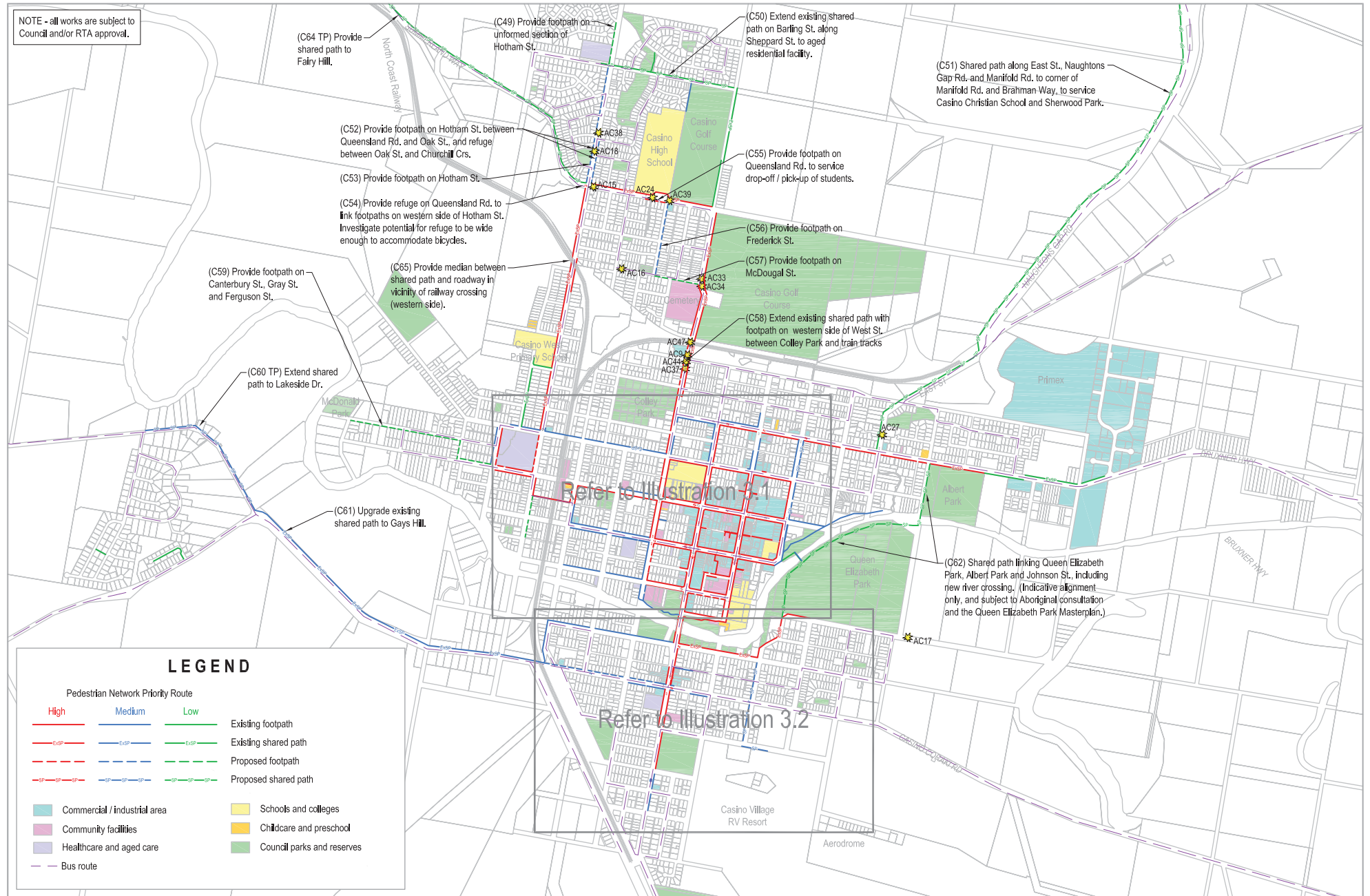
### LEGEND

Pedestrian Network Priority Route			
High	Medium	Low	
			Existing footpath
			Existing shared path
			Proposed footpath
			Proposed shared path
			Proposed pedestrian crossing
			Proposed pedestrian refuge
			Existing pedestrian crossing / refuge
			Pedestrian accident
			Bus stop
			Bus route
			Public toilet
			Off street car park
			Off street disabled car park (spaces)
			On street disabled car park (spaces)
			Commercial / industrial area
			Community facilities
			Place of worship
			Healthcare and aged care
			Schools and colleges
			Childcare and preschool
			Council parks and reserves

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NOTE - all works are subject to Council and/or RTA approval.



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### Coraki - Existing Pedestrian Network and Proposed Works



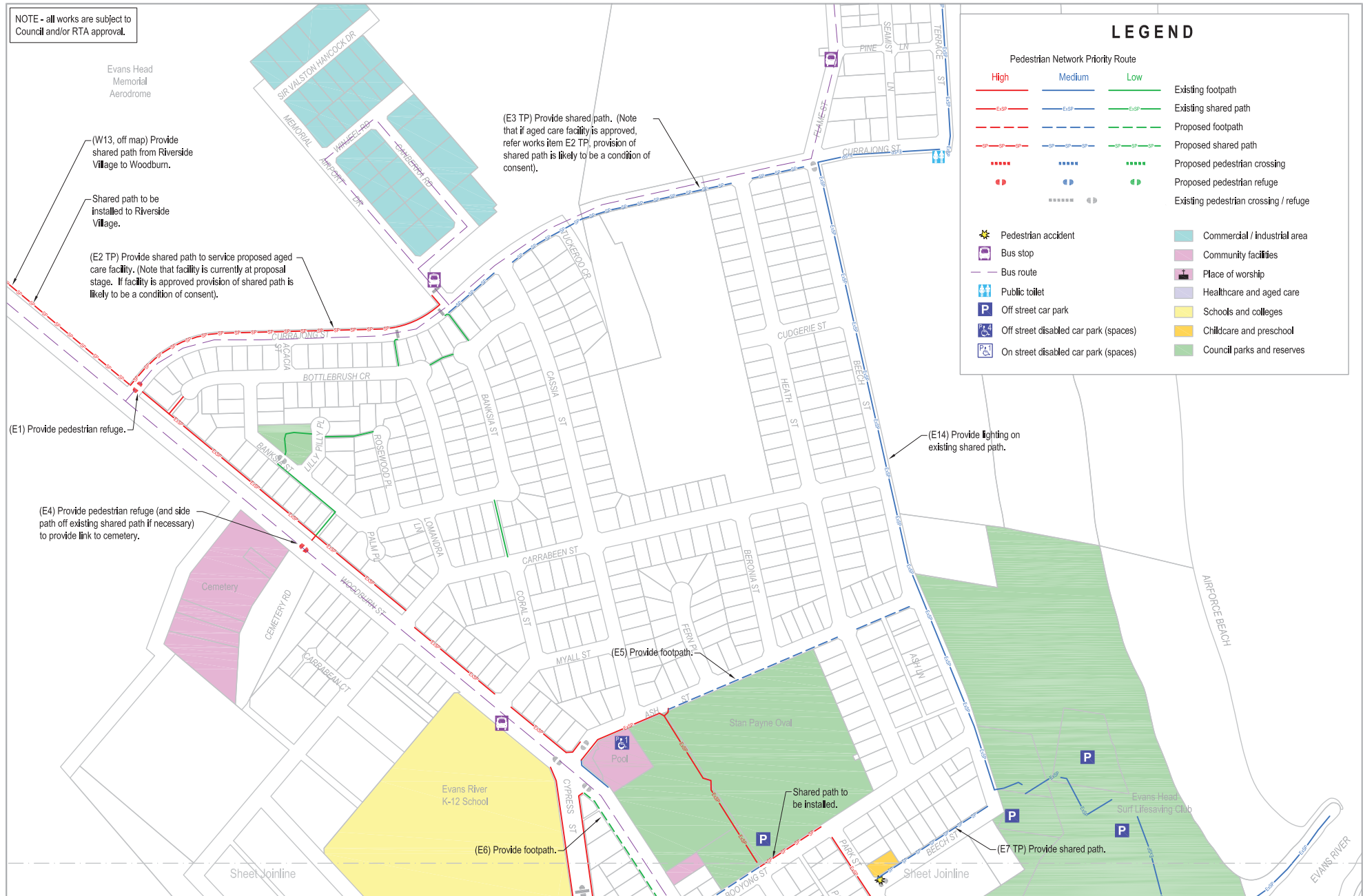
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NOTE - all works are subject to Council and/or RTA approval.



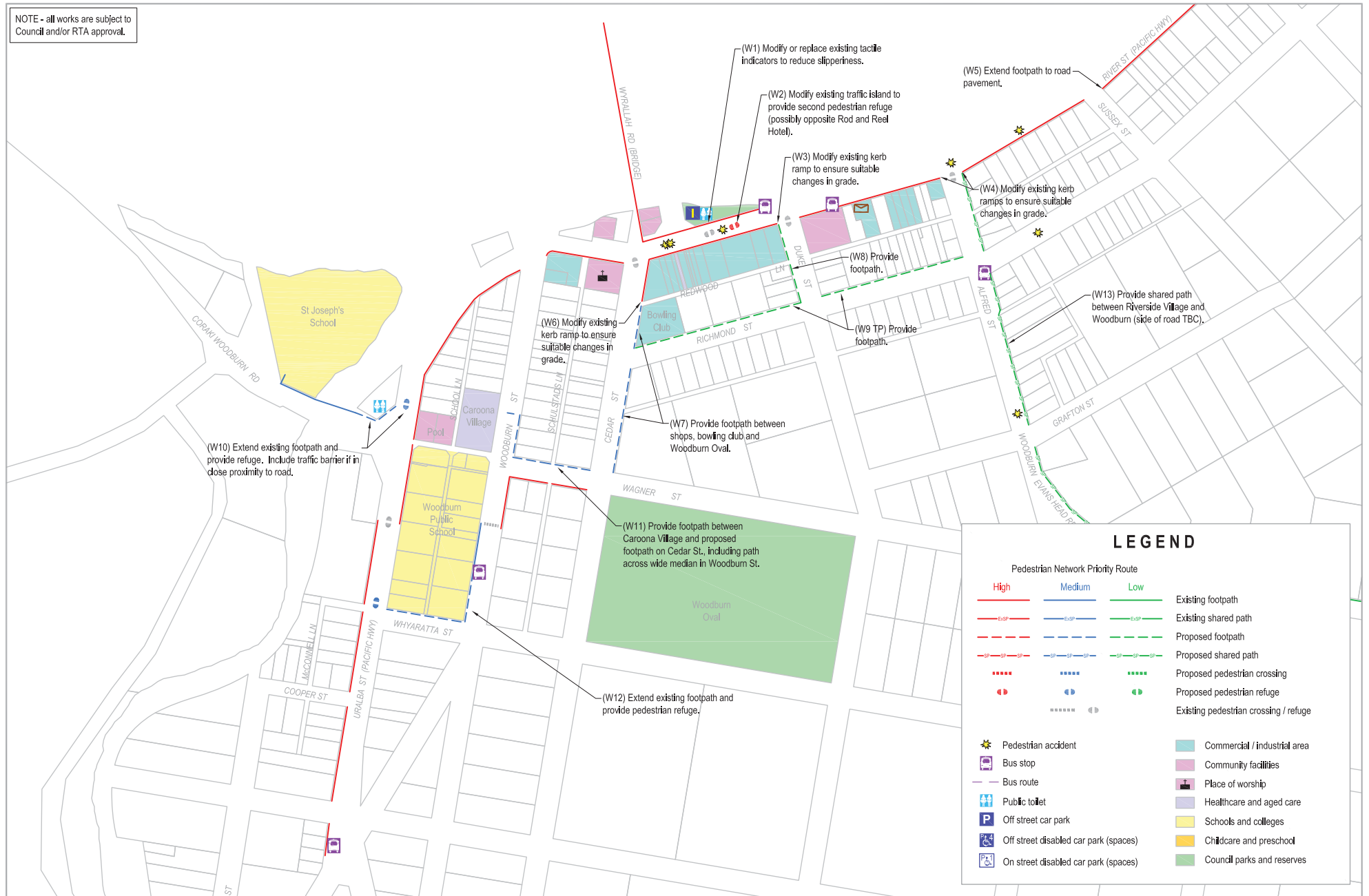
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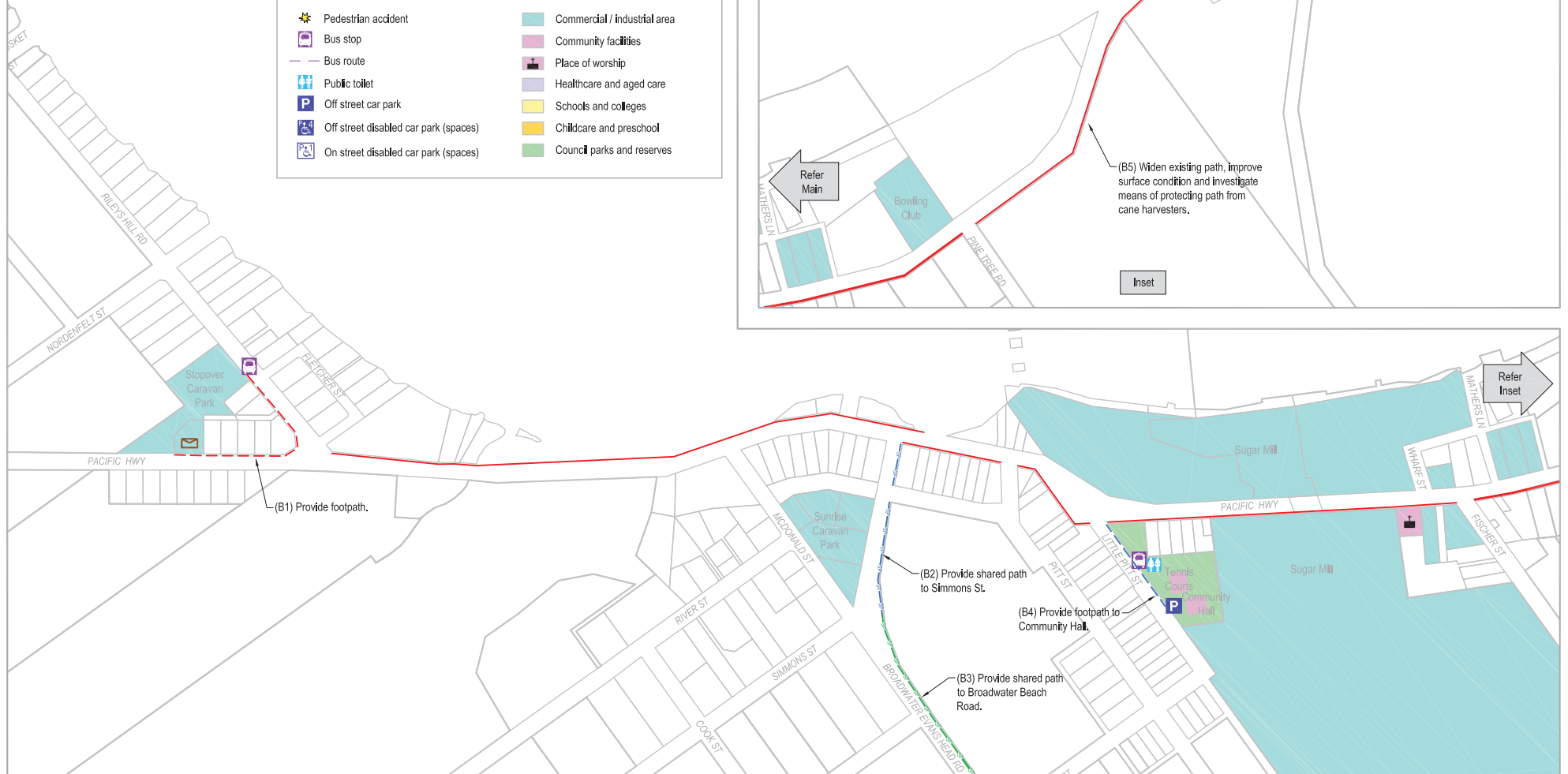


Information shown is for illustrative purposes only

NOTE - all works are subject to Council and/or RTA approval.

### LEGEND

Pedestrian Network Priority Route			
High	Medium	Low	Existing footpath
E-SP	E-SP	E-SP	Existing shared path
- - - - -	- - - - -	- - - - -	Proposed footpath
-SP-SP-SP-	-SP-SP-SP-	-SP-SP-SP-	Proposed shared path
.....	.....	.....	Proposed pedestrian crossing
◀▶	◀▶	◀▶	Proposed pedestrian refuge
.....	◀▶	◀▶	Existing pedestrian crossing / refuge
★	Commercial / industrial area		
🚌	Community facilities		
—	Place of worship		
♿	Healthcare and aged care		
♿	Schools and colleges		
♿	Childcare and preschool		
♿	Council parks and reserves		



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A fundamental objective of the PAMP is to ensure the most cost-effective use of the resources and funds that are available for pedestrian facilities by means of a prioritised works schedule. This prioritisation is required under the RTA Guidelines for Council to be eligible for RTA funding assistance for pedestrian facilities.

The final list of works was prioritised by using a consistent and transparent approach of establishing the cost estimate and benefit of each works item. The estimated costing of works was based on unit rates presented in **Appendix C**. The benefit associated with each works item was assessed by means of a score based on a range of weighted measures as outlined in **Table 3.1**.

**Table 3.1 Benefit scoring mechanism used for prioritisation of works**

<b>Benefit Category</b>		<b>Weighting</b>
A	▪ Location within the Pedestrian Network Hierarchy (PNH <sup>1</sup> ) [single choice]	
	- High	20
	- Medium	10
	- Low	0
B	▪ Proximity to land uses <sup>2,3,4</sup> [multiple choice]	
	- Commercial	5
	- Community / church	5
	- Health / aged	15
	- School / education	15
C	▪ Proximity to assets listed in the Facility Needs Review (FNR) Final Ranking <sup>5</sup> [multiple choice]	
	- 1-25 (i.e. ranked in the top 25 in the final ranking of the FNR)	20
	- 26-50	15
	- 51-75	10
	- 76-100	5
D	▪ Type of works <sup>6</sup> [multiple choice]	
	- Pedestrian crossing / refuge (local) <sup>7</sup>	5
	- Pedestrian crossing / refuge (col.) <sup>7</sup>	15
	- Pedestrian crossing / refuge (dist.) <sup>7</sup>	30
	- Disabled parking	10
	- Extending existing paths <sup>8</sup>	5
	- Improving existing paths <sup>8</sup>	5
	- Linking existing paths <sup>8</sup>	15
E	▪ Locations	
	- Bus stop / taxi rank <sup>9</sup>	5
	- Public toilet <sup>9</sup>	5
F	- Pedestrian accident location <sup>10</sup>	30
	▪ Recreation <sup>11</sup>	

Benefit Category		Weighting
G	Other <sup>12</sup>	
	A category to allow consideration of criteria not included above such as <ul style="list-style-type: none"> <li>- Removal of pedestrian facilities</li> <li>- Inclusion in a locality plan (<b>Section 1.1.1</b>) or the Transport Plan (<b>Section 2.5.4</b>)</li> <li>- Improved safety and lighting</li> <li>- Any other aspects identified by Council in future reviews of the works prioritisation (refer <b>Section 3.4.1</b>)</li> </ul>	1

Notes associated with the benefit scoring mechanism outlined in **Table 3.1** are as follows.

1. PNH – Pedestrian Network Hierarchy (abbreviation used in main table in Appendix D)
2. Works are considered to serve a particular land use if they are within 200 m walking distance of that land use (200 m is adopted as it is one standard block length in central Casino). A walking distance of 300 m is adopted for works shown on **Illustration 3.3**.
3. Works servicing multiple locations of a particular land use are scored as follows
  - 1 location score 1
  - 2 locations score 2
  - 3-10 locations score 3
  - More than 10 locations score 5
4. This category does not consider Council parks, reserves and recreational/sporting facilities as they are all included in the Facility Needs Review Ranking category. This also applies to community lands that are included in the Facility Needs Review, although those community lands that are not included, such as churches, are considered under this category.
5. FNR Final Ranking – Facility Needs Review Final Ranking (refer pages 140-145 of *Building on What We Have – A Facility Needs Review*, Richmond Valley Council 2009)
6. Work items that involve more than one installation (e.g. two kerb ramps, a footpath and a refuge) are scored for each separate item under this category. But under all other categories the works item is considered as a single installation.
7. “Ped. crossing/refuge (class.)” refers to a pedestrian crossing or refuge on a road of a certain classification. Where possible, roads have been classified based on Annual Average Daily Traffic (AADT) counts, otherwise a classification has been chosen from observation. The classifications are as follows
 

local	Local road	AADT <1000 vehicles per day
col.	Collector road	AADT < 3000 vehicles per day
dist.	Distributor road	AADT > 3000 vehicles per day
8. “Extend existing paths” e.g. a new path at the extremity of the existing path network  
 “Improve existing paths” e.g. widening of a path or installation of a kerb ramp  
 “Linking existing paths” e.g. a new path within the existing network that completes a single continuous path by joining two previously unconnected paths
9. Works are considered to serve a bus stop, taxi rank and/or public toilet if they are within 200 m walking distance of that location (200 m adopted as it is one standard block length in central Casino).
10. Works are considered to serve a pedestrian collision location if they are within 100 m walking distance of that location, or 50 m if the works involve the provision/modification of kerb ramps. Multiple instances of pedestrian collisions are scored individually, e.g. if there have been three pedestrian collisions within 100 m walking distance of the proposed works, a score of three is assigned.
11. “Recreation” refers to a path in a location that is likely to be used for recreational walking and/or cycling, i.e. for fitness, relaxation and enjoyment.

12. "Other" is a measure used to allow scoring of uncommon works items that did not warrant a specific scoring criterion, such as
- removal of obstacles or inappropriate facilities (15 points);
  - multiple anecdotal reports of "near misses" at locations of high pedestrian traffic volume or sensitive pedestrian traffic such as elderly or young (20 points);
  - provision of lighting for enhanced security (20 points); and
  - works originally identified in a locality plan or the Transport Plan (10 points).

Application of the weighting mechanism outlined above, and the unit cost estimates presented in **Appendix C**, resulted in the prioritisation of works as shown in **Table D1** in **Appendix D**. The tables showing the benefit scoring and integration of cost estimates is provided in **Table D2** in **Appendix D**.

It is important to note that the prioritisation considers works within all the settlements together and provides no distinction or 'weighting' between settlements, for instance between Casino and the lower river settlements.

For the purposes of preparing a preliminary 10 year works program it has been assumed that \$50,000 will be allocated annually for the delivery of PAMP works items. Thus, once the list of works items was prioritised the determination of the year of the delivery for each works item was simply based on the cumulative sum in increments of \$50,000.

While this prioritisation and annual programming of works has been done for the current PAMP, reference should be made to **Section 3.4.1** which briefly discusses the potential for the ranking to be reviewed in future by means of a 'live' works prioritisation spreadsheet tool. In addition to a review of the ranking, there may be a need to 'manually' adjust the order in which works are delivered on the basis of considerations outside of the scope of the PAMP.

### 3.4.1 'Live' Works Prioritisation Spreadsheet Tool

For the purposes of finalising the PAMP, it was necessary to conduct an initial prioritisation by establishing the cost estimate and benefit score of each works item as presented in **Table D1** in **Appendix D**. However, a 'live' costing, (benefit) scoring and ranking spreadsheet tool has been developed to allow Council to respond and adapt to changed conditions while maintaining a strategic approach. Such changes may include:

- Changes in or an improved understanding of the community's needs;
- Identification of new works;
- A reconsideration of the relative importance of benefit measures (i.e. weightings)
- Alterations to the Pedestrian Network Hierarchy
- Relocation of key destinations and origins; and/or
- A review of unit cost estimates.

Thus, the PAMP is not limited by being a *final* ranking of works setting the allocation of resources, but rather it provides a framework and a tool by which the allocation of resources can remain strategic in a changing environment.

## 3.5 Opportunities for Implementation of Works

This PAMP identifies works that should be implemented in Casino, Evans Head, Broadwater, Woodburn and Coraki to ensure a continuous, safe and equitable pedestrian access network is provided for residents of those major settlements.

Generally, funding the implementation of the PAMP comes from the RTA and Council. It is RTA policy that where a road is owned by the State Government, it will pay 100% of the construction cost of any road crossing

facilities. Where the road is a regional or local road, the RTA will pay 50% of the cost any road crossing facilities and kerb ramps (RTA, 2002). Generally, the remaining sum required to be paid must come from Council. This section of the PAMP investigates ways that the planning process can be utilised to secure funds for PAMP projects.

### 3.5.1 Overview of Existing requirements

#### 3.5.1.1 Environmental Planning and Assessment Act 1979 (the Act)

##### Section 93F Voluntary Planning Agreements

Under Section 93F of the Act, a person e.g. a land owner or developer, may elect to enter into a voluntary planning agreement with Council, under which the proponent of a development application elects to dedicate land, make a monetary contribution or provide an item of material public benefit (or a combination of them) to be used for a public purpose. This planning agreement would exist in lieu of the standard developer contribution system, set out under Section 94 of the Act (discussed below), though only with the consent authority's agreement.

The infrastructure upgrades identified in the PAMP would be considered to be "items of material public benefit...to be used for a public purpose" under Section 93F of the Act. As such, if a developer did not wish to provide a monetary contribution to Council under Section 94, that developer could elect to carry out the construction of items in the PAMP.

##### Section 94 Contribution towards provision or improvement of amenities or services

Section 94 of the Act provides that if Council is satisfied that a development will create additional demand for public amenities or public services, Council can set as a condition of approval, the requirement to dedicate land free of cost or make a monetary contribution to Council, as set out under any applicable contributions plan. In this instance, Richmond Valley Council does not have a Section 94 Contributions Plan and therefore cannot collect contributions under Section 94 of the Act. Rather, it has a Section 94A Contributions Plan which is discussed below.

##### Section 94A Fixed development consent levies

Under Section 94A of the Act, Council may impose a condition of development consent requiring that the proponent of a development application pay a levy to Council that is calculated as a percentage of the development cost as set out in an adopted Section 94A Contributions Plan. Under Section 94A, there is no requirement for Council to satisfy itself that the development has generated additional demand for public amenities or services.

Richmond Valley Council adopted a Section 94A Contributions Plan in June 2010. That Contributions Plan sets out levies that are based on a fixed rate percentage of the proposed cost of development.

**Table 3.2 Richmond Valley Council Section 94A Contributions Rates**

<b>Proposed Cost of Development</b>	<b>Levy (%)</b>
Up to \$100,000	Nil
\$100,001 - \$200,000	0.5%
More than \$200,000	1%

It is a requirement of the Act that a Section 94A Contributions Plan contains a schedule of works that Council intends to fund using collected contributions. The schedule should specify only those works that can feasibly be completed within the life of the Section 94A Contributions Plan, which is around five years. The schedule of works in Council's Section 94A plan is reproduced in 0.

**Table 3.3 Richmond Valley Council Section 94A Plan Schedule of Works**

<b>Public Facilities</b>	<b>Estimated Costs</b>	<b>Priority</b>
<b>Casino</b>		
Casino Showground – Toilet Upgrade	\$20,000	1
Crawford Square – Toilet Upgrade	\$60,000	2
Queen Elizabeth Park – Upgrades (Stage 1)	\$100,000	7
Crawford Square – Regional Park Development	\$150,000	10
Footpath/ Bikeway program – Hartley Street through Queen Elizabeth Park and over Richmond River to Hickey Street (total distance 600 m)	\$150,000	11
Colley Park Upgrade Stage 1	\$20,000	13
Car Parking – Little Walker Street, Simpson Parade and El Gronda Upgrade (Stage 1)	\$300,000	14
<b>Evans Head</b>		
Stan Payne Oval – Amenities Block Upgrade	\$20,000	3
Footpath/ Bikeway Program – Park Street/ Oak Street to Stan Payne Oval (total distance 650 m)	\$170,000	8
Car Parking – Oak Lane, Park Street and Woodburn Street upgrades (Stage 1)	\$300,000	12
<b>Woodburn</b>		
Woodburn riverside Park – Riverfront Upgrade (Stage 1)	\$60,000	4
<b>Coraki</b>		
Windsor Park – Multipurpose surface for hockey/ tennis	\$60,000	5
Coraki Riverside Park – Foreshore Improvements (Stage 1)	\$60,000	9
<b>Rappville</b>		
Rappville Hall – Hall Upgrade	\$40,000	6
<b>Throughout the Local Government Area</b>		
Road Maintenance	\$50,000	Throughout the life of the plan

Of the items in the Section 94A Plan Schedule of Works, only the “Footpath / bikeway program – Hartley Street through Queen Elizabeth Park and over Richmond River to Hickey Street” is also identified in this PAMP (works item C61). This item is identified as ‘C63 TP’ (with a small portion of ‘C62’) and has been ranked as 56 out of 64 works items, based on a cost estimate of \$180,000. The Contributions Plan places the item at priority 11 (out of 15 items) and estimates that \$150,000 will be required to complete the work.

As Council’s Section 94A Contributions Plan includes item C61 of the PAMP, there is the potential that those works could be funded by developer contributions earlier than what is scheduled in the PAMP.

### 3.5.2 Implementation Through Environmental Planning Instruments

Richmond Valley Council currently has three adopted Local Environmental Plans (LEPs). They are:

- Casino LEP 1992;
- Copmanhurst LEP 1990; and
- Richmond River LEP 1992.

In the latter part of 2011, it is expected that RVC will have a new comprehensive LEP which covers the entire LGA. The current LEPs will be repealed.

The current LEPs, as well as the draft Richmond Valley LEP 2010, do not contain any detailed requirements that would assist with the implementation of the PAMP. This is consistent with LEPs throughout the state. And, based on the current template for local environmental plans in NSW, it is not likely that it would be permitted to insert any clause relating to the PAMP.

Richmond Valley Council has the following Development Control Plans (DCPs) that are potentially relevant to this PAMP:

- Casino DCP 1;
- Copmanhurst DCP 4 Engineering Standards;
- Richmond River DCP 3 (applies to 2(v) Village Zones except for Evans Head);
- Richmond River DCP 7 Bed and Breakfast Establishments;
- Richmond River DCP 8 Development Standards;
- Richmond Valley DCP 10 Evans Head; and
- Richmond Valley DCP 12 Rural Residential Subdivision.

Again, Richmond Valley will, within the next six months, have a new DCP that applies to the entire LGA. The above listed DCPs will be repealed. A draft of the new DCP is not available, but based on GeoLINK's discussion with RVC (pers. com. Craig Rideout, 21 June 2011) the new DCP will be a combination of relevant clauses taken from the existing DCPs, plus some new information. However, the new DCP will not contain any large new chapters and will generally not contain provisions that do not exist in the current DCPs.

Regarding the existing DCPs, roadways are discussed in broad terms, for example, the Richmond River DCP 12 identifies where road upgrades are required. None of these DCPs provides specific detail where a pedestrian pathway is required or desired, or what standard pathways should be constructed to. As such, when developing land in the Richmond Valley LGA, whether or not a footpath is incorporated into the design of a development would generally be ascertained an engineer, who would be basing their decision on the provisions of the Northern Rivers Local Government Design Manual.

It is possible to identify pedestrian or shared pathways on a master plan for a particular area, which is then adopted as a DCP. This has recently been done by Byron Shire Council, in the Bangalow Urban Release Areas DCP. It is possible that RVC could do a similar thing for certain areas within the LGA.

### **3.5.3 Implementation Through Development Consents**

Another option for implementing PAMP items is to, where reasonable, set as a condition of development consent the requirement to construct an item (or part of an item). The key to this option is ensuring that there is a nexus between the development and the PAMP item.

Section 80A of the *Environmental Planning and Assessment Act 1979* sets out in general terms the types of conditions that can be imposed. Conditions can do various things, including specifying an express outcome or objective that the development must achieve. For instance, a condition on a development consent for a shopping complex could express that the development must achieve pedestrian connectivity to the neighbouring residential area by constructing a shared path.

In order for the condition to be valid, it must:

- be imposed for a planning purpose;
- be imposed for an environmental purpose;
- fairly and reasonably relate to the development for which permission is given; and
- be reasonable – that is, be a condition that a reasonable local authority, properly advised, might impose.



As such, if RVC were to set as a condition of approval that a PAMP item be constructed, Council would have to be confident that the development fairly and reasonably related to the PAMP item and therefore the condition could validly be applied.

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# References

- Austrroads (2009), *Guide to Road Design Part 6A: Pedestrian and Cyclist Paths*, Austrroads, Sydney
- Austrroads (2009), *Guide to Road Design Part 6B: Roadside Environment*, Austrroads, Sydney
- Ballina Shire Council (BSC) (2004), *Ballina Shire Council Pedestrian Access and Mobility Plan*, accessed 10 January 2011 via [http://www.ballina.nsw.gov.au/cp\\_themes/default/page.asp?p=DOC-EQG-67-87-54&c=388](http://www.ballina.nsw.gov.au/cp_themes/default/page.asp?p=DOC-EQG-67-87-54&c=388)
- GHD (2008), *Richmond Valley Council Local Transport Plan*, prepared for Richmond Valley Council, GHD, Ballina
- NSW Roads and Traffic Authority (RTA) (2002), *How to Prepare a Pedestrian Access and Mobility Plan*, RTA, Sydney
- NSW Roads and Traffic Authority (RTA) (2011), *RTA Australian Standard Supplement Australian Standard – AS1742 Manual of uniform traffic control devices parts 1-15*, RTA, Sydney
- Richmond Valley Council (RVC) (2011), *Richmond Valley Council Transport Asset Management Plan*, accessed 10 January 2011, via <http://www.richmondvalley.nsw.gov.au/content/Document/YourCouncil/PublicInformation/AppendixAAssetManagementPlanTransportVersion1.04Adopted15March2011.pdf>
- Richmond Valley Council (RVC) (2010), *Draft Richmond Valley Council Community Strategic Plan*, accessed 11 November 2010, via [http://www.richmondvalley.nsw.gov.au/page/reports/Community\\_Strategic\\_Plan/](http://www.richmondvalley.nsw.gov.au/page/reports/Community_Strategic_Plan/)
- Richmond Valley Council (RVC) (2009), *Building on What We Have – A Facility Needs Review*, accessed 14 March 2011 via [http://www.richmondvalley.nsw.gov.au/page/reports/Facilities\\_Needs\\_Review](http://www.richmondvalley.nsw.gov.au/page/reports/Facilities_Needs_Review)
- Richmond Valley Council (RVC) (2009a), *Community Satisfaction Survey*, accessed 11 November 2010, via [http://www.richmondvalley.nsw.gov.au/page/reports/Community\\_Satisfaction\\_Survey/](http://www.richmondvalley.nsw.gov.au/page/reports/Community_Satisfaction_Survey/)
- Richmond Valley Council (RVC) (2008), *Locality Plans*, accessed 10 January 2011 via [http://www.richmondvalley.nsw.gov.au/page/reports/Locality\\_Plans](http://www.richmondvalley.nsw.gov.au/page/reports/Locality_Plans)
- Richmond Valley Council (RVC) (2006), *Evans Head Urban Land Release Strategy*, accessed 10 January 2011 via [http://www.richmondvalley.nsw.gov.au/page/reports/Richmond\\_Valley/EH\\_Urban\\_Settlement](http://www.richmondvalley.nsw.gov.au/page/reports/Richmond_Valley/EH_Urban_Settlement)
- Richmond Valley Council (RVC) (2005), *Casino Urban Land Release Strategy*, accessed 10 January 2011 via [http://www.richmondvalley.nsw.gov.au/page/reports/Richmond\\_Valley/Casino\\_Urban\\_Sment\\_Strategy](http://www.richmondvalley.nsw.gov.au/page/reports/Richmond_Valley/Casino_Urban_Sment_Strategy)
- Standards Australia (2009), *Australian Standard 1742.10-2009 Manual of uniform traffic control devices - Pedestrian control and protection*, Standards Australia, Sydney

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# Appendix A

## Survey Results

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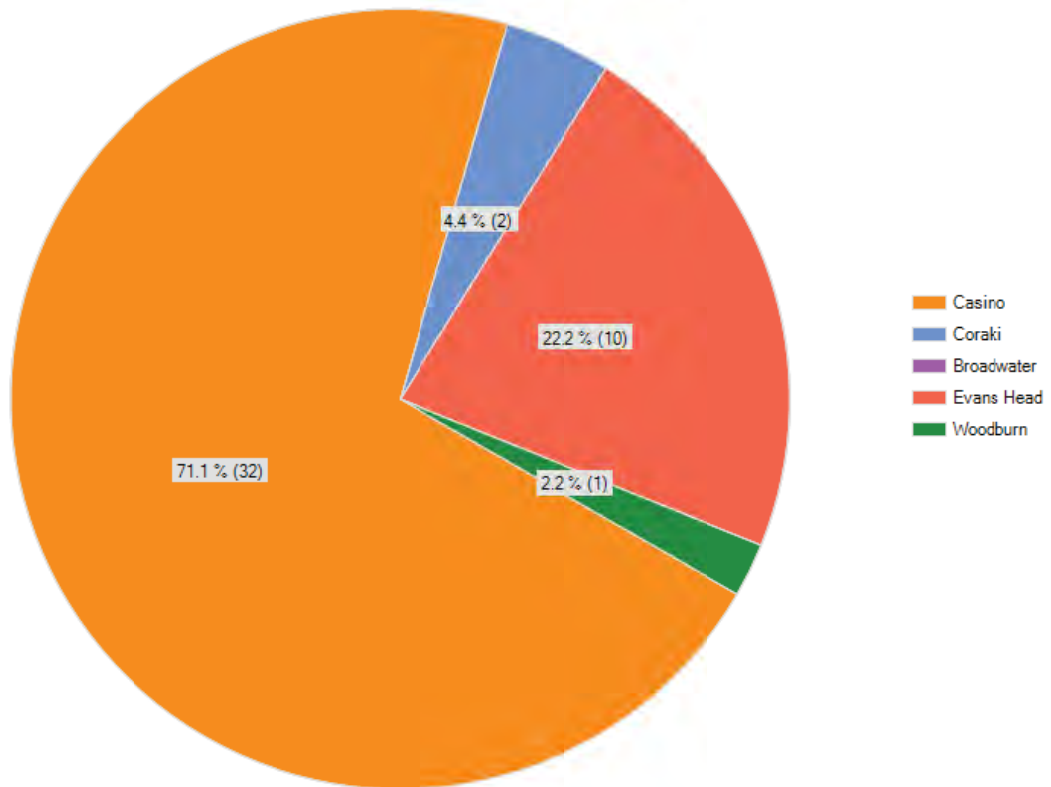


# Richmond Valley Council – Pedestrian Access and Mobility Plan

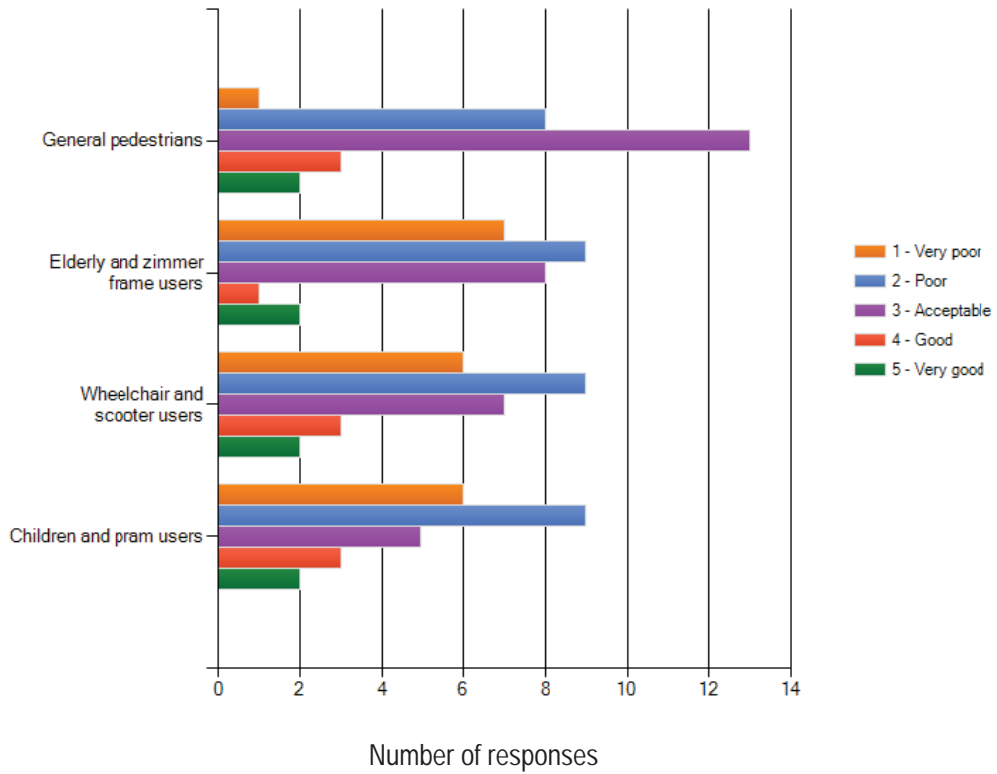
## On-line Survey Results – Community Survey

Note that there were no responses for Broadwater

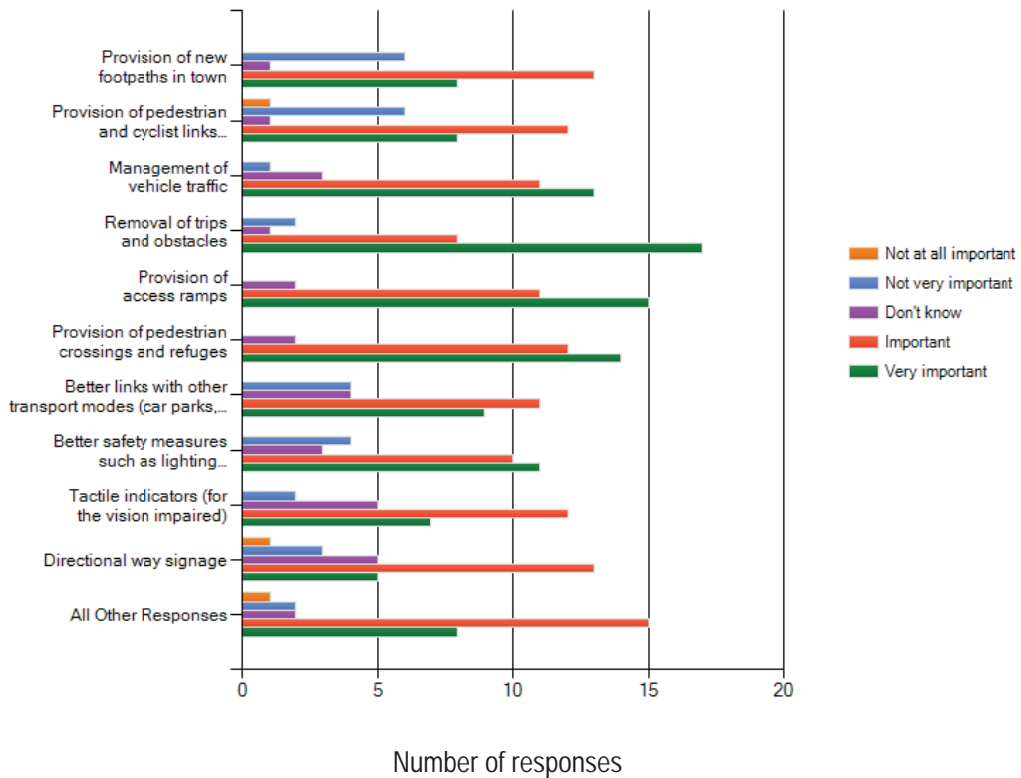
### About which town would you like to make comments?



**Please rank the quality of existing pedestrian facilities in CASINO for the following groups.**



**Please rank how important you feel the following items are in relation to pedestrian access and mobility in CASINO.**



**Do you have any further comments regarding the pedestrian facilities in CASINO.**

All pedestrian crossings need to have less foliage in order to increase visibility, particularly at night. Especially near Cecil Hotel and South Casino CBD crossings. Lighting is less than adequate in these areas, as is near Catholic Church crossing in Centre Street. Dim Yellow Lighting presently there is not effective, often can not see those wearing dark clothing. This is even worse during wet weather. Flashing warning lights and better signage would be good for South Casino CBD crossing as often cars, especially those not familiar with location of crossing, often turn into Summerland way from Bruxner Highway, come through roundabout or come over bridge oblivious to the fact that they need to be prepared to stop if a pedestrian steps out on to crossing. I have also experienced several near misses in regard to being rear-ended when I have had to slow or stop in a cue of traffic in order for someone to use South Casino CBD crossing. With an aging population located within the South Casino area this should be one of the priorities from this exercise, as the number of wheelie walkers and motorised scooters is on the increase. Reverse parking within close proximity to intersection of Summerland Way and Bruxner Highway on western side of road, (outside fruitshop, vacant shop and Meltdown Cafe) needs to be reviewed. Lighting at intersection of Bruxner Highway and Sextonville Road is needed to alert drivers to intersection. Lighting is also needed on the corner of Sextonville Road and Lakeside Drive to show intersection at night, would assist emergency services. Lighting along bikeway to Gays Hill is also needed.

Great to see some vision as there simply isn't enough. Furniture whilst important, I worry vandals may ruin. From my perspective the more cycle ways the better. Maybe assisting people to get motivated and ride and walk. Current cycle/walkways are ordinary bumpy and the grass not maintained as it is in Evans, not sure why as it all comes under the same council. I thoroughly enjoy going for a run at Evans, nice wide paths for all to share and apparatus to exercise on whilst taking in the nice views. Casino has lovely country views if you can see it for the long paspalum grass rarely mown!! Maybe a cycle track by the river would have been too hard I don't know. Cycleways and pathways linking towns is a vision I to witness before I'm too old to enjoy. Well done, please get it happening, life is short!

Better linkage for cycleways would be great. What we have is good but some improvements could be great. Particularly I would love to see a cycleway through QE Park linking the end of the one South of QE park to Johnston St. This would require Aboriginal Consultation however.

Localise all transport into town and provide public connection (cycling, bus, pedestrian) from outlying suburbs into town.

As a mother pushing a pram I have found that there are lots of trip hazards around town. Having to walk half way down the street just to get to a spot where I can cross with the pram is inconvenient as with the new street work, it isn't easy to manoeuvre a pram across the street except at the crossing. At the end of the street you can't get up & down the gutter. Nose in parking makes it difficult to get a pram out of the car. I would feel safer putting the pram on the side walk than on the road. The width of the parks is not nearly wide enough to get a baby in & out of the car.

Barker & Walker St car parks much too small. This creates problems getting babies, small children and elderly in and out of the parked cars, especially with prams and wheelie walkers. (Hence my reason in question 1. very poor: elderly/children)

Footpaths required in many residential streets (that are not just bits of grass that homeowners must mow) and must be wide enough for two mobility scooters to pass each other.

Lots more thought should have been given to the casino CBD upgrade

I have indicated Very Poor - this is primarily due to the location of the pedestrian crossings. In the CBD they are in good locations. Highly visible from both directions. The following pedestrian crossings are in a dangerous location and significantly impact traffic flow and the risk of a motor vehicle accident or a pedestrian being hit is high. Pedestrian Crossing on Centre Street from Cecil Hotel. Traffic backs up on the south bound lane if someone is crossing. Visibility is poor from a driver's perspective and it is not uncommon to see drivers braking hard to avoid hitting a pedestrian on that crossing. It needs to be moved. Pedestrian Crossing on Barker Street from Cecil Hotel. Again, it causes traffic to back up at peak periods of the day. The lighting is not adequate of an evening on either crossings. Vehicles with a clear way onto the roundabout to turn west into Barker of Centre are confronted with pedestrians and again need to brake hard, - mainly young children - who shoot out onto the crossing on their bikes or young mothers pushing prams in front of them. Elderly people also use this and the before mentioned pedestrian crossings on a regular basis. Pedestrian Crossing on Canterbury Street from McDonalds to Catholic Church. There is high risk of an accident occurring here. Northbound traffic turning west into Canterbury Street have to stop for pedestrians right on the corner and can block traffic. Southbound traffic from the turning lane, west into Canterbury are looking for northbound traffic as their view is significantly obscured by vehicles waiting to turn east into Canterbury in the other turning lane - this is because of poor design by the RTA of that particular intersection. I have witnessed many times, and experienced it myself, where a car has turned west across Centre Street only to have to stop mid lane to wait for pedestrians. School children in particular or church goers. This can bring traffic to a stand still and has a high risk of causing a motor vehicle accident or a pedestrian being knocked down. The pedestrian crossing needs to be moved further west up Canterbury Street, near the gate of McDonalds to allow high visibility of pedestrians. Pedestrian crossing on Barker Street, outside Westlawn. Again, it's right there on the roundabout. Traffic backs up and becomes extremely congested. While visibility is somewhat better, it is still dangerous. It should be located further up towards the Express Examiner Office. Pedestrian crossing on Walker Street and Canterbury Streets - Freedom Hairdressing. Too close to the roundabouts. Causes congestion with traffic. Dangerous for pedestrians. Pedestrian crossings on Barker Street from Westpac Bank. Too close to roundabout. Dangerous for pedestrians. Can cause congestion although not as bad as other places.

#### NEW STREETSCAPE PROVIDES BLIND SPOTS AND CROSSINGS FILL WITH WATER AFTER RAIN.

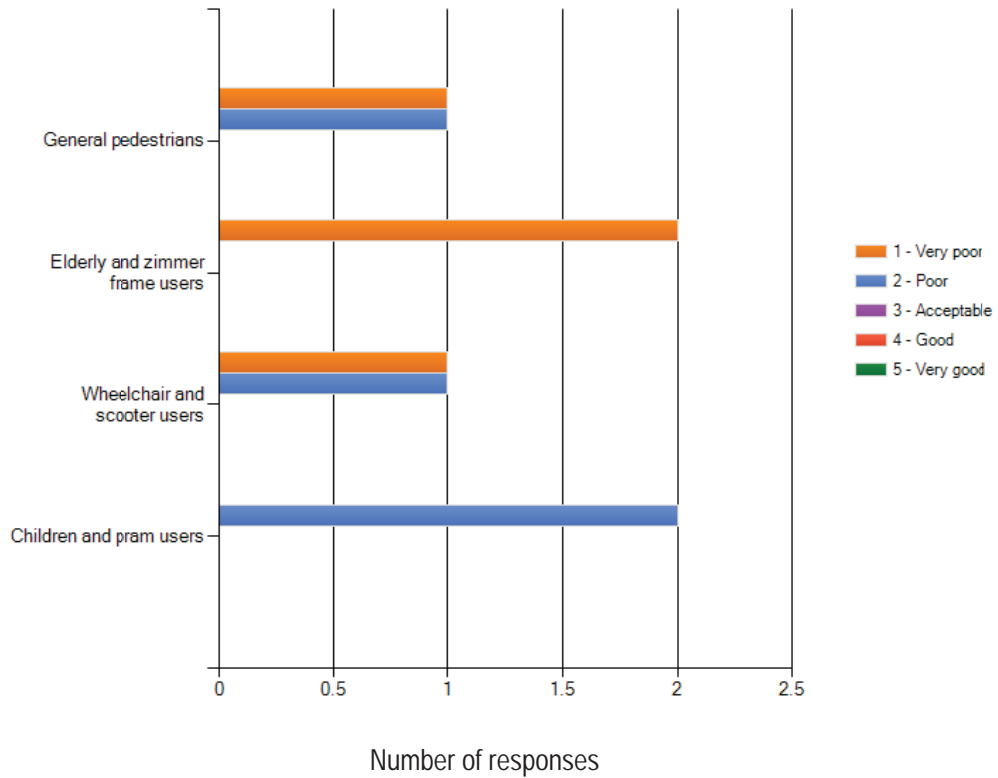
Better facilities for those with kids/prams. ie wider car spaces or able to use existing disabled car spaces as they appear to be a bit larger than normal spaces.

hedges and shrubs should not be growing near pedestrian crossings, most gutters from footpath to road crossings are too steep.

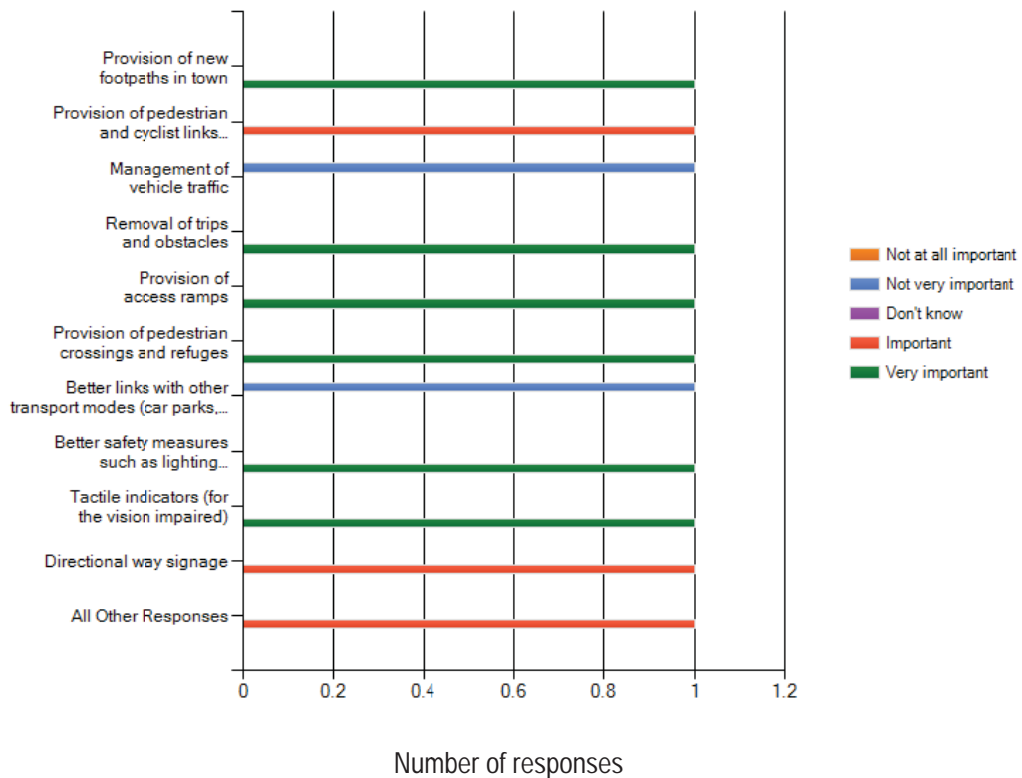
It is a priority that all possible avenues of funding are accessed before resorting to general rates are to be considered as money is tight [eg call by council for rate variation]

Yes, My further comments are about the existing footpaths outside the main streets of Casino. Some parts of town are still waiting for footpaths to be put down urban streets after 40 - 50 years. Surely Council, with its ownership of a cement factory can build more footpaths in urban residential streets? Please don't chop anymore trees down as they provide a welcome shady respite for all types of pedestrians.

**Please rank the quality of existing pedestrian facilities in CORAKI for the following groups.**



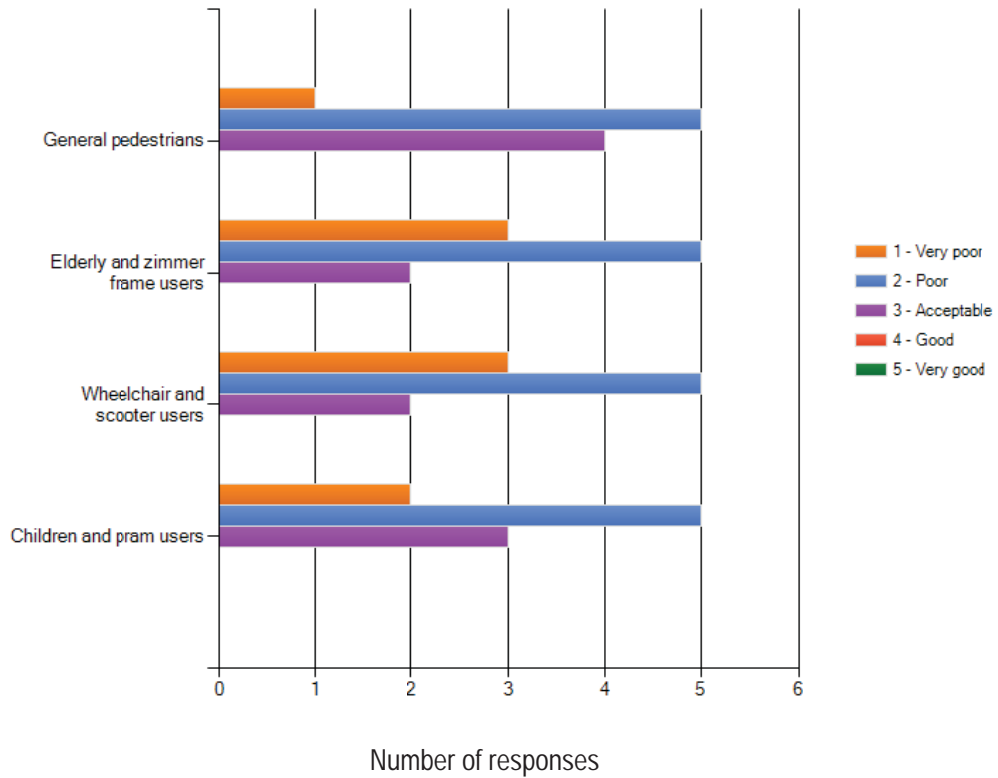
**Please rank how important you feel the following items are in relation to pedestrian access and mobility in CORAKI.**



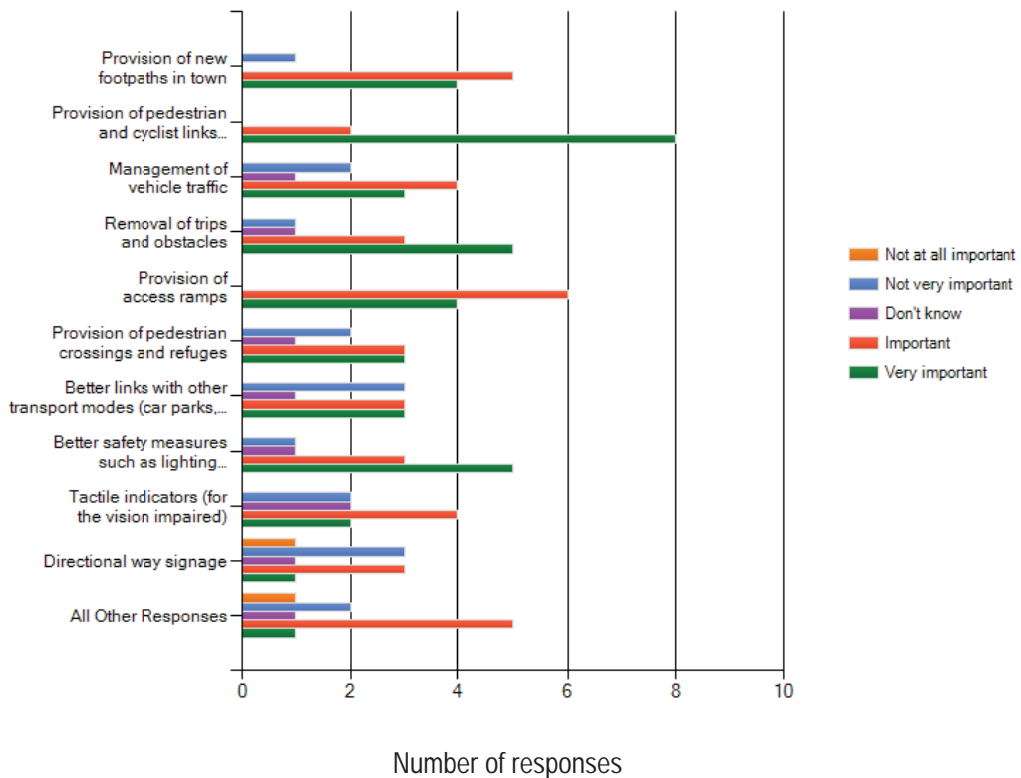
**Do you have any further comments regarding the pedestrian facilities in CORAKI.**

NOT ENOUGH FOOTPATHS IN CORAKI. In many cases pedestrians and certainly scooter users must use the roadways to access the shopping area. Only rarely are the grass verges suitable for able bodied pedestrians let alone disabled residents. I understand that the basis of the problem is lack of correct town drainage and lack of money. I have lived with a serious drainage problem along the Grenfell Street side of my house for the 22 years since moving here. I commend Council on all the beautification and restoration work carried out in Casino and Evans Head in recent times, however, the other towns should not be forgotten any longer. I believe if funding can be obtained for the above type of work then surely Govt. funding can be sought, and granted, to remediate drainage which is not only dangerous to pedestrians it is, in a number of places in Coraki, a health hazard. Perhaps, as Consultants of this Survey, the above should be considered.

**Please rank the quality of existing pedestrian facilities in EVANS HEAD for the following groups.**



**Please rank how important you feel the following items are in relation to pedestrian access and mobility in EVANS HEAD.**



**Do you have any further comments regarding the pedestrian facilities in EVANS HEAD.**

They are inadequate and need better upkeep of what you already have

The existing pedestrian crossing is very poorly sited. Traffic coming out of Oak Street and turning left does not often check the crossing for pedestrians because they are too busy looking to the right for oncoming traffic. Need a crossing further up Woodburn Road towards the IGA and Chill Cafe.

Some existing foot paths are very poor and are under water when it rains.

Further pathways along Woodburn St would be great. Recent new pathways have been well received in Park St! Shared pathway at least from Evans to the retirement village on Woodburn Rd or preferably all the way to Woodburn would be fantastic and would improve safety particularly for elderly people that ride mobility scooters in along woodburn road.

We need a bike track from Evans head to woodburn

There are a few footpaths in town but they don't link together to get to town for instance or to the oval. The footpaths run mostly north to south and there are no footpaths east-west. It would be great if there would be a footpath in Booyong St. That way from town you can get to the Beech but also to the Oval. Alternatively a footpath past the Bowling Club would be an option to link the footpaths together. There is hardly any seating in the shade once the sun is up in summer.

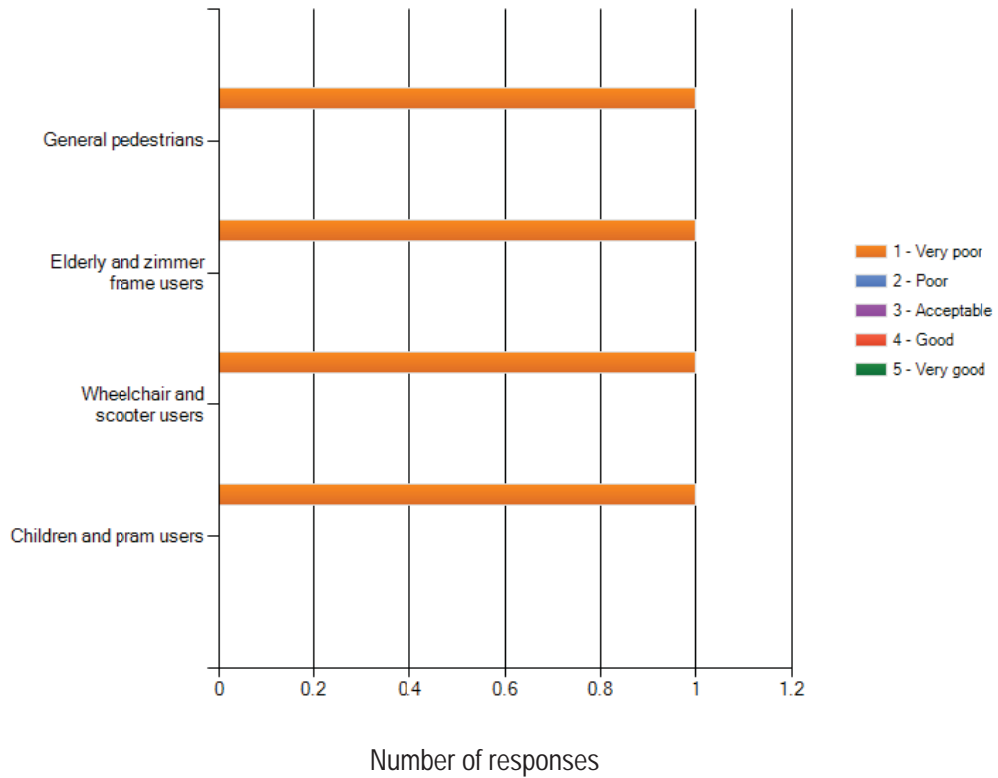
Establish more beach access points along Beech St. Get the mobility scooters off Woodburn - Evans Head Rd it is very dangerous.

The Older & Potential Footpaths need to be Wider for Pedestrians, Wheelchairs & Scooters. The Footpath from the Surf Shed to Existing Bikeway Footpath is Dangerous & needs upgrading. The Car Parking in Cashmore Street on the Southern Side Needs to be Lined. Also there Needs to be Centre line for Safety Purposes. Coming out of Cashmore Street into Woodburn Street is a Blind corner and the Gardens need to be Trimmed. The Booyong /Heath Intersection needs to be lined, as cars come around the corner too Quick & too Wide. It is a very busy Intersection.

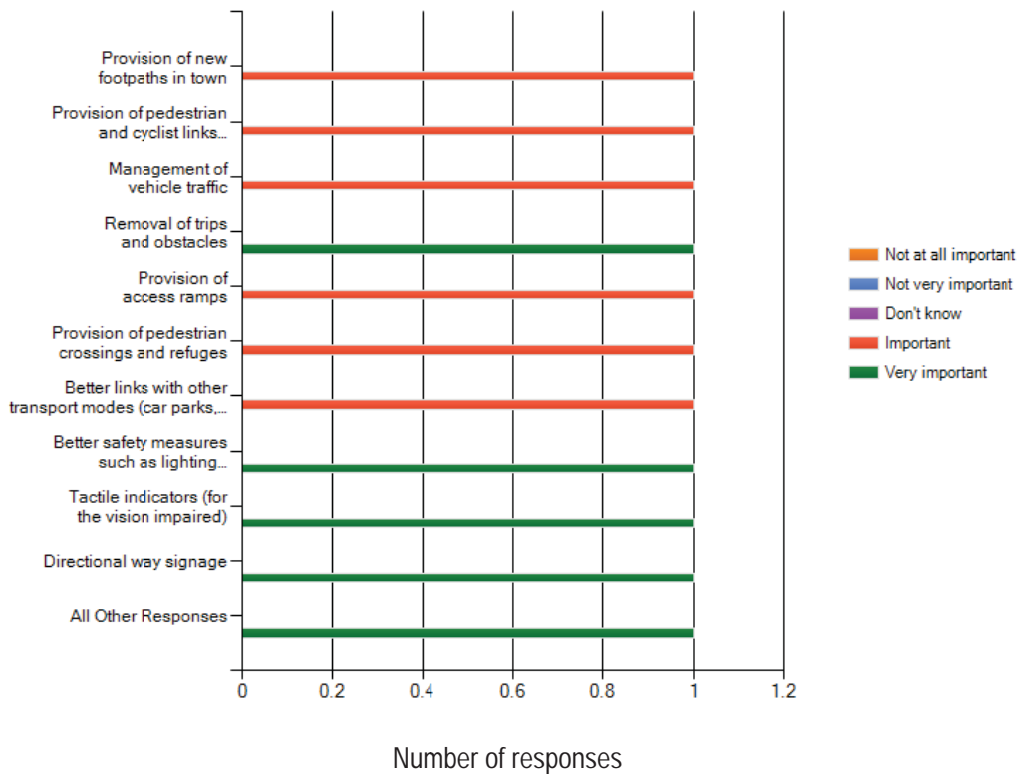
Footpaths need to be all one surface. Water from rain needs to be drained away from access ramps ie cashmore and woodburn st. uniform obstacle policy put in place, not let the rvc do what they like, ie seat near rvc chambers is within the guideline 1.8 m but they can leave it there because they are the rvc and they make the rules, whereas the traders of the shire can not use this zone, what about a fair and equal policy implementation regarding this issue?



**Please rank the quality of existing pedestrian facilities in WOODBURN for the following groups.**



**Please rank how important you feel the following items are in relation to pedestrian access and mobility in WOODBURN.**



**Do you have any further comments regarding the pedestrian facilities in WOODBURN.**

Why can't RVC keep the footpaths clean and debris free including overhead areas as it a ohs risk

**Would you like to make any further GENERAL comments regarding the pedestrian facilities in Broadwater, Casino, Coraki, Evans Head or Woodburn?**

DON'T BE FRIGHTENED TO TAKE A LEAF FROM OTHER COUNCILS EG. SUNSHINE COAST, BALLINA - SHARED CYCLETRACKS EVERYWHERE. BBQ'S AND PARKS FOR FAMILIES TO ENJOY.

The lack of cycleways, footpaths is very difficult for people who use mobility aids such as scooters, especially given that a fair percentage of them reside at Riverside Villasge on the Woodburn Road.

Greater use of walk ways and cycle ways is needed. Evans Head, Woodburn and Broadwater should all be linked by cycle ways. See the example set by Wollongong City Council in the 1980's.

Just that ALL should be treated equally. At the present time Evans Head appears to be exempt from Disability Access rules applied to footpaths. I have photographic proof that this is a fact. (Mrs) Norma Wise 15 Martin Street CORAKI 2471 ph: 02 66 832 641 E/m: norwiz@westnet.com.au

more cycling/walking paths between towns

Coraki is a nightmare to service because of the impacts of the river and floods. Woodburn and Evans Head should be linked by a cycleway. I believe that connection to Manifold Christian School should be considered (perhaps along the old Railway line or when Water and Sewer are connected to that area). I see no point in making pedestrian ways that are not shared at the moment. Carries Crossing at Johnston St would benefit many people.

Evans is by night way to dark to walk around. It creates an unsafe feeling when, for instance, walking back from touch footy, or going for a run at night time. It would be so good if the footpaths would have more lighting.

Plan for low carbon economy. Localise, walking, public transport, cycling.

I have made comments previously regarding the parking which does have an impact on pedestrians. I think the car spaces need to be widened even it means making a garden smaller or taking it out completely. It does look nice but when I haven't been able to get a park because there are no parks or people have parked either on the line or a little over and there is not enough room, I will go without or wait until I go to Lismore. I firmly believe in spending my money in Casino but at times I have taken the alternative as I know many other people have. I have never had an accident but recently while I was parked (within the lines) somewhere ran into me while they were reversing out, it was just under \$2000 worth of damage. Is it possible to have unbreakable mirrors installed somewhere to give better visibility of oncoming cars and pedestrians when reversing out of parks. If a hatchback is parked next to a 4 wheel drive, they have to reverse out blind and pedestrians are usually looking for oncoming cars not reversing cars.

council should choose a standard that is acceptable to standards & work to those standards for all areas

Would like to see something done about the amount of roller blades, bicycles , scooters etc that continue to cause havoc for pedestrians both young and elderley especially the older people who only have their scooters as a means of getting from A to B

For too long Evans Head has been the "I want" community getting a disproportionate amount of council funds. It is not on to subsidise the mobile home park on the Wooburn approach to town with a cycleway/golf path as they haven't maintained there. DA requirements for the provision of a bus for residents and other council areas should have priority!!

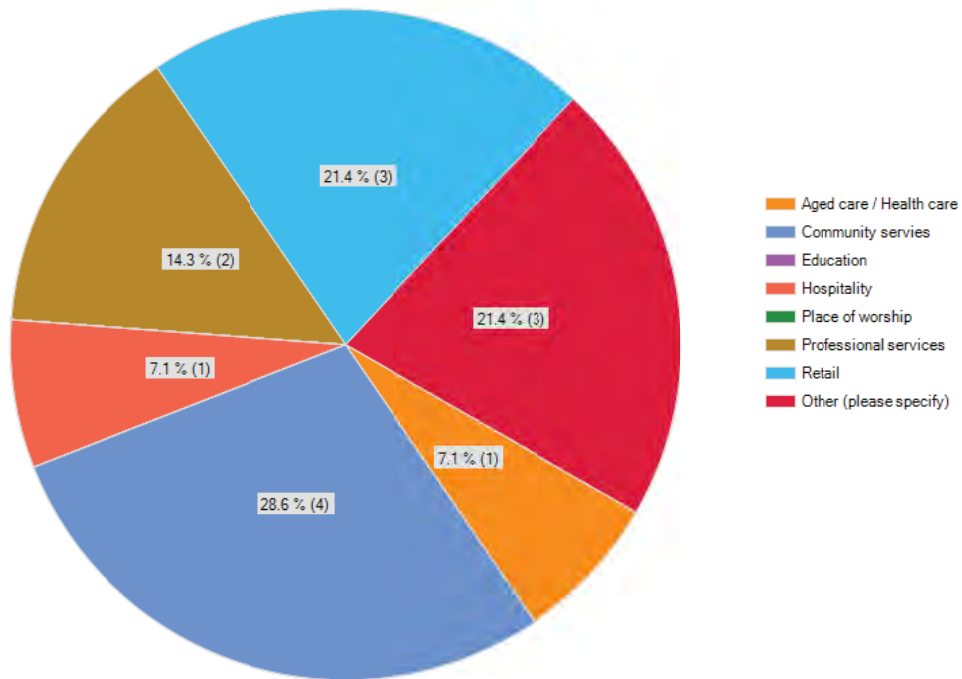
Just make a fair policy with the RVC listening to what the shire needs and doing it the right way, instead of their way.

Not all residents have the benefit of footpaths. The Australia Post deliveries outside my house has worn a groove into the grass with the cycle because there is no footpath. The liability of a pedestrian tripping on cement is just as likely as the liability for pedestrians traversing rough ground that has not been paved. Still council land, so same insurance may apply.

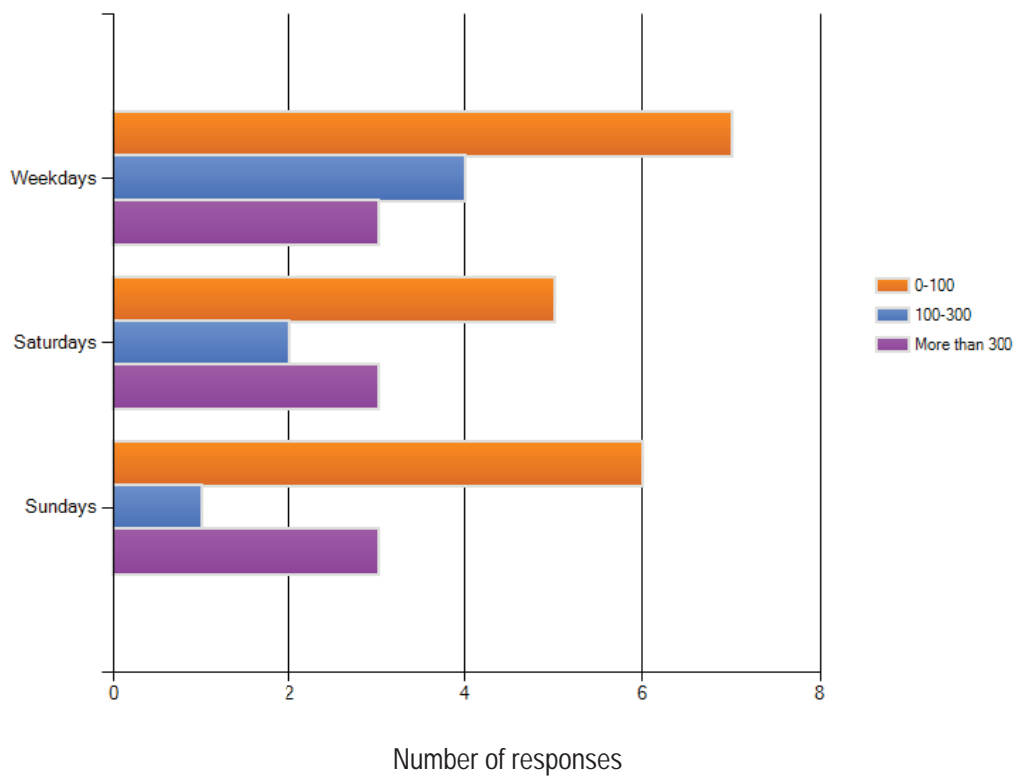
# Richmond Valley Council – Pedestrian Access and Mobility Plan

## On-line Survey Results – Business Survey

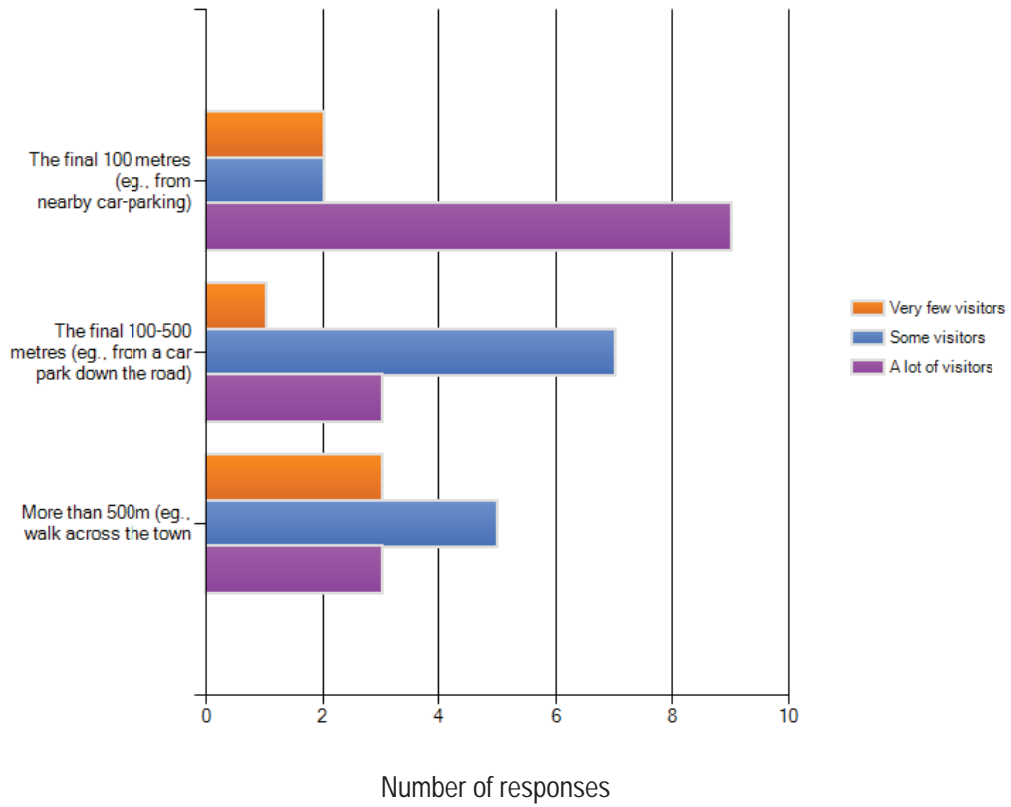
Under which of the following general categories does your business operate?



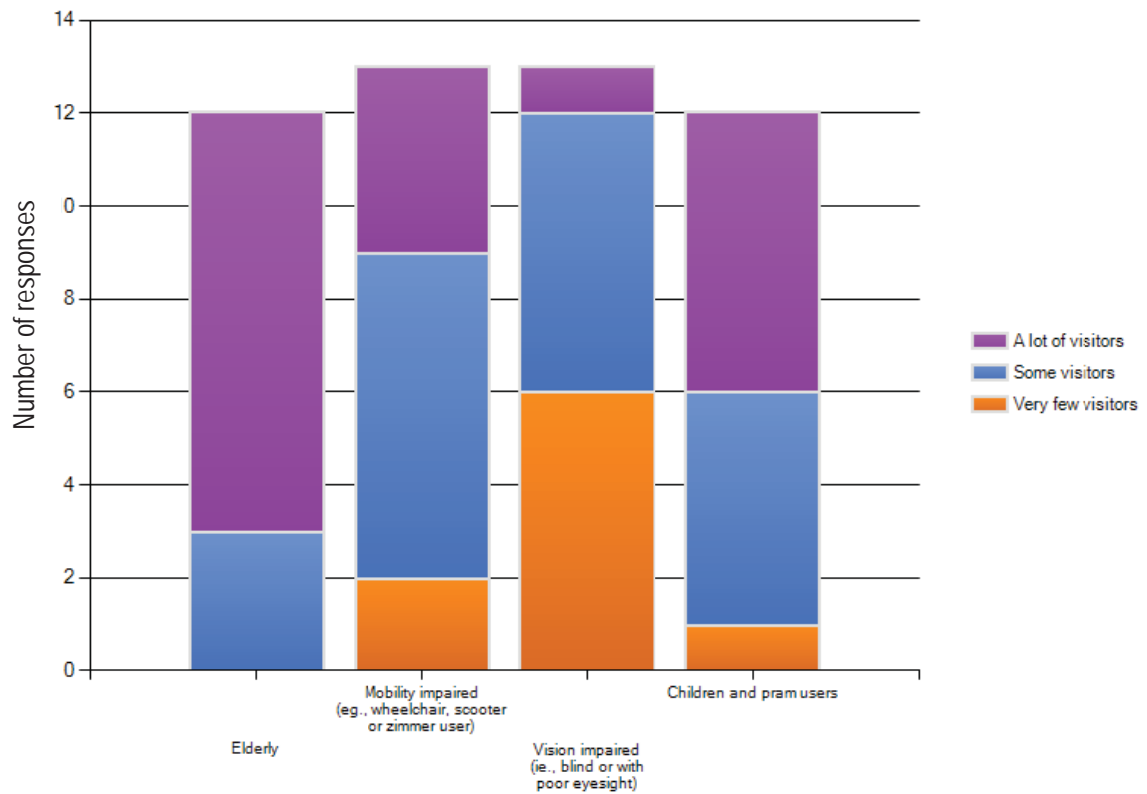
Approximately how many people would visit your premises on average?



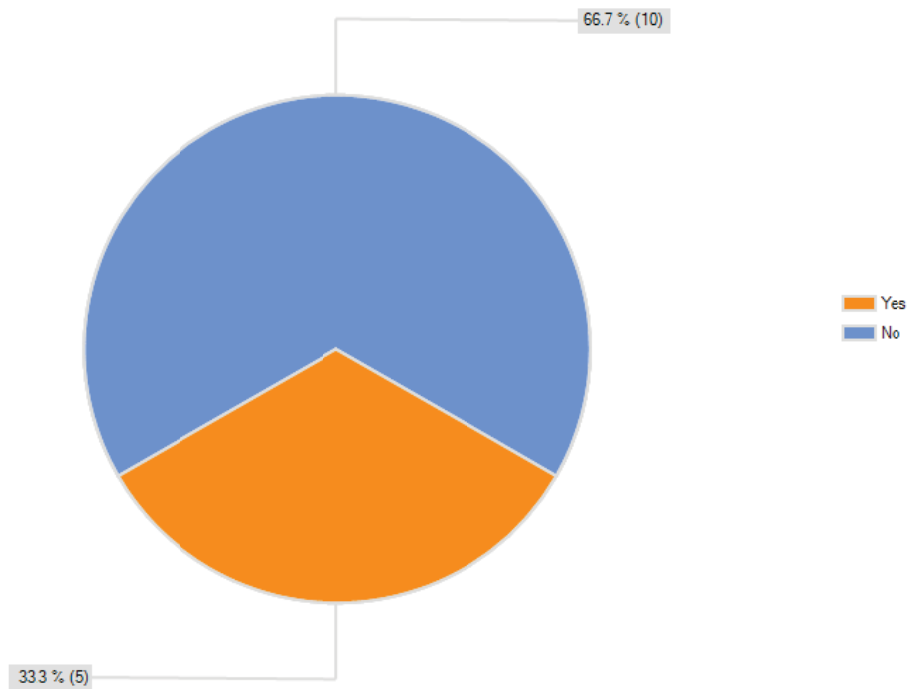
**How far would you estimate visitors walk to reach your premises?**



**What is the proportion of special-user groups visiting your premises?**



**Do you feel that pedestrian facilities around your premises are adequate?**



**What is your Business**

**How do you feel pedestrian facilities around your premises might be improved?**

Mid Richmond  
Neighbourhood Centre Inc

Including the MRNC as a community facility within the plan. The MRNC has 1000's of people access the Centre per annum and despite requests no signage has ever been erected to point out the location, no consultation has been held with staff or management regarding parking, disability access or access by families. The MRNC also encompasses a youth service and youth Cafe in Woodburn Street and this is not identified in any of the plans. Despite numerous requests the footpath upon Woodburn Street has remained dangerous and gravel has been placed as a short term remedy, the removal of hazardous vegetation (cocos palms) needs to be attended to, access for disabled young people has not been addressed and the MRNC has not been consulted. During 2010 1000's of young people accessed the youth service, as did Cafe users.

Chill at Evans and Out the  
Back Youth Service

The width of the path needs to be extended from Cashmore Street (IGA) to the end of Wattle street with a path all the way to the school as many of our customers/clients are school children aged from 5 to 18 years old. At present there is no access from the street with access for wheelchairs and other disabled persons (as many of our customers are, as we are a community cafe) Also for our business outdoor seating should be an option if the cemented area was to the footpath or beyond, as it is in Oak Street. Perhaps by being on the plan as a business would help as would Woodburn Street and its businesses, including the council offices, being acknowledged as part of the CBD.

Evans Head First National	<p>The natural place to cross the road in the main street is right in front of our business and we feel it needs a pedestrian crossing. I have had a look at the plan and i think there should be 2 new cpedestrain crossings formed in Evans Head. The first one should be in the middle of the main street and the second one should be at Cashmore st from the Bakery to the IGA car park. I feel we do not need another crossing at woodburn street from the butchers to the bakers as we already have the crossing near the council building. i feel a new crossing at the butchers to the bakers in woodburn street would affect traffic too much and the exisiting crossing in woodburn st is only a short distance away fro where the new one would go.</p>
Broadwater Sunrise Caravan Park	<p>I feel that the Road from the Pacific Hwy to the Broadwater Beach Road in the Broadwater National Park should have a pedestrian/cycle way built so that visitors can walk or ride a bike safely along this roadway.. At the moment there is no edge of the road where people can walk next to the roadway as it is often overgrown with grass and very uneven . It is dangerous, and as I often walk along this section I worry about my own safety and the safety for children who I have seen walking on the road in this section of roadway...Traffic often comes off the Pacific Hwy and speed on this section of roadway, even though it is a 50km/h speed zone. Many more people would ride bikes out to Broadwater Beach and use this facility if it was in place... Also the pedestrian walkway from Rileys Hill Road to the Broadwater Post Office needs to be built. The cycle/pedestrian track from the NRMA at Broadwater to the Broadwater Public School needs to be upgraded to a suitable surface.</p>
IGA Evans Head	<p>A lot of people including children, the elderly and people in scooters cross over Cashmore street which is so unsafe a crossing there would benefit a lot of people and visitors alike.</p>
Woodburn One Stop Shop	<p>Well at the moment there is no pedestrain facilites anywhere in woodburn, so any would be an improvement especially from the park to the shopping centre of the town.</p>
UnitingCare Casino Transport Team	<p>Pedestrian access is good and everything is now ramp accessible.</p>
ON-FOCUS INC- LINCS Day Program	<p>The Day Program not being directly in the CBD, most people accessing the premises are driven to the facility. Although clients, with mobility issues, who attend the day program do walk frequently around the neighbourhood and crossing roads can at times be difficult for some of our clients with mobility issues if there is not a safe gradient to and from ground level.</p>
The Whiddon Group casino	<p>the footpaths (concrete) need to be down both sides of the road and also continued around the corner to the hospital entrance.</p>
Dave Rogan saddlery	<p>Fix Convent parade both sides of Walker street, Alter the ramp access at beaurepairs as it is to steep should of been made the same as our side of Convent Parade. Remove the lips at the bottom of all ramp accesses as these tip wheelchairs and stollers</p>

IGA Evans Head

Pedestrian facilities can be improved by providing the town with a zebra crossing connecting the IGA Supermarket with the adjacent shops. This will make it safer for the residents of Evans Head to cross the road. At the present there is no safe crossing for pedestrians on this side of town, and there has been close calls of elderly and small children crossing the road from the bakery to the IGA and nearly getting hit by vehicles. I propose a crossing be erected on Cashmore street to prevent a fatality.

Rod N Reel Hotel

I think there needs to be a point where pedestrians are able to safely cross the highway.

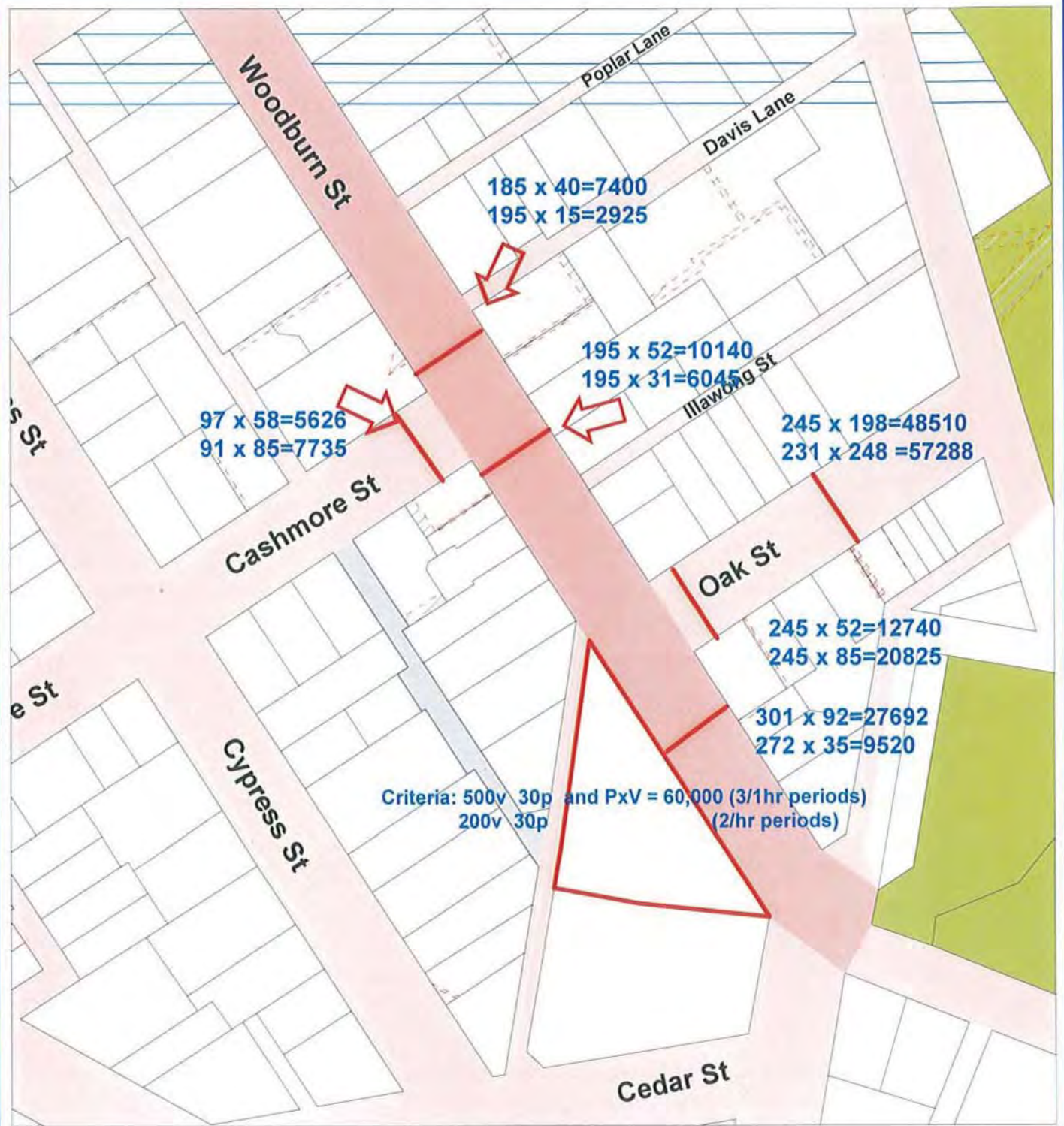




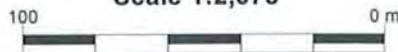
# Appendix B

## Evans Head Traffic Investigations Pedestrian Crossing Warrants

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Scale 1:2,073



Printed - 2/5/2011

LEGEND

- |                    |                  |
|--------------------|------------------|
| Subject Land       | Railway Corridor |
| Cadastral Boundary | Easement         |
| Parks / Reserves   | Main Roads       |
| River/Creek        | Sealed Road      |
| National park      | Unsealed Road    |
| State Forest       | Unformed Road    |
| LGA Boundary       |                  |

Oak Street Evans Head



Richmond Valley Council  
 Cnr Graham Pl & Walker St CASINO NSW 2470  
 Ph: (02) 6660 0300 Fax: (02) 6660 5198  
 Email: council@richmondvalley.nsw.gov.au



This map was produced on the GEOCENTRIC DATUM OF AUSTRALIA 1994 (GDA94), which has superseded the Australian Geographic Datum of 1984 (AGD66/84). Heights are referenced to the Australia Height Datum (AHD) heights. For most practical purposes GDA94 coordinates and satellite derived (GPS) coordinates based on the World Geodetic Datum 1984 (WGS84) are the same.

DISCLAIMER

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# Appendix C

## Unit Cost Estimates

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## RVC PAMP - Unit Costs

### New concrete footpath

	per m
Traffic control	\$2
Excavate 1.2m wide x 0.2m deep x \$15/m <sup>3</sup>	\$4
Supply and place pavement, 1.2m wide x 0.1m deep x \$120 /m <sup>3</sup> (incl. kerb ramps)	\$14
Supply and place reinforced concrete 1.2m wide x 0.1m deep x \$750 /m <sup>3</sup>	\$90
Tidy up	\$2
	<b>\$112</b>

### Widen existing footpath

	per m
Assume new footpath rates +20%, assume widening of 0.8 m	<b>\$90</b>

### Short length of new footpath (< 20 m length)

	per m
Assume new footpath +100%	<b>\$224</b>

### Concrete shared path

	per m
Traffic control	\$2
Excavate, 2m wide x 0.2m deep x \$15/m <sup>3</sup>	\$6
Supply and place pavement, 2m wide x 0.1m thick x \$120/m <sup>3</sup> (incl. kerb ramps)	\$24
Supply and place reinforced concrete 2m wide x 0.1m thick x \$750/m <sup>3</sup>	\$150
Tidy up	\$2
	<b>\$184</b>

### Asphalt shared path

	per m
Traffic control	\$2
Excavate, 2m wide x 0.1m deep x \$15/m <sup>3</sup>	\$3
Supply and place pavement, 2m wide x 0.1m thick x \$120/m <sup>3</sup>	\$24
Supply and place asphalt surface, 2m wide x \$30 /m <sup>2</sup>	\$60
	<b>\$89</b>

### Retrofit kerb ramp

	per item
Traffic control, 1 day	\$1,000
Saw cut, 1 man, 3 hrs, \$60 /hr man, \$30 /hr equipment	\$270
Remove concrete, 1 truck \$90 /hr and 1 excavator \$90 /hr, 1.5 hr	\$270
Supply and place concrete, 2m wide x 2m long x 0.1m thick x \$900 /m <sup>3</sup>	\$360 high rate due to low volumes
	<b>\$1,900</b>

### New pedestrian refuge

	per item
Traffic control, 2 days	\$2,000
Supply and place kerb, 18m x \$120 /m	\$2,160 high rate due to low volumes and traffic
Supply and place concrete, 11m <sup>2</sup> x 0.15m thick x \$1300 /m <sup>3</sup>	\$2,150 high rate due to low volumes and traffic
Supply and place signs, 2 signs, \$450 each	\$900
Supply and place rails, 2 rails, \$300 each	\$600
Road markings	\$500
	<b>\$8,310</b>

<b>Modify existing traffic island to provide pedestrian refuge</b>	<b>per item</b>
Traffic control, 2 days	\$2,000
Saw cut, 2 men, 2 hrs, \$60 /hr man, \$30 /hr equipment	\$360
Remove concrete, 1 truck \$90 /hr and 1 excavator \$90 /hr, 2 hr	\$360
Supply and place kerb, 5m x \$120 /m	\$600 high rate due to low volumes and traffic
Supply and place concrete, 2.5m wide x 2.5m long x 0.1m thick x \$1300 /m <sup>3</sup>	\$650 high rate due to low volumes and traffic
Supply and place rails, 2 rails, \$300 each	\$600
	<b>\$4,570</b>
<b>New pedestrian crossing</b>	<b>per item</b>
Traffic control, 1 day	\$1,000
Line marking	\$500
	<b>\$1,500</b>
<b>Remove pedestrian crossing</b>	<b>per item</b>
Remove pedestrian crossing	\$500
	<b>\$500</b>
<b>Remove pedestrian refuge</b>	<b>per item</b>
Traffic control, 1.5 day	\$1,500
Remove refuge, 3 men, 3 hrs, \$60 /hr man, \$30 /hr equipment	\$810
Remove concrete, 1 truck \$90 /hr and 1 excavator \$90 /hr, 2 hr	\$360
Patch bitumen, 15m <sup>2</sup> , \$30 /m <sup>2</sup>	\$450
	<b>\$3,120</b>
<b>Works item C13 + 50%</b>	<b>per item</b>
Saw cut, 2 men, 2 hrs, \$60 /hr man, \$30 /hr equipment	\$360
Remove concrete, 1 truck \$90 /hr and 1 excavator \$90 /hr, 2 hr	\$360
Replace concrete to suit bridge over drain, 9m <sup>2</sup> x 0.15m thick x \$1300 /m <sup>3</sup>	\$1,755
Supply pre-cast slab for bridge, 9m <sup>2</sup> x 0.12m thick x \$1300 /m <sup>3</sup>	\$1,405
Place slab, 1 truck \$90 /hr and 1 excavator \$90 /hr, 2 hr	\$360
Place slab, 2 men, 2 hrs, \$60 /hr man, \$30 /hr equipment	\$360
	<b>\$4,600</b>
<b>Provide disabled car parking space</b>	<b>per item</b>
Traffic control, 0.2 of a day	\$200
Supply and place signs, 2 signs, \$450 each	\$900
Line marking, including symbol	\$200
	<b>\$1,300</b>





# Appendix D

## Works Schedules

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Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year
C24	Modify severe change in grade	Barker St	Northern approach to mid-block pedestrian crossing (outside post office)	Crest may be necessary for control of drainage flows	275	\$540	\$2	\$540	2012-13
C45	(TP) Designate existing footpath as shared path	Centre St	Eastern side between Stapleton Ave and Hare St		0	\$600	\$4	\$1,140	2012-13
W1	Modify or replace existing tactile indicators to reduce slipperiness	Pacific Hwy	Existing crossing near information centre		0	\$1,000	\$5	\$2,140	2012-13
C19	Relocate existing pedestrian crossing	Canterbury St	West of Centre St (relocate further away from intersection)	Constrained by driveway entrance to McDonalds. Subject to meeting RTA warrant.	320	\$2,000	\$6	\$4,140	2012-13
C30	Provide disabled car parking space.	Canterbury St	Between Centre St and Walker St, outside Community Hall		0	\$1,300	\$7	\$5,440	2012-13
C33	Provide kerb ramp at taxi rank	Walker St	Near Barker St		0	\$1,900	\$7	\$7,340	2012-13
C40	Provide disabled parking space adjacent to existing ramp	Barker St	Northern side east of Walker St		0	\$1,300	\$8	\$8,640	2012-13
C34	Provide kerb ramp at taxi rank	Barker St	Near Post Office		0	\$1,900	\$9	\$10,540	2012-13
E15	Modify existing refuge to include pedestrian crossing.	Oak St	At existing pedestrian refuge	Provision of a new pedestrian crossing must meet RTA warrants. Investigations show that the warrant is almost met and a case may be made based on local circumstances. Consider integrating a speed bump.	170	\$1,500	\$9	\$12,040	2012-13
Ck6	Extend footpath to road surface	Adams St	Southern side at Parkes St (eastern side)		0	\$896	\$9	\$12,936	2012-13
Ck1	Provide disabled parking space adjacent to existing ramp outside medical centre	Richmond Terrace	Outside medical centre		0	\$1,300	\$12	\$14,236	2012-13
C28	Modify existing kerb ramp to ensure suitable change in grade	Walker St	Western side at Convent Pde (southern side)		0	\$1,900	\$13	\$16,136	2012-13

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
Ck2	Provide disabled parking space adjacent to existing ramp outside post office	Richmond Terrace	Outside post office		0	90	\$1,300	\$14	\$17,436	2012-13
W3	Modify existing kerb ramp to ensure suitable changes in grade	Pacific Hwy	Southern side at Duke St (western side)		0	130	\$1,900	\$15	\$19,336	2012-13
C36	Provide kerb ramp (x2)	Barker St	Northern side at Walker St (both sides)		0	245	\$3,800	\$16	\$23,136	2012-13
C37	Provide kerb ramp (x2)	Walker St	Western side at Barker St (both sides)		0	245	\$3,800	\$16	\$26,936	2012-13
Ck11	Provide disabled parking space adjacent to existing ramp outside school	Adams St	Northern side		0	80	\$1,300	\$16	\$28,236	2012-13
C5	Extend existing shared path to existing kerb ramp	Hotham St	Western side onto North St		0	50	\$896	\$18	\$29,132	2012-13
C10	Extend footpath to road surface	Dairy St	Eastern side at Canterbury St (southern side)		0	80	\$1,456	\$18	\$30,588	2012-13
C31	Provide kerb ramps (x2)	Walker St	Western side at Canterbury St (both sides)		0	200	\$3,800	\$19	\$34,388	2012-13
C32	Provide kerb ramps (x2)	Canterbury St	Southern side at Walker St (both sides)		0	200	\$3,800	\$19	\$38,188	2012-13
W6	Modify existing kerb ramp to ensure suitable changes in grade	Cedar St	Eastern side at Redwood Ln (northern side)		0	95	\$1,900	\$20	\$40,088	2012-13
C13	Modify end of existing footpath	West St	Western side at Canterbury St (southern side) - extend existing concrete cover over drain to ensure suitable grade and crossfall around drains	Use steel plate to extend existing concrete cover		90	\$2,000	\$22	\$42,088	2012-13
C20	Modify existing traffic island to provide pedestrian refuge	Centre St	North of Simpson Pde	Constrained by right turn bay on Centre St into Canterbury St		195	\$4,570	\$23	\$46,658	2012-13
C25	Modify existing pedestrian refuge to include a pedestrian crossing	Richmond St	West of Centre St	Subject to meeting RTA warrant		190	\$4,570	\$24	\$51,228	2013-14
Ck5	Extend footpath to road surface (x2)	Adams St	Northern side at Bridge St (both sides)		0	70	\$1,792	\$26	\$53,020	2013-14
C42	Modify existing traffic island to provide pedestrian refuge	Lennox St	East of Centre St		0	165	\$4,570	\$28	\$57,590	2013-14

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year
C47	(LP) Modify existing traffic island to provide pedestrian refuge	Centre St	South of Hare St (opposite Charcoal Hotel)	May be constrained by exit from bottle shop at Charcoal Hotel	160	\$4,570	\$29	\$62,160	2013-14
C46	(LP) Modify existing traffic island to provide pedestrian refuge	Hare St	East of Centre St		0	\$4,570	\$29	\$66,730	2013-14
C22	Remove existing pedestrian crossing and refuge	Barker St	West of Centre St		0	\$3,620	\$29	\$70,350	2013-14
C4	Extend footpath to road surface (x2)	Hotham St	Western side onto Hotham St and Caterbury St		0	\$1,344	\$30	\$71,694	2013-14
C9	Extend footpath to road surface	Colches St	Eastern side at Canterbury St (southern side)	Maintain profile of existing small swale	60	\$1,900	\$32	\$73,594	2013-14
W5	Extend footpath to road surface	Pacific Hwy	Southern side at Sussex St (eastern side)		0	\$896	\$36	\$74,490	2013-14
E13	Investigate potential to relocate letter box and Telstra pillar box away from pedestrian thoroughfare	Oak St	Northern side near Woodburn St	Relocation of these facilities may not be possible due to constraints imposed by Telstra and Australia Post	130	\$5,000	\$38	\$79,490	2013-14
E19	Provide kerb ramp and link up small embankment to existing path opposite entrance to RSL	McDonald Place	Northern side, opposite entrance to RSL	May require some regrading of bank to provide ramp link at suitable grade.	95	\$3,800	\$40	\$83,290	2013-14
C29	Provide pedestrian refuge	Canterbury St	Between Centre St and Walker St, opposite Civic Hall		0	\$8,310	\$42	\$91,600	2013-14
C3	Provide kerb and gutter and footpath as necessary	Canterbury St	Near entrance to hospital	Currently very difficult for mobility impaired people to get off the bus due to large step down in absence of kerb and gutter. There is existing kerb and gutter east of the entrance but it generally has cars parked in front of it	55	\$2,730	\$50	\$94,330	2013-14

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
C39	Relocate existing pedestrian crossing and refuge away from intersection	Walker St	Barker St (southern side) (relocate further away from intersection)	Subject to meeting RTA warrant	270	\$13,430	\$50	\$107,760	2014-15	
C11	Extend footpath to road surface (x2)	Dairy St	Western Side at Barker St (both sides)		0	55	\$2,912	\$53	\$110,672	2014-15
C38	Link existing paths	Hickey St	Western side near Barker St (Macauliffe Park)		0	100	\$5,600	\$56	\$116,272	2014-15
C12	Extend footpath to road surface (x2)	Richmond St	Northern side at Dairy St (both sides)		0	50	\$2,912	\$58	\$119,184	2014-15
C23	Relocate existing pedestrian crossing and refuge away from intersection	Centre St	South of Barker St	Subject to meeting RTA warrant	220	\$13,430	\$61	\$132,614	2014-15	
W2	Modify existing traffic island to provide second pedestrian refuge	Pacific Hwy	Possibly opposite Rod and Reel Hotel		0	220	\$13,710	\$62	\$146,324	2014-15
C41	Provide footpath	Richmond St	Southern side between Centre St and Walker St		0	325	\$21,280	\$65	\$167,604	2015-16
C35	Modify footpath to reduce cross fall at bus stop	Barker St	At Bus Stop near Post Office	Cross fall very steep away from road and difficult to navigate for mobility impaired passengers when getting off bus	225	\$15,000	\$67	\$182,604	2015-16	
C21	Relocate existing pedestrian crossing and refuge away from intersection	Barker St	East of Centre St	May be constrained by driveway to Cecil Hotel and large tree on northern side of Barker St. Subject to meeting RTA warrant.	200	\$13,430	\$67	\$196,034	2015-16	
W4	Modify existing kerb ramps to ensure suitable changes in grade	Pacific Hwy	Southern side at Alfred St (both sides)		0	55	\$3,800	\$69	\$199,834	2015-16
C26	Provide pedestrian refuge	Johnston St	East of Walker St		0	105	\$8,310	\$79	\$208,144	2016-17
E12	Provide pedestrian refuge	Cashmore St	Near Woodburn St (western side) outside IGA		0	100	\$8,310	\$83	\$216,454	2016-17
E16	Extend existing footpath and provide pedestrian refuge	Elm St	Western side between Oak Ln and Cedar St		0	155	\$13,350	\$86	\$229,804	2016-17

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
C55	Provide footpath	Queensland Rd	Southern side between pedestrian crossing and Frederick St (servicing school pick-up and drop-off)		0	130	\$11,200	\$86	\$241,004	2016-17
C54	Provide pedestrian refuge	Queensland Rd	Hotham St (western side)	Consider potential to make refuge wide enough to provide protection for cyclists		105	\$9,060	\$86	\$250,064	2017-18
C27	Provide pedestrian refuge	Johnston St	East of Hickey St		0	95	\$8,310	\$87	\$258,374	2017-18
C17	Provide footpath	West St	Eastern side between Richmond St and existing shared path (beside tennis courts)	May require formalisation of car parking and/or relocation of the existing logs		95	\$8,960	\$94	\$267,334	2017-18
C14	Modify existing traffic islands to provide pedestrian refuges (x2)	West St	Barker St (both sides)		0	95	\$9,140	\$96	\$276,474	2017-18
Ck12	Provide pedestrian refuge to service link between schools	Adams St	Between schools		0	85	\$8,310	\$98	\$284,784	2017-18
C16	Provide footpath and pedestrian refuge	West St	Eastern side between Barker St and Richmond St (refuge on Barker St east of West St)		0	185	\$19,040	\$103	\$303,824	2018-19
W8	Provide footpath	Duke St	Western side between Pacific Hwy and Richmond St		0	105	\$11,200	\$107	\$315,024	2018-19
Ck4	Provide footpath	Grenfell St	Northern side between Marine St and Bridge St		0	110	\$12,320	\$112	\$327,344	2018-19
C48	Provide pedestrian refuge	Centre St	Between Division St and McElroy St		0	70	\$8,310	\$119	\$335,654	2018-19
W7	Provide footpath	Cedar St	Eastern side between Redwood Ln and Wagner St		0	170	\$22,400	\$132	\$358,054	2019-20
B5	Widen, repair and protect existing path from cane harvesters	Pacific Hwy	Eastern side between Pine Tree Rd and Byrnes St		0	45	\$6,000	\$133	\$364,054	2019-20
E4	Provide pedestrian refuge and linking path from existing shared path	Woodburn St	Opposite cemetery	Grades, vegetation and drain will need to be considered in design of linking path		75	\$10,102	\$135	\$374,156	2019-20
C8	Provide footpath	Colches St	Eastern side between Canterbury St and Railway Pde		0	70	\$10,640	\$152	\$384,796	2019-20

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
E8	Provide footpath and pedestrian refuge	Booyong St	Northern side between existing shared path through Stan Payne Oval and Woodburn St. Refuge on Woodburn St at Booyong St (northern side).		0	125	\$20,070	\$161	\$404,866	2020-21
C18	Relocate existing pedestrian refuge	Johnston St	East of Centre St (relocate further away from intersection)		0	75	\$12,180	\$162	\$417,046	2020-21
C43	Provide pedestrian refuge	Hare St	East of Dairy St (opposite bus stop)		0	50	\$8,310	\$166	\$425,356	2020-21
C65	Provide median between shared path and roadway in vicinity of rail crossing.	Hotham St	Western side near rail crossing	May require some reprofiling of embankment immediately west of shared path to maintain width of path and roadway		95	\$16,620	\$175	\$441,976	2020-21
C58	Provide footpath	West St	Western side between end of existing shared path at Colley Park to existing path at railway crossing		0	160	\$28,000	\$175	\$469,976	2021-22
Ck8	Relocate pedestrian refuge away from intersection	Queen Elizabeth Drive	Adams St (move refuge south to be opposite shop)		0	65	\$11,430	\$176	\$481,406	2021-22
C52	Provide footpath and pedestrian refuge	Hotham St	Eastern side between Queensland Rd and Oak St (refuge between Churchill Crs and Oak St)		0	165	\$30,710	\$186	\$512,116	2022 on
E7	(TP) Provide footpath	Booyong St	Southern side between Park St and Beech St		0	110	\$21,840	\$199	\$533,956	2022 on
E1	Provide pedestrian refuge	Currajong St	Currajong St north of Woodburn St	Health/aged' land use assumed to be serviced.		40	\$8,310	\$208	\$542,266	2022 on
W11	Provide footpath	Woodburn St and Wagner St	Eastern side of Woodburn St (including crossing of wide median) and northern side of Wagner St, from Carroona Village to proposed footpath on eastern side of Cedar St		0	90	\$19,040	\$212	\$561,306	2022 on
C15	Widen existing footpath to shared path width	Barker St	Southern side between Richmond Lodge and West St		0	55	\$12,544	\$228	\$573,850	2022 on
E9	Provide footpath	Woodburn St	Western side between Wattle St and Booyong St		0	85	\$19,600	\$231	\$593,450	2022 on
E10	Provide footpath	Woodburn St	Eastern side between Wattle St and Booyong St		0	85	\$19,600	\$231	\$613,050	2022 on



Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
E6	Provide footpath	Woodburn St	Western side between Cypress St and Booyong St		0	100	\$24,080	\$241	\$637,130	2022 on
C57	Provide footpath	McDougal St	Southern side between Fredrick St and West St (cemetery)	Alignment may be constrained by large trees near West St		95	\$23,520	\$248	\$660,650	2022 on
W10	Extend existing footpath and provide pedestrian refuge	Coraki Woodburn Rd	Northern side at the Pacific Hwy, refuge on Pacific Hwy		0	125	\$32,210	\$258	\$692,860	2022 on
B4	Provide footpath	Little Pitt St	Northern side between Pacific Hwy and the community hall	Tennis courts close to road, may be space constraints		50	\$13,440	\$269	\$706,300	2022 on
Ck7	(LP) Provide footpath	Adams St	Southern side between Bridge St and Richmond Tce		0	40	\$11,200	\$280	\$717,500	2022 on
C2	Provide footpath	Gitana St	Eastern side at Caterbury St (and along Canterbury St, northern side) - link between existing footpaths at south western corner of Hospital		0	55	\$15,680	\$285	\$733,180	2022 on
C56	Provide footpath	Fredrick St	Eastern side between Queensland Rd and McDougal St		0	130	\$41,440	\$319	\$774,620	2022 on
Ck3	Provide footpath	Martin St	Eastern side between Alwood St and Adams St		0	145	\$50,400	\$348	\$825,020	2022 on
C53	Provide footpath	Hotham St	Western side between Queensland Rd and Sheppard St		0	160	\$56,000	\$350	\$881,020	2022 on
C6	Provide footpath	Hotham St	Western side between North St and Canterbury St - link to hospital entrance		0	60	\$22,400	\$373	\$903,420	2022 on
C44	Provide footpath	Hare St	Northern side between Colches St and Centre St		0	155	\$62,720	\$405	\$966,140	2022 on
W9	Provide footpath	Richmond St	Northern side between Cedar St and Alfred St		0	105	\$48,160	\$459	\$1,014,300	2022 on
E14	Provide lighting on existing shared path	Beech St	Eastern side		0	65	\$30,000	\$462	\$1,044,300	2022 on
C1	Provide footpath	Gitana St	Western side between North St and Canterbury St (opposite Cedars and Hospital)	Drains near Poplar Ln will need consideration		40	\$19,040	\$476	\$1,063,340	2022 on
E5	Provide footpath	Ash St	Southern side between existing shared path through Stan Payne Oval and Beech St		0	75	\$35,840	\$478	\$1,099,180	2022 on

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year	
C49	Provide footpath	Hotham St	Between Sheppard St and Canning Dr (unformed section of Hotham St)		0	50	\$24,640	\$493	\$1,123,820	2022 on
W12	Extend existing footpath and provide pedestrian refuge	Woodburn St and Wyratta St	Western side of Woodburn St and northern side of Wyratta St, pedestrian refuge on Pacific Hwy at Wyratta (northern side)		0	90	\$44,530	\$495	\$1,168,350	2022 on
B1	Provide footpath	Pacific Hwy	Northern side at Rileys Hill Rd between service station on Pacific Hwy and bus stop on Rileys Hill Rd		0	40	\$28,000	\$700	\$1,196,350	2022 on
E3	(TP) Provide shared path	Currajong St	Southern side between Memorial Airport Drive and Beech St.	Provision of path likely to be condition of consent if RSL Aged Care Facility is approved. 'Health/aged' land use assumed to be serviced.		105	\$86,480	\$824	\$1,282,830	2022 on
E2	(TP) Provide shared path	Currajong St	Northern side between Woodburn Rd and existing path near Memorial Airport Drive. (Note: not necessary if RSL Aged Care Facility not approved)	Provision of path likely to be condition of consent if RSL Aged Care Facility is approved. 'Health/aged' land use assumed to be serviced.		85	\$70,840	\$833	\$1,353,670	2022 on
E11	(TP) Provide footpath	Cypress St	Eastern side between Cashmore St and Booyong St		0	60	\$71,120	\$1,185	\$1,424,790	2022 on
Ck9	Provide footpath	Donaldson St	Northern side between Autumn St and Thomas Cr		0	10	\$12,320	\$1,232	\$1,437,110	2022 on
C7	Provide footpath	Hotham St	Eastern side between Railway Pde and Minor Ln		0	15	\$21,840	\$1,456	\$1,458,950	2022 on
C63	(TP) Upgrade river crossing and provide shared path	Existing river crossing between McAuliffe Park and Queen Elizabeth Park, shared path on Hickey St	Eastern side of Hickey St		0	120	\$182,800	\$1,523	\$1,641,750	2022 on
C59	Provide footpath	Canterbury St, Gray St and Ferguson St	From corner of Canterbury St and Gitana St to McDonald Park		0	60	\$95,200	\$1,587	\$1,736,950	2022 on

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year
C62	Provide shared path	Queen Elizabeth Park and Albert Park	Between Lennox St and Johnson St, including a new river crossing	Culturally sensitive lands close to river - will require Aboriginal cultural heritage consultation. Will need to be coordinated with Queen Elizabeth Park Masterplan.	150	\$248,400	\$1,656	\$1,985,350	2022 on
E17	Provide footpath to establish recreational loop walk through South Evans Head	Riverview St	Western side between Ocean Dr and Evans Rd (including short stretches on Ocean Dr and Evans Rd)		0	\$82,880	\$1,658	\$2,068,230	2022 on
B2	Provide shared path	Broadwater Evans Head Rd	Eastern side between Pacific Hwy and Simmons St		0	\$34,040	\$1,702	\$2,102,270	2022 on
C50	Extend shared path	Sheppard St	Northern side from Barling St to Emmett Place		0	\$119,600	\$1,709	\$2,221,870	2022 on
C61	Complete upgrade of existing shared path	Bruxner Hwy	Eastern side between Lakeside Dr (Gays Hill) and Colches St.	Partly upgraded recently	35	\$100,000	\$2,857	\$2,321,870	2022 on
C60	Extend shared path	Sextonville Rd	Eastern/northern side between Bruxner Hwy and Lakeside Drive		0	\$156,400	\$4,469	\$2,478,270	2022 on
C51	Provide shared path	East St, Naughtons Gap Rd and Manifold Rd	Linking Johnson St with Casino Christian School and Sherwood Park		0	\$578,500	\$11,570	\$3,056,770	2022 on
B3	Provide shared path	Broadwater Evans Head Rd	Northern and eastern side between Simmons St and Broadwater Beach Rd	May be eligible for coastal cycleway funding from NSW Planning	15	\$276,000	\$18,400	\$3,332,770	2022 on
E18	Upgrade existing track from end of Ocean Dr to provide disabled pedestrian access to Chinamans Beach car park	Ocean Dr	From Ocean Dr to Chinamans Beach car park		0	\$358,800	\$35,880	\$3,691,570	2022 on
W13	Provide shared path	Woodburn Evans Head Rd	(side TBC) Between Pacific Hwy and Riverside Village		0	\$1,058,000	\$42,320	\$4,749,570	2022 on

Table D1

## RVC Pedestrian Access and Mobility Plan - Prioritised Works Schedule

No.	Description	Street	Location	Comments	Total benefit score	Cost estimate	\$/benefit score (\$ per unit benefit)	Cumulative cost	Delivery year
C64	(TP) Provide shared path to Fairy Hill	Summerland Way	Eastern / northern side (TBC)	Included in works program as proposed by Council Committee but likely to be addressed, and more necessary, as part of Stage 3 land release around Brutons Lane	20	\$1,472,000	\$73,600	\$6,221,570	2022 on

Table D2

## RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>						Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)						
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>				Pedestrian accident location <sup>10</sup>	Recreation <sup>11</sup>	Other <sup>12</sup>			
						High	Med	Low																										5	5	15
<b>Casino</b>																																				
C1	Provide footpath	Gitana St	Western side between North St and Canterbury St (opposite Cedars and Hospital)	Drains near Poplar Ln will need consideration			1																										40	\$19,040	\$476	
C2	Provide footpath	Gitana St	Eastern side at Caterbury St (and along Canterbury St, northern side) - link between existing footpaths at south western corner of Hospital				1																										55	\$15,680	\$285	
C3	Provide kerb and gutter and footpath as necessary	Canterbury St	Near entrance to hospital	Currently very difficult for mobility impaired people to get off the bus due to large step down in absence of kerb and gutter. There is existing kerb and gutter east of the entrance but it generally has cars parked in front of it			1																										55	\$2,730	\$50	
C4	Extend footpath to road surface (x2)	Hotham St	Western side onto Hotham St and Caterbury St				1																										45	\$1,344	\$30	
C5	Extend existing shared path to existing kerb ramp	Hotham St	Western side onto North St				1																										50	\$896	\$18	
C6	Provide footpath	Hotham St	Western side between North St and Canterbury St - link to hospital entrance				1																										60	\$22,400	\$373	
C7	Provide footpath	Hotham St	Eastern side between Railway Pde and Minor Ln																														15	\$21,840	\$1,456	
C8	Provide footpath	Colches St	Eastern side between Canterbury St and Railway Pde				1																										70	\$10,640	\$152	
C9	Extend footpath to road surface	Colches St	Eastern side at Canterbury St (southern side)	Maintain profile of existing small swale			1																										60	\$1,900	\$32	
C10	Extend footpath to road surface	Dairy St	Eastern side at Canterbury St (southern side)				1																										80	\$1,456	\$18	
C11	Extend footpath to road surface (x2)	Dairy St	Western Side at Barker St (both sides)				1																										55	\$2,912	\$53	
C12	Extend footpath to road surface (x2)	Richmond St	Northern side at Dairy St (both sides)				1																										50	\$2,912	\$58	
C13	Modify end of existing footpath	West St	Western side at Canterbury St (southern side) - extend existing concrete cover over drain to ensure suitable grade and crossfall around drains	Use steel plate to extend existing concrete cover			1																											90	\$2,000	\$22
C14	Modify existing traffic islands to provide pedestrian refuges (x2)	West St	Barker St (both sides)				2																											95	\$9,140	\$96
C15	Widen existing footpath to shared path width	Barker St	Southern side between Richmond Lodge and West St				1																										55	\$12,544	\$228	
C16	Provide footpath and pedestrian refuge	West St	Eastern side between Barker St and Richmond St (refuge on Barker St east of West St)				3																											185	\$19,040	\$103
C17	Provide footpath	West St	Eastern side between Richmond St and existing shared path (beside tennis courts)	May require formalisation of car parking and/or relocation of the existing logs			1																											95	\$8,960	\$94
C18	Relocate existing pedestrian refuge	Johnston St	East of Centre St (relocate further away from intersection)				5																											75	\$12,180	\$162
C19	Relocate existing pedestrian crossing	Canterbury St	West of Centre St (relocate further away from intersection)	Constrained by driveway entrance to McDonalds. Subject to meeting RTA warrant.			5																											320	\$2,000	\$6

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>							Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)				
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>				Recreation <sup>11</sup>	Other <sup>12</sup>		
						High	Med	Low																										5	5
C20	Modify existing traffic island to provide pedestrian refuge	Centre St	North of Simpson Pde	Constrained by right turn bay on Centre St into Canterbury St	1			5	3	4	2			1																			195	\$4,570	\$23
C21	Relocate existing pedestrian crossing and refuge away from intersection	Barker St	East of Centre St	May be constrained by driveway to Cecil Hotel and large tree on northern side of Barker St. Subject to meeting RTA warrant.	1			5	1	2																						200	\$13,430	\$67	
C22	Remove existing pedestrian crossing and refuge	Barker St	West of Centre St		1			5	1	2																						125	\$3,620	\$29	
C23	Relocate existing pedestrian crossing and refuge away from intersection	Centre St	South of Barker St	Subject to meeting RTA warrant	1			5	1	2																						220	\$13,430	\$61	
C24	Modify severe change in grade	Barker St	Northern approach to mid-block pedestrian crossing (outside post office)	Crest may be necessary for control of drainage flows	1			5	5	2			1	2																		275	\$540	\$2	
C25	Modify existing pedestrian refuge to include a pedestrian crossing	Richmond St	West of Centre St	Subject to meeting RTA warrant	1			5	1	2			2	1																		190	\$4,570	\$24	
C26	Provide pedestrian refuge	Johnston St	East of Walker St		1			5		1																						105	\$8,310	\$79	
C27	Provide pedestrian refuge	Johnston St	East of Hickey St		1			3		1																						95	\$8,310	\$87	
C28	Modify existing kerb ramp to ensure suitable change in grade	Walker St	Western side at Convent Pde (southern side)		1			5	1	1			1	1	1																	150	\$1,900	\$13	
C29	Provide pedestrian refuge	Canterbury St	Between Centre St and Walker St, opposite Civic Hall		1			5	2	3	2		1	1	1																	200	\$8,310	\$42	
C30	Provide disabled car parking space.	Canterbury St	Between Centre St and Walker St, outside Community Hall		1			5	2	3	2		1	1	1																	195	\$1,300	\$7	
C31	Provide kerb ramps (x2)	Walker St	Western side at Canterbury St (both sides)		1			5	2	3	2		1	1	1																	200	\$3,800	\$19	
C32	Provide kerb ramps (x2)	Canterbury St	Southern side at Walker St (both sides)		1			5	2	3	2		1	1	1																	200	\$3,800	\$19	
C33	Provide kerb ramp at taxi rank	Walker St	Near Barker St		1			5	2	1			1	2																		255	\$1,900	\$7	
C34	Provide kerb ramp at taxi rank	Barker St	Near Post Office		1			5	1	1			1	2																		220	\$1,900	\$9	
C35	Modify footpath to reduce cross fall at bus stop	Barker St	At Bus Stop near Post Office	Cross fall very steep away from road and difficult to navigate for mobility impaired passengers when getting off bus	1			5	2	1			1	2																		225	\$15,000	\$67	
C36	Provide kerb ramp (x2)	Barker St	Northern side at Walker St (both sides)		1			5	2	1	1		1	2																		245	\$3,800	\$16	
C37	Provide kerb ramp (x2)	Walker St	Western side at Barker St (both sides)		1			5	2	1	1		1	2																		245	\$3,800	\$16	
C38	Link existing paths	Hickey St	Western side near Barker St (Macauliffe Park)			1		5		1	1			1																		100	\$5,600	\$56	
C39	Relocate existing pedestrian crossing and refuge away from intersection	Walker St	Barker St (southern side) (relocate further away from intersection)	Subject to meeting RTA warrant	1			5	3	1	1		1	2																		270	\$13,430	\$50	

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>					FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>							Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)	
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>	Recreation <sup>11</sup>				Other <sup>12</sup>
						High	Med	Low																									
Benefit Weighting	20	10	0	5	5	15	15	15	20	15	10	5	0	5	15	30	10	5	5	15	5	5	30	5	1								
C40	Provide disabled parking space adjacent to existing ramp	Barker St	Northern side east of Walker St		1			5	3	1	1		1	2			1						2								160	\$1,300	\$8
C41	Provide footpath	Richmond St	Southern side between Centre St and Walker St		1			5	5		1	1	5	3			1						1	1	2					325	\$21,280	\$65	
C42	Modify existing traffic island to provide pedestrian refuge	Lennox St	East of Centre St		1			5					1	1			1						2	2						165	\$4,570	\$28	
C43	Provide pedestrian refuge	Hare St	East of Dairy St (opposite bus stop)			1		1									1						1							50	\$8,310	\$166	
C44	Provide footpath	Hare St	Northern side between Colches St and Centre St			1		5		1												1			3					155	\$62,720	\$405	
C45	(TP) Designate existing footpath as shared path	Centre St	Eastern side between Stapleton Ave and Hare St		1			5	1	1			1												2	10				160	\$600	\$4	
C46	(LP) Modify existing traffic island to provide pedestrian refuge	Hare St	East of Centre St		1			5		1							1								2	10				160	\$4,570	\$29	
C47	(LP) Modify existing traffic island to provide pedestrian refuge	Centre St	South of Hare St (opposite Charcoal Hotel)	May be constrained by exit from bottle shop at Charcoal Hotel	1			5		1							1								2	10				160	\$4,570	\$29	
C48	Provide pedestrian refuge	Centre St	Between Division St and McElroy St			1		1					1				1						1							70	\$8,310	\$119	
C49	Provide footpath	Hotham St	Between Sheppard St and Canning Dr (unformed section of Hotham St)				1			1			1	1					1				1							50	\$24,640	\$493	
C50	Extend shared path	Sheppard St	Northern side from Barling St to Emmett Place				1			1			1	1	1								1							70	\$119,600	\$1,709	
C51	Provide shared path	East St, Naughtons Gap Rd and Manifold Rd	Linking Johnson St with Casino Christian School and Sherwood Park				1						1										3			1				50	\$578,500	\$11,570	
C52	Provide footpath and pedestrian refuge	Hotham St	Eastern side between Queensland Rd and Oak St (refuge between Churchill Crs and Oak St)			1							2	1	1				1				4		3					165	\$30,710	\$186	
C53	Provide footpath	Hotham St	Western side between Queensland Rd and Sheppard St			1							2	1					1				4		3					160	\$56,000	\$350	
C54	Provide pedestrian refuge	Queensland Rd	Hotham St (western side)	Consider potential to make refuge wide enough to provide protection for cyclists	1					1			1	1			1								1					105	\$9,060	\$86	
C55	Provide footpath	Queensland Rd	Southern side between pedestrian crossing and Frederick St (servicing school pick-up and drop-off)		1			1					1									1	1		2					130	\$11,200	\$86	
C56	Provide footpath	Fredrick St	Eastern side between Queensland Rd and McDougal St			1		1	1				1		1							1	1		2					130	\$41,440	\$319	
C57	Provide footpath	McDougal St	Southern side between Fredrick St and West St (cemetery)	Alignment may be constrained by large trees near West St			1		1				1												2					95	\$23,520	\$248	
C58	Provide footpath	West St	Western side between end of existing shared path at Colley Park to existing path at railway crossing		1			1	1				1										1	1	3					160	\$28,000	\$175	

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			PNH <sup>1</sup>			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>							Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)	
					Benefit Measure	Benefit Weighting	High	Med	Low	Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>	Recreation <sup>11</sup>	Other <sup>12</sup>				
																																			20
C59	Provide footpath	Canterbury St, Gray St and Ferguson St	From corner of Canterbury St and Gitana St to McDonald Park					1																									60	\$95,200	\$1,587
C60	Extend shared path	Sextonville Rd	Eastern/northern side between Bruxner Hwy and Lakeside Drive																													35	\$156,400	\$4,469	
C61	Complete upgrade of existing shared path	Bruxner Hwy	Eastern side between Lakeside Dr (Gays Hill) and Colches St.	Partly upgraded recently				1																								35	\$100,000	\$2,857	
C62	Provide shared path	Queen Elizabeth Park and Albert Park	Between Lennox St and Johnson St, including a new river crossing	Culturally sensitive lands close to river - will require Aboriginal cultural heritage consultation. Will need to be coordinated with Queen Elizabeth Park Masterplan.				1	5																							150	\$248,400	\$1,656	
C63	(TP) Upgrade river crossing and provide shared path	Existing river crossing between McAuliffe Park and Queen Elizabeth Park, shared path on Hickey St	Eastern side of Hickey St					1	5																							120	\$182,800	\$1,523	
C64	(TP) Provide shared path to Fairy Hill	Summerland Way	Eastern / northern side (TBC)	Included in works program as proposed by Council Committee but likely to be addressed, and more necessary, as part of Stage 3 land release around Brutons Lane					1																							20	\$1,472,000	\$73,600	
C65	Provide median between shared path and roadway in vicinity of rail crossing.	Hotham St	Western side near rail crossing	May require some reprofiling of embankment immediately west of shared path to maintain width of path and roadway				1																								95	\$16,620	\$175	



Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>						Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)			
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>				Pedestrian accident location <sup>10</sup>	Recreation <sup>11</sup>	Other <sup>12</sup>
						High	Med	Low																									
Benefit Weighting	20	10	0	5	5	15	15	15	20	15	10	5	0	5	15	30	10	5	5	15	5	5	30	5	1								
<b>Coraki</b>																																	
Ck1	Provide disabled parking space adjacent to existing ramp outside medical centre	Richmond Terrace	Outside medical centre																											105	\$1,300	\$12	
Ck2	Provide disabled parking space adjacent to existing ramp outside post office	Richmond Terrace	Outside post office																											90	\$1,300	\$14	
Ck3	Provide footpath	Martin St	Eastern side between Alwood St and Adams St																											145	\$50,400	\$348	
Ck4	Provide footpath	Grenfell St	Northern side between Marine St and Bridge St																											110	\$12,320	\$112	
Ck5	Extend footpath to road surface (x2)	Adams St	Northern side at Bridge St (both sides)																											70	\$1,792	\$26	
Ck6	Extend footpath to road surface	Adams St	Southern side at Parkes St (eastern side)																											95	\$896	\$9	
Ck7	(LP) Provide footpath	Adams St	Southern side between Bridge St and Richmond Tce																											40	\$11,200	\$280	
Ck8	Relocate pedestrian refuge away from intersection	Queen Elizabeth Drive	Adams St (move refuge south to be opposite shop)																											65	\$11,430	\$176	
Ck9	Provide footpath	Donaldson St	Northern side between Autumn St and Thomas Cr																											10	\$12,320	\$1,232	
Ck10	Provide footpath	Donaldson St and Queen Elizabeth Dr	Northern side of Thomas Cr and western side of Queen Elizabeth Dr from Thomas Cr to existing path outside church																											20	\$18,480	\$924	
Ck11	Provide disabled parking space adjacent to existing ramp outside school	Adams St	Northern side																											80	\$1,300	\$16	
Ck12	Provide pedestrian refuge to service link between schools	Adams St	Between schools																											85	\$8,310	\$98	

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>						Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)		
					Benefit Measure	PNH <sup>1</sup>		Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>				Recreation <sup>11</sup>	Other <sup>12</sup>
					High	Med	Low	5	5	15	15	15	20	15	10	5	0	5	15	30	10	5	5	15	5	5	30	5	1			
<b>Evans Head</b>																																
E1	Provide pedestrian refuge	Currajong St	Currajong St north of Woodburn St	Health/aged' land use assumed to be serviced.	1													1												40	\$8,310	\$208
E2	(TP) Provide shared path	Currajong St	Northern side between Woodburn Rd and existing path near Memorial Airport Drive. (Note: not necessary if RSL Aged Care Facility not approved)	Provision of path likely to be condition of consent if RSL Aged Care Facility is approved. 'Health/aged' land use assumed to be serviced.	1			1	1				1										1	1					10	85	\$70,840	\$833
E3	(TP) Provide shared path	Currajong St	Southern side between Memorial Airport Drive and Beech St.	Provision of path likely to be condition of consent if RSL Aged Care Facility is approved. 'Health/aged' land use assumed to be serviced.		1		5	1				1										1	2	1				10	105	\$86,480	\$824
E4	Provide pedestrian refuge and linking path from existing shared path	Woodburn St	Opposite cemetery	Grades, vegetation and drain will need to be considered in design of linking path	1				1				1	1						1										75	\$10,102	\$135
E5	Provide footpath	Ash St	Southern side between existing shared path through Stan Payne Oval and Beech St			1			1	1			1	1									1							75	\$35,840	\$478
E6	Provide footpath	Woodburn St	Western side between Cypress St and Booyong St				1	1	3		1		1										1			1			100	\$24,080	\$241	
E7	(TP) Provide footpath	Booyong St	Southern side between Park St and Beech St				1	1	3		1		1										1			1		10	110	\$21,840	\$199	
E8	Provide footpath and pedestrian refuge	Booyong St	Northern side between existing shared path through Stan Payne Oval and Woodburn St. Refuge on Woodburn St at Booyong St (northern side).			1		1	2		1		1							1						1				125	\$20,070	\$161
E9	Provide footpath	Woodburn St	Western side between Wattle St and Booyong St			1		2	3		1		1										1							85	\$19,600	\$231
E10	Provide footpath	Woodburn St	Eastern side between Wattle St and Booyong St			1		2	3		1		1										1							85	\$19,600	\$231
E11	(TP) Provide footpath	Cypress St	Eastern side between Cashmore St and Booyong St			1		4	3													1								60	\$71,120	\$1,185
E12	Provide pedestrian refuge	Cashmore St	Near Woodburn St (western side) outside IGA		1			5	3	1		1												1						100	\$8,310	\$83
E13	Investigate potential to relocate letter box and Telstra pillar box away from pedestrian thoroughfare	Oak St	Northern side near Woodburn St	Relocation of these facilities may not be possible due to constraints imposed by Telstra and Australia Post	1			5	4	1		1	1	1									1							130	\$5,000	\$38
E14	Provide lighting on existing shared path	Beech St	Eastern side			1							1	1													1	20		65	\$30,000	\$462

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>							Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)			
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>				Recreation <sup>11</sup>	Other <sup>12</sup>	
						High	Med	Low																										Benefit Weighting
E15	Modify existing refuge to include pedestrian crossing.	Oak St	At existing pedestrian refuge	Provision of a new pedestrian crossing must meet RTA warrants. Investigations show that the warrant is almost met and a case may be made based on local circumstances. Consider integrating a speed bump.	1			5	3	2		1	1	1								1										170	\$1,500	\$9
E16	Extend existing footpath and provide pedestrian refuge	Elm St	Western side between Oak Ln and Cedar St		1			5	3	1		1	1	1							1										155	\$13,350	\$86	
E17	Provide footpath to establish recreational loop walk through South Evans Head	Riverview St	Western side between Ocean Dr and Evans Rd (including short stretches on Ocean Dr and Evans Rd)				1					1	1								1				1		1			50	\$82,880	\$1,658		
E18	Upgrade existing track from end of Ocean Dr to provide disabled pedestrian access to Chinamans Beach car park	Ocean Dr	From Ocean Dr to Chinamans Beach car park				1														1						1			10	\$358,800	\$35,880		
E19	Provide kerb ramp and link up small embankment to existing path opposite entrance to RSL	McDonald Place	Northern side, opposite entrance to RSL	May require some regrading of bank to provide ramp link at suitable grade.	1			5	3			1	1								1									95	\$3,800	\$40		

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>						Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)			
					Benefit Measure	PNH <sup>1</sup>			Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>				Pedestrian accident location <sup>10</sup>	Recreation <sup>11</sup>	Other <sup>12</sup>
						High	Med	Low																									
Benefit Weighting	20	10	0	5	5	15	15	15	20	15	10	5	0	5	15	30	10	5	5	15	5	5	30	5	1								
<b>Woodburn</b>																																	
W1	Modify or replace existing tactile indicators to reduce slipperiness	Pacific Hwy	Existing crossing near information centre		1			5	2	1				1	1								1	1	3			220	\$1,000	\$5			
W2	Modify existing traffic island to provide second pedestrian refuge	Pacific Hwy	Possibly opposite Rod and Reel Hotel		1			5	2	1				1	1								1	1	3			220	\$13,710	\$62			
W3	Modify existing kerb ramp to ensure suitable changes in grade	Pacific Hwy	Southern side at Duke St (western side)		1			5	1	1				1	1						1						130	\$1,900	\$15				
W4	Modify existing kerb ramps to ensure suitable changes in grade	Pacific Hwy	Southern side at Alfred St (both sides)		1			3	1						1					2							55	\$3,800	\$69				
W5	Extend footpath to road surface	Pacific Hwy	Southern side at Sussex St (eastern side)		1															1							25	\$896	\$36				
W6	Modify existing kerb ramp to ensure suitable changes in grade	Cedar St	Eastern side at Redwood Ln (northern side)		1			5	2	1				1						1				1			95	\$1,900	\$20				
W7	Provide footpath	Cedar St	Eastern side between Redwood Ln and Wagner St			1		5	2	1				1	1										2		170	\$22,400	\$132				
W8	Provide footpath	Duke St	Western side between Pacific Hwy and Richmond St				1	5	1					1						1			2	1	1		105	\$11,200	\$107				
W9	Provide footpath	Richmond St	Northern side between Cedar St and Alfred St				1	5	3	1				1	1					1			2				105	\$48,160	\$459				
W10	Extend existing footpath and provide pedestrian refuge	Coraki Woodburn Rd	Northern side at the Pacific Hwy, refuge on Pacific Hwy			1				1	2			1						1				1			125	\$32,210	\$258				
W11	Provide footpath	Woodburn St and Wagner St	Eastern side of Woodburn St (including crossing of wide median) and northern side of Wagner St, from Caroon Village to proposed footpath on eastern side of Cedar St			1		1	1	1				2						1							90	\$19,040	\$212				
W12	Extend existing footpath and provide pedestrian refuge	Woodburn St and Wyratta St	Western side of Woodburn St and northern side of Wyratta St, pedestrian refuge on Pacific Hwy at Wyratta (northern side)			1				1	1									1			1	1			90	\$44,530	\$495				
W13	Provide shared path	Woodburn Evans Head Rd	(side TBC) Between Pacific Hwy and Riverside Village				1	3																	1		25	\$1,058,000	\$42,320				

Table D2

RVC Pedestrian Access and Mobility Plan - Works Schedule Listed by Works Number

No.	Description	Street	Location	Comments	Benefit Category			Proximity to landuses <sup>2,3,4</sup>				FNR Final Ranking <sup>5</sup>					Type of works <sup>6</sup>						Locations			Other		Total benefit score	Cost estimate	\$benefit score (\$ per unit benefit)					
					PNH <sup>1</sup>	Benefit Measure	Benefit Weighting	Commercial	Community / church	Health / aged	School / education	Childcare / preschool	1-25	26-50	51-75	76-100	101-123	Ped. crossing / refuge (local) <sup>7</sup>	Ped. crossing / refuge (col.) <sup>7</sup>	Ped. crossing / refuge (dist.) <sup>7</sup>	Disabled parking	Extending existing paths <sup>8</sup>	Improve existing paths <sup>8</sup>	Linking existing paths <sup>8</sup>	Bus stop / taxi rank <sup>9</sup>	Public toilet <sup>9</sup>	Pedestrian accident location <sup>10</sup>				Recreation <sup>11</sup>	Other <sup>12</sup>			
<b>Broadwater</b>																																			
B1	Provide footpath	Pacific Hwy	Northern side at Rileys Hill Rd between service station on Pacific Hwy and bus stop on Rileys Hill Rd					1																									40	\$28,000	\$700
B2	Provide shared path	Broadwater Evans Head Rd	Eastern side between Pacific Hwy and Simmons St					1																									20	\$34,040	\$1,702
B3	Provide shared path	Broadwater Evans Head Rd	Northern and eastern side between Simmons St and Broadwater Beach Rd	May be eligible for coastal cycleway funding from NSW Planning					1																							15	\$276,000	\$18,400	
B4	Provide footpath	Little Pitt St	Northern side between Pacific Hwy and the community hall	Tennis courts close to road, may be space constraints									1																				50	\$13,440	\$269
B5	Widen, repair and protect existing path from cane harvesters	Pacific Hwy	Eastern side between Pine Tree Rd and Byrnes St																														45	\$6,000	\$133



# Appendix E

## Pedestrian Accident Data Summary

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Table E

## Pedestrian Accident Data Summary - January 1996 to March 2010

Item	Date (yyyymmdd)	Time	Weather	Killed	Injured	Vehicle	Vehicle manoeuvre	Age	Sex	Driver error	2nd vehicle	Pedestrian manoeuvre	Age	Sex	Ped error	2nd ped
<b>Casino</b>																
AC1	19960103	1240	Raining	0	1	Car	Proceeding along lane	44	Male	No error	No	Running across carriageway	6	Male	No error	No
AC2	19960217	1300	Fine	0	1	Car	Proceeding along lane	17	Female	No error	No	Stepping off/onto kerb	11	Male	No error	No
AC3	19960304	1520	Fine	0	1	Car	Proceeding along lane	48	Female	No error	No	Running across carriageway	8	Male	No error	No
AC4	19961130	0400	Fine	0	1	Car	Proceeding along lane	21	Male	No error	No	Standing on carriageway	19	Male	No error	No
AC5	19970607	1200	Fine	0	1	Car	Pulling out from kerb	58	Female	No error	No	Walking across carriageway	81	Male	No error	No
AC6	19970925	1600	Fine	0	1	Car	Proceeding along lane	36	Male	No error	No	Running across carriageway	8	Male	Confused or indecisive	No
AC7 <sup>1</sup>	19971008	1700	Fine	0	1	Car	Parking	63	Female	No error	No	Ped other manoeuvre	15	Female	No error	No
AC8 <sup>2</sup>	19980327	1050	Fine	0	1	Bus	Proceeding along lane	60	Male	No error	No	Walking across carriageway	99	Unknown	No error	No
AC9	19990409	1800	Raining	0	1	Cyclist	Proceeding along lane	16	Male	No error	No	Moving along edge of c'way against traffic	46	Female	No error	No
AC10	19990710	1820	O'cast	0	1	Station wagon	Proceeding along lane	53	Female	No error	No	Walking across carriageway	58	Female	No error	No
AC11	19990826	1520	Fine	0	1	Car	Proceeding along lane	75	Female	No error	No	Walking across carriageway	9	Female	No error	No
AC12	19991211	1215	Fine	0	1	Cyclist	Moving along footpath	99	Male	No error	No	On footpath or off carriageway	50	Female	No error	No
AC13	20000416	1815	Fine	0	1	Station wagon	Proceeding along lane	18	Female	Breaking hard	No	Lying/sitting on carriageway	21	Male	No error	No
AC14	20000619	1600	Fine	0	1	Station wagon	Proceeding along lane	54	Male	No error	No	Running across carriageway	11	Male	No error	No
AC15	20000719	1430	Fine	0	1	Unknown	Reversing from driveway	99	Unknown	No error	No	On footpath or off carriageway	62	Male	No error	No
AC16	20010209	1718	Fine	0	1	Station wagon	Proceeding along lane	43	Female	No error	No	Running across carriageway	3	Male	From behind parked/stationary vehicle	No
AC17	20010403	1420	Fine	0	1	Car	Proceeding along lane	17	Female	No error	No	Walking across carriageway	12	Male	No error	No
AC18	20010609	1826	Fine	0	1	Van	Unknown	32	Male	No error	No	Other manoeuvre	37	Male	No error	No
AC19	20020107	1245	Fine	0	1	Car	Proceeding along lane	39	Female	No error	No	In/on toy vehicle on carriageway	15	Male	No error	No
AC20	20020210	0040	Fine	0	1	Car	Proceeding along lane	99	Unknown	No error	No	Other manoeuvre	99	Male	No error	No
AC21	20030131	1900	Fine	0	1	Unknown	Proceeding along lane	99	Unknown	No error	No	Walking across carriageway	19	Female	No error	No
AC22	20030514	1555	Raining	0	1	Car	Turing right out of own lane	44	Female	No error	No	Walking across carriageway	79	Male	No error	No
AC23	20030715	1105	Fine	0	1	Station wagon	Reversing in lane	55	Male	No error	No	On footpath or off carriageway	83	Female	No error	No
AC24	20030821	1535	Fine	0	1	Light truck	Proceeding along lane	20	Male	Disobey traffic signal	No	Walking across carriageway	19	Male	No error	No
AC25	20030905	1050	Fine	0	1	Car	Proceeding along lane	99	Unknown	No error	No	Walking across carriageway	69	Male	No error	No
AC26	20031022	1545	Fine	0	1	4WD	Parking	37	Female	No error	No	Walking across carriageway	65	Male	No error	No
AC27	20040324	1600	Fine	0	1	Car	Proceeding along lane	49	Female	No error	No	Running across carriageway	6	Male	From behind parked/stationary vehicle	No
AC28	20040415	1745	Fine	0	1	Car	Proceeding along lane	99	Unknown	No error	No	Running across carriageway	10	Male	No error	No
AC29	20040810	1000	Fine	0	1	Station wagon	Reversing from driveway	47	Female	No error	No	On footpath or off carriageway	68	Male	No error	No
AC30	20050309	1730	Fine	0	1	Car	Proceeding along lane	31	Male	No error	No	Running across carriageway	99	Male	No error	No
AC31	20051223	0945	Fine	0	1	Unknown	Proceeding along lane	99	Unknown	Disobey traffic signal	No	Walking across carriageway	79	Female	No error	No
AC32	20070226	1100	Fine	0	2	Car	Reversing from driveway	27	Female	No error	No	On footpath or off carriageway	42	Female	No error	On footpath, 55, M, no error
AC33	20070510	1730	Fine	0	1	Light truck	Proceeding along lane	35	Female	No error	No	Stepping off/onto kerb	41	Male	No error	No
AC34	20070726	1535	Fine	0	1	Car	Proceeding along lane	26	Female	No error	No	Walking across carriageway	48	Male	No error	No
AC35	20070730	1330	Fine	0	1	Light truck	Proceeding along lane	65	Male	Disobey traffic signal	No	Walking across carriageway	65	Female	No error	No
AC36	20070815	1930	O'cast	0	2	Car	Proceeding along lane	18	Female	No error	Light truck, parked	On footpath or off carriageway	36	Male	No error	On footpath, 7, M, no error
AC37	20070930	2130	Fine	0	1	Car	Proceeding along lane	18	Male	No error	No	Running across carriageway	18	Male	No error	No
AC38	20080121	2045	Fine	0	1	Car	Proceeding along lane	17	Male	No error	No	Walking across carriageway	19	Female	No error	No
AC39	20080505	1535	Fine	0	1	Station wagon	Proceeding along lane	17	Male	Breaking hard	No	Running across carriageway	14	Female	No error	No
AC40	20080904	2015	Raining	0	1	Car	Proceeding along lane	52	Male	No error	No	Walking across carriageway	52	Male	No error	No
AC41	20081204	1445	O'cast	0	1	Car	Proceeding along lane	81	Male	No error	No	Running across carriageway	2	Male	From behind parked/stationary vehicle	No
AC42	20090303	2315	Fine	1	0	4WD	Proceeding along lane	53	Male	No error	No	Lying/sitting on carriageway	34	Female	No error	No
AC43	20090330	1410	Raining	0	1	Car	Proceeding along lane	52	Female	No error	No	Walking across carriageway	67	Male	No error	No
AC44	20090804	2118	Fine	0	1	4WD	Proceeding along lane	73	Female	No error	No	Walking across carriageway	21	Male	No error	No
AC45	20091208	1410	Fine	0	1	Light truck	Proceeding along lane	38	Male	No error	4WD, stationary in traffic	Walking across carriageway	46	Female	No error	No
AC46	20100131	1100	O'cast	0	1	Utility	Proceeding along lane	48	Male	No error	No	Standing on carriageway	83	Female	No error	No
AC47	20100608	1915	Fine	0	1	Car	Proceeding along lane	17	Male	No error	No	Walking across carriageway	33	Male	From behind parked/stationary vehicle	No



Table E

## Pedestrian Accident Data Summary - January 1996 to March 2010

Item	Date (yyyymmdd)	Time	Weather	Killed	Injured	Vehicle	Vehicle manoeuvre	Age	Sex	Driver error	2nd vehicle	Pedestrian manoeuvre	Age	Sex	Ped error	2nd ped
<b>Coraki</b>																
ACK1	19961011	1635	Fine	0	1	Car	Proceeding along lane	21	Male	No error	No	Running across carriageway	10	Female	No error	No
ACK2	19981006	1730	Fine	0	1	Van	Proceeding along lane	32	Female	No error	No	Running across carriageway	3	Male	No error	No
ACK3	20070803	2135	Fine	0	1	Car	Proceeding along lane	99	Unknown	No error	No	On footpath or off carriageway	29	Male	No error	No
<b>Evans Head</b>																
AE1	20000418	1950	Fine	0	1	Light truck	Proceeding along lane	99	Unknown	No error	No	Standing on carriageway	34	Male	No error	No
AE2	20030508	1745	Raining	0	1	Car	Proceeding along lane	25	Female	No error	No	Standing on carriageway	43	Female	No error	No
AE3	20030530	1330	Fine	0	1	Motorcycle	Proceeding along lane	62	Male	No error	No	Running across carriageway	16	Male	No error	No
AEa <sup>3</sup>	20110504	unk.	Fine	0	1	Car	Unknown	xx	Female	Unknown	No	Walking across carriageway	-	Male	No error	No
<b>Woodburn</b>																
AW1	19961013	1320	Fine	0	1	Car	Proceeding along lane	40	Male	No error	No	Walking across carriageway	22	Male	No error	No
AW2	19980723	1210	Fine	0	1	Light truck	Proceeding along lane	54	Male	No error	No	Walking across carriageway	65	Male	No error	No
AW3	19981127	1330	Fine	0	1	Lorry	Reversing in lane	51	Male	No error	No	Ped working on carriageway	99	Male	No error	No
AW4	19990530	1130	Fine	0	1	Car	Proceeding along lane	20	Female	No error	No	Walking across carriageway	81	Female	No error	No
AW5	20001202	1120	Fine	0	1	Light truck	Proceeding along lane	17	Female	No error	No	Walking across carriageway	99	Male	No error	No
AW6	20061103	1545	O'cast	0	1	Bus	Proceeding along lane	66	Male	No error	No	Walking across carriageway	15	Female	From behind parked/stationary vehicle	No
AW7	20091110	1600	Fine	0	1	Car	Proceeding along lane	46	Male	No error	No	Running across carriageway	5	Male	From behind parked/stationary vehicle	No
<b>Broadwater</b>																
AB1	20080123	2030	Raining	0	1	Car	Proceeding along lane	99	Male	No error	No	Moving along edge of c'way with traffic	35	Male	No error	No

## Notes

- <sup>1</sup> Incorrect coordinates provided, location assumed from description  
<sup>2</sup> Incorrect coordinates provided, description incomplete, location unknown  
<sup>3</sup> Confirmed incident but reported informally, incomplete record