

# Traffix Group

## Merbein Pedestrian and Cycling Plan

Prepared for  
Mildura Rural City Council

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# 1. Introduction

Traffic Group has been engaged by Mildura Rural City Council to develop a Pedestrian & Cycling Plan for the township of Merbein.

The study area comprises of the township of Merbein and is bounded by Channel Road to the south, Wentworth Road to the north, Sanders Street to the west and Forbes Drive to the east. The study area is shown in Figure 1 below.

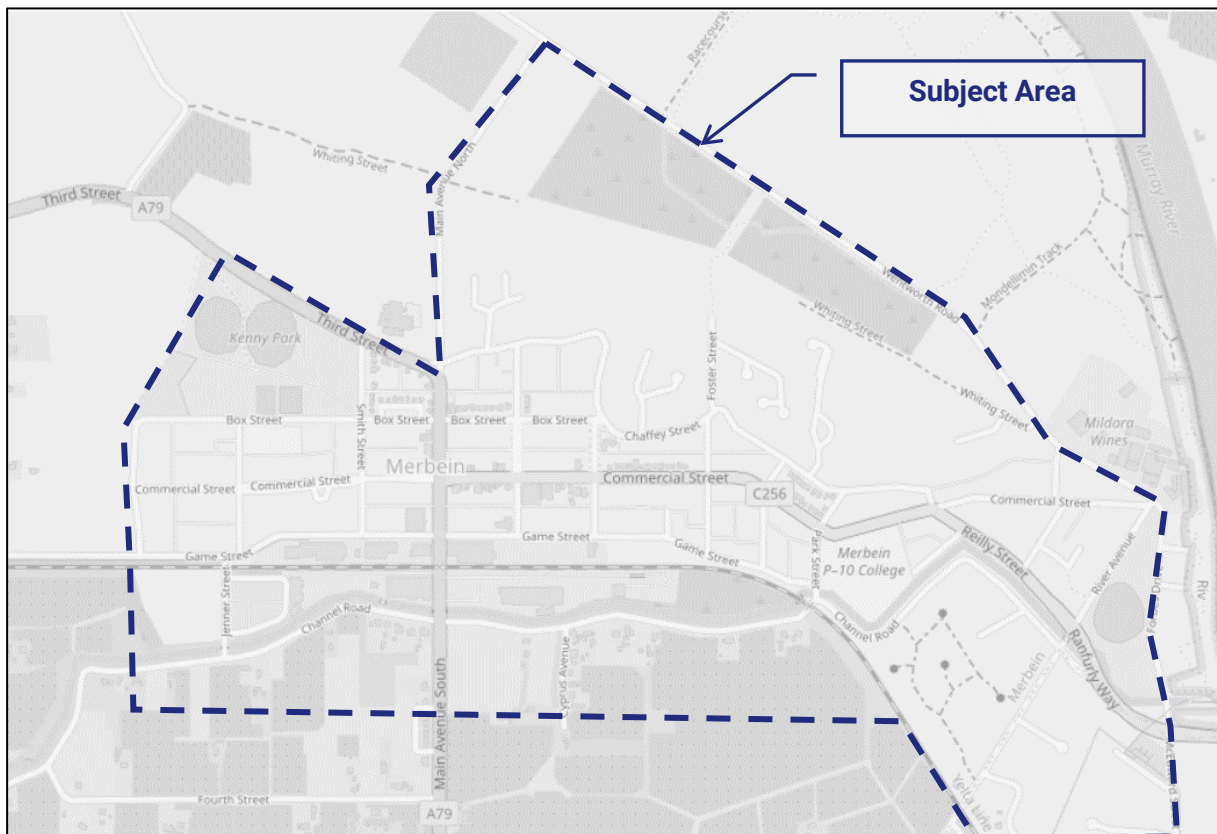


Figure 1: Study Area

## 2. Study Process

The objective of the study is to prepare a Pedestrian and Cycling Plan for the town of Merbein, which addresses pedestrian and cycling issues identified by the community.

This was achieved through a process of community consultation undertaken by Traffic Group and Mildura Rural City Council, including circular questionnaire surveys and in-person consultation sessions.

The adopted study process consists of the following main components:

- Familiarisation with the study area,
- Consultation,

## Merbein Pedestrian and Cycling Plan

- Development of the plan,
- Reporting.

The flowchart presented in Figure 2 describes the study process for the Pedestrian & Cycling Plan.

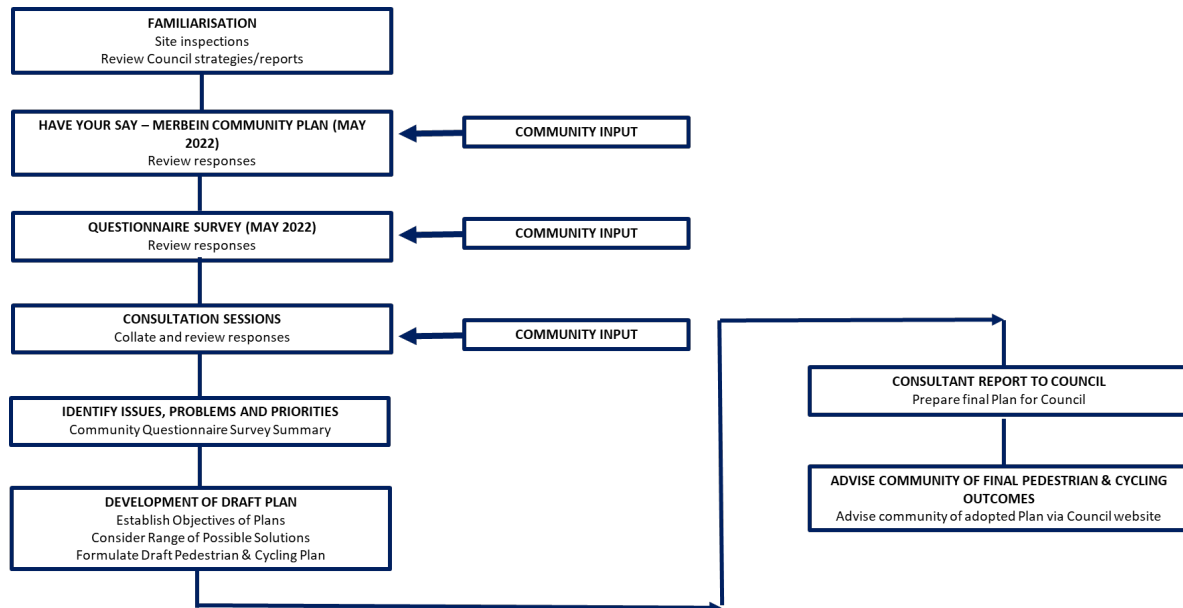


Figure 2 Study Process

The objectives of the Pedestrian and Cycling Plan include:

- Provision of additional pedestrian and cycling facilities,
- Improvements to existing pedestrian and cycling facilities,
- Provision of safer crossing facilities for pedestrians and cyclists,
- Provision of better walking and cycling links, and
- Reduce the occurrence and potential for vehicle and pedestrian/cyclist crashes.

## 3. Background Information

### 3.1. Speed Management Strategy – Technical Report (2017)

In 2017 Council completed a technical study that would form the basis for a speed management strategy for the municipality which was a review of the current speed limits and corresponding fatal and serious injury crash history (December 2006 – November 2016) associated with each speed zone.

It is acknowledged that the speed limit in Merbein does not exceed 80km/h, with the majority of roads the default 50km/h local roads.

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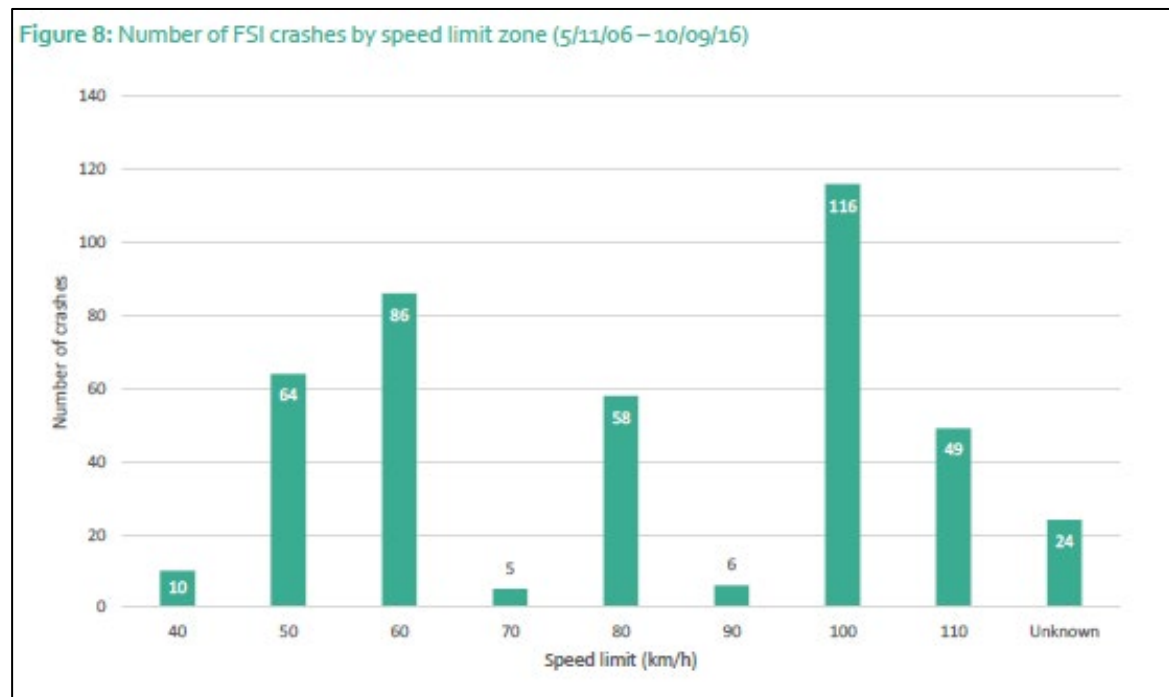


Figure 3 FSI Crashes by Speed Zone

As part of the development of the strategy, a number of consultation sessions were undertaken with three different focus groups including the general public to identify community sentiment relating to speed limits, Safe System aligned treatments and overall safety. The key outcomes from this report included:

- Safe speeds are integral in managing road safety. Speed limits should be suited to the operating environment such that should a crash occur, it does not result in a fatality or serious injury.
- There is community sentiment for lowering of speed limits in residential areas and around schools.

### 3.2. Road Safety Strategy (2018-2022)

Council's Road Safety Strategy was created in alignment with the National Road Safety Strategy 2011-2020 and the Victoria's Towards Zero 2016-2020 Road Safety Strategy and Action Plan. The strategy reviewed the most recent 10-year crash history as well as responses to an online questionnaire of local residents. Based on the community input and crash history, the following areas were prioritised for road safety improvements:

- Reducing crashes relating to pedestrians, run-off-road, intersection, head-on and on high-speed roads.
- Education programs in the community especially in primary schools.
- Lobbying for better road safety policies and vehicle manufacturers for better safety features with State and Federal Governments.

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### 3.3. Other Projects Within Merbein

It is understood that there are several projects occurring concurrently within Merbein that the Pedestrian and Cycling Plan will compliment to implement a holistic approach on addressing the future vision of Merbein as identified through various community consultations. A summary of the projects is provided as follows.

#### 3.3.1. Merbein Community Plan

Consultations for the Merbein Community Plan occurred in May 2022. The Pedestrian and Cycling Plan also held community consultations during this period in conjunction with the Community Plan consultations to ensure alignment between the two Plans. The key themes of the Plan include:

- Safety
- Health
- Township Improvements
- Advocacy
- Recreation
- Promotion/Tourism
- Environment

It is expected that certain aspects of pedestrian and cycling will be captured as part of this Plan hence it is important that the two Plans complement one another. The Merbein Community Plan is yet to be finalised at the time of this report.

#### 3.3.2. Area Wide 40km/h Speed Limit

Mildura Rural City Council is currently working on a proposal to implement an area wide speed limit reduction of local roads in Merbein to 40km/h except for peripheral routes including Game Street, River Avenue and Wentworth Road. The arterial network consisting of Commercial Street and Main Avenue will remain at 60km/h except for a section of Commercial Street between Main Avenue and Obryan Street where a speed limit of 50km/h applies. The laneways will have a default 20km/h speed limit.

The reduction in the speed limit resulting in the majority of roads in Merbein to a lower speed of 40km/h will create a safer environment for all users especially pedestrians and cyclists where in the event of a collision with a vehicle, the risk of a serious injury or death is significantly reduced.

A graphical representation of the area wide speed limit proposal is presented in Figure 4.

## Merbein Pedestrian and Cycling Plan

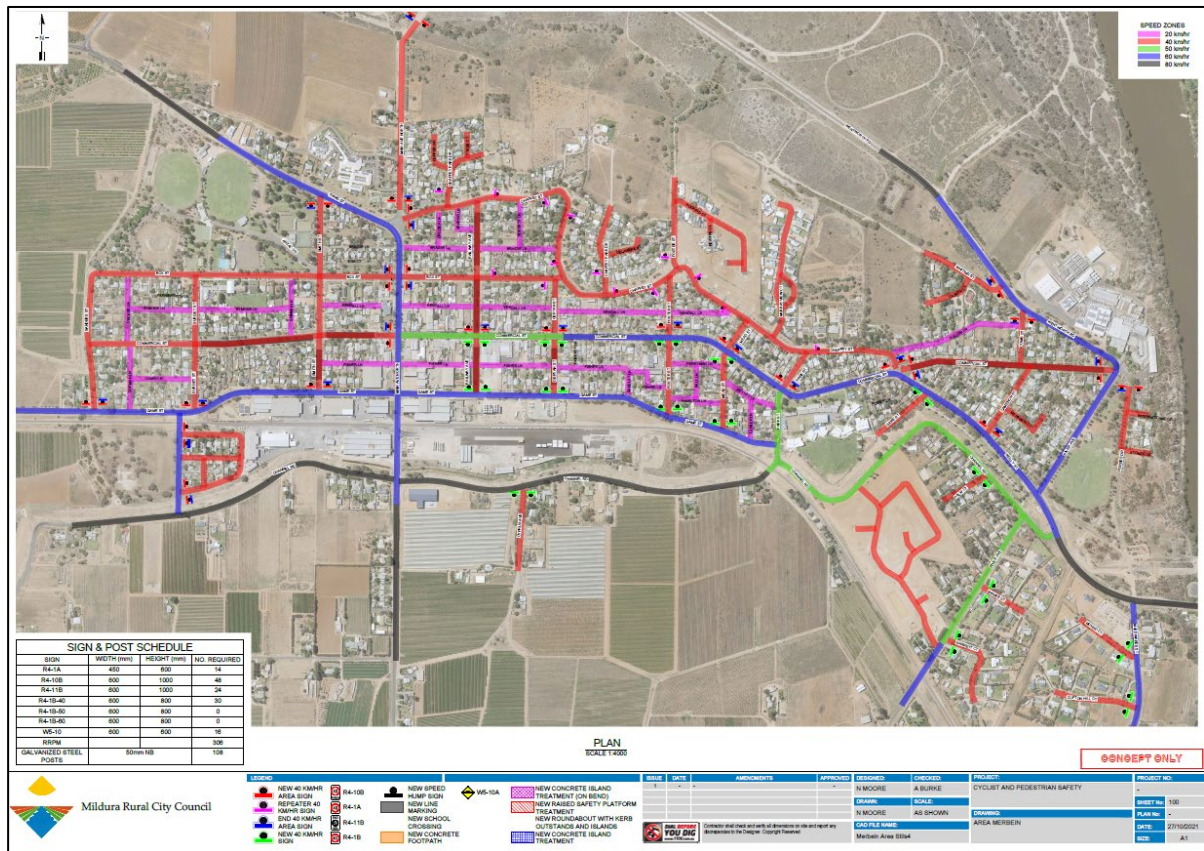


Figure 4 Proposed Area Wide 40km/h Speed Limit

### 3.3.3. Local Area Traffic Management (LATM)

Council is also seeking to implement a local area traffic management strategy for Merbein that would support the Community Plan, area wide speed limit reduction and the Pedestrian & Cycling Plan. The LATM recommends several infrastructure upgrades to address speed, safety and accessibility based on historic and known issues. Some of these treatments include:

- Raised safety platforms,
- Concrete islands, and
- Kerb outstands.

A copy of the LATM which includes both infrastructure and speed limit changes is attached in Appendix A.



# 4. Existing Conditions

## 4.1. Road Network & Hierarchy

There are two arterial roads managed by the Department of Transport that travel through town including:

- Commercial Street – Reilly Street – Ranfurly Way provides an east west connection between Merbein and Mildura. The posted speed limit is 60km/h except for the section of Commercial Street between Obryan Street and Main Avenue North through the main shopping precinct where the speed limit is 50km/h. The carriageway is undivided with a single lane of traffic in each direction with on-road bike lanes and kerbside parking permitted.
- Main Avenue South – Main Avenue North – Third Street provides a north south connection between Merbein and Yelta. The posted speed limit is 60km/h. the carriageway is undivided with a single lane of traffic in each direction with kerbside parking permitted.

The remaining road network consists of local roads and laneways managed by Mildura Rural City Council.

A map overview of Merbein is presented in Figure 5.

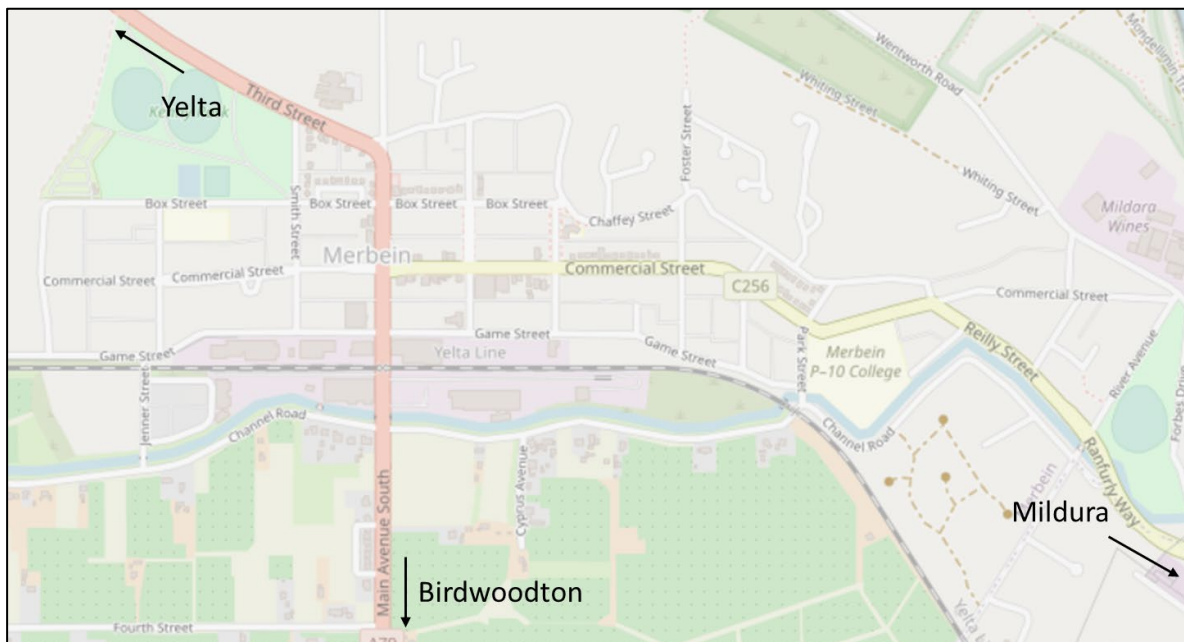


Figure 5 Melway Reference

## 4.2. Land Use

The majority of land use within the Merbein township is residential. Other significant non-residential land uses in the area include:

- Generations Early Learning

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- Chaffey Aged Care
- Kenny Park
- Caravan Park
- Merbein Rodeo
- Merbein Swimming Pool
- Our Lady of Sacred Heart Primary School
- Historical Society
- Merbein Library
- Main Shopping Strip
- Merbein Kindergarten & Maternal & Child Health Centre
- Merbein P-10
- Chaffey Park
- Merbein Common

The location of each of these facilities is presented on the land use plan at Figure 6.



Figure 6 Land Use Plan

### 4.3. Public Transport

Public transport services within the study area comprises of 5 bus routes. A graphical representation of the bus routes is presented in Figure 5.

Bus routes 211, 311 and 312 travel via Commercial Street and routes 250 and 300 via Main Avenue South, all of which provide connections to Mildura.

## Merbein Pedestrian and Cycling Plan

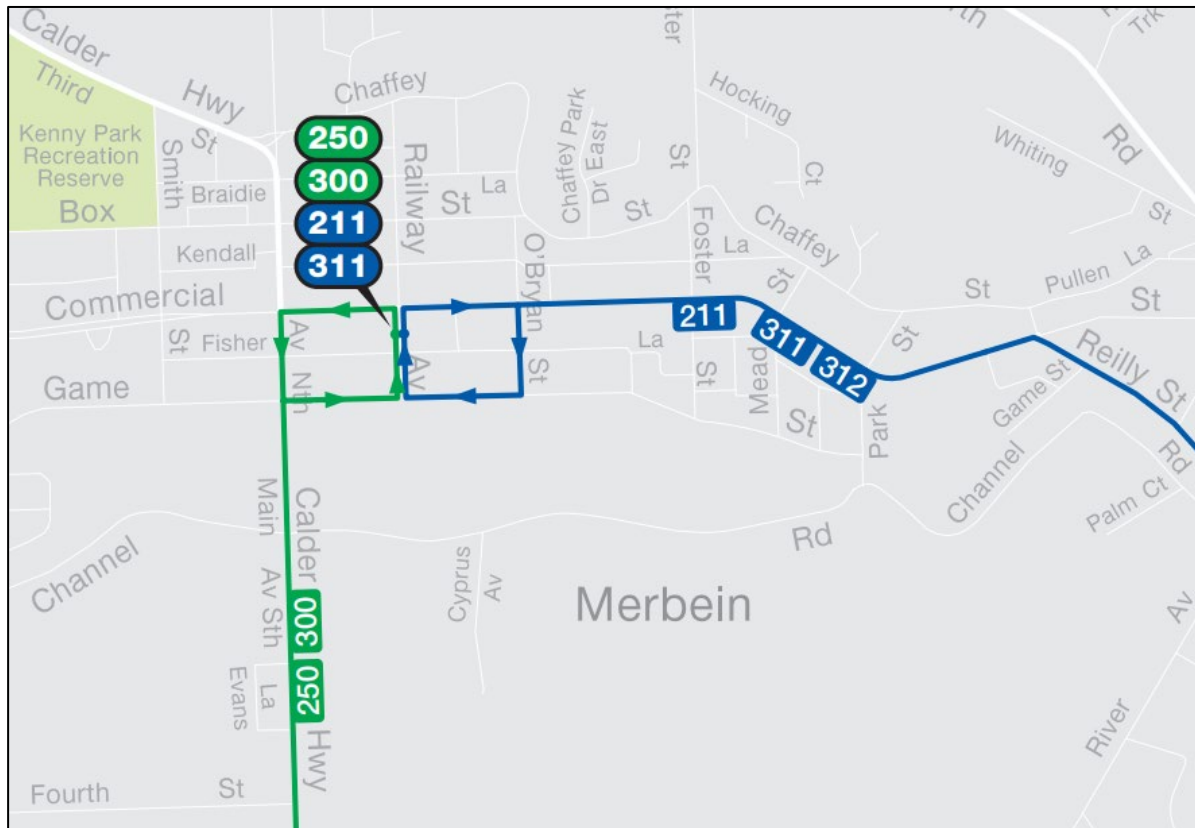


Figure 7 PTV Map for Merbein

### 4.4. Existing Walking and Cycling Facilities

There are existing walking and cycling facilities in the township of Merbein which generally comprise of footpaths and on-road bike lanes.

A plan illustrating the existing extent of walking and cycling facilities within the township is presented at Figure 8.



## Merbein Pedestrian and Cycling Plan

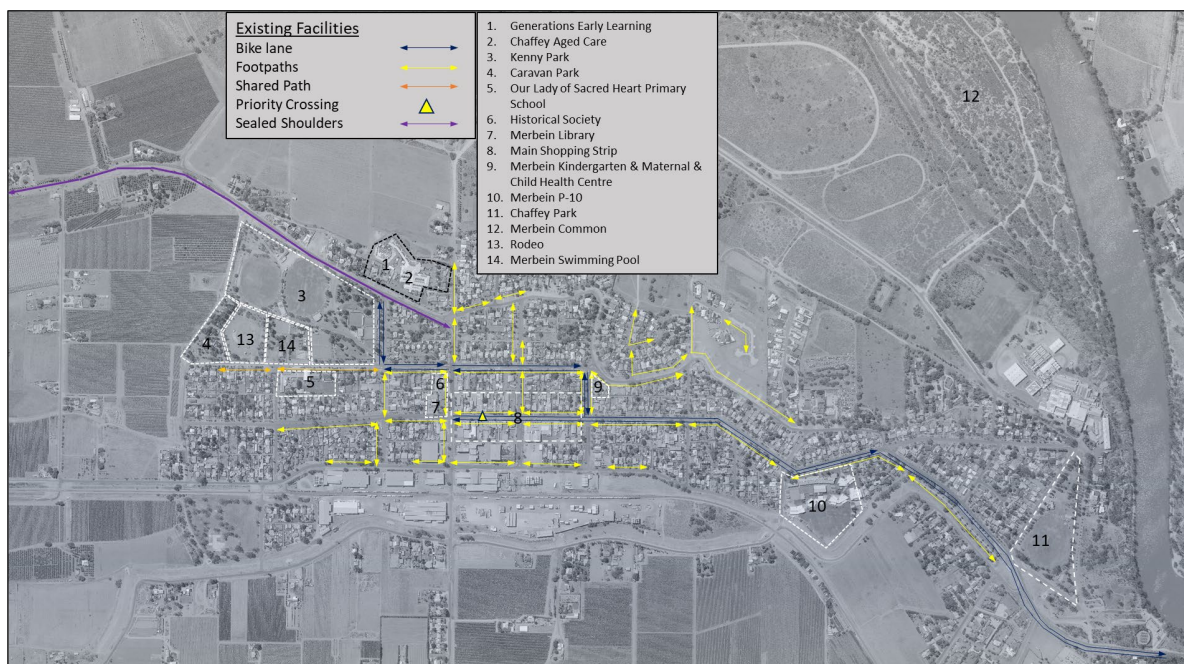


Figure 8 Existing Walking and Cycling Facilities

On-road bike lanes are currently limited to three main routes including Commercial Street to the east of Main Avenue, Box Street to the east of Smith Street and the section of Smith Street between Box Street and Third Street.

Most streets within the town contain footpaths, however, they are generally limited to one side of the road except within the main shopping strip on Commercial Street. Some streets, however, contain no footpaths on either side of the road. Also on Commercial Street is a pedestrian (zebra) crossing with flashing lights. It is noted that there are no other formal crossing facilities within the town.

A full listing of the existing walking and cycling facilities is detailed in Table 1.

Table 1 Listing of Existing Walking and Cycling Facilities

| Type of Facility & Location  |
|--|
| Footpath   |
| Box Street - South side between Smith Street and Obryan Street               |
| Chaffey Street - South side between Obryan Street and Foster Street          |
| Chaffey Street - North side between Main Avenue North and Chaffey Park Drive |
| Chaffey Street - North side between Chaffey Park Drive and Murray View Court |

## Merbein Pedestrian and Cycling Plan

| Type of Facility & Location  |
|--|
| Chaffey Park Drive - East side to Chaffey Street   |
| Commercial Street - South side between Surgey Street and River Avenue                          |
| Commercial Street - North side between Main Avenue North and Obryan Street                     |
| Delamere Court - North side to Chaffey Park Drive  |
| Foster Street - East side between Hocking Court and Chaffey Street                             |
| Game Street - North side between property no. 41 Game Street and Barclay Lane                  |
| Hocking Court - North side to Foster Street  |
| Main Avenue North - East side between property no. 54 Main Avenue North and Box Street         |
| Main Avenue North - West side between Box Street and Game Street                               |
| Railway Avenue - East side between Braidie Lane and Commercial Street                          |
| Railway Avenue - West side between Chaffey Street and Commercial Street                        |
| Smith Street - East side between Box Street and Commercial Street                              |
| Smith Street - West side of between Commercial Street and Game Street                          |
| Shared User Path   |
| Box Street - South side between Smith Street and Decker Lane                                   |
| On-Road Bike Lane  |
| Box Street - Both sides between Smith Street and Obryan Street                                 |
| Commercial Street and Reilly Street - Both sides between Main Avenue North and McEdward Street |
| Smith Street - Both sides between Third Street and Box Street                                  |

## Merbein Pedestrian and Cycling Plan

| Type of Facility & Location  |
|--|
| Priority Crossing  |
| Commercial Street - Zebra crossing with flashing lights                    |
| Sealed Shoulders   |
| Third Street - Both sides between the Calder Highway and Main Avenue North |

### 4.5. Crash History

A review of the recent 10 year crash history from January 2012 to December 2021 for the study area was undertaken which indicated a total of 20 casualty crashes within the township of Merbein. Of the 20 crashes, there was one fatal crash that occurred on Game Street in 2014 as a result of a driver under the influence who had veered off road and collided with a tree. Additionally, there were also four serious injuries, one of which involved a pedestrian.

Overall, only 2 of the 20 crashes involved pedestrians, both of which were on Commercial Street near the main shopping precinct. None of the crashes involved cyclists.

A summary of the crashes is provided in Table 1 with the crash diagram presented in Figure 9.

Table 2 Crash Summary Matrix

|    | DCA | Severity              | Date       | Day | Time  | Condition | Light |
|----|-----|-----------------------|------------|-----|-------|-----------|-------|
| 1  | 120 | Other injury          | 7/06/2019  | Fri | 10:45 | Dry       | Day   |
| 2  | 173 | Other injury          | 21/09/2020 | Mon | 3:30  | Dry       | Dark  |
| 3  | 174 | Other injury          | 10/07/2020 | Fri | 21:33 | Dry       | Dark  |
| 4  | 110 | Other injury          | 29/10/2020 | Thu | 10:00 | Dry       | Day   |
| 5  | 152 | Other injury          | 20/07/2019 | Sat | 12:45 | Dry       | Day   |
| 6  | 120 | Other injury          | 27/07/2016 | Wed | 16:00 | Dry       | Day   |
| 7  | 183 | <b>Fatal</b>          | 22/01/2014 | Wed | 23:52 | Dry       | Dark  |
| 8  | 174 | Other injury          | 13/09/2012 | Thu | 11:35 | Dry       | Day   |
| 9  | 111 | Other injury          | 20/02/2012 | Mon | 7:25  | Wet       | Dusk  |
| 10 | 173 | <b>Serious injury</b> | 2/05/2016  | Mon | 1:20  | Dry       | Dark  |

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|    | DCA | Severity              | Date       | Day | Time  | Condition | Light |
|----|-----|-----------------------|------------|-----|-------|-----------|-------|
| 11 | 110 | Other injury          | 16/07/2015 | Thu | 13:25 | Dry       | Day   |
| 12 | 110 | Other injury          | 8/01/2012  | Sun | 18:20 | Dry       | Day   |
| 13 | 100 | Other injury          | 8/02/2013  | Fri | 17:30 | Dry       | Day   |
| 14 | 102 | <b>Serious injury</b> | 28/05/2015 | Thu | 18:10 | Dry       | Dark  |
| 15 | 181 | Other injury          | 8/05/2019  | Wed | 17:48 | Dry       | Dark  |
| 16 | 130 | Other injury          | 6/02/2012  | Mon | 13:30 | Dry       | Day   |
| 17 | 113 | <b>Serious injury</b> | 7/11/2011  | Mon | 8:35  | Dry       | Day   |
| 18 | 171 | Other injury          | 3/07/2011  | Sun | 18:50 | Dry       | Dark  |
| 19 | 110 | <b>Serious injury</b> | 18/09/2011 | Sun | 13:30 | Dry       | Day   |
| 20 | 174 | Other injury          | 22/07/2011 | Fri | 9:30  | Dry       | Day   |

## Merbein Pedestrian and Cycling Plan

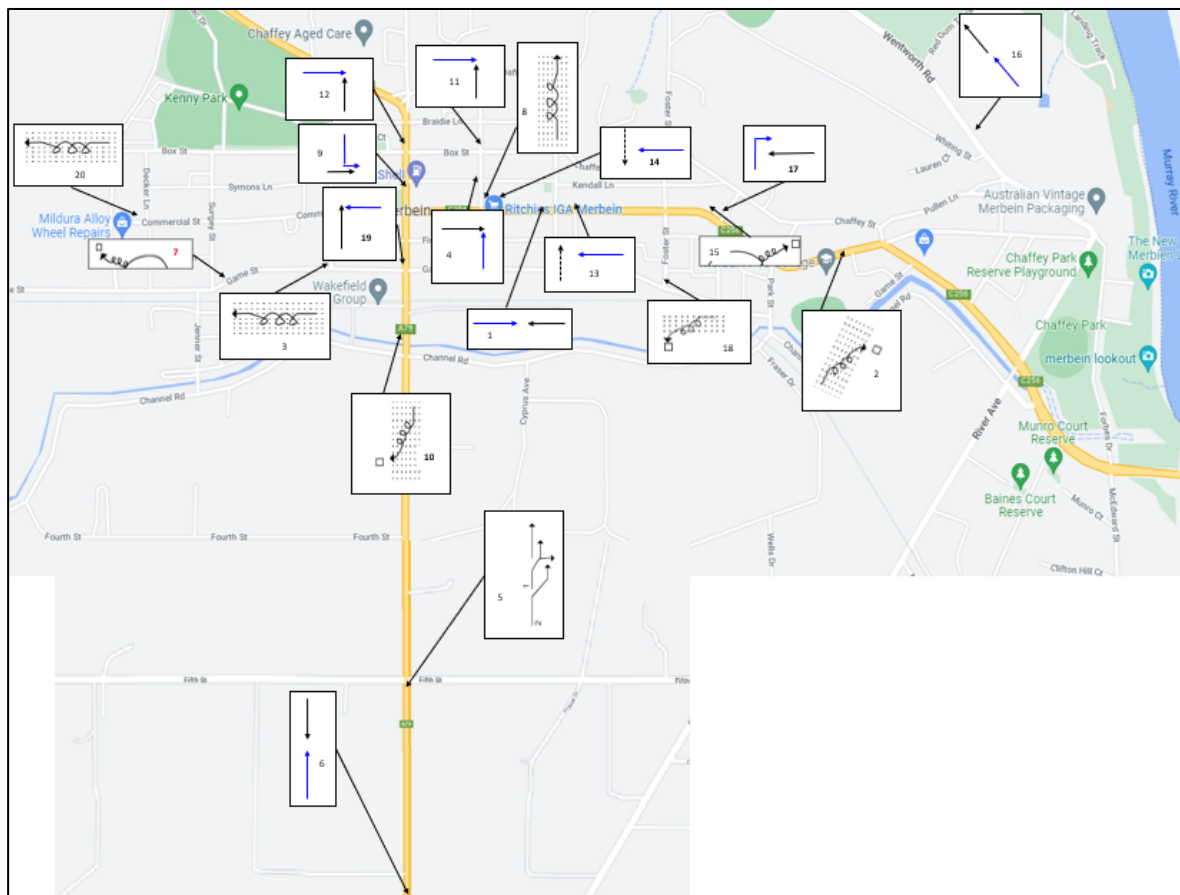


Figure 9 Crash Diagram

## 5. Community Consultation

### 5.1. Historic Community Walking and Cycling Complaints

Council has provided a record log of complaints received from the community between 2018 and 2022 for the study area, more specifically relating to walking and cycling. Some of the historic key issues that was raised include:

- Vehicles speeding along Commercial Street and laneways.
- Consideration of speed humps to slow traffic.
- Lack of footpaths on a lot of local streets.
- Need for a school crossing outside the P-10 school.

### 5.2. Community Questionnaire and Consultation Sessions

The consultation period for this project commenced on Monday 16 May 2022 to Friday 20 May 2022 to seek comments from the community on existing and future pedestrian and

## Merbein Pedestrian and Cycling Plan

cycling improvements within the study area. The consultation processes undertaken are described below:

- **Questionnaire Survey** – An online questionnaire was distributed to key stakeholder groups including local schools, recreational services, and businesses within the study area as well as external organisations that frequent through the town. In addition, a question was also included as part of Council's 'Your Say' webpage.
- **Consultation Sessions** – Three consultation sessions were undertaken in Merbein in conjunction with the Merbein Community Plan to ensure both plans are aligned.

As part of the questionnaire, feedback was also sought from the community in relation to locations where there are safety issues for walking and cycling, these locations include:

- Commercial Street
- Box Street
- Game Street
- Chaffey Street

Of the 13 responses received for the questionnaire, 77% of respondents use walking for the purpose of 'exercise fitness and/or commuting to work/school/shops' whereby 92% would walk for a minimum of 30 minutes. Of the 13 respondents, 54% cycle for a minimum duration of 30 minutes for the purposes of 'exercise fitness and/or commuting to work/school/shops'.

A copy of the questionnaire is attached to Appendix B of this report.

A question was also posted on Council's 'Your Say' webpage as part of the Merbein Community Plan which sought comments on the following:

*'What do you see as your top three priorities that would make walking and cycling easier and safer for you?'*

A total of 77 responses were received including the historic complaints from 2018, based on these responses, the key issues raised in relation to walking and cycling in Merbein are presented in Table 3.

*Table 3 Summary of Consultation Responses*

| Questionnaire   | Historic Complaints   | Merbein Community Plan  |
|---|---|---|
| <ul style="list-style-type: none"> <li>• The provision of all weather paths suitable for pedestrians and cyclists.</li> <li>• Need for more footpaths on roads outside of the main shopping precinct.</li> <li>• Better bicycle links into Merbein.</li> <li>• Need for more crossing locations on Main Avenue</li> </ul> | <ul style="list-style-type: none"> <li>• Speeding along Commercial Street, Chaffey Street and in laneways.</li> <li>• Need for footpaths on Obryan Street and on Main Avenue South towards residential property to the south.</li> <li>• Need for a school crossing outside the P-10 school.</li> <li>• Speed humps on various roads to reduce speeds.</li> </ul> | <ul style="list-style-type: none"> <li>• The need for more street lighting for roads outside of the main shopping precinct.</li> <li>• Lack of footpaths on most roads where at least one side of the road should have a footpath.</li> <li>• Better connections to key destinations including schools, shopping precinct and recreational services.</li> </ul> |

## Merbein Pedestrian and Cycling Plan

| Questionnaire  | Historic Complaints  | Merbein Community Plan   |
|--|--|--|
| <p>North and around schools and Kenny Park.</p> <ul style="list-style-type: none"><li>• Improve walking and cycling links to existing paths.</li></ul> | <ul style="list-style-type: none"><li>• Upgrade required at the intersection of Commercial Street/Reilly Street to reduce confusion for drivers.</li></ul> | <ul style="list-style-type: none"><li>• Lack of bicycle facilities both on-road/off-road</li></ul> |

### 5.3. Other Issues

There were other issues that were raised during the consultation that do not form part of the Pedestrian and Cycling Plan however following discussions with Council officers, the recommendations proposed below would result in further benefits to the community and improve walking and cycling, these include:

- Closing off the southern end of Forbes Drive to traffic and replacing it with an all-weather path for walking and cycling.
- Reducing the speed limit on Ranfurly Way to 60km/h between McEdwards Street and Channel Road. This is an arterial road which will require further consultations with DoT.
- Provision of a shared zone speed limit of 10km/h within the internal roads of the Early Learning Centre to reduce vehicle speeds and create a safer environment for parents and staff.

## 6. Pedestrian and Cycling Plan

The pedestrian and cycling plan has been developed to address the issues raised from the community consultations and following a review of the existing land uses and pedestrian and cycling networks within the township.

The recommendations aim to address missing walking and cycling links within Merbein, improve connectivity to key destinations as well as provision of safer crossing locations. Some of the key recommendations include:

- Provision of an east-west and north-south bicycle connection through Merbein.
- Provision of footpaths on roads leading to the main shopping precinct as well as schools and parks.
- Provision of crossing locations to enable safer crossing facilities.
- Provision of shared user paths to provide off-road facilities for connections to schools.

A plan illustrating the recommended pedestrian and cycling improvements is presented at Figure 10 whilst a detailed listing of all the recommended treatments is presented at Table 4.



## Merbein Pedestrian and Cycling Plan

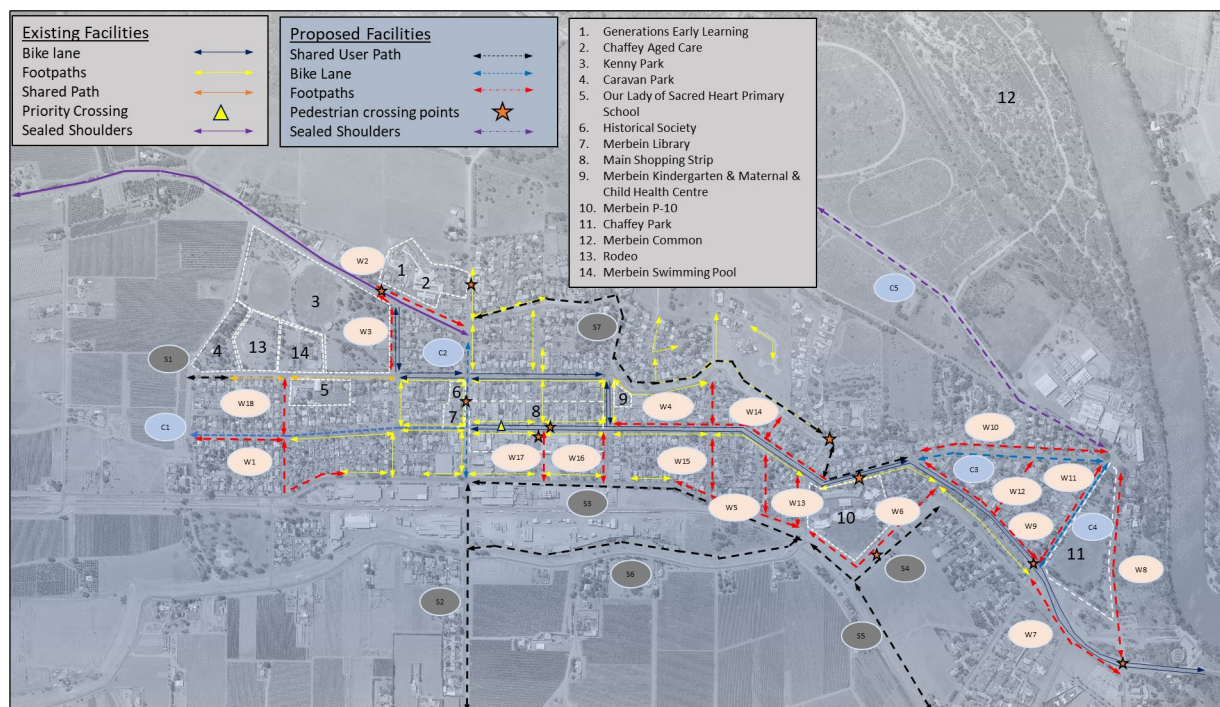


Figure 10 Proposed Walking and Cycling Improvements

Table 4 Proposed Walking and Cycling Projects

| No. | Project  | Type    | Purpose  |
|-----|--|---------|--|
| C1  | Commercial Street - On-road bike lanes on, west of Main Avenue N               | Cycling | Continuation of existing bike lanes on Commercial Street to extend east-west link through town |
| C2  | Main Avenue N - On-road bike lanes   | Cycling | Provision of a north-south connection from Third Street to Game Street                         |
| C3  | Commercial Street - On-road bike lanes between Chaffey Street and River Avenue | Cycling | Continuation of existing bike lanes on Commercial Street to extend east-west link through town |
| C4  | River Avenue - On-road bike lanes  | Cycling | Provision of a link between Chaffey Park to Reilly Street                                      |
| C5  | Wentworth Road - Sealed shoulders/bike lanes                                   | Cycling | Provision of sealed shoulders along Wentworth Road   |
| W1  | Commercial Street, Surgey Street and Game Street - Footpath on one side        | Walking | Continuation of the footpath connection on Commercial Street and Game Street                   |
| W2  | Third Street - Footpath on one side  | Walking | Provide a connection to the Early Learning and Aged Care facility                              |



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| No. | Project   | Type             | Purpose   |
|-----|---|------------------|---|
| W3  | Smith Street - Footpath on one side   | Walking          | Footpath connection to Early Learning Centre  |
| W4  | Commercial Street - Footpath on one side  | Walking          | Continuation of the footpath on Commercial Street   |
| W5  | Game Street - Footpath on one side  | Walking          | Provide a footpath connection Game Street to nearby residential homes and shopping precinct |
| W6  | Old channel - Walking track   | Walking          | Extension of the Channel Walk behind the P10 school   |
| W7  | Reilly Avenue between River Avenue and McEdward Street - Footpath on the south side | Walking          | Footpath connection to link new subdivisions to the south                                   |
| W8  | Forbes Drive - All weather path   | Walking          | Improve walking path and extend to Ranfurly Way   |
| W9  | Reilly Street - Footpath on one side  | Walking          | Provide connection between Commercial Street and River Avenue                               |
| W10 | Commercial Street - Footpath on one side  | Walking          | Provide connection between Reilly Street and River Avenue                                   |
| W11 | River Avenue - Footpath on one side   | Walking          | Provide connection between Commercial Street and Reilly Street                              |
| W12 | Cameron Street - Footpath on one side   | Walking          | Provide a connection to Commercial Street.  |
| W13 | Park Street - Footpath on one side  | Walking          | Provide a connection to Commercial Street.  |
| W14 | Mead Street - Footpath on one side  | Walking          | Provide a connection to Commercial Street.  |
| W15 | Foster Street - Footpath on one side  | Walking          | Provide a connection to Commercial Street.  |
| W16 | Obryan Street - Footpath on one side  | Walking          | Provide a connection to shopping precinct   |
| W17 | Railway Avenue - Footpath on one side   | Walking          | Provide a connection to shopping precinct   |
| W18 | Surgey Street - Footpath on one side of   | Walking          | Provide a connection to OLSH school   |
| S1  | Box Street - SUP  | Shared User Path | Continuation of connection on Box Street  |
| S2  | Main Avenue South/Calder Highway - SUP  | Shared User Path | Provide a connection to residents south of town   |

## Merbein Pedestrian and Cycling Plan

| No. | Project   | Type                | Purpose  |
|-----|---|---------------------|--|
| S3  | Game Street - SUP   | Shared User Path    | Provide a connection along Game Street   |
| S4  | Channel Road - SUP  | Shared User Path    | Provide a connection   |
| S5  | New subdivision - SUP   | Shared User Path    | Provide a connection for a future rail trail   |
| S6  | Main Channel - SUP  | Shared User Path    | Provide a connection along the Main Channel  |
| S7  | Chaffey Street - SUP  | Shared User Path    | Provide a connection along Chaffey Street utilising existing footpaths and new paths   |
| P1  | Third Street - Pram ramps and refuge on both sides                        | Pedestrian crossing | Provide a crossing point to the Generations Early Learning.  |
| P2  | Main Avenue North - Pram ramps on both sides                              | Pedestrian crossing | Provide a crossing point for residents from the Aged Care facility to access footpath on the eastern side of Main Avenue N and the shopping precinct |
| P3  | Main Avenue North - Pram ramps on both sides                              | Pedestrian crossing | Provide a crossing point to the library.   |
| P4  | Commercial Street - Raised pedestrian crossing                            | Pedestrian crossing | Provide a priority crossing facility for residents within the shopping precinct.   |
| P5  | Railway Avenue - Raised pedestrian crossing                               | Pedestrian crossing | Provide a priority crossing facility for residents within the shopping precinct.   |
| P6  | Chaffey Street - Pram ramps on both sides                                 | Pedestrian crossing | Provide a crossing point for residents from the new subdivisions to the north.   |
| P7  | Commercial Street - School crossing                                       | School crossing     | School crossing outside P10 school to connect students to residential subdivisions to the north  |
| P8  | Channel Road - Pram ramps and refuge on both sides                        | Pedestrian crossing | Provide a crossing point to the P-10 School from the new subdivisions to the south.  |
| P9  | Reilly Street - Pram ramps on both sides and provide refuge within median | Pedestrian crossing | Provide a safe crossing point from new subdivisions to the south and Chaffey Park  |
| P10 | Ranfurly Way - Pram ramps on both sides and provide refuge within median  | Pedestrian crossing | Provide a safe crossing point from new subdivisions to the south and Chaffey Park  |

# 7. Prioritisation of Improvements

Based on the recommendations, a high-level cost estimate for each improvement has been prepared based on recent construction rates provided by Council as well as current rates within the industry. These costs include only the main construction items and do not include site specific items such as service impacts or traffic management. A 30% allowance has been included for contingencies.

Based on the complexity and cost of each project and the identified need, each recommendation is categorised into the following timeframes:

- Short term (1-2 years)
- Medium term (3-5 years)
- Long term (>5 years)

Each of the recommendations have been allocated a priority in Table 5.

*Table 5 Prioritised list of improvements*

| No. | Project   | Type    | Total cost (\$) | Priority    |
|-----|---|---------|-----------------|-------------|
| C1  | Commercial Street - On-road bike lanes on, west of Main Avenue N                    | Cycling | 15,000          | Short term  |
| C2  | Main Avenue N - On-road bike lanes  | Cycling | 8,000           | Short term  |
| C3  | Commercial Street - On-road bike lanes between Chaffey Street and River Avenue      | Cycling | 10,000          | Short term  |
| C4  | River Avenue - On-road bike lanes   | Cycling | 7,000           | Short term  |
| C5  | Wentworth Road - Sealed shoulders/bike lanes  | Cycling | 2,700,000       | Long term   |
| W1  | Commercial Street, Surgey Street and Game Street - Footpath on one side             | Walking | 235,000         | Medium term |
| W2  | Third Street - Footpath on one side   | Walking | 205,000         | Short term  |
| W3  | Smith Street - Footpath on one side   | Walking | 105,000         | Short term  |
| W4  | Commercial Street - Footpath on one side  | Walking | 270,000         | Short term  |
| W5  | Game Street - Footpath on one side  | Walking | 170,000         | Short term  |
| W6  | Old channel - Walking track   | Walking | 200,000         | Short term  |
| W7  | Reilly Avenue between River Avenue and McEdward Street - Footpath on the south side | Walking | 150,000         | Short term  |
| W8  | Forbes Drive - All weather path   | Walking | 250,000         | Short term  |

## Merbein Pedestrian and Cycling Plan

| No. | Project  | Type                | Total cost (\$) | Priority    |
|-----|--|---------------------|-----------------|-------------|
| W9  | Reilly Street - Footpath on one side               | Walking             | 205,000         | Short term  |
| W10 | Commercial Street - Footpath on one side           | Walking             | 235,000         | Short term  |
| W11 | River Avenue - Footpath on one side                | Walking             | 155,000         | Short term  |
| W12 | Cameron Street - Footpath on one side              | Walking             | 82,000          | Short term  |
| W13 | Park Street - Footpath on one side                 | Walking             | 65,000          | Short term  |
| W14 | Mead Street - Footpath on one side                 | Walking             | 125,000         | Short term  |
| W15 | Foster Street - Footpath on one side               | Walking             | 145,000         | Short term  |
| W16 | Obryan Street - Footpath on one side               | Walking             | 62,000          | Short term  |
| W17 | Railway Avenue - Footpath on one side              | Walking             | 62,000          | Short term  |
| W18 | Surgey Street - Footpath on one side of            | Walking             | 62,000          | Short term  |
| S1  | Box Street - SUP                                   | Shared User Path    | 55,000          | Short term  |
| S2  | Main Avenue South/Calder Highway - SUP             | Shared User Path    | 445,000         | Medium term |
| S3  | Game Street - SUP                                  | Shared User Path    | 683,000         | Medium term |
| S4  | Channel Road - SUP                                 | Shared User Path    | 225,000         | Medium term |
| S5  | New subdivision - SUP                              | Shared User Path    | 320,000         | Medium term |
| S6  | Main Channel - SUP                                 | Shared User Path    | 662,000         | Medium term |
| S7  | Chaffey Street - SUP                               | Shared User Path    | 1,023,000       | Short term  |
| P1  | Third Street - Pram ramps and refuge on both sides | Pedestrian crossing | 6,500           | Short term  |
| P2  | Main Avenue North - Pram ramps on both sides       | Pedestrian crossing | 4,500           | Short term  |
| P3  | Main Avenue North - Pram ramps on both sides       | Pedestrian crossing | 4,500           | Short term  |
| P4  | Commercial Street - Raised pedestrian crossing     | Pedestrian crossing | 12,000          | Short term  |

## Merbein Pedestrian and Cycling Plan

---

| No. | Project   | Type                | Total cost (\$) | Priority   |
|-----|---|---------------------|-----------------|------------|
| P5  | Railway Avenue - Raised pedestrian crossing                               | Pedestrian crossing | 12,000          | Short term |
| P6  | Chaffey Street - Pram ramps on both sides                                 | Pedestrian crossing | 4,500           | Short term |
| P7  | Commercial Street - School crossing                                       | School crossing     | 4,500           | Short term |
| P8  | Channel Road - Pram ramps and refuge on both sides                        | Pedestrian crossing | 6,500           | Short term |
| P9  | Reilly Streey - Pram ramps on both sides and provide refuge within median | Pedestrian crossing | 6,500           | Short term |
| P10 | Ranfurly Way - Pram ramps on both sides and provide refuge within median  | Pedestrian crossing | 6,500           | Short term |

## 8. Conclusion

The pedestrian and cycling plan has been developed to address the issues raised from the community consultations and following a review of the existing land uses and pedestrian and cycling networks within the township.

Key recommendations include:

- Provision of an east-west and north-south bicycle connection through Merbein.
- Provision of footpaths on roads leading to the main shopping precinct as well as schools and parks.
- Provision of crossing locations to enable safer crossing facilities.
- Provision of shared user paths to provide off-road facilities for connections to schools.

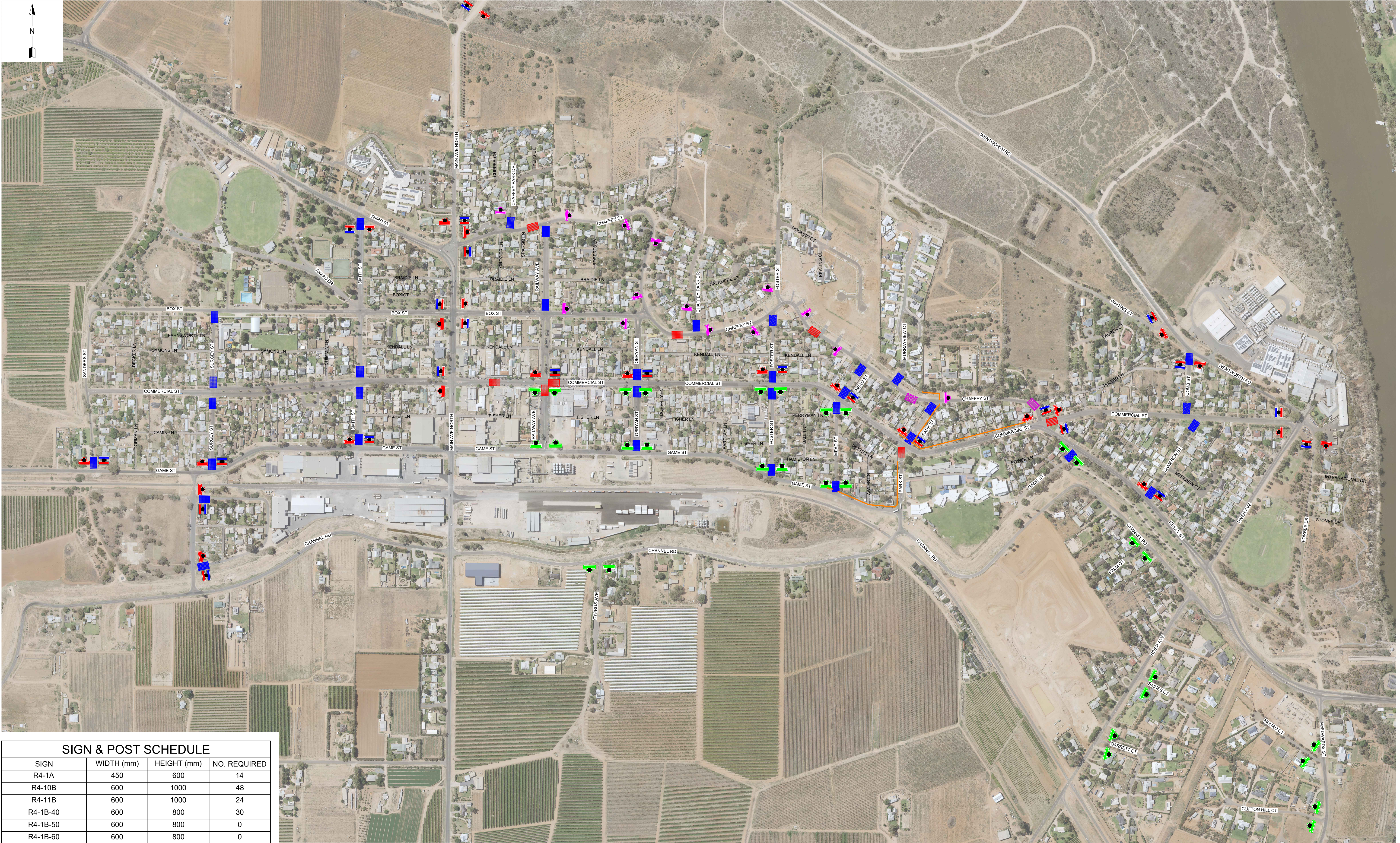
The recommendations from this Plan in conjunction with other Council initiatives including the Merbein Community Plan, area wide speed limit reductions and LATM will create a safer and better connected community.



# Appendix A

## LATM Plan






| SIGN & POST SCHEDULE   |            |             |              |
|------------------------|------------|-------------|--------------|
| SIGN                   | WIDTH (mm) | HEIGHT (mm) | NO. REQUIRED |
| R4-1A                  | 450        | 600         | 14           |
| R4-10B                 | 600        | 1000        | 48           |
| R4-11B                 | 600        | 1000        | 24           |
| R4-1B-40               | 600        | 800         | 30           |
| R4-1B-50               | 600        | 800         | 0            |
| R4-1B-60               | 600        | 800         | 0            |
| W5-10                  | 600        | 600         | 16           |
| RRPM                   |            |             | 306          |
| GALVANIZED STEEL POSTS | 50mm NB    |             | 108          |


PLAN  
SCALE 1:4000

CONCEPT ONLY


LEGEND




NEW 40 KM/HR AREA SIGN




REPEATER 40 KM/HR SIGN




END 40 KM/HR AREA SIGN




NEW 40 KM/HR SIGN




R4-10B




R4-1A




R4-11B




R4-1B




NEW SPEED HUMP SIGN




NEW LINE MARKING




NEW SCHOOL CROSSING




NEW CONCRETE FOOTPATH




W5-10A




NEW CONCRETE ISLAND TREATMENT (ON BEND)



NEW RAISED SAFETY PLATFORM TREATMENT



NEW ROUNDABOUT WITH KERB OUTSTANDS AND ISLANDS



NEW CONCRETE ISLAND TREATMENT

| ISSUE | DATE | AMENDMENTS | APPROVED | DESIGNED:           | CHECKED: | PROJECT:                      | PROJECT NO: |            |
|-------|------|------------|----------|---------------------|----------|-------------------------------|-------------|------------|
| 1     | -    | -          | -        | N MOORE             | A BURKE  | CYCLIST AND PEDESTRIAN SAFETY | -           |            |
|       |      |            |          | DRAWN:              | SCALE:   |                               | SHEET No:   | 100        |
|       |      |            |          | N MOORE             | AS SHOWN |                               | PLAN No:    | -          |
|       |      |            |          | CAD FILE NAME:      |          | DRAWING:                      | DATE:       | 27/10/2021 |
|       |      |            |          | Merbein Area Stils4 |          | AREA MERBEIN                  | SIZE:       | A1         |

Contractor shall check and verify all dimensions on site and report any discrepancies to the Designer. Copyright Reserved





# Appendix B

## Questionnaire





Mildura Rural City Council

## Traffix Group

### Merbein Walking & Cycling Plan Questionnaire

Mildura Rural City Council has been successful in obtaining funding from the TAC to prepare an action plan for the improvement of pedestrian and cyclist safety, plus connectivity, within the Merbein township.

The plan will aim to benefit pedestrian and cyclist activity in tourism, recreational, residential, schools and commercial aspects of the township.



\* Required



What is your connection to Merbein? \*

- ☐ I am a local resident
- ☐ I work in Merbein
- ☐ I like to shop in/visit Merbein
- ☐ Other: \_\_\_\_\_

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Other: \_\_\_\_\_

What is your age?

Your answer \_\_\_\_\_

How do you normally travel around Merbein? \*

- ☐ Drive a car
- ☐ Walk
- ☐ Catch buses
- ☐ Cycle
- ☐ Ride a motorbike
- ☐ Skateboard
- ☐ Manual scooter
- ☐ Motorised scooter
- ☐ Other: \_\_\_\_\_

What is your main purpose for walking in Merbein?

- How often do you walk during the week?

- When walking in Merbein, on average how long do you walk?

- How would you rate the existing level of safety when walking in Merbein?

- 0 1 2 3 4 5
- Very unsafe ○ ○ ○ ○ ○ Very Safe

What improvements should be made to increase your participation in walking?

Your answer

---

List up to 5 locations where there are existing safety issues for walking?

Your answer

---

Do you have any suggestions on potential improvements to address the safety issues you have identified?

Your answer

---

Thinking specifically of road crossings, nominate locations where you experience difficulties crossing?

Your answer

---

Thinking of walking in Merbein, identify any locations where there are missing links/gap in the network?

Your answer

---

Are there any other issues you would like to raise for walking in Merbein?

Your answer

---

## Questions for Cycling

What is your main purpose for cycling in Merbein?

☐ Commuting to work/school/shops

☐ Exercise fitness

☐ Social recreational

☐ Other: \_\_\_\_\_

- How often do you cycle?
- ☐ Daily
- ☐ Weekly
- ☐ Monthly

How often do you cycle?

☐ Daily

☐ Weekly

☐ Monthly

- When cycling in Merbein, on average how long do you cycle?
- ☐ Less than 15mins
  - ☐ 15mins
  - ☐ 30mins
  - ☐ An hour
  - ☐ More than an hour

When cycling in Merbein, on average how long do you cycle?

- ☐ Less than 15mins
- ☐ 15mins
- ☐ 30mins
- ☐ An hour
- ☐ More than an hour

- How would you rate the existing level of safety when cycling in Merbein?
- 0 1 2 3 4 5
- Very unsafe ☐ ☐ ☐ ☐ ☐ ☐ Very safe

How would you rate the existing level of safety when cycling in Merbein?

0 1 2 3 4 5

Very unsafe ○ ○ ○ ○ ○ ○ Very safe

What improvements should be made to increase your participation in cycling?

Your answer

---

List up to 5 locations where there are existing safety issues for cycling?

Your answer

---

Do you have any suggestions on potential improvements to address the safety issues you have identified?

Your answer

---

Thinking specifically of road crossings, nominate locations where you experience difficulties crossing?

Your answer

---

Thinking of cycling in Merbein, identify any locations where there are missing links/gap in the network ?

Your answer

---

Are there any other issues you would like to raise for cycling in Merbein?

Your answer

---