



# CYCLING ACTION PLAN

MAKING IT EASIER TO CYCLE IN GLEN EIRA  
2019–2024







## 1 INTRODUCTION 4

- 1.1 Integrated Transport Strategy 6
- 1.2 Vision and objective 7
- 1.3 Why is cycling important? 7

## 2 EXISTING CONDITIONS 8

- 2.1 Existing cycling network 10
- 2.2 Workplace locations 12
- 2.3 Cycling to work 14
- 2.4 Crash statistics 16

## 3 GAPS AND ISSUES 18

## 4 PROPOSED IMPROVEMENTS 22

- 4.1 Safe cycling streets 24
- 4.2 On-road cycling network 26
- 4.3 Connection to destinations 28
- 4.4 Policy and enforcement 28
- 4.5 Addressing major barriers 30
- 4.6 Monitoring 31

## 5 DETAILED ACTION PLAN 32

- 5.1 Prioritisation of actions 34
- 5.2 Existing cycling actions 35
- 5.3 The action plan 36
- 5.4 Criteria and scoring results 42



# I INTRODUCTION





## I INTRODUCTION

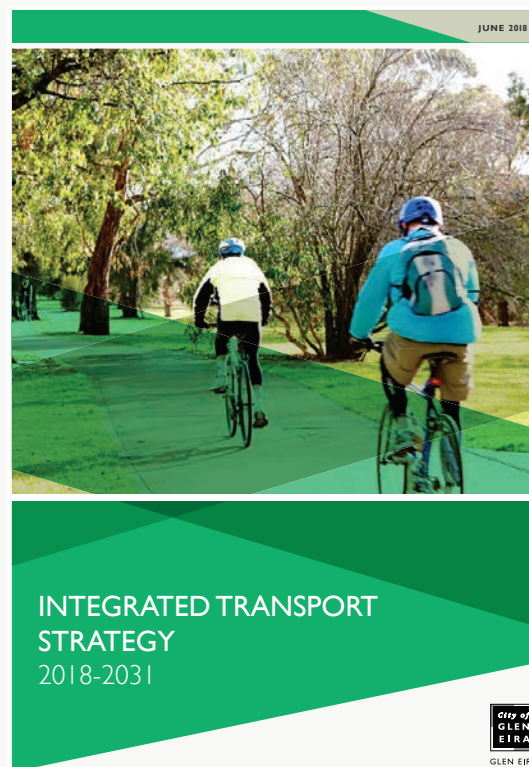
### I.1 INTEGRATED TRANSPORT STRATEGY

Council's *Integrated Transport Strategy* sets out the high-level strategic transport direction for the municipality. The *Strategy* provides a cohesive framework that integrates transport and land use planning with the collective vision set by the structure planning program.

The vision presented in the *Integrated Transport Strategy* is for a 50:50 mode share of car and non-car trips by 2031. To achieve this vision, there must be accessible and convenient alternate transport options available. The *Integrated Transport Strategy* proposes four premium transit corridors that seek to prioritise travel modes on identified routes to create a more efficient road and transportation network. These are:

- > Efficient Driving Routes;
- > Express Public Transport Routes;
- > Great Walking and Shopping Streets; and
- > Safe Cycling Streets.

A Safe Cycling Street is a road or street that aims to enable cycling as a realistic transport mode choice. These streets foster a safe cycle environment for people of all abilities to safely cycle between destinations.





## I.2 VISION AND OBJECTIVE

The *Integrated Transport Strategy* guides improvement decisions for the transport system within Glen Eira and meets the municipality's need to plan for growth and change. It is necessary to develop specific action plans that align and contribute to achieving the goals established within the *Strategy*.

The objective of the *Cycling Action Plan 2019-2024* is to provide the direction for achieving the strategic cycling vision outlined in the *Integrated Transport Strategy*.

The vision is to enable cycling to become a safe and attractive form of transportation for people of all ages and abilities. The approach is to consider all modes of transport equally, with a focus on improving cycling infrastructure around the municipality, and where identified prioritising cycling in the hierarchy of on-road users. This includes recognising the role cycling plays in linking other modes, such as cycling to and from train stations.

## I.3 WHY IS CYCLING IMPORTANT?

There are numerous health, environmental, economic and social benefits associated with cycling.

Cycling is an environmentally sustainable mode of travel. It generates almost zero pollution or emissions, has no demand for fossil fuels during use and has no noise impact.

Increased physical activity can also help us feel better physically and mentally, helping overcome many of the health challenges facing Glen Eira. Cycling is a healthy, low-impact exercise that can be enjoyed by people of all ages.

It is also one of the most reliable modes of travel for many local trips and can be a time-competitive choice for short distance journeys. For trips under 3km it can take less time when congestion, parking time and the walk from car park to destination are considered.

By 2031, Glen Eira is expected to grow by an additional 30,260 new residents. If the current rate of commuting by car is maintained, this could equate to an additional 22,432 cars on our local roads. This will lead to further congestion on our roads as well as new and increased parking concerns in some areas.

Compared with other modes of transport, cycling is a cheaper alternative and has few ongoing costs. This gives more people a chance to feel included and engaged with their community by being able to better move around it.



## 2 EXISTING CONDITIONS





## 2 EXISTING CONDITIONS

### 2.1 EXISTING CYCLING NETWORK

The existing cycling network within Glen Eira is predominantly on road. Very few sections of the cycling network are fully separated from other transport modes. There are limited sections of off-road bicycle paths or shared-use paths (where the path is shared with pedestrians). These include:

- > sections of the Frankston Rail Trail between Glen Huntly Station to Ormond Station and McKinnon Station to Bentleigh Station;
- > sections of the Rosstown Rail Trail; and
- > the Caulfield to Dandenong shared path (the Djerring Trail).

The map opposite (figure 1) shows the existing cycling network in Glen Eira. The network is quite extensive, however it is primarily on-road which means that it does not cater to a wide range of users. Unseparated cycling infrastructure generally only caters to the more confident riders who are happy to mix with vehicle traffic.

There are three different types of on-road infrastructure in Glen Eira:

- > Defined painted bicycle lanes between the parking and vehicle lanes.
- > Shared parking and bicycle lanes.
- > Shared vehicle lanes.

Gaps in the cycling infrastructure also exist at intersections. In many cases the bicycle lane disappears before the intersection and does not start again until 50 metres after the intersection. There are also limited facilities for bicycles at intersections, such as bicycle boxes where the bicycles can stop at the top of the vehicle lane, separate traffic lights for better flow and no rails to lean on (to not have to step off the bicycle).



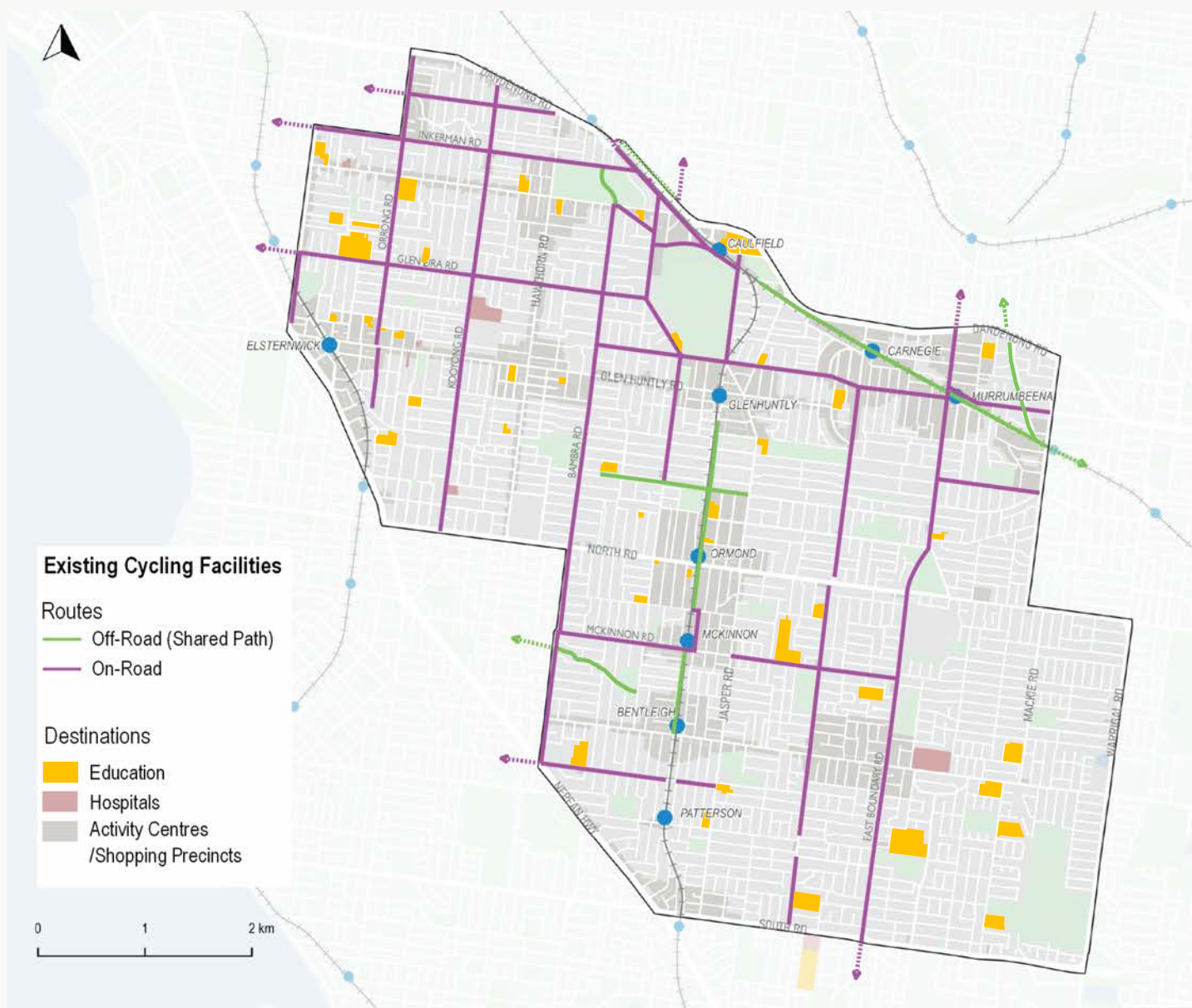


Figure 1 – Existing cycling network.

## 2 EXISTING CONDITIONS

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### 2.2 WORKPLACE LOCATIONS

Data from the Australian Bureau of Statistics shows that approximately 80 per cent of the working Glen Eira population work outside the City of Glen Eira. The map opposite (figure 2) shows the areas of Melbourne where these workplaces are located, with the majority being in the CBD and surrounding inner city.

The north-western portion of Glen Eira is positioned closer to the current majority of workplaces, generally within five to 15km. The south-eastern portion of Glen Eira is positioned closer to the emerging Monash Employment and Innovation Cluster (Clayton) which has been identified as a major future workplace destination by the State Government.



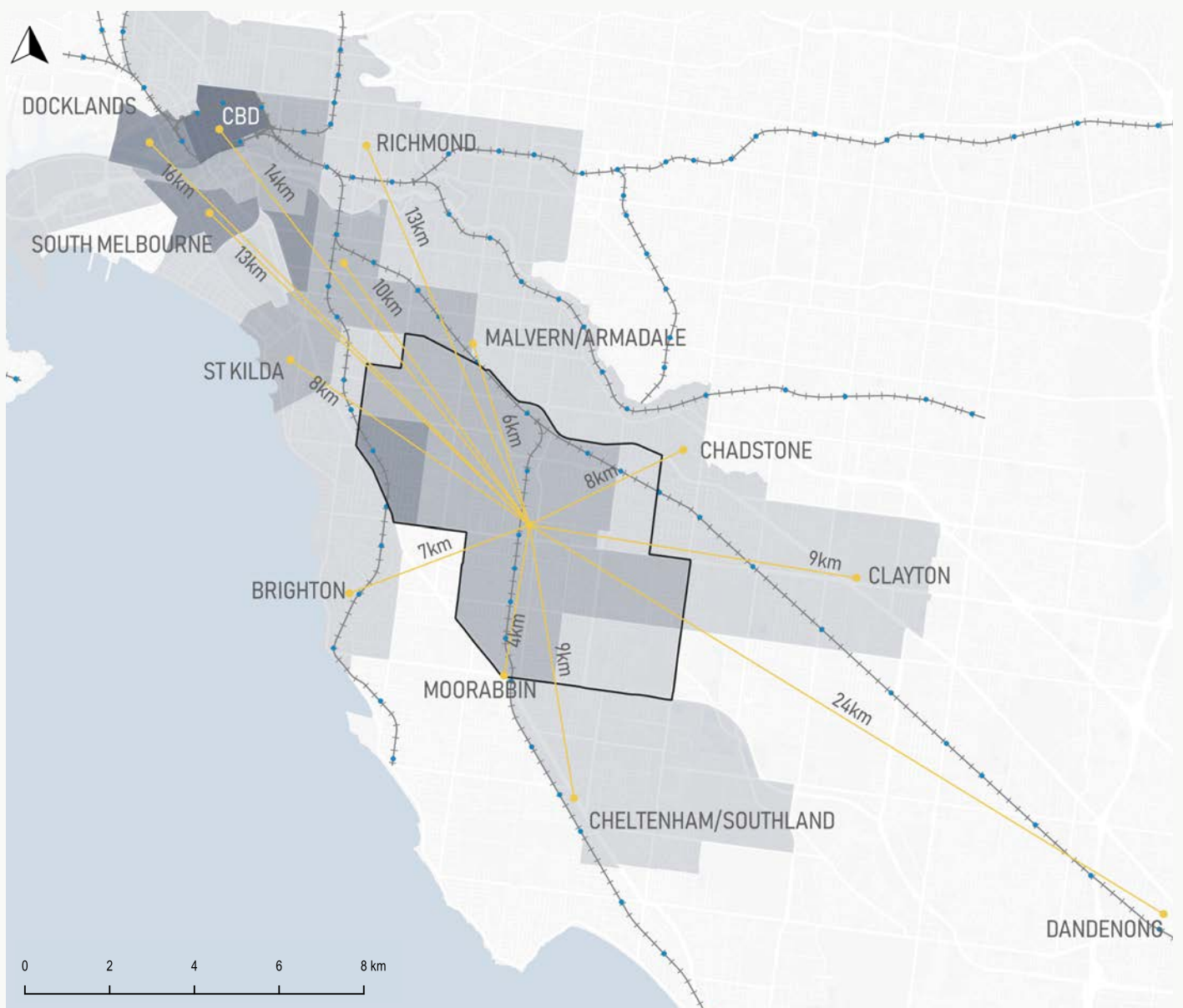


Figure 2 – Approximate distance to workplaces.

## 2 EXISTING CONDITIONS

### 2.3 CYCLING TO WORK

A large number of external workplaces in the CBD are within five to 15km of the north-western portion of Glen Eira. This means that the opportunity to cycle to work is high, with the distance many people would consider cycling to work being around 10km.

The south-eastern portion of Glen Eira is further away from these workplaces and therefore the opportunity to cycle to work is lower as most people (beside confident riders) would choose not to cycle these longer distances. However, there is potential with dedicated cycling routes, future expansion of the closer Monash Employment and Innovation Cluster (Clayton), electric bicycles enabling people to ride further and local cycling connections to public transport for longer journeys.

The map opposite (figure 3) shows the locations where people cycled directly to work on census day (2016). While there were a number of people who cycled to work from the north-western portion of Glen Eira, there were higher numbers in the neighbouring City of Port Phillip and City of Stonnington. This could be attributed to their closer distance to the Central Business District as well as dedicated cycling infrastructure such as the Bay Trail, Gardiners Creek Trail, Main Yarra Trail and the Albert Park/South Melbourne and St Kilda Road bicycle corridors.

It could also be assumed that Dandenong Road and Nepean Highway act as barriers for people cycling from Glen Eira to the CBD, as cycling numbers are higher in the immediate areas that do not have to cross these main roads.



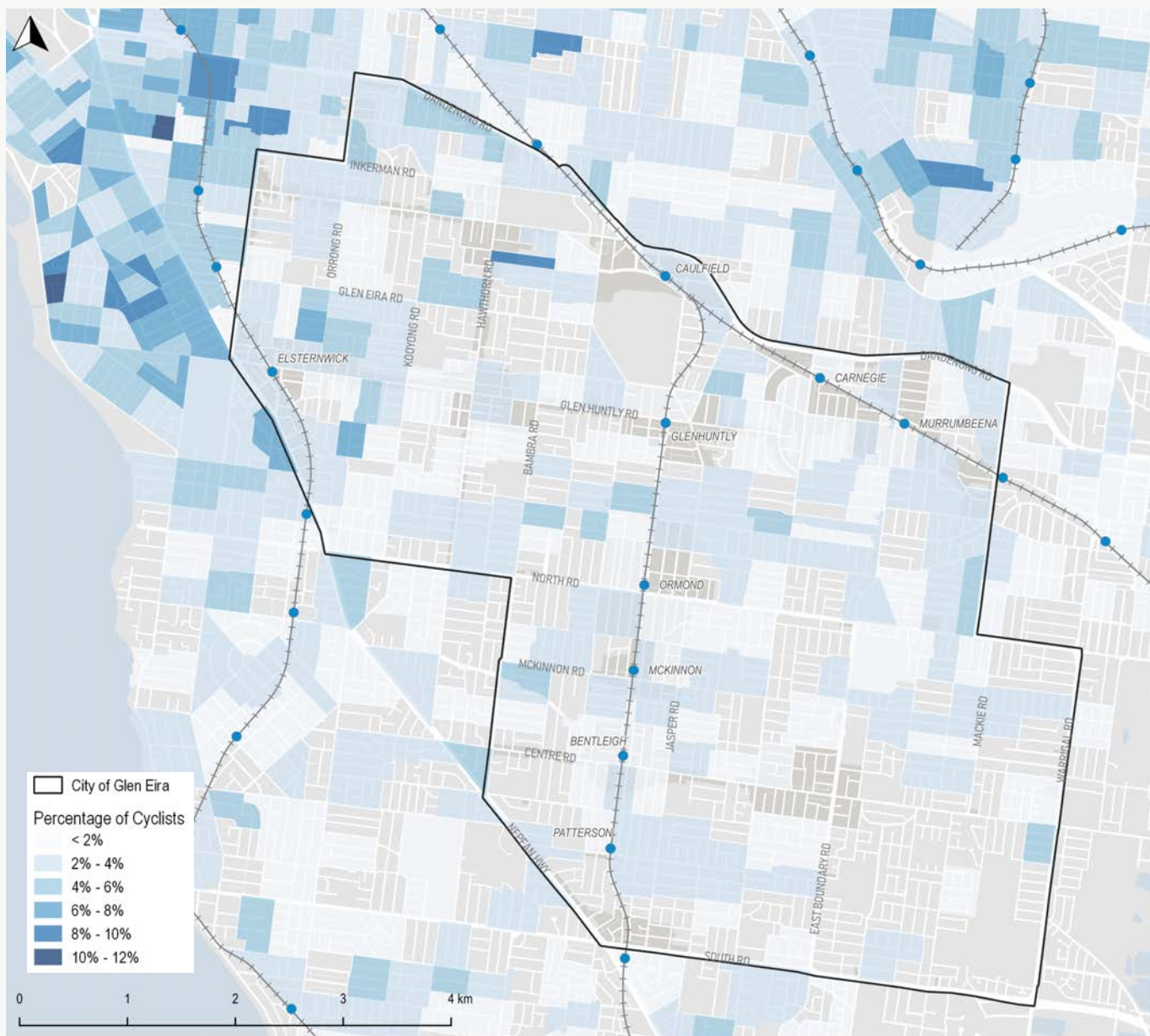


Figure 3 – Percentage of employees cycling directly to work.

## 2 EXISTING CONDITIONS

### 2.4 CRASH STATISTICS

The map opposite (figure 4) shows the reported crashes that involved cyclists in Glen Eira between January 2013 and October 2018. There were a total of 260 reported incidents that involved a cyclist. It is important to remember that these are only the reported crashes; many cycling crashes are never reported depending on severity or police involvement. In reality the cyclist incident rate is most likely much higher.

The majority of cycling crashes happen in the north-western part of Glen Eira, where the cycling numbers are higher. Many of the incidents happened at intersections where cyclists interact with turning vehicles, or on street with people exiting parked cars.

Important themes that have come from the cycling crash statistics include:

- > 62 per cent of all reported bicycle incidents happened on a 60km/h road.
- > 60 per cent of all reported bicycle incidents happened at an intersection (evenly split between T-intersections or four-way intersections).
- > 70 per cent of all reported bicycle incidents happened during daylight hours.
- > 80 per cent of all reported bicycle incidents happened on a weekday. With half of these happening either in the morning or evening peak periods.
- > A high number of reported intersection crashes happened along Glen Eira Road with a car turning right across the cycling lane.
- > A high number of dooring incidents (opening a car door into an oncoming cyclist) occurred along Glenhuntly Road.





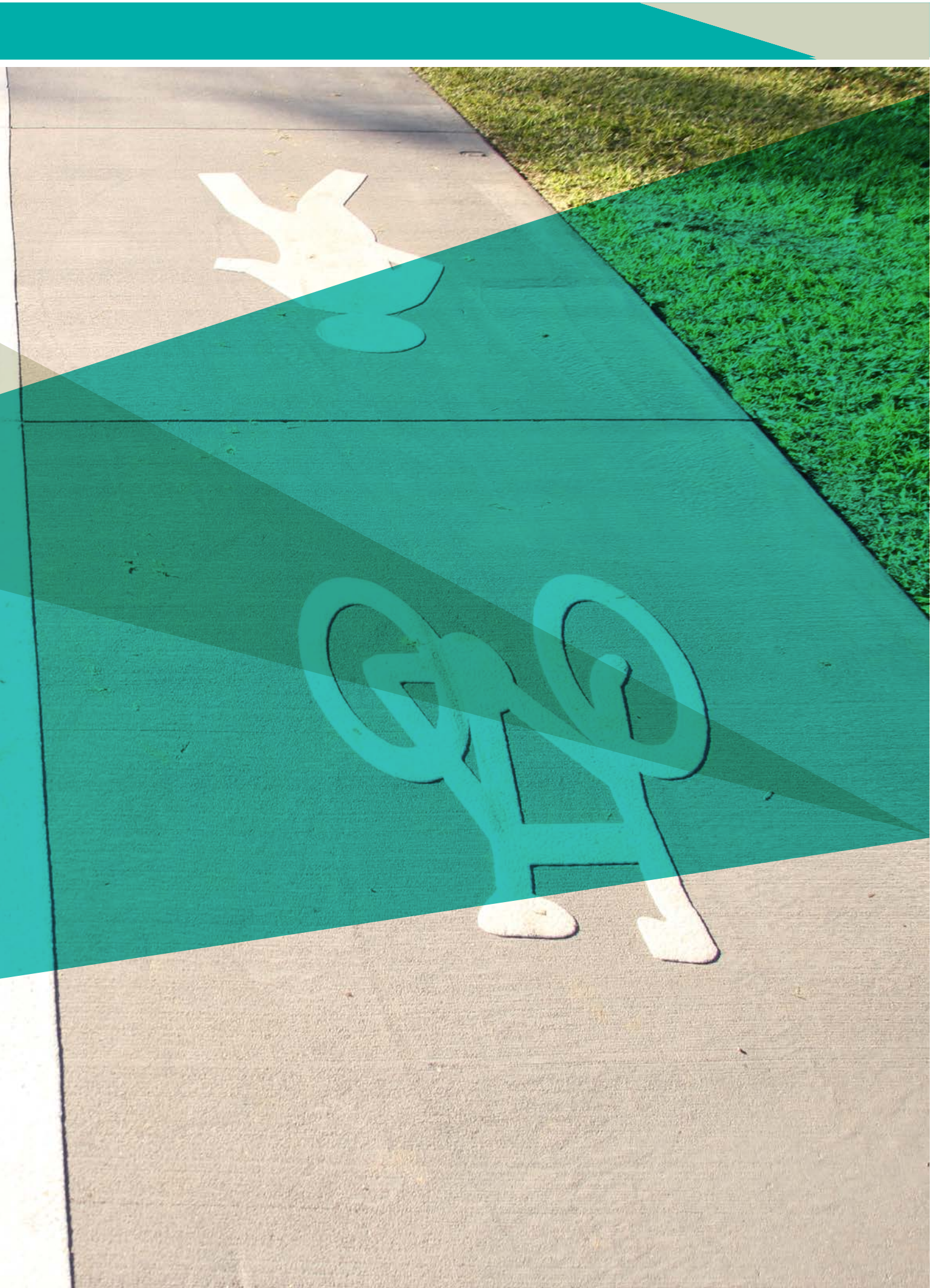
Figure 4 – Reported crashes that involved cyclists in Glen Eira between January 2013 and October 2018.



A photograph of a paved path with a white arrow pointing up and a teal bicycle graphic overlaid. The path is made of light-colored concrete slabs. To the left of the path is a grassy area. A large, semi-transparent teal graphic of a bicycle is overlaid on the lower half of the image. The number '3' is positioned to the left of the text 'GAPS AND ISSUES'.

# 3 GAPS AND ISSUES





### 3 GAPS AND ISSUES

Following the adoption of Council's *Integrated Transport Strategy*, a number of gaps and issues related to cycling have been identified within Glen Eira. These include:

- > Limited opportunities and/or safe crossing points across major barriers such as Dandenong, North, and South Roads; and Nepean Highway. This includes major intersections such as Glenhuntly Road and Nepean Highway.
- > Limited separated cycling routes that cater for all types of riders.
- > Gaps in existing off-road cycling routes such as the Frankston Rail Trail and the Caulfield end of the Djerring Trail.
- > Limited connections to neighbouring councils and cycling routes outside of Glen Eira, such as the St Kilda Road Corridor, Bay Trail, Gardiners Creek Trail and Scotchmans Creek Trail.
- > Additional improvements to on-road cycling infrastructure is needed to support the dedicated Safe Cycling Streets identified in the *Integrated Transport Strategy*.
- > Limited continual north-south and east-west on-road cycling facilities.
- > Improvements are needed for shorter local cycling trips to train stations and shopping centres.
- > Improvements to end-of-trip facilities, including bicycle parking, is needed at public transport stations and throughout activity centres.
- > Perceptions of road safety can be improved, particularly at intersections and side road crossings.
- > Issues that relate to cycling infrastructure are not treated as equally as issues facing other road users.
- > Council enforcement of issues impacting cyclists, such as blocking of bicycle lanes, can be improved.
- > There is a need for ongoing monitoring of cycling numbers and patterns.



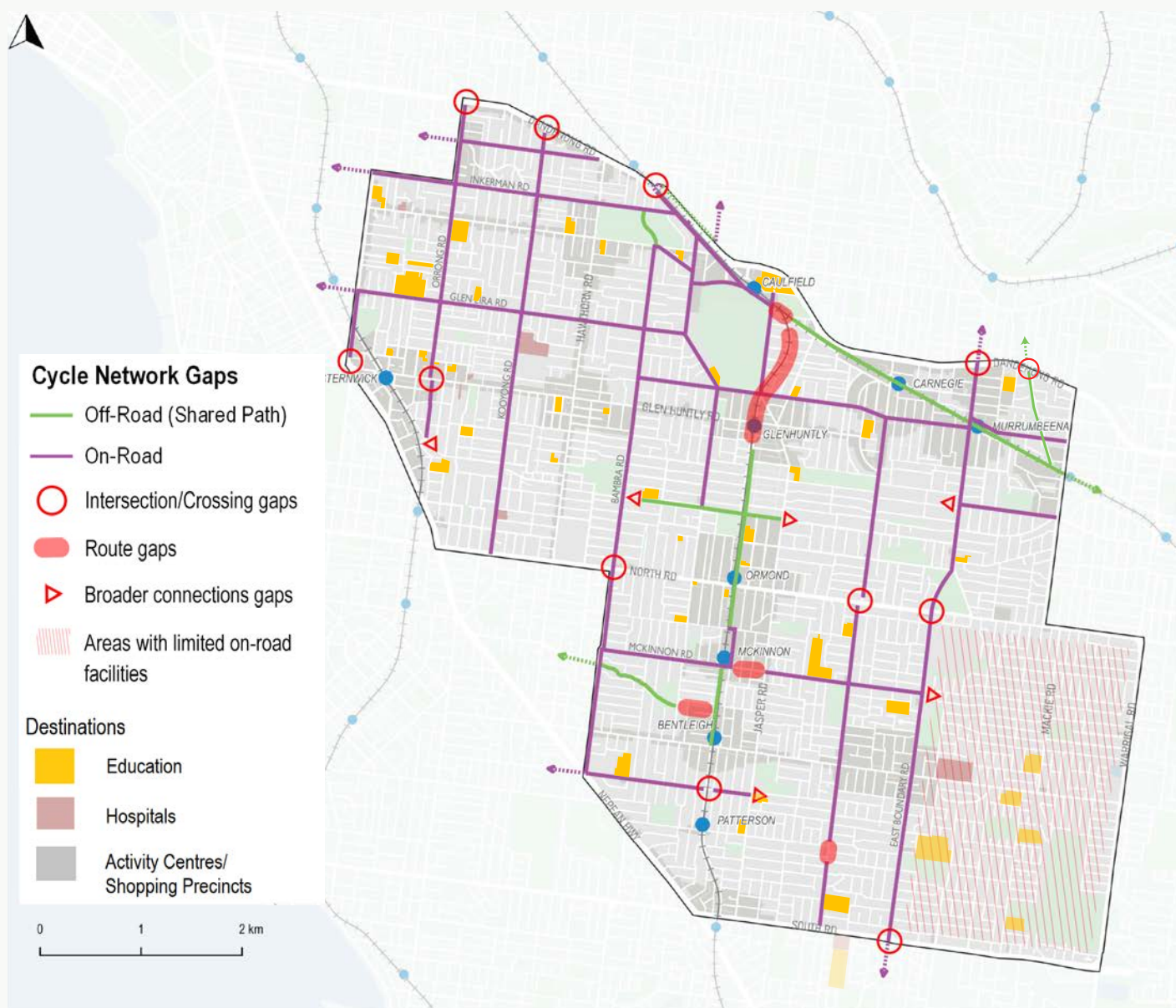


Figure 5 – Bicycle infrastructure network gaps in Glen Eira.



# 4 PROPOSED IMPROVEMENTS





## 4 PROPOSED IMPROVEMENTS

### 4.1 SAFE CYCLING STREETS

Safe Cycling Streets is one of four proposed premium transit corridors from the *Integrated Transport Strategy* that seek to prioritise travel modes on identified routes. The identification of premium routes has taken into account the existing conditions on the streets and importantly does not preclude infrastructure and services of other modes also occurring along these routes.

A Safe Cycling Street is a road or street that aims to enable cycling as a realistic transport mode choice. These streets will foster a safe cycle environment for people of all abilities who can cycle to safely cycle between destinations. Key conditions for a successful Safe Cycling Street consist of the following:

- > provides direct connections to highly desirable destinations, including train stations and activity centres;
- > connection between residential hubs and school precincts;
- > provides direct connections to key regional cycling networks;
- > does not pass through key commercial precincts where on-street parking has a significantly higher demand; and
- > has adequate width to accommodate a fully protected bicycle path.

The implementation of the Safe Cycling Streets network will form its own delivery program following the outcomes of the pilot project. Each identified route will be subject to a detailed individual study and design process, which will include extensive community consultation. The outcomes of the Safe Cycling Corridor pilot project will assist in building the toolkit and design guidelines to be utilised for the future corridors. Potential improvements may include, but are not limited to:

- > construction of separated, safe bicycle paths;
- > continuation of all bicycle lanes through intersections;
- > minimising car movements across bicycle lanes at traffic signals;
- > consistently reduced vehicle speeds along roads;
- > ensuring lighting is of a high standard along full length of the streets; and/or
- > exploring the reinstatement of lost street parking where appropriate.



It has also been identified that an additional secondary network of on-road cycling routes is required to support the Safe Cycling Streets. The supporting On-Road Cycling Network is shown with the proposed Safe Cycling Streets in the map below (figure 6).

The Department of Transport is currently developing separate regional Strategic Cycling Corridors to link key destinations throughout Melbourne. These may include identified routes in and around Glen Eira.



Figure 6 – Recommended cycling network.

## 4 PROPOSED IMPROVEMENTS

### 4.2 ON-ROAD CYCLING NETWORK

The On-Road Cycling Network will be the supporting cycling infrastructure that links the Safe Cycling Streets and regional cycling corridors with our local neighbourhoods, schools and activity centres. It will utilise the existing on-road cycling infrastructure that is provided on many connector streets throughout Glen Eira. Improvements to this existing infrastructure will be made to improve trip efficiency and use, as well as making it safer for cyclists and the cars they will share the road space with.

The On-Road Cycling Network, accompanying the Safe Cycling Streets and regional cycling links, is aimed at making cycling a realistic transport mode in Glen Eira for people of all abilities and confidence levels.

Improvements to this network will involve continued maintenance of the existing infrastructure, providing missing links in the network, improving safety in major intersections and street design guidelines to ensure future on-road cycling provisions are of a high standard.

Potential improvements may include, but are not limited to:

- > standard bicycle lane widths and surfacing;
- > provision of bicycle boxes and continuous bicycle lanes through intersections;
- > side road treatments;
- > type, width, layout and frequency of crossings for cyclists across major barriers;
- > wayfinding;
- > monitoring of cyclist flows and infrastructure provision;
- > road speed limits;
- > road lane widths;
- > adequate provision of bicycle parking and end-of-trip facilities;
- > use and application of shared space;
- > painted second white lane line between parking and bicycle lane; and/or
- > foot rests/lean rails at intersections.





On-road bicycle lane width and markings.



Bicycle hoops for parking.



Bicycle wayfinding.



Continuous bicycle lanes through intersections.



Bicycle boxes at intersections.



Shared neighbourhood street decal.

## 4 PROPOSED IMPROVEMENTS

### 4.3 CONNECTION TO DESTINATIONS

Cycling provides an easy alternative for short local trips to activity centres, or for people making longer trips to connect with other modes of transport such as trains and trams.

Facilities at these destinations need to be sufficient and fit for purpose to encourage cycling. This includes bicycle pumps, repair stations and adequate amounts of bicycle parking that is secure, protected and with provision to store personal equipment such as helmets and bicycle shoes.

For public transport stops and stations, parking should be located close to entry points and the connecting cycle infrastructure. For activity centres, parking should be located throughout the centres close to connecting cycle infrastructure, it should be in visible locations for security and not obstructing the flow of footpaths.

This includes community facilities throughout the municipality. For Council operated facilities, end-of-trip provisions can be explored such as shower and change rooms for cyclists, as well as storage for personal equipment.

Future technological changes should also be considered, in particular the rise of electric bicycles. One of the fastest growing styles of bicycles in terms of sales, they provide easier and more efficient usability for the rider, allowing for the possibility of longer journeys. Specific end-of-trip facilities are required such as charging stations and larger secure parking areas.

### 4.4 POLICY

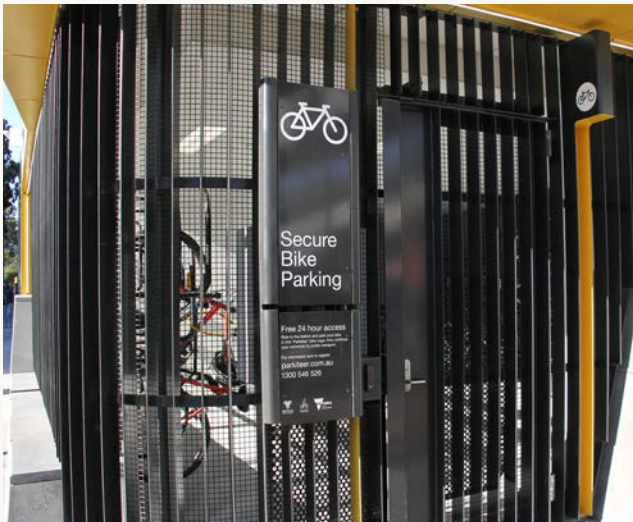
To support and encourage cycling as a realistic transport option, a number of legislative improvements will be used to assist in creating a high-quality cycling environment in the municipality.

This includes:

- > the creation of new Street Design Guidelines;
- > investigating ways to get equitable funding through developer contributions for infrastructure; and
- > the introduction of Transport Impact Assessments to replace Traffic Impact Assessments in development applications, considering all modes of transport equally.

Changes to construction Traffic Impact Assessments will be used to ensure that cycling facilities will remain available for users. As construction and maintenance works tend to focus on minimising impacts on vehicles, cycle lanes and footpaths are often closed or disrupted through works. Closure and obstruction of cycle lanes can force cyclists into traffic without adequate warning to drivers, or consideration of cyclist safety.





Secure 'Parkiteer' provisions at train stations.



Bicycle pumps and repair stations.



Electric bicycle parking.



Common obstructions found on the bicycle network.

## 4 PROPOSED IMPROVEMENTS

### 4.5 ADDRESSING MAJOR BARRIERS

To provide efficient connections, the cycling network needs clear and unobstructed routes that lead around, through and out of the municipality.

A number of major roads in Glen Eira need safe and easy crossing points and intersection treatments for cyclists. These improvements will need to be advocated for as the responsibility of these major roads sit with the State Government. Council will advocate for improvements that align with the Safe Cycling Streets and secondary On-Road Cycling Network. The roads include:

- > Nepean Highway;
- > Dandenong Road;
- > East Boundary Road;
- > Glen Eira Road;
- > South Road; and
- > North Road.

Missing links in the existing bicycle network will also be completed through the implementation of the Safe Cycling Streets and secondary On-Road Cycling Network. Other corridors in Glen Eira that are the responsibility of the State Government will be advocated for, these include:

- > Frankston Rail Trail connection from Glen Huntly Station to Caulfield Station (opportunity exists with future level crossing removals); and
- > Djerring Trail connection to Caulfield Station (opportunity exists with the *Caulfield Structure Plan* process).



## 4.6 MONITORING

It is important to have accurate data to make informed transport decisions that benefit the community and network. There are different types of monitoring such as scene line counts, intersection turning movement counts, parking occupancy counts, questionnaire surveys and other emerging technologies. Permanent bicycle counters could be installed in a number of places around Glen Eira to monitor cycling numbers over time. This can be complemented with short-term (before/after) counts to see the impact of a particular treatment.

The picture opposite shows a monitor that indicates how many cyclists have used the Capital City Trail in the City of Moreland during that specific day and year.

Monitoring cycling provides the ability to:

- > evaluate the effectiveness of actions, strategies and plans (before and after implementation);
- > track trends over time to see how behaviour changes and adapts;
- > understand user behaviour;
- > improve cycling safety;
- > identify locations where cycling facilities could be improved;
- > assess future cycling demands; and
- > prioritise cycling projects accordingly.







# 5 DETAILED ACTION PLAN





## 5 DETAILED ACTION PLAN

### 5.1 PRIORITISATION OF ACTIONS

The actions in this action plan are intended to be implemented in the next five years. There are 20 actions which have been divided into three categories to assist with delivery. These categories are:

- > infrastructure;
- > policy and enforcement; and
- > education and behaviour.

The actions have been scored based on a specific set of 12 criteria that is focused on achieving the *Integrated Transport Strategy* goal for a 50:50 mode share of car and non-car trips by 2031. The full criteria list and scoring results can be found at the end of this document.

Council's previous action plans have focused on specific individual treatments, however, this action plan will focus on a corridor approach that the suggested individual treatments could be applied to. This approach will help to create a stronger municipal wide cycling network that benefits the community and provides a realistic transport mode, rather than the traditional approach of the past.

Feedback received during the community consultation period has identified specific locations where actions could occur. This feedback, available in the Engagement Summary Report, will assist with implementation of the associated actions.



## 5.2 EXISTING CYCLING ACTIONS

Only a handful of actions were left to be addressed from the *Glen Eira Bicycle Strategy 2010 Action Plan*.

The nine actions left were either ongoing or on hold. Only one of the remaining actions (below) was deemed still relevant and will be integrated into this new Action Plan under the action — *Advocate for safe crossing points of Dandenong Road*.

ID	ACTION	LOCATION	EXTERNAL	RESPONSIBLE	ESTIMATED COST
I	Rail underpass. This link should be improved for cyclists and pedestrians. Council should consider a joint submission with Stonnington to the Department of Transport.	Underpass linking Normanby Road and Tooronga Road, Caulfield North.	State Government Stonnington	–	\$10,000

## 5 DETAILED ACTION PLAN

### 5.3 THE ACTION PLAN

#### Infrastructure

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
I.1	Implementation of a Safe Cycling Corridor Pilot Project.	Investigate an appropriate route to establish a Safe Cycling Street to link the St Kilda Road Corridor and the Djerring Trail.	City of Port Phillip Dept. of Transport	City Futures/ Project Management Office	4.2
I.2	Create safe cycling connections from Safe Cycling Streets to schools and activity centres as part of the On-Road Cycling Network.	Across Glen Eira.  This action is to be implemented on a corridor basis consistent with the Safe Cycling Streets and On-Road Cycling Network.	—	City Futures/ Projects and Infrastructure	4.0
I.3	Investigate completion of missing sections of cycling routes in Glen Eira.	Prioritise: > Frankston Rail Trail from Glen Huntly to Caulfield. > Djerring Trail to Caulfield.	Victorian Planning Authority  Dept. of Transport  Level Crossing Removal Authority	City Futures/ GECC Advocacy	3.9



## Infrastructure

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
I.4	Develop a bicycle parking strategy to guide improvements to bicycle parking in Glen Eira.	Identify locations that demonstrate a need (i.e: activity centres, recreation spaces, libraries, train stations, etc), types of parking provision and types of bicycles.	—	City Futures/ Projects and Infrastructure	3.8
I.5	Investigate safety treatments of side streets.	This action is to be implemented on a corridor basis consistent with the On-Road Cycling Network.	Dept. of Transport	City Futures/ Projects and Infrastructure	3.5
I.6	Investigate a safe cycling connection between Djerring Trail and Gardiners Creek Trail.	Make connection through Boyd Park then advocate for improved connections through Malvern East to Gardiners Creek Trail. To be consistent with the Safe Cycling Streets and On-Road Cycling Network.	City of Stonnington Dept. of Transport	City Futures/ Projects and Infrastructure/ GECC Advocacy	3.5

## 5 DETAILED ACTION PLAN

### Infrastructure

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
I.7	Advocate to improve end of trip facilities/ bicycle parking at train stations.	All train stations within Glen Eira.	Dept. of Transport	City Futures/ GECC Advocacy	3.4
I.8	Investigate infrastructure and end of trip facility needs for e-bicycles.	Appropriate Council facilities.	—	City Futures	3.3
I.9	Investigate where treatment improvements can be continued for On-Road Cycling Network.	This action is to be implemented on a corridor basis consistent with the On-Road Cycling Network.  Prioritise: > Glen Eira Road	—	City Futures/ Projects and Infrastructure	3.3
I.10	Investigate a safe cycling connection between Elsternwick Station precinct and across Nepean Highway (Glen Huntly Road Intersection).	Works can be included as part of the Elsternwick Urban Renewal South masterplan process and should be consistent with the On-Road Cycling Network.	Dept. of Transport Bayside Port Phillip	City Futures/ Projects and Infrastructure	3.1



## Infrastructure

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
I.11	Advocate for safer crossing points of Nepean Highway.	Nepean Highway, entire length of the Municipality  Prioritise: <ul style="list-style-type: none"> <li>&gt; North Road.</li> <li>&gt; South Road.</li> </ul>	Dept. of Transport Bayside Port Phillip	City Futures/ GECC Advocacy	3.0
I.12	Advocate for safe crossing points for Dandenong Road.	Dandenong Road, (entire section in Glen Eira).  Prioritise: <ul style="list-style-type: none"> <li>&gt; Orrong Road</li> <li>&gt; Normanby Road rail underpass</li> </ul>	Dept. of Transport City of Stonnington	City Futures/ GECC Advocacy	3.0
I.13	Advocate for improving intersections for cyclists along East Boundary and Murrumbeena Roads.	Full length of East Boundary Road/ Murrumbeena Road within Glen Eira, consistent with the On-Road Cycling Network.	Dept. of Transport	City Futures/ GECC Advocacy	3.0

## 5 DETAILED ACTION PLAN

### Policy and Enforcement

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
P.1	Create Street Design Guidelines.	Ensure future on-road cycling provisions are of a high standard, including wayfinding signage.	Dept. of Transport	City Futures	4.0
P.2	Advocate with the State Government to maintain high quality standards for cycling infrastructure.	State Government owned cycling infrastructure.	Dept. of Transport	City Futures/ Family, Youth and Children's Services	3.9
P.3	Update policy around traffic management for cyclists during construction periods.	Detail permit conditions and types, maintain network continuation during construction.	—	Community Safety and Compliance	3.7
P.4	Change Traffic Impact Assessments to Transport Impact Assessments.	Ensure when updating the Glen Eira Planning Scheme the assessment includes the impact on all modes of transport, including cycling.	—	City Futures/ Urban Planning	3.7
P.5	Investigate ways to get equitable funding from development contributions in regards to all types of transport infrastructure.	To support the upgrade of bicycle facilities based on new demand from developments.	—	City Futures	3.4

## Education and Behaviour

ID	ACTION	LOCATION/ DETAILS	EXTERNAL	RESPONSIBLE	SCORE
E.1	Continue education around cycling promotion and programs.	Promote benefits of cycling and promotion around using Safe Cycling Streets when they are implemented.	–	Community Safety and Compliance	3.5
E.2	Develop and install a network of cyclist counters for continuous monitoring.	<p>Initial 12 month trial that can obtain data to monitor current improvements and plan for future improvements to cycling infrastructure.</p> <p>Prioritise:</p> <ul style="list-style-type: none"> <li>&gt; Djerring Trail</li> <li>&gt; Safe Cycling Street Pilot</li> </ul>	–	Innovation and continuous improvement/ City Futures	3.4



## 5 DETAILED ACTION PLAN

### 5.4 THE CRITERIA AND SCORING RESULTS

A total of 11 criteria have been developed to assess the actions. The criteria are not weighted, meaning all 11 categories have the same impact on the result. All actions from the same category have been assessed using the same criteria. Noting not all 11 criteria hold the same relevance to each category.

The actions have been presented only ranked in comparison to the actions within the same category, ie. all of the infrastructure actions have been ranked against each other, not from other categories such as policy and enforcement.

The scoring goes from five through to one, where the higher the score the better the outcome or alignment with the *Integrated Transport Strategy*.

For example, with Engineering Risk this considers potential issues that may make a project more difficult to implement such as utility services to divert or ground conditions. Low risk means it is easier to implement and scores five, while a high risk with a number of engineering issues would score one.

Place	Engineering Risk
High Low	Low High
Alignment with others	Aligning with Safe Cycling Streets
High Low	Aligning Not aligning
Encourages 50/50 JTW	Physical constraints
Greatly Minimal	No issue Major issue
Speed of delivery	Support other sustainable modes
<1yr 1-3 yrs >3yrs	Supports In conflict with
Road safety	Personal Safety
Increases safety No difference	Increases safety Decreases safety
User Spread	
All users Very limited	

Scoring	5	4	3	2	1
	Excellent		Acceptable		Poor

The scoring system.

INFRASTRUCTURE	POLICY AND ENFORCEMENT	EDUCATION AND BEHAVIOUR
<ul style="list-style-type: none"> <li>&gt; Place</li> <li>&gt; Alignment with others</li> <li>&gt; Encourages 50/50 mode split</li> <li>&gt; Speed of delivery</li> <li>&gt; Road safety</li> <li>&gt; User spread</li> <li>&gt; Engineering Risk</li> <li>&gt; Aligns with Safe Cycling Streets</li> <li>&gt; Physical constraints</li> <li>&gt; Support other sustainable modes</li> <li>&gt; Personal safety</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Place</li> <li>&gt; Alignment with others</li> <li>&gt; Encourages 50/50 mode split</li> <li>&gt; Speed of delivery</li> <li>&gt; Road safety</li> <li>&gt; User spread</li> <li>&gt; Aligns with Safe Cycling Streets</li> <li>&gt; Support other sustainable modes</li> <li>&gt; Personal safety</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Place</li> <li>&gt; Alignment with others</li> <li>&gt; Encourages 50/50 mode split</li> <li>&gt; Speed of delivery</li> <li>&gt; Road safety</li> <li>&gt; User Spread</li> <li>&gt; Aligns with Safe Cycling Streets</li> <li>&gt; Support other sustainable modes</li> <li>&gt; Personal safety</li> </ul>

*The criteria per category.*

## INFRASTRUCTURE

ID	Action	Est. Cost	Total Score	Place	Alignment with others	Encourages 50/50 JTW	Speed of delivery	Road safety	User Spread	Engineering Risk	Aligns with Safe Cycling Streets	Physical Constraints	Support other sustainable modes	Personal Safety	Standardised Score
I.1	Implementation of a Safe Cycling Corridor Pilot Project.	High	46	4	5	5	3	5	5	3	5	3	4	4	4.2
I.2	Create safe cycling connections from Safe Cycling Streets to schools and activity centres as part of the On-Road Cycling Network.	Medium	44	4	5	3	3	5	5	3	5	3	5	3	4.0
I.3	Investigate completion of missing sections of cycling routes in Glen Eira.	Medium	43	3	5	5	3	2	4	4	5	4	5	3	3.9
I.4	Develop a bicycle parking strategy to guide improvements to bicycle parking in Glen Eira.	Low	42	2	4	4	4	2	5	4	5	5	4	3	3.8
I.5	Investigate safety treatments of side streets.	Medium	38	3	4	3	3	4	3	3	4	4	3	4	3.5



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I.6	Investigate a safe cycling connection between Djerring Trail and Gardiners Creek Trail.	Medium	38	2	4	4	1	4	4	3	5	2	4	5	3.5
I.7	Advocate to improve end of trip facilities/ bicycle parking at train stations.	Low	37	2	4	4	2	3	4	2	5	3	4	4	3.4
I.8	Investigate infrastructure and end of trip facility needs for e-bicycles.	Medium	36	1	2	4	5	2	3	5	5	4	3	2	3.3
I.9	Investigate where treatment improvements can be continued for On-Road Cycling Network.	Medium	36	3	4	3	2	3	3	3	5	3	4	3	3.3
I.10	Investigate a safe cycling connection between Elsternwick Station precinct and across Nepean Highway (Glen Huntly Road Intersection).	Low	34	3	2	4	2	5	5	3	5	1	2	2	3.1

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I.11	Advocate for safer crossing points of Nepean Highway.	Low	33	2	3	4	2	4	3	1	4	3	3	4	3.0
I.12	Advocate for safe crossing points of Dandenong Road.	Low	33	2	3	4	2	4	3	1	4	3	3	4	3.0
I.13	Advocate for Improving intersections for cyclists along East Boundary and Murrumbeena Roads.	Low	33	2	3	4	2	4	3	1	4	3	3	4	3.0

## POLICY AND ENFORCEMENT

ID	Action	Est. Cost	Total Score	Place	Alignment with others	Encourages 50/50 JTW	Speed of delivery	Road safety	User Spread	Engineering Risk	Aligns with Safe Cycling Streets	Physical Constraints	Support other sustainable modes	Personal Safety	Standardised Score
P.1	Create Street Design Guidelines.	Low	40	4	4	4	3	4	4	–	4	3	4	4	4.0
P.2	Advocate with the State Government to maintain high quality standards for cycling infrastructure.	Low	39	4	4	4	4	3	3	–	4	3	4	4	3.9
P.3	Update policy around traffic management for cyclists during construction periods.	Low	37	3	3	2	4	4	4	–	4	3	4	4	3.7
P.4	Change Traffic Impact Assessments to Transport Impact Assessments.	Low	37	3	3	2	4	4	4	–	4	3	4	4	3.7
P.5	Investigate ways to get equitable funding from development contributions in regards to all types of transport infrastructure.	Low	34	2	3	3	3	4	4	–	4	2	4	3	3.4



## EDUCATION AND BEHAVIOUR

ID	Action	Est. Cost	Total Score	Place	Alignment with others	Encourages 50/50 JTW	Speed of delivery	Road safety	User Spread	Engineering Risk	Aligns with Safe Cycling Streets	Physical Constraints	Support other sustainable modes	Personal Safety	Standardised Score
E.1	Continue education around cycling promotion and programs.	Medium	35	2	4	4	4	3	4	–	3	3	3	3	3.5
E.2	Develop and install a network of cyclist counters for continuous monitoring.	Medium	34	1	5	2	2	3	5	–	5	3	3	3	3.4



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