# Plympton Park Local Area Traffic Management Plan

Draft Report

September 2025

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CITY OF MARION

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# Executive Summary

## Overview

A review of the traffic speeds, parking issues and access movements in Plympton Park was recommended as an outcome from the Council meeting held on 15 October 2024. This LATM plan to identity issues within these themes and has been completed with a focus of improving road safety, movement efficiency, and the attractiveness of alternative transport modes.

As a recommendation from the Council meeting held on 15 October 2024, a review of the traffic speeds, parking issues and access movements in Plympton Park is to be conducted in an LATM plan to identify issues within these themes. This has been completed with a focus of improving road safety, movement efficiency, and the attractiveness of alternative transport modes.

The study area is bounded by the tram line to the north, Morphettville Racecourse to the west, Bray Street to the south and Marion Road to the east. It is mostly low-density residential housing with the Plympton Park Oval and shops on Bray Street at Ferry Avenue and along Marion Road. In recent years, infill housing with townhouses and new homes on smaller blocks have increased the traffic volumes on the local streets.

## Key Findings

From the public consultation conducted in 2024, the local community is divided on how best the existing traffic solutions in Plympton Park can be managed. Alongside community feedback, detailed traffic data analysis, including traffic volumes, speed surveys, and crash statistics, informed the identification of key issues. Together, these insights highlighted several areas that warrant further consideration. The following issues were identified:

Several streets in the study area exceed parameters of their existing classification. These include Herbert Street, Park Terrace and Ferry Avenue.

Some locations along Park Terrace were identified as having vehicle 85th percentile speeds over their prescribed level of service.

The number of crashes on council roads and intersections within the study area reported to SAPOL over a 5-year period were minimal.

Infill housing and developments is a critical concern for residents with increasing traffic in local streets. This includes the Villawood Development at Morphettville Racecourse and other small residential projects.

The key issues related to traffic, parking and access from the community consultation, site visit and desktop review of the traffic statistics included:

**Traffic Management and Calming Measures**

- Concerns about traffic speeding and non-local or cut-through traffic (also known as rat-running) to access Marion Road and Cross Road.
- Requests for speed humps, clearways during peak hours, slow points, driveway links and reduced speed limits to improve safety and reduce traffic flow in residential areas.
- Specific streets and intersections mentioned, such as Herbert Street, Stradbroke Avenue, Park Terrace, and Arthur Street, highlight localised issues with excessive speed and congestion.
- Changes to turn restrictions and provision of more road space to accommodate increased traffic.

**Traffic and Accessibility Concerns**

- Requests for additional entrances/exits for developments, such as the Morphettville Racecourse (SAJC) residential development on potential new access from Anzac Highway and Park Terrace.
- Specific road closures and openings, such as with Herbert Street and Arthur Street.
- Safety hazards from non-local traffic, double parking, narrow streets and large vehicles.
- Problems crossing roads and tram tracks safely, such as Acacia Street and Park Terrace.
- Suggestions for upgrades to develop Park Terrace as a boulevard with new traffic controls.

**Safety and Infrastructure Issues**

- Parking impacts on residents with tram users parking in or near Wattle Terrace for Park and Ride activity to the tram services.
- Emergency vehicle access to the existing houses and future development at the Villawood residential development with narrow streets, roundabout and traffic calming devices.
- Safety in accessing the tram stops and pedestrian crossings.

**Potential Community Solutions**

The community proposed the following solutions or ideas regarding improving traffic movement and managing speeding in the study area:

- Roundabout at the corner of Ferry Avenue and Shakespeare Avenue.
- Consider speed humps in Park Terrace between the existing roundabouts.
- Consider speed humps or a chicane treatment in Aldridge Avenue to slow down traffic.
- Consider speed humps or a chicane treatment in Herbert Street.
- Install more parking restrictions to reduce street width issues for traffic.

## Key Recommendations

It is recommended that the following solutions and measures be implemented into an action plan with the priorities and timing for implementation to be confirmed after the public consultation. Most of the below identified issues had other solution options considered which are detailed in Section 6 of the report.

| | |
|---|---|
| **Uncertainty of the traffic demand following major local projects**<br>  | **Conduct further traffic analysis after completion of the TGSP and Villawood Development.**<br>To ensure Plympton Park streets remain operating within their expected level of service and proposed long-term solutions are required, Council will plan to monitor traffic speeds and volumes at key locations throughout the study area after the TGSP and Villawood Development are completed.<br>Traffic flow benefits on Cross Road, Marion Road and Morphett Road are expected resulting from the TGSP with a likely reduction in the demand for cut-through traffic on Plympton Park local streets. The intersection upgrade project will also increase the intersection capacity with new dedicated left turns at the intersection of Marion Road and Cross Road which will likely further reduce this demand. |
| **High traffic volumes on Herbert Street**<br>  | **Provide left turn access from Wattle Terrace onto Cross Road.**<br>This solution will provide a left-out exit from Wattle Terrace to Cross Road. This is made possible due to the existing PAC being relocated west of the tram overpass, by DIT as part of the TGSP. The left-in movement into Wattle Terrace and Arthur Street from Cross Road will remain open. This solution will share some of the demand from Herbert Street where the left-out movement was identified as the primary movement.<br>This proposal also allows new landscaping opportunities including a new landscaped island for one-way entry into Arthur Street. |

A high-level concept drawing of the proposed design for the left-out movement from Wattle Terrace onto Cross Road is provided in **Figure 0.1**. At the intersection of Wattle Terrace and Cross Road, two pedestrian crossing points are recommended as considerations to be designed as raised pavements to create slower speed environment for pedestrians walking along the southern side of Cross Road.


***Figure 0.1: Potential Traffic Solution at the Wattle Terrace/Cross Road Intersection***

| | |
|---|---|
| **High Existing Traffic Speeds in Park Terrace**<br>  | **Implement traffic calming devices on Park Terrace**<br>Traffic data demonstrated that multiple locations on Park Terrace have 85th percentile vehicle speeds exceeding 55 km/h. Consequently, Park Terrace is not compliant with its level of service for vehicle speeds.<br>Installation of traffic calming devices to reduce vehicle speeds is suggested. The most appropriate device for current speeds and volumes would be speed cushions along the length of Park Terrace.<br>No other streets within the study area demonstrated recorded vehicle speeds exceeding their level of service. |
| **Park Terrace Cross Section does not safely accommodate multiple modes**<br>  | **Redesign cross section of Park Terrace to allow safe cycling in both directions**<br>Southbound cyclists on Park Terrace currently have to cross the centre line into the oncoming traffic lane to overtake parked vehicles. Creating a marked parking lane on the east side of Park Terrace would allow uninterrupted traffic lanes in both directions which would facilitate sharrow markings in both directions and facilitate a safer link between key cycling routes. The single direction bike lane on the west side of Park Terrace would be removed to accommodate this. |
| **Traffic flow and safety around local reserves**<br>  | **Review the on-street parking and pedestrian access needs at the local reserves, such as at the Elizabeth Ryan Reserve and the Aldridge Avenue Reserve.**<br>These locations include high pedestrian activity, in particular vulnerable users such as children. These locations were not identified as high-speed areas from collected traffic data, so permanent traffic control devices are not warranted. Improved infrastructure for pedestrians such as DDA compliant kerb ramps as well as improved lane dividing treatments and increasing on-street parking where applicable would assist in creating a slower speed environment. |

| | |
|---|---|
| **Road classification inconsistencies**<br>  | **Reclassify Ferry Avenue from *Local Road* to *Collector* Road.**<br>Ferry Avenue already has a traffic volume of over level of service. This provides the justification for the reclassification from a local to collector road. Bus routes 245 and 248 currently operate in Ferry Avenue between South Terrace and Bray Street. It is more appropriate for the Adelaide Metro buses to use Collector roads instead of Local streets.<br>Traffic volumes on Park Terrace are currently exceeding level of service for a Local Road. However, it is noted the proposed changes as part of this study will decrease volumes on Park Terrace. Furthermore, the projected impacts of the TGSP upgrade and Villawood development will further impact traffic volumes on Park Terrace. Consequently, it is prudent to review traffic volumes on Park Terrace at a future point where the impacts of these projects can be measured. |
| **Traffic from the Villawood Development**<br>  | **Consideration of traffic calming devices and/or wayfinding signage on high volume local roads based on future monitoring to discourage cut-through traffic.**<br>Traffic volume data to be collected following the Villawood development may highlight cut-through traffic. If warranted, the installation of traffic control devices to promote travel on higher functioning roads, will be considered.<br>Subsequently, wayfinding signage may be warranted at junctions near the Villawood development to direct traffic towards the higher functioning roads. This will reduce the impact of traffic growth on residential streets. |
| **Access to the high frequency public transport stops on Marion Road**<br>  | **Improve major east-west walking links** Plympton Park has direct access to public transport, with a significant majority of the suburb being with an 800m (10-minutes) walk of the Marion Road Go Zone (Route M44) bus stops and tram network. It is proposed that several east-west walking links are upgraded with DDA compliant kerb ramps to provide facilities for walking to nearby high-frequency public transport. |
| **Multi modal traffic safety and parking around Plympton Oval** | **Review the on-street parking and pedestrian, cyclist and traffic access at Plympton Oval during potential redevelopment.** |

A review of the traffic and transport facilities to be completed in conjunction with the Plympton Oval redevelopment and upgrade project. Findings from the previous 2023 Stantec report and the 2023 Clover concept masterplan report should be considered during this review. Further traffic control devices supplementing South Terrace, such as pavement treatments, may be considered.

**Inefficient use of road space at intersections and road loops in local streets**

**Review landscape and street design opportunities in the local streets with wide intersections or loop roads.**

Existing loop roads and excessively wide junctions to be considered for landscaping or water sensitive urban design opportunities when road surface is due for renewal at the following locations:

- Intersection of Stradbroke Avenue and Arthur Street
- Intersection of Stradbroke Avenue, Tennyson Avenue and Blackler Avenue
- Intersection of Stradbroke Avenue and Wilson Street
- Intersection of Arthur Street and Shelley Avenue

## Abbreviations

| Abbreviation | Description |
|---|---|
| DIT | Department for Infrastructure and Transport, South Australia |
| DTI | Department for Trade and Investment, South Australia |
| LATM | Local Area Traffic Management plan |
| PAC | Pedestrian Actuated Crossing with traffic signals |
| SAJC | South Australian Jockey Club |
| TGSP | Tram Grade Separation Project by DIT |

## Glossary of Terms

| Term | Description |
|---|---|
| Go Zone | A high frequency bus corridor with one or more bus routes with a service headway of every 15 minutes on weekdays and every 30 minutes at other times. Stops and stations within a 'Go Zone' provide a bus, train or tram operating:<br>• every 15 minutes between 7.30am and 6.30pm, Monday–Friday<br>• every 30 minutes between 6.30pm and 10pm, Monday–Friday<br>• every 30 minutes on Saturday, Sunday and South Australian public holidays. |
| Bicycle infrastructure lanes and paths | • A bicycle lane is a painted lane along the edge of a collector or arterial road.<br>• A separated bicycle lane is along the edge of a road and has a physical feature separating bicycles and vehicles.<br>• A shared path is available for pedestrians and bicycles and is typically provided through parks and reserves. |
| Sharrow | A sharrow is a bicycle pavement marking along a local street indicating shared use of the traffic lane with bicycles and vehicles and providing route guidance for cyclists. |
| Traffic calming devices | Traffic calming treatments in local streets includes:<br>• Slow points with narrowed sections of roadway<br>• Chicanes where the traffic must slow down to weave around kerbside build-outs<br>• Flat top road humps along mid-block sections<br>• Speed humps or road cushions with a 20 km/h speed limit<br>• Pavement treatments with different colours and textures<br>• Mini-roundabouts at intersections |

# 1 Introduction

## 1.1 Background

At the Council meeting held on 25 June 2024, Council endorsed a motion for staff to investigate and consult with the community regarding reducing the area speed limit in Plympton Park bounded by the tramline, Cross Road, Marion Road, Bray Street and Park Terrace from 50 km/h to 40 km/h. The consultation on the speed limit reduction proposal was conducted in August 2024 with 193 responses from the residents in the study area. The survey results had 91 respondents (47%) who supported the speed limit change, 9 respondents (5%) were neutral, and the remaining 93 respondents (48%) did not support the proposed change to the speed limit.

A review of the traffic speeds, parking issues and access movements in Plympton Park was recommended as an outcome from the Council meeting held on 15 October 2024. This LATM plan to identifies issues within these themes and has been completed with a focus of improving road safety, movement efficiency, and the attractiveness of alternative transport modes.

## 1.2 Study Purpose and Scope

The purpose of the work is to explain the history, data, road hierarchy, functionality and existing traffic issues within Plympton Park, which then supports the rationale/logic of the strategies and schemes being presented in this report.

The scope of works includes the following stages and tasks:

**Stage 1: Data review and problem identification**

- Inception activities and meetings.
- Review of the traffic, speed and crash statistics and Council plans, guidelines, and strategies.
- Analysis of the feedback from the community consultation conducted by Council in 2024.
- Preparation of a technical memorandum to document the existing issues and opportunities to address the local traffic and speed concerns of the residents in the study area.

**Stage 2: Development of the LATM Plan**

- Develop draft LATM initiatives.
- Conduct LATM Council staff workshop.

The study area is bounded by the tram line to the north, Morphettville Racecourse to the west, Bray Street to the south, and Marion Road to the east. It is mostly low-density residential housing with the Plympton Park Oval and shops on Bray Street at Ferry Avenue and along Marion Road. In recent years, infill housing with townhouses and new homes on smaller blocks have increased the traffic volumes on the local streets. The study boundary and the existing road network classifications and infrastructure treatments are shown in **Figure 1.1**.

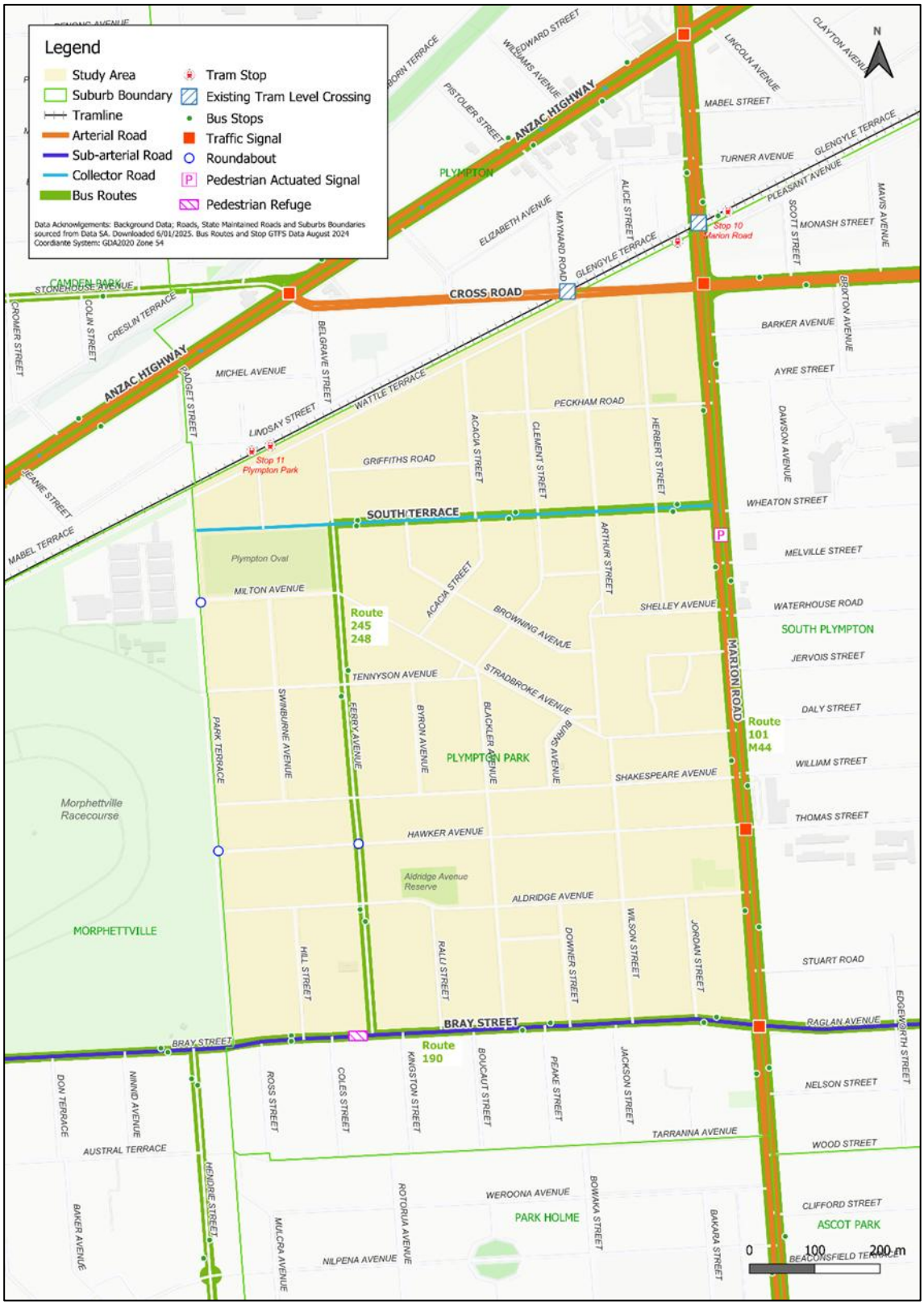



***Figure 1.1: Plympton Park LATM Study Area***

## 1.3 Report Structure

This technical report for the transport plan is organised as follows:

- **Section 1: Introduction** with the background, study purpose and scope.
- **Section 2: Planning context** presents a summary of the latest State Government and Council planning documents and policies relevant to the Plympton Park LATM Plan. It also highlights the existing and proposed developments and land use changes in the local area.
- **Section 3: Existing transport system** offers an overview of the current transport network, covering roads, parking, public transport, and walking and cycling facilities within the study area.
- **Section 4: Existing issues and opportunities** provides a summary of the feedback from key stakeholders and the community through the online survey, discussing major issues and opportunities related to the road network, parking, public transport, land use, and walking and cycling in the study area.
- **Section 5: Traffic management** to discuss the potential options to manage traffic growth due to infill developments such as the Villawood development next to the Morphettville Racecourse.
- **Section 6: LATM solutions for the Action Plan** summarises the problems identified within the study area and provides multiple solutions for Council to consider within the LATM Plan.
- **Section 7: References** provides a list of the documents and online sources consulted in preparing the LATM Plan.

# 2 Planning Context

The section provides the Council policies and plans that were reviewed with regards to transport issues and initiatives in the study area.

## 2.1 Council documents

The relevant Council documents to this project include:

- City of Marion Transport Plan 2021-2026, finalised in 2021
- City of Marion Road Hierarchy Plan Report, finalised in 2005
- City of Marion Streetscape Design Guidelines, finalised by Oxigen in 2016
- City of Marion Draft Streetscape Plan 2025-2029
- City of Marion Verge Development Guidelines, finalised in 2022
- City of Marion Public Lighting Guidelines, 2019
- City of Marion Walking and Cycling Guidelines, finalised in 2024
- City of Marion Parking Management Guidelines, finalised in 2023
- Plympton Oval Masterplan Report prepared by DesignInc and Clover in 2023

### 2.1.1 City of Marion Transport Plan 2021-2026

The 2021-2026 Transport Plan operates as the main overall document that oversees the Walking and Cycling Plan, Streetscape Plan, and Parking Management Plan. The reports key priority is to create a safe and efficient transport network by improving conditions for all road users (particularly pedestrians, cyclists and those using public transport) while also exploring future transportation modes. It strives to achieve the right balance for accommodating these priority users, while also addressing the need for parking, car accessibility and movability. The main themes and principles in the Transport Plan are shown in **Figure 2.1*Figure 2.1:*** .


***Figure 2.1: City of Marion Transport Plan Main Themes and Principles***

### 2.1.2 City of Marion Road Hierarchy Plan 2005

The Road Hierarchy Plan 2005 is a tool that identifies road function, user related service needs and adjacent development with local or regional impacts, to assist road authorities to plan and manage transport and related infrastructure.

The development of a road hierarchy plan provides the opportunity to:

- Improve Council's resource allocation and management of its road and traffic assets.
- Assist in providing a consistent and logical response to community requests.
- Effectively link with the arterial road network.
- Coordinate and inform other agencies in the development of various programs.
- Form the basis of an assessment for the provision of traffic control devices and serve as a guide to funding applications.
- Set intervention/service standards and prioritise for maintenance upgrading and construction of new footpaths, roads and associated infrastructure.

Since the road hierarchy plan was prepared in 2005, it is likely to be updated. The road classifications and definitions in the road hierarchy is provided in **Figure 2.2**. Other jurisdictions have adopted changes to the ranges of the traffic volumes for collector and local roads, with less than 2,000 vehicles/day for a local road.

**Classical Hierarchy**
**Level of Service and Characteristics**

| Road Classification | Service Levels | | Characteristics | | | |
|---|---|---|---|---|---|---|
| | Traffic Volumes (AADT) | Vehicle Speeds (85%ile) | Parking / Clearway / Bicycle Lane | Pavement With | Accepted Traffic Control Devices | Street Lighting |
| Arterial | > 8,000 | 60 to 80 in the urban area | Either treatment maybe appropriate | Generally a Multi lane road, (depending on requirements) | Traffic signals, roundabouts or 'B' & 'C' type junction treatments at major junctions | As per Australia Standards Category V 4 |
| Sub-Arterial | < 10,000 | 60 and above | The provision of a clearway or bicycle lane maybe appropriate. | > 9.6 metres depending on configuration | Traffic signals, roundabouts or 'B' & 'C' type junction treatments at major junctions | As per Australia Standards Category V 4 |
| Distributor | < 6000 | 50 to 60 | Bicycle lane and/or parking maybe appropriate | 9.6 metres plus parking lanes if required | At major junctions:<br>• Traffic signals<br>• Roundabouts<br>• 'A' type layout<br>• Stop and Give Way signs | As per Australia Standards Category P 4 |
| Collector | < 3000 | 50 | Bicycle lane and/or parking maybe appropriate | 7.2 to 8.5 metres wide | At major junctions:<br>• Traffic signals<br>• Roundabouts<br>• 'A' type layout<br>• Give way & stop signs<br>Minor locations:<br>• Road closures<br>• Kerb protuberances<br>• Stop and Give way signs | As per Australia Standards Category P 4 |
| Local | < 1000 | < 50 | Clearway and bicycle should not be necessary, parking required. | A minimum of 7.2 metres in width | All minor traffic devices including closures and LATMs | As per Australia Standards Category P 5 |

***Figure 2.2: City of Marion Road Hierarchy and Classifications 2005***

### 2.1.3 City of Marion Streetscape Design Guidelines 2016

The 2016 Streetscape Design Guidelines are in the process of being superseded by the new 2025-2029 draft Streetscape Plan. The guidelines reinforce the vision established in Council's Streetscape Policy describing a framework for the development of high-quality streetscapes. The design intent of the guidelines is to:

- Reinforce a vision for streetscapes that balances the needs of pedestrians, cyclists and the environment, and the functional requirements of vehicles.
- Develop standards for streetscape environments that reinforce the unique character and 'sense of place' of the City of Marion.
- Develop a consistent language of streetscapes within the City of Marion.
- Provide a consistent and recognisable aesthetic that is high quality, robust, and easy to maintain.

### 2.1.4 City of Marion Draft Streetscape Plan 2025-2029

The Draft 2025-2029 Streetscape Plan is a working draft report for the update to the guidelines published in 2016. The streetscape document hierarchy is shown in **Figure 2.3**.

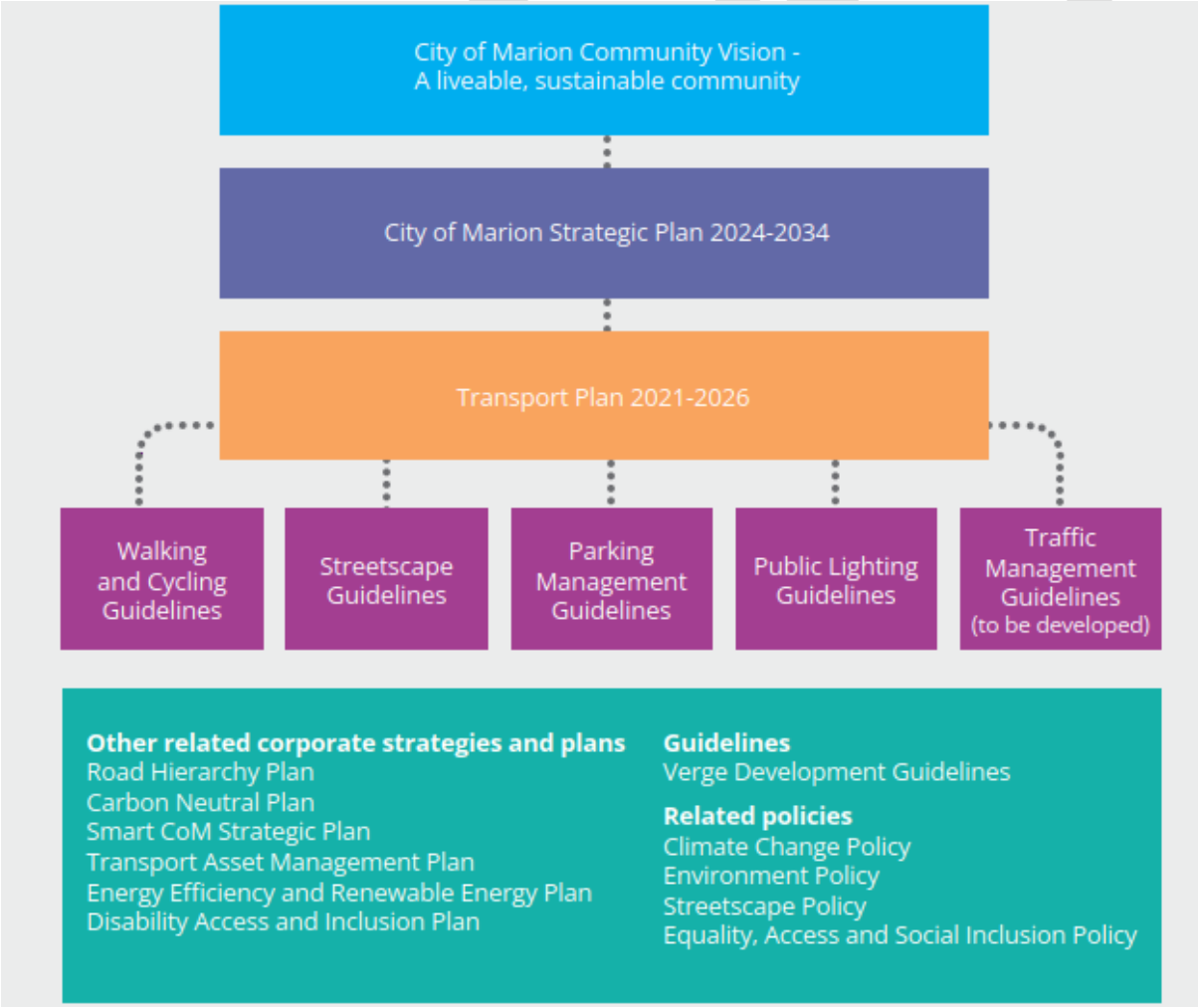



***Figure 2.3: City of Marion Streetscape Document Hierarchy***

The report provides a matrix to focus on key factors such as significance, funding partners, safety and condition, social and environmental impacts, and efficiency to guide future projects and continue advancing our community's streetscape infrastructure in a dynamic and evolving landscape. The streetscape principles include:

- A strategic approach will define the street network through balancing the dual roles of streets as safe thoroughfares for movement of pedestrians, cyclists and vehicles, and as destinations for people.
- Streetscape design will be attractive, enable accessibility, and be of high amenity value in key locations.
- Landscaping will be environmentally sustainable incorporating the use of water sensitive urban design and the use of appropriate plantings.
- Neighbourhood identity and sense of place will be enhanced by streetscapes.
- Streetscapes will be enhanced by visual connections with their surrounding environments.
- Commercial, business and education precincts will be enhanced by streetscapes that contribute to the attractiveness of these areas.
- Streetscapes will be maintained by the timely application of proactive maintenance and auditing programs.
- Trees should be planted in accordance with the Tree Management Framework.
- Streetscape program planning will consider streetscape projects to strategically align to other major projects and developments occurring across the City of Marion.

### 2.1.5 City of Marion Verge Development Guidelines 2022

The 2022 Verge Development Guidelines were prepared by the City of Marion to set a policy for the management of the road verge. The vision for streetscapes in the City of Marion is set out in the Streetscapes Policy and Streetscape Guidelines. The Verge Procedure details the process used by Council to manage verge development. The Verge Development Guidelines detail the technical information used by Council to assess verge developments and provide authorisations for verges that fall outside of major streetscape upgrades.

### 2.1.6 City of Marion Walking and Cycling Guidelines 2024

These guidelines provide direction for the City of Marion's ongoing commitment to enhance our current walking and cycling network and create safe, people friendly and 'activated' streets. The guidelines inform and support the development of four-year priority cycling network plans, and new and improved walking links, by exemplifying best practice techniques. The City of Marion evaluated its road and path network, key destinations, and developments to identify a suitable hierarchy, or priority level, of pedestrian and cycling routes to connect people across the city.

The existing and proposed walking and cycling routes are shown in **Figure 2.4**.

The objectives of the guideline are:

- Be a safe, comfortable option to travel for work, study, recreation and shopping trips.
- Become an easy, everyday activity in our city for people of all ages and mobilities.
- Improve the access people have to everyday, local shopping precincts and create 'vibrant' spaces.
- Actively connect people to public transport.
- Reduce our reliance on motor vehicles and demand for parking.
- Support children to safely travel to school.
- Maximise people's opportunity to connect with nature.
- Provide opportunities for the community to improve fitness, social interaction and mental well-being.

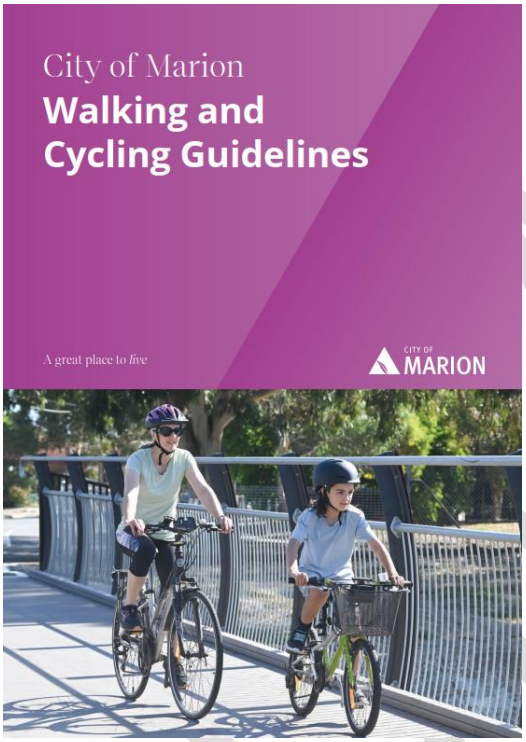




***Figure 2.4: City of Marion Walking and Cycling Guidelines and Existing / Proposed Routes***

### 2.1.7 City of Marion Parking Management Guidelines 2023

The City of Marion Parking Management Guidelines were developed to provide a clear, more holistic direction on when to implement the most appropriate and consistent intervention to address parking concerns raised within the built road network in the City of Marion.

Council have noted that the implementation of parking controls or infrastructure that have been identified under the consultation category of consult, involve and collaborate requires greater than 60 per cent community support (of the residents that have responded) unless multiple options are presented, in which the option with majority is deemed supported by the community.

### 2.1.8 Plympton Oval Masterplan Report 2023

City of Marion engaged DesignInc to prepare a new concept masterplan for Plympton Oval in 2023. The masterplan report summarises the investigations of the existing facilities and a review of the clubrooms, sporting facilities, and car parking supply and demand. At the completion of the plan, Council identified the need for further analysis and planning will be required to effectively address the parking and traffic challenges identified in the masterplan and surrounding residential area.

The report noted that there are currently future plans to construct large scale medium density housing on the SAJC lands nearby, creating potential traffic and population density increases to the area.

Other features related to transport, parking and access are:

- The site lacks formal wayfinding and an entry precinct
- Lack of space for run-off to playing fields
- Oval drainage and surface wear through overuse
- Disconnect from club house building to community spaces
- Lack of pedestrian connections
- Community play space not located adjacent amenities
- Playing oval constrained by light pole locations and bounding roads
- High fencing to the north and south boundaries

The masterplan included a net loss of up to 15 car parks, however several benefits to the community and club were identified from this move. Space has been gained for a larger playground, spectator zones, pedestrian circulation and general community use areas. The existing carparking supply and demand analysis is provided in **Figure 2.5*:***


***Figure 2.5: Plympton Oval Masterplan Report***

## 2.2 State Government

The State Government policies that are relevant to the study area include:

- Greater Adelaide Regional Plan (GARP) from Plan SA in the Department for Trade and Investment (DTI) that was finalised in March 2025
- State Transport Strategy that was released by DIT in March 2025
- South Australia's Road Safety Action Plan 2025-2027 prepared by DIT in January 2025
- South Australia's Active Travel Design Guide prepared by DIT in September 2024
- State Infrastructure Strategy that was prepared by Infrastructure SA in March 2025.

The relevant sections of these State Government documents are provided in this section.

### 2.2.1 South Australia's 20-Year State Infrastructure Strategy, Infrastructure SA, March 2025

Several State Government agencies are in the process of updating or developing other long-term plans or strategies that include the development of the Greater Adelaide Regional Plan (GARP) and the Transport Strategy as outlined in **Figure 2.6**.

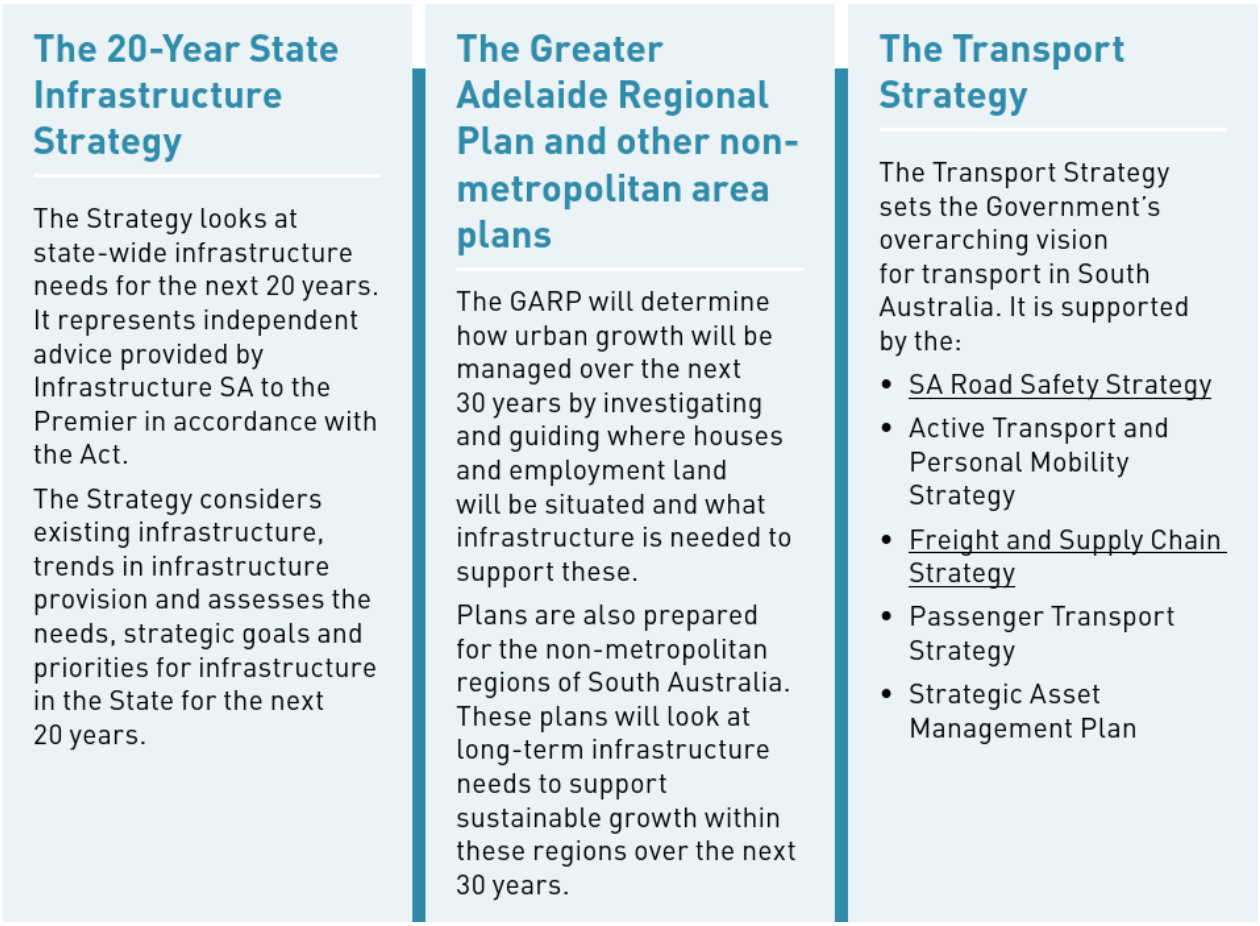



***Figure 2.6: SA Government Infrastructure, Land Use and Transport Strategies and Plans***

The Infrastructure Strategy recommends good urban planning is needed to reduce the need to travel by car and urban design that provides pedestrian-friendly streetscapes and cycling infrastructure to encourage active transport. Integrated planning approaches are proposed that adopt the live local principles, such as locating employment and community facilities and services close to residential areas and increasing housing density around public transport hubs.

**Greater Adelaide Regional Plan, DTI, March 2025**

The Greater Adelaide Regional Plan (GARP) that was finalised in March 2025. For the study area, GARP provides a focus on investigating higher density residential housing in corridor developments that will provide for a variety of housing choices within walking distance to local services and high-frequency public transport in areas such as the Villawood Development.

State-significant infill areas because of their scale, level of government ownership and critical importance to achieve homes near a tram stop. Local infill investigation areas identified along Marion Road and Bray Street provide well-planned and well-located sources of medium density diverse housing and smaller scale employment opportunities.

**South Australia's Transport Strategy, DIT, March 2025**

South Australia's Transport Strategy was prepared by DIT and was released in March 2025. It comprises six sub-strategies that includes the following:

- SA Road Safety that was finalised in 2022 with an Action Plan in January 2025
- Freight and Supply Chain Strategy (completed in 2023)
- Active Transport and Personal Mobility (under development to be finalised in 2025)
- Public Transport Strategy (under development with the draft to be finalised in 2025)
- Carbon Management Strategy (under development to be completed in 2025)
- Strategic Asset Management Plan (under development to be completed in 2025)

**South Australia's Road Safety Action Plan 2025-2027, DIT, January 2025**

South Australia's Road Safety Action Plan 2025-2027 was issued by DIT in January 2025. It is the two-year action plan supporting South Australia's Road Safety Strategy to 2031. The action plan identifies actions that will contribute to the target of at least a 50 per cent reduction in lives lost and a 30 per cent reduction in serious injuries on South Australian roads by 2031.

The road safety actions under the theme of local places are:

- Continue to review the Speed Limit Guideline for South Australia to apply the Movement and Place approach in the speed limit assessment process, to improve guidance for local government.
- In conjunction with local government, and in line with the Movement and Place approach, investigate opportunities to improve safety outcomes on roads which also function as pedestrian and transit precincts.

- Collaborate and engage with local government to:
    - Identify opportunities and pathways for local government to access funding for road safety infrastructure.
    - Explore opportunities for proactive knowledge-sharing and capacity-building within local government.

The road safety actions under the themes of public transport, cycling and walking are:

- Plan for mass transit corridors to connect people and places to facilitate the mode shift to public transport and reduce reliance on private vehicles
- Improve safety for people walking and riding on or across arterial roads, with a focus on safety around schools, strategic bikeways and improved road crossings
- Implement additional separated bicycle lanes across the road network.

**South Australia's Active Travel Design Guide, DIT, September 2024**

South Australia's Active Travel Design Guide was released by DIT in September 2024. This guide offers design principles tailored for active travel and green infrastructure development in South Australia. These principles are founded upon best practices, Australian standards, and local design conventions for creating vibrant, cycling and pedestrian-friendly streets. It uses a street typology matrix that considers the street context and functional needs of movement and local destinations that can be used to develop active transport initiatives and treatments.

The key benefits for providing improved active transport infrastructure are:

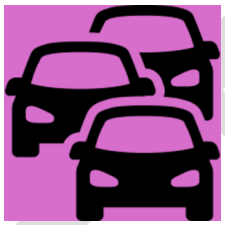
- Reduced car dependence with more walking and cycling
- Better use of road space with a lesser need for car parking
- Lower costs related to traffic congestion
- Decreased need for car ownership
- More active transport infrastructure improves access to public transport
- Infrastructure for active travel that requires less concrete and fewer barriers, signals and line markings to build and maintain, with associated savings.

The Design Guide focuses on the dimensions for footpaths, shared paths and cycling lanes on local and collector streets.

## 2.3 Demographic Review

This section provides planning context with a summary of demographic analysis and future development in the study area. These statistics were affected by the COVID-19 pandemic, but nonetheless most of the commuter trips to work were by private vehicle. This is the dominant travel mode for the residents.

**Changing demographics in the LATM study area**

| | |
|---|---|
|  In 2021, Plympton Park had a population of 3,881 living in 1,718 dwellings with an average household size of 2.3. |  From the census conducted in August 2021, 66.3 per cent of residents travelled to work in a private car. |
|  4.5 per cent travelled by bus or tram. |  3.5 per cent travelled by tram. |
|  1.3 per cent rode a bicycle. |  9.0 per cent worked at home and 11 per cent did not go to work. |

Plympton Park continues to grow with more infill residential housing by subdividing of the larger blocks with the older houses into multiple townhouses creating several issues, such as:

- Increased population with younger families with children that need to travel to school. The study area does not have any local schools and therefore all students must cross Marion Road or be driven by car to and from other schools that are beyond a safe walk or cycling distance.
- Furthermore, the study area does not have any significant supermarkets, with the closest shopping centres at Park Holme and Castle Plaza in Edwardstown with Coles supermarkets. Therefore, all residents need to drive for their local shopping trips.
- Except for Plympton Oval and the Aldridge Avenue reserve, the study area does not contain any major public open space or parks. Therefore, residents may choose to drive to the larger regional parks.
- The new townhouses have smaller garages that are not all used for vehicles, and in many cases are used instead for storage. Consequently, the demand for on-street parking has increased. The additional driveways with the new housing will also reduce the spaces for the on-street parking.

### Alternative Transport Modes

Route M44 operates along Marion Road between Marion Shopping Centre and Adelaide CBD with a Go Zone frequency service level. The other local bus Routes 245 and 248 service the study area via South Terrace and Ferry Avenue are not as frequent.

Tram services are available at tram stop 11 Plympton Park on Wattle Terrace between Ferry Avenue and Mackin Street and at tram stop 11 at Marion Road that will be affected by the TGSP during the shutdown period for the construction. When the TGSP is completed, tram stop 11, Plympton Park, will retain the at-grade access from Wattle Terrace at Ferry Avenue. Tram stop 10 will be relocated and elevated with access via stairs and a lift on the tram bridge over Cross Road and Marion Road.

South Terrace and Hawker Avenue are the proposed east-west walking and cycling routes through the study area in the Council's Walking and Cycling plan that is discussed in Section 2.1.6.

### Future Development in the LATM study area

The Morphettville Racecourse (SAJC) is progressing with a major housing development which will include 203 townhouses and mixed-use apartment buildings with an access point on Park Terrace. The number of dwellings is subject to change and the planning consent is given in May 2025. The traffic impacts during the construction stage and from the new residents in the new housing will increase the traffic in South Terrace to Marion Road and Park Terrace to Bray Street. Access to the Villawood Development from Park Terrace is shown in **Figure 2.7**.


The Villawood development will have 203 townhouses and mixed-use apartment buildings.


The Villawood townhouse development will likely only have access at Park Terrace and Tennyson Avenue. A bridge access from Anzac Highway is not likely to be supported by DIT.

***Figure 2.7: Access to the Villawood Development from Park Terrace***

# 3 Existing Transport System

The existing transport system has been documented utilising traffic volumes, speed data, crash data, road network hierarchy, and existing traffic management devices. The attributes and statistics for the key transport network are provided for:

- Existing council road hierarchies, traffic volumes and vehicular speeds
- Road crashes locations and types
- LATM Devices locations and types

The existing road network for the study area is bounded by the tramline to the north, Marion Road to the east, which is DIT arterial road, and Bray Street to the south, which is a Council-owned sub-arterial road. South Terrace is an east-west collector road between Park Terrace and Marion Road. Park Terrace along the eastern side of the Morphettville Racecourse has a bicycle lane on the western side of the street. Bicycle lanes also exist on both sides of Marion Road.

## 3.1 Traffic Volumes

A review of the traffic volumes was conducted from counts that Council have conducted since 2021. The streets with the highest daily average traffic volumes are:

- Bray Street ranging from 8,100 to 8,700 vehicles per day which is a sub-arterial road
- Park Terrace ranging from 1,100 to 2,000 vehicles per day
- South Terrace at 1,500 vehicles per day which is a collector road
- Herbert Street at 1,500 vehicles per day

The daily traffic volumes in Plympton Park are shown in **Figure 3.1** .

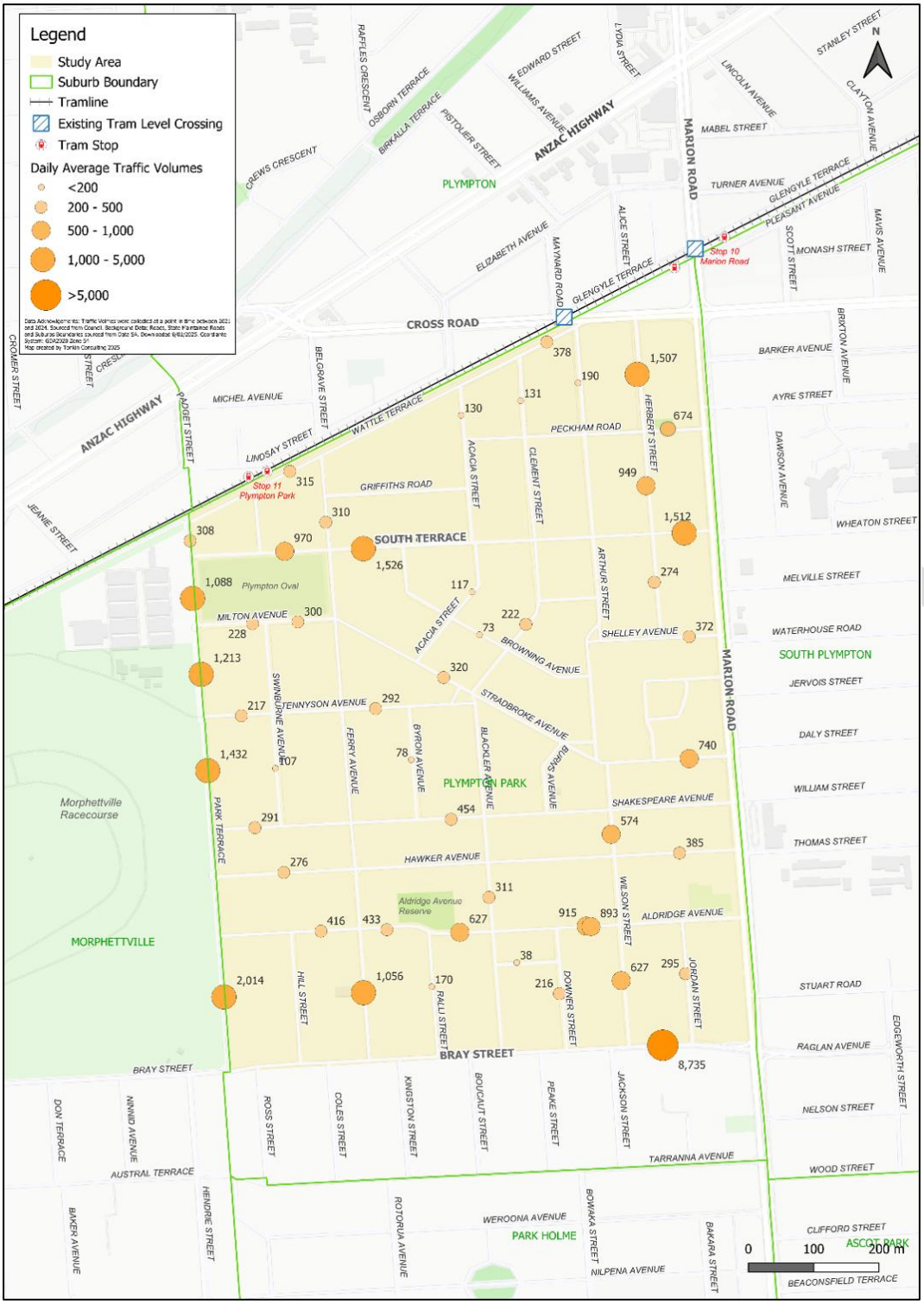



***Figure 3.1: Average Annual Daily Traffic Volumes in Plympton Park***

## 3.2 85th Percentile Speeds

A review of the traffic speeds from surveys that Council conducted since 2021 with 85th percentile speeds shown in ***Figure 3.2: 85th Percentile Speeds in Plympton ParkFigure 3.2***. The only street exceeding level of service with an 85th percentile speed over 55 km/h is Park Terrace

Traffic calming treatments can be considered for implementation in Park Terrace with 85th percentile speeds over 55 km/h. However, Bray Street, South Terrace and Shakespeare Avenue require future speed monitoring before considering new traffic calming devices with speeds between 50 and 55 km/h.

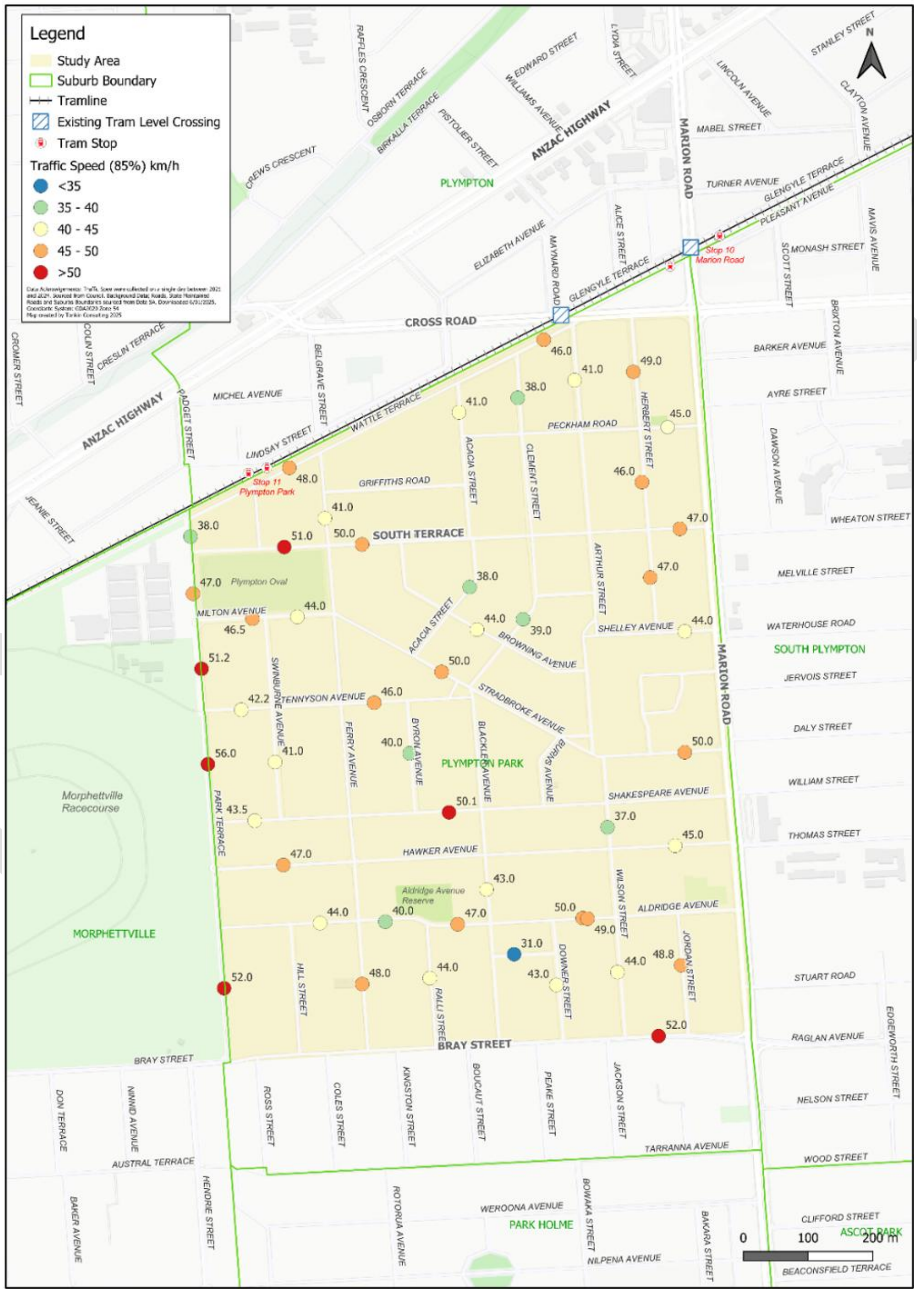



***Figure 3.2: 85th Percentile Speeds in Plympton Park***

## 3.3 Crash Statistics

The crash statistics from 2019-2023 SAPOL records by crash severity are shown on this map to identify the unsafe intersections for evidence for further traffic analysis. Over the five-year period, no fatalities occurred in the study area. The locations with the highest number of crashes are at Marion Road/Cross Road and Marion Road/Bray Street on the DIT arterial road with high traffic volumes. The number of crashes within the study area range from one to four per location. The crash statistics for Plympton Park on council roads are shown in **Figure 3.3**.


***Figure 3.3: Plympton Park Crash Statistics on council roads reported to SAPOL (2019 to 2023)***

## 3.4 LATM Devices and Treatments

The study area has a range of traffic control devices located at intersections and mid-block. These include:

- Roundabouts at locations such as:
  - Park Terrace / Hawker Street
  - Ferry Avenue / Hawker Street
- One-way entrance treatment at Hawker Street / Marion Road
- Spoon drains located at various locations area-wide
- Pavement marking islands at wide intersections such as Wilson Street / Stradbroke Road
- An all-time bicycle lane is also provided for the length of Park Terrace on the western side of the road.

Examples of the existing traffic calming treatments, roundabouts and bicycle lanes in Plympton Park are shown in ***Figure 3.4***.

Park Terrace and Hawker Street roundabout

Hawker Street and Ferry Avenue roundabout

Pavement marking island on Wilson Street south of Stradbroke Road looking north


Bicycle lane on the western side of Park Terrace looking north

Spoon drain in Arthur Street at Shelley Street looking north

One-way entry point into Hawker Street from Marion Road manages the cut-through traffic.

***Figure 3.4: Existing Traffic Management and Bicycle Treatments in Plympton Park***

# 4 Existing Issues and Opportunities

This section lists the existing issues and opportunities that were identified during the community engagement consultation completed by Council and the insights from the Tonkin site visit.

## 4.1 Ideas from the Community Engagement

In 2024, the City of Marion engaged with Plympton Park residents regarding the following plans:

- 40 km/h speed limit (1,550 households with 193 responses).
- Herbert Street closure (105 households with 45 responses).

The following responses were also provided:

- Herbert Street right turn ban consultation survey.
- Customer complaint records for Plympton Park.

The feedback from this consultation provided 578 total comments on traffic and transport issues. These comments identified the importance to prioritise safety, accessibility and to plan for measures to mitigate the impact of increased development from infill housing and the Morphettville Racecourse residential housing development. The distribution of the comments by relevant traffic issue is summarised in **Figure 4.1**.

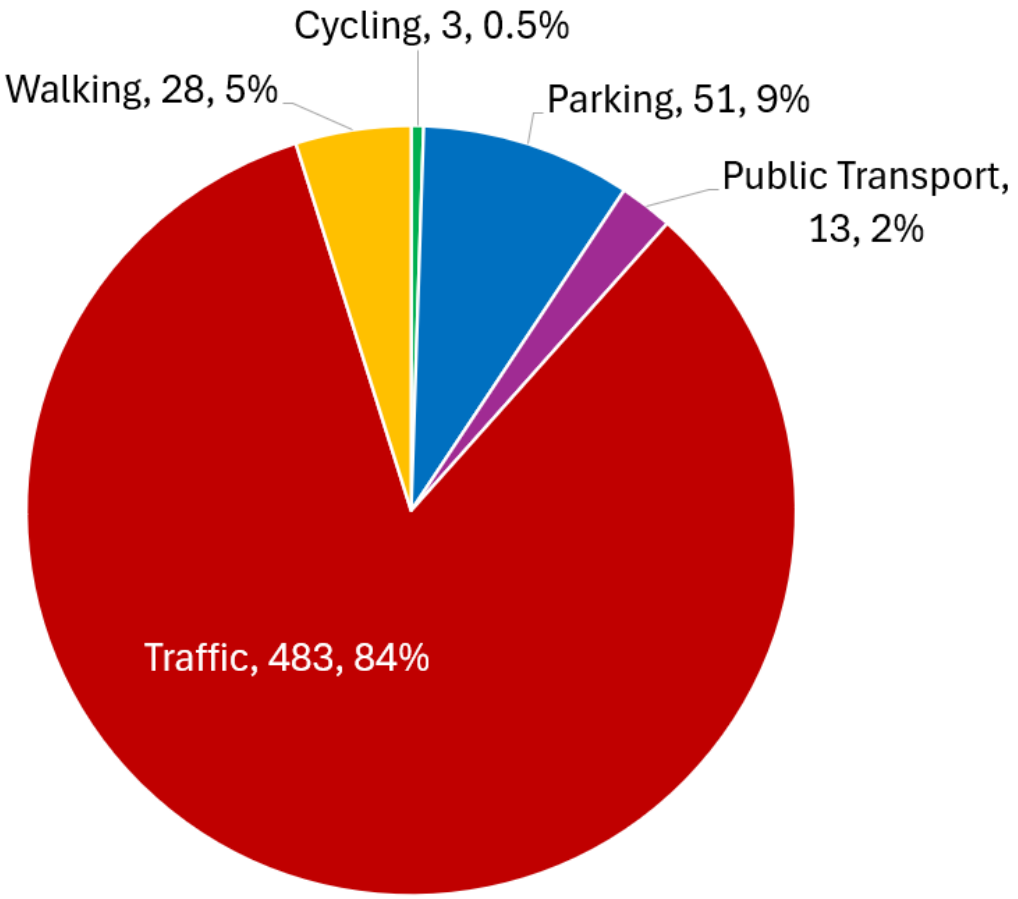



***Figure 4.1: Number of Comments from the Community Consultation in Plympton Park***

The comments were also summarised to demonstrate the streets and areas of high focus in the study area. The streets or locations with the most comments by transport mode were:

- Herbert Street (189 traffic, 17 parking, 4 walk)
- Park Terrace (18 traffic, 7 parking, 1 walk)
- Arthur Street (10 traffic, 3 parking)
- Villawood development (10 traffic, 1 walk)
- Wattle Terrace (6 traffic, 2 parking, 1 tram)
- Aldridge Avenue (5 traffic, 2 walk)
- Stradbroke Avenue (6 traffic)
- South Terrace (3 traffic, 1 walking, 1 cycling)
- Bray Street (5 traffic)
- Peckham Road (3 traffic, 1 walk)

The number of comments for the different streets within Plympton Park are shown in ***Figure 4.2***.


***Figure 4.2: Number of Comments by Street in the Community Consultations in Plympton Park***

## 4.2 Key Issues for Traffic, Parking and Access

The key issues related to traffic, parking and access from the community consultation, site visit and desktop review of the traffic statistics included:

**Traffic Management and Calming Measures**

- Concerns about traffic speeding and non-local or cut-through traffic (also known as rat-running) to access Marion Road and Cross Road
- Requests for speed humps, clearways during peak hours, slow points, driveway links and reduced speed limits to improve safety and reduce traffic flow in residential areas
- Specific streets and intersections mentioned, such as Herbert Street, Stradbroke Avenue, Park Terrace, and Arthur Street, highlight localised issues with excessive speed and congestion
- Changes to turn restrictions and provision of more road space to accommodate increased traffic.

**Traffic and Accessibility Concerns**

- Requests for additional entrances/exits for developments, such as the Morphettville Racecourse (SAJC) residential development on potential new access from Anzac Highway and Park Terrace
- Specific road closures and openings, such as with Herbert Street and Arthur Street
- Safety hazards from non-local traffic, double parking, narrow streets and large vehicles
- Problems crossing roads and tram tracks safely, such as Acacia Street and Park Terrace
- Suggestions for upgrades to develop Park Terrace as a boulevard with new traffic controls.

**Safety and Infrastructure Issues**

- Parking impacts on residents with tram users parking in or near Wattle Terrace for *Park and Ride* activity to the tram services
- Emergency vehicle access to the existing houses and future development at the Villawood residential development with narrow streets, roundabout and traffic calming devices
- Safety to access the tram stops and pedestrian crossings.

**Potential Community Solutions**

The community proposed the following solutions or ideas regarding improving traffic movement and managing speeding in the study area:

- Roundabout at the corner of Ferry Avenue and Shakespeare Avenue
- Consider speed humps in Park Terrace between the existing roundabouts
- Consider speed humps or a chicane treatment in Aldridge Avenue to slow down traffic
- Consider speed humps or a chicane treatment in Herbert Street
- Install more carparking line marking and signage to reduce street width issues for traffic.

## 4.3 Insights from Site Visits and Traffic and Speed Data

Site visits to review the existing conditions in the study area and to identify the traffic, parking and safety issues on the streets were conducted in January 2025. The existing LATM devices and treatments from Section 3.4 were noted during this visit. Other notes from the site inspection included:

- Street widths varied greatly between different areas of the study area
- Aldrige Avenue, Hawker Avenue, and Shakespeare Avenue all included large road widths which made them susceptible to higher traffic speeds.
- Unique traffic arrangements in local streets with road loops are shown in **Figure 4.3**.
- Intersection of Stradbroke Avenue at Arthur Street
- Intersection of Stradbroke Avenue at Tennyson Avenue and Blackler Avenue
- Intersection of Stradbroke Avenue at Wilson Street
- Intersection of Arthur Street and Shelley Avenue

Stradbroke Avenue loop looking north from Tennyson Avenue

Tennyson Avenue at Blacker Avenue looking west

***Figure 4.3: Typical Road Loops in Plympton Park***

Plympton Park is bounded by Marion Road to the east as a barrier for walking and cycling movements. Crossings are at:

- Marion Road at Cross Road
- Marion Road at Hawker Avenue/Thomas Street
- Marion Road at Bray Street
- PAC across Marion Road between South Terrace and Shelley Avenue.

Bray Street has timed bicycle lanes that are operational from 7 am to 9 am, and 3 pm to 7 pm on Monday to Friday as shown in **Figure 4.4**. A bicycle lane is provided on the northbound direction of Park Terrace as shown in **Figure 4.4**.


Timed bicycle lane in Bray Street looking east


Bicycle lane on the western side of Park Terrace looking north

***Figure 4.4: Bicycle Lanes along Bray Street and Park Terrace in Plympton Park***

Several development applications have been submitted for new dwellings in Plympton Park which is increasing the number of residents and traffic volumes in the suburb. These include the:

Villawood development that is located at the Morphettville Racecourse, the first part of this development is a land division creating 203 allotments as shown in **Figure 4.5.**

Other residential developments with older housing properties subdivided for multiple dwellings.


Villawood Development Entrance


Morphettville Racecourse and Villawood Development

***Figure 4.5: New Residential and Infill Developments in Plympton Park***

# 5 Traffic Management for the Infill Development

## 5.1 Overview

This section discusses potential opportunities in managing the expected traffic growth, especially the Villawood Development on Park Terrace. Plympton Park is currently undergoing significant growth with several development applications underway for new housing that are increasing the number of residents in the suburb. This includes the:

Villawood development that is located at the Morphettville Racecourse, the first part of this development is a land division creating 203 allotments

Other residential developments with older housing properties subdivided for multiple dwellings.

Two examples of the development are shown in **Figure 5.1**.


Entrance to the Proposed Villawood Development

New residential development at Tennyson Avenue and Stradbroke Avenue

***Figure 5.1: Examples of Infill Development in Plympton Park***

With an increase in population density and further residential growth, Plympton Park is expected to increase the number of residents considerably over the next 10 years. Therefore, these new dwelling will likely impact the local road network in Plympton Park.

## 5.2 Options to Manage Traffic Growth

The following options were developed to manage the traffic growth from the new residential dwellings:

- **Option 1**: Investigate with DIT, signals at South Terrace and Marion Road
- **Option 2:** Provide access to Anzac Highway under the tram line (from the Villawood Development)
- **Option 3:** Herbert Street
- **Option 4:** Open Wattle Terrace for traffic to exit onto Cross Road

### 5.1.1 Option 1: Investigate with DIT, signals at South Terrace and Marion Road

The provision of traffic signals at South Terrace and Marion Road could be considered to allow residents wanting to travel south from the study area. This traffic movement is currently allowed at most of the intersections along Marion Road. Due to significant traffic congestion during AM and PM peaks on Marion Road, queuing times are slow and long during the critical peak times.

Two signalised intersections are provided within the study area on Marion Road, Bray Street and Hawker Avenue. Hawker Avenue is also restricted to only one-way in movements at the signalised intersection. Therefore right-turn priority movements are restricted to only the Marion Road / Bray Street intersection. This was the main motivation for investigating a signalised intersection at South Terrace and Marion Road.

The discussions with Council and DIT concluded that it would be too costly at the current stage, with Council expected to cover costs rather than DIT. The intersection is also not correctly aligned with Wheaton Street to provide a sufficient 4-leg intersection as shown in **Figure 5.2**. Land acquisition on Marion Road may be required which may be another cost for Council.

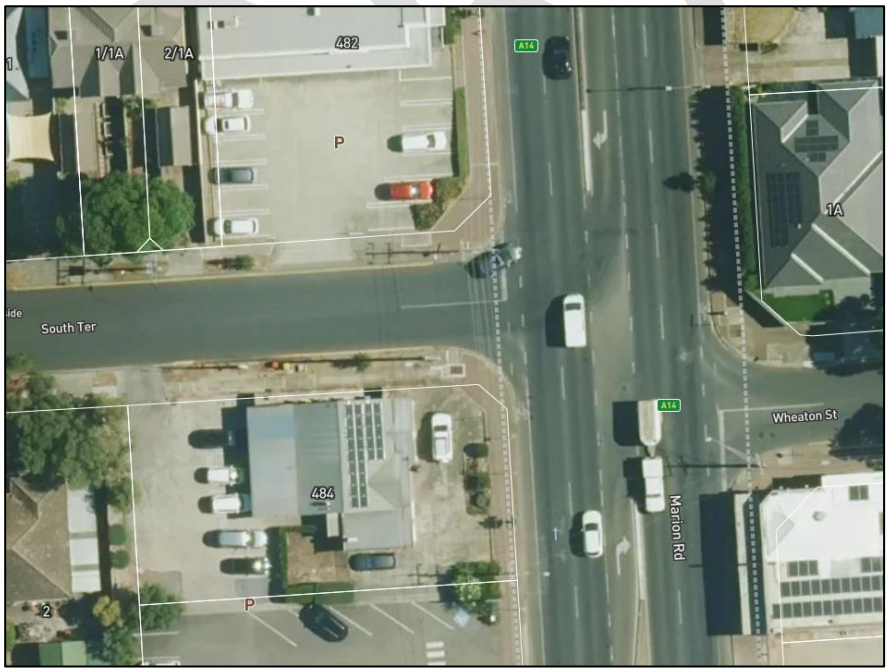



***Figure 5.2: South Terrace / Marion Road Existing Intersection Layout***

The advantages and disadvantages of the assessment are summarised in **Table 5.1.** This demonstrates the negatives outweigh the positives for this idea.

| Advantages | Disadvantages |
|---|---|
| • Provides access for all movements from Plympton Park onto Marion Road.<br>• Reduces the need for traffic demand in Herbert and Arthur Street.<br>• Supports South Terrace as the east-west collector road. | • Unlikely to be supported by DIT due to less than 100 right-turn vehicle movements in the peak hour.<br>• Land acquisition and signals required at a high cost to Council.<br>• Increased traffic using local streets to access South Terrace.<br>• It is likely to have high costs to remove the existing PAC 50m south of the proposed signals. |

***Table 5.1: Assessment of the Proposed Signals at South Terrace and Marion Road***

### 5.2.2 Option 2: Provide access to Anzac Highway under the tram line (from the Villawood Development)

Providing an alternative access point from the Villawood Development was analysed as another potential large project. This solution would reduce the need for new traffic to utilise Plympton Park, mainly South Terrace, Park Terrace, and Bray Street. As discussed within Option 1, the disadvantages of the project outweigh the advantages significantly due to the cost and scale of the project. DIT would be a primary stakeholder within the project and has identified that this project is currently not being considered as part of the tram crossing project nearby. There are also several implications for other local streets on the northern side of the tram line.

The advantages and disadvantages of the assessment are summarised in **Table 5.2**.

| Advantages | Disadvantages |
|---|---|
| • Reduces the need for traffic demand in South Terrace and Park Terrace,<br>• Will not add further vehicles to the Herbert Street and Arthur Street intersections with Cross Road,<br>• Vehicles entering/leaving Villawood would choose this option over potential rat-running. | • Not currently a part of the existing DIT plans and scope for the tram project land acquisition and signals required at a high cost to council,<br>• The cost to plan, design and build the longer tram viaduct would be significant over tens of millions of dollars. This would require a detailed concept plan and design for the capital costs to be estimated,<br>• Implications for traffic access on Anzac Highway with queuing.<br>• Decrease in traffic capacity for local streets north of the tram line (Jamie Street and Mabel Terrace) and Anzac Highway.<br>• Potential safety risks for another intersection with Anzac Highway. |

***Table 5.2: Assessment of the Proposed New Access to the Villawood Development***

### 5.2.3 Option 3: Herbert Street

Herbert Street was already included within the 2024 community consultation conducted by Council, with an all-times ban proposed for the right turn movements onto Cross Road proposed as shown in **Figure 5.3**. This idea was heavily split within the community with 51 per cent of respondents not supporting the proposed changes. As a part of this report, a further three options were considered for potential changes to the function of Herbert Street:

- **Option 3a:** Herbert Street (right turn ban, left in/out only) as shown in **Figure 5.3.**
- **Option 3b:** Herbert Street (right turn ban to Cross Road)
- **Option 3c:** Right turn out peak hour ban
- **Option 3d:** Convert to one-way movements (south bound only)

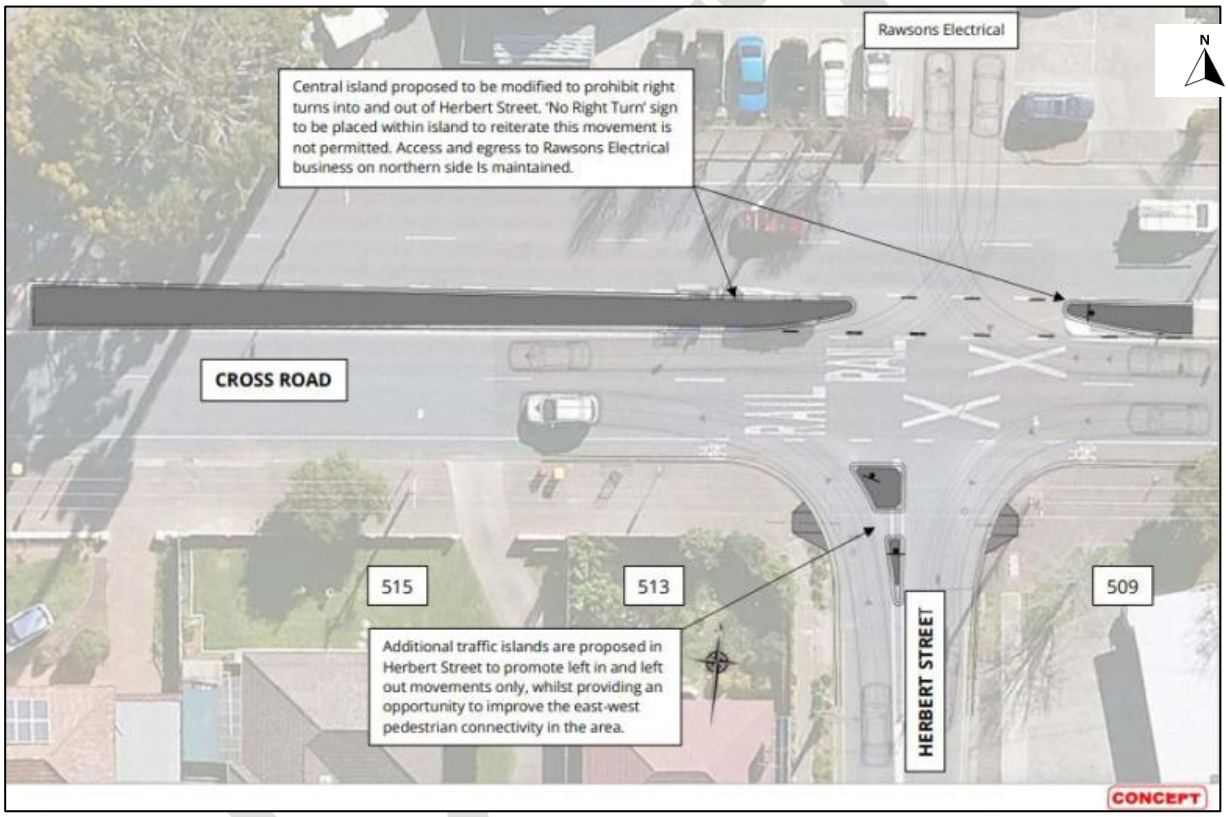
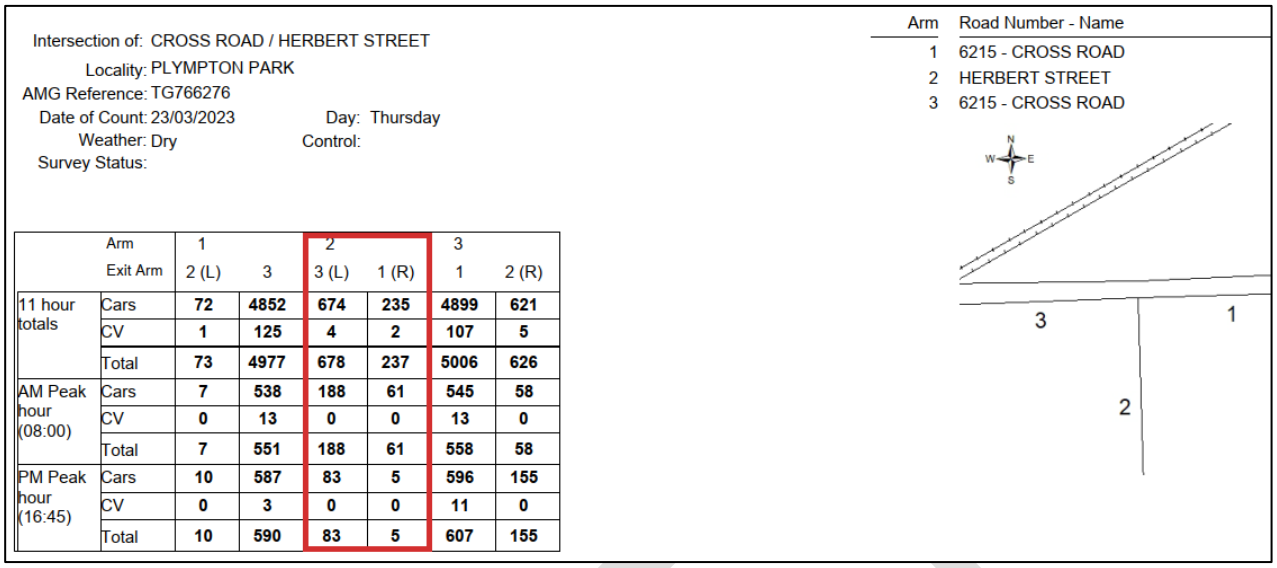



***Figure 5.3: Proposed Herbert Street Right-Turn Ban from the 2024 Community Consultation***

As part of the analysis, DIT was consulted for information and data regarding the existing traffic movements at Herbert Street as shown in **Figure 5.4**. Most of the traffic exiting the study area from Herbert Street travels west along Cross Road. However, during the AM peak period it is likely that the delays of vehicles attempting to travel east towards the Marion Road intersection are delaying a significant number of vehicles turning in either direction.



Intersection of: CROSS ROAD / HERBERT STREET
Locality: PLYMPTON PARK
AMG Reference: TG766276
Date of Count: 23/03/2023 Day: Thursday
Weather: Dry Control:
Survey Status:

| Arm | Road Number - Name |
|---|---|
| 1 | 6215 - CROSS ROAD |
| 2 | HERBERT STREET |
| 3 | 6215 - CROSS ROAD |

| | Arm | 1 | | 2 | | 3 | |
|---|---|---|---|---|---|---|---|
| | Exit Arm | 2 (L) | 3 | 3 (L) | 1 (R) | 1 | 2 (R) |
| 11 hour totals | Cars | 72 | 4852 | 674 | 235 | 4899 | 621 |
| | CV | 1 | 125 | 4 | 2 | 107 | 5 |
| | Total | 73 | 4977 | 678 | 237 | 5006 | 626 |
| AM Peak hour (08:00) | Cars | 7 | 538 | 188 | 61 | 545 | 58 |
| | CV | 0 | 13 | 0 | 0 | 13 | 0 |
| | Total | 7 | 551 | 188 | 61 | 558 | 58 |
| PM Peak hour (16:45) | Cars | 10 | 587 | 83 | 5 | 596 | 155 |
| | CV | 0 | 3 | 0 | 0 | 11 | 0 |
| | Total | 10 | 590 | 83 | 5 | 607 | 155 |



***Figure 5.4: 2023 Traffic Survey of Cross Road / Herbert Street Intersection provided by DIT***

This results in the intersection performing poorly for residents of Plympton Park. This intersection is the only northern exit from the study area, which makes it a required destination for vehicles attempting to exit Plympton Park. The traffic volume of Herbert Street has increased to a collector road standard at approximately 1,500 vehicles a day in the different traffic counts supplied.

Removing access to Herbert Street in different capacities resulted in similar advantages and disadvantages across all four options. Option 3C with the right turn out peak hour ban provides the best outcome because of low cost to implement, and it does not impact the traffic movements during the non-peak hour periods.

The advantages and disadvantages of the Herbert Street options are provided in **Table 5.3**.

| 3a: Right Turn Ban, left in / out only | 3b: Right turn out closure | 3c: Right turn ban in peak hours | 3d: Convert to south-bound only |
|---|---|---|---|
| **Advantages** | | | |
| • Reduced traffic demand on Herbert Street.<br>• Reduced AM peak hour delays on Herbert Street.<br>• Minor cost with traffic control devices and signage. | • Reduced traffic demand on Herbert Street.<br>• Reduced AM peak hour delays on Herbert Street.<br>• Minor cost with traffic control devices and signage. | • Reduced traffic demand on Herbert Street.<br>• Reduced AM peak hour delays on Herbert Street.<br>• Low cost with signage. | • Reduced traffic demand on Herbert Street.<br>• Negligible AM peak hour delays on Herbert Street.<br>• Minor cost with traffic control devices and signage. |

| 3a: Right Turn Ban, left in / out only | 3b: Right turn out closure | 3c: Right turn ban in peak hours | 3d: Convert to south-bound only |
|---|---|---|---|
| **Disadvantages** | | | |
| • No right turns into Cross Road.<br>• Increased traffic using Arthur Street.<br>• Traffic increases to other local streets.<br>• Minor increase to traffic movements at eastern exits onto Marion Road. | • Only one potential exit/turn onto Cross Road from Plympton Park with the left turn.<br>• Increased u-turning traffic on Cross Road.<br>• Minor increase to traffic movements at eastern exits onto Marion Road. | • No right turns allowed onto Cross Road during peak periods.<br>• Increased traffic movements at eastern exits onto Marion Road. | • No right turns allowed onto Cross Road during peak periods.<br>• Increased traffic movements at eastern exits onto Marion Road. |

***Table 5.3: Assessment of the Proposed Herbert Street Closure and Movements Ban***

### 5.2.4 Option 4: Open Wattle Terrace for traffic to exit onto Cross Road

As a further measure to reduce traffic demand and volumes on Herbert Street, opening an exit from Wattle Terrace onto Cross Road was assessed. This project was identified due to the opportunity provided by the Marion Road / Cross Road TGSP. The existing PAC located on Cross Road adjacent Wattle Terrace currently prevents any works to open Wattle Terrace to Cross Road. However, this PAC is being moved 50m west and will no longer be a direct conflict next to Wattle Terrace.

As part of the level crossing removal project, DIT has designed for a new open public space underneath the tram line and the Wattle Terrace / Arthur Street intersection to be maintained as a left-in movement only. This is shown in **Figure 5.5**.

New open public space underneath the tram line adjacent Wattle Terrace


Wattle Terrace / Arthur Street arrangement currently planned to be maintained

***Figure 5.5: Marion Road / Cross Road Level Crossing Removal Landscape Designs***

The cost and scope of the project is significantly reduced by the tram crossing project, thus making this solution more appealing for managing traffic growth in Plympton Park. The advantages highlight the positive changes the new intersection could make and assist in distributing the existing traffic load from Herbert Street.

The advantages and disadvantages of the Herbert Street options are provided in **Table 5.4**.

| Advantages | Disadvantages |
|---|---|
| • Provides a new alternative exit into Cross Road instead of Herbert Street<br>• Reduced traffic demand on Herbert Street<br>• Reduced traffic in Arthur Street<br>• Signals and pedestrian crossing will already be moved as part of the TGSP<br>• Minor costs for design and construction. | • Increased traffic volumes in Wattle Terrace that is a residential street connecting to Park Terrace<br>• Removal of the northbound movement at Arthur Street/Wattle Terrace<br>• Removal of the southbound movement from Wattle Terrace into Arthur Street. |

***Table 5.4: Assessment of the Proposed Exit from Wattle Terrace into Cross Road***

# 6 LATM Solutions for the Action Plan

This section details the specific traffic solutions and ideas for an action plan for the Plympton Park area. Examples of the types of traffic calming devices that we may consider are provided in **Figure 6.1**. The LATM Plan will develop initiatives that are consistent with all current and relevant Australian Standards and Austroads Guides.

One-lane slow point with landscaping

Paved treatment at road junction

Wombat crossing for safer pedestrian movements and slower traffic

Driveway link with landscaped islands

Landscaped islands and kerb build-outs

Pavement markings to narrow a loop road

***Figure 6.1: Examples of Potential Traffic Calming Treatments***

## 6.1 Proposed Solutions for the LATM Plan

### 6.1.1 Problem 1: Uncertainty of the traffic demand with the TSGP

**Solution 1:** Conduct further traffic analysis after completion of the TGSP and Villawood Development.

To ensure Plympton Park streets remain operating within their expected level of service and proposed long-term solutions are required, Council will plan to monitor traffic speeds and volumes at key locations throughout the study area after the TGSP and Villawood Development are completed.

Traffic flow benefits on Cross Road, Marion Road and Morphett Road are expected resulting from the TGSP with a likely reduction in the demand for cut-through traffic on Plympton Park local streets. The intersection upgrade project will also increase the intersection capacity with new dedicated left turns at the intersection of Marion Road and Cross Road which will likely further reduce this demand.

### 6.1.2 Problem 2: High traffic volumes on Herbert Street

**Solution 2a:** Provide left turn access from Wattle Terrace into Cross Road and develop a concept design

This solution will provide a left-only exit from Wattle Terrace to Cross Road with the PAC to be relocated west of Maynard Road, by DIT as part of the TGSP. The left in movement into Arthur Street and Wattle Terrace from Cross Road will re-open.

The proposed new trees on the traffic island at Cross Road are not required, providing the potential for new landscaping opportunities. This includes a new landscaped island for one-way entry into Arthur Street with two-way movements.

Driveway access for residents in Wattle Terrace and Arthur Street will not be affected. An alternative pavement treatment at the intersection could provide further pedestrian friendly access. This could include a raised platform.

A high-level concept drawing of the proposed design for the left turn access from Wattle Terrace into Cross Road is provided in **Figure 6.2**.

At the intersection of Wattle Terrace and Cross Road, two pedestrian crossing points are recommended for consideration to be designed as raised pavements to create slower speed environment for pedestrians walking along the southern side of Cross Road.


***Figure 6.2: Potential Traffic Solution at the Wattle Terrace / Cross Road Intersection***

This solution presents the following benefits:

- **Second exit for traffic balance**
  Creating a second exit onto Cross Road will help share demand currently funnelled almost entirely through Herbert Street, easing congestion and balancing traffic loads across the network.
- **Data shows most traffic turns left**
  Traffic surveys confirm that the majority of vehicles using Herbert Street turn left onto Cross Road at a rate more than three times higher than right-turn movements. This highlights that a second left-out option is the most effective way to manage volumes.
- **Supports Herbert Street access**
  Feedback from earlier consultation showed that residents opposed restricting right-out and right-in movements at Herbert Street/Cross Road. Providing an alternative left-out option elsewhere supports Herbert Street residents without removing this access.
- **Improved safety at Arthur Street**
  To improve safety, the northern Arthur Street exit onto Wattle Terrace will be closed in the northbound direction. This simplifies the intersection design, reduces conflict points, and complements the new left-out arrangement. Entry to Arthur Street in the southbound direction will remain open
- **New landscaping opportunities**
  The partial closure on Arthur Street also creates an opportunity for new landscaping and tree planting, improving local amenity and contributing to the greening of the neighbourhood.

**Solution 2b:** Consideration of traffic calming devices and/or wayfinding signage on high volume local roads based on future monitoring to discourage rat-running.

Traffic volume data to be collected following the Villawood development may indicate rat-running. If warranted, the installation of traffic control devices to promote travel on higher functioning roads, will be considered.

Subsequently, wayfinding signage may be warranted at junctions near the Villawood development to direct traffic towards the higher functioning roads. This will reduce the impact of traffic growth on residential streets.

### 6.1.3 Problem 3: Road Hierarchy Inconsistencies

**Solution 3:** Reclassify Ferry Avenue from Local Road to Collector Road and review Park Terrace classification based on future data collection.

Ferry Avenue already has a traffic volume of over level of service. This provides the justification for the reclassification from a local to collector road. Bus routes 245 and 248 currently operate in

Ferry Avenue between South Terrace and Bray Street. It is more appropriate for the Adelaide Metro buses to use Collector roads instead of Local streets.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Collector | < 3000 | 50 | | Bicycle lane and/or parking maybe appropriate | 7.2 to 8.5 metres wide | At major junctions:<br>• Traffic signals<br>• Roundabouts<br>• 'A' type layout<br>• Give way & stop signs<br>Minor locations:<br>• Road closures<br>• Kerb protuberances<br>• Stop and Give way signs | As per Australia Standards Category P 4 |
| Local | < 1000 | < 50 | | Clearway and bicycle should not be necessary, parking required | A minimum of 7.2 metres in width | All minor traffic devices including closures and LATMs | As per Australia Standards Category P 5 |

***Figure 6.3: Existing City of Marion Road Hierarchy for Local and Collector Roads***

Traffic volumes on Park Terrace are currently exceeding level of service for a Local Road. However, it is noted the proposed changes as part of this study will decrease volumes on Park Terrace. Furthermore, the projected impacts of the TGSP upgrade and Villawood development will further impact traffic volumes on Park Terrace. Consequently, it is prudent to review traffic volumes on Park Terrace at a future point where the impacts of these projects can be measured.

### 6.1.5 Problem 4: High Traffic Speeds in Plympton Park

**Solution 4: Install speed cushions on Park Terrace.**

With the existing high vehicle speeds along Park Terrace that exceed 55 km/h, traffic control devices are warranted to reduce speeds. As Park Terrace currently has higher traffic volumes with 2 existing roundabouts, not all traffic control options are practical. An appropriate and cost-effective device in this instance would be speed cushions.

Speed cushions present the added benefits of providing less interference for cyclists and emergency service vehicles while still adequately lowering average vehicle speeds when used in series as per Australian Standards.

If additional streets present as exceeding level of service following future traffic monitoring, other traffic control devices may be appropriate. A variety of treatments could be installed at these locations including the options shown in ***Figure 6.1***.

### 6.1.5 Problem 5: Park Terrace Cross Section does not safely accommodate multiple modes

**Solution 5a: Redesign cross section of Park Terrace to allow safe cycling in both directions**

Southbound cyclists currently must cross the centre line into the oncoming traffic lane to overtake parked vehicles. Creating a marked parking lane on the east side of Park Terrace would allow uninterrupted traffic lanes in both directions which would facilitate sharrow markings in both directions.

This treatment consists of the following as shown in **Figure 6.4**:

- Realignment of centre line and traffic lanes to create a separated, marked parking lane on the eastern side of the street between Bray Street and Milton Avenue
- Installation of speed cushions along the entirety of Park Terrace
- Removal of existing northbound bike lane on west side of Park Terrace
- Installation of bicycle sharrow markings in both directions along the entirety of Park Terrace

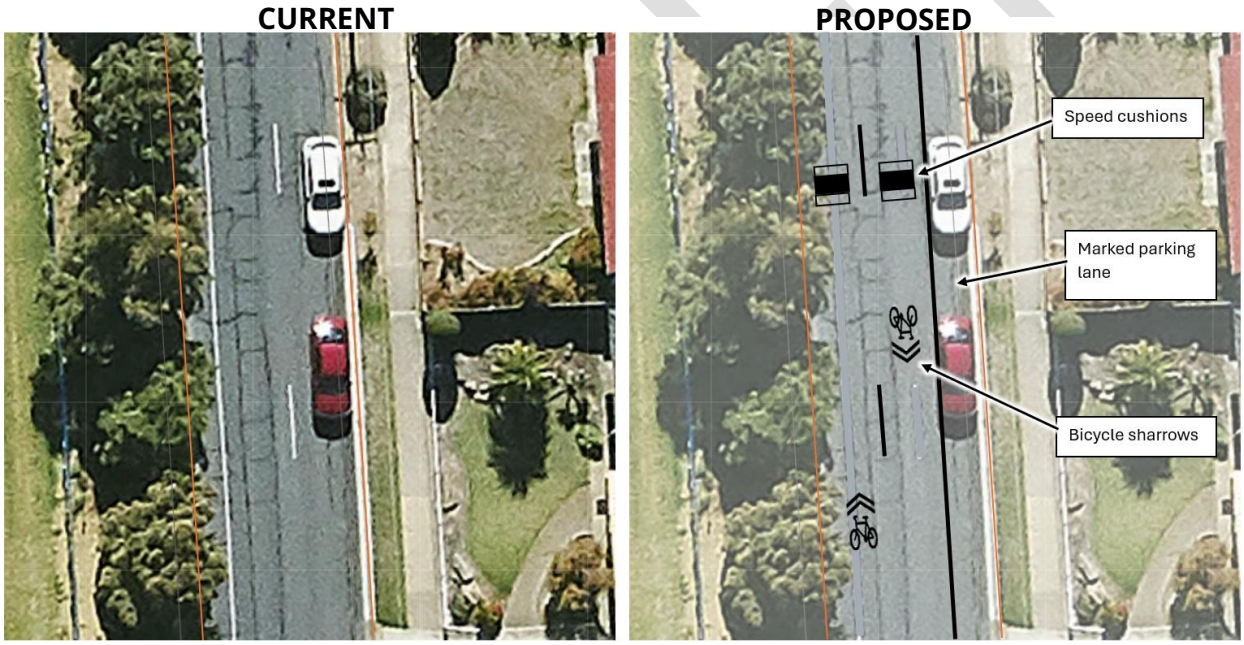



***Figure 6.4: Current and proposed Park Terrace alignments***

This solution presents the following benefits:

- **Supporting key cycling connections**
  Park Terrace is an important secondary cycling route providing a direct link to the Mike Turtur Bikeway and tram stations from existing connections such as cycling routes on Bray Street and Hendrie Street. It is essential that the street safely accommodates bicycle movements in both directions.

- **Addressing current safety risks**
  At present, southbound cyclists are required to overtake parked vehicles by moving across the centre line into oncoming traffic. This situation creates safety concerns for both cyclists and motorists and requires a safer long-term solution.
- **Aligning with modern design standards**
  Having a single-direction bike lane on a road does not meet best engineering practice. A new road design today wouldn't adopt this approach, so a redesign is needed to bring the street up to contemporary standards whilst promoting active travel modes for the community.
- **Recognising infrastructure constraints**
  Due to the existing road geometry and limited space, it is not possible to create fully separated two-way bike lanes or off-street cycling facilities on Park Terrace.
- **Creating a safer, calmer street environment**
  The installation of speed cushions will reduce traffic speeds and discourage through-traffic, resulting in a calmer and lower-volume road environment. This makes it suitable for the use of bicycle sharrow markings in both directions.
- **Raising awareness for all road users**
  Sharrow markings clearly identify the street as part of a cycling route, improving awareness of the presence of cyclists and reminding motorists to share the road responsibly. This treatment has been installed previously with positive outcomes on City of Marion roads such as Minchinbury Terrace and Addison Road.

**Solution 5b:** Install indented parking bays on Park Terrace, specifically near the Bray Street junction. This will improve the section of greatest conflict where cyclists are forced out into the road for a large stretch approaching the Bray Street junction.

**Solution 5c:** Create a bike lane on the eastern side of Bray Street noting that this would ban on-street parking on Park Terrace during active hours. Noting that without expanding the carriageway the resultant bike lanes would both require to be below standard width (1m).

**Solution 5d:** Remove bicycle lane and designate Ferry Avenue as the north-south bicycle route through Plympton Park to connect to the Mike Turtur Bikeway. Ferry Avenue is currently a bus route which would create additional conflict points for vulnerable road users.

Other ideas were investigated regarding the inclusion of a shared path on the western side of Park Terrace. This may require land acquisition or removal of protective trees along the property boundary.

### 6.1.6 Problem 6: Improving access to the high frequency public transport stops in Marion Road

Plympton Park has direct access to public transport, with a significant majority of the suburb being with an 800m (10-minutes) walk of the Marion Road Go Zone (Route M44) bus stops and tram network. It is proposed that several east-west walking links are upgraded and maintained to provide facilities for walking to nearby high-frequency public transport. The walking catchment map is shown in **Figure 6.5.**

The following streets are identified as walking routes to access bus stop numbers 14, 15, and 16 on Marion Road. They already provide a pedestrian facility to safely cross Marion Road where necessary at:

- South Terrace – existing PAC south of Wheaton Street
- Shakespeare Avenue – existing signal crossing at Hawker Road / Thomas Street
- Aldridge Avenue – existing pedestrian refuge next to Stop 16 bus stops

Along these east-west streets to the bus stops on Marion Road, it is proposed that the condition of the footpaths and the upgrading or the provision of compliant kerb ramps be considered.

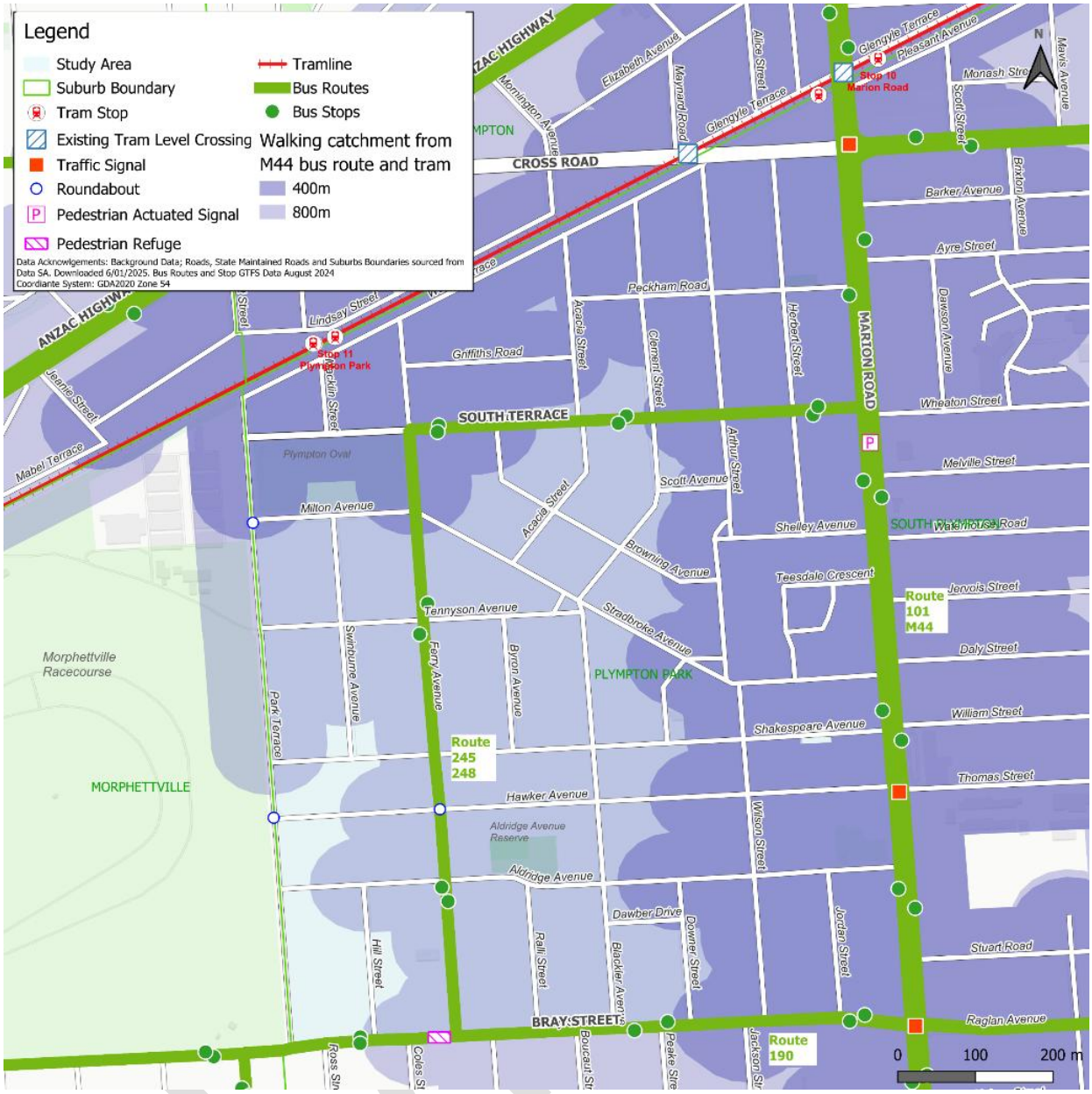



***Figure 6.5: Walking Catchment Map to High Frequency Public Transport in Plympton Park***

### 6.1.8 Problem 7: Inefficient use of road space in local streets

**Solution 7:** Existing loop roads and excessively wide junctions to be considered for landscaping or water sensitive urban design opportunities when road surface is due for renewal at the following locations:

- Intersection of Stradbroke Avenue and Arthur Street
- Intersection of Stradbroke Avenue, Tennyson Avenue and Blackler Avenue
- Intersection of Stradbroke Avenue and Wilson Street
- Intersection of Arthur Street and Shelley Avenue

This problem has a low priority, and these options would require further investigation and consultation.


Road loop at Stradbroke Avenue and Arthur Street


Road loop at Stradbroke Avenue and Tennyson Avenue

***Figure 6.6: Existing Road Loops with Plympton Park***

### 6.1.9 Problem 8: Improving traffic flow at Plympton Oval

**Solution 8:** Review the on-street parking and pedestrian, cyclist and traffic access at Plympton Oval considering the potential oval redevelopment and upgrade project.

A review of the traffic and transport facilities should be completed in conjunction with the Plympton Oval redevelopment and upgrade project. Findings from the previous 2023 Stantec report and the 2023 Clover concept masterplan report should be considered during this review. Further traffic control devices supplementing South Terrace, such as pavement treatments, may be considered.

Parking should be a main focus of this review to ensure that carparking is not affected during the masterplan. A snapshot of the parking demand is provided in **Figure 6.7.**


***Figure 6.7: Observed Parking Demand at Plympton Oval in 2023***

### 6.1.10 Problem 9: Traffic flow and safety around local reserves

**Solution 9:** Review the on-street parking and pedestrian access needs at the local reserves, such as at the Elizabeth Ryan Reserve and the Aldridge Avenue Reserve.

These locations include high pedestrian activity, in particular vulnerable users such as children. These locations were not identified as high-speed areas from collected traffic data, so

permanent traffic control devices are not warranted. Improved infrastructure for pedestrians such as DDA compliant kerb ramps as well as improved lane dividing treatments and increasing on-street parking where applicable would assist in creating a slower speed environment.

As part of the treatment surrounding Elizabeth Ryan Reserve, it was noted that there are excessive parking restrictions (yellow lines on both sides of the street) on Peckham Road adjacent the reserve.
Consequently, the restrictions on the north side of Peckham Road, adjacent the reserve will be removed. The resultant presence of vehicles parked on-street in this location will act as a natural traffic calming device which will assist in creating a lower speed environment.

Additionally, the intersection dividing treatments on the Herbert Street arms of the Peckham Road/Herbert Street intersection are being upgraded from existing white dividing lines to raised retroreflective pavement marker layouts which will narrow the available carriageway and highlight the presence of an intersection for approaching road users, both further contributing to creating a slower speed environment.

It is noted that traffic survey data indicates that Peckham Road does not warrant the installation of traffic control device infrastructure. However, council will commit to further monitoring of traffic data on Peckham Road for future assessments to ensure operation within expected level of service.

# 7 References

## 7.1 Technical Guidelines and Standards

The following references were used in the preparation of LATM plan.

Guide to Traffic Management Part 8, Local Area Traffic Management, Austroads, Sydney, 2016, Section 7.5.7 School Zones, page 114

Guide to Traffic Management Part 10, Traffic Control and Communication Devices, Austroads, Sydney, 2019, Section 6.5.8 Zig Zag Markings, page 105,

Speed Limit Guideline for South Australia, Department for Infrastructure and Transport, October 2023, Appendix C School Zones

Supplement to AS 1742.10, Manual of uniform traffic control devices, Part 10, Pedestrian control and protection, Department for Infrastructure and Transport, April 2024

## 7.2 Council Plans and Policies

City of Marion Transport Plan 2021-2026, City of Marion, 2021

City of Marion Road Hierarchy Plan Report, City of Marion, Traffic Engineering Services, November 2005

City of Marion Streetscapes Design Guidelines, Oxigen for the City of Marion, November 2016

City of Marion Streetscape Plan 2025-2029, City of Marion, 2025

City of Marion Public Lighting Guidelines, City of Marion, 2019

City of Marion Verge Development Guidelines, City of Marion, March 2022

City of Marion Walking and Cycling Guidelines 2018-2022, Oxigen for the City of Marion, Updated and endorsed in 2024

City of Marion 4-Year Cycling Plan 2025-2029, City of Marion, 2025

City of Marion Parking Management Guidelines, City of Marion, September 2023

Plympton Park: Speed Reduction, Community Feedback Report, September 2024

Herbert Street/Cross Road, Plympton Park Traffic Consultation, Community Feedback Report, September 2024

Elizabeth Ryan Reserve Final Concept Design, City of Marion, March 2024

Plympton Oval Masterplan Report, DesignInc and Clover, 2023

Plympton Oval Parking Review, Stantec Australia for DesignInc, 2023

## 7.3 State Government Plans

Marion Road/Cross Road Intersection Upgrade Project, DIT, 2024

Marion Road, Cross Road and Morphett Road Tram Grade Separation Project, DIT, 2024

Greater Adelaide Regional Plan, Department for Trade and Investment, March 2025

South Australia's Transport Strategy, Department for Infrastructure and Transport, March 2025

South Australia's Active Travel Design Guide, Department for Infrastructure and Transport, September 2024