# Traffic Management & Road Safety Committee Agenda & Reports

15 June 2021

### **Our Vision**

A City which values its heritage, cultural diversity, sense of place and natural environment.

A progressive City which is prosperous, sustainable and socially cohesive, with a strong community spirit.

City of Norwood Payneham & St Peters

175 The Parade, Norwood SA 5067

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City of Norwood Payneham & St Peters

### To all Members of the Traffic Management & Road Safety Committee

### **Committee Members**

- Cr Kevin Duke (Presiding Member)
- Cr Fay Patterson
- Cr Carlo Dottore
- Mr Shane Foley (Specialist Independent Member)
- Mr Nick Meredith (Specialist Independent Member)
- Senior Sergeant Kev Carroll (SAPOL)

### Staff

- Carlos Buzzetti (General Manager, Urban Planning & Environment)
- Gayle Buckby (Manager, Traffic & Integrated Transport)

### **NOTICE OF MEETING**

I wish to advise that pursuant to Sections 87 and 88 of the *Local Government Act 1999*, the next Ordinary Meeting of the Traffic Management & Road Safety Committee, will be held in the Mayors Parlour, Norwood Town Hall, 175 The Parade, Norwood, on:

### Tuesday 15 June 2021, commencing at 10.00am

Please advise Gayle Buckby on 83664542 or email gbuckby@npsp.sa.gov.au, if you are unable to attend this meeting or will be late.

Yours faithfully

Mario Barone

**CHIEF EXECUTIVE OFFICER** 

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City of Norwood Payneham & St Peters

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HOUR	

**PRESENT** 

**Committee Members** 

Staff

**APOLOGIES** 

**ABSENT** 

### **TERMS OF REFERENCE:**

The Traffic Management & Road Safety Committee is established to fulfil the following functions:

- To make a final determination on traffic management issues which are referred to the Committee in accordance with the requirements of the Council's Local Area Traffic Management Policy ("the Policy"); and
- . To endorse proposals and recommendations regarding parking which seek to improve road safety throughout the City.
- 1. CONFIRMATION OF MINUTES OF THE TRAFFIC MANAGEMENT & ROAD SAFETY COMMITTEE MEETING HELD ON 16 FEBRUARY 2021
- 2. PRESIDING MEMBER'S COMMUNICATION
- 3. STAFF REPORTS

### 3.1 TRAFFIC MANAGEMENT IN MARDEN, ROYSTON PARK, JOSLIN & ST PETERS

**REPORT AUTHOR:** Manager, Traffic & Integrated Transport

GENERAL MANAGER: General Manager, Urban Planning & Environment

CONTACT NUMBER: 8366 4542 FILE REFERENCE: qA66242 ATTACHMENTS: A - F

### PURPOSE OF REPORT

The purpose of this report is to provide the Committee with a summary of the findings contained in the 'Marden, Royston Park, Joslin & St Peters Traffic Review' report (the Traffic Review report) and to seek the Committee's endorsement to progress a range of traffic management recommendations that will affect Marden, Royston Park, Joslin and St Peters.

### **BACKGROUND**

The Traffic Review Report was prepared in 2020 by the consulting firm Tonkin, on behalf of the Council, to address the following:

- concerns raised by residents of Marden regarding high traffic volumes and speeding along River Street and Beasley Street; and
- a Petition from residents of First Avenue (St Peters, Joslin and Royston Park) which requested that the Council 'eliminate or significantly reduce non-resident commuter traffic on First Avenue' and 'reduce the speed limit to 40km/h'. This Petition was presented to the Committee at its meeting held on 18 August 2020. A copy of the Petition is contained in Attachment A.

An overview of the findings of the Traffic Review Report was presented to the Committee at an Informal Gathering held on 16 February 2021. The presentation was based on the Final Report, a copy of which is contained in **Attachment B**.

### **RELEVANT STRATEGIC DIRECTIONS & POLICIES**

Traffic calming and speed reduction in residential streets has the potential to support and facilitate the Outcomes and Objectives of the Council's Strategic Management Plan, *City Plan 2030*, as listed below.

### Outcome 1: Social Equity

A connected, accessible and pedestrian-friendly community.

Objective 2: A people-friendly, integrated, sustainable and active transport network.

### Outcome 2: Cultural Vitality

A culturally rich and diverse city, with a strong identity, history and sense of place.

Objective 4. Pleasant, well designed, and sustainable urban environments

Objective 5. Dynamic community life in public spaces and precincts.

### FINANCIAL AND BUDGET IMPLICATIONS

Funding for the recommended options outlined in this report would be required as follows:

- a) investigations and design development, funded from the operational budget allocation for Traffic & Integrated Transport matters; and
- b) design and construction, to be integrated into projects for streets that are programmed for reconstruction as part of the Council's draft 2021-22 Budget and/or future budgets (if endorsed). In this regard, it should be noted that this includes traffic management interventions that fall within the allocated budget of planned street reconstruction projects. However, physical interventions that require additional funding will need to be considered separately as part of the Council's annual budget setting process.

### **EXTERNAL ECONOMIC IMPLICATIONS**

Not Applicable.

### **SOCIAL ISSUES**

This project aims to address concerns raised by some members of the community with regard to excess traffic volume and speed. These concerns may not be shared by everyone and consultation with the broader community is warranted, prior to any traffic management works being undertaken, so as to ensure that all significantly affected parties are provided with an opportunity to make a submission.

### **CULTURAL ISSUES**

Not Applicable.

### **ENVIRONMENTAL ISSUES**

Not Applicable.

### **RESOURCE ISSUES**

The work required to manage the project requires the allocation of considerable resources and this may affect the timely delivery of other traffic management and transport related projects and issues.

### **RISK MANAGEMENT**

Not Applicable.

### **COVID-19 IMPLICATIONS**

Not Applicable.

### **CONSULTATION**

### • Traffic Management & Road Safety Committee

The Committee considered the Petition from residents in First Avenue St Peters, Joslin & Royston Park on 18 August 2021.

The preliminary results of the Traffic Review report were provided to the Committee at an Informal Gathering held on 16 February 2021.

### Staff

General Manager, Urban Planning & Environment Project Manager, Assets

### Community

Not Applicable

### Other Agencies

Not Applicable

#### DISCUSSION

### The Marden, Royston Park, Joslin & St Peters Traffic Review Report - Summary

The aim of the *Marden, Royston Park, Joslin & St Peters Traffic Review* (the Traffic Review) was to assess the various traffic concerns raised by the petitioners, residents and some Elected Members and to assist in the development of an evidence-based understanding of the local traffic issues. The study area is bound by the River Torrens to the northwest, Lower Portrush Road to the northeast, Payneham Road to the southwest and Stephen Terrace to the southwest, as depicted in **Attachment B**.

### The Review included:

- a review of all previous Local Area Traffic Management (LATM) Studies within the study area;
- a review of recent traffic data (volume, speed and crash) collected by Council;
- a review of Origin-Destination surveys;
- a review of the investigation into 'No Right Turns' from Lower Portrush Road into River Street and Beasley Street; and
- a discussion around the findings and recommendations for the next steps.

The full report is contained in **Attachment C** and a summary of the key findings is set out below:

- Previous Local Area Traffic Management Studies undertaken by the Council in 1998 and 2003, recommended the installation of a number of traffic management devices within the study area. However, several of the recommendations were not implemented, including:
  - a 40km/h Area Speed Limit;
  - Battams Road and Beasley Street junction- roundabout or kerb extensions;
  - Broad Street speed control devices (type not determined);
  - Battams Road at Payneham Road Ban right turn movements between 7-9am;
  - Lambert Avenue Pavement Bar Islands; and
  - The Avenues several locations for Perimeter Thresholds, Centre Blisters and Kerb Extensions.

There may be various reasons why the above recommendations were not implemented and some were medium to long term initiatives that may not have been deemed as priorities at the time. Extensive research to ascertain why these measures were not implemented has not been undertaken as this would add little to no value to the contemporary investigations which have now been undertaken for the study area.

- Analysis of the traffic volumes identified that at a holistic level, the majority of streets in the study area
  carry traffic volumes commensurate with their intended function as *Local Roads*, with volumes less
  than 2,000 vehicles per day. Streets that carried traffic volumes higher than 2,000 vehicles per day, are
  River Street, Beasley Street, Battams Road and Sixth Avenue.
- "Rat-running" was identified as occurring in several streets with the percentage of peak hour traffic being greater than 10% of the daily volume. These streets are River Street, Beasley Street, Broad Street, Battams Road, First Avenue, Second Avenue, Third Avenue, Sixth Avenue and Ninth Avenue.
- Traffic speed analysis identified that traffic speed is higher than desirable in some streets with 85<sup>th</sup> percentile speeds higher than 50km/h in River Street, Beasley Street, Battams Road, First Avenue, Second Avenue, Third Avenue, Fifth Avenue, Sixth Avenue, Eighth Avenue and Ninth Avenue.
- In 2017, traffic origin-destination surveys were undertaken to identify the level of "rat-running" that was
  occurring between Lower Portrush Road and Payneham Road. This was augmented with an additional
  origin-destination survey which was undertaken by the Council in February 2021, to investigate the
  specific concerns raised by residents of First Avenue via the Petition and subsequent correspondence.
  The survey identified that there is "rat-running" occurring through the area along the key routes of River
  Street and Beasley Street via Sixth Avenue, First Avenue, Second Avenue, Battams Road and
  Lambert Road.

- In 2017, the Council requested permission from the Department for Infrastructure & Transport (the Department) to install 'No Right Turn 7.00am-9.00am' signs on Lower Portrush Road at River Street and Beasley Street. As instructed by Department, the Council undertook detailed traffic analysis which identified that River Street and Beasley Street took around four (4) times more right turning traffic than at the Payneham Road and Lower Portrush Road intersection in the AM peak. It was estimated that if the right turns were banned into River and Beasley Streets during the AM peak, the delays at the Payneham Road intersection would increase from around 6 minutes to (up to) 27 minutes in the AM peak. The Department therefore did not approve the Council's request for these part-time right turn bans. In 2021, the Department commenced a planning study for the intersection of Payneham Road and Lower Portrush Road with the aim of increasing capacity and reducing traffic delays. Council staff have commenced discussions with the Department to integrate 'No Right Turn 7:00am -9:00 am' signs at River Street and Beasley Street as part of this project.
- Road network analysis identified that the underlying traffic issues include:
  - the grid layout with the precinct being bound by the River Torrens on one side with only two access points (River Street and Beasley Street) off Lower Portrush Road:
  - the traffic congestion on Payneham Road and the intersection with Portrush Road that motivates drivers to find alternative routes; and
  - the Avenues being long and very wide roads which are conducive to higher speeds and "rat-running".
- Land use within the study area is primarily residential, with commercial development confined to the Payneham Road frontage and the East Adelaide Primary School at the intersection of Westminster Street and Third Avenue. The School zone extends beyond the study area into Hackney, College Park, Evandale, Maylands and Stepney and school drop-off and pick-up traffic would contribute significantly to the peak hour traffic flows which is not considered to be "rat-running" traffic. The School zone is depicted in Attachment D.

The most recent traffic data for the study area is contained in **Attachment E**. It should be noted that traffic data is some streets has been updated since the Traffic Review was completed and therefore the data contained in Attachment D may vary from the data contained in the Traffic Review report.

### The Marden, Royston Park, Joslin & St Peters Traffic Review – Recommendations

The Traffic Review identified two broad traffic management scenarios to consider which are aimed to either *prevent*, or *discourage* non-local traffic within the precinct.

The *prevention* scenario requires the adoption of a hard-line approach that would include road closures and other significant traffic control restrictions. This approach would require the determination of a formal road hierarchy for the precinct to identify Local Roads that would be designed to carry low traffic volumes and Collector Roads that would carry higher traffic volumes. The Collector Roads would likely be identified as Sixth Avenue, Lambert Road, Battams Road and Winchester Street.

The discourage scenario accepts that "rat-running" is somewhat inevitable throughout the study area and that traffic will filter throughout the permeable network. This scenario would include traffic management interventions to reduce speed and the ease of "rat-running" to discourage excessive through traffic. These may include, but not be limited to, horizontal deflection devices, mid-block median treatments and/or line marking and signage.

The Traffic Review recommended that the extent of the problems did not warrant the 'prevention' approach and that further consideration should be given to a range of local area traffic controls to discourage high volumes of traffic and address appropriate speeds as follows:

- implement a 40km/h area speed limit;
- install traffic control devices at strategic locations to *discourage* high volumes of traffic and moderate traffic speed; and
- continue to work with the Department of Infrastructure & Transport to advocate for No Right Turns into Beasley Street and River Street in the AM peak periods as part of the current Planning Study for the intersection of Payneham Road and Lower Portrush Road.

As part of the Traffic Review, it was noted that it has been almost eighteen (18) years since a comprehensive Local Area Traffic Management Plan (LATM) was undertaken for the study area. However, given that the extent of the issues is well understood, it is recommended that some concept plans, aimed at discouraging non-local traffic within the precinct, be prepared for consultation with the community as an alternative to preparing an LATM.

### 40km/h Area Speed Limit Investigations

Initial investigations have been undertaken by Council staff to identify if the study area complies with the requirements set out by the Department for Infrastructure & Transport (the Department) for a 40km/h area speed limit.

To ensure a consistent approach, it was identified that the 40km/h area should extend wider than the study area of the Traffic Review and include the residential streets in St Peters and Hackney, between Stephen Terrace and Hackney Road. This larger precinct is bound by Lower Portrush Road to the northeast, the River Torrens to the northwest, Payneham Road and North Terrace to the southeast and Hackney Road to the southwest, as depicted in **Attachment F**.

The investigations verified that the residential streets in the precinct depicted in **Attachment F**, meet the requirements for a 40km/h area wide speed limit without the need for additional traffic calming devices. Specific liaison with the Department would be required for Sixth Avenue which is a bus route and the interface with Stephen Terrace, which is operated and maintained by the Department and has a speed limit of 60km/h.

### **Prioritising and Funding Considerations**

Funding for the implementation of traffic interventions in the study area has not been allocated in the Council's draft 2021-22 Annual Business Plan and Budget and any future works will require a prioritised, staged approach that balances the need to address outstanding traffic issues outside of this study area and other budgetary pressures and priorities.

The Council's Draft annual Business Plan and Budget 2021-22 includes funding for a Traffic Study in the area bound by Payneham Road to the north, Portrush Road to the west, Magill Road to the south and Glynburn Road to the east. This area has not had a comprehensive Local Area Traffic Management Plan (LATM) undertaken for twenty three (23) years and a number of streets are functioning as *Main Collector Roads* with traffic volumes up to 4,500 per day - considerably higher than the traffic volumes experienced in local streets in Marden, Royston Park, Joslin & St Peters.

Short-term traffic intervention works could be implemented by integrating them into other Council projects which will be undertaken in the study area, as those opportunities arise. The Council's Draft Annual Business Plan and Budget for 2021-22 includes funding for the design and/or re-construction of several streets in the study area, including Battams Road (Marden/Royston Park), Addison Road (Marden), Sixth Avenue (Joslin/St Peters) and Winchester Street (St Peters). If the Council's draft budget is endorsed, it will be timely to integrate minor traffic management interventions into these projects. Alternatively, if more substantial physical devices are needed, then funding will need to be sought via the Council's annual budget setting process.

Other proposed works will require strategic prioritisation to ensure a pragmatic approach.

The Australian Standards do not provide a warrant for prioritising traffic management interventions on local roads and it is up to the individual Council to set the measures for decision making based on the individual circumstances. Decisions made by this Council are based upon functionality of the road as set out in the Council's Local Area Traffic Management Policy, as follows:

The road classifications in terms of functionality have been determined by the Council to be:

- Local Road up to 2,000 vehicles per day;
- Collector Road 2,000 to 3,000 vehicles per day, and
- Main Collector Road 3,000-6,000 vehicles per day.

This indicates that traffic management interventions may be appropriate if a local road is carrying more than 2,000 vehicles per day, or alternatively the road could be reclassified as a Collector or Main Collector Road. If the volume exceeds 2,000 vehicles per day, other attributes of the street are considered such as land use, pedestrian and cyclist activity, road width and street environment to assess the appropriate classification. Higher traffic volumes may not be considered acceptable by some residents but may nevertheless not be identified as a problem if it is aligned with the role of the street. In addition to the road classification, traffic engineers assess traffic speed, crash history and peak hour traffic volumes. If certain thresholds are met, traffic management interventions may be required, as described below.

### Traffic speed

The speed at which 85% of vehicles travel at or below, under free flowing conditions (the 85<sup>th</sup> percentile speed) is measured to identify the frequency and extent of speeding above the speed limit. In local streets with a 50km/h speed limit, the trigger for further investigation is generally where the 85<sup>th</sup> percentile speed is above 52km/h. However, other road attributes are taken into account such as road width and capacity, pedestrian and cyclist activity and land use.

### Peak hour traffic volumes

The percentage of daily traffic that is recorded during the morning (AM) and afternoon (PM) peak hour, is used to identify if there is a dis-proportionate volume of non-local traffic ("rat-running") on the street network. The peak hour volume is identified as the volume of traffic during the hour of the day that observes the highest traffic volumes. In this study area, the peaks are generally 8:00am to 9:00am and 5:00pm to 6:00pm, although some peaks were observed from 3:00pm to 4:00pm. The Austroads Guidelines suggest that if a local road carries peak period traffic volumes higher than 10% of the daily traffic volume, further investigation is warranted. Some Councils have higher peak volume thresholds such as the City of Unley which nominates a peak hour percentage of 14% as the threshold.

### Crash history

Crash data for a period of five (5) years is reviewed to assess road safety. A casualty crash consists of an injury or a fatality involving a pedestrian, cyclist or motorist. A single casualty crash does not necessarily indicate a traffic hazard, but a cluster of three (3) casualties over a five (5) year period indicates a *potential hazard* requiring investigation.

An assessment of the traffic data in the study area identified a number of streets where the thresholds for further investigation is triggered, as listed in TABLE and summarised below:

- River Street and Battams Road function as major collector roads with traffic volumes higher than 3,000 vehicles per day;
- Beasley Street and Sixth Avenue currently function as Collector Roads with traffic volumes higher than 2,000 vehicles per day;
- Sixth Avenue, which is also a bus route has high speeds and has had four (4) crashes over a 5-year period that involved a cyclist casualty;
- River Street, Fifth Avenue and Sixth Avenue have 85th percentile traffic speeds of 55 & 56 km/h;
- First Avenue, Second Avenue, Fifth Avenue, Sixth Avenue, Eighth Avenue and Ninth Avenue have 85<sup>th</sup> percentile speeds above 52km/h; and
- Second Avenue, Third Avenue and Sixth Avenue have excessively high AM peak hour volumes.

TABLE 1: STREETS THAT WARRANT FURTHER INVESTIGATION DUE TO TRAFFIC DATA ASSESSMENT

Street name	85 <sup>th</sup> percentile speed > 50km/h	Traffic volume > 2,000vpd	Peak hour volumes > 10%	Three or more casualty crashes (2016-2020)
River Street	56 km/h	3,222 vpd	13% AM, 12% PM	-
Beasley Street	-	2,138 vpd	14% AM, 13% PM	-
Broad Street	-	-	12% AM & PM	
Battams Road	-	3,056 vpd	12% PM	-
First Avenue	54km/h	-	15% AM & PM	-
Second Avenue	54km/h	-	24% AM, 14% PM	-
Third Avenue	-	-	21%a AM, 14% PM	-
Fifth Avenue	56km/h	-	-	-
Sixth Avenue	55km/h	2,622 vpd	19% AM	4 (cyclists)
Seventh Avenue	-	-	-	-
Eighth Avenue	53km/h	-	-	-
Ninth Avenue	54km/h		11% AM	-

Comprehensive traffic data within the study area is contained in **Attachment D**.

The Streets for People Compendium for South Australian Practice, provides information and guidance for best practice street design for the development of pedestrian and cycle friendly environments. The Compendium recommends that residential streets should have speeds of 30km/h or less and carry up to 3,000 vehicles per day. Using this criteria, the traffic speed in the study area is excessively high but acceptable traffic volumes are only exceeded in River Street and Battams Road.

Given that Sixth Avenue includes a bus route, its function as a collector road is considered appropriate, however the cluster of cyclist casualty crashes on Sixth Avenue, warrants a safety review to identify the cause of the crashes and possible mitigating measures.

The 85<sup>th</sup> percentile traffic speed throughout the study area is of concern. The implementation of a 40km/h area speed limit would reduce speeds and is warranted in the short term. This would be a relatively low-cost measure that would assist speed across the entire study area rather than concentrating on just a few streets. This would also be a consistent approach to follow on from the 40km/h implementation of Norwood and Kent Town, which is currently subject to consultation outcomes and Council endorsement.

### Stephen Terrace

Stephen Terrace is a sub-arterial road maintained by the Department of Infrastructure & Transport and runs through the historic-residential and residential areas of St Peters. It carries 22,000 vehicles per day and is signed at 60km/h. It consists of one lane in each direction, auxiliary right turn lanes and bicycle lanes. There are sixteen 4-way intersections on this 1.3 kilometre stretch of road controlled by either Give Way or Stop signs from the local streets.

Observations have identified that there is often a lack of gaps in the traffic and motorists, cyclists and pedestrians find it difficult to cross or turn right at the sixteen (16) four-way intersections.

Crash data sourced from the Department identifies crashes at every intersection and also in the mid-block sections. The high traffic volumes, and 60km/h speed limit crash history, create an environment that is contrary to its residential surroundings and significant pedestrian and cyclist activity.

The Council does not have the authority to change the speed limit on Stephen Terrace but has discussed the possibility of improving safety and residential amenity by reducing the speed limit of Stephen Terrace to 50km/h. This request has been refused by the Department to date.

### The Petition

The Petition from residents of First Avenue (St Peters, Joslin and Royston Park) presented to the Traffic Management & Road Safety Management Committee at its meeting held on 18 August 2020, is contained in **Attachment A**. The petition requested that the Council undertake four action points which are listed below together with a staff response to each point.

Action Point 1: Eliminate or significantly reduce by at least 80%, non-resident commuter 'rat-running' traffic volumes by installing suitable road infrastructure and signage on First Avenue.

Response: The high percentage of traffic in the peak hour confirms that there is some non-resident ratrunning occurring in First Avenue. However, it is also occurring in River Street, Beasley Street, Broad Street, Battams Road, Second Avenue, Third Avenue, Sixth Avenue and Ninth Avenue. If traffic intervention measures were installed in First Avenue as requested by the Petitioners, the traffic would simply transfer to Second Avenue resulting in adverse impacts to residents of Second Avenue.

The traffic volume in First Avenue is 1,241 vehicles per day which is well below the acceptable volume of up to 2,000 vehicles per day for a Local Street (as set out in the Council's *Local Area Traffic Management Policy*). Therefore, it is considered that significant traffic intervention measures are not warranted. Instead, an holistic and logical traffic management approach that targets the source of the "rat-running" traffic is more practical.

Action Point 2: Reduce the maximum signed speeds to 40km/h in the residential areas of College Park, St Peters, Joslin and Royston Park.

Response: This suggestion is a practical and holistic approach to reducing traffic speed in the residential areas and warrants consideration.

Action Point 3: Manage non-resident parking on First Avenue during the working weekday.

Response: The areas beyond the property boundary of any residence, namely the footpath and roadway are public space. On-street parking is considered to be a public amenity and as such, is available for all road users including residents, visitors and local employees. The road width of First Avenue is approximately eleven (11) metres which facilitates parking on both sides of the street while still allowing for the safe movement of traffic in both directions. Therefore, anyone is legally allowed to park in First Avenue providing they park in accordance with the *Australian Road Rules*.

It is understood that there was some level of inconvenience to residents of First Avenue in 2020, with a higher parking demand than usual generated from construction workers at the Life Care development on Payneham Road. As a result of the Petition, The Council's Parking Inspectors increased monitoring of parking compliance in First Avenue during the construction period and vehicles found to park illegally (not in compliance with the Australian Road Rules), were issued Expiation Notices.

Action Point 4: Adopt First Avenue as part of Council's cycling plan and promote safe cycling along First Avenue.

Response: The cycling network identifies key streets throughout the City that provide cyclists with the safest and most direct routes over long distances. Bicycle logos are installed along these routes to raise motorist awareness of the possible presence of cyclists and help with cyclist wayfinding to the most appropriate locations to cross busy roads and connect to other routes further afield. If logos are placed on every street, it would reduce the strategic function of the network.

Community consultation has identified that cyclists filtered through all of the Avenues in St Peters and Joslin depending on their origin and destination and therefore, the strategic routes selected were:

- Ninth Avenue because cycling data identified it was the most popular cycling route. It connects the Adelaide CBD with the River Torrens Linear Park Shared Path and avoids some long winding sections of the shared path; and
- Third Avenue because it provides the most direct link to the safe pedestrian crossings at Lower Portrush Road and Stephen Terrace.

Traffic data (including cyclist data) was collected in the Avenues between Winchester Street and Lambert Road in 2020 and 2021, as shown in Table 2 below.

TABLE 2: DAILY CYCLING VOLUME IN THE AVENUES

Street Name	Daily Cyclist Volume
Ninth Avenue	47
Eighth Avenue	6
Seventh Avenue	17
Sixth Avenue	4
Fifth Avenue	11
Fourth Avenue	3
Third Avenue	10
Second Avenue	13
First Avenue	11

The data set out in Table 2 above, identifies that Ninth Avenue is clearly the most popular cycling route in the northwest section of the study area, but First Avenue carries similar volumes to Second, Third, Fifth and Seventh Avenues. Given these findings, there is no justification to modify the existing cycling network. If a street is not designated on the cycling network, it does not however, preclude cyclists from riding on it. It would be illogical to formally designate every street as a cycling route.

### **OPTIONS**

The findings discussed in this report have identified, from an evidence-based perspective, that traffic speed and volume in a number of streets in the study area (depicted in **Attachment B**), warrant some form of traffic management intervention.

"Rat-running" is occurring in First Avenue as raised in the petition by residents of First Avenue, however data clearly shows that "rat-running" is occurring throughout the entire study area. Therefore, a strategic and logical approach is required so that any traffic interventions installed on one street do not simply transfer the problem by increasing traffic volumes in another street.

The installation of traffic management devices in every street would be cost prohibitive and an inequitable outcome from a City-wide perspective.

Therefore, the key recommendations are to:

- facilitate speed reduction with the implementation of an area wide 40km/h speed limit; and
- discourage excessive through traffic by installing traffic management interventions in key streets.
   These may include, but not be limited to, horizontal deflection devices, mid-block median treatments and/or line marking and signage.

The outcomes of these interventions would be evaluated post-implementation and additional works would be considered in other streets only if deemed necessary.

The Committee is now required to consider the investigations and findings described in this report and provide advice to the Council on the next steps.

Possible options for the next steps are listed below.

### Option 1

Do nothing. The Committee can recommend to the Council that notwithstanding the recommendations contained in the Marden, Royston Park, Joslin and St Peters Traffic Review report, there is no justification for traffic management works to be undertaken.

This option is not recommended on the basis that significant "rat-running" and speeding has been identified within the area.

### Option 2

The Committee can recommend to the Council that in light of the investigations and findings detailed in this report, there is sufficient justification to develop a traffic management framework for consultation with the community and key stakeholders on the following:

- a) propose to reduce the speed limit to 40km/h in the residential streets bound by Lower Portrush Road, Payneham Road, North Terrace, Hackney Road and the River Torrens (as depicted in Attachment F to this report), noting that this area includes the additional suburbs of College Park and Hackney;
- b) prepare three concept design options for traffic management devices that aim to discourage excessive through traffic along River Street, Beasley Street and Battams Road. These may include, but not be limited to, horizontal deflection devices, mid-block median treatments and/or line marking and signage.
- c) integrate traffic management interventions that can be accommodated within the allocated budget into the streets that are planned for design and or re-construction in the 2021-22 financial year, including Battams Road (Marden/Royston Park), Addison Road (Marden), Sixth Avenue (Joslin/St Peters) and Winchester Street (St Peters). It is noted that if substantial physical interventions are recommended in these streets, additional funding will need to be considered separately as part of the Council's annual budget setting process;
- d) undertake a review of the casualty crash clusters in Sixth Avenue to identify the cause of the crashes and identify possible mitigating measures; and
- e) continue to liaise with the Department for Infrastructure & Transport to:
  - advocate for No Right Turns in to Beasley and River Street as part of the future outcomes of the Lower Portrush Road and Payneham Road Planning Study;
  - develop options to reduce "rat-running" to/from the junctions of Payneham Road with Battams Road, and Salisbury Street; and
  - continue to advocate for a speed limit reduction from 60km/h to 50km/h along Stephen Terrace.

This option is recommended because it is a logical, practical, strategic approach that addresses the areas of highest priority.

### Option 3

The Committee can choose to consider the *traffic prevention* approach instead of the *traffic discouragement* approach. This would include road closures and other significant traffic control restrictions. As stated in this report, this approach would require the determination of a formal road hierarchy for the precinct to identify Local Roads that would be designed to carry low traffic volumes and Collector Roads that would carry higher traffic volumes. The Collector Roads likely be identified are Sixth Avenue, Lambert Road, Battams Road and Winchester Street.

The formalisation of a road hierarchy would positively result in the reduction of traffic volumes in some roads, however traffic volumes would significantly increase on the roads identified as Collector Roads. This would create a 'winners and losers' scenario for residents in The Avenues, depending on which streets they reside in. Such an approach is considered inequitable and unnecessary in light of the availability of other traffic management options. This approach is therefore not recommended at this stage.

### CONCLUSION

The Marden, Royston Park, Joslin and St Peters Traffic Review has validated that traffic speed and "ratrunning" is at a level that warrants traffic management intervention in some streets within the study area. However, given that traffic data identifies similar (and more significant) traffic issues in other suburbs within the City, it is important that a logical, practical, prioritised and staged approach is adopted that provides a framework for an equitable allocation of Council resources.

The Petition from residents of First Avenue (St Peters, Joslin and Royston Park) has advised the Council that in their view, they are adversely impacted by traffic speed and volume and are dissatisfied with the current level of traffic management in the area. The traffic review has validated some of the concerns raised in the Petition from First Avenue residents, but has also identified that traffic issues are not contained just to First Avenue but are occurring throughout the study area. As such, the traffic management recommendations are strategic (i.e. not a 'street-by-street" approach), and aim to improve the neighbourhood as a whole.

A *traffic prevention* approach is not considered necessary or desirable due to high cost and the resulting 'winners and losers' outcome. The most logical and pragmatic approach is to *discourage* excessive traffic volumes and reduce traffic speeds by adopting the following traffic management interventions:

- pursue a 40km/h area wide speed limit in the area depicted in Attachment F (subject to the outcomes
  of the proposal to introduce 40km/h in Norwood and Kent Town);
- continue to work with the Department for Infrastructure & Transport to advocate for right turn bans into River Street and Beasley Street in the AM peak periods, address "rat-running" at the interface of Payneham Road, and reduce the speed limit on Stephen Terrace fto 50km/h;
- develop designs (for consultation) for traffic management interventions in Beasley Street, River Street and Battams Road that aim to discourage excessive through traffic;
- Include minor traffic management improvements into the road reconstruction program as opportunities arise, or plan and budget for more substantial physical devices in future years; and
- address the identified safety issues on Sixth Avenue.

A proposal to reduce the speed limit to 40km/h in the residential streets of Norwood and Kent Town is currently on consultation and will close on 21 June 2021. If the community supports the proposal and it is subsequently endorsed by the Council, the next logical area for the Council to consider a 40km/h area wide speed limit is considered to be the area depicted in **Attachment F** because it lies adjacent to Kent Town and Norwood as well as the 40km/h areas of Stepney, Maylands and Evandale and would result in a 40km/h speed limit in all residential streets west of Portrush Road and Lower Portrush Road.

Although some residents' concerns formed the basis for this traffic review, it is not necessarily a reflective of the views of residents from across the entire study area. Community consultation will therefore an important component of any traffic management strategy.

### **COMMENTS**

The traffic issues raised by a number of residents have been comprehensively analysed to develop an evidence-based framework to inform decision making. The proposed package of recommendations form a practical and strategic response to reduce traffic speed and volume throughout the entire study area.

A 40km/h Area speed limit was introduced by the Council in the residential streets of Stepney, Maylands and Evandale in 2019. Subsequently, the Council has endorsed that investigations and implementation of a 40km/h speed limit in residential streets across the remaining parts of the City be considered in a staged approach, commencing with Norwood and Kent Town. The proposal to implement a 40km/h speed limit in the residential streets of Norwood and Kent Town has been released for community consultation, which concludes on 21 June, 2021. Once the results of the consultation have been analysed, the results will be presented to the Committee and subsequently the Council, which will need to make a final determination as to whether or not to proceed with the implementation of a 40km/h speed limit in residential streets of Norwood and Kent Town. As that matter is yet to be determined and in order to maintain efficient and effective use of available staff and financial resources, it is recommended that if the Committee and subsequently the Council, endorse the traffic management initiatives outlined in this report, that they not be released for community consultation until the Council has made a final determination in relation to the proposal to implement a 40km/h speed limit in the residential streets of Norwood and Kent Town.

### RECOMMENDATION

- 1. That the Committee recommends to the Council that as a result of the outcomes from the investigations detailed in this report, the following traffic management initiatives, which aim to discourage excessive through traffic and speeding in Marden, Royston Park, Joslin and St Peters, be combined into a traffic management framework and released for community consultation in the affected suburbs:
  - a) reducing the speed limit to 40km/h in the residential streets bound by Lower Portrush Road, Payneham Road, North Terrace, Hackney Road and the River Torrens (as depicted in Attachment F to this report), noting that this area includes the additional suburbs of College Park and Hackney;
  - b) preparation of three concept design options for traffic management devices that aim to discourage excessive through traffic along River Street, Beasley Street and Battams Road. These may include, but not be limited to, horizontal deflection devices, mid-block median treatments and/or line marking and signage.
  - c) Informing residents and other key stakeholders of any proposals to integrate traffic management interventions that can be accommodated within the allocated budget into the streets that are planned for design and or re-construction in the 2021-22 financial year, including Battams Road (Marden/Royston Park), Addison Road (Marden), Sixth Avenue (Joslin/St Peters) and Winchester Street (St Peters). It is noted that if substantial physical interventions are recommended in these streets, additional funding will need to be considered separately as part of the Council's annual budget setting process;
  - d) undertaking a review of the casualty crash clusters in Sixth Avenue to identify the cause of the crashes and identify possible mitigating measures;
  - e) informing residents and other key stakeholders that the Council is continuing to liaise with the Department for Infrastructure & Transport to:
    - advocate for No Right Turns in to Beasley and River Street as part of the future outcomes of the Lower Portrush Road and Payneham Road Planning Study;
    - develop options to reduce "rat-running" to/from the junctions of Payneham Road with Battams Road, and Salisbury Street; and
    - continue to advocate for a speed limit reduction from 60km/h to 50km/h along Stephen Terrace.
- 2. That the Committee notes that a further report will be prepared for consideration by the Traffic Management & Road Safety Committee and the Council, that outlines the outcomes of the community consultation of the traffic management framework to discourage excessive through traffic and speeding in Marden, Royston Park, Joslin and St Peters.
- 3. That the Committee notes that community consultation on the traffic management initiatives outlined in Part 1 and 2 above will commence after the Council has made a final determination in relation to the proposal to implement a 40km/h speed limit in the residential streets of Norwood & Kent Town.

### **Attachment A**

Traffic Management in Marden, Royston Park, Joslin & St Peters

City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067

Telephone 8366 4555 Facsimile 8332 6338

Email townhall@npsp.sa.gov.au Website www.npsp.sa.gov.au



City of Norwood Payneham & St Peters

Petition: First Avenue traffic & parking. City of Norwood Payneham & St Peters 9 June 2020

### **Petition and Deputation Request**

To the City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067 PO Box 204, Kent Town SA 5071 townhall@npsp.sa.gov.au

### Attention:

Robert Bria, Mayor Kester Moorhouse, St Peters Ward Cr. Evonne Moore, St Peters Ward Cr. John Minney, Torrens Ward Cr. Garry Knoblauch, Torrens Ward Cr. Gayle Buckby, Traffic Manager rbria@electedmembers.npsp.sa.gov.au kmoorhouse@electedmembers.npsp.sa.gov.au emoore@electedmembers.npsp.sa.gov.au jminney@electedmembers.npsp.sa.gov.au gknoblauch@electedmembers.npsp.sa.gov.au GBuckby@npsp.sa.gov.au

### **Petition Contact Details:**

Brendan Warn

First Avenue, St Peters, SA 5069

Roger McCarron

First Avenue, St Peters, 5069

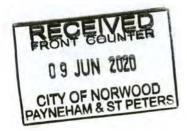
Br. ~

We would like to present the following petition with four action point requests, signed and supported by more than 88 local residents of First Avenue, St Peters, Joslin and Royston Park. We would like to address the Council on behalf of the petitioners, at the next available council meeting.

**The petition of:** The residents of First Avenue St Peters, Joslin and Royston Park and residents of St Peters Ward, within the City of Norwood Payneham & St Peters

### Matter of concern to petitioners:

Excessive commuter vehicle traffic volumes ('rat-running'), high vehicle speeds and all-day parking by non-residents on First Avenue.



Bon

**Petition**: First Avenue traffic & parking. City of Norwood Payneham & St Peters

9 June 2020

### **Petition requests:**

Action point 1 Eliminate, or significantly reduce by at least 80%\*, non-resident commuter 'rat-running' traffic volumes by installing suitable road

infrastructure and signage on First Avenue.

\* - 80% of pre COVID-19 vehicle volumes.

Action point 2 Reduce the maximum signed speeds to 40 km/h in the residential

areas of College Park, St Peters, Joslin and Royston Park.

(residential areas within Lower Port Rush, Payneham and Harrow

Roads).

Action point 3 Manage non-resident parking on First Avenue during the working

weekday.

Action point 4 Adopt First Avenue as part of Council's cycling plan and promote safe

cycling along First Avenue.

### Why are we presenting this Petition?

- First Avenue is being used by non-resident vehicle commuters as an alternate arterial road (known as "rat-running" or "cut-through") at speeds greater than 50km/hr to avoid the designated main arterial road, Payneham Road (A11), and as a cut through from/ to Lower Portrush Road (A17) through to/ from Stephen Terrace.
- Live traffic apps, such as "Google Maps" and "Waze" are preferentially guiding non-resident commuters down First Avenue, ignoring that it is a residential/community road, to avoid the congestion and traffic lights on the adjacent Payneham Rd.
- The high traffic volume and speeds along First Avenue is decreasing the avenue's amenity (higher road noise and frequency of vehicle movements), resident and child safety and reducing the avenue's property and heritage value.
- Non-residents are using First Avenue as an all-day parking lot due to:
  - the Avenue's proximity to various construction sites along Payneham
    - employment on Payneham Rd not provided with parking, and
    - o public transport (bus) access on Payneham Road ('park and ride').

SHILL PROPERLY

**Petition**: First Avenue traffic & parking. City of Norwood Payneham & St Peters 9 June 2020

### The setting: Why is traffic volume, speed and parking issues impacting First Avenue?

First Avenue, is unique because it is:

- One of the longest, straight roadways within the City of Norwood Payneham & St Peters area. First Avenue is more than two kilometres in length and approx. 1.4 km in length from Stephen Terrace to Battams Road (see Appendix).
  - The wide straight-line distance between the Winchester Street and Lambert Road roundabouts is more than 500 metres without interruption.
- Directly adjacent and parallel to Payneham Road (A11), a designated main arterial commuter road;
- A wide two-way avenue with limited natural traffic interruptions (off-sets, constraints, bends or traffic calming infrastructure/ furniture) making it attractive to commuters for "rat-running" and as a "cut through".
- Openly accessible at eight different points along its length including Harrow Rd, St Peters St; Stephen Tce, Westminster St; Winchester St; Lambert Rd, Salisbury Ave and Battams Rd.
- Two feeder access points from Lower Portrush Rd in the morning (River St and Beasley St) is increasing rat running along First Avenue as it allows commuters to avoid the Lower Portrush Rd/ Payneham Rd intersection and has fewer interruptions (no traffic lights, etc). Vehicles can easily re-enter the main roads system at Stephen Tce.

**Petition**: First Avenue traffic & parking. City of Norwood Payneham & St Peters 9 June 2020

Part 3: The petitioners request: We request the following actions are taken.

## Action point 1 Eliminate, or significantly reduce by at least 80%\*, non-resident commuter 'rat-running' traffic volumes by installing suitable road infrastructure and signage where required on First Avenue.

\* 80% of pre COVID-19 vehicle volumes.

We request that First Avenue is physically blocked at the south-western side of the Lambert Road roundabout, to create a closed-ended road segment between Winchester St and Lambert Road.

Separately, we are requesting this roadblock is trialled for 12 months, from Friday 30 October, 2020 to Monday, 1 November 2021\*, using suitable temporary road signs and bollards (for example two water-filled "ArmourZone" roadside barriers).

- By blocking the passage of vehicles at this point, it eliminates the advantage First Avenue offers **rat-runner** commuter traffic and only allows for the passage of bicycles and pedestrians.
- Long-term, low cost planter boxes could be used to physically block First Avenue at the point between the raised curbing. For example, this is used at the intersection of Hutt St and Flinders in Adelaide (see Exhibit).
- Use "LOCAL TRAFFIC ONLY" and "NO THROUGH ROAD" signs on First Avenue on the north-east side of the Winchester Street roundabout to warn vehicles that the Avenue is blocked further up the Avenue.
- Install "NO RIGHT TURN 6am to 9am" on Lower Portrush Road at River Street and Beasley Street, to minimise rat-running traffic entering the Royston Park, Joslin and St Peters area in the morning.
- Road blockages have been used to excellent effect in Malvern, Council of Unley area to effectively eliminate rat-running and increase the value and amenity of the area.
   We would recommend Councillors visit this area.
- \* The First Avenue segment between Winchester St and Lambert Road is popular for Halloween "Trick or Treating", therefore separately to this petition, and to make the Avenue safe for children and pedestrians, we are requesting the closing of the Avenue at both Winchester St AND Lambert Road for Saturday, 31<sup>st</sup> October 2020.

### **Attachment B**

Traffic Management in Marden, Royston Park, Joslin & St Peters

City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067

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City of Norwood Payneham & St Peters



### **Attachment C**

Traffic Management in Marden, Royston Park, Joslin & St Peters

City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067

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City of Norwood Payneham & St Peters

### **Marden - St Peters Local Area Traffic Review**

Marden-Joslin-Royston Park-St Peters

City of Norwood Payneham and St Peters

29 April 2021 Tonkin Ref: 202203

### **Document History and Status**

Rev	Description	Author	Reviewed	Approved	Date
Α	For Traffic Management Committee	PS	Client	PS	2/2/21
В	Updated with Feb 21 OD survey data	PS		PS	29/4/21

### **Contents**

Project: Marden – St Peters Local Area Traffic Review | Marden-Joslin-Royston Park-St Peters Client: City of Norwood Payneham and St Peters

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### **Appendices**

Appendix A - 2003 St Peters LATM - Summary of Recommendations

Appendix B - Traffic Data

**Appendix C – Traffic Control Devices** 

Appendix D - Collision Data

Appendix E - Origin Destination Survey Data

### 1 Introduction

Tonkin has been engaged by the City of Norwood Payneham and St Peters (Council) to undertake a review of traffic issues in the local traffic network bounded by Lower Portrush Road, Stephen Terrace, Payneham Road and the River Torrens.

Council advised that there is a significant amount of through-traffic cutting through the precinct as a result of congested arterial roads and that Lower Portrush Road is somewhat anti-directional to the city. There have been several traffic studies undertaken over the past couple of decades, but very little has been actually been done to reduce the impact of this traffic on the residential amenity of these suburbs.

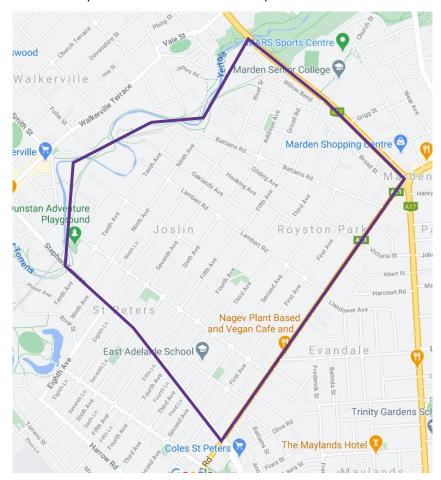


Figure 1 Study Area

The scope of the traffic review includes:

- Summary of all previous traffic investigations in the area;
- · Review of recent traffic data collected by Council;
- Mapping of the existing uses and activity generators within this local area and estimation of the 'acceptable' local traffic volumes that would be expected; and
- Provide a discussion around the findings and previous investigations, and most appropriate next steps, including revised traffic control options based on current best practices.

### 2 Previous Investigations

### 2.1 Local Area Traffic Management Plans (LATMs)

### 2.1.1 River Street – Battams Road LATM (April 1998)

This LATM (undertaken by Tonkin) focussed on the eastern end of the precinct between Lower Portrush Road and Battams Road, bounded by River St, Battams Road, Payneham Road and Lower Portrush Road.

The study was undertaken to identify and address the amount of through traffic travelling to/from Lower Portrush Road but did <u>not</u> include the suburbs south of Battams Road.

The report noted that the road network is conducive to filtering through-traffic and Battams Road (in particular), provides access to the various Avenues through to Stephen Terrace, St Peters.

However, the report also noted that River Street, Beasley Street and Addison Avenue (via Broad Street) also provide legitimate connectivity to Lower Portrush Road for the local areas of St Peters, due to constraints of the River; that is the suburbs have no access to the west over the River.

The recommendations within the report were aimed at 'discouraging' through traffic rather than prevention of traffic movements through the precinct.

- Recommendations included:
  - parallel slow points along River St these have been installed
  - possible roundabout at Battams/Beasley this has not been installed
  - redesign of roundabout at Sixth Ave/Addison Ave we are unaware if this work has been undertaken, but in any event the changes would not affect traffic movements
  - Beasley Street / Broad Street install an entry threshold in Beasley south of the intersection this has been undertaken
  - Beasley Street and Lower Portrush Road installed pavement bars on the centre line this has been undertaken
  - Broad St potential placement of traffic control devices to control speed this has not been undertaken
  - Potential application of a 40 km/h precinct speed limit (note that at the time of the report the default urban speed limit was still 60 km/h) this has not been undertaken.
- Other recommendations included:
  - Approach DIT regarding the higher number of crashes at Battams Road and Payneham Road we are not aware of this specifically being undertaken
  - Approach DIT regarding the capacity of the Portrush Road and Payneham Road intersection this was undertaken as part of the 2017 Origin Destination surveys (refer below), and DIT are currently undertaking a planning study looking at options for this intersection.

### 2.1.2 St Peters LATM (February 2003)

This was a comprehensive LATM study for the whole precinct between Lower Portrush Road, Stephen Terrace, Payneham Road and the River Torrens.

The study (undertaken by Connell Wagner) included comprehensive traffic data collection and community consultation.

Community consultation highlighted concerns with vehicle travelling through the local area to avoid the arterial network particularly:

- First Ave
- Second Ave
- Sixth Ave
- Ninth Ave
- Battams Road
- Lambert Road

There was also reported community concerns over speeds.

Roads with traffic volumes > 1000vpd included

- First Ave
- Second Ave
- Third Ave
- Sixth Ave
- Ninth Ave
- Battams Road
- Lambert Road

The report included a comprehensive priority of recommendations, mostly entry thresholds and midblock blisters, etc. The recommendations were typically on the "softer" scale of potential treatments and there were no recommendations for major restrictions on traffic access and movements.

The recommendations were proposed on a staged basis (short, medium and long term), with monitoring after each stage to assess whether there were any changes and the need for further treatments. Refer Appendix A for summary of these treatment options.

Like the River St-Battams Road LATM, the recommendations were again aimed at 'discouragement' of through traffic rather than road closures etc to physically prevent access through the area.

It was noted the default urban speed limit was reducing from 60 to 50 km/h around the time of the study

From a recent site inspection, it does not appear that many (if any) of the recommendations have been implemented.

### 2.2 No Right Turn into River Street and Beasley Street (June 2017)

Tonkin were engaged to develop a base SIDRA traffic model for the intersection of Lower Portrush Road and Payneham Road (using DIT turn count data), to determine the impact of prohibiting the right turns off Lower Portrush Road into both River Street and Beasley Street in the morning peak.

During June 2017 Council undertook their own turning counts at the intersections of Lower Portrush Road with River Street and Beasley Street, and also the Battams Road & Sixth Avenue Roundabout.

Using a base SIDRA model provided by DIT, additional turning movements were added to the model, assuming the prohibited movements (into River Street and Beasley Street) would have to turn right into Payneham Road from Lower Portrush Road.

To understand the scale of the problem (ie rat-running through River and Beasley), the current demand for the right turn from Lower Portrush Road into Payneham Road is 125-140 vehicles per hour. In comparison, around 500 vehicles were counted by Council turning right from Lower Portrush Road into either River or Beasley Streets in the morning peak hour. That is, River St and Beasley Street take around 4 times the volume of the right turn into Payneham Road in the corresponding hour.

To model the potential impact of banning the right turn into River and Beasley Streets, an additional 300 or 400 vehicles per hour were added to the right turn movement from Lower Portrush Road into Payneham Road. (Note the full 500 vph were not added to the movement as some of the recorded 500 movements into River St or Battams Road might go elsewhere).

The results from this quick assessment would be incredibly bad for the right turn from Lower Portrush Road into Payneham Road. Delay time for this movement would increase from around 360 seconds (current model) to 1100-1600 seconds. Queue lengths for this right turn movement would increase from 178m (current model) to over 1 kilometre (1160-1670m). Furthermore, there would be a knock-on effect for the city bound movement along Payneham Road from the north east approach.

The results of this quick assessment simply confirmed what was anticipated; that the current intersection configuration would not have sufficient capacity for the additional right turn demand. Queue lengths and delays would be unacceptable.

At the time, Council held several meetings with DIT about banning right turns into River Street and Beasley Street. As an arterial road, Council does not have the authority to install these restrictions without DIT approval.

Not surprisingly, DIT did not support the proposal due to the significant implications on the queue lengths and delays for the right turn movement from Lower Portrush Road into Payneham Road. To the best of our understanding, there have been no further discussions with DIT regarding this matter.

### 2.3 Origin – Destination Surveys

### 2.3.1 November 2017

Tonkin were engaged by Council to undertake an origin: destination survey through the precinct to confirm the extent of 'rat-running'. The boundaries included Lower Portrush Road, Stephen Terrace and Payneham Road. The survey had cordon (survey locations) in:

- River Street and Beasley Street to/from Lower Portrush Road
- Second Avenue, Sixth Avenue and Ninth Avenue to/from Stephen
- Lambert Road and Battams Road to/from Payneham

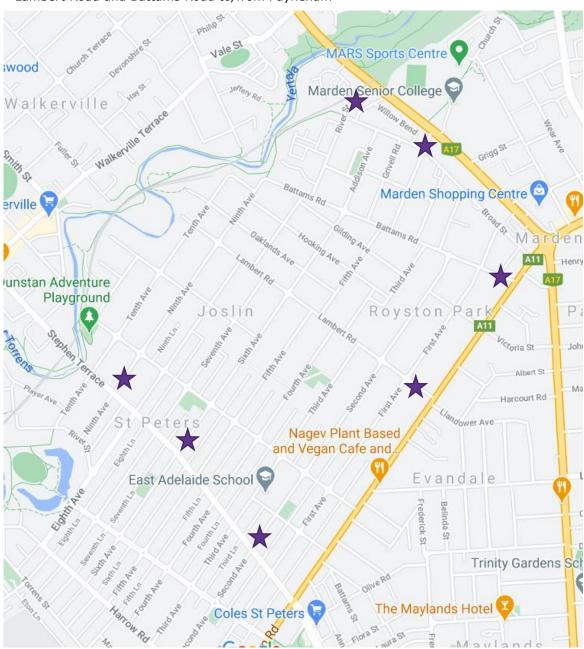


Figure 2 2017 OD Survey Sites

Number plates of vehicles passing these sites were recorded in the morning (7am-9am) and afternoon (4pm-6pm) peak periods. By matching the entry and exit of number plates between the sites provided an indication of the proportion of through traffic.

Note that the location of the cordons was determined to focus on potential rat-running to/from Lower Portrush Road, and only included the anticipated key routes. There are many other potential routes that were not included in the survey. With this in mind, the actual extent of rat-running might actually be greater than that recorded below.

The data clearly showed (and quantified) there is a rat-running issue as summarised below. Full details of the survey results are included in Appendix E.

### 2.3.1.1 AM Peak (7am-9am)

#### River St

- 434 vehicle recorded entering from Lower Portrush Road
  - 143 (33%) matched exiting onto Stephen from Sixth Ave
  - 8 (2%) matched exiting onto Payneham from Battams
  - 17 (4%) matched exiting onto Payneham from Lambert
  - 9 (2%) matched exiting onto Stephen from Second Ave
- Of the 434 vehicles recorded entering River St, <u>41% were recorded exiting in the four side streets as</u> "rat-running" traffic
- A further 59% was unmatched, either staying in the precinct, or exiting via another route.

### Beasley St

- 299 vehicles recorded entering from Lower Portrush Road
  - 16 (5%) matched exiting onto Stephen from Sixth Ave
  - 9 (3%) matched exiting onto Payneham from Battams
  - 17 (6%) matched exiting onto Payneham from Lambert
  - 16 (5%) matched exiting onto Stephen from Second Ave
- Of the 299 vehicles recorded entering Beasley St, 19% were recorded exiting in the four side streets as "rat-running" traffic
- A further 81% was unmatched, either staying in the precinct, or exiting via another route.

### Sixth Ave

- Sixth Ave was clearly the "route of choice" for rat-running
- Ninth Avenue was under some traffic restrictions at the time with road works. We noted, at the time, that we would expect the load in Sixth Ave would normally be spread between 6<sup>th</sup> and 9<sup>th</sup> Avenues.
- 325 vehicles were recorded exiting onto Stephen Terrace
  - 143 (44%) had originated from River St
  - 16 (5%) had originated from Beasley

### 2.3.1.2 PM Peak (4pm-6pm)

### River St

- 586 vehicle recorded exiting onto Lower Portrush Road
  - 125 (21%) matched entering from Stephen Terrace on Sixth Ave
  - 60 (10%) matched entering from Payneham on Battams
  - 17 (3%) matched entering from Payneham on Lambert
  - 22 (4%) matched entering from Stephen on Second Ave
- Of the 586 vehicles recorded exiting via River St, 38% were recorded entering from one of the four side streets.
- Sixth Ave was again the "route of choice"

### Beasley St

- 334 vehicle recorded exiting onto Lower Portrush Road
  - 15 (3%) matched entering from Stephen Terrace on Sixth Ave
  - 80 (24%) matched entering from Payneham on Battams
  - 12 (4%) matched entering from Payneham on Lambert
  - 21 (6%) matched entering from Stephen on Second Ave
- Of the 334 vehicles recorded exiting via Beasley St, 38% were recorded entering from one of the four side streets.
- Battams Road was the "route of choice", representing an easy left of Portrush Road and right into Beasley.

### **Battams Road**

- 314 vehicles were recorded entering the precinct from Battams Road off Payneham
  - 60 were matched exiting via River St
  - 80 were matched exiting via Beasley St
- Overall, 45% of traffic entering Battams were recorded exiting via either River or Beasley as clear "rat-runners"

### 2.3.2 Origin – Destination Surveys (February 2021)

A further origin – destination survey was undertaken in February 2021 to specifically consider movements along First Avenue.

The cordon survey locations were in the following locations:

- First Avenue north of Winchester Street to/from Stephen
- River Street and Beasley Street to/from Lower Portrush Road
- Battams Road to/from Payneham

Note the locations on River Street, Beasley Street and Battams Road were the same as the 2017 survey to enable some comparison with the early results.

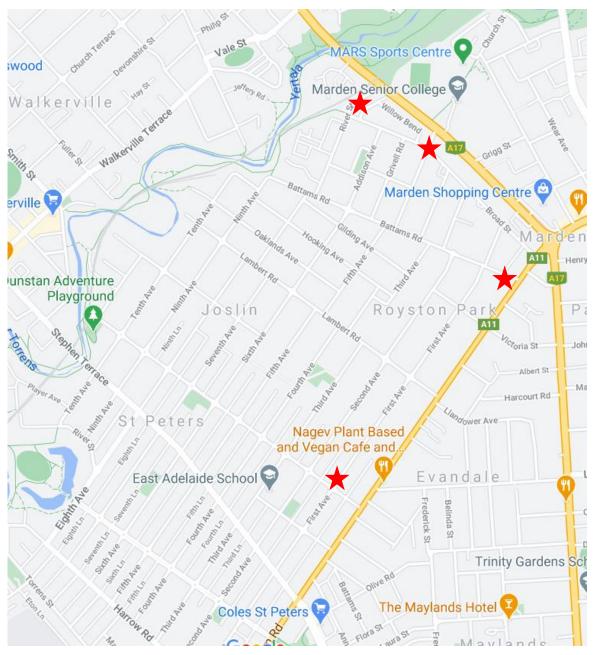


Figure 3 2021 OD Survey Sites

#### 2.3.2.1 AM Peak (7am-9am)

#### River Street

- 465 vehicles recorded entering from Lower Portrush Road
  - 30 (6%) matched exiting through First Avenue
  - 15 (3%) matched exiting through Beasley Street
  - 9 (2%) matched exiting onto Payneham from Battams
- The results for First Avenue further highlight the "rat-running" through the whole area and increases the matched data for River Street between both surveys to approximately 50%
- That is, at least 50% of the traffic entering in River Street can be matched exiting the area along Sixth Ave (33%), Battams Road (2%), Lambert Ave (4%), Second Avenue (2%) and First Avenue (6%)

### Beasley St

- 317 vehicles recorded entering from Lower Portrush Road
  - 37 (12 %) matched exiting through First Avenue
  - 22 (7%) matched exiting onto Payneham from Battams
- The results for First Avenue further highlight the "rat-running" through the whole area and increases the matched data for Beasley Street between both surveys to approximately 30%
- That is, at least 30% of the traffic entering in Beasley Street can be matched exiting the area along Sixth Ave (5%), Battams Road (3-7%), Lambert Ave (6%), Second Avenue (5%) and First Avenue (12%)

### **Battams Road**

- 251 vehicles recorded entering from Payneham Road
  - 17 (7 %) matched exiting through First Avenue
  - 10 (4%) matched exiting through River Street

### First Avenue

- 62 vehicles recorded entering from the south travelling northbound
  - 15 (24 %) matched exiting through Battams Road
  - 6 (10 %) matched exiting through Beasley Street
  - 7 (11 %) matched exiting through River Street
- 230 vehicles recorded exiting the precinct from the north travelling southbound
  - 37 (16 %) matched entering from Beasley Street

  - 30 (13 %) matched entering from River Street
    17 (7 %) matched entering from Battams Road
- The data confirms use of First Avenue for rat-running in both directions in the morning peak times.

#### 2.3.2.2 PM Peak (4pm-6pm)

### River St

- 452 vehicle recorded exiting River Street onto Lower Portrush Road
  - 20 (4%) matched entering from Beasley St
  - 19 (4%) matched entering from Battams Road
  - 9 (2%) matched entering from First Avenue
- The results for First Avenue further highlight the "rat-running" through the whole area and increases the matched data for River Street between both surveys to approximately 40%
- That is, at least 40% of the traffic exiting from River Street can be matched entering the area from Sixth Ave (21%), Battams Road (4-10%), Lambert Ave (3%), Second Avenue (4%) and First Avenue (2%)

#### Beasley St

- 284 vehicle recorded exiting Beasley Street onto Lower Portrush Road
  - 49 (17%) matched entering from Battams Road
  - 14 (5%) matched entering from First Avenue
  - 22 (85) matched entering from River Street
- The results for River Street further highlight the "rat-running" through the whole area and increases the matched data for Beasley Street between both surveys to approximately 42%
- That is, at least 42% of the traffic exiting from Beasley Street can be matched entering the area from Sixth Ave (3%), Battams Road (17-24%), Lambert Ave (4%), Second Avenue (6%) and First Avenue (5%)

#### **Battams Road**

- 316 vehicle recorded exiting Battams Road onto Payneham Road
  - 22 (7%) matched entering from River Street

#### First Avenue

- 212 vehicles recorded entering from the south travelling northbound
  - 22 (10%) matched exiting through Battams Road
  - 14 (7%) matched exiting through Beasley Street
  - 9 (4%) matched exiting through River Street
- 79 vehicles recorded exiting the precinct from the north travelling soutbound
  - 6 (8 %) matched entering from Beasley Street

  - 6 (8 %) matched entering from River Street 11 (14 %) matched entering from Battams Road
- The data confirms use of First Avenue for rat-running in both directions in the afternoon peak times.

#### 2.3.3 **Origin Destination Survey Data Summary**

View in totality, the origin destination surveys highlight the extent of non-local traffic passing through the precinct via various routes. Key routes include River Street and Beasley Street via First Avenue, Sixth Avenue, Second Avenue, Battams Road and Lambert Avenue. Other roads not included in the surveys are also likely to encounter non-local traffic use due to the very permeable road network.

#### 3 Current Data

#### 3.1 Traffic Counts

Council has undertaken traffic count data throughout the precinct on many occasions. The following summarises the most recent data available.

**Table 3.1 – Traffic Data Summary** 

STREET	SECTION	DAILY TRAFFIC VOLUMES AVERAGE	85TH %ILE	MEAN SPEED
Battams Road	East of River St	2058	45	39.4
Battams Road	West of Beasley	1943	52	44.9
Broad St	East of Pollock No 22	584	50	41.5
Fifth Ave	east of Lambert no 103	293	41	34.5
First Ave	east of Lambert No 148	1241	54	47.4
Ninth Ave	east of Winchester no 43	1093	54	45.2
Ninth Ave	east of Lambert No 80	864	47	40.1
Second Ave	east of Lambert no 122	1232	54	47.7
Seventh Ave	east of Lambert No 136	397	43	36
Sixth Ave	east of Lambert no 50	2622	51	44.4
River St	North of Broad St	2811	44	40.1
River St	South of Broad St	1699	56	49.0
Third Ave	East of Lambert No 112	425	45	37.3
Winchester St	south of sixth midblock	624	43	37.2
Winchester St	south of Third no. 11	885	38	31.6
Winchester St	south of First No 3a	1306	43	35.8
Winchester St	south of Eighth No 32	339	43	35.4

Further traffic data is presented in Appendix B.

#### **3.2 Existing Traffic Controls**

A plan showing existing <u>physical</u> traffic control devices is included in Appendix C. Most common treatments include the several roundabouts throughout the precinct, and new kerb extensions along Ninth Avenue. Other 4 way intersections have Stop or Give Way signs controlling the east-west movements.

#### 3.3 Collision Data

Maps showing the locations, types and severity of crashes are included in Appendix D

There has been a general spread of isolated crashes throughout the precinct in the 5 years (2015-2019), including 'right turn' collisions at the various roundabouts.

#### 4 Discussion

#### 4.1 Problem Definition

The extent to which traffic movements warrant intervention can be considered against Council's Traffic Management Policy and other industry recognised standards.

Council's Local Area Traffic Management Policy lists that local roads can typically cater for up to 2,000 vpd while collector roads are those that cater for 2,000-3,000 vpd.

While Council's policy does not stipulate a similar bench-mark for speeds, most Councils accept 85<sup>th</sup> percentile speeds up to the prevailing speed limit (in this case 50 km/h). It is interesting to note that when DIT introduced guidelines for 40 km/h precinct speed limits, that a measure of 'success' was for average (not 85<sup>th</sup> percentile) speeds to be around 40 km/h. From our experience, in 40 km/h precincts, 85<sup>th</sup> percentile speeds are typically around 46-48 km/h.

It should be noted, however, that both these total volumes and speeds are only benchmarks and that consideration should be given to the specific circumstances of the road. Traffic volumes up to 2,000vpd in some streets will feel quite reasonable, but in other locations (eg narrow streets or those with reduced set-backs to properties), these volumes may have a greater impact on residential amenity etc.

From the data set listed above it is clear, at the holistic level, that all roads in the study area have traffic volumes commensurate with their intended function. Local roads (including most of the Avenues) have traffic volumes less than 2,000vpd (most under 1,500vpd). This is considered reasonable noting that most roads in the precinct are quite wide and easily accommodate two way traffic and parking on both sides of the roads. De facto collector routes such as Sixth Avenue and Battams Road have traffic volumes between 2,600 and 2,900vpd.

Notwithstanding the holistic traffic data summary, it is also clear from the summary of previous investigations, that there is a high degree of non-local traffic travelling through (rat-running) the precinct during both the AM and PM peaks. The OD surveys conducted in November 2017 highlighted the extents of this issue, and residents will often cite speeds associated with the rat-running traffic as a specific concern.

Peak hour volumes are also excessive in several of the Avenues. The following table summarises peak hour volumes in First Avenue, Sixth Avenue and Ninth Avenue, as a percentage of daily traffic volumes. Note that peak hours typically account for 8-10% of daily movements. Peak volume percentages higher than 10% indicate a disproportionate amount of non-local traffic using the network.

Location	Ave Weekday Daily Volume	AM Peak Hour	PM Peak Hour
First Ave – East of Winchester Street	1194	179 (15%)	174 (14.6%)
Sixth Ave – East of Winchester Street	1051	198 (18.8%)	66 (6.3%)
Ninth Ave – East of Winchester Street	1093	123 (11.3%)	101 (9.2%)

The dominance of the peak movements is also evident in the direction of traffic flows during each period. The following selected graphs show the traffic flows per direction and time of day for the same three Avenues.

#### **First Avenue**

#### Westbound

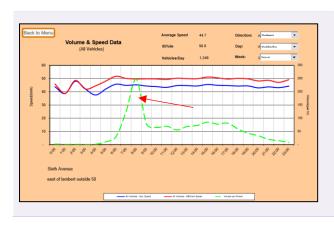
# Volume & Speed Data (All Vehicles) Vehicles Day Vehicles

#### **Eastbound**



#### **Sixth Avenue**

#### Westbound



#### **Eastbound**



#### **Ninth Avenue**

#### Westbound

# Volume & Speed Data (All Vehicles) Vehicles City 568 Vehicles City 568

#### Eastbound



Also shown in the graphs above are the average and 85th percentile speeds (as the blue and red lines) per time of day. For most parts, speeds appear reasonably consistent throughout the day; that is speeds do not seem to spike associated with the rat-running traffic.

There is also clear evidence of higher than desirable speeds in the Avenues with 85<sup>th</sup> percentile speeds typically faster than 50 km/h in these roads.

In summary, while total volumes and most speeds are reasonably commensurate with other streets throughout Council's road network, there is evidence of a <u>high degree</u> of rat-running in the peak hours.

#### 4.2 Road network and land uses

The underlying issue associated with this precinct is the grid layout which is bounded by the River on one side and with only two access points (River St and Beasley St) onto Lower Portrush Road. Coupled with this, Payneham Road and the intersection with Portrush Road, experience varying degrees of congestion that motivate drivers to find alternative routes.

Most of the Avenues are long and very wide roads which are conducive to higher speeds and ratrunning. Equally the east-west routes connecting to Payneham Road are also very wide. The road network is also very permeable with mostly unrestricted movements on the key routes. Most of the Avenues are all assigned priority over side roads so travel on these streets is unimpeded.

Land use within the precinct is primarily (almost solely) residential. Commercial development is confined to the Payneham Road frontage, while the East Adelaide Primary School (Westminster Street and Third Avenue) will generate traffic movements in this area from beyond the precinct.

There is a bus route through the precinct via Sixth Avenue – Addison Avenue – Broad Street – Beasley Street. This can influence the choice of traffic control treatments noting that particularly restrictive devices are not appropriate on a bus route.



Land Use Generalised 2019, Data SA

**Figure 4 Land Uses** 

#### 4.3 Traffic Management Options

#### 4.3.1 Overview

From a holistic viewpoint there are two broad option scenarios to consider:

- PREVENT non-local traffic within the precinct; or
- DISCOURAGE non-local traffic within the precinct.

The idea of PREVENTING non-local traffic from within the precinct is often cited as the ideal outcome, but this inevitably comes with restrictions on accessibility for local users. Residents will often reference 'what happens in Unley Council' as an example of road closures.

Unley implemented a network of road closures some decades ago that, for most parts, prevents through traffic from permeating the local network. However, the closures were based on a predetermined road hierarchy (something NPSP Council does not have), which nominates the collector/distributor routes that fulfill the traffic distribution function.

The implementation of road closures is akin to sacrificing the few to the benefit of the many. There would ultimately still need to be some roads within the precinct that would serve that function of moving traffic. In Unley, while numerous roads have 'benefited' from the network of road closures, there are other routes (eg Wattle and Fisher Streets, Duthy Street and Albert Street) that are the identified traffic routes.

In contrast to the Unley example, Prospect Council has adopted a traffic management policy that addresses the grid east-west road network between Hampstead Road and Churchill Road. The Prospect policy recognises that "... the road network throughout Prospect is very "permeable" with multiple points of access and egress onto the arterial roads. In the absence of defined east-west collector routes (to supplement the arterial road network), it is inevitable that some external through traffic will be experienced on these road".

Further the policy also recognises that "...In accepting some level of external through traffic will use the local road network, it is important that this demand is, as far as reasonably practical, shared between across the network".

At the outset, Council and the community need to reconcile to what extent they are prepared to accept non-local traffic using the road network. Adoption of a 'hard-line' approach to non-local traffic will require the implementation of significant traffic control restrictions, which will mostly affect the ease of access for residents themselves. This approach will require the determination of a formal road hierarchy for the precinct to effectively determine what roads remain open (and most likely experience a significant increase in traffic volumes).

An alternative approach would be to accept the rat-running as being (to some extent) inevitable, and introduce controls that at least discourage over-use of the network and encourage more appropriate speeds. Any scheme that is developed should look to retain accessibility and 'share the load' within the local road network.

Further comments on the various options available to Council are outlined below.

#### 4.3.2 Upgrade of Payneham Road/Portrush Road/Lower Portrush Road

This is considered fundamental to reducing the demand for rat-running in this precinct. Ultimately, increasing the capacity of the intersection and reducing delays for the right turn movement from Lower Portrush Road into Payneham Road could have an impact on reducing the amount of traffic in the morning peak currently rat-running via River Street and Beasley Street.

We understand that DIT have commenced a planning investigation for the intersection to consider ways of increasing the capacity of the intersection. At this stage, we understand that a broad planning investigation is being undertaken with a number of options under investigation. The outcome of the study will be identification of the preferred option for upgrading, although no commitment to funding has been made beyond this stage.

#### 4.3.3 40 km/h Precinct Speed Limit

Council could consider a 40 km/h precinct speed limit either in isolation or accompanying LATM physical treatments. The combination of a lower speed limit and LATM devices could, at least, encourage non-local traffic to travel at more appropriate speeds for the local residential area.

Residents could expect a reduction in speeds throughout the precinct, particularly if supportive traffic control devices are also installed. The extent to which a 40 km/h speed limit might reduce volumes is questionable. While non-local drivers still perceive the local streets as easier (less delays) than the main roads, there is not likely to be a significant reduction in actual volumes from the installation of a 40 km/h speed limit.

# 4.3.4 No Right Turn from Lower Portrush Road into River Street and Beasley St in morning peak

This has been previously examined and will not be supported by DIT with the current configuration (capacity) of Lower Portrush Road into Payneham Road intersection. Further consideration could be given to this option as part of the current DIT Planning Study. It is important that Council bring this issue to DIT's consideration as part of the current planning investigation. Note that this option only addresses the morning peak issue and will not affect the afternoon peak movements.

#### 4.3.5 Road Closures (full or partial)

At a strategic level, Council and the community need to determine whether they are prepared to investigate road closures in some streets, recognising that traffic volumes in other roads will increase. This option will require adoption of a road hierarchy to identify which roads are retained as traffic routes. At face value this will probably include:

- Sixth Avenue as the north-south route (and bus route).
- Lambert Road as east-west connectivity to Payneham Road (noting the traffic signals on Payneham Road)
- Battams Road and
- Winchester St (for access to the East Adelaide School).

Traffic volumes in Sixth Avenue are already approaching 3,000 vpd and additional traffic volumes are likely to be opposed by residents in these streets.

From our experience, the introduction of road closures is unlikely to be supported by the majority of the community.

#### 4.3.6 Local Area Traffic Control Devices

There is a broad selection of traffic control devices that Council could consider to discourage traffic from using the local network and/or control speeds in the network (eg accompanying a lower speed limit).

Reconsideration could be given to an integrated use of some of these treatments (similar to that outlined in the 2003 St Peters LATM report).

#### Driveway entry/links

- Could be used on the internal perimeter of the network to have a one lane narrowing and create the impression of a road closure.
- The effectiveness of these devices can vary between locations and the extent to which rat-run drivers are disadvantaged by the devices. If only 1-2 driveway entry/links are installed on any one particular route, they may not create too much of an impediment for through traffic.
- The devices would need to be consistently installed across the network to avoid drivers simply changing routes. Not suitable for bus routes (ie Sixth Avenue, Addison Avenue and Beasley Street)

#### Medians

- Medians could be installed, as an example, along the east-west routes (Lambert Road and Battams Road) to prevent continuous access on the key north-south Avenues. For example, the median in Osmond Terrace prevents east-west access along Beulah Road.
- As a dramatic scenario, if a median was installed full length along Lambert Road, this would effective prevent all 'rat-running' through the precinct.
- However, this scenario would also prevent convenient access for local residents either side of the median.
- This would require a significant change to the current roundabout configurations along Lambert Road.
- Sixth Avenue would have to be retained open for the bus route and would therefore be affected by higher traffic volumes.

#### Road Humps/Plateau (mid-block)

- Cannot be used in isolation and will require substantial lengths of each road to be treated.
- Very effective in reducing speeds and discouraging through traffic
- Universally disliked by residents who often cite inconvenience and additional noise levels
- The application of these devices across the Avenues is not considered in keeping with the wide road layout.

#### Road Humps/Plateau (intersection)

- Raised intersection treatments can be used in isolation to control speeds (and hence safety) and specific sites
- Given that key intersections are already have roundabouts installed, and that there are long sections of road between the intersections, these treatments are unlikely to offer either a substantial reduction in volumes or speeds.

#### Mid-block Blisters

- These devices could be installed to control speeds along some of the longer sections of roads.
- Mid-block blisters offer a similar control on speeds as do an intersection roundabout (ie around 35 km/h)
- The treatments would be potentially a good supplement to a 40 km/h precinct speed limit, although will not have any impact on traffic volumes.

#### 4.3.7 Road Form

- As already noted, most of the roads within this precinct are very wide and are designed for the easy
  movement of vehicles. Adoption of a more holistic street-scape (Link and Place) could realise a
  reduction in road widths and allocation of space to pedestrians, cycling and additional landscape
  elements.
- Council has integrated WSUD elements into the recent upgrade of Ninth Avenue, and signage of the bike route, to create a definition of the parking lanes and visual reduction in road width
- These treatments will not, by themselves specifically address the issue of rat-running, but will support (over time) more appropriate speeds
- These options should be progressed as/when the roads are scheduled for pavement/kerb upgrading.

#### **5** Summary and Recommendations

Given that it has been almost 18 years since a comprehensive LATM was undertaken for the precinct, we would recommend that this should be the next step.

However, noting that the extent of the problems is already well understood, an alternative approach to community engagement could be considered. For example, Council (through the Traffic Management Committee) could develop some concept plans/options for discussion rather than start with the typical "tell us your concerns" approach to consultation.

Fundamentally, Council and the community need to reconcile whether the extent of the issues warrants 'hard' intervention by way of road closures etc, of whether the alternative approach of 'acceptance' and sharing the load is more acceptable.

In our opinion, the extent of the problems does not warrant the 'prevention' approach, and that further consideration should be given to a range of local area traffic control devices to address appropriate speeds in particular.

Commensurate with the current forms of the road and roundabout treatments at the intersections, we suggest this include mid-block blisters with a focus on the longer mid-block sections between Winchester Street and Lambert Road.

Kerb build-outs integrating WSDU opportunity (per Ninth Ave) could also be integrated into the parking lanes, along with a narrowing of the actual traffic lanes.

Council should implement a 40 km/h precinct speed limit, and also ensure that the community concerns over rat-running are adequately understood and addressed by the current DIT planning investigation at the Payneham Road / Portrush Road intersection.

**Appendix A – 2003 St Peters LATM – Summary of Recommendations** 

# 1. Executive Summary

This report considers Local Area Traffic Management for the St Peters study area (bounded by Stephen Terrace, Payneham Road, Battams Road and the River Torrens), and recommends a number of actions (or treatments) to improve provisions for various modes of traffic movement and parking activity in the local area.

These treatments have been prioritised in terms of short, medium and long term installations, and are summarised below. Cost estimates have been calculated for each treatment, to aid in future budget planning.

#### 1.1 Short Term (1-3 years) - In Order of Priority

From 1 March 2003, speed limits on all roads not managed by Transport SA will reduce to 50km/h (unless already reduced to 40km/h). The effectiveness of this reduced speed limit on all local roads within the St Peters local area may directly influence the rate and order (and need) in which the medium and long-term recommendations are subsequently implemented.

Short term treatments are as follows:

Investigation and implementation of suitable traffic management treatments at:
 The interface of Lower Portrush Road with the southern section of the suburb of Marden;
 The junction of Payneham and Battams Roads;
 The junction of Richmond Road and Hackney Road; and The junction of Payneham Road and Harrow Road.

The successful implementation of traffic management treatments at these locations may reduce the extent of non-local traffic filtering through the St Peters area and the extent of required local area traffic management devices.

- Upgrade the junction of Sixth Avenue (north) and Stephen Terrace, to create an entry statement (with perimeter threshold) which includes dedicated left- and shared through and right-turn lanes on the Sixth Avenue (north) approach.
   COST - \$26,900
- Upgrade the junction of Battams Road and Payneham Road, to create an entry statement (with perimeter threshold) which includes dedicated left- and right-turn lanes on the Battams Road approach.
   COST - \$26,900
- Ban right turn movements into Battams Road from Payneham Road between 7am and 9am, Monday to Fridays.
   COST - \$400
- Construction of perimeter thresholds at:
   First Avenue (southern end) Two lane perimeter threshold;
   Second Avenue (southern end) Two lane perimeter threshold;
   Third Avenue (southern end) Two lane perimeter threshold;
   Ninth Avenue (southern end) Two lane perimeter threshold;
   First Avenue (northern end) Two lane perimeter threshold;
   Sixth Avenue (northern end) Two lane perimeter threshold;
   and Lambert Road/Payneham Road junction Two lane perimeter threshold.



to create an entry statement to the local area, as well as encourage a reduction in vehicle travelling speed, by the perception of a change in driving environment. COST - \$174,100

 Install Centre Blisters at third points along Sixth Avenue, between Winchester Street and Lambert Road.

COST - \$40,800

- Install Centre Blister on Sixth Avenue, just south of the intersection with Hooking Avenue.
   COST \$20,400
- Install pavement bar islands at: Seventh Avenue / Lambert Road junction (north and south sides of junction); and Fifth Avenue / Lambert Road junction (north and south sides of junction). COST - \$3,140

#### TOTAL COST (Short Term) - \$292,640

#### 1.2 Medium Term (3 – 5 years)

- Construction of perimeter thresholds at:
   First Lane (southern end) Single lane perimeter threshold;
   Second Avenue (northern end) Two lane perimeter threshold;
   Ninth Avenue (northern end) Two lane perimeter threshold;
   Westminster Street/Payneham Road junction Single lane perimeter threshold;
   Winchester Street/Payneham Road junction Two lane perimeter threshold; and
   Salisbury Avenue/Payneham Road junction Two lane perimeter threshold,
   to create an entry statement to the local area, as well as encourage a reduction in vehicle
   travelling speed, by the perception of a change in driving environment.
   COST \$139,200
- Install kerb extensions on Battams Road at the junction with Beasley Street, to narrow and 'channelise' the carriageway, while still catering for public transport movements.
   COST - \$15,200
- Install kerb extensions at the Fourth Avenue/Lambert Road junction, to narrow and 'channelise' the carriageway.
   COST - \$15,200
- Install Centre Blister treatments on:
   First Avenue (southern 'third point' only);
   Second Avenue (at 'third points'); and
   Ninth Avenue (north of Werrina Avenue),
   Between Winchester Street and Lambert Road.
   COST \$81,600
- Install Centre Blister treatments mid-block on: Second Avenue, mid-block between Salisbury Avenue and Lambert Road; and Ninth Avenue, mid-block between Hooking and Oaklands Avenues. COST - \$20,400
- Install kerb extensions at:



The junction of First Avenue and Salisbury Avenue; On First Avenue, mid-block between Salisbury Avenue and Lambert Road and at the northern 'third point' between Winchester Street and Lambert Road; The junction of Second Avenue and Salisbury Avenue; and On Ninth Avenue, between Winchester and Koolaman Streets,

to narrow and 'channelise' the carriageway.

COST - \$102,000

#### TOTAL COST (Medium Term) - \$394300

#### 1.3 Long-Term (5 +years)

Construction of perimeter thresholds at:

Fourth Avenue (southern end) - Two lane perimeter threshold;

Fifth Avenue (southern end) – Two lane perimeter threshold;

Seventh Avenue (southern end) - Two lane perimeter threshold;

Eighth Avenue (southern end) – Two lane perimeter threshold;

Tenth Avenue (southern end) - Two lane perimeter threshold;

Third Avenue (northern end) - Two lane perimeter threshold;

Fifth Avenue (northern end) - Two lane perimeter threshold; and

Seventh Avenue (northern end) + Two lane perimeter threshold,

to create an entry statement to the local area, as well as encourage a reduction in vehicle travelling speed, by the perception of a change in driving environment.

COST - \$200,400

If considered necessary upon future traffic monitoring, install kerb extensions at the Lambert Road/Tenth Avenue junction. COST - \$15,200

If considered necessary upon future traffic monitoring, install Centre Blister treatments at 'third points' on:

Fifth Avenue;

Seventh Avenue;

Eighth Avenue; and

Tenth Avenue.

COST - \$163,200

TOTAL COST (Long Term) - Minimum \$200,400 - Maximum \$378,800

TOTAL TRAFFIC MANAGEMENT COSTS - MINIMUM

\$ 887,340

MAXIMUM

\$1,065,740

#### 1.4 Other Recommendations

- Monitor the performance of each traffic management installation, as the effectiveness of various installations may directly influence the rate and order (and need) in which subsequent recommended treatments are implemented.
- Liaise with the Passenger Transport Board to:
  - request that proper consideration be given to rerouting bus services 291 and 292 to (either) travel down Fifth Avenue to the south of Stephen Terrace (or along Winchester Street and

Seventh Avenue to the north of Stephen Terrace), to assist in reducing delays at the Stephen Terrace / Sixth Avenue intersection.

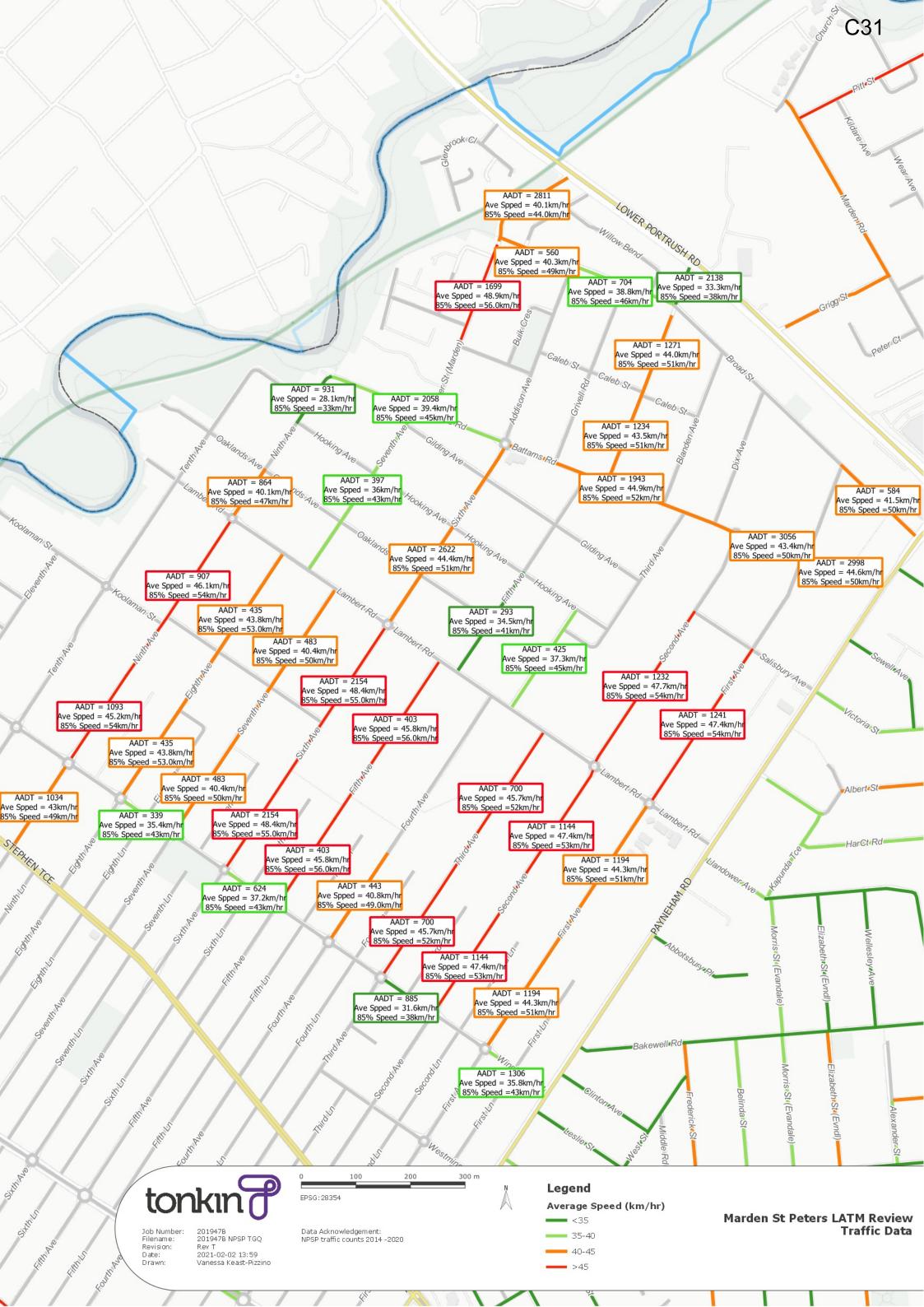
 Consider relocation of the bus stop on Payneham Road (to the south of Battams Road), from the approach to the departure side of the junction.

- Liaise with Transport SA to:
  - review the approaches to the pedestrian refuge on Stephen Terrace.
  - install a pedestrian refuge on Payneham Road, approximately mid-block between Abbotsbury Place and Bakewell Road.
  - undertake travel speed surveys along Stephen Terrace, and if necessary, arrange regular enforcement activity.
- Arrange relocation of the public telephone box to the west of the Tenth Avenue Stephen Terrace junction
- Liaise with Australia Post to arrange relocation of the postbox further away from the Sixth Avenue / Lambert Road junction, to improve sight lines.
- Install 15min parking restriction on Stephen Terrace adjacent the Bakery, between the existing
  No Standing Zone and a point which lies 10m east of the laneway between Seventh and Eighth
  Avenues (creating space for up to 4 short term parking spaces).
- Monitor and enforce travel speeds in the vicinity of the East Adelaide Primary School at times of
  peak student activity. If considered necessary as a result of monitoring activity, investigate the
  potential to install devices such as roundabouts at the intersections of Second and Third
  Avenues with Westminster Street.
- Consider progressive implementation of landscaped kerb extensions at the junctions of all of the Avenues with all other streets in the area, to assist in reducing the visual width of the carriageway.
- Linemark individual parking spaces along collector streets through the area, to further assist in reducing the visual width of the carriageway.
- Install bicycle parking rails at key locations through the area, including adjacent shopping premises on Stephen Terrace and Payneham Road and at local reserves.
- Upgrade all existing linemarking and signage through the study area in accordance with the Road Traffic regulations 1999 – Australian Road Rules and the Australian Standard AS1742 – Manual of Traffic Control Devices as modified by the "Code of Legal and Technical Requirements for the Installation of Traffic Control Devices in South Australia (Transport SA)"
   and "Draft Pavement Markings Manual (Transport SA)".

It is envisaged that the above recommendations and documented concepts will provide a sound, strategic basis upon which to implement a Local Area Traffic Management Plan for St Peters study area.



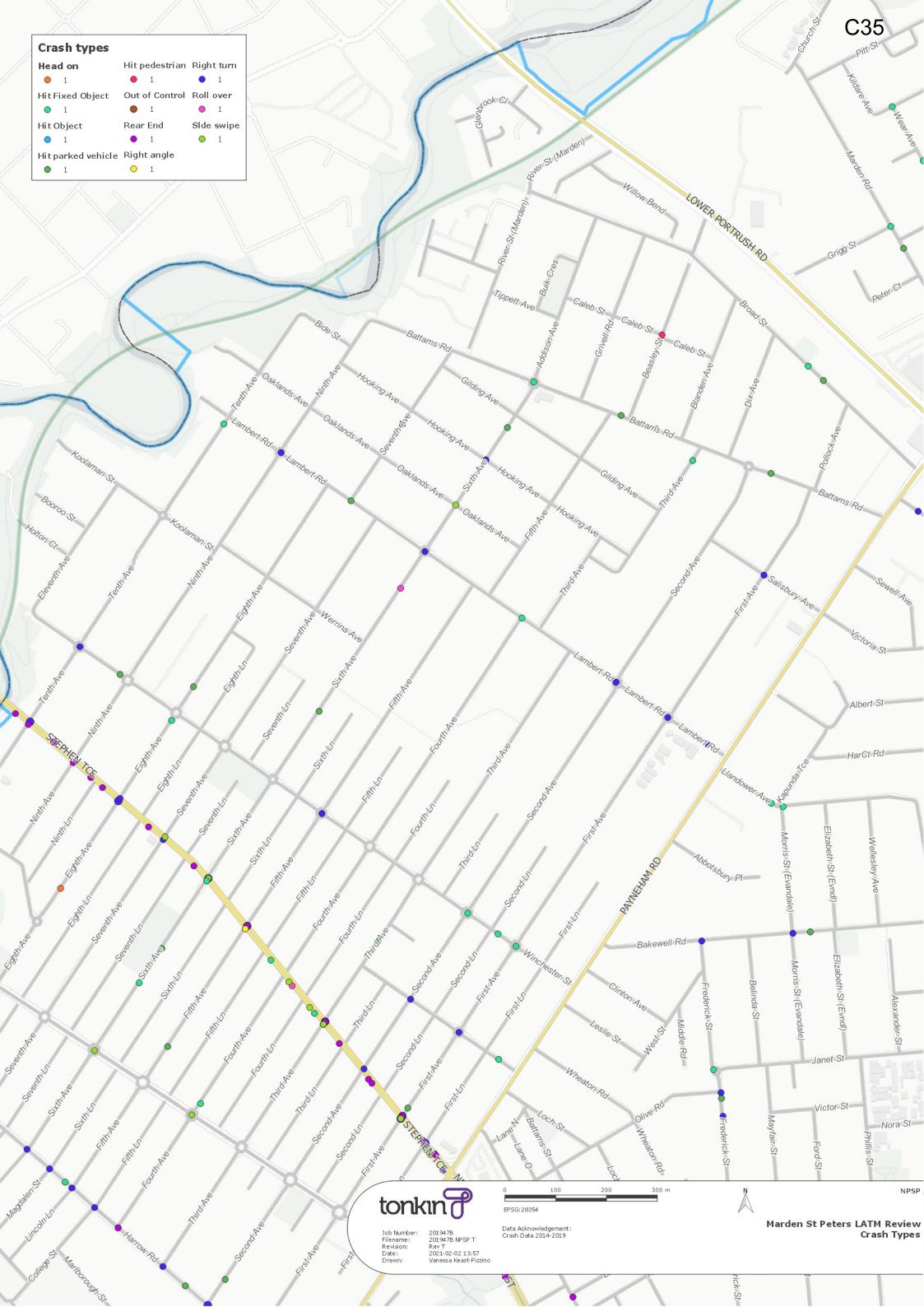
# **Appendix B - Traffic Data**

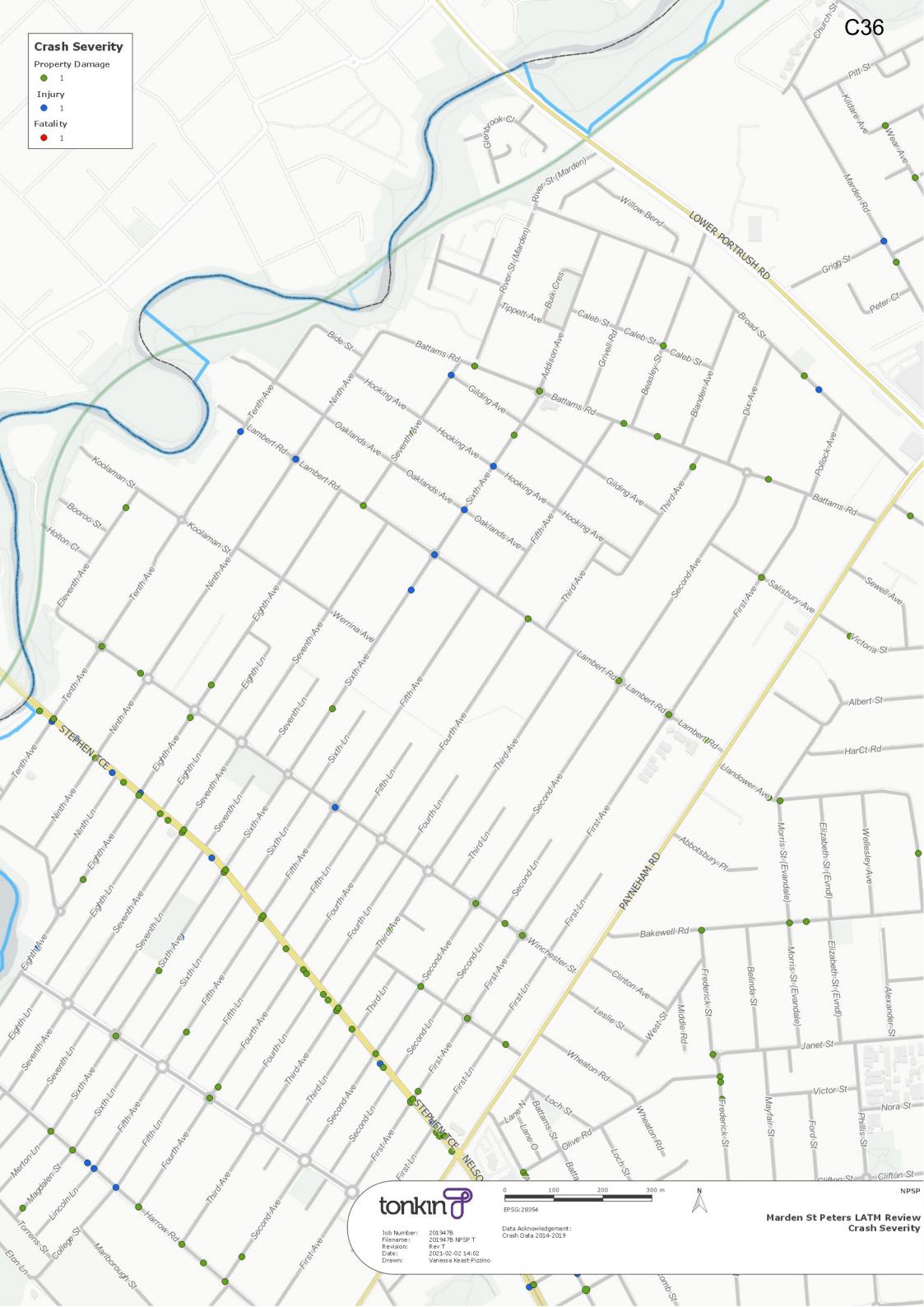


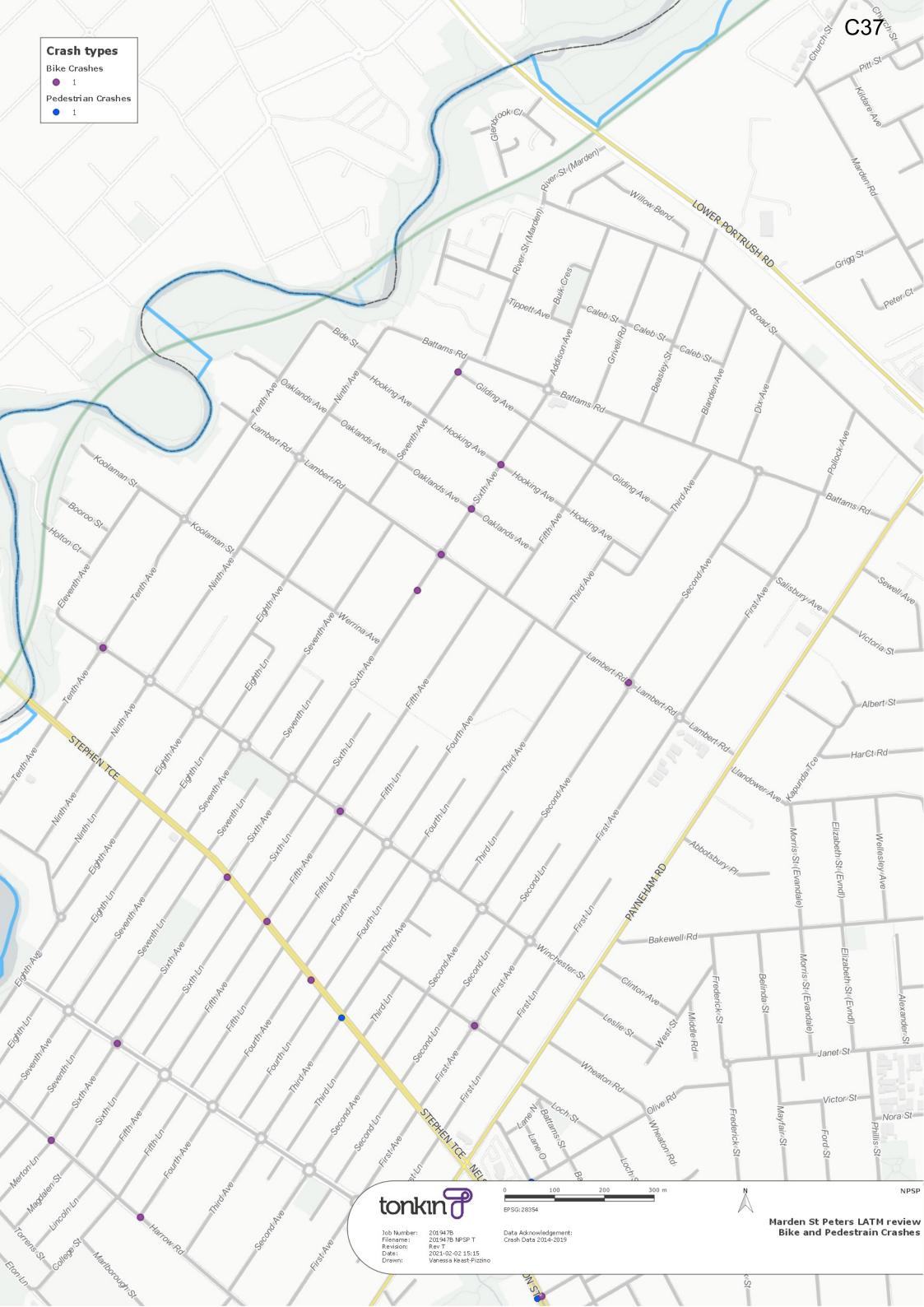
# **Appendix C – Traffic Control Devices**



# **Appendix D - Collision Data**







# **Appendix E – Origin Destination Survey Data**

#### 2017 OD Survey - AM PEAK

#### SA - St Peters OD - Matrix

AUSTRAFFIC

Date

Start Time 7:00 End Time 9:00

#### Origin - Destination Matches - Classification 1 - All Vehicles

Survey Til	me 9:00	Destination	Battams	Lambert	Second	Sixth	Total	% Matched	Local
Origin		Recorded	193	154	170	325	842	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Destination
River St		434	8	17	9	143	177	40.8%	257
Beasley S	St	299	9	17	15	16	57	19.1%	242
Total		733	17	34	24	159	234	31.9%	499
%	Matched	•	8.8%	22.1%	14.1%	48.9%	27.8%		•
Loc	cal Origin		176	120	146	166	608		

#### 2017 OD Survey - PM PEAK

# SA - St Peters OD - Matrix

**AUSTRAFFIC** 

Date

Start Time 16:00 End Time 18:00

#### Origin - Destination Matches - Classification 1 - All Vehicles

Survey Time 16:00 18:00	Destination	River St	Beasley St	Total	% Matched	Local Destination	
Origin	Recorded	586	334	920		200	
Battams Rd	314	60	80	140	44.6%	174	
Lambert Rd	227	17	12	29	12.8%	198	
Second Ave	156	22	21	43	27.6%	113	
Sixth Ave	347	125	15	140	40.3%	207	
Total	1044	224	128	352	33.7%	692	
% Matched		38.2%	38.3%	38.3%			
Local Origin		362	206	568			

#### 2021 OD Survey - AM PEAK

#### SA - NPSP OD - Matrix

**AUSTRAFFIC** 

Date 24/03/2021

Start Time 7:00 End Time 9:00

#### Origin - Destination Matches - Classification 1 - Light Vehicles

				·				
Survey Time 7:00 9:00	Destination	First Avenue	Battams Road	Beasley Street	River Street	Total	% Matched	Local
Origin	Recorded	227	208	153	304	892		Destination
First Avenue	60		15	6	7	28	46.7%	32
Battams Road	250	17		1	10	28	11.2%	222
Beasley Street	311	37	22		7	66	21.2%	245
River Street	461	30	9	15		54	11.7%	407
Total	1082	84	46	22	24	176	16.3%	906
% Matched		37.0%	22.1%	14.4%	7.9%	19.7%		
Local Origin		143	162	131	280	716		

#### Origin - Destination Matches - Classification 2 - Heavy Vehicles

Survey Time 7:00 9:00	Destination	First Avenue	Battams Road	Beasley Street	River Street	Total	% Matched	Local Destination
Origin	Recorded	3	2	6	3	14		
First Avenue	2		0	0	0	0	0.0%	2
Battams Road	1	0		0	0	0	0.0%	1
Beasley Street	6	0	0		0	0	0.0%	6
River Street	4	0	0	0		0	0.0%	4
Total	13	0	0	0	0	0	0.0%	13
% Matched		0.0%	0.0%	0.0%	0.0%	0.0%		
Local Origin	1	3	2	6	3	14		

#### Origin - Destination Matches - Total Vehicles

Survey Time	Destination	First Avenue	Rattame Pood	Beasley Street	River Street	Total		
7:00 9:00	Destination	Tilst Avenue	Dallams Noau	beasiey Street	Kivei Stieet	Total	% Matched	Local Destination
Origin	Recorded	230	210	159	307	906		
First Avenue	62		15	6	7	28	45.2%	34
Battams Road	251	17		1	10	28	11.2%	223
Beasley Street	317	37	22		7	66	20.8%	251
River Street	465	30	9	15		54	11.6%	411
Total	1095	84	46	22	24	176	16.1%	919
% Matched	d .	36.5%	21.9%	13.8%	7.8%	19.4%		
Local Origin	า	146	164	137	283	730		

#### 2021 OD Survey - PM PEAK

#### SA - NPSP OD - Matrix

AUSTRAFFIC

Date 24/03/2021

Start Time 16:00 End Time 18:00

#### Origin - Destination Matches - Classification 1 - Light Vehicles

Survey Time 16:00 18:00	Destination	First Avenue	Battams Road	Beasley Street	River Street	Total	% Matched	Local Destination
Origin	Recorded	77	316	278	450	1121		Bootination
First Avenue	212		22	14	9	45	21.2%	167
Battams Road	359	11		49	19	79	22.0%	280
Beasley Street	194	6	6		20	32	16.5%	162
River Street	225	6	5	22		33	14.7%	192
Total	990	23	33	85	48	189	19.1%	801
% Matched		29.9%	10.4%	30.6%	10.7%	16.9%		
Local Origin		54	283	193	402	932		

#### Origin - Destination Matches - Classification 2 - Heavy Vehicles

Survey Time 16:00 18:00	Destination	First Avenue	Battams Road	Beasley Street	River Street	Total	% Matched	Local Destination
Origin	Recorded	2	0	6	2	10		
First Avenue	0		0	0	0	0	0.0%	0
Battams Road	1	0		0	0	0	0.0%	1
Beasley Street	7	0	0		0	0	0.0%	7
River Street	0	0	0	0		0	0.0%	0
Total	8	0	0	0	0	0	0.0%	8
% Matc	ned	0.0%	0.0%	0.0%	0.0%	0.0%		
Local Or	gin	2	0	6	2	10		

#### Origin - Destination Matches - Total Vehicles

Origin - Destination Matches - Total Vehicles									
Survey Time 16:00 18:00	Destination	First Avenue	Battams Road	Beasley Street	River Street	Total	% Matched	Local Destination	
Origin	Recorded	79	316	284	452	1131			
First Avenue	212		22	14	9	45	21.2%	167	
Battams Road	360	11		49	19	79	21.9%	281	
Beasley Street	201	6	6		20	32	15.9%	169	
River Street	225	6	5	22		33	14.7%	192	
Total	998	23	33	85	48	189	18.9%	809	
% Matched		29.1%	10.4%	29.9%	10.6%	16.7%			
Local Origin		56	283	199	404	942			

# **Attachment D**

Traffic Management in Marden, Royston Park, Joslin & St Peters

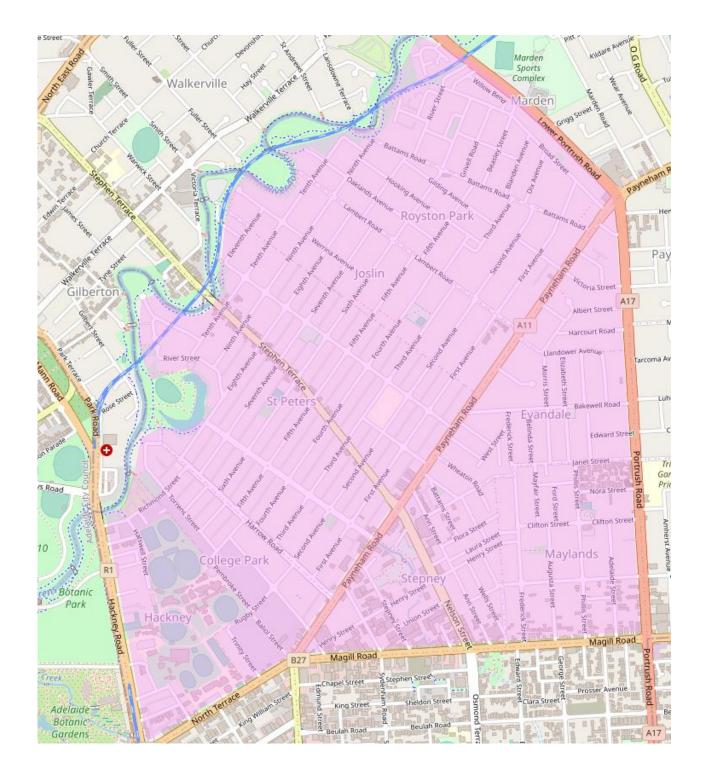
City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067

Telephone 8366 4555 Facsimile 8332 6338

Email townhall@npsp.sa.gov.au Website www.npsp.sa.gov.au



City of Norwood Payneham & St Peters



# **Attachment E**

Traffic Management in Marden, Royston Park, Joslin & St Peters

City of Norwood Payneham & St Peters 175 The Parade, Norwood SA 5067

Telephone 8366 4555 Facsimile 8332 6338

Email townhall@npsp.sa.gov.au Website www.npsp.sa.gov.au



City of Norwood Payneham & St Peters

# **Attachment F**

Traffic Management in Marden, Royston Park, Joslin & St Peters

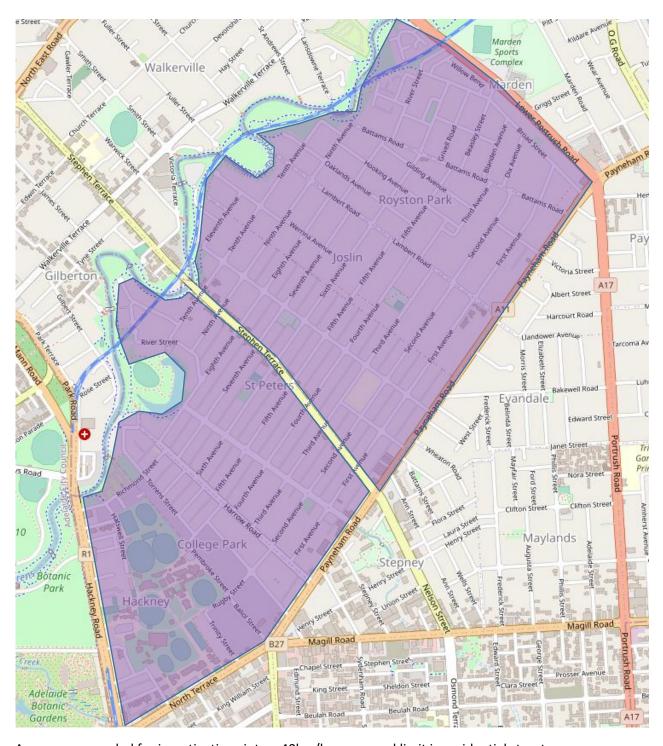
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City of Norwood Payneham & St Peters



Area recommended for investigations into a 40km/h area speed limit in residential streets

#### 4. OTHER BUSINESS

(Of an urgent nature only)

#### 5. **NEXT MEETING**

Tuesday 10 August 2021

#### 6. CLOSURE