

**5. WEST HOBART LOCAL AREA TRAFFIC INVESTIGATION –
FILE REF: 36-15-9**

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Report of the Acting Director City Infrastructure and the Manager Traffic Engineering of 11 January 2016 and attachment.

DELEGATION: Council

This item was deferred at the City Infrastructure Committee meeting held on 27 January 2016, to enable residents to further consider the information provided in the report and for an Aldermanic briefing on the matter to be conducted.

TO : City Infrastructure Committee

FROM : Manager Traffic Engineering
& Acting Director City Infrastructure

DATE : 11 January, 2016

SUBJECT : **WEST HOBART LOCAL AREA TRAFFIC INVESTIGATION**

FILE : 36-15-9 AJM:AJM (o:\council & committee meetings reports\cic reports\2016 meetings\27 january 2016\completed pdfs\west hobart_latm investigation.docx)

1. INTRODUCTION

- 1.1. The purpose of this report is to present the consultant report that investigates the options for safer pedestrian crossings in Hill Street, West Hobart. The report has been provided in response to a resolution of Council from its meeting of 7 September 2015.
- 1.2. This report recommends that a number of the consultant's recommendations be implemented.

2. BACKGROUND

- 2.1. At its meeting of 7 September 2015 the Council considered a report regarding traffic issues at the Hill Street / Arthur Street intersection and resolved that:
 1. *A review of the traffic issues identified in the report attached to Supplementary item 13 of the City Infrastructure Committee agenda of 26 August 2015, in relation to the new 'Hill Street Grocer' store in Hill Street, West Hobart, be conducted in six months time.*
 2. *A report be prepared on options for safer pedestrian crossings in Hill Street, West Hobart.*
 3. *The Council investigate a 40 km per hour speed limit for all residential areas within the Hobart municipal area.*
 4. *The following notes of discussion arising from the West Hobart Residents' Traffic Committee, meeting conducted on 19 August 2015 be received and noted:-*
 - (i) *Recognising that pedestrian safety is the priority, the West Hobart Local Area Traffic Committee (LATC) ask Council, as a matter of urgency, to develop a safe traffic plan for West Hobart based on the "West Hobart safe traffic zone" map produced by the West Hobart Environment Network, as tabled at the LATC meeting, including:*
 - (a) *A suite of traffic calming measures that include defined and safe pedestrian crossings (such as wombat and zebra designs); and*

- (b) *A reduction in speeds to 40 km per hour for Lansdowne Crescent, Hill Street and Arthur Street.*
- (ii) *The LATC also requests that such a plan be developed in consultation with relevant community groups, including on-site consultation with residents at Lawrenny Court. The LATC also recognises that the development and implementation of such a plan within a reasonable timeframe, will require additional Council resourcing.*
- 2.2. This report addresses item 2 (and to some extent, item 3) of the resolution. Research is underway for the report which will respond to Item 1 of the resolution.
- 2.3. Transport and planning consultants, MRCagney were engaged in October 2015 to meet with stakeholders to identify issues in Hill Street and to assess the options for improving pedestrian crossings in Hill Street. A copy of their report is included as **Attachment A**.

3. REPORT RECOMENDATIONS AND DISCUSSION

- 3.1. The report notes in its summary that “the key outcome of the investigation is that the West Hobart community along with the City of Hobart should do everything possible to make West Hobart a walking place and that infrastructure is not the key to this outcome. Taking advantage of the active and close knit community and running campaigns to get people walking as well as land use changes to provide more origins and destinations are the long term solutions to a safe active West Hobart”.
- 3.2. The report makes the following recommendations and officer comment is provided on each recommendation:

Local Pedestrian Campaign

- 3.2.1. Encourage a grass-roots walking campaign to increase the number of pedestrians in and around West Hobart.
- 3.2.2. Officers support this recommendation.

Land Use Changes

- 3.2.3. Explore opportunities for more mixed use development and a more diverse range of housing. Also look to removing the minimum parking requirement for developments to address the oversupply of parking across the city.
- 3.2.4. Officers support this recommendation, however this is not able to be achieved in the short term.

- 3.2.5. It should be noted that the recently adopted *Hobart Interim Planning Scheme 2015* is an improvement on the previous *City of Hobart Planning Scheme 1982* in regards to allowing mixed use development in residential areas (such as West Hobart). The *Parking and Access Code* in the Interim Planning Scheme also has no requirement for on-site parking provision for cafe and small retail development within the residential zone, recognising that these types of developments are complementary to residential development and supporting non-vehicle trips to these local shops.

Pedestrian Refuges

- 3.2.6. Although the current minimalist refuges improve safety they do not invite or encourage people to walk. Council needs to make a more concerted effort city-wide to improve the quality of these facilities.
- 3.2.7. It is also recommended that Council should adopt guidelines for the use of zebra crossings. Crossings on Hill Street are unlikely to meet the warrants (referenced from other Australian jurisdictions and in the absence of any existing Tasmanian warrants) required to justify the inclusion of zebra crossings.
- 3.2.8. Officers support this recommendation.

Speed Limits

- 3.2.9. The current 50 km/h speed limit on Hill Street and the 40 km/h school zone on Lansdowne Crescent (near the Primary School) are appropriate for the current environment. The small speed zone at Caldew Park is unlikely to provide any safety benefits and should not proceed.
- 3.2.10. It is noted that the Caldew Park 40 km/h speed zone was installed in November 2015, following the consultant's inspection of the site.
- 3.2.11. This was the subject of a report considered by the City Infrastructure Committee in April 2015.

Traffic Signals

- 3.2.12. Install traffic signals at Hill Street / Arthur Street and Hill Street / Patrick Street / Lansdowne Crescent to introduce gaps in the traffic flows along Hill Street and improve pedestrian crossing opportunities.
- 3.2.13. The report notes that signalisation will incur some increased delay to vehicular traffic, are costly to install and maintain and that there

may be higher priority pedestrian treatments that would produce more immediate benefits elsewhere in the City of Hobart.

3.2.14. Other recommendations should be installed prior to considering the introduction of traffic signals in West Hobart.

3.2.15. The matter of the installation of traffic signals at the intersection of Arthur Street and Hill Street was considered by the (then) Infrastructure Services Committee in September 2013.

3.2.16. Subsequently, the advice received from DIER (dated 25 February 2014) was essentially that there was no technical justification for the installation of traffic signals at the intersection.

3.2.17. Officers have sought preliminary advice from the Department of State Growth in relation to the installation of traffic signals, following receipt of the MRCagney report.

3.2.18. The Department of State Growth are considering adopting the VicRoads specifications which include warrants for the installation of new traffic signals. The VicRoads specifications include further requirements in addition to those in the Austroads Guide to Traffic Management.

Workshop

3.2.19. The City of Hobart should capitalise on genuine community interest and conduct a workshop with the stakeholders on the future of the wider West Hobart pedestrian environment.

3.2.20. Officers are supportive of this recommendation if the workshop is focused on being the launching point for the local pedestrian campaign suggested in Section 3.2.1 of this report.

4. PROPOSAL

4.1. In response to the recommendations in the consultant report, the following actions are proposed:

Workshop & Pedestrian Campaign

4.1.1. Convene a workshop (with an independent facilitator) to engage with the West Hobart community in relation the pedestrian environment in the area and to encourage the establishment of a grass-roots pedestrian campaign to increase walking within the suburb.

- 4.1.2. A facilitator would be engaged with the intention that a workshop would be convened during the first half of 2016. This would be subject to finding a mutually convenient time for the stakeholders to meet.

Pedestrian Crossing Warrants

- 4.1.3. The establishment of warrants for the installation of zebra crossings is handled at a State Government level elsewhere in Australia, rather than by individual local government authorities. It should also be noted that in Victoria a pedestrian crossing is a major traffic control item and its installation or removal is not delegated to Councils.
- 4.1.4. It is proposed that the City of Hobart write to the Transport Commissioner (with copies to LGAT and IPWEA (Tas)) to request that Tasmanian warrants for the installation of zebra crossings be developed.

Pedestrian Refuges

- 4.1.5. Concept designs be developed to continue the current traffic management treatment (of median lanes and median islands) along Hill Street between Patrick Street and Allison Street and between Hamilton Street and Warwick Street.
- 4.1.6. The design would include more generous “landscaped” pedestrian median islands where appropriate. The concept design development would occur during 2016. This project would be nominated for funding in 2017/2018 through the Australian Government’s Black Spot Program.
 - 4.1.6.1. If not successful in obtaining funding through the Black Spot Program, alternative funding would be sourced.
- 4.1.7. Consideration should be given to developing a program for retrofitting existing pedestrian median islands across the City in order to provide more generous pedestrian crossing facilities.
- 4.1.8. Initially a program would be developed for crossings on Hill Street. This would require the development of concept designs and consultation with those residents directly affected by the likely loss of on-street parking in Hill Street. The concept design development and consultation would commence during 2016.

Traffic Signals

- 4.1.9. It is not proposed to undertake any further investigation of traffic signals at this time. The consultant's recommendation is to implement other measures before assessing the need for signalising Hill Street / Arthur Street and Hill Street / Patrick Street / Lansdowne Crescent.
- 4.1.10. Should the Department of State Growth adopt warrants for the installation of traffic signals then these two locations could be assessed against those warrants to determine whether an application for signalisation might be successful.
- 4.2. Additionally, a number of these proposals could be incorporated within the Transport Strategy currently under development. Equally, a number of aspects of this proposal could be progressed in parallel and later incorporated into the Transport Strategy suite of plans (such as a program to improve pedestrian crossings could be incorporated into a Walking Plan).

5. IMPLEMENTATION

Workshop & Pedestrian Campaign

- 5.1. An independent facilitator would be engaged with the intention that a workshop could be convened during the first half of 2016. This would be subject to finding a mutually convenient time for the stakeholders to meet.
- 5.2. Engaging a facilitator to conduct a workshop with the West Hobart community would cost approximately \$7,500.

Pedestrian Crossing Warrants

- 5.3. It is proposed that the General Manager write to the Transport Commissioner (with copies to LGAT and IPWEA (Tas)) to request that Tasmanian warrants for the installation of zebra crossings be developed.

Pedestrian Refuges

- 5.4. Concept design development and consultation would commence during 2016 in relation to improving pedestrian crossings along Hill Street including:
 - 5.4.1. Continuing the median lanes and median islands along Hill Street between Patrick Street and Allison Street and between Hamilton Street and Warwick Street.
 - 5.4.2. Retrofitting existing median islands on Hill Street in order to provide more generous pedestrian crossing facilities.

- 5.5. Continuing the median lane and traffic islands along Hill Street is likely to cost in the order of \$150,000 for approximately 500 m of median treatment (including four or five median islands).
- 5.6. Alterations and upgrades to existing pedestrian crossing locations would be in the order of \$25,000 per site for up to four sites. The exact number of sites would depend on more detailed investigations and community engagement.

6. STRATEGIC PLANNING IMPLICATIONS

- 6.1. The review of Local Area Traffic Management in Hill Street, West Hobart supports the Council's Capital City Strategic Plan 2015-2025 through Goal 2 – Urban Management.
- 6.2. In particular, reference is made to its support of the Strategic Objectives:
 - 2.1 *A fully accessible and connected city environment.*
 - 2.1.2 *Enhance transport connections within Hobart.*
 - 2.1.3 *Identify and implement infrastructure improvements to enhance road safety.*

7. FINANCIAL IMPLICATIONS

- 7.1. Funding Source(s)
 - 7.1.1. The traffic management improvements suggested in the review would involve a mixture of asset renewal, upgrade and new asset funding.
 - 7.1.2. Continuing the median lane and median island treatments along Hill Street would be nominated for funding through the Australian Government Black Spot program in 2017/2018.
- 7.2. Impact on Current Year Operating Result
 - 7.2.1. Minimal impact as concept design development and consultation would be absorbed within existing operating budgets (recognising that there are a significant number of funded projects competing for these same resources).
 - 7.2.2. Engaging a facilitator and running a stakeholder workshop could also be absorbed into existing operating budgets.
- 7.3. Impact on Future Years' Financial Result
 - 7.3.1. Any projects to be implemented would be included for Council consideration when setting future budgets.

7.3.2. Continuing the median lane and traffic islands along Hill Street is likely to cost in the order of \$1f0,000 for approximately 500 m of median treatment (including four or five median islands) in the 2017/2018 year.

7.3.3. Alterations and upgrades to existing pedestrian crossing locations would be in the order of \$25,000 per site. At up to fou sites in the 2017/2018 year.

7.4. Asset Related Implications

7.4.1. Depreciation will increase by about 2% of the value of the works, so up to \$5,000 per annum depending on the final extent of works.

7.4.2. It is likely that there would be write-off costs associated with improving pedestrian crossings due to the need to replace existing refuge islands and to install kerb outstands.

7.4.3. Any plantings that might be incorporated into a more generous pedestrian crossing would increase maintenance and operational costs due to the need for regular attention, especially when plants are being established.

8. RISK MANAGEMENT IMPLICATIONS

8.1. The risks in regard to individual projects identified in the local area traffic management review will be addressed through the design process.

9. CUSTOMER IMPLICATIONS

9.1. The facilitation of a workshop with stakeholders is seen to be a proactive way of engaging with the West Hobart community in relation to walking within their neighbourhood.

10. DELEGATION

10.1. This is a matter for Council to determine.

11. CONSULTATION

11.1. The consultant from MRCagney met with a group of stakeholders in late October 2015. This group included local residents, staff and parents from Lansdowne Crescent Primary School, local business owners, and representatives from Lawrenny Court.

11.2. Written correspondence in relation to the pedestrian safety concerns has also been received from a number of businesses on Hill Street, Taroona High School and The Friends' School.

- 11.3. The Manager Traffic Engineering and Manager Planning Policy and Heritage have been consulted in the preparation of this report.

12. COMMUNICATION WITH GOVERNMENT

- 12.1. Officer-level discussions have been had with the Department of State Growth in relation to the new traffic signals proposed for Hill Street as they are responsible for the approval of traffic signals within Tasmania.

13. CONCLUSION

- 13.1. At its meeting of 7 September 2015 the Council considered a report regarding traffic issues at the Hill Street / Arthur Street intersection and resolved that a report be prepared on options for safer pedestrian crossing in Hill Street, West Hobart.
- 13.2. Transport and planning consultants, MRCagney were engaged in October 2015 to meet with stakeholders to identify issues in Hill Street and to assess the options for improving pedestrian crossings in Hill Street. A copy of their report is included as Attachment A to this report.
- 13.3. The report notes in its summary that “the key outcome of the investigation is that the West Hobart community along with the City of Hobart should do everything possible to make West Hobart a walking place and that infrastructure is not the key to this outcome. Taking advantage of the active and close knit community and running campaigns to get people walking as well as land use changes to provide more origins and destinations are the long term solutions to a safe active West Hobart”.
- 13.4. The report makes recommendations in relation to:
- 13.4.1. Encouraging a grass-roots walking campaign to increase the number of pedestrians in and around West Hobart. Officers support this recommendation.
- 13.4.2. Exploring opportunities for more mixed use development and a more diverse range of housing and look to removing the minimum parking rate for developments to address the oversupply of parking across the city. Officers support this recommendation, however this is not able to be achieved in the short term.
- 13.4.3. Council making a more concerted effort city-wide to improve the quality of median refuge pedestrian crossing facilities and the adoption of guidelines for the use of zebra crossings. Officers support this recommendation.
- 13.4.4. The current 50 km/h speed limit on Hill Street and the 40 km/h school zone on Lansdowne Crescent (near the Primary School) are appropriate for the current environment. The small speed zone at

Caldew Park is unlikely to provide any safety benefits and should not proceed.

13.4.5. The speed limit around Caldew Park was implemented in November 2015 and was the subject of a report considered by the City Infrastructure Committee in April 2015.

13.4.6. Possible consideration of installing traffic signals at Hill Street / Arthur Street and Hill Street / Patrick Street / Lansdowne Crescent to introduce gaps in the traffic flows along Hill Street and improve pedestrian crossing opportunities.

13.4.7. The report notes that signalisation will incur some increased delay to vehicular traffic, are costly to install and maintain and that there may be higher priority pedestrian treatments that would produce more immediate benefits elsewhere in the City of Hobart. Other recommendations should be implemented prior to considering the introduction of traffic signals in West Hobart.

13.4.8. The City of Hobart should capitalise on genuine community interest and conduct a workshop with the stakeholders on the future of the wider West Hobart pedestrian environment. Officers are supportive of this recommendation in conjunction with the establishment of a local pedestrian campaign.

13.5. Implementation of the recommendations would involve:

13.5.1. Engaging an independent facilitator to convene a workshop with the West Hobart community during the first half of 2016. This would cost approximately \$7,500.

13.5.2. The General Manager writing to the Transport Commissioner (with copies to LGAT and IPWEA (Tas)) to request that Tasmanian warrants for the installation of zebra crossings be developed.

13.5.3. Concept design development and consultation would commence during 2016 in relation to improving pedestrian crossings along Hill Street including:

- continuing the median lanes and median islands along Hill Street between Patrick Street and Allison Street and between Hamilton Street and Warwick Street.
- retrofitting existing median islands on Hill Street in order to provide more generous pedestrian crossing facilities.

13.5.4. Continuing the median lane and traffic islands along Hill Street is likely to cost in the order of \$100,000 for approximately 500 m of median treatment (including four or five median islands). Alterations and upgrades to existing pedestrian crossing locations would be in the order of \$25,000 per site.

14. RECOMMENDATION

That:

*14.1. The report **AJM:ajm(o:\council & committee meetings reports\cic reports\2016 meetings\27 january 2016\completed pdfs\west hobart_latm investigation.docx)** be received and noted.*

14.2. That the recommendations of the consultant report (West Hobart Local Area Traffic Investigation – Final Report, by MRCagney dated 22 December 2016) be supported in-principle and the following actions be undertaken:

14.2.1. A workshop be convened with stakeholders in relation to the West Hobart pedestrian environment.

14.2.2. The Department of State Growth be requested to establish State-wide warrants for the installation of pedestrian crossings within Tasmania.

14.2.3. Median lanes and median islands in Hill Street between Allison Street and Patrick Street and between Hamilton Street and Warwick Street be installed in 2017/2018 following development of concept designs and community engagement .

14.2.4. Concept design development and consultation with directly affected residents be undertaken in 2017/2018 to provide more generous pedestrian crossings in Hill Street where refuge islands are already provided.

14.3. The West Hobart Resident Traffic Committee, the Lansdowne Crescent Primary School, The Friends School, Taroona High School, Lawrenny Court, the businesses along Hill Street and the people who participated in the consultation conducted by MRCagney be advised of the Council's decision.

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.



(Angela Moore)

MANAGER TRAFFIC ENGINEERING



(Scott Morgan)

ACTING DIRECTOR CITY INFRASTRUCTURE

Attachment(s) A West Hobart Local Area Traffic Investigation, Final Report, MRCagney, 22 December 2015.



West Hobart Local Area Traffic Investigation

Final Report

City of Hobart

Prepared by
MRCagney Pty Ltd

22 December 2015

Document Information

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Contents

1	Introduction.....	1
1.1	Background	1
2	Stakeholder Meeting	2
2.1	Stakeholder Issues	2
3	Analysis	5
3.1	School Children	5
3.2	Intruding Traffic.....	6
3.3	Pedestrian Facilities.....	6
3.4	Traffic Signals	11
4	Recommendations.....	21
4.1	Local Pedestrian Campaign.....	21
4.2	Land Use Changes	21
4.3	Pedestrian Refuges	21
4.4	Speed Limits.....	21
4.5	Traffic Signals	21
4.6	Workshop	22
5	Summary	23
6	References.....	24

APPENDIX A Zebra Crossing Guidelines

List of Figures

Figure 2.1: Pedestrian refuge point at Arthur Street, near the corner of Hill Street.....	3
Figure 2.2: Pedestrian refuge point on Hill Street West Hobart.....	4
Figure 3.1: Crossing in Murray Street.....	9
Figure 3.2: Crossing in Augusta Road	9
Figure 3.3: Pedestrian crossing build out	10
Figure 3.4: Pedestrian crossing build out with median refuge	10
Figure 3.5: Zebra crossing in Horsham, Victoria (population 19,691).....	11
Figure 3.6: Map of proposed sites for signalisation in West Hobart (Corner Arthur Street and Hill Street; and corner Hill Street, Lansdowne Crescent and Patrick Street).....	12
Figure 3.7: Arthur Street and Hill Street AM Peak Hour Traffic Volumes.....	13
Figure 3.8: Arthur Street and Hill Street PM Peak Hour Traffic Volumes.....	13
Figure 3.9: Lansdowne Crescent, Hill Street and Patrick Street AM Peak Hour Traffic Volumes.....	14
Figure 3.10: Lansdowne Crescent, Hill Street and Patrick Street PM Peak Hour Traffic Volumes	14
Figure 3.11: Arthur Street and Hill Street Intersection Layout.....	15
Figure 3.12: Lansdowne Crescent, Hill Street and Patrick Street Intersection Layout	15
Figure 3.13: Arthur Street and Hill Street Signalised Intersection Layout.....	17
Figure 3.14: Lansdowne Crescent, Hill Street and Patrick Street Signalised Intersection Layout	17
Figure 3.15: Arthur Street and Hill Street Signal Phasing.....	18
Figure 3.16: Lansdowne Crescent, Hill Street and Patrick Street Signal Phasing	18
Figure 3.17: Signalised Hill Street, Lansdowne Crescent, Patrick Street intersection with dummy right turn pockets.....	19

List of Tables

Table 3.1: Intersection Performance Criteria.....	16
Table 3.2: Current Intersection Performance	16
Table 3.3: Signalised Intersection Performance - Vehicles.....	19
Table 3.4: Signalised Intersection Performance - Pedestrians.....	20

1 Introduction

1.1 Background

MRCagney has been commissioned to investigate and make recommendations surrounding some on-going issues regarding perceived safety concerns for pedestrians in West Hobart, particularly near Hill Street, with the main issues being in relation to the safety of young and elderly pedestrians.

West Hobart is a well-connected and very walkable inner-suburb of Hobart, although it is quite low in density given this inner-suburb position and it does not appear to generate significant pedestrian traffic.

Hill Street is the central traffic connector for West Hobart. It connects West Hobart, and to some extent suburbs such as Mount Stuart, Lenah Valley and New Town, to the CBD. There is some mixed-use along Hill Street and surrounds and the area has other pedestrian generators including some health/medical uses to the north, Caldew Park, Guilford Young College, Lansdowne Crescent Primary School and the West Hobart Recreation Ground.

Traffic in the area is manageable and generally seems quite respectful. There is a perception however that traffic coming from suburbs further to the north is intruding or 'rat-running' traffic.

2 Stakeholder Meeting

MRCagney staff met with the stakeholder group on site which included local residents, staff and parents from Lansdowne Crescent School, local business owners, and representatives from the Lawrenny Court/Hamilton Place independent retirement living centre.

The stakeholders took MRCagney staff on a tour along Lansdowne Crescent, Warwick Street and Hill Street, and explained the issues that were of concern to them, which are summarised below. Aside from the previous correspondence provided between Council and various stakeholders, we also received direct written correspondence from Friends School.

2.1 Stakeholder Issues

2.1.1 School Children

There is understandable concern about school children in the area. There is a perception that school children cannot walk to school by themselves due to the hostile traffic environment, and as a result parents are forced to drive them. Their concerns mainly relate to crossing Hill Street but there are also concerns about crossing Arthur Street, Warwick Street and Lansdowne Crescent.

There was some concern about school children being dropped off and picked up, and the arrangements for car traffic at these times, however these were quite correctly seen as a lesser priority than pedestrian access.

2.1.2 Intruding Traffic

Concerns were raised about the non-local traffic using Hill Street to get to and from the CBD to the northern suburbs of Mount Stuart, Lenah Valley, Glenorchy and beyond. The perception is that this traffic should not be using Hill Street but instead finding its way to Murray Street, Elizabeth Street or even the Brooker Highway. There was also a perception that this intruding traffic is speeding and/or disrespecting the adjacent mixed land uses.

Another key concern about this intruding traffic was that it caused unnecessary congestion at two key locations. First at the intersections of Arthur Street with Mellifont Street and Hill Street and at the other end of West Hobart at the intersection of Bathurst and Barrack Street.

2.1.3 Pedestrian Facilities

The stakeholders have expressed a definitive concern that the pedestrian facilities on Hill Street in particular are inadequate. They do not think the pedestrian refuge treatments are satisfactory and believe that zebra treatments are preferable and that raised zebra's or 'wombat' crossings are more preferable. The stakeholders quoted examples of other sites around Australia, particularly inner-suburbs of Sydney and Melbourne where these type of treatments are commonplace and successful.

There are also perceived crossing issues at the south end of Lansdowne Crescent at the intersection with Hill Street and at the intersection of Warwick Street and Hill Street. These issues vary and some are driver behaviour issues. A common concern was that some drivers stop for pedestrians who are crossing slightly back from the intersection at the splitter island break but some drivers don't.

Figure 2.1: Pedestrian refuge point at Arthur Street, near the corner of Hill Street



Figure 2.2: Pedestrian refuge point on Hill Street West Hobart



3 Analysis

3.1 School Children

School children attract significant attention when it comes to safe travel on foot or on bikes. It is arguable, however, that this legitimate concern is somewhat misplaced and disproportionate when contrasted with the risks associated with competing transport modes.

In Australia, a child's risk of mortality is twice as high when being driven to school compared to walking or riding to school (1). Being driven to school is dangerous. Walking and riding bikes are healthier and safer alternatives, and should be supported and encouraged.

Notwithstanding the existing safety benefits referenced above, we should of course continue to improve and maximise safety for children walking and riding bikes. One common sense thing everyone can do is accompany children under 10 to school. This familiarises children with their own neighbourhood environment and increases confidence in both the child and the parent for when the child begins walking or bike riding to school independent from parental supervision. The other impact of this is that it makes the walking and bike riding community highly visible to motorists, which is generally more likely to generate positive driver behaviour modifications than additional advisory signs.

School zoning means students from Lansdowne Crescent School predominantly reside in a catchment usually no more than 2.5 km in distance from their school. Given the proximity to many of the schools within West Hobart, there is a great opportunity to see more primary school aged children use active travel as a way to get to and from school. Parents are naturally concerned about children's safety, but the fact remains that the most dangerous way to get to school is to be driven by a parent.

Distance can be an impediment to the aspirations of parents allowing their children to walk or ride to school. The distances from home to school have increased in Australia due to urban sprawl and outwards expansion of major cities. A recent report by Active Healthy Kids Australia (2) reveals that as the distance to school increases, the likelihood that kids will walk or cycle to school decreases at a very rapid rate. West Hobart doesn't fall into this category, and there should be more people walking. Street design treatments that are hostile or inconsiderate of the needs of active transport modes are often a contributing factor, however a range of initiatives and actions can produce immediate positive change. A walking bus is an effective way to share the load between parents of walking children to school. Initiatives such as Part Way is Ok (PWOK) and Ride2School are also encouraged. These two programs are committed to seeing more children use active travel to get to and from school. Lansdowne Crescent Primary School is understood to be a participant in the Tasmania Government's Move Well, Eat Well program, of which the Part Way is Ok initiative is a component. These undertakings should be supported and expanded wherever possible.

For children over 10 years old who are looking at making unaccompanied trips to school, there are things that can be done to improve pedestrian safety targeted at this particular audience. There are many points along Hill Street where median treatments have been put in that do help pedestrians by saving them from crossing two lanes at once, but they are extremely bare in their design. They are not an overt invitation or a definite statement about where the best place to cross is, and they do not send a clear message to motorists that people will be crossing Hill Street regularly.

It is considered that Lansdowne Crescent has an appropriate design to encourage pedestrians, including school children, to use it, particularly with the added security of a supervised school crossing facility outside the school and across Gourlay Street. Accessing the West Hobart recreation facilities out of school hours for children is a slightly more complicated issue, as there is no actual crossing facility. There is generally less traffic on weekends, but what traffic there is may very well be concentrated at locations like sporting fields.

3.2 Intruding Traffic

Hill Street has a relatively small volume of traffic (less than 10,000 vehicles per day). This is an entirely appropriate volume for a street with local connecting opportunities and multiple bus routes. There are many streets throughout Hobart with this volume where people cross the street safely with all variations of crossing facilities. Any traffic issues that exist in West Hobart are not volume related. What does make the volume seem higher is the intersection treatments at Hill Street and Lansdowne Crescent (both ends) and Hill Street and Warwick Street. These roundabouts improve traffic flow, but offer no defined pedestrian crossings. Roundabouts also inherently create fewer traffic flow interruptions for crossing pedestrians to utilise, and do not require vehicles to yield to pedestrians. This makes it frustratingly difficult to cross Hill Street despite the relatively low traffic volumes.

It would be difficult to make a case that traffic should be redirected from Hill Street on to other routes into the CBD, as the volume itself is not what is causing problems in Hill Street. It would be forcing traffic on to other routes for no legitimate reason. If, as a result of there being more general activity and some design changes on Hill Street, some traffic did divert on to other routes, this would equally not cause any major issues, once again due to the very low volumes involved.

There is currently proposed a scheme to reduce the local speed limit to 40km/h near Caldew Park (the Train Park). This is considered a genuine risk that will have implications beyond West Hobart. The design of streets around this location should reflect a 40km/h environment. This is probably not the case, and the speed signs will not change this. Additionally it is highly unlikely that they could or would be enforced. It is appreciated that there are some civil works (small traffic islands) associated with this speed limit, and in the full course of time, that might not be wasted work, it will not be enough to change the environment. This is the very situation that should be avoided at all costs when applying urban speed limits – that is, limits that are not supported by the street environment and that cannot or will not be practically enforced. This adds to any general disrespect people have for speed signs city wide, and will have minimal to no positive impact in Warwick and Hill Streets. It is considered that this action will compound the current frustrations of the stakeholder group and lead to more issues for Council.

3.3 Pedestrian Facilities

The MRCagney team viewed Hill Street and surrounds in morning peak, afternoon peak, out of peak and during school pick-up conditions. It would seem that while the pedestrian facilities on Hill Street are not overtly luxurious, they are probably more than appropriate given the current conditions.

The overarching problem is there are very few pedestrians in West Hobart. There are a few reasons for this. Firstly, the low density nature of West Hobart; the minimal restrictions on parking supply in the suburb (and surrounds); the lack of serious traffic congestion; and the high rate of car ownership in the area (and in the City in general). It is not considered that the perceived safety of walking has as much impact on the number of pedestrians as any of the issues above. It is estimated that only between 4 and 6% of trips in West Hobart are made as a pedestrian, certainly less than 10%. Some of the suburbs with pedestrian facilities that the stakeholders wished to emulate (inner urban Melbourne and Sydney) have a percentage of overall trips made by walking as high as 30%, while the number in the Sydney CBD is over 90% (3). We can see that this mode split needs to be higher in West Hobart. It is difficult to recommend the City spend more money on pedestrian facilities for such a tiny market, when there are probably other parts of the city where there are genuine pedestrian flows that will naturally be more likely or entitled to be funded.

Reasons for increasing pedestrian activity are easy to identify: increased local shopping, increased social and physical health, reduced public cost', etc. Increasing pedestrian activity in West Hobart is largely within the community's purview, probably more than Council. Council will be more easily justified in spending ratepayers'

money on a pedestrian environment, if there were pedestrians. It is not suffice to say there are no pedestrians because it is unsafe.

3.3.1 Generating Pedestrian Traffic

As indicated above, the reasons for low pedestrian traffic are almost universal, and West Hobart is extremely typical in this regard:

- Low density land use – there is not enough of a concentration of land uses, both origins and destinations, to generate large numbers of pedestrians. Pedestrians will want to be able to do a variety of tasks within a very short distance (<1500m) of their work or home before they will make regular pedestrian trips. Low density housing (<30 dwellings per hectare) along with only spasmodic commercial and retail uses mean there will be very few origins and destinations within walking distance. This low density will not generate the numbers of pedestrians needed to change a local street environment. Another restaurant set to open on the corner of Hill Street and Pine Street is expected to generate some activity with an increase in foot traffic. With such an addition to the street, stakeholders envisioned that this restaurant could lay the foundations for further mixed uses and greater pedestrian activity in and around Hill Street thus reinforcing their calls for upgrades to current facilities. The school(s) are also a potential foot traffic generator, currently not fulfilling their potential;
- Ample parking supply – this is not a West Hobart problem, but a citywide issue. Parking oversupply is sending a broad message to the greater Hobart metropolitan area; that is, if you want to drive, we will find a space for you. This has serious economic consequences for the City, but at a local level, there is no incentive to walk when there is ample parking, so that your car journey is almost completely hassle-free. This convenience comes at an economic and social cost.
- Ample road space – when someone has become a car driver for a particular trip, or group of trips, it is difficult to get that person to change modes. In a relative sense, Hobart is congestion free, there are no tolls and parking is relatively cheap (due to the high level of supply). In such circumstances mode share for cars will always be up above 70% for journey to work and more likely up above 80% for all other trips. Improving the quality of the infrastructure for other modes will make little difference in this environment.

There are of course some advantages that Hobart has, and in particular West Hobart has, that indicate some potential:

- Schools – schools can generate some pedestrian traffic in certain hours. It is particularly good that there are both primary and secondary schools that generate pedestrian traffic in the area. This broadens the times of higher activity. Also, secondary school children are more independent and will often make pedestrian trips to other destinations with their friends if the land use allows for it. Similarly, primary schools often generate parent traffic for under 10's who most need accompaniment to school which can often lead to other parent pedestrian trips, which collectively contributes to general street activity;
- Topography – this can be a double edged sword, but generally walking up and down hills is more interesting than flat walking, incorporating views and breezes and other environmental niceties on a walk;
- Climate – Hobarts temperate climate is ideal for walking;
- Proximity – West Hobart is a walkable distance from the CBD and a host of job opportunities. Additionally, there is a smattering of diverse land uses and the potential for more so local residents can avail themselves of local shopping and to a lesser extent local work;
- Surveillance – West Hobart has a good proportion of residences that actually overlook the street. They are not all set 6m back and are not behind 2m fences, which are both significant contributors to a reduction in pedestrian environment quality;

- Community – West Hobart seems to be a relatively well-connected community. This can be a huge advantage when trying to change community behaviour. They can 'rally' to produce an outcome if there is a community wide benefit. This will be crucial if West Hobart is to develop into a more prominent walking community.

Stakeholders are very keen to improve the pedestrian environment in their suburb, as they are fully aware of the benefits of these walkable communities, having visited or lived in areas such as the inner suburbs of Melbourne and Sydney in the past. However, to have an environment that is pedestrianised with such low densities and such an oversupply of parking and road space will require a special effort to induce this type of behaviour from the broader West Hobart community. Council can do its bit, but there would need to be a major commitment from the local community.

Residents could explore walking events, promotions and programs through school(s), shop local programs, walk to work promotions, progressive shopping events, and progressive dining events linking local cafes/restaurants. Anything that brings people on to the street will assist. Activity breeds activity, and the more non-vehicle activity there is, the more motorists will respond by driving appropriately, or shifting modes.

3.3.2 Additional Pedestrian Facilities

Notwithstanding Council has completed some works in Hill Street and is planning more to address pedestrian safety, the stakeholder group seem very frustrated with the current approach. The MRCagney team have previously indicated a position on the typical pedestrian refuge treatments around the city as being inadequate. They are functional in a basic sense as they do enable pedestrians to cross the street one lane of traffic at a time. What they do not do is make an appropriate gesture that you are supposed to cross the road, and that in fact we want you to cross the road and enjoy both sides of this street. They should also send a message to motorists that they are not the only road user that matters and pedestrians will be regularly crossing this street to enjoy the street environment. Of course, this only works if there is a quality street environment to enjoy, and that there are actually pedestrians prevalent in the area.

Figure 3.1: Crossing in Murray Street



Figure 3.2: Crossing in Augusta Road



MRCagney considers that Council should investigate a more appropriate response to pedestrian refuges, particularly in places of high pedestrian demand. This may or may not be an immediate action in West Hobart, depending on competing priorities in the City, but should certainly be considered. A sketch of our preferred treatments is shown below. These could be provided with or without painted 'zebra' road markings depending on pedestrian demand. These generous landscape treatments gain the instant attention of drivers that there is a change in environment. The crossing distance, that is, the distance that pedestrians are exposed, is minimised. These treatments have been successful in other places.

Figure 3.3: Pedestrian crossing build out



Figure 3.4: Pedestrian crossing build out with median refuge



Based on our analysis and observations, MRCagney consider these a more appropriate gesture to the community that the City wants to encourage pedestrians and considers them a higher priority than motorists. When installing such treatments on designated bike routes allowance has to be made to continue the bike route through the treatment. On streets where the bikes mix with traffic, it is appropriate for this to continue with this type of facility in place.

It is also considered that Council should adopt guidelines for the use of zebra crossings. We have included some guidelines from both Victoria and Queensland for consideration. Having these guidelines in place along with transparent reasons why they are in place will help make it clear to the wider community why certain pedestrian facilities are used, and why some are not.

We understand there is some pent up demand for zebra facilities in Hobart due to a longstanding reluctance for their use. However, there is probably some justification for this reluctance. There are few places where there is

enough genuine pedestrian demand. Street and road designers around the world are generally reducing the use of zebra crossing facilities, and are using pedestrian refuges for pedestrian safety reasons. The intersection of Hill Street and Lansdowne Crescent (south) is the only intersection that approaches the peak pedestrian demand, but would not meet any all-day criteria, and it is noted that school crossing signs are provided on the roundabout approaches during school hours.

Figure 3.5: Zebra crossing in Horsham, Victoria (population 19,691)



3.4 Traffic Signals

Traffic signals are usually installed at an intersection to provide traffic control at a site with a traffic capacity and/or an associated road safety problem.

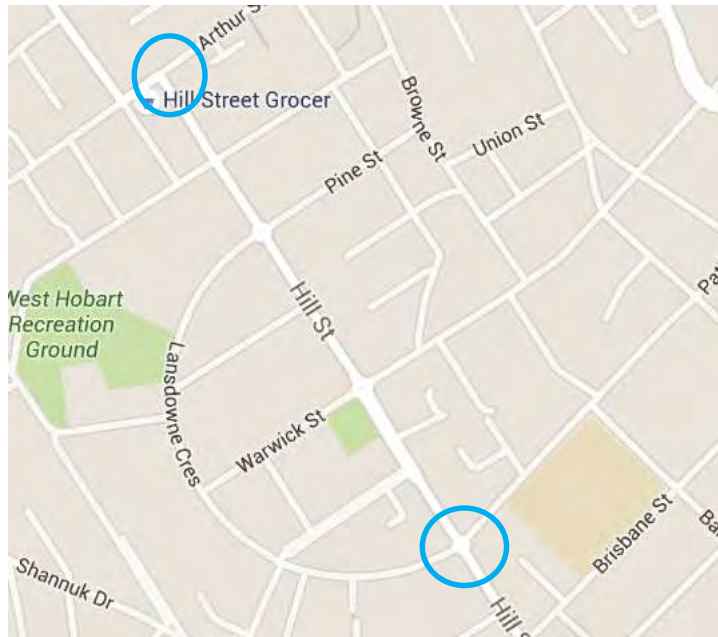
Traffic signalisation will break up the flow of traffic into platoons along both major and minor roads. The roundabouts dotted along Hill Street currently allow continual flow of cars during morning and afternoon peaks. The instalment of signals on Hill Street would ultimately break up traffic flows and provide pedestrians to cross Hill Street more easily during peak times.

MRCagney believes that signalisation at no more than two locations along Hill Street could be considered as an appropriate way of addressing concerns raised by the stakeholder group while providing the necessary improvements to the pedestrian realm throughout West Hobart.

The two sites selected for signalisation are:

- Corner Lansdowne Crescent, Hill Street and Patrick Streets (roundabout removal)
- Corner Arthur Street and Hill Street

Figure 3.6: Map of proposed sites for signalisation in West Hobart (Corner Arthur Street and Hill Street; and corner Hill Street, Lansdowne Crescent and Patrick Street)



For the signals to be effective in providing the appropriate platooning of traffic and make the necessary gaps in traffic flow, both sets of signals have to be installed. Uptake of only one site is less likely to deliver beneficial outcomes for the community.

Considering that the perceived rat-running occurring during each peak is originating from Mount Stuart and possibly further afield (outside the City), there is a metropolitan-wide dimension to this traffic issue that is having a local impact. With this in mind, funding for the signalisation upgrades could be sought through the relevant state authority or an arrangement could be set up between Council and the state government to negotiate funding commitments.

In order to demonstrate how signalisation of the two intersection would operate, a SIDRA intersection analysis has been completed using November 2015 traffic volumes supplied by Council.

From the traffic surveys, the network peak hours were determined to occur at:

- 8:00am – 9:00am; and
- 4:30pm – 5:30pm.

The peak hour traffic volumes (light and heavy vehicles) and pedestrian volumes at the intersections of interest are presented in Figure 3.7 to Figure 3.10.

Figure 3.7: Arthur Street and Hill Street AM Peak Hour Traffic Volumes

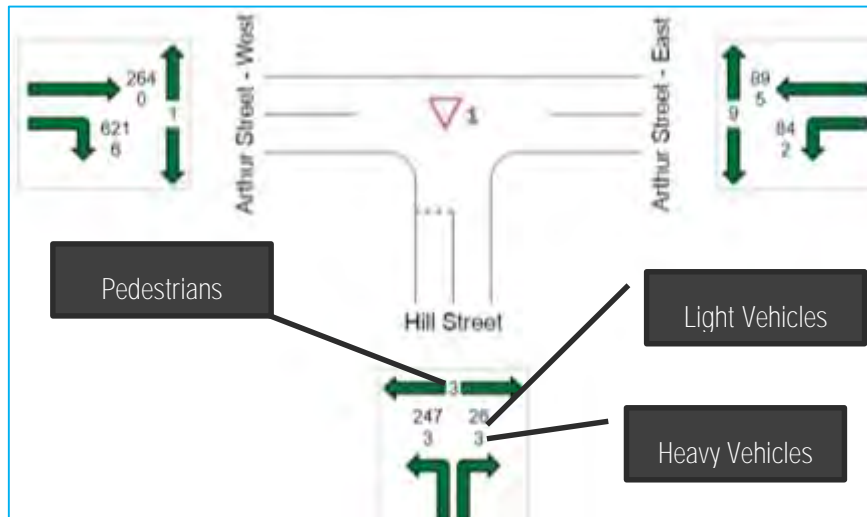


Figure 3.8: Arthur Street and Hill Street PM Peak Hour Traffic Volumes

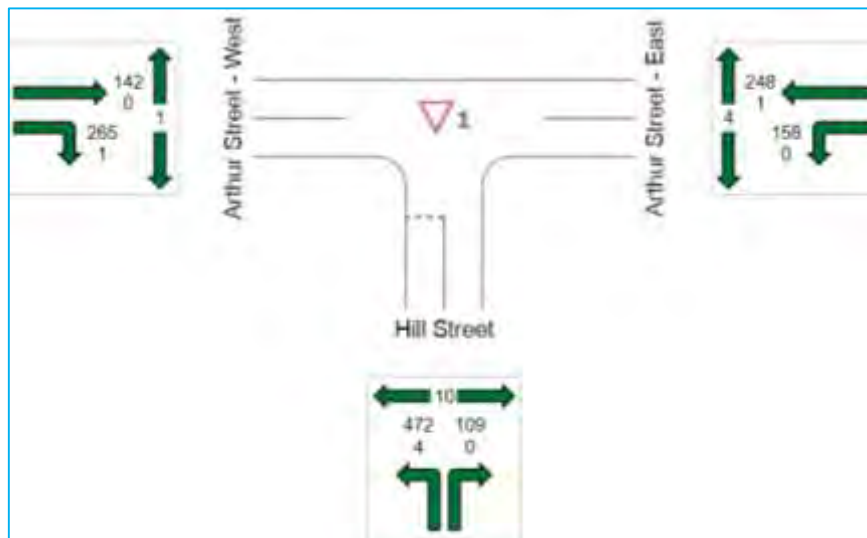


Figure 3.9: Lansdowne Crescent, Hill Street and Patrick Street AM Peak Hour Traffic Volumes

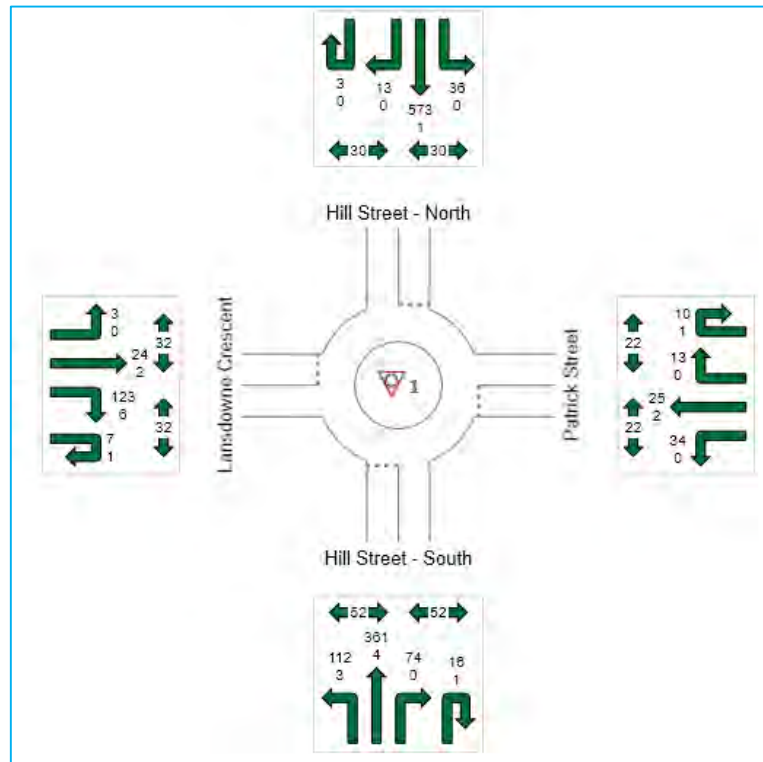
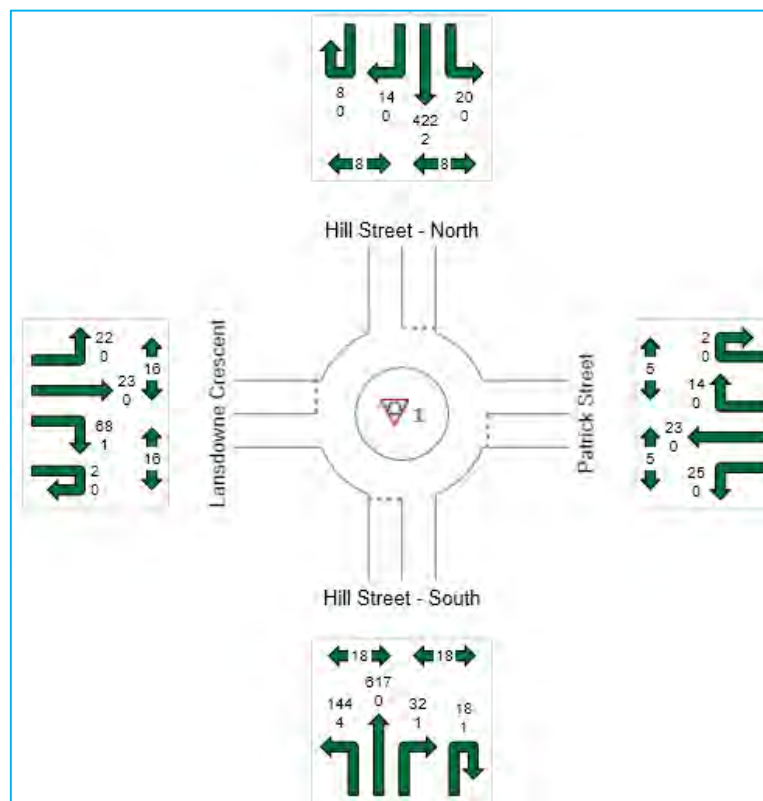


Figure 3.10: Lansdowne Crescent, Hill Street and Patrick Street PM Peak Hour Traffic Volumes



3.4.1 Current Intersection Layouts

The existing geometric layout of the intersections of interest as analysed are displayed below in Figure 3.11 and Figure 3.12.

Figure 3.11: Arthur Street and Hill Street Intersection Layout

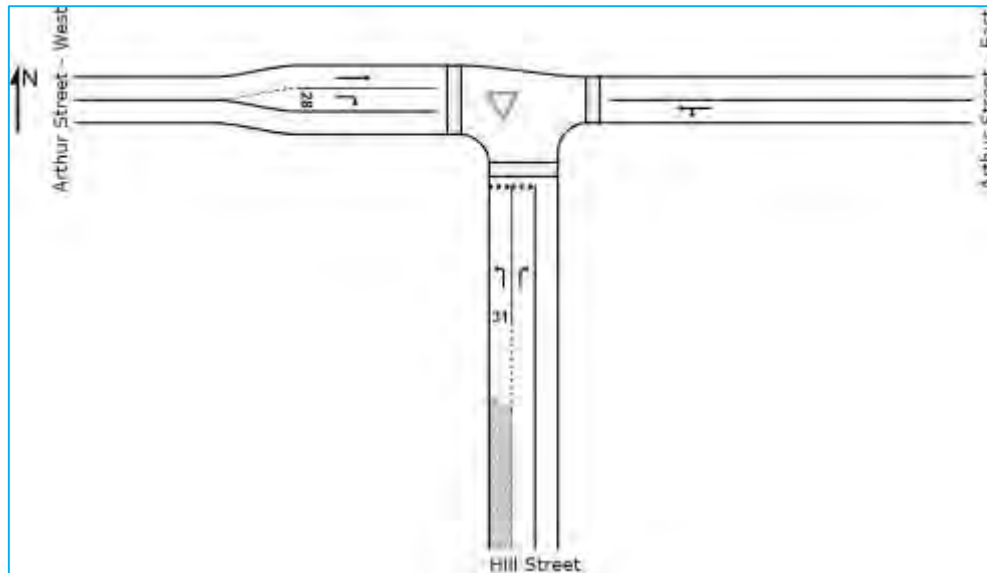
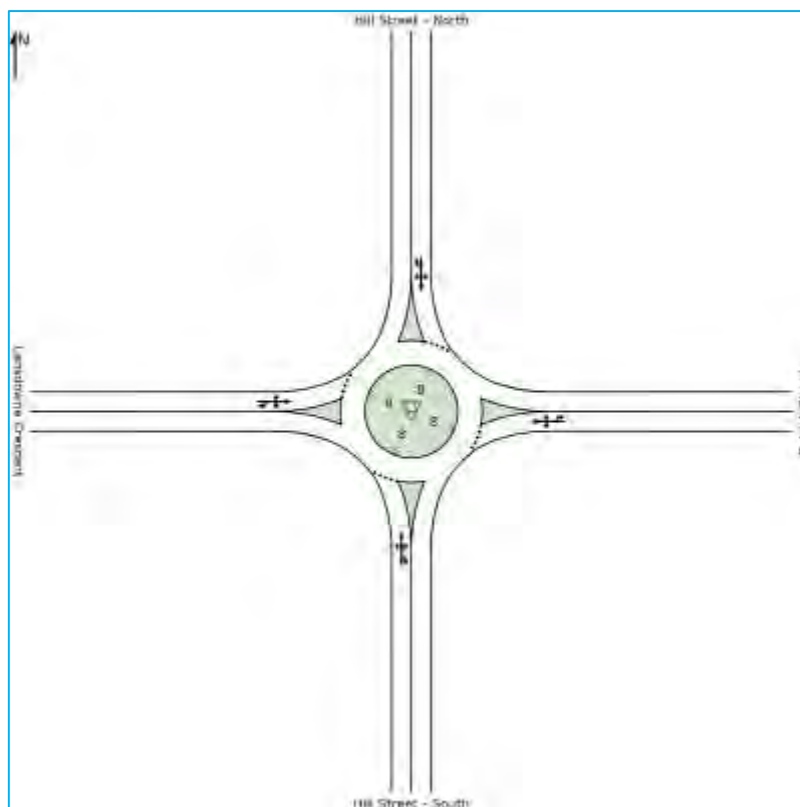


Figure 3.12: Lansdowne Crescent, Hill Street and Patrick Street Intersection Layout



3.4.2 Current Intersection Performance

Table 3.1 below outlines Level of Service (LoS) criteria generally applied to intersection performance. LoS is based on average delay, with ratings A to F applied as a broad attempt to categorise driver satisfaction. For signalised intersections, SIDRA 6.1 also provides an assessment of pedestrian LoS based upon the delays they are expected to experience, however for priority controlled intersections and roundabouts no pedestrian LoS outputs are provided. SIDRA uses the same LoS criteria for pedestrians as drivers, however pedestrians can be particularly sensitive to delay, and consideration should be given towards keeping pedestrian delay to an absolute minimum wherever possible in order to maximise walkability a pedestrian mode shares within any locality.

Table 3.1: Intersection Performance Criteria

Level of Service	Average Delay per Vehicle (sec)	Expected Delay
A	0-14	Little or no delay
B	15-28	Minimal delay
C	29-42	Satisfactory delays with spare capacity
D	43-56	Approaching capacity
E	57-70	At capacity
F	>70	Significant Delay

The results of the SIDRA analysis for the intersections of interest based on the existing traffic volumes and intersection geometry is presented below in Table 3.2.

Table 3.2: Current Intersection Performance

Intersection	AM Peak		PM Peak	
	Delay (sec)	LoS	Delay (sec)	LoS
Arthur Street and Hill Street				
Hill Street – South	7.5	A	8.0	A
Arthur Street – East	2.7	A	2.2	A
Arthur Street - West	4.6	A	4.8	A
All vehicles	4.9	A	5.4	A
Lansdowne Crescent, Hill Street and Patrick Street				
Hill Street - South -	5.9	A	5.7	A
Patrick Street - East	11.5	B	8.9	A
Hill Street - North	8.1	A	6.1	A
Lansdowne Crescent - West	10.8	B	11.8	B
All vehicles	7.7	A	6.4	A

The results in Table 3.2 indicate that the current intersections operate with minimal delay to traffic, however this does not consider the lack of inviting, safe, formalised pedestrian crossings at these existing intersections.

3.4.3 Performance of Signalised Intersections

The intersections of interest were remodelled as signalised junctions to assess the impact on vehicle and pedestrian operations. The signalised intersection geometry utilised in the analysis is presented below in Figure 3.13 and Figure 3.14. These signalised intersection layouts represent both the simplest application of signals

and the smallest intersection footprints, both of which will maximise positive impacts for pedestrians and the broader streetscape.

Figure 3.13: Arthur Street and Hill Street Signalised Intersection Layout

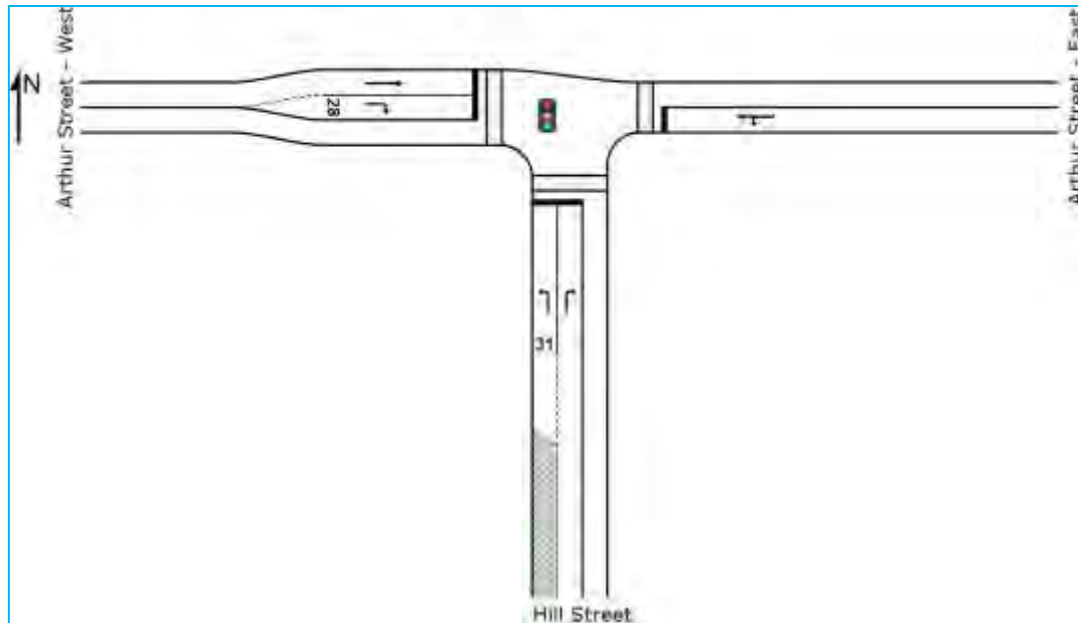
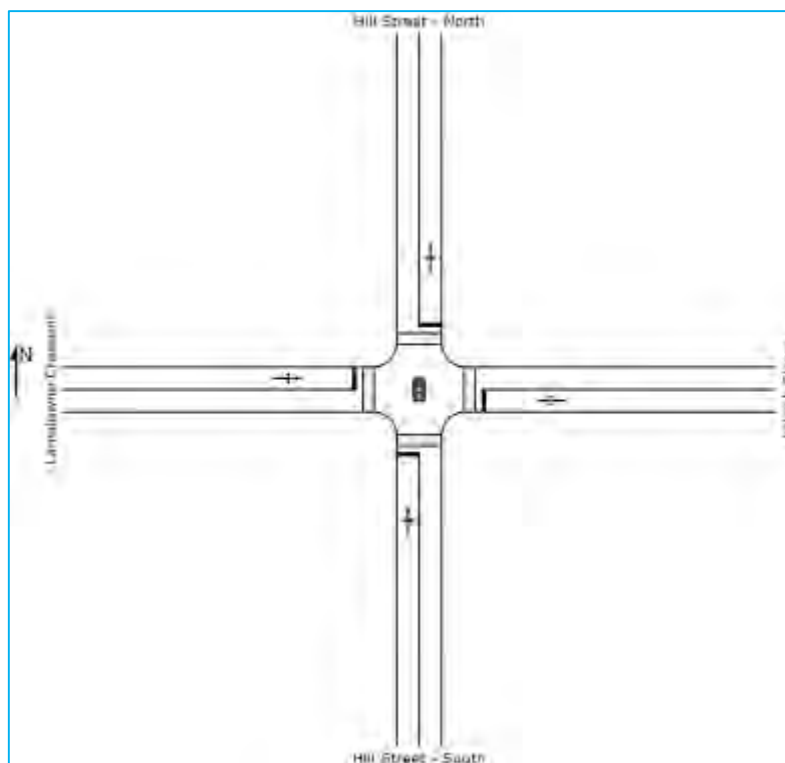


Figure 3.14: Lansdowne Crescent, Hill Street and Patrick Street Signalised Intersection Layout



The signal phasing utilised in the analysis is presented below in Figure 3.15 and Figure 3.16 . Taking into account sight distance constraints, the simplest phasing has been applied in order to maximise pedestrian utility.

Figure 3.15: Arthur Street and Hill Street Signal Phasing

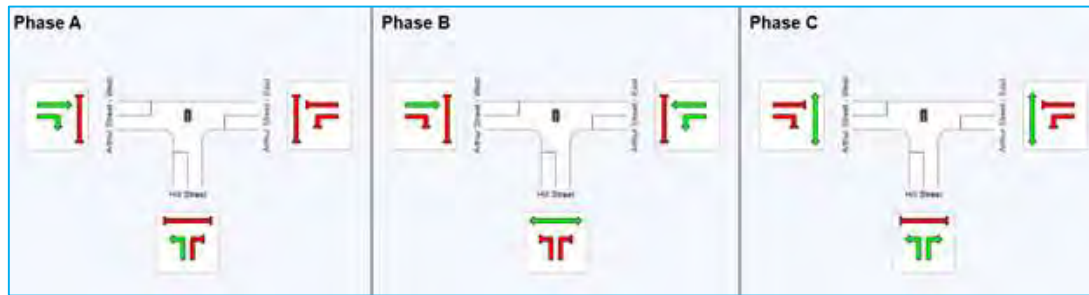
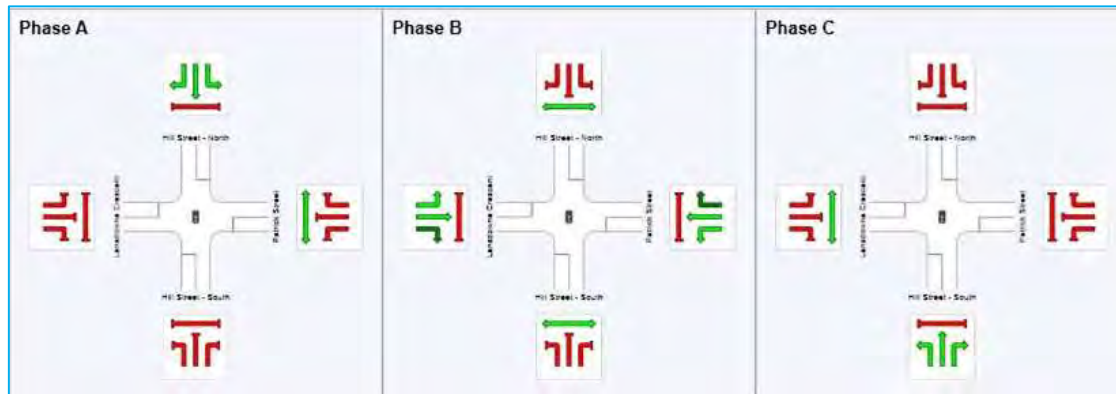


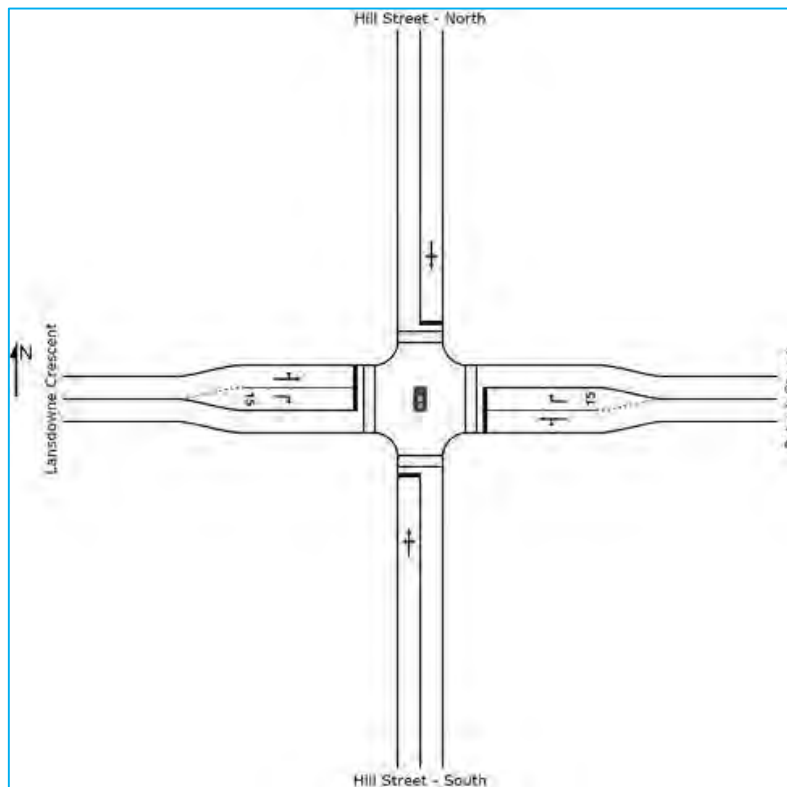
Figure 3.16: Lansdowne Crescent, Hill Street and Patrick Street Signal Phasing



Given the available sight distance, low speed environment and low traffic volumes, it is considered appropriate for all Lansdowne Cr and Patrick St movements to operate in one phase (Phase B). This also minimises pedestrian delays, albeit with some negative effect on vehicular traffic, however a reprioritisation of pedestrians over cars would likely be welcome and beneficial.

This phasing arrangement necessitates some tweaking of the SIDRA model to represent real world behaviour. Right turning traffic on Patrick Street and Lansdowne Crescent will be required to yield to and filter through oncoming traffic, and will typically prop as far to the right as possible, allowing vehicles behind to manoeuvre past and continue through the intersection. This is considerate and typical driver behaviour at small intersections with single approach lanes. In order to model this behaviour in SIDRA, a short 'dummy' right turning pocket has been applied to the Patrick Street and Lansdowne Crescent approaches, as shown in 3.17 below. It is stressed that no real, physical right turning pocket is proposed – this is simply a component included in order to produce an accurate representation of reality.

Figure 3.17: Signalised Hill Street, Lansdowne Crescent, Patrick Street intersection with dummy right turn pockets



The SIDRA results (vehicles and pedestrians) accounting for the signalisation of the intersections of interest is presented below in Table 3.3 and Table 3.4.

Table 3.3: Signalised Intersection Performance - Vehicles

Intersection	AM Peak		PM Peak	
	Delay (sec)	LoS	Delay (sec)	LoS
Arthur Street and Hill Street				
Hill Street – South	12.7	B	19.3	B
Arthur Street – East	39.8	D	21.9	C
Arthur Street - West	20.7	C	18.9	B
All vehicles	21.6	C	20.0	B
Lansdowne Crescent, Hill Street and Patrick Street				
Hill Street - South -	46.9	D	37.3	D
Patrick Street - East	48.1	D	50.1	D
Hill Street - North	41.6	D	47.1	D
Lansdowne Crescent - West	63.3	E	53.6	D
All vehicles	46.4	D	42.3	D

Table 3.4: Signalised Intersection Performance - Pedestrians

Intersection	AM Peak		PM Peak	
	Delay (sec)	LoS	Delay (sec)	LoS
Arthur Street and Hill Street				
South Full Crossing	29.3	C	17.6	B
East Full Crossing	29.3	C	19.4	B
West Full Crossing	29.3	C	19.4	B
All Pedestrians	29.3	C	18.2	B
Lansdowne Crescent, Hill Street and Patrick Street				
South Full Crossing	44.3	E	39.2	D
East Full Crossing	25.9	C	31.3	D
North Full Crossing	44.2	E	39.2	D
West Full Crossing	28.9	C	18.1	B
All Pedestrians	37.7	D	31.2	D

The results above show how signalisation may be provided. Signalisation with a view towards optimising pedestrian utility will, as shown, come at the expense of some traffic delay. This traffic delay may well discourage some traffic from using Hill Street and may seek out other north-south routes. It is not expected this will be a significant volume, but there may be some opinions expressed that this Hill Street traffic should not be put into Elizabeth Street, Murray Street or even the Brooker Highway, as they already take their fair share of traffic.

The design of the intersection if/when signals are introduced must also take into account the current less than ideal access into the Hill Street Grocer off Hill Street. It is likely that intersection traffic will continually be queued beyond this access driveway, effectively preventing people turning right in from Hill Street. Whilst this might not be a bad outcome, it certainly must be examined in detail during the design phase.

This impact on car traffic must be weighed against improved pedestrian outcomes. It is difficult to assess the impact of signalisation on pedestrian delay compared to the existing signalised configuration, however it is likely that some improvement would be apparent during peak periods, while during off-peak periods, a small increase in delay may be typical, given the relatively low traffic volumes on Hill Street. The overarching effect of signalisation from a pedestrian's perspective, however, will be that it will provide inviting, formalised crossings at the two intersections where current pedestrian outcomes are poor, particularly the Lansdowne Crescent roundabout, where no clear crossing opportunity exists, due to the nature of roundabouts. Secondly, platooning of vehicles due to signalisation will provide broader improvements to mid-block pedestrian crossing outcomes along Hill Street, which cannot be appreciated by simple SIDRA analysis. These factors would, on balance, be expected to create a more pedestrian friendly environment, a larger pedestrian mode share, and more activity in West Hobart.

Nonetheless, it is recommended that Council consider the case for signals at these intersections in the context of City as a whole. There may be higher priority pedestrian treatments that would produce more immediate benefits elsewhere in Hobart, particularly considering the cost of traffic signals.

The installation of traffic signals would make for a safer environment for cyclists. Roundabouts offer little safety for cyclists and are often the scene of accidents involving cyclists and motorists. The slowing of traffic and the platooning effect that will result from signalisation at two points along Hill Street (intersection Hill Street and Arthur Street; and, intersection Hill Street, Lansdowne Crescent and Patrick Street) will improve the safety of cyclists.

4 Recommendations

4.1 Local Pedestrian Campaign

West Hobart needs more pedestrians. Not a handful more, but a step change in behaviour. Council is limited in what it can do in this area. There is ample road space and ample parking which encourages private cars over all other modes. A grass roots walking campaign needs to come from the local residents. The current walking environment is not perfect, but it is functional. It is only missing an army of pedestrians to raise more awareness in the community of what an opportunity they are missing.

4.2 Land Use Changes

Opportunities for more mixed-use development and a more diverse range of housing will help long term pedestrian activity in West Hobart. This does not mean high-rise, but maximising opportunities for shop-top housing, town homes and local shopping. The more activities that are within walking distance, the more walking opportunities will be created. Parking oversupply is a city-wide issue. Removing the minimum parking rate for development will let the level of supply settle at the appropriate market level and expose walking as a more economically sustainable mode.

4.3 Pedestrian Refuges

The current pedestrian refuges are minimalist at best. They improve safety, but don't really invite and encourage people to walk. MRCagney consider that Council must make a concerted effort city-wide to improve the quality of these facilities including in West Hobart.

4.4 Speed Limits

The current speed limits are appropriate for the current environment. The impending introduction of the very small 40km/h zone in Warwick and Hill Streets is not appropriate, and should not proceed. It will have negative implications all over the city, by inducing even more disrespect for urban speed limits. It will provide no safety benefits.

4.5 Traffic Signals

The only real traffic issue in West Hobart is the roundabouts. They are a simple and cost effective method of dealing with conflict for cars at intersections, but for all other road users (pedestrians, cyclists and public transport) they are a real impediment to a comfortable trip. There are two main issues in relation to pedestrians. Firstly, crossing at intersections is confusing and intimidating. There are few gaps in the traffic due to the nature of roundabouts: some motorists stop for pedestrians, some do not and despite the island breaks, it is a bit confusing where you are supposed to cross, or in fact, if you are allowed to cross. The second issue is mid-block crossing, where even with low volumes of well-behaved traffic, it can be difficult to find a gap in the peak hours.

Installing signals at the intersection of Lansdowne Crescent, Hill Street and Patrick Street as well as the intersection of Arthur Street and Hill Street will address some of these issues in that it will provide clear, safe and inviting pedestrian crossings at intersections, and will also platoon traffic and create gaps to cross mid-block. It is noted, however, that signalisation will incur some increased delay to vehicular traffic.

This solution will work, although MRCagney consider that other recommendations should be installed first. This is an expensive solution, and it is difficult to see how this could be the area of the City that has the most dire need for signalised intersections.

4.6 Workshop

The West Hobart community that MRCagney engaged with have a genuine concern for their suburb and are striving for its improvement. All suburbs, whether they be inner urban or suburban, would be improved with more pedestrian activity. The stakeholders in this case have locked on to what they believe is the best solution, which is providing zebra crossings on Hill Street and maybe even Lansdowne Crescent. Whilst this is not the case, their pursuit of a more walkable West Hobart is something the City can and should assist. The work the City has done to date is improving safety, but not increasing pedestrian numbers.

MRCagney recommends that the City conduct a workshop with the stakeholders on the future of the wider West Hobart pedestrian environment so that all parties can progress together towards a solution. The recommendations from this study may well be a starting point, and all parties can contribute from the same base understanding of what the issues are, and what actions are practical and available.

5 Summary

MRCagney was commissioned to investigate and make recommendations surrounding some on-going issues regarding perceived safety concerns for pedestrians in West Hobart, particularly near Hill Street, with the main issues being in relation to the safety of young and elderly pedestrians.

The MRCagney team met with the local stakeholder group to undertake a tour of the local area to better understand the traffic problems and pedestrian concerns in West Hobart, with areas of focus including Hill Street, Lansdowne Crescent, Warwick Street, Patrick Street, Arthur Street and Mellifont Street. Of particular interest was the safety concerns involving roundabouts at Hill Street and Lansdowne Crescent, and Hill Street and Warwick Street, as well as the intersection at Hill Street and Arthur Street.

Explained during the tour of West Hobart was the group's concerns about traffic speeds along Hill Street and the impact it has on children's safety, and that of pedestrians more generally. The MRCagney team explained to the group the role of roundabouts in suburban areas and how they negatively affect pedestrians and impact on adjacent land-uses. Roundabouts benefit driver-flow significantly but do little to promote quality walking environment for the pedestrian. This impacts the pedestrian experience along Hill Street and pedestrian opportunities in West Hobart generally. Motorists from as far afield as Glenorchy are believed to use Hill Street as a 'rat-run' route to access central Hobart on a daily basis, generating increased traffic volumes in the morning and afternoon peaks.

At the centre of stakeholder concerns is that of school children's safety. The group believes that the 'rat-running' occurring in the morning peak is impinging on the safety of school children making it risky for children to cross the street, given the continual traffic flow during both peaks.

Upon further review of the issues raised by the stakeholder group, Council should continue dialogue with the group and consider the recommendations put forward in this report. There is an opportunity here to put to rest some of the long-running concerns held by the stakeholder group while supporting pedestrian activity at the same time.

The stakeholder group believe that zebra crossings are the solution to West Hobart's issues of encroaching traffic and poor pedestrian safety. MRCagney is not against zebra crossings but is aware that the current traffic volumes may not support the provision of such measures. Instead, MRCagney believes that the instalment of signalisation systems at the two locations detailed in this report would improve pedestrian conditions in West Hobart at the detriment to uninterrupted traffic flow. Furthermore, the safety of school children and the potential uptake of active travel to school at the expense of car pick-ups and drop-offs will help nullify parent anxiety expressed by the stakeholders and make the statement that West Hobart is for walking, not driving.

The key outcome of the investigations is that the West Hobart Community along with the City of Hobart should do everything possible to make West Hobart a walking place and that infrastructure is not the key to this outcome. Taking advantage of the active and close knit community and running campaigns to get people walking as well as land use changes to provide more origins and destinations are the long term solutions to a safe active West Hobart.

6 References

1. **Christie, N, Towner, E, Cairns, S, Ward, H (2004).** Children's road traffic safety: an international survey of policy and practice. Road Safety Research Report No. 47. London, Department for Transport.
2. **Active Healthy Kids Australia (2015).** The Road Less Travelled: The 2015 Active Healthy Kids Australia Progress Report Card on Active Transport for Children and Young People. Adelaide, South Australia: Active Healthy Kids Australia.
3. **Clover Moore, Walk21, Sydney 2014** "Transforming NSW and the City of Sydney"

APPENDIX A Zebra Crossing Guidelines

A.1 Victorian Zebra Crossing Guidelines

Acceptable Locations

- Collector and local roads on which traffic speeds are low;
- Left turn slip lanes at signalised intersections where VicRoads Regions considers them necessary;
- Car parks;
- Other off-road situations (eg. Caravan Park)
- Service roads where pedestrian operated signals of intersection signals operate on the main carriageway;

Unacceptable Locations

- Across arterial roads;
- Left turn slip lanes at signalised intersections (unless considered necessary for pedestrian safety);
- Where there is poor visibility on the approach to the proposed site of the crossing, or where conspicuousness of the device may be less than optimal;

General Guidelines

- Pedestrian volumes of 20 or more per hour;
- Vehicle volumes of 200 or more per hour for the same hour;
- Speed limit of 50km/h or less;
- Vehicle speed of 60km/h (85th percentile) or less.

Note: in determining numbers of pedestrians, each older person, person with a disability or school child should count as two.

A.2 Queensland Zebra Crossing Guidelines

- Consider the zebra crossing **only** if the installation of a pedestrian refuge or mid-block pedestrian traffic signal is not suitable. A special study should be conducted to ensure the suitability of a zebra crossing;
- Locationally, zebra crossing should only be used where:
 - There is consistent pedestrian usage throughout the day;
 - On two-lane roads with one through lane in each direction;
 - Speed limit is 50km/h or less;
 - Vehicle speed is 60km/h (85th percentile) or less.
- Zebra Crossing should not be used when:
 - On an arterial road;
 - On roads where more than one lane of traffic travels in the same direction (2, 3 or 4 lane roads).
 - Within 100 m of an alternative pedestrian facility, except in central business districts or other locations where there is a well-defined need.
 - On roads with high flows of random pedestrian arrivals that will cause unacceptable delay to vehicles.
 - Where sight distance requirements cannot be met (ASD), or
 - Where the delay to traffic would cause traffic operational problems (such as queuing over railway level crossings) or safety problems (including inadequate sight distance to the back of the queue).