

# APPLICATION FORM

You must complete every item on the application form. If there are items you don't understand, or if you want any help with the form, contact the Local Government Grants officer at the TAC on (03) 5225 6954.

If you are submitting more than one application, you should contact the Local Government Grants officer to discuss **prior** to submission of your applications.

When complete, you must send your original application form (including any supporting documentation) and one additional copy (2 hard copies in total) of all documents to the following address to arrive by 4.00pm on the closing date:

## By POST:

Transport Accident Commission Local Government Grants Program Road Safety  
PO Box 742  
GEELONG VIC 3220

## By COURIER:

Transport Accident Commission Local Government Grants Program Road Safety  
60 Brougham Street  
GEELONG VIC 3220

An electronic version of your documents must also be provided by 4:00pm on the closing date to: [lgagrants@tac.vic.gov.au](mailto:lgagrants@tac.vic.gov.au)

## Applicant details

Provide the following information about your organisation and your role. There is also space where someone in your organisation with the authority to approve the application should sign the form.

Name of LGA: [City of Yarra](#)

ABN: [98394086520](#)

Address: [City of Yarra, Richmond Town Hall, PO Box 168, Richmond 3121](#)

Telephone: [9205 5555](#)

## Project summary

Project name: [Introduce shared zone at Stewart Street, Richmond \(in the vicinity of Richmond Station\)](#)

Start date: [November 2015](#)

End date: [March 2016](#)

Level of funding sought from the TAC: [\\$100,000](#)

Level of funding to be provided by LGA: [\\$150,000](#)

**Key Personnel\***

The contact person who is responsible for the project:

Name: [Bhavin Shah](#)

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Role or position: [Senior Traffic Engineer](#)

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Telephone: [9205 5778](#)

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Email: [Bhavin.Shah@yarracity.vic.gov.au](mailto:Bhavin.Shah@yarracity.vic.gov.au)

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Signature:



Date: [27/08/2015](#)

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\*Should the key contact leave the project, the organisation must notify the TAC as soon as possible with the details of the new key contact.

**Authorised representative**

The person who has the legal authority to sign an agreement:

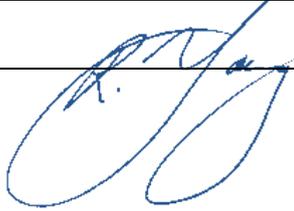
Name: [Richard Young](#)

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Position: [Manager Engineering Services](#)

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Signature:



Date: [27/08/2015](#)

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**Partner Organisation(s) details (if applicable):**

Organisation Name:

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Contact name:

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Position:

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Signature:

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Date:

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## Project Details

The project is directed at the safety of

- ✓ a) [Pedestrians](#)
- b) Cyclists or
- c) Both

The project is directed at a solution which is:

- a) Area-wide
- b) Route-based
- ✓ c) [Location-specific](#)
- d) Project development based

Is this project:

- a) A proven treatment?
- ✓ b) [An innovative measure?](#)

**Please describe your road safety project in a few sentences.**

The Yarra City Council submitted an application for implementation of shared zone on Stewart Street last year (under the Local Government Grant Program 2014). However due to several physical constraints (storm water drainage, property drains, etc.), the previously proposed shared zone design was impractical to construct it. As such, funding (\$25,000) for the development of this proposal was granted by the TAC in 2014.

With the funding granted last year to develop this shared zone proposal, Council commissioned an Urban Design Consultant, Hansen Pty Ltd to prepare three concept plans and present them to Council. These concept plans were then reviewed before finalizing a shared zone concept design. Our detailed investigation indicates that no underground services are anticipated to affect the proposed treatments or shared zone elements. Council's Traffic Unit has liaised with various internal stakeholders (such as Urban Design Unit, Road Operations Team, Streetscape and Arboriculture Team, Strategic Transport Unit, etc.) and obtained their support. Council officers are now consulting with major external stakeholders, namely PTV, Vic Track and Metro to seek their feedback and endorsement for the proposed concept design. These authorities are happy with the overall concept in-principle, however they are yet to provide their final endorsement. It is proposed to appoint a VicRoads accredited road safety auditor to undertake a road safety audit for the proposed concept design. The detailed design drawings by external consultant will follow the road safety audit. It is anticipated that the detailed designs will be prepared by the end of November 2015 and officers are looking at implementing this project in January 2016 (during school holidays to have lesser impact on traffic).

As mentioned in our previous application, the Local Area Traffic Management (LATM) study undertaken by the Yarra City Council for the Richmond Precinct identified the requirement for a Shared Zone to be installed on Stewart Street in Richmond. The introduction of a Shared Zone, which has been endorsed by a Council resolution, is required to increase safety in a location where there is significant pedestrian demand throughout the day on both weekdays and weekends (further details on road safety issues experienced in Stewart Street are provided in the following section).

The Shared Zone is proposed to be 70 meters in length and caters for the key pedestrian desired lines to and from the entrance to Richmond Station from Stewart Street. Given the level and importance of pedestrian activity at this location, the Shared Zone has been designed to fully comply with VicRoads Shared Zone guidelines.

Key to this is the provision of a street environment that does not feel or function like a traditional road where motor vehicles have priority. To achieve this, our proposed design includes thresholds treatments, pavement patterns, landscaping (vertical garden) at the station entrance and urban design features to differentiate the Shared Zone from the connecting local roads. In line with the Victorian road rules, the speed limit in the Shared Zone will be reduced to 20km/h and will be supported by a 20km/h design speed.

Our new concept design is provided in Appendix I. A SWOT analysis for the proposed shared zone is provided in Appendix II. Cost estimates for the project have identified that the cost of providing the Shared Zone that fully meets the identified pedestrian safety requirements and industry guidelines exceeds Council's ability to solely fund the project, hence this application for TAC funding.

### **Road safety issue**

Describe the specific road safety issue you want to address. You should try to include information about the problem (e.g. risky behaviours, large numbers of pedestrians and/or cyclists exposed to risk, community concerns and, if available, supporting statistical data) and what you think is causing the problem.

Stewart Street in Richmond is a local municipal road under the management of Yarra City Council (an aerial photo and street view images are provided in Appendix III). Stewart Street has a number of functions including providing direct vehicular (and non-car) access to land uses on Stewart Street, providing vehicular (and non-car) access between local residential streets in Richmond and also providing on-street parking which is used by visitors to adjacent land uses (including residential and business uses as well as pick up and drop off of passengers at Richmond Station), visitors to the Swan Street precinct and visitors to Melbourne's sporting and entertainment precinct (i.e. the MCG, Rod Laver Stadium and AAMI Stadium).

Stewart Street also provides the main pedestrian access into Richmond Station for the residential areas to the north of the station (Richmond is a major rail station serviced by eight rail lines across 10 platforms). In addition to commuters and non-peak local use, Stewart Street forms one of the primary accesses between the MCG and Richmond Station on event days at the MCG. The Stewart Street entrance to Richmond Station also provides a quick and direct route to and from Swan Street and therefore is also used by pedestrians not accessing the rail services.

Weekday pedestrian counts undertaken in November 2013 indicate that approximately 1,680 pedestrians cross Stewart Street near the station entrance during the AM peak period (7:00-9:30am) and around 1,050 pedestrians cross Stewart Street during the PM peak time (4:00-6:30pm). It is noted that these counts do not include those pedestrians use Stewart Street to access the rail station but did not cross in the immediate vicinity of the station entrance. A copy of the November 2013 pedestrian counts is provided in Appendix IV.

Pedestrian counts were also undertaken before and after the Richmond v St Kilda AFL game at the MCG on Sunday 24 August 2014 (attendance at this game was 47,500 which represents a half full MCG). This data shows that nearly 900 pedestrians entered/exited the station via Stewart Street between 2:00pm and 5:00pm. A further 1,300 pedestrians used the Stewart Street station entry at the completion of game (7:00-9:00pm). A copy of this pedestrian count is provided in Appendix IV.

Three days of video surveys were undertaken between Friday 22 and Sunday 24 August 2014 (flash drive was provided with our last year's application). These videos captured well established activity patterns and pedestrian desire lines leading to and from Richmond Station on Stewart Street. Some pedestrians who access Richmond Station choose to walk along the road carriageway given the narrow and congested footpaths on Stewart Street. Those pedestrians who use the existing footpath tend to cross the street close to Richmond Station. Both types of pedestrians face conflict with passing motor vehicles including local traffic and those vehicles picking up and dropping off passengers at Richmond station.

The level of motor traffic using Stewart Street can vary. Traffic surveys undertaken in December 2012 and November 2013 indicate that the level of hourly traffic during the peak periods can range from approximately 60 vehicles per hour to approximately 100 vehicles per hour. Vehicle speeds are considered to be high for the level and type of pedestrian activity that occurs on Stewart Street. Speed surveys undertaken in the location of the proposed Shared Zone in December 2012 have recorded 85<sup>th</sup> percentile vehicle speeds of up to 40.3km/h and maximum speeds of up to 66.1km/h.

For many years the community has expressed concerns to Council on the potential conflict between pedestrians and cars on Stewart Street. The local community also highlighted a lack of pedestrian infrastructure and high pedestrian volumes as hazards for overall pedestrian safety on Stewart Street (in particular the section of Stewart Street adjacent to Richmond Station) during the extensive community consultation carried out as a part of the LATM study for Richmond Precinct in 2012/13. Given the narrow overall envelope of the street and limited opportunity to increase footpath widths to meet pedestrian demand, the adopted Traffic Management Plan (TMP) for the Richmond LATM precinct included the provision of a Shared Zone on Stewart Street (a copy of the adopted TMP is attached in Appendix V).

In summary, Stewart Street caters for a significant number of pedestrian movements throughout the day on both weekdays and weekends. Given the lack of pedestrian infrastructure on Stewart Street, pedestrians are exposed to higher than desirable vehicle speeds. Pedestrian needs on Stewart Street, both in terms of space requirements and safely catering for desired lines, are best met by sharing the road with other road users in a Shared Zone. It is essential that a high quality pedestrian facility that regulates vehicle speeds and complies fully with design guidelines is provided given the level of vulnerable road users on Stewart Street.

## Road Safety Objectives and Activities

Describe your project's road safety objectives and proposed activities. The OBJECTIVES are the behaviours among road users that you are seeking to change in order to improve pedestrian and/or cyclist safety. The ACTIVITIES are the things you plan to do to achieve your objectives. You can have more than one objective, and you will almost certainly have more than one activity.

### OBJECTIVES

- Provide actual and perceived priority for pedestrians over motor vehicles on the road carriageway.
- Reduce current vehicle speeds to lower the risk and potential severity of pedestrian injuries from crashes.
- Provide safe and considerate interaction among different road users on Stewart Street.

### ACTIVITIES

The City of Yarra has identified that the road safety objectives stated above will be met through the creation of a Shared Zone on Stewart Street. The Shared Zone will provide priority to pedestrians who account for the vast majority of road users on Stewart Street. The Shared Zone will reallocate road space to better service pedestrian demand and desired lines and will incorporate a lowered speed limit to reduce the risk and severity of pedestrian crashes.

The Shared Zone will also have additional benefits including improved amenity for pedestrians and the potential to encourage more people to walk and use public transport through the creation of safe pedestrian linkages.

The following activities have been, or will be undertaken to deliver the Shared Zone (within the proposed timescales) and ensure that the proposed Shared Zone meets the stated road safety objectives.

#### Proposal formation - completed

The requirement to implement a Shared Zone on Stewart Street has been established through the appropriate technical and consultation processes and has subsequently been endorsed by a Council resolution. As such there will unlikely be any delay to delivering the Shared Zone from a Council or community perspective.

#### Concept design - completed

The concept designs are prepared by the Urban Design Consultant, Hansen Pty Ltd to ensure that the Shared Zone functions from a safety, amenity, engineering and streetscape perspective. Key to the development of the concept design was the full compliance with VicRoads guidelines. The final concept plan is attached in Appendix I.

#### Initial investigations - completed

A key aspect of VicRoads (and industry standard) guidelines, and the provision of a streetscape that enhances the sense of equality between pedestrians and vehicles, is the removal of kerbs. To achieve this, it will be a requirement to raise the road pavement to match with the footpath level to break the barrier between pedestrians (footpath) and motorists (road carriageway). To ensure that raising the pavement is achievable from an engineering perspective, Council commissioned the relevant drainage (i.e. pit surveys, CCTV surveys etc.) and underground utilities assessments which indicated that it is impractical to raise the road level to match the footpath level due to existing storm water drainage and property drains arrangement.

As such, the new concept plan is designed in a way that does not require raising road level, yet provides aesthetically pleasing streetscape, speed calming measures, etc. A "Dial Before You Dig" (DBYD) assessment has been undertaken to review the underground services and whether they impact on the

new concept design. It is appeared from the DBYD plans that existing underground services do not impede proposed shared zone elements.

#### Pre-scheme evaluation assessment - completed

Council officers have collected a range of pre-evaluation data including pedestrian counts, video surveys, traffic counts and speed surveys from which the success of the Shared Zone can be evaluated. Survey data is provided in Appendix IV.

#### Design stage Road Safety Audit (RSA)

Council officers will appoint a VicRoads accredited Road Safety Auditor to undertake a design stage RSA once the concept designs are endorsed by the PTV, Vic Track and Metro (these authorities have supported the proposal in-principle). Any recommendations made in this RSA will be addressed. From our experience of delivering Shared Zones we anticipate that this will only be relatively minor alterations to the design.

#### Detailed designs

As soon as the RSA is performed and the concept plan is altered to accommodate any recommendations made in the RSA (if any), Council will appoint its annual supply urban design consultant, Hansen Pty Ltd to commence detailed designs. Hansen has advised that it will only take 4 weeks to finalise detailed design drawings. It is anticipated that these drawings will be prepared by the end of November 2015.

#### Tendering the works and appointing contractor

Once the detailed design is finalised following incorporation of the RSA recommendations, the works package will be tendered to Council's accredited annual supply contractors in December-January. The received tenders will be assessed on range of parameters including cost and experience.

#### Construction

Construction will take approximately 4-6 weeks. Stewart Street could be closed to vehicular traffic at times. However, pedestrian movements on Stewart Street will be fully and safely accommodated with the required traffic management. Construction works are scheduled for January-February 2016, mainly during the school holidays to have lesser impact on traffic.

#### Post implementation RSA

Council officers will commission a post implementation RSA once the construction works are completed. Any recommendations made in the RSA will be considered and addressed appropriately.

#### Public awareness campaign

Council officers will conduct a public awareness (educational) campaign prior to the operation of the scheme. VMS boards will also be installed during the initial days of operation.

#### Post-evaluation (surveys)

Post-evaluation surveys including pedestrian counts and video surveys will be undertaken to compare the BEFORE and AFTER scenarios. Automated traffic counts will be undertaken on Stewart Street to review any change in vehicle volume and speed. Intercept surveys will also be considered to gain feedback from the road users about the new infrastructure.

### **Rationale for your project**

Describe why you expect your project activities will help you achieve your objectives. Are there any general principles or research that supports this approach? Please describe.

Fundamental to the delivery of a successful Shared Zone is the creation of infrastructure that can be perceived as providing priority to pedestrians by all road users. To achieve this, the prepared concept design has been developed to fully incorporate the key design principles set out in VicRoads (and other industry standard) guidelines and regulations.

This includes:

- The proposed streetscape works (vertical garden) at the station entrance will assist in creating a visible change in the street environment and make the area aesthetically pleasing.

- The proposed threshold treatments (road narrowing and vertical deflection devices) at either end of Shared Zone will slow vehicle speeds and indicate to motorists a change in the street environment.
- The road pavement surface will be changed (in terms of colour and patterns) to highlight the difference in the street environment from the connecting local road network and create a slow traffic environment. Any allowed parking bays within the shared zone will be marked individually to clearly indicate the parking space. The proposed landscaping will assist in creating a visible change in the street environment and will act as a traffic calming measure.

The extent of the Shared Zone and the incorporation of urban design features within it have been developed based on the identified pedestrian demand and desired lines previously observed, and confirmed by the undertaken surveys. The Shared Zone will be regulated by a 20km/h speed limit which will reduce the risk and severity of pedestrian injuries in comparison to the existing speed limit and existing speed of vehicles using the street. However, our experience has shown that the regulated speed limit will also need to be supported by a corresponding design speed, hence the requirement to upgrade the road infrastructure in line with the proposals set out in the above bullet points.

From our experience of delivering Shared Zones in Yarra, Council officers are aware that there can be a number of engineering constraints (in particular drainage and services) to constructing the infrastructure in line with the key design principles. As such an investigation was undertaken to ascertain any constraints for implementation of the revised shared zone concept. It appears from our investigation that the proposed concept is feasible for implementation.

Education is also considered to be an important aspect of delivering Shared Zones. As such, Council officers will be undertaking a public awareness exercise prior to, and during the early days of operation.

### **Evaluating your project's success**

Has this approach been used with success elsewhere? If so, please elaborate. Otherwise, if the project is innovative in nature, please describe what you plan to do to collect information and evaluate your project to help ensure it meets its objectives. It is acknowledged that for some types of projects, outcome measures may be impractical and therefore intermediate measures, such as changes in speed behaviour or the levels of interaction between pedestrians and motorvehicles, may prove more helpful.

It is noted that Shared Zones (or similar pedestrian priority infrastructure) have been successfully implemented by numerous Councils in Victoria (including within Yarra at Lennox Street and Docker Street in Richmond - the City of Melbourne has also implemented a number of Shared Zones in the CBD) as well as elsewhere in Australia and overseas. Research available has shown that the implemented Shared Zones have been successful in reducing vehicle speeds and pedestrian involvement in crashes.

Council officers will also undertake a post-implementation evaluation of the project. As mentioned earlier, Council officers have collected a range of pre-scheme evaluation data (pedestrian counts, traffic counts, speed surveys, pedestrian / motorist behaviour identified in the video surveys) which will set the benchmark for the post-implementation evaluation process.

To ensure a robust assessment, Council officers will collect comparable data to the pre-scheme evaluation exercise to identify any changes to key measurement parameters including pedestrian and vehicle numbers, vehicle speeds and road user behaviour.

Council officers will also undertake an intercept survey of road users post-implementation to identify whether the road users believe that pedestrian safety and accessibility has improved.

## Project plan and timeline

For each of the activities you listed above, describe the things you need to do to conduct each activity, and provide a timeline that shows when you expect to finish each of these tasks. Try to give as much detail as practical to allow an adequate assessment.

Activity	Tasks	Start Date	Expected Completion Date
Road Safety Audit (RSA)	Appointment of VicRoads accredited Road Safety Auditor, Undertaking RSA, Altering the detailed design drawings	07/09/2014	18/09/2014
Detailed Designs	Preparation of detailed design drawings	28/09/2014	30/10/2014
Tendering the works and appointing contractor	Prepare a tender brief, seek tenders from council's annual supply contractors, assess received tenders, appoint contractor	09/11/2014	27/11/2014
Construction	Various construction components (threshold treatments, pavement markings, vertical garden, etc.)	11/01/2015 (due to school holidays)	12/02/2015
Post implementation RSA	Undertaking RSA, address recommendations	15/02/2015	26/02/2015
Public awareness campaign	Run educational campaigns	08/02/2015	26/03/2015
Post evaluation	Pedestrian counts, video survey, traffic counts, intercept survey	21/03/2015	01/04/2015

## Risks

Please identify potential or actual risks that may affect the success of your project. This is an important aspect of all projects and will help you plan to manage those risks. For each risk, please explain how you will either mitigate or eliminate the risk.

Risk/s	Proposed actions to mitigate risk/s
Difficulty constructing preferred design due to engineering constraints resulting in delay and cost overruns.	From our experience of delivering Shared Zones, we have recognised the potential engineering constraints at an early stage and have commissioned (a now complete) engineering assessment. This assessment has identified that key elements of the scheme required to achieve the key design objectives (i.e. vertical garden) can be constructed (although it is noted that unexpected construction delays can occur).
Major changes in the design recommended by the RSA may require more time and budget	The design is being prepared based on VicRoads (and industry standard) guidelines and Council officers experience in delivering Shared Zones. As such, no major changes are anticipated. The RSA may recommend changes in the positioning of urban design features (garden bed, bench seats, etc.) which can be altered to suit the allocated budget and meet project timelines.

Construction delays and budget overrun (e.g. presence of rocks, unpredicted UG services, etc.)	Unavoidable budget overrun will be funded by the Yarra City Council. Initial cost estimates prepared by the council officers using contractors' schedule of rates have included contingencies to cover worst case scenarios. As such, hidden budget hikes are not expected. The proposed construction duration is worked out with contingencies in place and therefore no delays are anticipated.
Major alterations to the implemented design as a result of post-implementation RSA	An RSA will be undertaken during the detailed design stage which is anticipated to address most safety related issues in the design. As such no major alterations are expected. Any alterations proposed by the post-implementation RSA will likely be of a low-cost nature (e.g. line-marking, sign installation, bollard installation, etc.)
Lack of community acceptance due to non-compliance during the initial operational phase	Public awareness campaigns will be undertaken prior to, and during the early days of operation to advise the public of the changes to the operating environment of the street.
Anticipated safety benefits will not be realised	The proposed design is in line with VicRoads (and industry standard) guidelines and will be subject to an RSA by Accredited Road Safety Auditors. If required, further infrastructure improvements will be delivered by Council, although these are expected to be low-cost measures such as additional education, line-marking or sign installation.

### **Maintenance and Sustainability**

Describe how you think the project could continue after the TAC's funding period is complete, e.g. maintenance of new treatments, complementary programs and activities.

What new sources of funding will be needed or available?

In the case of applications for project development activities, will funds be available to implement the project recommendations?

TAC's funding is sought to allow Yarra City Council to implement a Shared Zone on Stewart Street that fully meets the identified pedestrian safety requirements and industry design guidelines. Based on independent cost estimates for the scheme, it is considered that the level of funding sought from TAC combined with the financial contribution provided by Council will fully cover the total project cost of \$251,000. However in the event of budget over-run, Council will reallocate funding currently earmarked for alternative projects within its Spot Safety or Pedestrian Provisions program.

Once created, the Shared Zone will be added to Council's asset maintenance list. Sufficient funds will be allocated in future budgets to maintain the Shared Zone infrastructure for its life-cycle.

## Budget and funding request

Describe your project's budget in detail and include, where appropriate, details of funds to be provided by local government and/or project partners.

If successful, the grant will constitute an increase in local government investment rather than substitution of current funding levels.

Project costs	Item	GST	Cost
Preliminaries and Site preparation	Site establishments, OHS, tree protection, marking up existing services' locations	\$1,500.00	\$15,000.00
Demolition	Excavate and dispose existing pavement, existing fence at the station entrance, etc.	\$1,000.00	\$10,000.00
Construction works	Brick columns and masonry work at the station entrance for vertical garden, steel balustrade, bluestone kerbing, asphalt paving, culverts, pram crossings, threshold treatments, etc.	\$12,000.00	\$120,000.00
Pavement markings (texture)	MPS paving - Streetbond (pavement markings)	\$3,500.00	\$35,000.00
Landscaping works	Vertical garden supporting structures, plants, garden beds, trees, etc.	\$1,500.00	\$15,000.00
Street furniture	Timber bench seats, bike racks, signs, etc.	\$1,200.00	\$12,000.00
Traffic Management	On-site traffic management including VMS boards	\$2,000.00	\$20,000.00
Road Safety Audits (RSAs)	Post-implementation RSA	\$400.00	\$4,000.00
Education	Public awareness campaign (incl. distribution of brochures to community and road users)	\$500.00	\$5,000.00
Post evaluation	Pedestrian counts, traffic counts, video survey and intercept survey	\$300.00	\$3,000.00
Staff hours	Project management	\$1,200.00	\$12,000.00
	<b>TOTAL COST</b>	<b>\$25,100.00</b>	<b>\$251,000.00</b>
<b>Other funding (including in-kind)</b>	Council officers' time, detailed design, RSAs, education campaign, evaluation, etc. (in-kind by Yarra City Council)	\$15,100.00	\$151,000.00
	<b>TOTAL FUNDING FROM OTHER SOURCES</b>	<b>\$15,100.00</b>	<b>\$151,000.00</b>
<b>REQUEST</b>	<b>FUNDING REQUESTED FROM TAC</b>	<b>\$10,000.00</b>	<b>\$100,000.00</b>

## Background intellectual property

Provide a description of all background intellectual property required for the project, including details of any third party rights to which the background intellectual property is subject. 'Background intellectual property' means any intellectual property (e.g. copyright, patents, designs, trade marks) created by a party independently of the project. It may include, for example, a trade mark of a project partner. You should also provide details of any agreement regarding your use of any background intellectual property.

[Not Applicable](#)

## Insurances

Provide information about insurance policies held by your organisation and those that you will need to obtain that are relevant to your proposed project e.g. public risk insurance, comprehensive motor vehicle insurance, workers compensation insurance, etc. If your application is successful, you will need to demonstrate appropriate insurance cover.

[City of Yarra's Certificate of Currency attached. Please refer to the Appendix VII.](#)

Please note that should your application be successful in securing grant funding from the TAC, you will be required to enter an agreement which will entail the following obligations:

- A six monthly progress report;
- A final report one month after completion of the project, including before and after photos if appropriate;
- Where applicable, an evaluation report of the innovative treatment, within 13 months of project completion, including before and after photos if appropriate;
- Notify in writing the TAC project co-ordinator seeking approval for any variation in the proposed project, prior to the changes being implemented;
- Agreement to your project being 'showcased' to other LGAs where the TAC deems appropriate;
- Signature of authorised representative of LGA.

## Attachments

[Appendix I: Concept Design - Proposed shared zone on Stewart Street, Richmond](#)

[Appendix II: SWOT Analysis for proposed shared zone](#)

[Appendix III: Aerial photo and street view - Stewart Street, Richmond](#)

[Appendix IV: Pedestrian counts](#)

[Appendix V: Traffic Management Plan \(TMP\) - LATM-17](#)

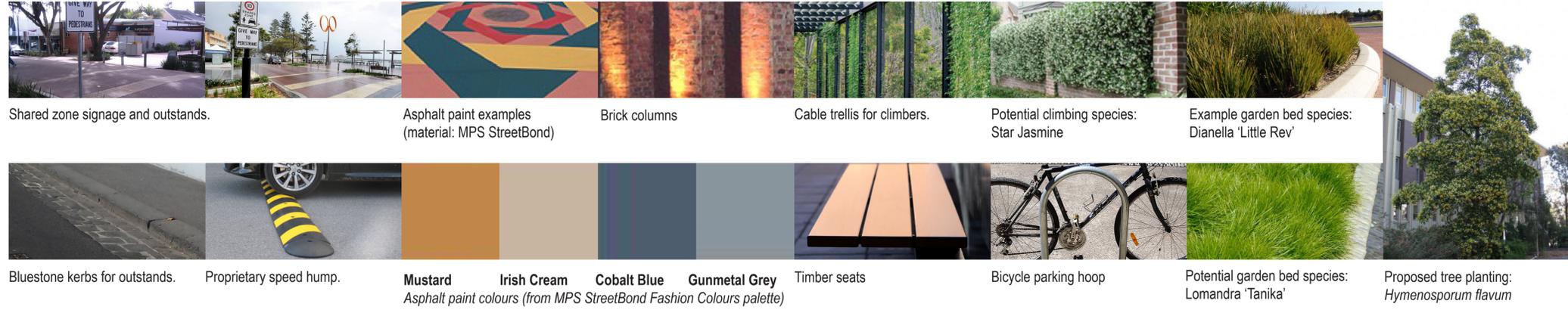
[Appendix VI: Certificate of Currency - City of Yarra](#)

# **Appendix I**

## **Concept Design**

### **Stewart Street, Richmond**

## materials and finishes palette



Shared zone signage and outstands.

Asphalt paint examples  
(material: MPS StreetBond)

Brick columns

Cable trellis for climbers.

Potential climbing species:  
Star Jasmine

Example garden bed species:  
Dianella 'Little Rev'

Bluestone kerbs for outstands.

Proprietary speed hump.

**Mustard** **Irish Cream** **Cobalt Blue** **Gunmetal Grey**  
Asphalt paint colours (from MPS StreetBond Fashion Colours palette)

Timber seats

Bicycle parking hoop

Potential garden bed species:  
Lomandra 'Tanika'

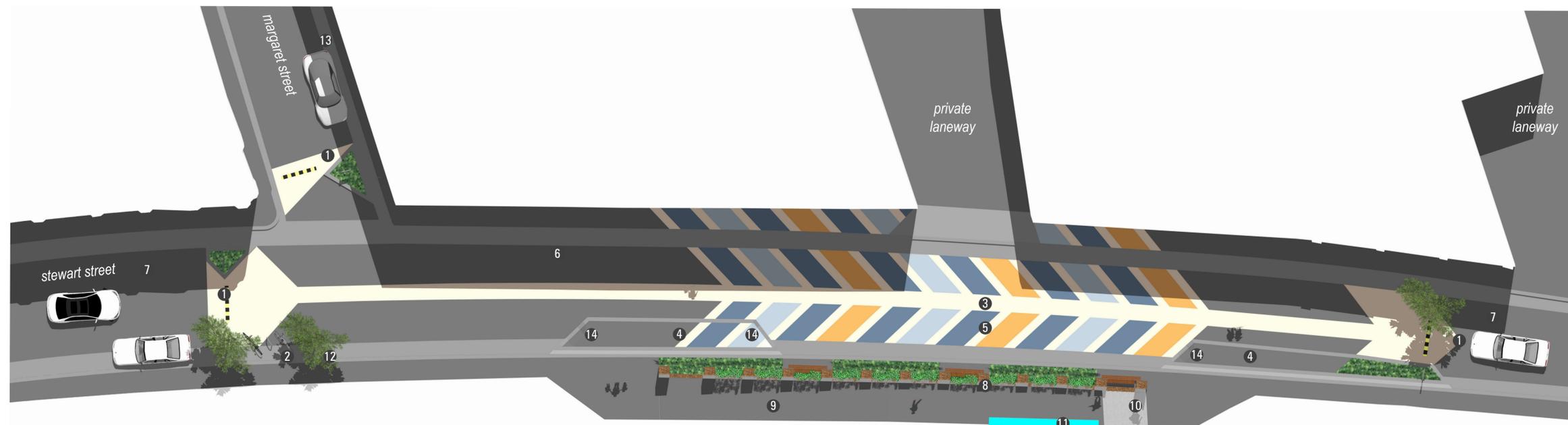
Proposed tree planting:  
*Hymenosporum flavum*



## stewart street, richmond streetscape concept design

### design intent

The following presents a streetscape concept for establishing a shared zone in Stewart Street, Richmond. Threshold treatments are incorporated to initially establish the shared zone, which include areas of asphalt paint to distinguish the road surface. This painted pattern, which is inspired by adjoining past site uses, extends through the length of the shared zone. The entry to Richmond station has been made more attractive and functional, with the implementation of a pocket park with planting, lighting and seating. Key to this area is a number of brick columns that have been inspired by the surrounding built form. Kerb space has also been increased, while functional requirements have been accommodated; such as disability access, consideration to peak pedestrian traffic and vehicle turning circles.



### legend

- Asphalt
- MPS Asphalt Paint (various colours - refer materials and finished palette)
- Bluestone kerb
- Trench drain (heel-safe), between bluestone kerbs
- Tree planting
- Garden bed planting
- Proposed brick columns with a cable trellis and climbing plant species between
- Proposed timber seat attached to brick columns
- Proprietary speed hump
- Richmond Station entry

### concept design plan

#### 1 Shared Zone Thresholds, each with:

- Signage
- Bluestone kerb outstands (located separate from kerb and channel to maintain drainage functionality)
- Proprietary Speed Hump
- 3m wide access for vehicles provided
- Garden bed planting with species of a low height to maintain sight-lines
- Asphalt surface paint to differentiate the shared zone
- The eastern and western thresholds on Stewart Street are located to match the location of existing tree plantings and to minimise loss of car parking spaces.

#### 2 Proposed bicycle parking space bordered by tree planting (one existing tree, one proposed, species: *Hymenosporum flavum*, Native Frangipani). Note: one car parking space removed for this.

#### 3 Proposed asphalt paving pattern, inspired by Australian Knitting Mills (AKM) building pattern, military uniform rank insignias and micro scale knitting pattern. The pattern is also:

- Focused on central area's road and adjoining footpath surface
- Smaller, lighter coloured bands are located to tie-in with the proposed brick pillars (8) and kerb outstands (4)
- Wider yellow bands announce seating locations.

#### 4 Kerb outstands, which:

- Creates additional footpath space for pedestrians
- Are oriented to not inhibit peak pedestrian traffic flow to Richmond Station
- Reinforces equal pedestrian and vehicle priority in the shared zone by narrowing the through traffic lane
- Are connected to road surface via a proposed pram ramps to maintain
- Are located separate from kerb and channel to maintain drainage functionality
- Are connected by 'heel-safe' trench grates to the existing kerb and footpath

#### 5 Space between kerb outstand maintains vehicle moveability in and out of adjoining private laneway, while providing a passing lane for through traffic

#### 6 Parking retained on northern side of Stewart Street

#### 7 Parking retained beyond shared zone on Stewart Street

- #### 8 Pocket park, which:
- Includes brick columns reflective of surrounding built form
  - Has climbing species between the columns on a cable trellis
  - Has three bench seats located between the columns
  - Aims to improve the appearance of the Richmond Station entry from Stewart Street and from within the station itself

#### 9 Existing ramp to Richmond Station

#### 10 Existing stairs to Richmond Station

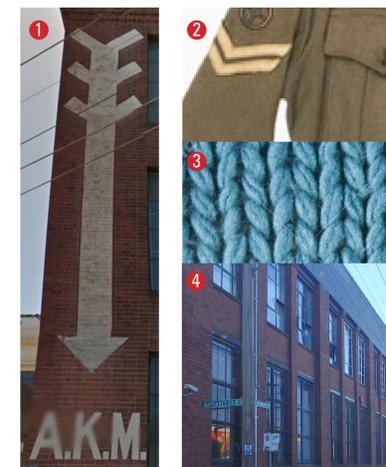
#### 11 Existing entry to Richmond Station

#### 12 Proposed tree

#### 13 Parking retained on Margaret Street

#### 14 Proposed pram ramp locations

### design inspiration



#### Asphalt Paint Pattern:

- 1 AKM (Australian Knitting Mills) building pattern
- 2 Pattern inspiration: rank insignia (AKM produced WW1 uniforms for Australian soldiers)
- 3 Close up view of knitted pattern.

#### Brick Columns:

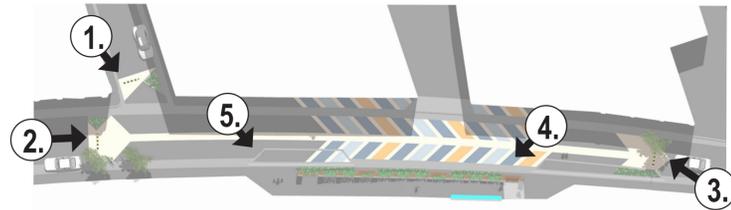
- 1 Surrounding built form: AKM (Australian Knitting Mills).
- 4



Project Ref: 15.163  
Dwg No.: LCD-006  
Scale: 1:150 (A1)  
Date: 17.07.15  
Revision: -

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## key plan



### 1. northern threshold



- 1 Shared zone signage.
- 2 3m access width and proprietary speed hump.
- 3 Outstand located beyond kerb and channel to maintain current drainage functionality.
- 4 Existing parking retained.
- 5 One car space removed for bicycle parking (located outside of peak pedestrian traffic desire lines).
- 6 Proposed tree to match existing (Native Frangipani).
- 7 'Heel-safe' trench grates connect the existing kerb and footpath to garden bed /outstands.
- 8 Asphalt surface paint at thresholds to further differentiate the shared zone.

### 2. eastern threshold



### 3. western threshold



### 4. pocket park - view a.



### 5. pocket park - view b.

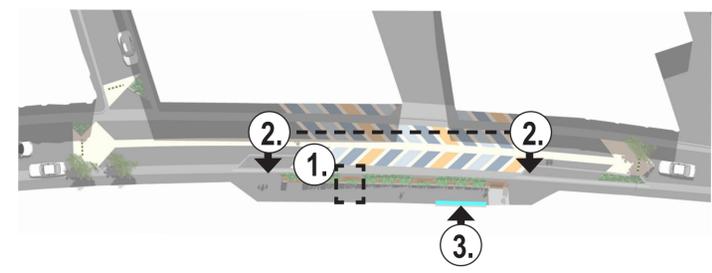


- 1 Richmond Station entry
- 2 2.6m high brick columns reflective of surrounding factory architecture
- 3 Climbers on cable trellis attached to brick columns
- 4 Timber seat attached to brick columns
- 5 Native grass planting in location of existing footpath
- 6 Proposed bluestone kerb outstand with asphalt footpath surface and pram ramps to enable disability access.
- 7 'Heel-safe' trench grates connect the existing kerb and footpath to garden bed / outstands.
- 8 Space between kerb outstands accommodates turning circle of trucks accessing adjacent private laneway and creates a passing lane.
- 9 Handrail attached to brick columns
- 10 Surface pattern complements angles of kerb outstands and location of brick columns.
- 11 End panels unplanted to maintain sightlines
- 12 Existing stairs
- 13 Existing ramp

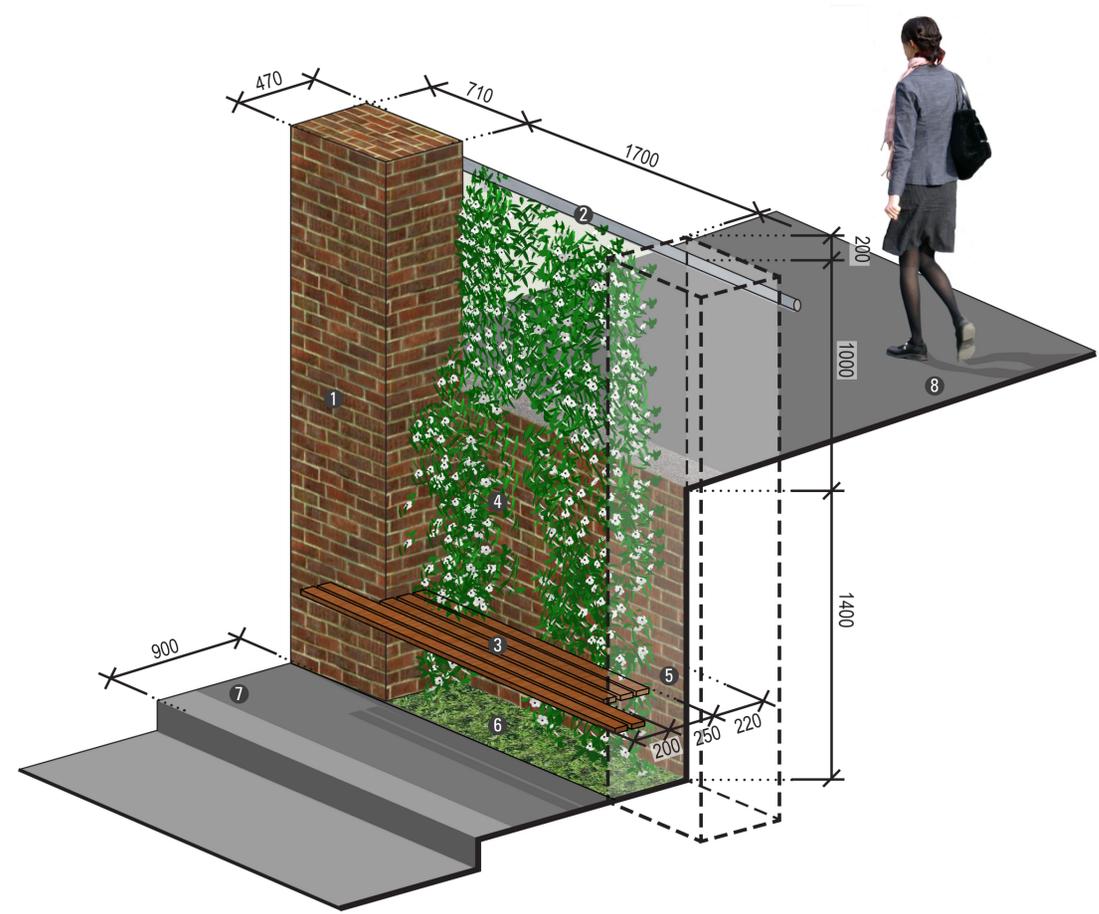


Project Ref: 15.163  
 Dwg No.: LCD-007  
 Scale: NTS  
 Date: 20.07.15  
 Revision: -

key plan



1. brick column / seat - typical configuration



- 1 2.6m high brick column
- 2 Balustrade attached to brick columns (1.0m high)
- 3 Timber seat attached to columns (0.5m above ground level)
- 4 Cable trellis with climbing species. Example species: *Trachelospermum jasminoides*, Star Jasmine.
- 5 Gap (0.21m) between the back of seat and the existing station wall to allow for cable trellis and climbing species to grow behind the seat.
- 6 Garden bed behind seat to allow for climber growth.
- 7 0.9m pavement space for seat users
- 8 Walkway to Richmond Station (notionally 1.4m above ground level).

2a pocket park elevation - day



- 1 Richmond Station entry
- 2 Brick columns
- 3 Climbers on cable trellis
- 4 Timber seat locations
- 5 Native grass planting
- 6 End panels unplanted to maintain sightlines

2b pocket park elevation - night (lighting concept)



**Lighting concept:** there is the opportunity to integrate feature lighting into the brick columns. This would increase the visual presence of the pocket park and shared zone at night. A lighting response that is structured to reinforce the ordered appearance of the brick columns would be preferred, with the opportunity for down (pictured) or up-lighting to highlight the rough brick texture.

3. richmond station view



A key aspiration of this concept is to explore the opportunity to improve the appearance of Stewart Street to people within Richmond Station. The vertical nature of the brick columns and climbers mean they are visible from within the Richmond Station tunnel (left).

Project Ref: 15.163  
Dwg No.: LCD-008  
Scale: 1:150 (A1) (Sections)  
Date: 20.07.15  
Revision: -



## **Appendix II**

### **SWOT Analysis for proposed shared zone**



# stewart street, richmond streetscape concept plan

## site analysis

### s.w.o.t analysis

The following s.w.o.t analysis has been prepared based on the findings of this analysis, and is intended as a pre-cursor for the development of concept design options.

#### strengths

- High number of pedestrians use the area.
- Well connected to areas of Richmond and the station.
- Existing pavement, kerbs and footpath are in good condition due to recent upgrades.
- Solar amenity is strong in some areas due to a laneway between adjacent buildings.

#### weaknessess

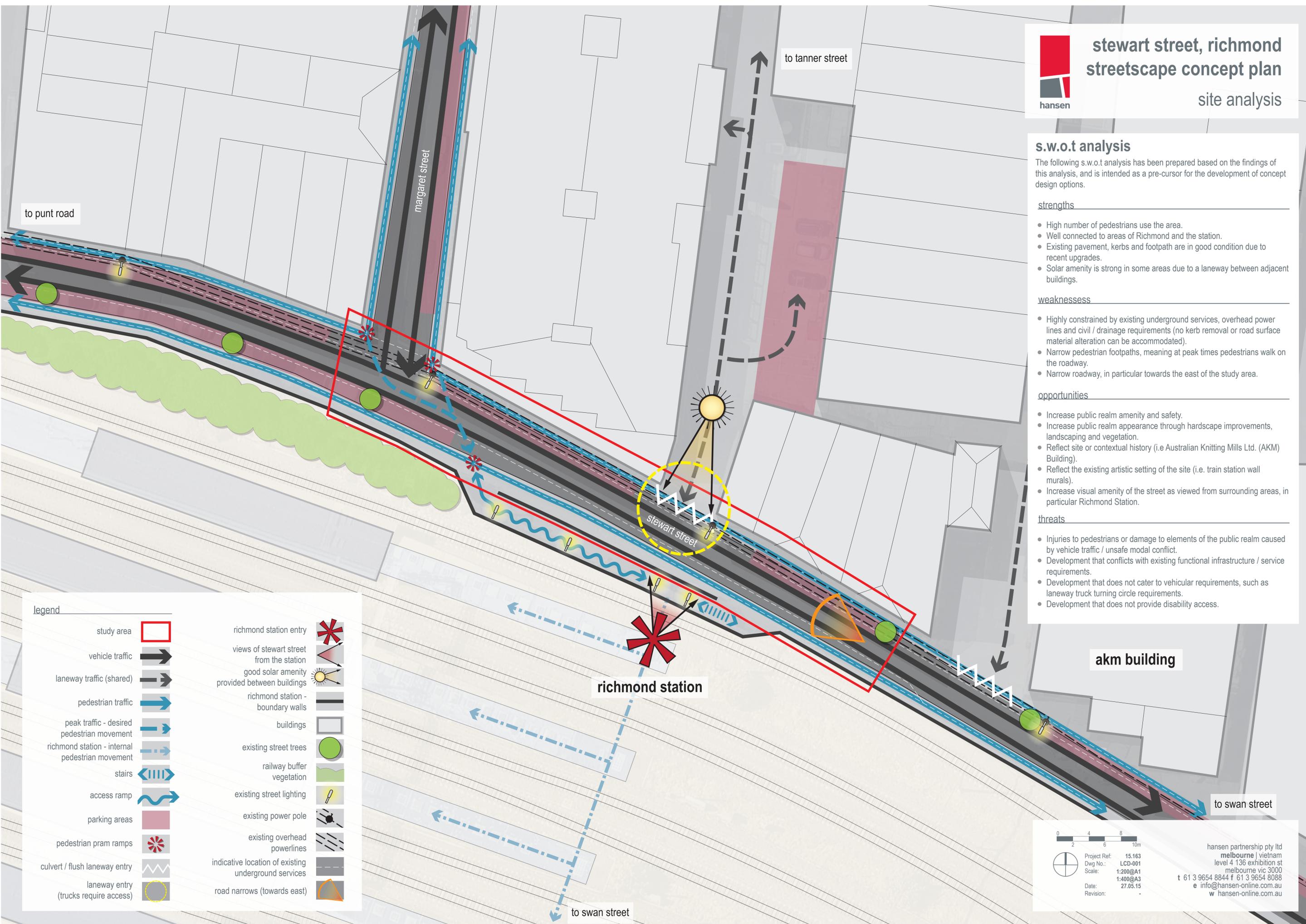
- Highly constrained by existing underground services, overhead power lines and civil / drainage requirements (no kerb removal or road surface material alteration can be accommodated).
- Narrow pedestrian footpaths, meaning at peak times pedestrians walk on the roadway.
- Narrow roadway, in particular towards the east of the study area.

#### opportunities

- Increase public realm amenity and safety.
- Increase public realm appearance through hardscape improvements, landscaping and vegetation.
- Reflect site or contextual history (i.e Australian Knitting Mills Ltd. (AKM) Building).
- Reflect the existing artistic setting of the site (i.e. train station wall murals).
- Increase visual amenity of the street as viewed from surrounding areas, in particular Richmond Station.

#### threats

- Injuries to pedestrians or damage to elements of the public realm caused by vehicle traffic / unsafe modal conflict.
- Development that conflicts with existing functional infrastructure / service requirements.
- Development that does not cater to vehicular requirements, such as laneway truck turning circle requirements.
- Development that does not provide disability access.



**legend**

study area		richmond station entry	
vehicle traffic		views of stewart street from the station	
laneway traffic (shared)		good solar amenity provided between buildings	
pedestrian traffic		richmond station - boundary walls	
peak traffic - desired pedestrian movement		buildings	
richmond station - internal pedestrian movement		existing street trees	
stairs		railway buffer vegetation	
access ramp		existing street lighting	
parking areas		existing power pole	
pedestrian pram ramps		existing overhead powerlines	
culvert / flush laneway entry		indicative location of existing underground services	
laneway entry (trucks require access)		road narrows (towards east)	

0 2 4 6 8 10m

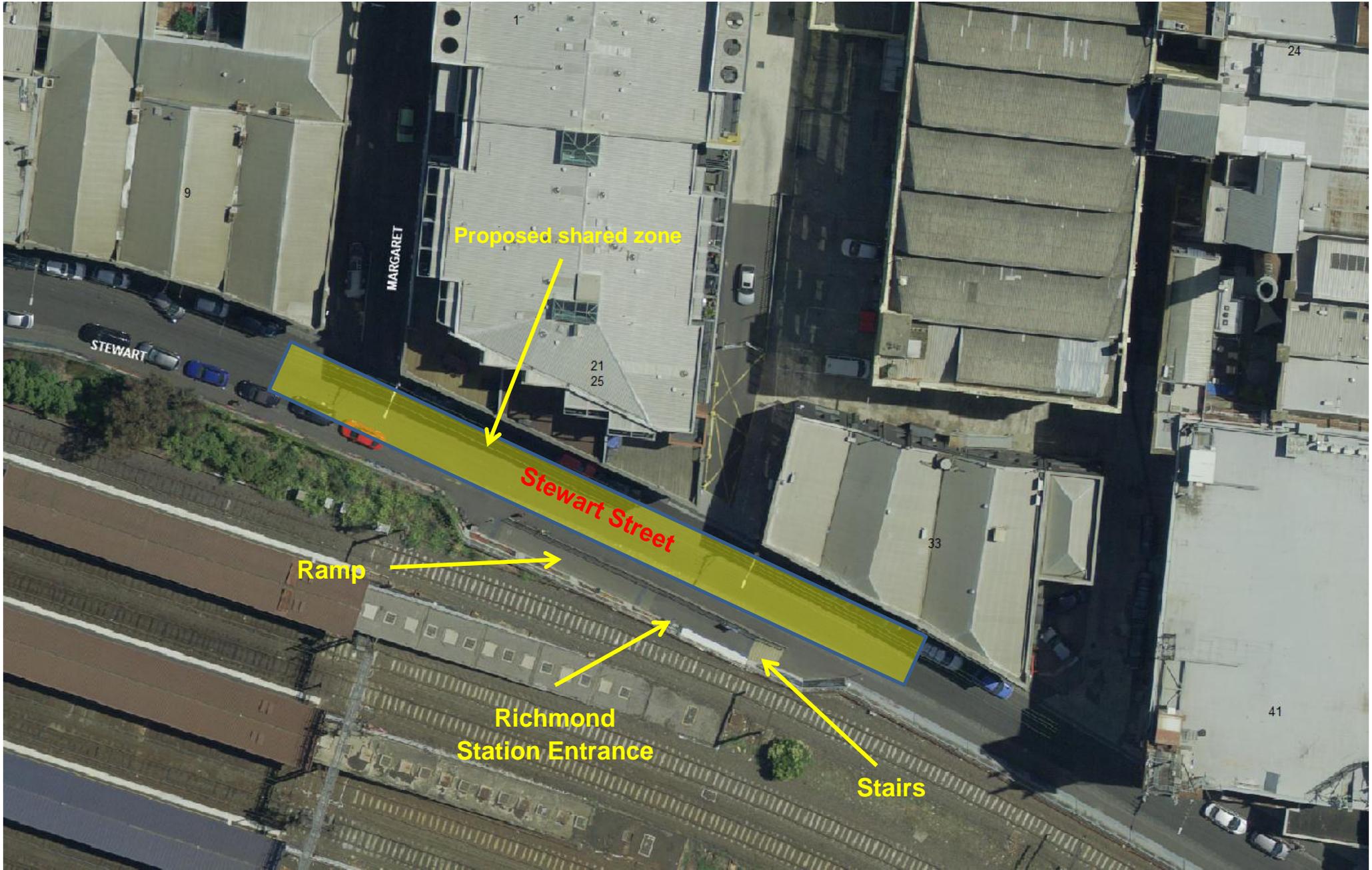
Project Ref: 15.163  
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 Scale: 1:200@A1  
 1:400@A3  
 Date: 27.05.15  
 Revision: -

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## **Appendix III**

**Aerial photo and street-view**

**Stewart Street, Richmond**



# Looking West



# Looking East



# **Appendix IV**

## **Pedestrian counts**

### **Stewart Street, Richmond**

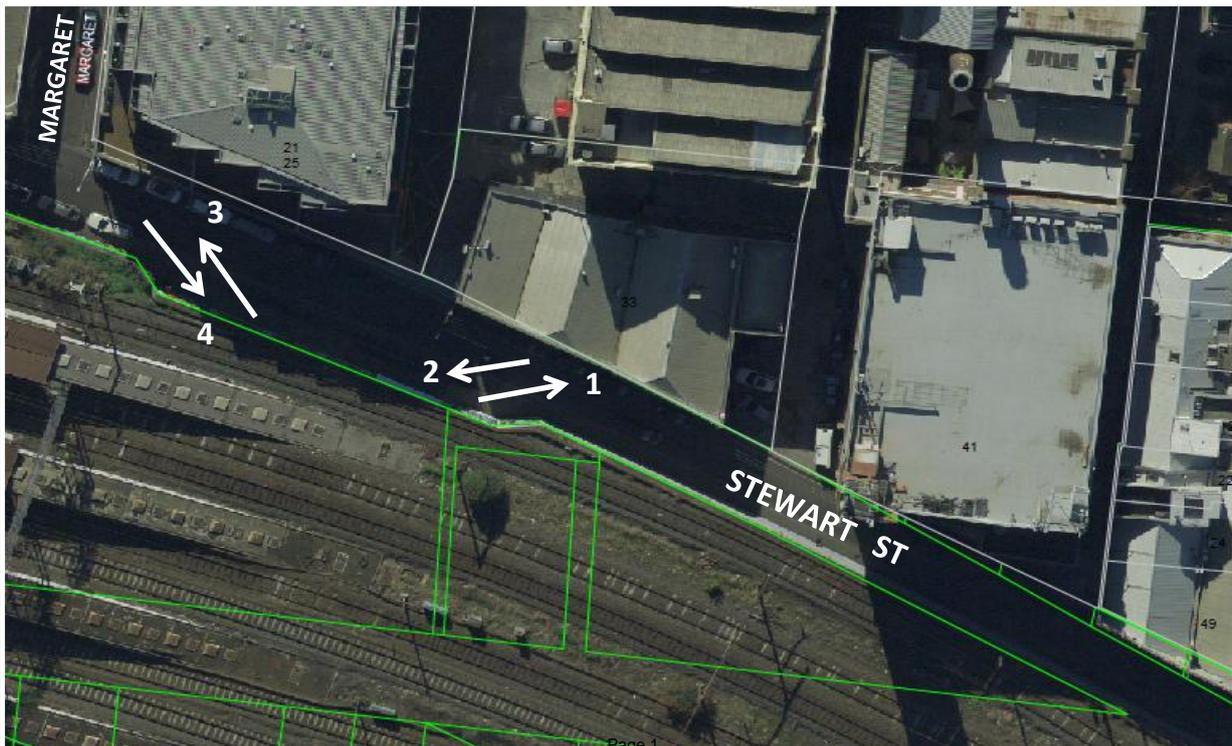
## PEDESTRIAN TRAFFIC COUNTS

**LOCATION:** STEWART ST RICHMOND STATION  
RICHMOND

**DATE:** Tuesday 19/11/2013

**WEATHER:** Fine & Sunny

TIME INTERVAL	PEDESTRIAN MOVEMENTS				VEHICLES		
	1	2	3	4	EAST BOUND	WEST BOUND	
7.00am - 7.15am	12	26	24	18	9	3	
7.15am - 7.30am	14	24	47	24	11	6	
7.30am - 7.45am	33	50	65	47	9	2	
7.45am - 8.00am	37	70	72	31	9	1	
8.00am - 8.15am	52	75	78	38	11	5	
8.15am - 8.30am	37	67	86	45	11	7	
8.30am - 8.45am	60	59	71	44	14	3	
8.45am - 9.00am	62	53	46	26	8	3	
9.00am - 9.15am	51	46	53	33	6	2	
9.15am - 9.30am	40	40	41	30	8	4	
<b>TOTAL</b>	<b>398</b>	<b>424</b>	<b>583</b>	<b>273</b>	<b>96</b>	<b>36</b>	<b>0</b>
4.30pm - 4.45pm	15	36	14	40	8	5	
4.45pm - 5.00pm	26	26	21	38	8	7	
5.00pm - 5.15pm	23	55	27	66	8	6	
5.15pm - 5.30pm	44	43	42	66	5	4	
5.30pm - 5.45pm	46	46	53	64	6	5	
5.45pm - 6.00pm	43	37	38	62	12	4	
6.00pm - 6.15pm	24	24	21	37	6	7	
6.15pm - 6.30pm	24	14	16	15	14	6	
<b>TOTAL</b>	<b>245</b>	<b>281</b>	<b>232</b>	<b>388</b>	<b>67</b>	<b>44</b>	<b>0</b>



## PEDESTRIAN TRAFFIC COUNTS

**LOCATION:** STEWART ST APPROX 40-50m WITH-IN THE ENTRANCE TO THE RICHMOND STATION (AFL GAME AT MCG)

**DATE:** 24/08/2014

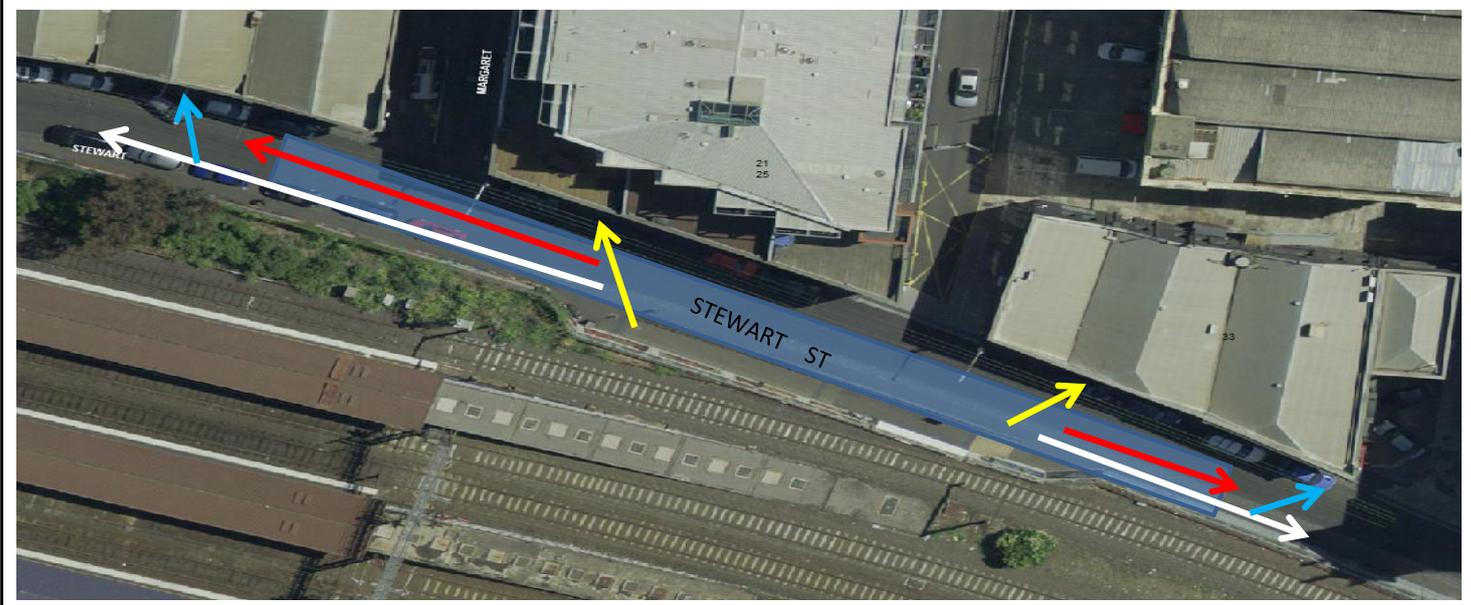
**WEATHER:** COOL OVERCAST WITH SOME SHOWERS

TIME INTERVAL	PEDESTRIAN MOVEMENTS							
	RAMP (WEST SIDE OF ENTRANCE)				STAIR (EAST SIDE OF ENTRANCE)			
	1 ALONG FOOTPATH	2 ALONG FOOTPATH & CROSS	3 ALONG ROAD	4 CROSSING ROAD	1 ALONG FOOTPATH	2 ALONG FOOTPATH & CROSS	3 ALONG ROAD	4 CROSSING ROAD
2.00pm - 2.15pm	8	4	3	6	3	3	0	8
2.15pm - 2.30pm	13	1	0	14	0	6	0	6
2.30pm - 2.45pm	14	8	0	18	17	2	0	12
2.45pm - 3.00pm	17	16	1	42	5	2	6	27
3.00pm - 3.15pm	14	7	0	30	18	1	0	7
3.15pm - 3.30pm	18	2	2	43	8	0	1	9
3.30pm - 3.45pm	31	10	0	82	6	0	0	11
3.45pm - 4.00pm	29	3	1	66	6	0	1	3
4.00pm - 4.15pm	90	23	3	54	6	0	5	9
4.15pm - 4.30pm	62	11	4	10	2	2	1	1
4.30pm - 4.45pm	28	7	0	31	4	0	0	0
4.45pm - 5.00pm	6	0	0	12	0	3	0	5
<b>TOTAL</b>	<b>330</b>	<b>92</b>	<b>14</b>	<b>408</b>	<b>75</b>	<b>19</b>	<b>14</b>	<b>98</b>
7.00pm - 7.15pm	5	3	0	6	2	0	0	4
7.15pm - 7.30pm	138	2	29	9	1	0	0	0
7.30pm - 7.45pm	434	2	280	3	37	0	137	6
7.45pm - 8.00pm	34	8	14	7	7	0	5	1
8.00pm - 8.15pm	21	8	6	5	11	0	6	2
8.15pm - 8.30pm	7	15	5	4	14	2	18	2
8.30pm - 8.45pm	19	9	2	0	8	2	0	8
8.45pm - 9.00pm	20	3	6	4	0	3	0	3
<b>TOTAL</b>	<b>678</b>	<b>50</b>	<b>342</b>	<b>38</b>	<b>80</b>	<b>7</b>	<b>166</b>	<b>26</b>

**NOTE: ALMOST TWICE AS MANY PEOPLE WOULD WALK STAIGHT THROUGH STEWART ST TO SWAN ST AND AS MANY TO PUNT RD**

**APPROX 10 TO 15 CARS EVERY 15min**

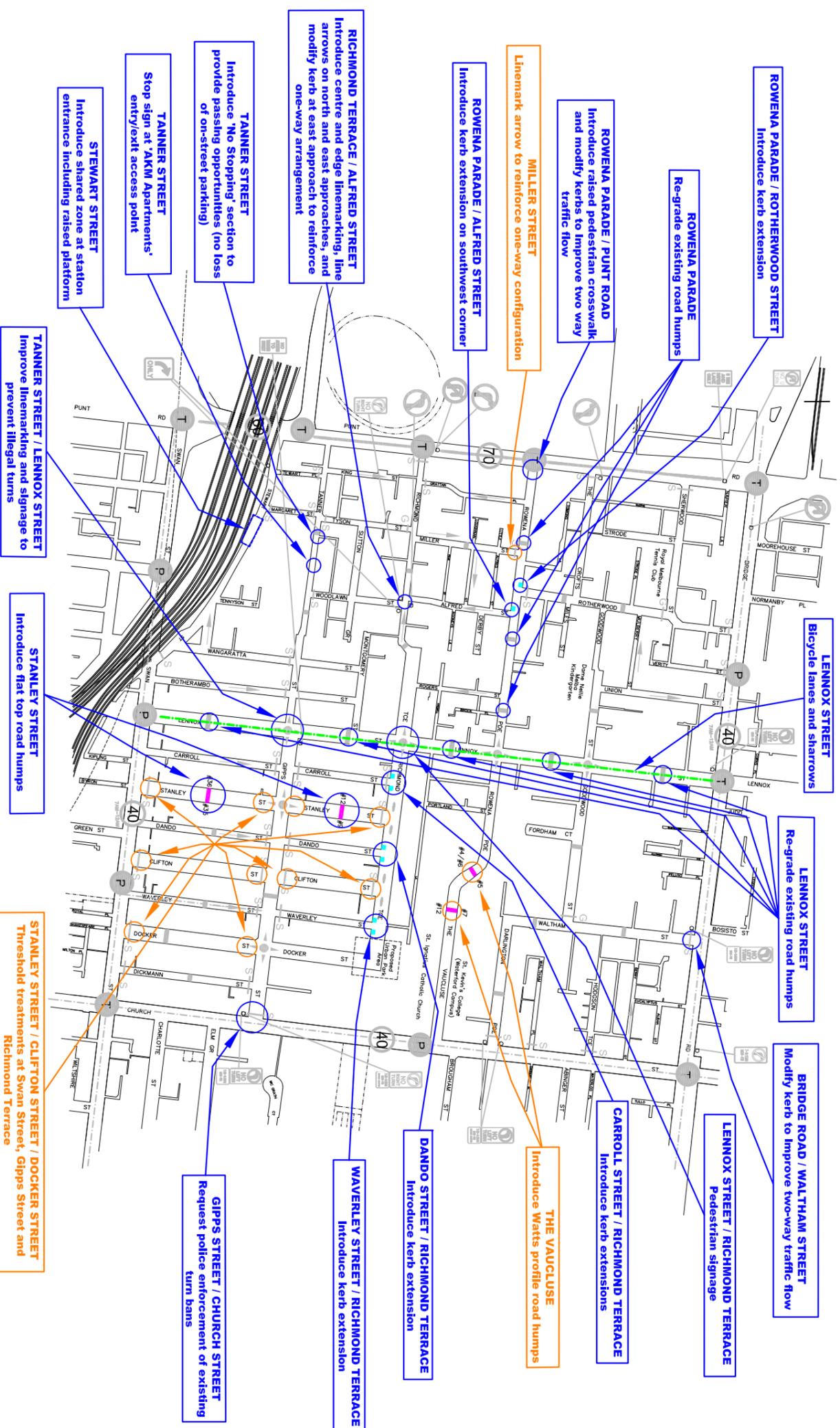
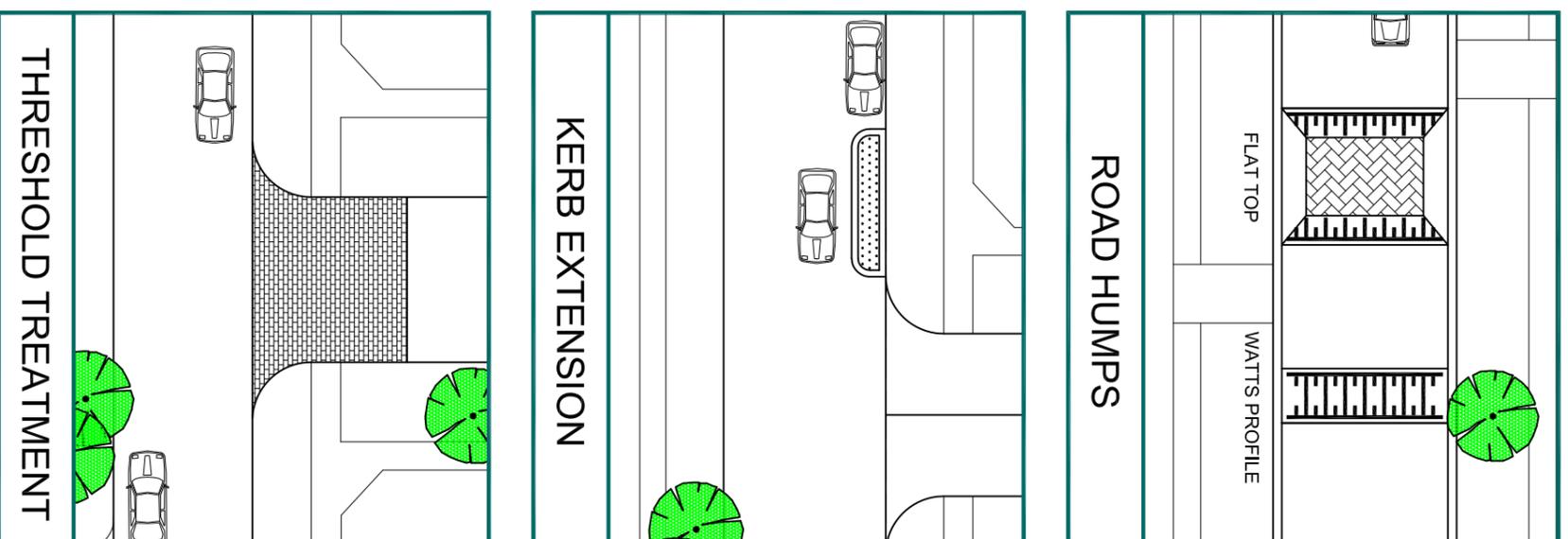
**PEOPLE WALKING ALONG ROAD WHEN IN HIGH GROUPS WOULD NOT MOVE OR MAKE VERY LITTLE EFFORT TO MOVE FOR CARS USING THE ROAD**



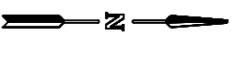
# **Appendix V**

## **Traffic Management Plan (TMP) – LATM-17**

# RICHMOND AREA 17 LOCAL AREA TRAFFIC MANAGEMENT STUDY



- EXISTING TRAFFIC MANAGEMENT:**
- ROUNDABOUT
  - S/G STOP/GIVE WAY SIGN
  - ONE WAY STREET
  - ROAD HUMPS
  - TRAFFIC SIGNALS
  - SCHOOL CROSSING
  - MEDIAN ISLAND
  - TRAFFIC ISLAND
  - BICYCLE LANE
  - PEDESTRIAN SIGNALS
- PROPOSED TRAFFIC MANAGEMENT:**
- ONE WAY STREET
  - ROAD HUMPS
  - BICYCLE LANE
  - KERB EXTENSION



## RECOMMENDED TRAFFIC MANAGEMENT PLAN COMMUNITY CIRCULAR #3 (28/8/13)

# **Appendix VI**

## **Certificate of Currency – City of Yarra**



**MAV Insurance**  
Level 11, 60 Collins Street,  
Melbourne Vic 3000  
Telephone: (03) 8664 9310  
Facsimile: (03) 8664 9398  
Email: [frank.loschiavo@lta.com.au](mailto:frank.loschiavo@lta.com.au)

ABN 24 326 561 315

1<sup>st</sup> July 2015

## Certificate of Currency

This is to certify that the following policy reference is current, as at the date stated above.

This Certificate provides a summary of the policy cover and is not intended to amend, extend, replace or override the policy terms and conditions contained in the actual policy document.

<b>Insurance Class</b>	Public and Products Liability, and Professional Indemnity	
<b>Insured Name</b>	<b>City of Yarra</b>	
<b>Insured Business</b>	Local Government Authority, as per Policy Definition.	
<b>Policy Expiry Date</b>	4.00pm – 30 <sup>th</sup> June, 2016	
<b>Situation</b>	Anywhere in Australia, and elsewhere as per Policy.	
<b>Interest</b>	Legal liability to third parties for injury and/or Damage to Property caused by an occurrence in connection with the Insured's business.	
<b>Limit of Indemnity</b>	Public/Products Liability	\$400,000,000
	Professional Indemnity	\$300,000,000
<b>Sub Limits of Indemnity</b>	As per Policy.	
<b>Deductible:</b>	Public/Products Liability	\$20,000
	Professional Indemnity	\$20,000
<b>Insurer</b>	MAV Insurance, Liability Mutual Insurance.	
<b>Policy No.</b>	<b>LMI000238</b>	

This certificate of currency provides a summary of the policy cover and is current on the date of issue.

It is not intended to amend, extend, replace or override the policy terms and conditions contained in the actual policy document. This certificate of currency is issued as a matter of information only and confers no rights upon the certificate holder. We accept no responsibility whatsoever for any inadvertent or negligent act, error or omission on our part in preparing these statements or in transmitting this certificate by email or for any loss, damage or expense thereby occasioned to any recipient of this letter.

Yours sincerely,

Frank Loschiavo  
Account Executive  
Jardine Lloyd Thompson  
Service Provider to MAV Insurance Liability Mutual Insurance