

Attachment 2 - 16 & 18 Margaret Street, 268, 270 & 272 Brisbane Street, 123 & 125- 133 Paterson Street, Launceston - Plans of Proposal (pages = 54)



Project:

# NEW CARPARK

Measured form and function

# 16-18 MARGARET STREET

At:

# LAUNCESTON

For:

# JAC PTY LTD

## Project: 16.235

### Drawings:

- D00 NEW CARPARK - EXISTING SITE PLAN
- D01 NEW CARPARK - DEMOLITION PLAN
- D02 NEW CARPARK - LAYOUT PLAN
- D03 NEW CARPARK - TURN PATH B99 VEHICLE
- D04 NEW CARPARK - TURN PATH 24 SEAT BUS
- D05 NEW CARPARK - BUS STOP PATH MTT BUS AND TYPICAL FENCE ELEVATION
- D06 SREETScape VISULISATION BRISBANE AND MAGARET STREET

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6ty Pty Ltd  
 ABN 27 014 609 900

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 Structural / Civil  
 ABP No. CC1633i

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 287 Charles Street  
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57 Best Street  
 Devonport Tasmania  
 P (03) 6424 7161



# PLANNING APPROVAL

Issue date: 08-09-16



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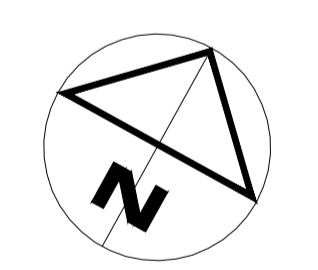
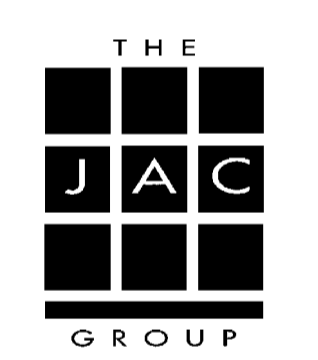
57 Best Street  
Devonport Tasmania  
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NOTE:  
EXISTING TITLES CT:47225-1,  
CT:20377-1, CT:19633-1, CT:34571-1,  
CT:18410-1, CT:18409-1 ARE TO BE  
CONSOLIDATED AS PART OF THIS  
DEVELOPMENT.



## PLANNING DOCUMENT

ISSUE	DATE	ISSUED FOR	REV.
01	08.09.16	PLANNING APPROVAL	-



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PROJECT: NEW CARPARK  
ADDRESS: 16-18 MARGARET STREET  
LAUNCESTON  
FOR: JAC PTY. LTD.

DRAWING: NEW CARPARK  
EXISTING SITE PLAN

DESIGNED: CGB DRAWN: PAS CHECKED:  
SCALES: 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. 16.235 DRAWING NO. D00 REV.





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ABP No. CC1633i



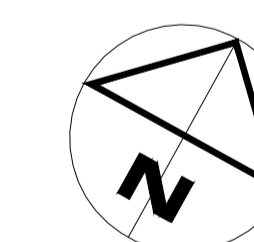
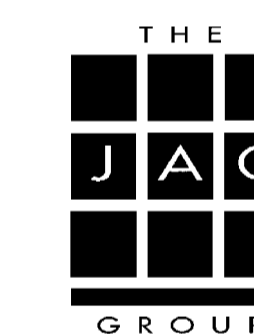
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PROJECT: NEW CARPARK  
ADDRESS: 16-18 MARGARET STREET  
LAUNCESTON  
FOR: JAC PTY. LTD.

DRAWING: NEW CARPARK  
DEMOLITION PLAN

DESIGNED: CGB DRAWN: PAS CHECKED:  
SCALES: 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. 16.235 DRAWING NO. D01 REV.

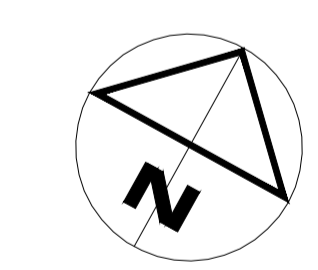






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PROJECT: **NEW CARPARK**  
ADDRESS: **16-18 MARGARET STREET LAUNCESTON**  
FOR: **JAC PTY. LTD.**

DRAWING: **NEW CARPARK LAYOUT PLAN**

DESIGNED: CGB DRAWN: PAS CHECKED:  
SCALES: 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. **16.235** DRAWING NO. **D02** REV.

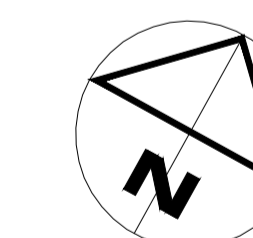
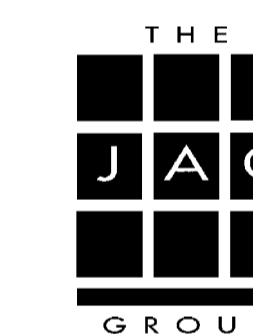






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PROJECT: **NEW CARPARK**  
ADDRESS: **16-18 MARGARET STREET  
LAUNCESTON**  
FOR: **JAC PTY. LTD.**

DRAWING: **NEW CARPARK  
TURN PATH B99 VEHICLE**

DESIGNED: CGB DRAWN: PAS CHECKED:  
SCALES: 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. **16.235** DRAWING NO. **D03** REV.



**TOTAL NEW  
PARKING SPACES**  
87 CARS + 2 BUS  
3 MOTORCYCLE  
& 6 BICYCLE

**BUS PARKING**

MARGARET STREET

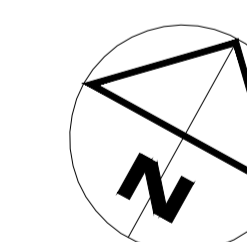
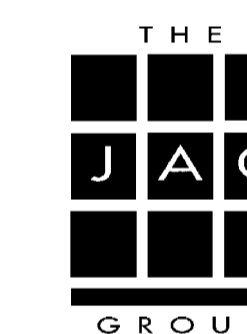
BRISBANE STREET





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PROJECT: NEW CARPARK  
ADDRESS: 16-18 MARGARET STREET  
LAUNCESTON  
FOR: JAC PTY. LTD.

DRAWING: NEW CARPARK  
TURN PATH 24 SEAT BUS

DESIGNED: CGB DRAWN: PAS CHECKED:  
SCALES: 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. 16.235 DRAWING NO. D04 REV.

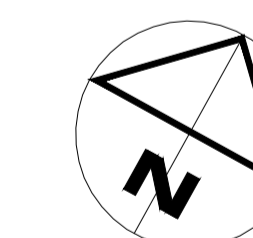
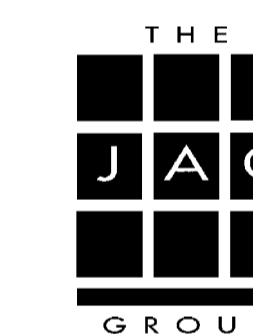






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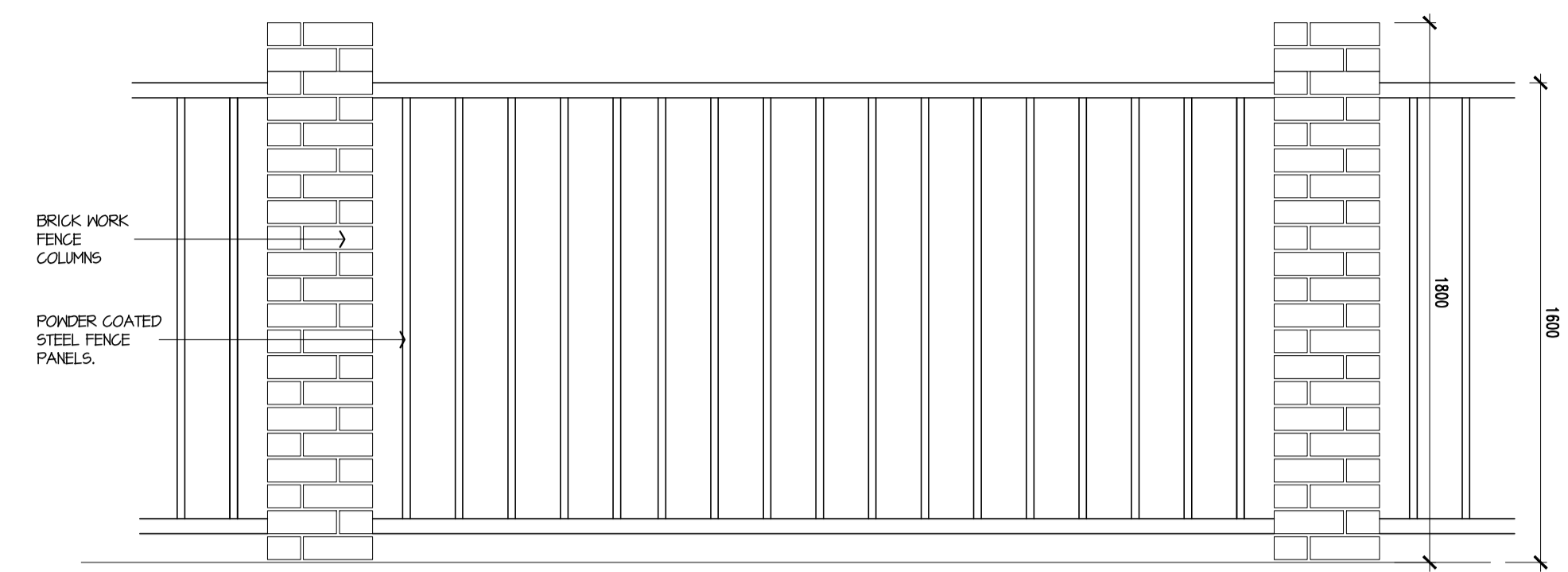
PROJECT: **NEW CARPARK**  
ADDRESS: **16-18 MARGARET STREET LAUNCESTON**  
FOR: **JAC PTY. LTD.**

DRAWING: **NEW CARPARK BUS STOP PATH MTT BUS AND TYPICAL FENCE ELEVATION**

DESIGNED: CGB DRAWN: PAS CHECKED:

SCALES: 1:20, 1:200 AT 1/4 SIZE DRAWING SHEET

PROJECT NO. **16.235** DRAWING NO. **D05** REV.



**BRISBANE STREET FRONTAGE FENCE DETAIL**  
SCALE 1:20





# NEW CARPARK, 16-18 MARGARET STREET



BRISBANE STREET - STREETSCAPE VISUALISATION



MARGARET STREET - STREETSCAPE VISUALISATION



6ty Pty Ltd  
ABN 27 014 609 900

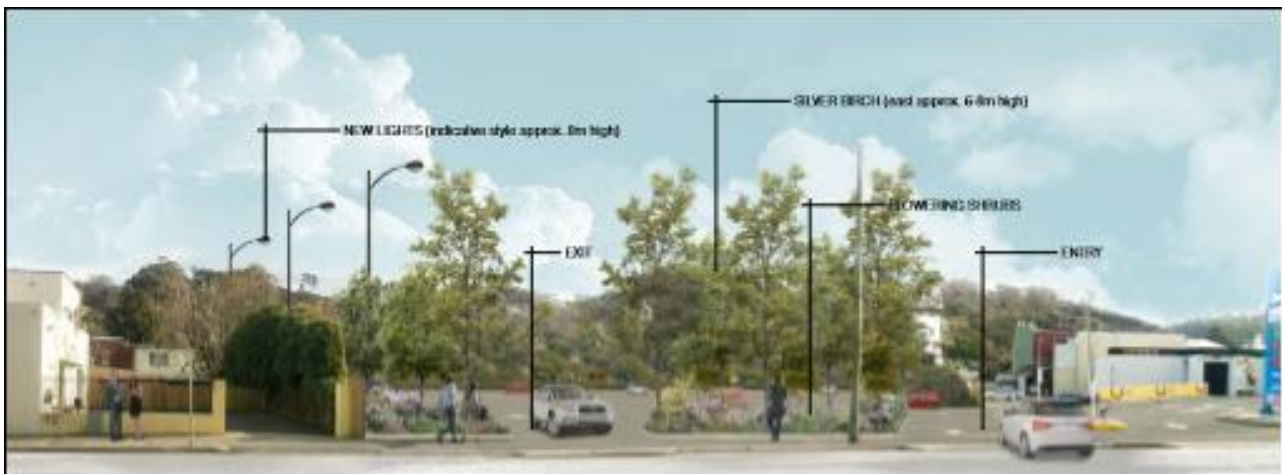
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Devonport 7310  
**P (03) 6424 7161**

# New Car park

## Margaret Street, Launceston



# Planning Application Supporting Submission





<b>Issue</b>	03
<b>Date</b>	8 September 2016
<b>Project Number</b>	16.235
<b>Project Name</b>	Car park
<b>Author</b>	Heidi Goess
<b>Document</b>	I:\2016\16235\1 Administration\6 Authorities\2 Council\R16-09-7 DA Supporting Submission TRC Car park





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<b>Appendix A</b> Completed Application Form	
<b>Appendix B</b> Certificates of Titles	
<b>Appendix C</b> Proposal Plans	
<b>Appendix D</b> Traffic Impact Assessment	
<b>Appendix E</b> Land Contamination Report	
<b>Appendix F</b> Flood Risk Report	



## 1. INTRODUCTION

6ty Pty Ltd, on behalf of JAC P/L, is seeking approval to construct a new car park within the area bound by West Tamar Road, Brisbane Street, Margaret Street and Patterson Street.

The proposed new car park will provide some eighty (80) passenger vehicle and two (2) bus spaces with the purpose of providing convenient and accessible parking to support the Penny Royal tourist facility, TRC Hotel, restaurants and other vehicle generators located within the Kings Park/Bridge Road Area.

This new car park will be beneficial, supporting the existing uses within the area, lowering demand for on-street parking, and improving outcomes for parking and the road network.

The requirement for additional parking in the Kings Park/Bridge Road is substantiated by the *Kings Park/Bridge Road Area Parking Study (February 2015)*<sup>1</sup>. This Study, prepared by GHD Pty Ltd, was commissioned by the City of Launceston with the purpose of exploring Public Parking Options for the Bridge Road Tourist Area and identifying supply and demand for vehicle parking. This confirms that there is a deficit in car parking and an additional supply of parking in this area is appropriate.

Accordingly, this application proposes to develop and construct a new car park. This involves:

- Subdivision, consolidation of lots;
- Demolition of four dwellings at 272 & 270 Brisbane Street, 16 and 18 Margaret Street; and
- Construction of a new car park with access from Margaret Street.

This supporting submission:

- Provides a description of the proposal;
- Brief summary of the site;
- Considers the purpose and the applicable use and development standards of the Urban Mixed Use zone; and
- Considers all of the applicable codes.

The proposal is reliant on and the following performance criteria:

- P1, clause 15.4.2;
- P2, clause 15.4.11;
- P3, clause E4.5.1; and
- P1.1, clause E6.6.3.

The report demonstrates that the proposal complies with all the relevant acceptable solutions and the abovementioned performance criteria.



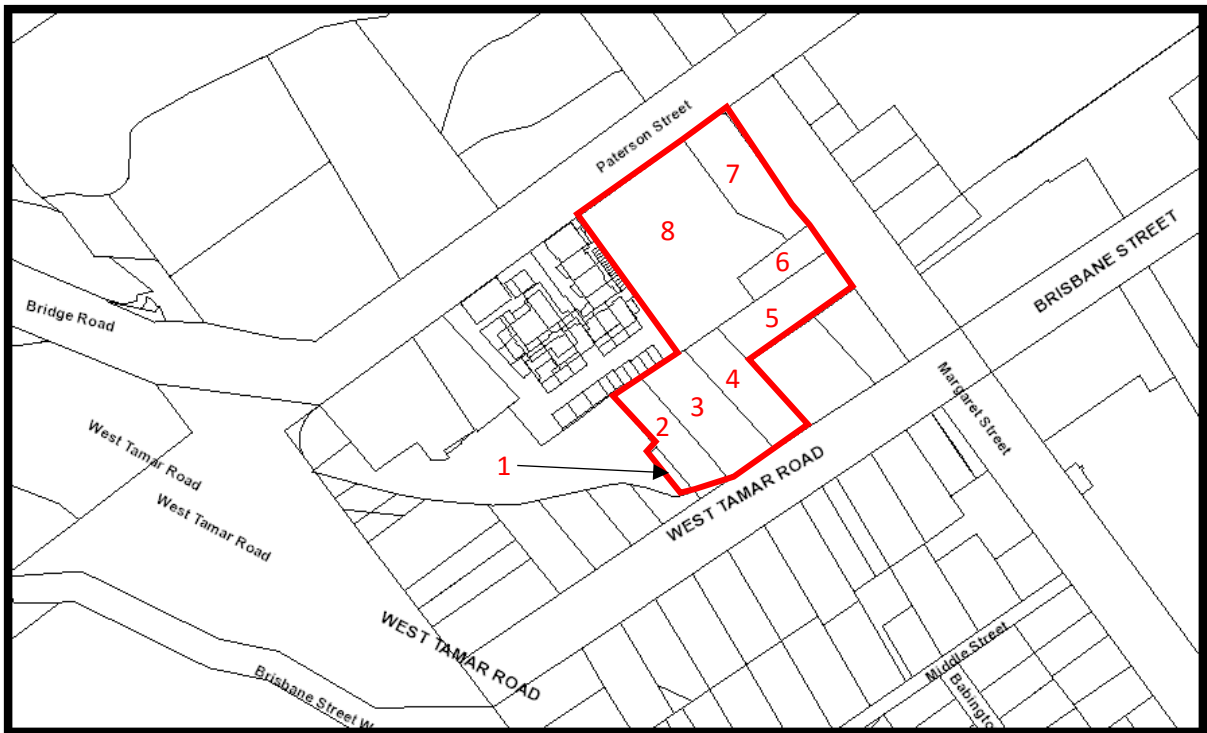


Figure 1: Certificates of Titles comprising the site

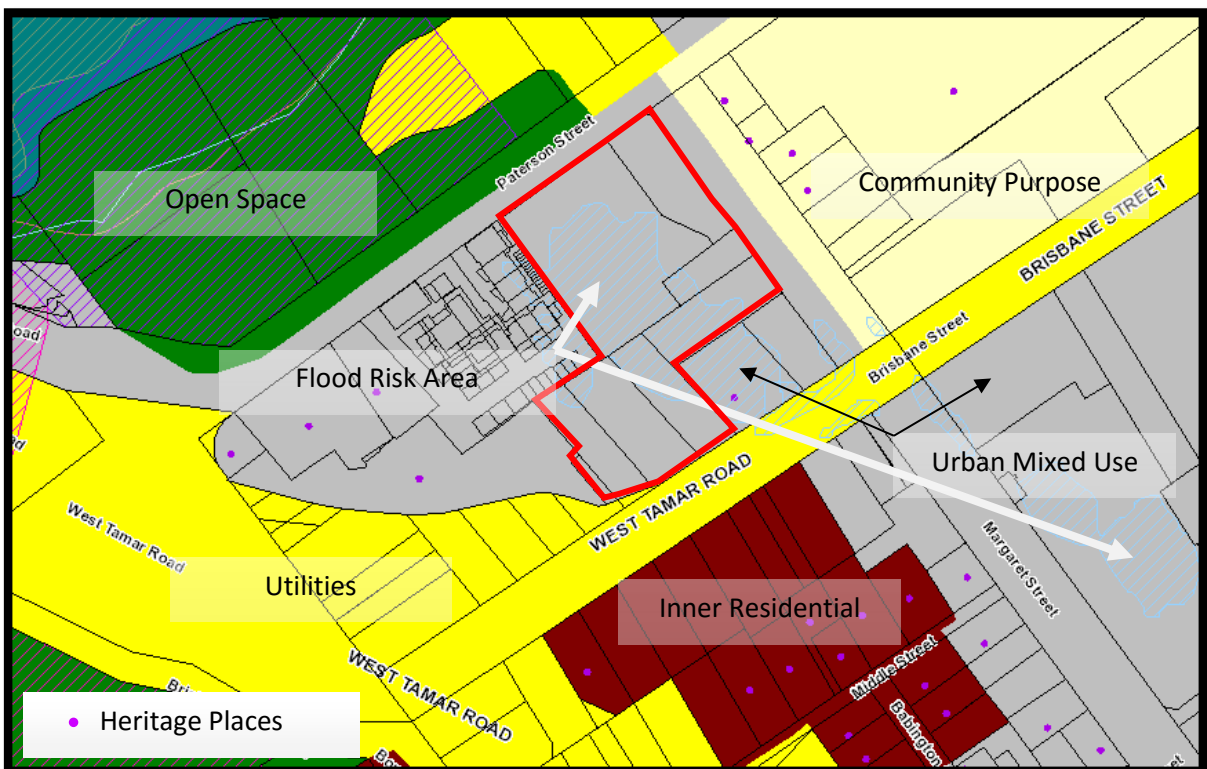


Figure 2: Zone and Overlay Map, Launceston Interim Planning Scheme (source: theLIST)

### 1.1 Application Form & Certificates of Titles

The completed application form and owner notifications is contained in Appendix A. The application applies to land identified on Certificates of Titles



contained in Appendix B. These are summarised in Table 1 with lot boundaries shown on Figure 1.

Table 1: Certificates of Titles identifying the site

	Certificate of Title	Address	Owner
1&2	18409/1 18410/1	272 Brisbane Street, Launceston	T.R.C Pty Ltd
3	34571/1	'Rose Lodge' 270 Brisbane Street, Launceston	T.R.C Pty Ltd
4	19633/1	268 Brisbane Street, Launceston	T.R.C. Pty Ltd
5	20377/1	18 Margaret Street, Launceston	T.R.C. Pty Ltd
6	47225/1	16 Margaret Street, Launceston	T.R.C. Pty Ltd
7	151150/3	123 Paterson Street, Launceston	T.R.C Pty Ltd
8	151150/2	125-133 Paterson Street, Launceston	T.R.C. Pty Ltd

## 1.2 Planning Instrument

The planning instrument subject to this application is the Launceston Interim Planning Scheme (LIPS).

## 1.3 Zone and Overlay Map

The site is zoned Urban Mixed Use under the LIPS (refer to Figure 3). The site is identified as being within a flood prone area as shown on the overlay maps, LIPS.

## 2. PROPOSAL – New Car park

The proposal is the construction of a new car park in the area bound by the West Tamar Highway, Brisbane Street, Margaret Street and Patterson Street (refer to Table 1) as per the proposal plans, drawing numbers (refer to Appendix C):

- D00 New Car park – Existing Site Plan;
- D01 New Car park – Demolition Plan;
- D02 New Car park – Layout Plan;
- D03 New Car park – Turn Path B99 Vehicle;
- D04 New Car park – Turn Path 24 Seat Bus; and
- D05 New Car park – Bus Stop Path MTT Bus.

The development area of the car park is approximately 0.31Ha. The use and development of land will operate as a boom gate controlled car park and is primarily for patrons of the Penny Royal tourist facility. However, it is accepted that the car



park may also be accessed by patrons of the TRC Hotel, Restaurants and other activity generators such as the Cataract Gorge.



Figure 3: Brisbane Street – Streetscape Visualisation

The main driver for this proposed car park is to respond to a parking deficit for the Penny Royal tourist facility and other activity generators within the Kings Park/Bridge Road Area as identified by the Study<sup>1</sup>.

## 2.1 Subdivision, Consolidation of Lots

The proposed subdivision will involve the consolidation of titles listed in Table 2 below to form a single title.

	Certificate of Title	Address	Owner
1&2	18409/1 18410/1	272 Brisbane Street, Launceston	T.R.C Pty Ltd
3	34571/1	'Rose Lodge' 270 Brisbane Street, Launceston	T.R.C Pty Ltd
4	19633/1	268 Brisbane Street, Launceston	T.R.C. Pty Ltd
5	20377/1	18 Margaret Street, Launceston	T.R.C. Pty Ltd
6	47225/1	16 Margaret Street, Launceston	T.R.C. Pty Ltd

## 2.2 Demolition of Dwellings

As part of the construction of the proposed car park, dwellings and outbuildings will be demolished at:

- 270 Brisbane Street;
- 272 Brisbane Street;



- 16 Margaret Street; and
- 18 Margaret Street.

These dwellings are not listed as local heritage places.

### **2.3 Car park**

The newly constructed car park will provide 89 parking spaces and 2 bus parking spaces. The car park is to be boom gated at both the internal entrance off the TRC Hotel car park and at the exist to Margaret Street.

Further description of the proposed use and development of land is offered within the Traffic Impact Assessment (refer to Appendix D).

### **2.4 Lighting**

New lighting will be erected in conjunction with the car park. The location of lighting is shown on drawing number D02.

The new lighting will be an 8m high pole mounted car parking fitting with a rear cut off shield ensuring that light spill is contained within the boundaries of the site.

The slight spill and levels of illumination from the proposed lighting will not cause unreasonable loss of amenity to the adjoining sensitive uses.

### **2.5 Fencing**

A 1.8m high brick column and steel panels will be erected along the frontage of Brisbane Street as shown on drawing number D02. Fencing is not proposed along Margaret Street.

### **2.6 Landscaping**

Proposed landscaping is shown on drawing number D02 and Streetscape Visualisation.

### **2.7 Site Contamination**

The site is identified as being subject to contamination. Advice has been sought from Dr Wayne Griffioen, Senior Geotechnical Engineer, Tasman Geotechnics (refer to Appendix E) with respect to this matter.

### **2.8 Flood Risk**

The site is identified on the LIPS overlay maps as at risk of flooding. Accordingly, E5.0 Flood Prone Areas Code applies to this use and development. Mr Mark Walters, Civil & Hydraulic Engineer, 6ty Pty Ltd has addressed this Code in this report.



## 2.9 Reticulated Sewer, Water and Stormwater

Reticulated sewer, water and stormwater is shown on drawing number D03.

## 3. SITE

The site, comprises eight certificates of titles with a combined area of approximately 0.6 ha and is bounded by (refer to Figure 4):

- Patterson Street, Kings Park and the Tamar River to the north;
- Margaret Street and Launceston College to the east;
- Food services, dwelling and Brisbane Street to the south; and
- Residential units, restaurant and wine centre (135-143 Paterson Street), visitor accommodation, Leisure Inn Penny Royal (145-151 Paterson Street) to the west.

The site currently contains a mix of use and development including:

- TRC Hotel, fuel station, bottle shop and associated car park;
- TRC Lodge and car park; and
- four residential dwellings.

Access to the TRC Hotel, fuel station and bottle shop is from both Margaret Street and Patterson Street.

There is an existing right-of-way over CT Volume 151150 Folios 2 & 3 which provides access to the site and also the adjoining residential units at 135-143 Paterson Street.

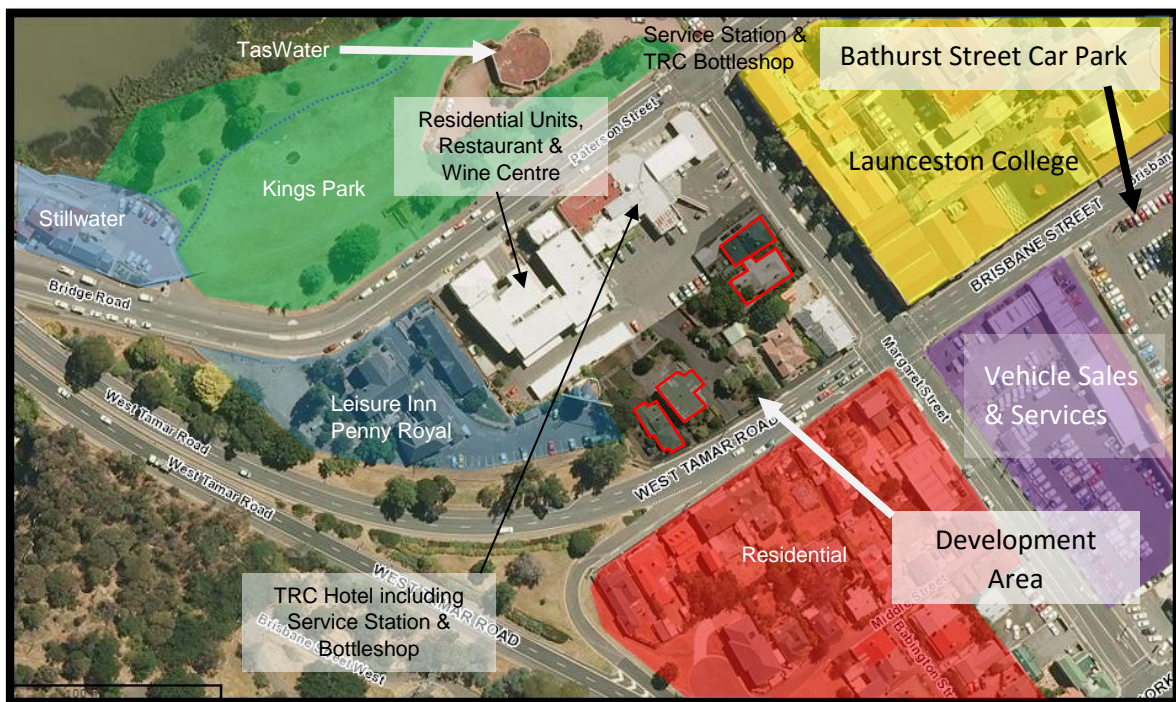


Figure 4: Aerial Photograph of the Site (source: theLIST)



A desktop analysis of the site has been undertaken utilising the LISTmap. The recorded values did not identify any concerns with respect to:

- Threatened fauna or flora;
- Scenic Management; or
- Local Heritage.

#### **4. LAUNCESTON INTERIM PLANNING SCHEME**

The following section of this report examines the relevant provisions of the LIPS with respect to the proposal. This assessment demonstrates that the approval sought satisfies the applicable standards of the Mixed Use Zone and the provisions of the relevant codes.

##### **4.1 Urban Mixed Use Zone**

###### **4.1.1 Purpose, Local Area Objectives and Desired Future Character Statements**

The proposal includes the construction of a new car park, providing 87 spaces and two spaces to each accommodate a 24 seater bus.

The proposed car park will reconfigure the site to improve parking arrangements in this location supporting the mix of uses on the site and addresses the parking deficit of the Penny Royal tourist facility. This is consistent with the zone purpose.

The recent car parking study commissioned by the Council provides sound reason and rationale for additional car parking in this area. The TIA (refer to Appendix D) also demonstrates that traffic circulation generated from this use and development is appropriate in this location.

There are no local area objectives Specific or desired future character statements expressed for this Zone.

The proposal is consistent with the purpose of the Urban Mixed Use zone.

###### **4.1.3 Use Table**

The proposed new car park is categorised as vehicle parking. 'Vehicle Parking' is listed as discretionary at clause 15.2 Use Table.

###### **4.1.4 Urban Mixed Use Zone – Use and Development Standards**

Table 2 assesses the objectives and applicable standards relevant to this proposal. Where the proposal cannot comply with an acceptable solution, this report provides further assessment against the relevant objectives and performance criteria.



Table 2: Assessment of the Use and Development Standards, General Residential zone

<b>10.3 Use Standards</b>		
<b>Scheme Standard</b>	<b>Comment</b>	<b>Assessment</b>
<b>15.3.1 Hours of operation</b>		
A1	<p>The application proposes vehicle parking. This will provide parking to patrons visiting adjoining uses to the site such as the Penny Royal and restaurants in this location.</p> <p>The vehicle parking provides two spaces for bus parking (24 seater). These buses provide transport to the Penny Royal and other local attractions.</p> <p>These buses will operate between 6:00am and 10:00pm.</p>	Complies with the Acceptable Solution
<b>15.3.2 Mechanical plant and equipment</b>		
A1	The application does not propose any air conditioning, air extraction, heating or refrigeration systems.	Not Applicable.
<b>15.3.3 Light spill and illumination</b>		
A3	<p>The site does not adjoin the General Residential, Inner Residential or Low Density Residential zones.</p> <p>Sensitive uses adjoining the site are located at:</p> <ul style="list-style-type: none"> <li>• Units, 135 – 143 Paterson Street, Launceston; and</li> <li>• 264 Brisbane Street, Launceston.</li> </ul> <p>The properties at 135-143 Paterson Street and 264 Brisbane Street are on land zoned Urban Mixed Use.</p> <p>New lighting will be erected in conjunction with the vehicle parking. The location of lighting is shown in on drawing number D03.</p>	Complies with the Acceptable Solution



	<p>The new lighting will comprise multiple pole mounted car parking fitting with a rear cut off shield ensuring that light spill is contained within the boundaries of the site.</p> <p>The slight spill and levels of illumination from the proposed lighting will not cause unreasonable loss of amenity to the adjoining sensitive uses.</p>	
<b>15.3.4 Noise level</b>		
A1	<p>There will be no plant or equipment installed as part of the proposed use and development that will generate noise.</p> <p>The noise generated from vehicles entering and exiting the vehicle parking area is not considered to cause unreasonable impact on the amenity of nearby sensitive uses.</p>	Complies with the Acceptable Solution
<b>15.3.5 Retail impact</b>		
A1	The proposed use is discretionary. However, the application does not involve new retail use and development.	Not Applicable
<b>15.4 Development Standards</b>		
<b>15.4.1 Building height, setback and siting</b>		
A1	The vehicle parking area comprises does not propose any buildings. Pole lighting will be erected in accordance with drawing number D03. Pole lighting will have a maximum height of 8m.	Complies with the Acceptable Solution
A2	There are no buildings proposed. The car park and landscaping will be to the frontage.	Complies with the Acceptable Solution
A3	There are no buildings proposed. The car park and landscaping is built to the boundaries.	Complies with the Acceptable Solution.



	]	
<b>15.4.2 Location of car parking</b>		
A1	The proposed vehicle parking is set behind the buildings of Brisbane Street but is built to the frontage of Brisbane Street and Margaret Street.	<b>Relies on the Performance Criteria</b>
<b>15.4.3 Active ground floors</b>		
A1	There are no buildings proposed.	<b>Not Applicable</b>
A2	There are no buildings proposed	<b>Not Applicable</b>
A3	There are no buildings proposed	<b>Not Applicable</b>
<b>Clause 15.4.4 to 15.4.9 applies to a residential use or residential components of mixed use development. These are not applicable.</b>		
<b>15.4.10 Lot size and dimensions</b>		
A1	The consolidated lot has an area of greater than 100m <sup>2</sup> and can contain a 5m diameter circle with the centre of the circle not more than 5m from the frontage.	Complies with the Acceptable Solution
A1.2	The subdivision is for the purpose of consolidating lots.	Complies with the Acceptable Solution
A1.3	The existing buildings will be demolished.	Not Applicable
A2	The subdivision is not located on the boundary of the General Residential or Inner Residential zones.	Complies with the Acceptable Solution
<b>15.4.11 Frontage and access</b>		
A1	The consolidated lot will have a frontage to a road of more than 5m.	Complies with the Acceptable Solution
A2	There is no acceptable solution.	<b>Relies on the Performance Criteria</b>
<b>15.4.12 Discharge of stormwater</b>		
A1	The consolidated lot is connected to the public stormwater system.	Complies with the Acceptable Solution
A2	The stormwater discharge from the site is within the combined sewer district which is controlled by TasWater (refer to Appendix F).	Not Applicable
<b>15.4.13 Water and sewerage services</b>		
A1	The consolidated lot is connected to a reticulated water supply.	Complies with the Acceptable Solution
A2	The consolidated lot is connected to reticulated sewerage system.	Complies with the Acceptable Solution



## 4.2 CODES

The relevant Codes applicable to the application are summarised below. Where a code is applicable, further assessment is provided in Table 4.

Table 4 – Assessment of Codes

Code		Comment
E1	Bushfire-Prone Areas Code	The site is contained within the Urban Mixed Use zone. The site is not within a bushfire prone area. This Code is not applicable.
E2	<b>Potentially Contaminated Land Code</b>	<b>The site is identified as being potentially contaminated. This Code is applicable. Accordingly, a report is prepared by a suitably qualified person to address land contamination of the site.</b>
E3	Landslip Code	The site is not identified as being at risk to landslip on the WTIPS Overlay Maps or the Premier and Cabinet Landslide Hazard Map Series. This Code is not applicable.
E4	<b>Road and Railway Assets Code</b>	<b>The proposal involves the intensification of the Margaret Street access. This Code is applicable. A Traffic Impact Assessment is provided to support this application (refer to Attachment D). The TIA was supported by the Council in its function as a road authority.</b>
E5	<b>Flood Prone Areas Code</b>	<b>The site is identified to be in a flood prone area. This Code is applicable.</b>
E6	<b>Parking and Sustainable Transport Code</b>	<b>This Code applies to all use and development. This Code is applicable.</b>
E7	Scenic Management Code	The site is within a scenic management area. This Code is applicable.
E8	Biodiversity Code	This Code is not applicable. Priority habitat is not identified for the site.
E9	Water Quality Code	Not within 50m of a wetland or watercourse. This Code is not applicable
E10	Open Space and Recreation Code	This Code is not applicable as the proposal does not create new lots



E11	Environmental Impacts and Attenuation Code	The proposal is for vehicle parking. This Code is not applicable.
E12	Airports Impact Management Code	The site is not within Australian Noise Exposure Forecast Contours on the maps; and with prescribed air space. This Code is not applicable.
E13	Local Historic Cultural Heritage Code	There are no local heritage values identified for the site. This Code is not applicable.
E14	Coastal Code	The site is not located within a coastal area. This Code is not applicable.
E 15	Telecommunication Code	There is no telecommunication facilities proposed. This Code is not applicable.
E16	Invermay/Inveresk Flood Inundation Code	The site is not identified to be within this overlay area. This Code is not applicable.
E17	Cataract Gorge Management Area	The site is not within this overlay area. This Code is not applicable.
E18	Signage Code	There are no signs proposed. This Code is not applicable.
E19	Development Plan Code	This Code is not applicable.

**E4.0 Road**

E2,0 Land Contamination

**4.2.1 E2.0 Land Contamination**

This Code applies to the proposal. Accordingly, a report is provided in Appendix E. This addresses the requirements of the LIPS.

**4.2.2 E4.0 Road and Railway Assets Code**

This Code applies to the proposal. Accordingly, an assessment against the applicable standards of this Code is summarised below.

E4.6.1 Use Standards		
Scheme Standard	Comment	Assessment
E4.5.1 Existing road accesses and junctions		



A1	A sensitive use is not within 50m of a category 1 or 2 road, in an area subject to a speed limit of more than 60km/h, a railway or future road or railway.	Not Applicable
A2	The site is not subject to a speed limit greater than 60km/hr.	Not Applicable
A3	The proposed development will increase traffic movements by more than 20% or 40 movements per day.	<b>Relies on the Performance Criteria (refer to TIA)</b>
<b>E4.5.2 Level Crossings</b>		
A1	The site is no in proximity to the rail network or a level crossing.	Not Applicable
<b>E4.6 Development Standards</b>		
<b>E4.6.1 Development adjacent to roads and railways</b>		
A1.1	The proposed car park is within 50m of a Category 1 or 2 or road but is not a building or another road that may affect Brisbane St.	Not Applicable
A1.2	There are no buildings proposed.	Not Applicable
<b>E4.6.2 Road Accesses and Junctions</b>		
A1	No new accesses will be created to roads having a speed limit of more than 60km/hr. Each lot will have a single access providing both entry and exit.	Not Applicable
A2	The development has a single entry and a single exit access driveway.	Complies with the Acceptable Solution.
<b>E4.6.3 New Level Crossing</b>		
A1	The proposed development does not require access across a level crossing	Not Applicable
<b>E4.6.4 Sight Distance at Accesses, Junctions and Level Crossings</b>		
A1 a)	The application complies with the required sight distances.	Complies with the Acceptable Solution



A1 b)	No railway crossing proposed.	Not Applicable
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**4.2.3 E5.0 Flood Prone Areas Code**

This Code applies to the proposal. The report attached in Appendix E

**4.2.2 E6.0 Parking and Sustainable Transport Code**

This Code applies to the proposed subdivision. Accordingly, an assessment against the applicable standards of this Code is summarised below.

<b>E6.6 Use Standards</b>		
Scheme Standard	Comment	Assessment
<b>E6.5.1 Car Parking Numbers</b>		
A1	The proposal is for a car park to support an existing approved use.	Complies with the Acceptable Solution.
A2	Car parking for persons with a disability has been provided in accordance with the National Construction Code – Part D3 at the Penny Royal car park.	Not Applicable
<b>E6.5.2 Bicycle Parking Numbers</b>		
A1 a)	The existing Penny Royal facility has 24 bike spaces provided and an additional 6 spaces are proposed as part of the new car park.	Complies with the Acceptable Solution
<b>E6.5.3 Taxi Spaces</b>		
A1	The application is for car park only.	Not Applicable
<b>E6.5.4 Motorcycle parking</b>		
A1	The development provides 3 additional motorcycle spaces in	Complies with the Acceptable Solution



	addition to those on the Penny Royal site.	
<b>E6.5.5 Loading bays</b>		
A1	The development is for car parking only with no goods delivery on this site.	Not Applicable
<b>E6.6 Development Standards</b>		
<b>E6.6.1 Construction of Car Parking Spaces and Access Strips</b>		
A1	The proposed car park is on level ground and to be constructed to a sealed standard, drained to the public stormwater system.	Complies with the Acceptable Solution.
<b>E6.6.2 Design and Layout of Car Parking</b>		
A1.1	The design of the car park accords with the provisions of AS2890.2 and the dimensions required from Tables E6.2 and E6.3. There are no impediments to vertical clearance.	Complies with the Acceptable Solution
A1.2, A1.3 and A1.4	Accessible spaces are provided at the Penny Royal car park.	Not Applicable
<b>E6.6.3 Pedestrian access</b>		
A1.1	The proposed car park has pedestrian linkages to both the tram stop and the existing TRC car park but no internal footpaths.	<b>Relies on Performance Criteria</b>
A1.2	Accessible spaces are provided at the Penny Royal car park.	Not Applicable
<b>E6.6.4 Loading bays</b>		
A1 and A2	The development is for car parking only with no goods delivery on this site.	Not Applicable
<b>E6.6.5 Bicycle facilities</b>		



A1	Car park only.	Not Applicable
A2	Car park only.	Not Applicable
<b>E6.6.6 Bicycle Parking Access, Safety and Security</b>		
A1	The car park is distant from the use but is in a lit car park, accessible from Margaret Street.	Complies with Acceptable Solution
A2	The provided bike spaces comply with the minimum dimensions this code and are provided with a hoop to allow for locking.	Complies with Acceptable Solution

### 4.3 Performance Criteria

The above assessment of the applicable standards has highlighted that the proposed use and development relies on a number of performance criteria. Accordingly, further information in regard to these performance criteria is offered and intended to assist the Council with their assessment of this application.

#### 4.3.1 15.4.2 Location of car parking

The proposal cannot comply with the acceptable solution A1, clause 15.4.2 and accordingly the application relies on the corresponding performance criterion P1.

The car park has provided an integrated approach to this use and development with the adjoining sites. A combination of fencing and landscaping is utilised around the perimeter of the proposed car park ensuring that it is appropriately screened when viewed from public spaces. The Streetscape Visualisation attached in Appendix C demonstrates that the use and development will not dominate within the existing streetscape.

A TIA (refer to Appendix D) is provided to demonstrate that the proposed car parking promotes traffic and pedestrian safety.

The proposal has demonstrated compliance with the performance criteria P1 and the objective of clause 15.3.5.

#### 4.3.2 15.4.11 Frontage and access



There is no acceptable solution and accordingly the application relies on the corresponding performance criterion P2, clause 15.4.11.

The consolidated lot will have frontage to Margaret Street and Brisbane Street. The Department of State Growth is the road authority with regard to this section of Brisbane Street. Access from Brisbane Street to the site is not supported by the Department of State Growth. Accordingly, the site only provides access from Margaret Street. The road authority for Margaret Street is the Launceston City Council.

The TIA supports access from Margaret Street. This is also endorsed by the road authority.

The proposal has demonstrated compliance with the performance criteria P2 and the objective of clause 15.4.11.

#### 4.3.4 E6.6.3 Pedestrian Access

The proposal cannot comply with the acceptable solution A3, clause E6.6.1. Accordingly, the application relies on the corresponding performance criterion P1.

The following comments are offered with respect to this clause.

Safe pedestrian access must be provided within car parks, having regard to:

(a) *the characteristics of the site;*

Level, open car park with no through traffic.

(b) *the nature of the use;*

Tourist facility and adjoining hotel use via a boom gate and paid ticket arrangement. This discourages casual entry to the car park or high entry or exit speeds.

(c) *the number of parking spaces;*

The car park has some 87 car spaces, mostly for longer term (3+ hours) rather than high turnover retail or commuter parking.

(d) *the frequency of vehicle movements;*

The car park is predicted to fill during the mornings and empty during the late afternoon with the car park turning over (emptying and filling) shortly after noon during a peak day. The peak (one way) traffic flows is approximately 90 movements during a the peak hour.



(e) *the needs of persons with a disability;*

This car park is not provided with disabled parking which is located at the main Penny Royal car park off Paterson Street.

(f) *the location and number of footpath crossings;*

The two existing driveways to Margaret Street are to be used for this development, with some modification. Separate pedestrian footpaths are provided to the Penny Royal tram stop and the existing TRC car park from the new car park.

(g) *vehicle and pedestrian traffic safety;*

The accompanying TIA for the site demonstrates that acceptable standards of vehicle and pedestrian standards can be met.

(h) *the location of any access ways or parking aisles; and*

The parking layout complies with the requirements of AS2890.1

(i) *any protective devices proposed for pedestrian safety*

The boom gate at the Margaret Street exit provides a measure of safety for pedestrians on the Margaret Street footpath by preventing direct access by leaving vehicles.

The proposal has demonstrated compliance with the performance criteria P1 and the objective of clause E6.6.3.

## 5. CONCLUSION

The proposed use and development will see the commencement of the vehicle parking. Accordingly, this application is seeking approval for:

- Consolidation of lots;
- Demolition of multiple buildings;
- Intensification of an existing access off Margaret Street;
- Construction and development of vehicle parking across the site

The preceding report has demonstrated that the proposal is in accordance with the requirements of the LIPS.

The report has demonstrated compliance with all of the relevant acceptable solutions and the performance criteria:

- P1, clause 15.4.2;
- P2, clause 15.4.11;





## Supporting Submission

Measured form and function

- P3, clause E4.5.1; and
- P1.1, clause E6.6.3.

Therefore, the proposal can be considered for approval.





Measured form and function



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# Report

**16-18 Margaret Street, Launceston**  
**JAC P/L Car Park**

**Flood Levels & Risk Management**







# FLOOD MANAGEMENT

<b>Issue</b>	01
<b>Date</b>	12 <sup>th</sup> September, 2016
<b>Project Number</b>	16.235
<b>Project Name</b>	Flood Management at 16-18 Margaret Street, Launceston
<b>Author</b>	Mark Walters
<b>Document</b>	



## 1. INTRODUCTION

The proposed development is the construction of an 87 space car park on a number of properties that currently contain four dwellings. The new car park will share the existing entrance to the TRC Hotel car park but will have a new exit to Margaret Street and is to operate as a boom gate controlled car park for patrons of the nearby Penny Royal tourist facility.

The new car park encompasses 4 existing titles and relies on the existing access of the TRC Hotel. The TRC Hotel site itself occupies two titles being 123 Patterson Street (the fuel station on the corner of Margaret and Patterson Street) with the main building and car park located on 125-133 Patterson Street. The land is partly flood prone and this report details the extent of the predicted flooding on the site and the means of managing the risk to the built infrastructure and the proposed uses.



Image 1 - site location 1



**2. THE FLOOD RISK AREA**

The site is located in the lower reaches of the Margaret Street urban catchment that extends south from the Tamar River edge into the suburban areas of West Launceston and South Launceston. The original drainage path that drained this large valley has previously been piped with an extensive combined sewer system that has substantial amounts of detained storage. Overland flows to the river are restricted by the presence of a large flood levee on the northern side of Patterson Street.

The combined sewer system is collected by the Margaret Street Sewer Pump Station and is designed, along with the Percy Street detention basin, to contain much of the peak events. In a sufficiently large flood however, the pump station and its high level overflow to the Tamar River may be exceeded resulting in low level flooding of the low lying areas of Margaret Street as shown on the Council planning overlays. If the levee bank itself fails, the flooding is far more extensive and is as shown on the following plan.

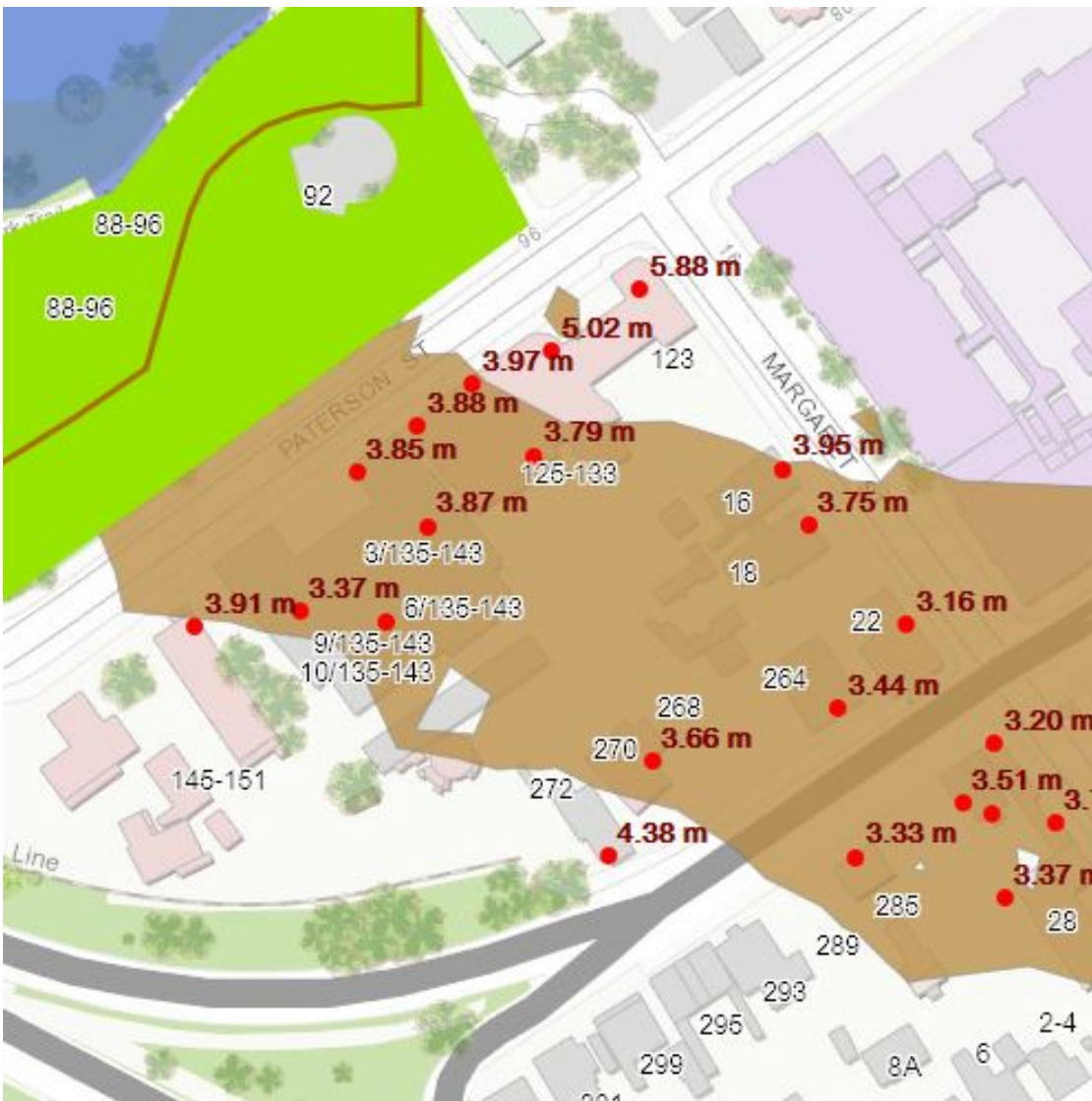


Image 2 - LCC Flood Map showing extent of ARI 100 year event



**3. FLOOD LEVELS**

The flood level predicted for the site from a flood event in the Tamar River is some 4.0m on the assumption that the levee bank has failed. The extent of flooding that occurs due an overwhelming of the Margaret Street pump station is considerably less at 3.0 AHD. This would result in a maximum depth of flooding within the new car park of 0.3m as the low point of the car park is 2.70 AHD.

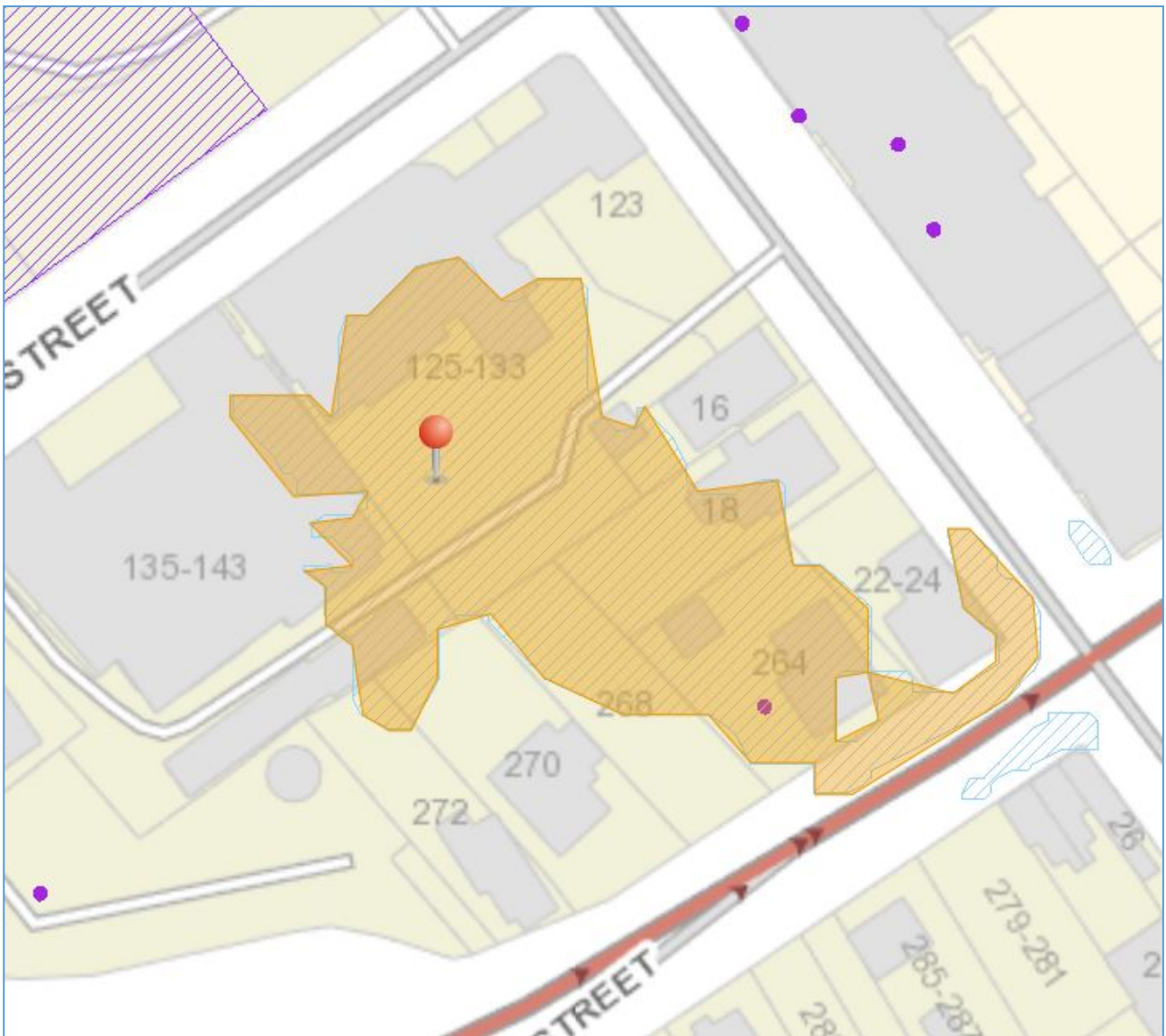


Image 3 - LCC Interim Planning Scheme Plan showing extent of flood prone land.



**4. FLOOD PRONE AREAS CODE – LAUNCESTON INTERIM PLANNING SCHEME**

<b>E5.5 Use Standards</b>		
<b>Scheme Standard</b>	<b>Comment</b>	<b>Assessment</b>
<b>E5.5.1 Risk to Sensitive Use</b>		
A1	The proposed car park is not a sensitive use.	Not Applicable
<b>E5.6 Development Standards</b>		
<b>E5.6.1 Development subject to flooding</b>		
A1.1	No Acceptable Solution	Relies on Performance Criteria

**5. E5.6.1 PERFORMANCE CRITERIA (P1)**

The proposed use is as a level car park in a location previously used for residential purposes. As such, it has the effect of removing a use sensitive to flooding and replacing it with one that is not.

Specifically addressing the criteria in P1:

*a) The need for the location:*

The development addresses a need for additional car parking for an already approved use (Penny Royal and the TRC Hotel) and adjoins the existing TRC Hotel car park and the Penny Royal tram terminus.

*b) The characteristics and scale of the use:*

The proposed use is for a surface level car park that will predominately serve a tourist facility during the summer period and during daylight hours. It is not anticipated to be in demand during periods of poor weather.

*c) The characteristics of the inundation of the land that is subject to the risk:*

The land may gradually flood during a period of extreme flows within the Margaret Street catchment occurring simultaneously with high levels within the Tamar River. This event will occur the Margaret Street combined drainage system being at capacity and is likely to be a gradual inundation rather than a flash flood.

An alternate mode of flooding is from the failure of the Patterson Levee during an extreme event in the South Esk River. This is considered an unlikely event.



*d) The nature and frequency of the inundation:*

The Margaret Street catchment has a design capacity of the 20 year ARI within the existing pipe and detention system. The Patterson Levee is designed to withstand the 200 year ARI in the Tamar River.

*e) Any measures proposed to mitigate the risk:*

The car park is to be closed on notification by Council of a flooding issue within the Margaret Street catchment.

*f) The nature, degree practicality and obligation for any management activities to mitigate the risk:*

The proposed use as a car park is a lesser risk than that of the existing residences located on the site and these will be removed as part of the development. Council, as part of its current obligation to warn occupiers of an impending flood event or to close flood affected roads would be able to close car park if needed as part of this routine process.

*g) The level of risk:*

The proposed use is not a sensitive use and there is very minimal risk of injury or loss of life as a result of flooding of the car park. The flood levels are low and unlikely to damage a vehicle if left within the car park for a flood event.

## **6. CONCLUSION**

The proposed use of the land as a car park reduces the current risk of the land by the presence of residential properties within land that is flood prone and provides Council with an area that is capable of being flooded without incurring inconvenience or damage.





12 September 2016

6ty  
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**Attention: Chester Bullock**

**RE: Environmental Site Assessment  
Proposed Car Park Development  
16-18 Margaret Street, Launceston**

## 1 INTRODUCTION

Tasman Geotechnics was commissioned by Mr Bullock of 6ty to undertake an Environmental Site Assessment (ESA) for a proposed car park at 16-18 Margaret Street, Launceston, Tasmania, adjacent to the existing TRC Hotel.

The development involves a number of addresses (collectively referred to in this letter as "the site"):

- ) 16 Margaret St (CT 47225/1)
- ) 18 Margaret St (CT 20377/1)
- ) 268 Brisbane St (CT 19633/1)
- ) 270 Brisbane St (CT 34571/1) and
- ) 272 Brisbane St (CT 18410/1)

The assessment is required as the site is subject to a 'change in use' and Launceston City Council's Environmental Health Officers have identified one of the titles (16 Margaret Street) is located adjacent to a fuel service station, and could be contaminated.

This letter summarises the findings of the ESA.

## 2 BACKGROUND INFORMATION

### 2.1 Surface Geology and Hydrogeology

According to the Mineral Resources Tasmania's Digital Geological Atlas, Launceston sheet, there are two geological units mapped across the site: Holocene aged sediments, described as "*Estuarine deposits of clayey silt, silt, sand and mostly buried gravel*" are located in the eastern parts of the site, while Quaternary aged sediments, described as "alluvium and marsh deposits of modern flood plains" are mapped in the western parts of the site.

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Reference: TG16170/1 - 01letter



Areas to the east of the site (ie at Launceston College) are mapped as “Late Cenozoic terrace deposits of siliceous pebble gravel and sand cemented by iron-oxides in places, 5-10m above sea level, loose to poorly consolidation”.

Area to the north of Paterson Street are mapped as man-made deposits (reclaimed land).

The closest permanent surface water feature is the Tamar River, located about 160m northwest of the site.

The groundwater flow direction is likely to be northerly to north-westerly, ie. toward the Tamar River.

A search of the DPIPWE Groundwater Information Access Portal shows that the nearest registered groundwater bore is 2km south of the site. The bore is up-gradient of the site, and therefore not relevant.

## 2.2 Site History

A search for Dangerous Goods license information (kept by Workplace Standards, Department of Justice) did not identify any records for the 5 titles.

The nearest site with Dangerous Goods license is the service station at 123 Paterson Street. An Environmental Site Assessment for 123 Paterson Street was carried out by Tasman Geotechnics in 2015/16. The investigation found the following:

- ) Up to 9 tanks were installed at the service station between 1936 and 1994
- ) The tanks were reportedly removed by DP & DM Williams in 1994 as part of a site redevelopment. No information could be found on validation sampling or decommissioning of the pre-1994 tanks.
- ) Four new tanks were installed at the site in 1994: 2x 20kL petrol, 1x 10kL petrol and 1x 10kL diesel. All tanks are located below the western service lane, parallel to the western boundary with the TRC Hotel. A retaining wall (about 2m high) is also located along the western boundary.
- ) From measurements of water levels in groundwater wells, the local groundwater flow was determined to be in a westerly to north-westerly direction.
- ) Hydrocarbon impacts were observed in soil and groundwater samples. The maximum concentrations were as follows:

Compound	Soil (mg/kg)	Groundwater (mg/L)
Benzene	ND	0.97
Toluene	ND	0.47
Ethylbenzene	0.5	0.74
Xylenes	1.5	2.4
Naphthalene	ND	ND
TRH C6-C9 less BTEX	28	7.5
TRH >C10-C16, less Naphthalene	ND	1.4
TRH >C16-C34	2400	0.9
TRH >C34-C40	1600	ND

- ) The highest soil and groundwater concentrations were observed in boreholes at the northern end of the service station site. The soil and groundwater concentrations are below Health Screening Levels for vapour intrusion for commercial/industrial use.



### 3 CONCEPTUAL SITE MODEL

Development of a Conceptual Site Model (CSM) is an essential part of site assessments, as it provides the framework for identifying how the receptors may be exposed to (potential) contamination, either in the present or in future.

A CSM consists of 3 components:

**Sources:** no on-site sources of hydrocarbon or other contaminants occur at the site. Potential off-site sources of hydrocarbon contamination include leaks or spills at the adjacent service station. Investigations at the service station site shows that there are hydrocarbon impacts in soil or groundwater at the TRC Hotel.

**Receptors:** the receptors that are most at risk are patrons of the car park, as well as maintenance workers and delivery personnel. Receptors during the construction phase include workers excavating trenches.

**Pathways:** Groundwater contamination will migrate/flow in the same direction as the groundwater flow. Groundwater flow is in a westerly to north-westerly direction. As the service station is down-gradient of the proposed car park, potential groundwater contamination from the service station will not impact the site. At the same time, no contamination sources were identified up-gradient of the site.

Contact with, or ingestion of, contaminated soil or groundwater at the site is not a complete pathway. Contact with contaminated groundwater is unlikely to become a pathway, as there is reticulated water supply at the site, while contact with contaminated soil is unlikely to become a pathway as the contamination source is off-site.

### 4 CONCLUSION

Based on the site history search, we conclude that there is very low likelihood of hydrocarbon contamination at the site because:

- ) There are no on-site sources of contamination
- ) The service station and TRC Hotel are down-gradient of the site, as the groundwater flow direction is in an westerly to north-westerly direction, and
- ) No potential hydrocarbon contamination sources were identified up-gradient of the site

It is our assessment that the site is suitable for the proposed car park use.

For and on behalf of Tasman Geotechnics Pty Ltd



**Dr Wayne Griffioen**

Senior Geotechnical Engineer





Measured form and function



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# Planning Report

**Penny Royal Car Park**  
**Margaret Street, Launceston**

**Traffic Impact Assessment**







<b>Issue</b>	01
<b>Date</b>	12 September 2016
<b>Project Number</b>	16.235
<b>Project Name</b>	Traffic Impact Assessment – Margaret Street and Brisbane St, Launceston
<b>Author</b>	Mark Walters
<b>Document</b>	





## 1. INTRODUCTION

This traffic report has been prepared in conjunction with the Department of Transport's "Traffic Impact Assessment" (TIA) Guidelines (draft) by 6ty Pty Ltd on behalf of JAC P/L, applicant for the development of the land.

The proposed development is the construction of a 89 space car park on a number of properties that currently contain four dwellings. The new car park will share the existing entrance to the TRC Hotel car park but will have a new exit to Margaret Street and is to operate as a boom gate controlled car park for patrons of the nearby Penny Royal tourist facility.



## 2. EXISTING CONDITIONS

### Development Site:

The proposed car park will encompass 4 residential titles and rely on the existing access of the TRC Hotel with a total development area of some 0.31 Ha. The TRC Hotel site itself occupies two titles being 123 Paterson Street (the fuel station on the corner of Margaret and Paterson Street) with the main building and car park located on 125-133 Paterson Street.



Property	Current Use	Proposed Development
272 Brisbane St CT 18410-1	Single Dwelling	Demolition, removal of driveway to Brisbane St, construction of car park.
270 Brisbane St CT 34571-1	Single Dwelling	Demolition, removal of driveway to Brisbane St, construction of car park.
268 Brisbane St CT 47225 -1	Extension of TRC Hotel car park and driveway.	Incorporation into new car park, removal of driveway to Brisbane St.
16 Margaret St CT 34571-1	Single Dwelling	Demolition, construction of car park, remodelling of existing driveway.
18 Margaret St CT 20377-1	Single Dwelling	Demolition, construction of car park, relocate existing driveway.
123 Paterson St CT 151150 - 3	Fuel Station	Use existing driveway as entrance to car park.
125-133 Paterson St CT 151150 - 2	TRC Hotel and bottle shop	Use existing driveway as entrance to car park.
135-143 Paterson St CT 152165 - various	Strata develop providing 20 residential apartments	No change – retains driveway access as existing.



### The Existing Road:

Margaret St is a relatively busy collector street that provides a direct route to Paterson Street and Trevallyn from the urban areas south of the Launceston CBD that arrives via the Brisbane Street intersection. The eastern side of the road is dominated by the Launceston College facility which has no vehicular access from the road. The western side provides access to the various lots that makes up the development site and small car park that serves the restaurant/takeaway at 22-24 Margaret Street.

The road has asphalt footpaths on both sides and has a sealed width of 14.0m to provide for parking/turn lanes on both sides as well as two traffic lanes and two bike lanes. At the current entrance, there is no parking on the western side but rather a protected right turn lane sufficient for a single vehicle.

The speed limit is 50 km/hr on this road.

### Use of land:

The site contains 4 dwellings and the existing car park and access lanes for the TRC Hotel.

## 3. PROPOSED DEVELOPMENT

The proposed development is to remove the 4 dwellings and to construct an 89 lot car park for the use of the Penny Royal tourist facility. The car park is to be boom gated at both the internal entrance off the TRC Hotel car park and at the exit to Margaret Street.

This car park is to share the existing driveway entrance to the TRC Hotel site but have its own exit driveway to Margaret Street. The existing driveways to Brisbane Street are to be closed and the existing exit for the TRC Hotel to Margaret Street is to be retained unchanged.



#### 4. EXISTING TRAFFIC

The Launceston City Council have provided an early 2007 traffic count which has been adjusted to represent 2016 data assuming a 1.5% growth rate. The midday traffic volumes have been calculated on the assumption of 50% of the peak evening volumes will occur during a typical lunch hour. This results in the following traffic numbers:

<b>Morning Weekday Peak Hour Traffic 8.00 – 9.00</b> <b>(2007 LCC data adjusted to 2016)</b> <b>Vehicles per Hour</b>		
Northbound	Southbound	Total
222	542	764

<b>Midday Weekday Peak Hour Traffic 12.00 – 1.00</b> <b>(2007 LCC data adjusted to 2016)</b> <b>Vehicles per Hour</b>		
Northbound	Southbound	Total
185	359	544

<b>Evening Weekday Peak Hour Traffic 4.30 – 5.30</b> <b>(2007 LCC data adjusted to 2016)</b> <b>Vehicles per Hour</b>		
Northbound	Southbound	Total
370	618	1087

#### 5. TRIP GENERATION

The existing driveway access to Margaret Street provides for a number of uses on the land and on the adjoining residential apartment development who have a right of way over the driveway. These uses are not being changed by the proposed development which is the construction of a car park, isolated by a boom gate that shares the same entrance as the existing uses but has its own, independent exit point. It is assumed for design purposes that the car park during a peak day will fill during the morning peak hour and empty during the evening peak hour and the patrons of the Penny Royal will stay for approximately 4 hours causing the car park to empty and refill at midday. The following table estimates the traffic generated by each of these uses at the morning, noon and evening peaks.





<b>Morning Peak Hour – 8.00 to 9.00</b>				
<b>Use</b>	<b>Movements in Peak Hour</b>	<b>Entering</b>	<b>Leaving</b>	<b>Notes</b>
TRC Hotel	4	4	0	Staff arrivals
Bottle Shop	2	1	1	Goods Delivery
Fuel Station	54	27	27	Morning Peak
Residential Units	15	1	14	
<b>Penny Royal</b>	<b>91</b>	<b>91</b>	<b>0</b>	<b>Car park initially filling</b>
Totals	166	124	42	

<b>Afternoon Peak Hour – 12.30 to 1.30</b>				
<b>Use</b>	<b>Movements in Peak Hour</b>	<b>Entering</b>	<b>Leaving</b>	<b>Notes</b>
TRC Hotel	44	22	22	Lunch meals
Bottle Shop	20	10	10	Bottle shop sales
Fuel Station	40	20	20	Morning Peak
Residential Units	4	2	2	
<b>Penny Royal</b>	<b>182</b>	<b>91</b>	<b>91</b>	<b>Car park turnover</b>
Totals	290	145	145	

<b>Evening Peak Hour – 4.30 to 5.30</b>				
<b>Use</b>	<b>Movements in Peak Hour</b>	<b>Entering</b>	<b>Leaving</b>	<b>Notes</b>
TRC Hotel	60	40	20	Evening Meals
Bottle Shop	60	30	30	Peak sales period
Fuel Station	54	27	27	Evening Peak
Residential Units	10	9	1	Returning home traffic shared with Patterson St
<b>Penny Royal</b>	<b>91</b>	<b>0</b>	<b>91</b>	<b>Car park emptying</b>
Totals	275	106	169	



## 6. TRIP ASSIGNMENT

For design purposes, it is assumed that 70% of all traffic to and from the combined site will be from the south (Brisbane Street) rather than from the north using the Patterson Street link. A future traffic management option is to restrict right turning traffic from the car park exit however this is not necessary at this time.

## 7. VEHICLE TYPES

The dominant vehicle type will be passenger cars and very low numbers of the smaller tourist buses (10 to 18 seats) with the heaviest vehicle routinely using the existing entrance and exit being the fuel delivery tanker. Deliveries to the existing TRC Hotel and the bottle shop are by service vehicles and do not change as a result of this application. The car park itself is restricted to passenger vehicles.

## 8. ASSESSMENT YEARS

Construction is intended to begin in 2016 with the site being fully developed in early 2017. A 10 year assessment period is conventional for this form of development resulting a final assessment year of 2027.

## 9. TRAFFIC GROWTH

Traffic growth on Margaret Street is conservatively estimated at 1.5% per annum which results in a multiplier of traffic on that street of 1.16 to generate traffic volumes in 2027.



## 10. PREDICTED TRAFFIC VOLUMES

### Right turns into the site

Based on 30% of all entering traffic arriving from the north via the Patterson Street intersection, the following table can be generated:

Peak Hour	Margaret St North bound vph	Entering Traffic vph	Right Turn Entry vph	Left Turn Entry vph
Morning 2016	222	124	37	87
Noon 2016	185	145	44	101
Evening 2016	370	106	32	74
Morning 2027	258	124	37	87
Noon 2027	215	145	44	101
Evening 2027	429	106	32	74

### Right turns from the site

The two exit driveways, being the existing TRC driveway and the new car park exit further to the south, will generate the following right turn manoeuvres, again on the basis that 70% of all traffic will elect to turn right:

Peak Hour	Margaret St vph	TRC Driveway vph	Car Park Exit vph
Morning 2016	764	29	0
Noon 2016	544	38	64
Evening 2016	1087	55	64
Morning 2027	886	29	0
Noon 2027	631	38	64
Evening 2027	1261	55	64

## 11. FUTURE GROWTH

The underlying assumption of this report is that the proposed car park will operate at capacity once open and that traffic generated by the existing TRC Hotel site will remain largely static over the assessment period. The proposed development of the car park occupies the entirety of the available land and any further development of the TRC Hotel site will require a new application. The dominant constraint to traffic congestion for the development will be traffic growth on Margaret Street.

## 12. EXISTING TRAFFIC ISSUES

There are no known traffic issues in Margaret Street with the relatively new traffic signals at the Patterson Street intersection effectively controlling the entry of traffic into Margaret Street.



### 13. ROAD SAFETY

Enquiries with the Department of State Growth Crash Data section have revealed that there have been only three recorded accidents on Margaret Street during the past five years that were not associated with the signalised intersections at either end of this segment of road.



The three accidents have all resulted in minor property damage to the vehicles involved and only one is located at the existing right turn lane into the TRC site. This accident occurred at 4.30 PM on Friday, April 17, 2015 and was caused by a vehicle in the right turn lane for the entrance colliding with a north bound vehicle in Margaret Street moving into the right turn lane for the Patterson Street intersection.

The remaining two accidents are more remote from the site and appear to be by minor errors, typical of well trafficked roads. One, outside of 18 Margaret Street was a rear end collision caused by a north bound vehicle hitting a slower moving vehicle during the morning peak hour on February 23, 2012. The final accident occurred just north of the intersection with Brisbane Street where left turning car sideswiped a motorcycle doing the same manoeuvre.

None of the recorded accidents appear to be related to the traffic volumes or to the operation of the existing access points. A full printout of the accident history is attached to this report.



## 14. ACCESS POINTS

The development proposes the removal of the three existing driveways to Brisbane Street and the relocation of the driveway to 18 Margaret Street some 8m north of the existing position. The original driveway to the TRC site is to remain, as is the driveway into 16 Margaret Street, with the latter becoming an entry only lane.

The proposed driveway arrangement has ample site distance in both directions

## 15. ACCESS PARAMETERS

The proposed road works involve the construction a single new driveway midway along frontage of the former site of 18 Margaret Street and the closure of the original driveway to this residence. The driveway is at grade with the existing footpath and road edge and is has clear sight lines to the intersection of Patterson Street, 67m to the north, and Brisbane Street, 43m to the south.

Both of these intersections are controlled by traffic signals and have a marked speed limit of 50 km/hr. Brisbane Street, in the case where northbound traffic has a green signal and may therefore be travelling at speed, has a sight distance that exceeds the minimum safe intersection sight distance of 80m. Paterson Street is a T intersection and is clearly visible from the proposed driveway.



## 16. TRAFFIC ANALYSIS

A capacity gap analysis has been performed on the various turning manoeuvres and is attached to this report. This looked at the at the following manoeuvres, selected as the most difficult:

- a) Right turn into the site during midday peak hour
- b) Right turn from site during evening peak hour
- c) Left turn from site during evening peak hour

A summary of the analysis is as follows:

Peak Hour	Right Turn In vph	Priority Traffic vph	Average Delay seconds	98% Queue vehicles
Noon 2016	44	185	0.5	1
Noon 2027	44	215	0.6	1
Peak Hour	Right Turn Out vph	Priority Traffic vph	Average Delay seconds	98% Queue vehicles
Evening 2016	64	1087	8.2	2
Evening 2027	64	1261	10.9	2
Peak Hour	Left Turn Out vph	Priority Traffic vph	Average Delay seconds	98% Queue vehicles
Evening 2016	27	370	1.6	1
Evening 2027	27	429	2	1

It can be seen from the above summary that the existing right turn lane in Margaret Street is adequate for the proposed expanded car park for the full assessment period. The primary delay will occur inside the car park for vehicles leaving the site to turn right where delays will occur as drivers wait for the gaps generated by the operation of the traffic signals at both Patterson Street and Brisbane Street. An impatient driver may elect to instead turn left rather than wait for such a gap during the evening peak.

## 17. RECOMMENDED WORKS

The existing road infrastructure is considered to be ample for the existing and predicted traffic numbers with no changes required to the existing road line marking. Driveway construction is to generally accord with the LGAT Urban Road Standard Drawing TSD-R09-V1 which modifications to provide:

- A clear sight triangle to the footpath for pedestrian safety.
- A boom gate at the property.

## 18. STREET FURNITURE

No changes to street furniture are required by this development being clear of the existing bus stop and traffic islands.



## 19. PEDESTRIAN ACCESS

The proposed car park is intended primarily for the use of the Penny Royal facility and a pedestrian link is to be constructed to access the existing tram line from the western end of the car park. Patrons of the TRC Hotel are also able to access the car park via a footpath connecting into the existing TRC car park. There is an increase of traffic over the Margaret Street footpath but adequate pedestrian refuges between the existing and proposed footpaths have been provided.

## 20. STATE ROADS

No works are proposed that will affect State Roads.

## 21. SUMMARY

The development of the site with the proposed exit only driveway as proposed is unlikely to affect traffic amenity or safety in Margaret Street for either vehicles or pedestrians.



