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13 July 2022

Our Ref: 21-740 Your Ref: MCU/22/003

**Chief Executive Officer** Mareeba Shire Council PO Box 154 MAREEBA QLD 4880

Attention: Mr Carl Ewin – Planning Officer (Carle@msc.qld.gov.au)

Dear Carl,

## RE: NOTICE TO MAREEBA SHIRE COUNCIL AS THE ASSESSMENT MANAGER OF AN AMENDMENT TO A DEVELOPMENT APPLICATION SEEKING A DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A MIXED-USE DEVELOPMENT AT 232 BYRNES STREET AND CLOSE AVENUE, MAREEBA.

We refer to the above-described matter and advise that Urban Sync Pty Ltd continue to represent Mareeba 232 Pty Ltd in respect to an Action Notice issued on 5 April 2022 regarding a recent Development Application that was lodged with Mareeba Shire Council on 25 March 2022.

The Action Notice was issued on the basis that the Development Application included part of Lot 20 on NR7137 at Close Avenue, Mareeba which is identified as a Reserve with the Department of Resources (DoR) identified as the landowner. The Action Notice was issued as no landowner's consent from DoR was included in the submitted Application to Council.

Urban Sync then sought an extension to the Action Notice response timeframe until 19 July 2022 in order to allow sufficient time for landowner's consent to be received from the DoR.

During the time it took to coordinate landowner's consent from DoR, additional discussions with DTMR were held to discuss the access arrangements and proposed external works which required an amendment to the plans of development to remove the Service Station component, include a standalone Shop, and rearrange the on-site car parking arrangements to suit.

Urban Sync now submit the enclosed Development Application to Mareeba Shire Council as the Assessment Manager and trust that this application now meets the requirements of the *Planning Act 2016* (PA) and can now be progressed for assessment. Should you require any further information or clarification on any matters regarding this application, please do not hesitate to contact me using the below details.

Yours faithfully,

ll. I hover

Matt Ingram Senior Planner E matt@urbansync.com.au | T 07 4051 6946 | M 0488 200 229





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**Chief Executive Officer** Mareeba Shire Council PO Box 154 MAREEBA QLD 4880

Attention: Mr Carl Ewin – Planning Officer (Carle@msc.qld.gov.au)

Dear Carl,

## RE: DEVELOPMENT APPLICATION SEEKING A DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A MIXED-USE DEVELOPMENT AT 232 BYRNES STREET AND CLOSE AVENUE, MAREEBA.

We refer to the above-described matter and advise that Urban Sync Pty Ltd has been engaged by Mareeba 232 Pty Ltd to provide town planning services and submit a development application to Mareeba Shire Council for assessment which seeks to establish a new mixed use commercial development over the above-described land.

The project vision and overall outcomes have been presented to Council Officers in the pre-lodgement phase and there is significant interest from prospective tenants that would encourage the project to move into the design and construction phase immediately upon approval.

This project is a significant undertaking and reflects a commitment by the Applicant towards delivery of a project over the next two (2) years which will have substantial community benefits. The applicant understands that assessment will include a period of Public Notification and expect there to be a level of community interest in the project. That said, the Applicant is committed to the project and is hoping to ensure a suitable outcome to the road users and the local community. In support of the application, we attach the following to assist with Council's assessment:

- DA Form 1 & Landowners Consent as Attachment 1;
- Plans of Development prepared by Thomson Adsett as Attachment 2;
- Site Searches as Attachment 3;
- Relevant Approval as Attachment 4;
- Pre-lodgement Correspondence as Attachment 5;
- Traffic Impact Assessment prepared by SLR consulting as Attachment 6;
- Engineering Report and Stormwater Management Plan prepared by Trinity Engineering as **Attachment 7**;
- Economic Needs Assessment prepared by Foresight Partners as Attachment 8;
- Assessment Against Applicable State Development Assessment Provisions State Codes as Attachment 9; and
- Mareeba Shire Council Planning Scheme Code Assessment as **Attachment 10**.

In accordance with s51(2) of *Planning Act 2016*, landowners' consent has been provided in **Attachment 1** as the Applicant is not the owner of the land.

Council's Schedule of Fees for 2022/23 establishes the applicable application fee which has been paid with a receipt of payment provided in **Attachment 1**.

We trust this application meets the requirements of the *Planning Act 2016* and can now be progressed for assessment. Should you require any further information or clarification on any matters regarding this application, please do not hesitate to contact me using the below details.

Yours faithfully,

ll. I hover

Matt Ingram Senior Planner E matt@urbansync.com.au | T 07 4051 6946 | M 0488 200 229



# TOWN PLANNING REPORT

DEVELOPMENT APPLICATION FOR MATERIAL CHANGE OF USE 'SHOPPING CENTRE, FOOD AND DRINK OUTLET, & SHOP' 232 BYRNES STREET AND CLOSE AVENUE, MAREEBA

8 July 2022



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Limitation: This report has been prepared on behalf of Urban Sync Pty Ltd for our client, Mareeba 232 Pty Ltd and considers the instructions and requirements of Mareeba 232 Pty Ltd with regards to the development being proposed. This report should not be relied upon by any third party and Urban Sync Pty Ltd accepts no liability or responsibility for the reliance on this report, or data contained within the report, by any third party.

Reference	Revision	Date	Prepared by	Checked by	Authorised by
21-740	1.0	16/03/2022	JJP	MDI	MDI
21-740	2.0	16/03/2022	JJP	MDI	Client
21-740	3.0	13/07/2022	JJP	MDI	MDI

13/07/2022 Final Version 3.0 **Urban Sync Pty Ltd Level 1, 17 Aplin Street, CAIRNS QLD 4870** www.urbansync.com.au admin@urbansync.com.au

## EXECUTIVE SUMMARY

Mareeba 232 Pty Ltd (the 'Applicant') seeks the requisite statutory development approval from Mareeba Shire Council ('Council') to support the establishment of a new mixed use commercial development (the 'proposed development') over Lot 78 on SP298287 at 232 Byrnes Street and part of Lot 20 on NR7137 at Close Avenue, Mareeba (the 'site').

The Applicant has recently secured the site and has been investigating the sites development potential over the last six (6) months. The position of the site on Byrnes Street and adjoining other similar commercial activities has facilitated the opportunity to introduce a 'Shopping Centre' and other convenience retailing activities to service the currently unmet needs of residents in the shire and the passing trade that is evident at this location. The proposed development is anchored by a new 'Woolworths' supermarket inclusive of a variety of smaller specialist retail outlets. The proposed development also intends to establish a standalone drive thru fast-food restaurant and shop/s. It is intended that the development works will immediately follow approvals from Council and the State Government.

The site is included in several zoning designations being: the Centre Zone; Community Facilities Zone; and the Medium Density Residential Zone of the Mareeba *Shire Council Planning Scheme 2016* (Planning Scheme). The proposed development and land use activities remain generally consistent with the commercial intent of the planning frameworks that apply to the majority of the site, although the split-zoning designation results in the need for an **Impact Assessable** development application to be lodged and approved by Council. Accordingly, this development application seeks the following approval from Council:

## Development Permit for a Material Change of Use (Shopping Centre, Food and Drink Outlet and Shop).

This report has been undertaken to:

- Review the locational elements and examine the physical characteristics of the site as well as summarise the sites development history;
- Accurately describe the proposed development as reflected in the plans of development prepared by Thomson Adsett;
- Address all applicable statutory requirements triggered through the *Planning Act 2016* (PA), *Planning Regulation 2017* (PR), *State Planning Policy 2017* (SPP) and the Planning Scheme;
- Provide commentary on the broader planning implications triggered under the Strategic Framework affecting the consideration of the development for a 'Centre Activity' given that there are minor inconsistencies between the underlying land use designation within the Planning Scheme for the site; and
- Comment on the 'key' planning issues and non-compliances with the applicable aspects of the Planning Scheme and other Assessment Benchmarks.

The site is predominantly located within the Centre Zone, although due to recent amalgamations with adjacent land and the inclusion of a part of Lot 20 on NR7137 in the application, the site also includes land in the Community Facilities and Medium Density Residential zone. Based on a reasonable assessment, the Planning Scheme encourages the establishment of Shopping Centres, Shops and Food and Drink Outlets in the Centre Zone, while importantly, none of these zoning designations prohibit the establishment of any of the uses being proposed as part of this application. That said, management of possible development impacts both internally/externally and on the amenity of nearby surrounding residential uses will be critical in the conditions and operational aspects of the proposed development. Accordingly, the project needs to be considered and assessed on its merits, in the context of the site, adjoining neighbours, the pattern of existing and approved urban development and the design arrangements proposed before compliance with the applicable assessment benchmarks and other relevant State legislation can be suitably demonstrated.

This report establishes that the proposed development is generally compliant with the applicable assessment benchmarks for this site and in the context of the locality, with only a handful of minor departures away from the 'deemed to comply' Acceptable Outcomes being identified namely in relation to height and setbacks. Where these departures have been identified, a performance-based assessment has been provided to justify and demonstrate, based on sound planning grounds, that compliance with the corresponding Performance Outcome and in turn, the relevant Assessment Benchmarks, can still be achieved. In particular, section 7 of this report has demonstrated that the height and setbacks being proposed are in this instance suitable and will not result in any unacceptable character or amenity impacts.

In this instance, the key matters for assessment relate to need/hierarchy of activity centres and potential land use conflicts caused because of the proposed developments location on Community Facilities AND Medium Density Residential Zone land.



In relation to the former, in association with supporting technical reports, the report has established that there exists a demonstrated need for the proposed development and that the establishment of the services being offered will not compromise the activity centre hierarchy and/or the higher order sections of the Planning Scheme. In relation to the proposed development being located on Community Facilities AND Medium Density Residential Zone land, the report highlights that these zoning 'conflicts' are very minor in nature, will not result in any unacceptable negative impacts on the amenity of the locality or most importantly, the adjacent residential land uses to the south-west. To further demonstrate the suitability of the proposed development from a zoning perspective, commentary addressing the strategic framework of the Planning Scheme has also been provided to demonstrate that despite the zoning conflicts, the proposed development will not conflict with the higher order sections of the Planning Scheme.

The report concludes that overall, the proposed development is consistent with the higher order provisions with the Strategic Frameworks in respect of delivering the overall objectives for development and both off and on-site development impacts can be suitably managed and conditioned to comply with all the applicable assessment benchmarks. For this reason, the proposed development should be approved by Council subject to the imposition of reasonable and relevant conditions of approval and with the above in mind, we now submit this application to Council for assessment.

## 2 APPLICATION DETAILS

## 2.1 APPLICATION SUMMARY

Approval Sought:	Development Permit for a Material Change of Use (Shopping Centre, Food and Drink Outlet and Shop)			
Registered Landowners:	<ul> <li>Lot 78: Reedlodge Pty Ltd; and</li> <li>Lot 20: The State of Queensland with Mareeba Shire Council as trustee</li> </ul>			
Applicant:	Mareeba 232 Pty Ltd C/- Urban Sync Pty Ltd PO Box 2970 CAIRNS QLD 4870			
Project Description Details:	A new mixed use commercial development including a new 'Woolworths' supermarket and a variety of smaller specialist retail outlets, as well as a standalone drive thru fast-food restaurant and shop/s.			
ASSESSMENT DETAILS				
Assessment Manager:	Mareeba Shire Council			
Development Category:	Assessable Development			
Assessment Category:	Impact Assessable			
Public Notification:	Yes			
PRE-LODGEMENT CONSULTATIO	N			
Council:	Yes			
State:	Yes			
RELEVANT STATE PLANNING INS	TRUMENTS			
Legislation:	Planning Act 2016 (Qld)			
Planning Policy:	Queensland State Planning Policy 2017			
Planning Policy State Interests:	<ul> <li>Agriculture;</li> <li>Mining and Extractive Resources;</li> <li>Natural Hazards Risk and Resilience;</li> <li>Transport Infrastructure; and</li> <li>Strategic Airports and Aviation Facilities</li> </ul>			
Regional Plan:	Far North Queensland Regional Plan 2009-2031			
Regional Plan Land Use:	Urban Footprint			

Development Assessment Mapping:	<ul> <li>Water Resources;</li> <li>State Transport Corridor; and</li> <li>Area Within 25m of a Stare Transport Corridor</li> </ul>
Referrals:	Yes
RELEVANT LOCAL PLANNING INS	TRUMENTS
Planning Scheme:	Mareeba Shire Council Planning Scheme 2016
Zone:	<ul> <li>Centre Zone;</li> <li>Community Facilities Zone; and</li> <li>Medium Density Residential Zone</li> </ul>
Zone Precinct:	Nil
Local Plan:	Mareeba Local Plan Area
Local Plan Precinct:	Precinct A – Town Centre Core
Planning Scheme Overlays:	<ul> <li>Airport Environs;</li> <li>Extractive Resources; and</li> <li>Transport Network</li> </ul>

## 2.2 PLANS OF DEVELOPMENT

Drawing Title	DWG No.	Issue	Prepared By	Date
Cover Sheet	A0.00	6	Thomson Adsett	12/07/2022
Site Context Plan	A0.10	6	Thomson Adsett	12/07/2022
Site Plan	A1.01	13	Thomson Adsett	12/07/2022
Development Plan	A1.02	7	Thomson Adsett	12/07/2022
Ground Floor Plan – Supermarket	A2.01	8	Thomson Adsett	12/07/2022
Roof Plan – Supermarket	A2.02	5	Thomson Adsett	06/07/2022
Elevations – Supermarket	A2.03	5	Thomson Adsett	06/07/2022
Elevations – Supermarket	A2.04	5	Thomson Adsett	06/07/2022
Sections – Supermarket	A2.05	5	Thomson Adsett	06/07/2022
Ground Floor Plan – Shops	A3.01	3	Thomson Adsett	05/07/2022
Elevations – Shops	A3.02	3	Thomson Adsett	06/07/2022

Ground Floor Plan – Fast Food	A4.01	6	Thomson Adsett	11/07/2022
Elevations – Fast Food	A4.02	5	Thomson Adsett	06/07/2022
3D Views	A5.01	5	Thomson Adsett	06/07/2022
3D Views	A5.02	5	Thomson Adsett	06/07/2022

## 2.3 **SUPPORTING REPORTS**

Report Title	Project No.	Rev	Prepared By	Date
Economic Need and Impact Assessment	21034	1	Foresight Partners	January 2022
Development Engineering Report	N/A	1	Trinity Engineering and Consulting	08/07/2022
Stormwater Management Plan	N/A	1	Trinity Engineering and Consulting	08/07/2022
Traffic Impact Assessment	620.30842-R01	1	SLR Consulting Australia Pty Ltd	12 July 2022

## 3 SITE DETAILS

## 3.1 SITE DESCRIPTION

Registered Landowners:	<ul> <li>Lot 78: Reedlodge Pty Ltd; and</li> <li>Lot 20: The State of Queensland with Mareeba Shire Council as trustee</li> </ul>		
Site Location:	232 Byrnes Street and Close Avenue, Mareeba		
Lot and Description:	Lot 78 on SP298287 and part of Lot 20 on NR7137		
Site Area:	1.62ha (Lot 78: 1.51ha and Part of Lot 20: 1,124m <sup>2</sup> )		
Tenure:	<ul><li>Lot 78: Freehold</li><li>Lot 20: Reserve</li></ul>		
Easements:	Nil		
Encumbrances:	Nil		
Local Government Authority:	Mareeba Shire Council		



Figure 1: Site location – Lot 78 on SP298287 - 232 Byrnes Street (in red) and Lot 20 on NR7137 - Close Avenue (in blue), Mareeba (Source: Queensland Globe, State of Queensland 2022).

## **3.2 SITE ANALYSIS**

Current Use/s:	There are no current land use activities being undertaken on Lot 78 while Lot 20 is used for residential purposes.	
Previous Use/s (where applicable):	Lot 78 was previously used as a sawmill.	
Existing Improvements:	Lot 78 is unimproved except for some perimeter fencing. The portion of Lot 20 to be utilised for the proposed development is also vacant, although the remainder of Lot 20 is improved with aged care housing.	
Topography:	The site is in general, flat, although has a slight fall from south-west to north- east towards both Burnes Street and Rankin Street.	
Waterways:	There are no <u>waterways</u> that traverse through or adjacent to, the site, although there is an overland flow path at the southern extent of the site area in Lot 20.	
Vegetation:	The site contains no vegetation.	
Environmental Management & Contaminated Land:	Lot 78 is listed on the Environmental Management Register due to Wood Treatment and Preservation having previously been undertaken on the site in association with the sawmill. A Site Management Plan (SMP) was approved in 2009 by the then Environmental Protection Agency. The SMP identifies that the site contains 9 zones. Zones 2-7 are not contaminated, Zone 1 contains a contaminated 'cell', while Zones 8 & 9 contain contaminated soil/land (see <b>Attachment 3</b> ).	
Heritage Places:	The site is not an identified State or local 'Heritage Place', nor are any adjacent sites.	

### 3.3 SURROUNDING LAND USES

The Mareeba Shire Council Local Government Area covers a total area of approximately 53,491km<sup>2</sup> with the Shire being administered from the town of Mareeba. Geographically, Mareeba is located 417 metres above sea level on the confluence of the Barron River, Granite Creek and Emerald Creek and is located approximately 40km (as the crow flies) from the Cairns Central Business District.

Mareeba includes many different land uses, with the town centre comprising of predominately centre zoned land, although also includes community facilities and medium density residential zoning designations. Further from the town centre there are low density residential, emerging communities, industrial and open space zoning designations. More specifically, the site is bordered by residential, community facilities and centre zoned land (see **Figure 2**):

- North: Centre Zoned Land (Commercial and Retail Business land uses);
- South: Centre Zoned Land (vacant), Medium Density Residential Zoned Land (Dwelling Houses/Multiple Dwellings land uses) and Community Facilities (Railway Corridor);
- East: Centre Zoned Land (Commercial & Retail Business land uses); and
- West: Community Facilities Zoned Land (Railway Corridor and vacant land)

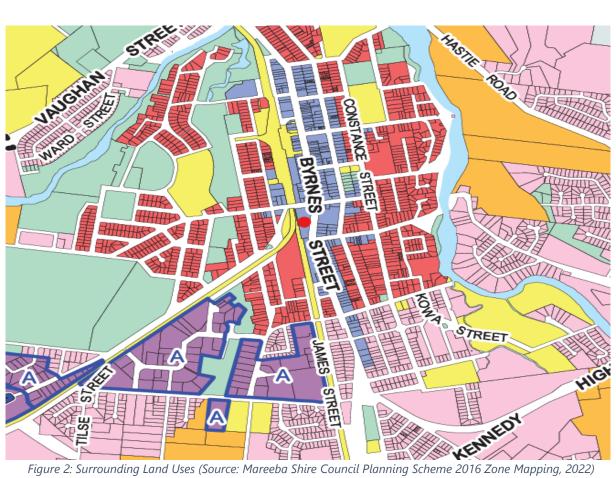


Figure 2: Surrounding Land Uses (Source: Mareeba Shire Council Planning Scheme 2016 Zone Mapping, 2022)

#### **INFRASTRUCTURE AND SERVICES** 3.4

Road Frontage:	The site fronts two (2) roads, having an approximate 203m frontage to Byrnes Street and an approximate 82m frontage to Rankin Street.	
	Byrnes Street:	
	Byrnes Street is a two-lane, two-way, approximately 20m wide sealed carriageway within a 40m wide road reserve. On-street car parking and a footpath are located on the eastern side of the road reserve. On the western side of the carriage way is a one way service road with a southern ingress, northern ingress and centrally located ingress/egress which provides approximately 65 additional on-street car parking spaces.	
	Rankin Street:	
	Rankin Street adjacent the site is a two-lane, two way, 7m wide sealed carriageway within a 35m wide road reserve. On-street car parking is provided on the southern side of the carriageway.	
Rail Corridor:	To the west of the site is the Tablelands railway line. We note that this section of line is only used by the Savannahlander 2-3 times a week, as well as occasionally by Queensland Rail maintenance vehicles. A rail crossing is also located on Rankin Street, generally to the north-west of the site.	
Water Supply:	The site is connected to Council's reticulated water network in both Byrnes Street and Rankin Street (see <b>Figure 3</b> ).	

Sewerage Supply:	The site is connected to Council's reticulated sewerage network with a 150mm dia. main located within the site, generally running parallel to the northern portion of the western boundary (see <b>Figure 3</b> ).	
Stormwater:	The site appears to drain to the kerb and channel in both Rankin Street and Byrnes Street with minor flows then being directed to a kerb inlet pit at the Byrnes Street/Rankin Street intersection (see <b>Figure 3</b> ).	
Electricity & Telecommunications:	The site is connected to both underground electricity and telecommunications serv although an overhead power line is located in the south-eastern corner of the site.	

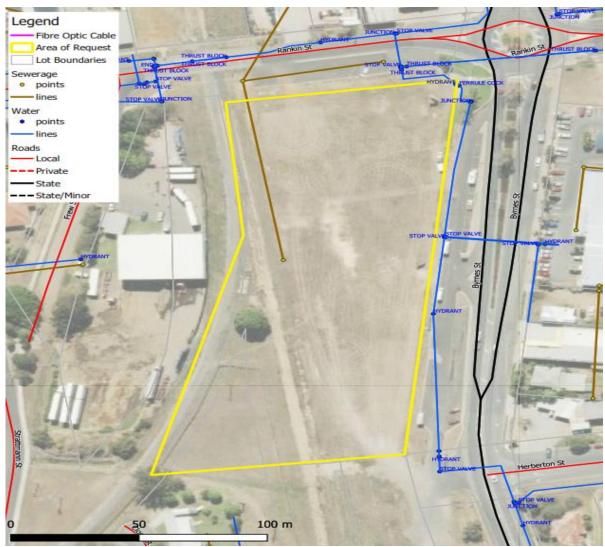


Figure 3: Existing Services Location (Source: Dial Before You Dig, 2021)

## 4 DEVELOPMENT BACKGROUND

## 4.1 RELEVANT APPROVALS

There have been several previous approvals over the site, the most recent however, was a Negotiated Decision Notice for a Shopping Centre issued in March 2018, as outlined below in **Table 1**.

#### Table 1: Previous Approvals

Reference	Approval Type	Aspect	Description	Date
MCU/17/0011	Development Permit	Material Change of Use	Shopping Centre	21 March 2018

A copy of this approval is included in Attachment 4. This approval is due to lapse on 21 March 2024.

## 4.2 **PRELODGEMENT DISCUSSIONS**

## 4.2.1 Mareeba Shire Council

Urban Sync has provided a review of the proposal and a summary of the development components to Mr. Carl Ewin (Planning Officer) of Mareeba Shire Council in the preliminary stages of the design works.

Council provided 'in principle' support for the proposed development (from a planning perspective), advising that they were supportive of the proposed setbacks, car parking, landscaping and maximum height, although advised that the following matters would require further attention:

- Traffic A Traffic Impact Assessment (TIA) prepared by SLR Consulting accompanies this application (see Attachment 6);
- Strategic Framework Please refer to Section 6.6.1 of this Planning Report for an assessment against the Strategic Framework;
- Stormwater Management Plan A Site Based Stormwater Management Plan (SBSMP) prepared by Trinity Engineering accompanies this application (see Attachment 8);

A copy of all pre-lodgement correspondence with Council is provided in Attachment 5.

## 4.2.2 State Government

Pre-lodgement discussions with plans similar to that included in this application have been undertaken with the Department of Transport and Main Roads (DTMR) by previous developers. Recent discussions with the State Government have been undertaken in respect of the proposed development and a copy of the minutes of these meeting is included in **Attachment 5**.

## 5 DEVELOPMENT PROPOSAL

### 5.1 GENERAL DESCRIPTION

Mareeba 232 Pty Ltd are seeking the requisite development approval from Mareeba Shire Council to support the establishment of a new mixed use commercial development over Lot 78 on SP298287 at 232 Byrnes Street and part of Lot 20 on NR7137 at Close Avenue, Mareeba. Accordingly, this application seeks the following approval:

### Development Permit for a Material Change of Use (Shopping Centre, Food and Drink Outlet and Shop)

Note: Approval for Food and Drink Outlet land use is sought over the drive through fast food outlet AND within the speciality shops component of the Shopping Centre.

### 5.2 **PROPOSED DEVELOPMENT DETAILS**

This application seeks approval the construction of a new Shopping Centre, speciality shops, drive through fast food offering and standalone Shop that will operate in a co-ordinated way with shared connections to access, car parking and services. The proposed development will include the following key elements:

- A 3,655m<sup>2</sup> Woolworths supermarket with a maximum height of 9.6m above ground level;
- 814m<sup>2</sup> of specialty retail shops located within the Shopping Centre 'forecourt mall' and which will include approximately seven (7) tenancies;

Note: In addition to the shopping centre land use being sought over these speciality shops, approval for Food and Drink Outlet is also sought to allow for consistent uses with the complex such as a café or the like to establish without the need for any further town planning approvals.

- Amenities located within the shopping centre mall comprising a total area of 90m<sup>2</sup>
- A 270m<sup>2</sup> drive through fast food outlet with a height of 6.5m above ground level and including a dual drive through lane;
- A 196m<sup>2</sup> standalone shop with a height of 4.79m above ground level;
- Landscaping comprising 7.40% (1,200m<sup>2</sup>) of the site.

Please refer to the Plans of Development in Attachment 2 and Figures 4-7 below for further information.

Operating hours for the shopping centre component of the proposed development are expected to follow that of other similar centres i.e., Monday to Friday (8am-9pm), Saturday (8am-6pm), and Sunday (9am-6pm), although exact operating hours are yet to be determined. Exact number of staff are at this stage unknown.

Operating hours for the drive through fast food outlet and standalone Shop/s will not be known until tenants have been secured, although approval for 24 hour, seven day a week trading is sought for the Food and Drink Outlet. Exact number of staff for these land uses is also, at this stage, unknown.

Note: No approval for any advertising devices associated with the proposed development are sought as part of this application. Approval for all advertising devices will be sought at a later date.



Figure 4: Proposed Development Plan (Source: Thomson Adsett, 2022)



Figure 5: Proposed Elevation of Shopping Centre (Source: Thomson Adsett, 2022)



4 ELEVATION 4 - SHOPS 1: 100

Figure 6: Proposed Elevation of Standalone Shop (Source: Thomson Adsett, 2022)

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Figure 7: Proposed Elevation of Drive Through Food and Drink Outlet (Source: Thomson Adsett, 2022)

## 5.3 STAGING

The proposed development will not be staged.

## 5.4 ENGINEERING AND INFRASTRUCTURE PROVISION

#### 5.4.1 Water Supply

The proposed development will utilise the sites existing connections to Council's reticulated water network via the existing water mains in either Rankin Street or Byrnes Street.

Based on a preliminary review, it is expected that a booster pump and break tanks may be required to provide suitable water pressure for firefighting purposes, the specifics of which will be determined during detailed design and be documented in the Operational Works application.

Please refer to the Engineering Report in **Attachment 7** for more detailed commentary in relation to the methodology that will be implemented for the proposed development to connect to Council's reticulated water network.

#### **5.4.2** Sewerage Supply

The proposed development will be connected to Council's reticulated sewer and it is likely the section of sewer main currently located within the site and associated manhole will be removed and a new manhole will be constructed in the north-west corner of the site (approx.) which the proposed development will connect too, the specifics of which will be determined during detailed design and documentation in the Operational Works application.

Please refer to the Engineering Report in **Attachment 7** for more detailed commentary in relation to the methodology that will be implemented for the proposed development to connect to Council's reticulated sewerage network.

#### 5.4.3 Electricity & Telecommunications

The proposed development will be connected to both electricity and telecommunications services as required and in accordance with Ergon's and NBN's requirements.

### 5.4.4 Stormwater Drainage (Quantity and Quality)

The proposed development will direct stormwater to both the south-west corner of the site (where some detention may be proposed) and to the inlet pit at the Byrnes Street/Rankin Street intersection. Please refer to the Stormwater Management Plan in Attachment 7 for more detailed commentary in relation to the stormwater methodology (quality and quantity) that will be implemented for the proposed development.

Please refer to the Engineering Report in **Attachment 7** for more detailed commentary in relation to the stormwater methodology that will be implemented for the proposed development.



### 5.4.5 Finished Floor Levels and Earthworks

Finished floor levels and the extent of earthworks will be determined at the detailed design phase of the proposed development.

## 5.4.6 Erosion and Sediment Control

An erosion and sediment control plan will be prepared and implemented during the construction of the development.

## 5.5 TRANSPORT AND ACCESSIBILITY

### 5.5.1 Access & External Works

#### 5.5.1.1 Byrnes Street

Byrnes Street access to the site will be via two (2) separate left in and left out arrangements which will trigger the following on-street modifications:

- The removal of all existing car parking spaces within the service road to be replaced with grass/landscaping (final outcome will be per requirements of the Department of Transport and Main Roads);
- The construction of a new left in/left out access to the southernmost portion of the site to allow delivery vehicles (heavy vehicles) to safely enter and exit the site; and
- A new left in/left out car entry to the north of the truck entry/exit to allow private vehicles to safely enter and exit the site.

A new pedestrian footpath for the full Byrnes Street and Rankin Street frontages of the site is also proposed.

Please refer to the Traffic Impact Assessment in **Attachment 6** for further information on the proposed Byrnes Street access arrangements for the proposed development.

#### 5.5.1.2 Rankin Street

A new left-in, all movements out access is proposed from Rankin Street with modifications to the external road network to facilitate this access generally as shown on the plans of development in **Attachment 2** and as detailed in the Traffic Impact Assessment in **Attachment 6**.

Please refer to the Traffic Impact Assessment in **Attachment 6** for further information on the proposed Byrnes Street access arrangements for the proposed development.

#### 5.5.2 Car Parking

The proposed development includes a total of 219 car parking spaces, allocated as follows:

- 214 on-site car parking spaces to service the entire site, inclusive of five (5) PWD parking spaces, four (4) motorbike parks, and two (2) taxi parks; and
- Five (5) on-street parking spaces along the Rankin Street frontage.

### 5.5.3 Bicycle Parking

The proposed development includes a total of 19 bicycle parking spaces, allocated as follows:

- 5x bicycle spaces at the immediate frontage of the Shopping Centre, to the west; and
- 5x bicycle parking spaces at the immediate frontage of the Shopping Centre, to the east; and
- 2x bicycle parking spaces at the frontage of the Food and Drink Outlet; and

• 7x secure staff bicycle racks internal to the amenities area located within the Mall of the Shopping Centre.

## 5.5.4 Loading and Refuse

Refuse and loading areas for the proposed development will be provided as follows:

- Shopping Centre A designated loading area has been provided directly to the east of the supermarket to
  allow safe and efficient access for large service vehicles from Byrnes Street to service (delivery and refuse)
  the Shopping Centre (inclusive of speciality shops).
- Food and Drink Outlet A designated loading area has been provided directly to the west of the building which will also include the refuse area; and
- Shop A designated loading area has been provided to the south of the Shop building with the refuse area located in between the building and loading area.

Please refer to the Traffic Impact Assessment in **Attachment 6** for further information on the proposed loading and refuse arrangements for the proposed development.

## 5.6 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

## **5.6.1** Casual Surveillance, Opportunities and Sightlines

Casual surveillance and sightlines to both Rankin Street and Byrnes Street will be available from all buildings and within the site. These sightlines will be maintained for the life of the proposed development through the plantings of low plant species and no fencing being provided to the front boundaries of the site.

## 5.6.2 Public and Private Domains

There will be a clear distinction between the public and private domain via signage, changes in level, surface treatments, landscaping and fencing.

### 5.6.3 Legibility and Way Finding

The proposed development will incorporate signage to help define legible manoeuvring throughout.

### 5.6.4 Building Design

The proposed development provides for clear sightlines when entering and exiting the site and all service and car parking areas and provides clear sightlines to both Byrnes Street and Rankin Street. The main entrances of the site and all building are in view of the street.

### 5.6.5 Lighting

Ensuring that practical and sensible lighting/security options are provided to the proposed development is of the utmost importance. Accordingly, lighting of all areas will be provided as required.

### 5.6.6 Predictable Routes and Entrapment

Appropriate signage and lighting will be installed in the areas where movement could be predicted. This will ensure that these areas cannot be used as areas of possible entrapment or concealment.

### 5.6.7 Management and Maintenance

As a commercial enterprise, the management and maintenance of all public and private spaces will be of the highest priority and the proposed development will maintain these areas to a high standard at all times.



## 5.7 INFRASTRUCTURE CHARGES ESTIMATE

Chapter 4 (Infrastructure) of the PA outlines provisions for local governments to prescribe infrastructure charges for demands placed on trunk infrastructure where a Local Government Infrastructure Plans (LGIP) is included as part of the Planning Scheme and is adopted by resolution. These provisions have been reflected in Mareeba Shire Council Infrastructure Charges Resolution No. 1 of 2021 (AICR), which came into effect on 1 July 2021. The site is in the Centre Zone, Community Facilities Zone and Medium Density Residential Zone and is located within the Priority Infrastructure Area of the Mareeba Shire Council Local Government Area. In accordance with Council's AICR, Infrastructure Charges are applicable to the development calculated as follows and shown in **Table 2** below:

- Charges based on the proposed development (see Councils AICR); less:
- Discounts for the existing allotments/existing lawful uses.

		nifiustructure Churge	5 Estandee		
Category	Use Charge	Unit of Measure	Charge Rate	No of Units	Amount
Proposal					
Commercial (Retail)	Shopping Centre	Per m <sup>2</sup> of GFA	\$130.00	4,559	\$592,670.00
	Food and Drink Outlet	Per m <sup>2</sup> of GFA	\$130.00	185	\$24,050.00
	Shop	Per m <sup>2</sup> of GFA	\$130.00	196	\$25,480.00
Sub-Total					\$642,200.00
Credit					
High Impact Industry	Sawmill	Per m <sup>2</sup> of GFA	\$51.00	6,000	\$306,000.00
TOTAL					\$336,200.00

#### Table 2: Infrastructure Charges Estimate

Notes:

In accordance with the gross floor area (GFA) calculation in the Planning Scheme, the loading area, plant room, fire, tank and pump room and mall areas have been excluded from the GFA calculations; and

We refer to section 4.1 of the AICR in which it is acknowledged that a credit is to be applied for a previous use that is no longer taking place on the premises if the use was lawful at the time it was carried out. In this instance, the site was previously and lawfully uses for the purposes of a 'sawmill'. This has been confirmed by Council in the officer's report associated with MCU/08/0029 in which Council acknowledged a credit existed over the site for the previous 'Sawmill' use and that the Sawmill included approximately 6,000m<sup>2</sup> of GFA. A 'Sawmill' is defined as 'High Impact Industry' in the AICR and hence, the applicable credit is \$51.00 per square meter of GFA.

## 6 LEGISLATIVE REQUIREMENTS

## 6.1 PLANNING ACT 2016

### 6.1.1 Confirmation that the Development is not Prohibited

The proposed development is not prohibited. This has been established by considering all the relevant State and local instruments which can provide prohibitions under the PA, including Schedule 10, Parts 2-5, Parts 10-11 and Parts 16 and 20 of the PR.

### 6.1.2 Assessment Manager

The Assessment Manager for this development application is Mareeba Shire Council, as determined by Schedule 8 of the PR.

### 6.1.3 Category of Development

The proposed development represents a Material Change of Use in respect to 'the start of a new use of the premises'. Section 44(3) of the PA states that "Assessable Development is development for which a development approval is required". A Material Change of Use for the proposed development where located under the prescribed split zoning designation outlined within this report requires a development approval under the Planning Scheme and in accordance with s44(3) of the PA, is therefore, "Assessable Development".

#### 6.1.4 Level of Assessment

The site comprises a split-zoning designation with the land being located in the Centre Zone, Community Facilities Zone and Medium Density Residential Zone. A Material Change of Use for a shopping centre, food and drink outlet and shop in the above-mentioned zones is subject to **Impact Assessment**.

### 6.1.5 Statutory Considerations for Assessable Development

The proposed development is Impact Assessable and as such, the assessment must be carried out against the entire Planning Scheme for those components that trigger or require consideration against the strategic frameworks and all other relevant assessment benchmarks. Section 45(5) of the PA States that an Impact Assessment:

- a) "must be carried out—
  - (i) against the assessment benchmarks in a categorising instrument for the development; and
  - (ii) having regard to any matters prescribed by regulation for this subparagraph; and

(b) may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial or otherwise."

When assessing the application, the relevant considerations of the Assessment Manager are in accordance with Sections 59, 60(3), and 62 of the PA and Sections 29-31 of the PR. Section 30 of the PR establishes the Assessment Benchmarks while section 31 of the PR list the matters Impact Assessment must have regard to.

When deciding an Impact Assessable application, section 60(3) of the PA states that the Assessment Manager must decide:

- *a) "To approve all or part of the application;*
- b) To approve all or part of the application, but impose development conditions on the approval;
- c) To refuse the application."



## 6.2 FAR NORTH QUEENSLAND REGIONAL PLAN

The site is located within the 'Urban Footprint' Regional Land Use Category of the Far North Queensland 2009-2031 (see **Attachment 3**). The Minister has identified that the planning scheme, specifically the Strategic Framework, appropriately advances the FNQRP 2009-2031. Hence, compliance with the FNQRP is demonstrated through the compliance with the Planning Scheme (refer to this report and attachments for demonstration of this compliance).

## 6.3 STATE PLANNING POLICY

The State Planning Policy (SPP) came into effect on July 2017 under the PA. Part E of the SPP includes an array of State interests and associated assessment benchmarks which need to be considered during the development assessment process, where these State interests have not already been appropriately reflected within the relevant planning scheme. A review of the SPP mapping indicates that the proposed development/site is subject to several State interests, as outlined below (see also **Attachment 3**):

- Agriculture (Important Agricultural Areas);
- Mining and Extractive Resources (Key Resource Area Transport Route Separation Area);
- Natural Hazards Risk and Resilience (Flood Hazard Area Level 1 Queensland Floodplain Assessment Overlay)
- Transport Infrastructure (State-controlled Road, Railway Corridor, and Active Transport Corridor); and
- Strategic Airports and Aviation Facilities (Wildlife Hazard Buffer Zone).

In accordance with Section 2.1 of the Planning Scheme, the Minister has identified that the Planning Scheme appropriately advances the SPP; however, as the Planning Scheme was introduced in 2016, we are unsure if the 2017 SPP has been appropriately integrated into the current Planning Scheme.

However, upon review of the 'Understanding the State Planning Policy – July 2016', there were no changes made to any of the above listed State interests in the 2017 SPP that would result in these State interests being substantially different for the earlier versions of the SPP that have been integrated into the Planning Scheme.

Accordingly, all applicable State interests have been appropriately reflected in the Planning Scheme and in turn, compliance with the SPP is demonstrated through compliance with the Planning Scheme (refer to this report and attachments for demonstration of this compliance).

## 6.4 **REFERRALS & STATE DEVELOPMENT ASSESSMENT PROVISIONS**

A review of the DA mapping system indicates that the site is subject to the following matters of State interest (see **Attachment 3**):

- Water Resources (Water Resource Planning Area Boundary);
- State Transport Corridor (State-controlled Road and Railway Corridor); and
- Area Within 25m of a State Transport Corridor (Area Within 25m of a State-controlled Road and Area within 25m of a Railway Corridor)

In consultation with the PR and the above identified matters of interest, the propsed development triggers the following referrals:

- State Assessment Referral Agency Schedule 10, Part 9, Division 4, Subdivision 1, Table 1 Aspect of Development stated in Schedule 20;
- State Assessment Referral Agency Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 Material Change
  of Use where the premises is within 25m of a State Transport Corridor (Road) and within 100m of the
  intersection of a road that intersects with a State-controlled road; and



State Assessment Referral Agency – Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 – Material Change
of Use within 25m of a State Transport Corridor (Railway).

As a result, the following module of the State Development Assessment Provisions (version 2.6) are applicable:

- State Code 1 Development in a State-controlled Road Environment;
- State Code 2 Development in a Railway Environment; and
- State Code 6 Protection of State Transport Networks.

Please refer to Attachment 9 for a full assessment against the applicbale State Codes.

## 6.5 PLANNING SCHEME (MAREEBA SHIRE COUNCIL PLANNING SCHEME 2016)

## 6.5.1 Land Use Definition

The proposed development is defined under the Planning Scheme as:

### 'Shopping Centre':

"Premises comprising two or more individual tenancies that is comprised primarily of shops, and that function as an integrated complex.

### 'Food and Drink Outlet':

"Premises used for preparation and sale of food and drink to the public for consumption on or off the site. The use may include the ancillary sale of liquor for consumption on site". (Drive Thru Facility Included)

#### <u>'Shop':</u>

"Premises used for the display, sale or hire of goods or the provision of personal services or betting to the public".

### 6.5.2 Applicable Planning Scheme Overlays

The site is affected by the following Planning Scheme overlays:

- Airport Environs (Distance from Airport 8km);
- Extractive Resources (Key Resource Transport Route); and
- Transport Infrastructure (State-controlled Road, Rail Corridor, and Major Rural Road)

### 6.5.3 Applicable Planning Scheme Codes

Table 3 below lists the applicable codes of the Planning Scheme the subdivision is subject to assessment against:

Scheme Component	Comment
Zone Code	
Centre Zone Code;	Refer to Attachment 10 and Section 6.6.2
Community Facilities Zone Code; and	
Medium Density Residential Zone Code	

## Table 3: Applicable Planning Scheme Codes for Assessment

Local Plan Code	
Mareeba Local Plan Code	Refer to Attachment 10 and Section 6.6.3
Overlay Codes	
Airport Environs Overlay Code; Extractive Resources Overlay Code; and Transport Infrastructure Overlay Code	Refer to Attachment 10 and Section 6.6.4
Development Codes	
Commercial Activities Code; Landscaping Code; Parking and Access Code; and Works, Services and Infrastructure Code.	Refer to Attachment 10 and Section 6.6.5

## 6.6 PLANNING SCHEME ASSESSMENT

Through consideration of the applicable statutory documents that regulate the development of the site and based on a reasonable assessment, the Planning Scheme encourages the establishment of Shopping Centres, Food and Drink Outlets and Shop land uses in the Centre Zone, while importantly, does not prohibit the establishment of any of the land uses proposed as part of this application in any of the zoning designations that affect the site. That said, the suitability of the proposed development should be considered in terms of the design arrangements, interaction with the street and overall amenity of surrounding residential uses and where other development impacts can be suitably managed. Accordingly, the proposed development needs to be considered and assessed on its merits, in the context of the site, adjoining neighbours, the pattern of existing and approved urban development and the design arrangements proposed. Based on this, Urban Sync undertook a full assessment of the proposed development against the applicable codes and higher order sections of the Planning Scheme and this assessment is included in **Attachment 10** with a summary provided in the sections below.

### 6.6.1 Strategic Framework

The Strategic Framework of the Planning Scheme sets out a broad policy direction for the Mareeba Shire Council Local Government Area, offering a series of themes to guide appropriate development outcomes for the life of the Planning Scheme. Additionally, in respect to the provisions of the PR, particularly S31(1)(b), the Assessment Manager must have regard to the whole Planning Scheme, including its Strategic Framework, when deciding an Impact Assessable application.

Shopping Centre, Shops and Food and Drink Outlet land uses where located in the Centre Zone are subject to Code Assessment. In this instance, these land uses are only Impact Assessable due to the fact the site includes multiple zoning designations with these land uses triggering Impact Assessment in both the Community Facilities and Medium Density Residential Zones. It is important to note however, that these zoning designations only affect very small portions of the site (see **Figure 2**).

In the case of the Community Facilities zoned land that is include on the site, this zoning designation comprises approximately 1,700m<sup>2</sup> which equates to just over 10% of the total site area. This area of land is also no longer being used for community facilities with the railway that previously occupied this land having been removed and acknowledged by DTMR as no longer being required (as evident by the fact that the Community Facilities zoned land was sold to the current landowner). In respect of the Medium Density Zoned land on Lot 20, the proposed development seeks to utilise approximately 1,100m<sup>2</sup> or approximately 3% of this land which equates to approximately 6.5% of the total site area. Whilst acknowledged this portion of land is not 'unusable', due to its shape and overhead electrical infrastructure, it is somewhat constrained and it is perhaps reasonable to suggest this is why it has remained vacant while the rest of the site has been fully developed.



With the above, the proposed development clearly includes potential 'zoning conflicts'. However, in this instance, any such conflicts are not significant and the following sections seek to demonstrate that despite the zoning conflicts, the proposed development does not compromise the achievement of any of the higher order elements of the Planning Scheme, specifically, the strategic framework.

### 3.3 Settlement Pattern and Built Environment

## 3.3.1 Strategic Outcomes:

The pattern of development for the Mareeba shire will be supported where the orderly growth and evolution of the shire evolves in accordance with the intent of the Planning Scheme. The proposed development is located within the main township of Mareeba, is predominately on centre zoned land and will not compromise the activity centres hierarchy (as is supported by the Economic Need and Impact Assessments Assessment – see **Attachment 8**). Moreover, all required infrastructure can suitably service the proposed development and it has appropriately considered and integrates the sites physical characteristics and constraints

While the proposal represents a 'genuine' departure from the residential designation of Lot 20, this only comprises a very small portion of the entire site area. Moreover, the small portion of residential zoned land to be utilised as part of the proposed development is highly constrained and unlikely to be suitable for development of any more than a further one (1) or two (2) aged care dwellings. Given the community benefits that will emanate as result of the proposed development (see the Economic Need and Impact Assessments Assessment – see **Attachment 8**), the use of this small portion of residential zoned land is in this instance, considered reasonable, in particular as the potential amenity impacts associated with the proposed development can also be suitably addressed (see section 7.5). As such, the proposed development will be consistent with the intended settlement pattern for the shire and will not compromise the Strategic Outcomes of the Settlement Pattern and Built Environment Theme of the Strategic Framework.

## 3.3.2 Element – Activity Centres and Network:

The proposed development involves the establishment of centre activities on predominately centre zoned land, is located within the major regional activity centre of Mareeba and will fulfil a demonstrated need and offer a service which is currently underutilised within the shire (see the Economic Need and Impact Assessments Assessment – see **Attachment 8**). As such, the proposed development will not compromise the defined hierarchy of activity centres and for this reason, will not compromise the Specific Outcomes of the Activity Centre Network Element of the Settlement Pattern and Built Environment Theme of the Strategic Framework.

## 3.3.3 Element – Major Regional Activity Centre:

The proposed development involves the establishment of centre activities on predominately centre zoned land, is located within the major regional activity centre of Mareeba and will fulfil a demonstrated need and offer a service which is currently underutilised within the shire (see the Economic Need and Impact Assessments Assessment – see **Attachment 8**). As such, the proposed development will not compromise the defined hierarchy of activity centres and for this reason, will not compromise the Specific Outcomes of the Major Regional Activity Centre Element of the Settlement Pattern and Built Environment Theme of the Strategic Framework.

### 3.3.7 Element – Residential Areas and Development:

The proposed development will utilise a small amount of residential zoned land that is currently used for aged care purposes. That said, the small portion of residential zoned land to be utilised by the proposed development is highly constrained and unlikely to be suitable for development of any more than a further one (1) or two (2) aged care dwellings. Given the community benefits that will emanate as result of the proposed development (see the Economic Need and Impact Assessments Assessment – see **Attachment 8**), the use of this small portion of residential zoned land is in this instance, considered reasonable, in particular as the potential amenity impacts associated with the proposed development can also be suitably addressed (see section 7.5). As such, the proposed development will not compromise the Specific Outcomes of the Residential Areas and Development Element of the Settlement Pattern and Built Environment Theme of the Strategic Framework.



## 3.3.7 Element – Aged Care and Retirement Areas:

As above for 'Residential Areas and Development'. As such, the proposed development will not compromise the Specific Outcomes of the Residential Aged Care and Retirement Areas Element of the Settlement Pattern and Built Environment Theme of the Strategic Framework.

### 3.4 Natural Resources and Environment

## 3.4.1 Strategic Outcomes:

The site does not contain any natural recourses, areas/matters of high environmental significance and is generally free from constraints (commentary in response to contaminated land is provided below). As a result, the proposed development will not compromise the Strategic Outcomes of the Natural Resources and Environment Theme of the Strategic Framework.

## 3.4.9 Element – Contaminated Land:

The site is located on the Environmental Management Register due to its previous use as a Sawmill. A Site Management Plan was submitted and approved by the State Government in 2009 which identified that the site is suitable for industrial/commercial use, including premises such as shops, offices, and industrial buildings, so long as the site is used and managed as per the Site Management Plan (**Attachment 3**). As a result, although the site is contaminated, the proposed development will be undertaken in accordance with the approved Site Management Plan and there will be no increase to the risk of human or environmental harm. As such, the proposed development will not compromise the Specific Outcomes of the Contaminated Land Element of the Natural Resources and Environment Theme of the Strategic Framework.

## 3.5 Community Identity and Diversity

## 3.5.1 Strategic Outcomes:

The proposed development will not compromise any of the Strategic Outcomes of the Community Identity and Diversity Theme of the Strategic Framework from being achieved at a shire wide level.

### 3.5.2 Element – Local Character:

The proposed development will not be out of character with the type and scale of development on adjacent sites, that envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the community.

### 3.6 Transport and Infrastructure

The Applicant understands and accepts the importance in the delivery and connection to all essential infrastructure and services, not only to support the proper and orderly function of the proposed development, but to also support the growth of the region. Demonstration that the proposed development will not compromise section 3.6.1, 3.6.2 and 3.6.5 has been provided in the TIA prepared by SLR Consulting (see **Atatchment 6**).

Demonstration that the proposed development will not compromise section 3.6.7, 3.6.8 and 3.6.9 will be provided in the Engineering Report to be prepared by Trinity Engineering (see **Atatchment 7**).

### 3.7 Economic Development

### 3.7.1 Strategic Outcomes:

An Economic Need and Impact Assessment was prepared by Foresight Partners (see **Attachment 8**) to demonstrate that there exists a need for the proposed development. The Economic Need and Impact Assessment sets out the conclusions of the economic analysis and presents the grounds that not only is there a need for the proposed development, but also that it will fill a genuine need in the shire for services which are currently being underdelivered in the shire compared to service benchmarks present throughout Australia. We note that the evidence is based on geographical and demographical characteristics of the area coupled with the services and facilities provided in consumers located in the defined trade areas. The Economic Need and Impact Assessment concludes that there is a



'real' opportunity for the proposed development and that limited competitor implications will become evident through the progression of the development, beyond what could normally be expected when considering market share. The proposed development can also be viewed as adding prosperity of the entire shire via generating a variety of jobs throughout the development, construction, and operational phases to suit a diversely skilled labour force. As such, the proposed development will assist in the achievement of Strategic Outcome (3) of the Economic Development Theme of the Strategic Framework.

Note: No other strategic outcome of the of the Economic Development Theme of the Strategic Framework are applicable to the proposed development.

#### 3.7.6 Element – Retail and Commercial Development:

The site is predominately included in a centre zone where all necessary urban infrastructure is readily available. The proposed development will provide for a vibrant, busy setting and will not be out of character with the type and scale of development on adjacent sites, that envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the community. The proposed development will also incorporate attractive streetscapes, shade trees, pedestrian and cycle convenience, spaces for social interaction and CPTED initiatives. As such, the proposed development will not compromise the Specific Outcomes of the Retail and Commercial Development Element of the Economic Development Theme of the Strategic Framework.

## 6.6.2 Local Plan Code

The proposed development complies with or can be conditioned to comply with the Mareeba Local Plan Code.

- 6.6.3 Zone Codes
- 6.6.3.1 Centre Zone

The proposed development complies with or can be conditioned to comply with the Centre Zone Code.

#### 6.6.3.2 Community Facilities Zone

The proposed development complies with or can be conditioned to comply with the Community Facilities Zone.

## 6.6.3.3 Medium Density Residential Zone

The proposed development does utilise a small portion of land included in the Medium Density Residential Zone for non-residential purposes. Therefore, it is acknowledged that, in this instance, the proposed development displays several inconsistencies with the Planning Scheme intent for the Medium Density Residential Zone. That said, the application is submitted on the basis that the proposed development represents an opportunity for development supporting economic activity and land uses which can operate in the context of the various physical and amenity constraints which are displayed on the land and fulfils a demonstrated need within the community.

In addition, in this instance, due to the Medium Density Residential Zoned land being somewhat constrained, combined with the fact the site is adjacent to centre zoned land to the north, south and east, it is entirely appropriate to utilise this small portion of Medium Density Residential zoned land for centre activities in particular, as these activities will not result in any unacceptable, land use conflicts or unacceptable, adverse impacts on the residential land sues to the south-west of the site. Further commentary is provided in section 6.6.1 to demonstrate that despite the identified zoning conflict, that the proposed development complies with the higher order, strategic framework of the Planning Scheme.

### 6.6.4 Overlay Codes

#### **Airport Environs Overlay Code**

The proposed development complies with or can be conditioned to comply with the Airport Environs Overlay Code.



#### **Extractive Resources Overlay Code**

The proposed development complies with or can be conditioned to comply with, the Extractive Resources Overlay Code.

#### Transport Infrastructure Overlay Code

The proposed development complies with or can be conditioned to comply with, the Transport Infrastructure Overlay Code.

### 6.6.5 Development Codes

#### **Commercial Activities Code**

The development complies with, or can be conditioned to comply with, the Commercial Activities Code.

#### Landscaping Code

The development complies with or can be conditioned to comply with, the Landscaping Code.

#### Parking and Access Code

The development complies with or can be conditioned to comply with, the Parking and Access Code.

#### Works, Services and Infrastructure Code

The development complies with or can be conditioned to comply with, the Works, Services and Infrastructure Code.

## 7 DISCUSSION – KEY PLANNING MATTERS

This section of the report provides additional commentary in support of the key matters considered relevant to the assessment of this development application being need, zoning conflict, height, setbacks, and character and amenity.

## 7.1 ECONOMIC IMPACT ASSESSMENT

Even though the proposed development involves 'Centre Activities' akin to that expected under a centre zoning designation, the Applicant obtained advice and technical inputs from Foresight Partners to investigate and report on the proposed development. That said, the objectives of the reporting were to consider the project in context of the identified trade areas and deliver an assessment against the 'higher order' provisions of the Planning Scheme associated with 'Centres' and 'Centre Activities' to demonstrate:

- There is an identified need for the proposed development;
- The proposed development is of a scale that is required to service the surrounding catchment;
- That the proposed development would not have an unacceptable, adverse economic impact on other, similar existing land uses;
- The proposed development is highly accessible within the catchment it serves and not located on the periphery; and
- That the proposed development would not have an adverse impact on the activity centre hierarchy.

The Economic Needs Assessment report provided by Foresight Partners (see **Attachment 8**) provides an in-depth synopsis of the research undertaken in respect to the proposed development and its anticipated role within the catchment it intends to service and demonstrates:

- There will be significant growth in the trade area population and household expenditures between now and 2029;
- There is sufficient trade area spending to support the centre components of the proposed development;
- The proposed development is unlikely to threaten the vitality or viability of other nearby retailers or designated centres and instead, will recapture escape spending and consolidate spending in Mareeba; and
- There are ample community benefits associated with the proposed development.

In respect to the assessment benchmarks and direction provided under the Strategic Framework, it is our considered view that the establishment of the proposed development will:

- Sufficiently cater to an existing community need and future growth within the shire;
- Will not offend the hierarchy of centres as the role and function of other existing centres will remain uncompromised;
- Diversify the economy via the addition of healthy competition and allowed opportunities to thrive through additional commercial and retail offerings that generate local employment opportunities;
- Provide a net benefit to the community via employment to a variety of skilled labour force throughout the construction and operational phases; and
- Seeks to fill an identified gap with respect to services.

With that in mind, it has been demonstrated that there is a clearly established need for services being offered and the proposed development will not compromise any aspects of the strategic framework relating to the hierarchy of activity centres.



## 7.2 ZONE CONFLICT

Due to recent amalgamations and land acquisitions by current and perspective landowners, the site is included in a split zoning designation. As such, one of the key matters for the assessment of this application relates to the potential zoning conflicts that may be caused because of the proposed development locating 'centre' uses on small portions of both Community Facilities AND Medium Density Residential Zone land. In this regard, the Community Facilities AND Medium Density Residential site area comprises approximately 16% of the total site area and this is a key fact that should be considered during the assessment process.

The Community Facilities zoned land that the proposed development will utilise comprises approximately 1,700m<sup>2</sup> which equates to just over 10% of the total site area. This area of land is no longer being used for community facilities with the railway that previously occupied this land having been removed and acknowledged by DTMR as no longer being required (as evident by the fact that the Community Facilities zoned land was sold to the current landowner). As such, it is an entirely reasonable view that the Community Facilities zoned portion of the site it is now and moving forward, more appropriately used for centre activities.

In respect of the Medium Density Residential Zoned land, the proposed development seeks to utilise approximately 1,100m<sup>2</sup> or approximately 3% of this land which equates to approximately 6.5% of the total site area. Whilst acknowledged this portion of land is not 'unusable', due to its shape and overhead electrical infrastructure, it is somewhat constrained and it is perhaps reasonable to suggest this is why it has remained vacant while the rest of the site has been fully developed. Due to these constraints, of the Medium Density Residential Zoned land is only likely suitable for development of a further circa one (1) or two (2) additional dwelling akin to that which have been constructed on Lot 20. The proposed development will remove the existing overhead electrical infrastructure and has the ability to 'square up' the triangular, unusable portion of Lot 20 to make it useable for the inclusion within a development that will provide a significant community benefit. This community benefit will outweigh the loss of this small portion of residential zoned land, in particular as the potential amenity impacts associated with the proposed development can also be suitably addressed (see section 7.5) and for this reason, it is a reasonable view that the portion of the site zoned Medium Density is more appropriately used for centre activities such as is proposed as part of this application.

In summary, the potential zoning conflicts caused by the proposed development being located on very small portions of Community Facilities and Medium Density Residential zoned land are minor in nature and will not have any unacceptable, negative impacts on this land. Commentary addressing the strategic framework of the Planning Scheme has also been provided in section 6.6.1 to demonstrate that despite the zoning conflict, the proposed development will not conflict with the higher order sections of the Planning Scheme and therefore, the proposed developments utilisation of these small areas of Community Facilities and Medium Density Residential zoned land is in this instance, suitable.

## 7.3 BUILDING HEIGHT

All three (3) zoning designations that affect the site have a deemed to comply acceptable outcome for building height of 8.5m. It is acknowledged that the maximum height of the Shopping Centre is 9.657m. However, the Shopping Centre building itself will be a maximum height of 8.4m and it will only be the skylight roof, parapets and plant screens that encroach over the deemed to comply requirement for height. Generally, these structures are small in scale and/or located/orientated internally/centrally to the site where they will not be visible and/or will not result in any unacceptable, negative impacts on adjacent premises. As a result, we acknowledge the non-compliance, although in this instance, the non-compliance is minor in nature and will not be detrimental to the success of the development when considered in the overall context and will not conflict with PO1 of the Community Facilities Zone Code, PO1 of the Centre Zone Code or PO1 of the Medium Density Residential Zone Code.

## 7.4 BUILDING SETBACKS

From a planning perspective, separation and setbacks in design are accommodated to achieve the following:

- Privacy and amenity of land uses (i.e. shade, noise, visual, and the like);
- Access to natural light and ventilation; and
- Maintaining character and streetscape through the separation of built form.

The site presents a dual frontage to both Rankin and Byrnes Street, adjoins a Railway Line to the west, residential development to the south, and other centre activities to the east.

Due to the split zoning designation, the proposed development does not comply with any of the deemed to comply setback requirements for any of the zoning designations. These non-compliances are predominately a result of the conflicting deemed to comply setback requirements between the three (3) zones. That said, the performance outcome relating to setbacks are generally consistent across the three (3) relevant zone codes and as such, to demonstrate the proposed developments suitability in relation to setbacks, commentary demonstrating compliance with PO2 of the Centre Zone Code and Community Facilities Zone Code and PO3 of the Medium Density Residential Zone Code will be provided below.

"Development is sited in a manner that considers and respects:

(a) The siting and use of adjoining premises;

### Town Planning Commentary:

The centre zone seeks to encourage development being built up to the road frontage to promote social interaction and active street frontages. However, in this instance, due to the site constraints relating to traffic, this is not possible to achieve and setbacks from the road frontages are required to allow suitable siting, access, car parking and vehicle manoeuvring. In addition, the site is located at the southern end of the centre zoned land and as such, will not have large numbers of person walking past/to/from the site as the main town centre area north of Rankin Street. As a result, Om setbacks and awning in this instance, are unlikely to provide the benefits they are in most instances, intended to in centre zones and for this reason, in this instance, Om setbacks are not necessary.

The site does not adjoin any premises to the north and east and adjoins a Railway Corridor to the west and as such, there will be no buildings on adjoining land in these directions. There is centre zoned land to the south, although built to boundary walls for these land uses are encouraged so the proposed developments proximity to the southern boundary adjacent to the centre zoned land (Lot 1 on M356171) will not hinder development on this allotment. The proposed development will also adjoin residential land to the south-west (Lot 20 on NR7137), although in this regard, it is reasonable to assume this site as 'fully developed' and the proposed development will be setback approximately 20m from the nearest dwelling house on Lot 20 on NR7137. Whilst the proposed development will be visible from the nearby residential dwellings, the proposed development is generally compliant in terms of height and there will be landscape screening between the proposed development and adjacent dwellings. As such, the proposed development has been sited in a manner that respects the adjacent residential area.

(b) Access to sunlight and daylight for the site and adjoining sites;

#### Town Planning Commentary:

As identified above, the closest residential dwelling will be located approximately 20m from the proposed development which will ensure it does not hinder a suitable amount of sunlight or daylight reaching the nearby dwelling (centre land uses that may be established on Lot 1 on M356171 will gain suitable access to sunlight from the east and west).

(c) Privacy and overlooking;

### Town Planning Commentary:

The proposed development will be setback approximately 20m from the closest residential dwelling. It is also orientated away from and will have minimal openings facing towards the nearby residential dwellings (centre land uses that may be established on Lot 1 on M356171 will not be impacted by potential overlooking). As such the siting of the proposed development will not result in any unacceptable, adverse impacts relating to privacy or overlooking.

(d) Opportunities for casual surveillance of adjoining public spaces;

## Town Planning Commentary:

The proposed development has been orientated so that there is a clear opportunity for casual surveillance to the car parking areas and adjacent streets. Pedestrian links will be provided internal to the site to encourage further casual surveillance which will ensure that casual surveillance is provided throughout the site at all times.

(e) Air circulation and access to natural breezes;

## Town Planning Commentary:

The proposed development will be setback approximately 20m from the closest residential dwelling. As such the siting of the proposed development will not result in any restrictions on the nearby residential dwelling having access to natural breezes (due to its orientation the proposed development will not have access to breezes hindered or restricted should a centre land uses be established on Lot 1 on M356171).

(f) Appearance of building bulk; and

## Town Planning Commentary:

The shopping centre component of the proposed development exceeds the maximum height requirements sought for all three (3) zones that the site is located in. That said, the discretion being sought only relate to the skylight roof, parapets and plant screens that encroach over the deemed to comply requirement for height. Generally, these structures are small in scale and located/orientated internally/centrally to the site where they will not be visible and/or will not result in any unacceptable, negative impacts on adjacent premises. The site coverage of the proposed development is well under the allowed 90% and the articulation, fenestration, variations to the roof profile and landscaping provided to the proposed development ensures an attractive appearance and reduces the 'bulk' of the building to within acceptable levels. Hence, we believe that while the height of the shopping centre component may slightly exceed that expected for the zone, the discretion being sought is minor in nature and the bulk of the overall development generally reflects a consistent/similar building bulk that should reasonably be expected to occur on the site and for this reason, the bulk of the proposed building will not result in any unacceptable, adverse impacts.

(g) Relationship with pedestrian spaces and road corridors.

### Town Planning Commentary:

The proposed development will ensure a suitable relationship with pedestrian spaces and road corridors as follows:

- Pedestrian footpaths will be constructed for the full length of both the Byrnes Street and Rankin Street frontages to allow for safe and efficient pedestrian manoeuvrability;
- Internal pedestrian linkages will be provided to safely direct pedestrians from external to the site to each of the three (3) buildings;
- A pedestrian footpath will also be provided to link in with the residential premises to the south to provide a direct walking link;
- Internal speed restriction devices and clear and legible signage will be incorporated to ensure a safe and efficient internal pedestrian environment is established; and
- The car parking area has been located central to the development so that vehicles are in close proximity to buildings.

Establishing a safe and efficient pedestrian environment will be crucial to the success of the development and we are agreeable to discussing any additional requirements with Council to ensure that the development can proceed in line with Council's expectations.



#### 7.5 AMENITY

The consideration of amenity means different things to different people and is informed by the planning controls applying to the site under consideration and the notion of 'reasonableness'. It is also important to consider that development will often affect existing amenity, in particular when land zoned for commercial land uses abuts residential zoned land. What is unacceptable in a planning context were relating to amenity, is an 'unacceptable' extent according to the **reasonable expectation** of the adjacent landholders. While the subjective views of those whose amenity may be affected by a development are not to be ignored, the assessment must weigh up standards of comfort and enjoyment which are to be expected by ordinary people of plain, sober and simple notion not effected by some special sensitivity or eccentricity. The weight to be accorded to subjective views can only be judged in the light of all the evidence about the subject.

PO6 and PO7 of the Community Facilities Zone Code and PO8 and PO9 of the Centre Zone Code and Medium Density Residential Zone Code all speak to development needing to protect the amenity of the local area. Therefore, commentary is provided below to demonstrate compliance with these assessment benchmarks (the performance outcomes in all three codes are consistent in terms of the amenity matters they seek to mitigate).

Note: As the site abuts road to the north and east, and a rail corridor to the west, it is not expected the proposed development needs to address amenity impacts in these directions. The site abuts residential and centre zoned land to the south, although the proposed development will not result in any unacceptable amenity impacts on the centre zoned land. We also note that the site is included in a centre zoning designation and the proposed development includes centre activities. While the proposed development has some minor non-compliances in relation to setbacks and height, it is generally of a bulk and scale that is entirely consistent with the Planning Scheme intent for the site and as such, the proposed development is unlikely to generate any amenity impacts over and above that which should be reasonably expected to occur from the site. That said, the focus of the below commentary will relate to the adjacent residential land.

PO6 and PO7 of the Community Facilities Zone Code and PO8 and PO9 of the Centre Zone Code and Medium Density Residential Zone Code state:

"Development must not detract from the amenity of the local area, having regard to:

- (a) Noise;
- (b) Hours of operation;
- (c) Traffic;
- (d) Advertising devices;
- (e) Visual amenity;
- (f) Privacy;
- (g) Lighting;
- (h) Odour; and
- (i) Emissions.

#### 7.5.1 Acoustic Noise

To ensure potential acoustic noise impacts from the proposed development are suitably managed and reduced, the proposed development has:

- Been setback approximately 20m from the closest dwelling house to the south-west;
- The Shopping Centre component has been orientated 'inwards' to face away from the closest dwelling house to the south-west;
- Car parking, refuse and loading areas have been setback a minimum of approximately 140m from the closest dwelling house to the south-west;

- Minimal openings have been provided in the south-western corner of the proposed development; and
- External and roof top mechanical plant can be acoustically buffered with openings that face north and east.

These design elements will assist in ensuring noise is kept to within acceptable levels and to ensure that noise will not have any unacceptable, adverse impacts on the adjacent residential premises to the south-west. If required, further, specific compliance can be ensured through the imposition of reasonable and relevant conditions of approval.

#### 7.5.2 Hours of Operation

The hours of operation for each development will be as follows, keeping in mind that these hours may change subject to tenanting arrangements:

- Woolworths Shopping Centre Monday to Friday (8am-9pm), Saturday (8am-6pm), and Sunday (9am-6pm);
- Food and Drink Outlet 7 days a week, 24 hours a day;
- Shop To be confirmed once tenants are secured.

The hours of operation for the shopping centre component of the proposed development are consistent with those sought for similar uses within the locality and given the points identified above in section 7.5.1 will not have any unacceptable, adverse impacts on the adjacent residential premises to the south-west.

The hours of operation for the food and drink outlet MAY exceed those that are considered 'normal' for the majority of the locality, although this land use (likewise with the standalone shop/s) is not located nearby or adjacent to any residential land uses to the north, east or west of the site and are located in excess of 250m from the residential dwellings to the south-west and as such, the hours of operations for these land uses will not have any unacceptable, adverse impacts on any residential premises to the south-west or in the wider locality.

#### 7.5.3 External Traffic

Given the zoning of the site, adjacent landholders and the wider locality should have a reasonable expectation that a commercial development will at some point in time, be undertaken on the site. That said, demonstration that the proposed development will not have any unacceptable, adverse impacts on the amenity of the locality because of traffic has been demonstrated in the TIA prepared by SLR Consulting (see **Atatchment 6**).

#### 7.5.4 Advertising Devices

This application does not include any advertising devices (a separate application for Advertising Devices will be submitted at a later date).

#### 7.5.5 Visual Amenity

The proposed development will greatly enhance the visual amenity of the site over and above that which exists at present and improve the streetscape of both Byrnes Street and Rankin Streets. Please refer to sections 7.3 and 7.4 above for commentary demonstrating that the proposed development will not result in any unacceptable, negative impacts visual impacts on the adjacent residential dwellings to the south-west.

#### 7.5.6 Privacy

The proposed development will be setback approximately 20m from the closest residential dwelling and is orientated away from the nearby residential dwelling and will have minimal openings facing towards the residential premises (centre land uses that may be established on Lot 1 on M356171 will not be impacted by potential overlooking). As such the siting of the proposed development will not result in any unacceptable, adverse impacts relating to privacy or overlooking.



#### 7.5.7 On-site Lighting

Lighting is required to not exceed the maximum standards (LUX) when measured at adjacent sensitive land uses. As the site abuts residential zoned land to the south, it is prudent to provide commentary demonstrating that the development will not have any unacceptable, negative amenity impacts on this adjacent residential land.

It is not envisioned that there will be any lighting impacts on these residential premises as the Shopping Centre is orientated away from these premises; however, to ensure there is no unacceptable, negative impacts on Lot 20 on NR7137 because of lighting, the following condition (or similar) should be imposed by Council.

**Proposed Condition (Lighting):** "All lighting installed upon the premises including car parking areas must be certified by Ergon Energy (or such other suitably qualified person). The vertical illumination at 1.5 metres outside the boundary of the subject land must not exceed eight (8) lux measured at any level upwards from ground level".

#### 7.5.8 Odours and Emissions

In accordance with the requirements under the *Environmental Protection Act 1994*, the development will take all reasonable and practical measures to minimise environmental harm because of odour and/or emissions. The development will also comply with the air requirements specified in the *Environmental Protection (Air) Policy 2019*. This, in association with the inclusion of a condition such as that outlined below, will ensure emissions do not cause any unacceptable, negative impacts on Lots 1 and 2 on SP245587.

**Proposed Condition (Emissions):** "Emissions associated with operational activities must not cause an 'environmental nuisance' within the meaning of the Environmental Protection Act (1994) to any sensitive receptor and comply with the Air Quality Objectives as stated within Schedule 1 of the Environmental Protection (Air) Policy 2019".

Other conditions relating to the control of odours and emissions associated with the food and drink outlet and shopping centre can be conditioned where deemed reasonable and relevant.

### 8 CONCLUSION

This report supports an application made by Mareeba 232 Pty Ltd who is seeking the requisite statutory development approval from Mareeba Shire Council to support the establishment of a new mixed use commercial development over Lot 78 on SP298287 and part of Lot 20 on NR7137 at 232 Byrnes Street and Close Avenue, Mareeba. Accordingly, this development application has sought the following development approval from Council:

#### Development Permit for a Material Change of Use (Shopping Centre, Food and Drink Outlet, and Shop)

This report has described the development, identified the applicable statutory and legislative requirements of Mareeba Shire Council under their Planning Scheme, the *Mareeba Shire Council Planning Scheme 2016*, as well as those at the State level under the *Planning Act 2016*, *Planning Regulation 2017*, *State Planning Policy 2017* as well as all other, relevant State legislation and requirements, and in doing so, demonstrated the suitability of the development.

The report has established that the proposed development is generally compliant with the applicable assessment benchmarks for this site and in the context of the locality, with only a handful of minor departures away from the 'deemed to comply' Acceptable Outcomes being identified namely in relation to height and setbacks. Where these departures have been identified, a performance-based assessment has been provided to justify and demonstrate, based on sound planning grounds, that compliance with the corresponding Performance Outcome and in turn, the relevant Assessment Benchmarks, can still be achieved. In particular, section 7 of this report has demonstrated that the height and setbacks being proposed are in this instance suitable and will not result in any unacceptable character or amenity impacts.

In this instance, the key matters for assessment relate to need/hierarchy of activity centres and potential land use conflicts caused because of the proposed developments location on Community Facilities AND Medium Density Residential Zone land. In relation to the former, in association with supporting technical reports, the report has established that there exists a demonstrated need for the proposed development and that the establishment of the services being offered will not compromise the activity centre hierarchy and/or the higher order sections of the Planning Scheme. In relation to the proposed development being located on Community Facilities AND Medium Density Residential Zone land, the report highlights that these zoning 'conflicts' are very minor in nature, will not result in any unacceptable negative impacts on the amenity of the locality or most importantly, the adjacent residential land uses to the south-west. To further demonstrate the suitability of the proposed development from a zoning perspective, commentary addressing the strategic framework of the Planning Scheme has also been provided to demonstrate that despite the zoning conflicts, the proposed development will not conflict with the higher order sections of the Planning Scheme.

The report concludes that overall, the proposed development is consistent with the higher order provisions with the Strategic Frameworks in respect of delivering the overall objectives for development and the technical elements affecting the physical provisions on the land and surrounding properties and can be suitably managed and conditioned to comply with all the applicable assessment benchmarks. With this in mind, we have confidence that a complete performance-based assessment by Council will consider the project in its context, and in doing so, accept the alternative solutions being proposed and for this reason, should be approved by Council subject to the imposition of reasonable and relevant conditions of approval.

# **ATTACHMENT 1**

DA FORM 1 AND LANDOWNERS CONSENT

# DA Form 1 – Development application details

Approved form (version 1.3 effective 28 September 2020) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use DA Form 2 – Building work details.

For a development application involving building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot), use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

**Note:** All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

# PART 1 – APPLICANT DETAILS

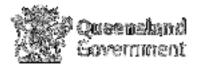
1) Applicant details	
Applicant name(s) (individual or company full name)	Mareeba 232 Pty Ltd
Contact name (only applicable for companies)	C/- Matt Ingram of Urban Sync Pty Ltd
Postal address (P.O. Box or street address)	PO Box 2970
Suburb	Cairns
State	Queensland
Postcode	4870
Country	Australia
Contact number	(07) 4051 6946
Email address (non-mandatory)	admin@urbansync.com.au
Mobile number (non-mandatory)	
Fax number (non-mandatory)	
Applicant's reference number(s) (if applicable)	21-740

#### 2) Owner's consent

2.1) Is written consent of the owner required for this development application?

Yes – the written consent of the owner(s) is attached to this development application

 $\square$  No – proceed to 3)



# PART 2 – LOCATION DETAILS

Note: P		elow and		e 3.1) or 3.2), and 3.3 e plan for any or all p			application. For further information, see <u>DA</u>
3.1) St	treet addres	s and lo	ot on plan				
Str	eet address	AND lo	ot on plan f	(all lots must be liste for an adjoining e e.g. jetty, pontoon. Al	or adja		premises (appropriate for development in
	Unit No.	Street	No. St	treet Name and	Туре		Suburb
		232	B	yrnes Street			Mareeba
a)	Postcode	Lot No	o. Pl	lan Type and Nu	mber (	e.g. RP, SP)	Local Government Area(s)
	4880	78	S	P298287			Mareeba Shire Council
	Unit No.	Street	No. St	treet Name and	Туре		Suburb
b)			С	lose Avenue			Mareeba
b)	Postcode	Lot No	o. Pl	lan Type and Nu	mber (	e.g. RP, SP)	Local Government Area(s)
	4880	20	N	IR7137			Mareeba Shire Council
e.g Note: P	g. channel drec lace each set o	lging in N f coordin	/loreton Bay) ates in a sep	)		note areas, over part of a	l lot or in water not adjoining or adjacent to land
		premis		-		~	Loool Covernment Area(a) (formilischie)
Longit	ude(s)		Latitude(	(S)	Datur		Local Government Area(s) (if applicable)
					G	GS84 DA94 ther:	
	ordinates of	premis	es by east	ting and northing			
Eastin	g(s)	North	ing(s)	Zone Ref.	Datur	n	Local Government Area(s) (if applicable)
3.3) A	Lasting(s)     Zone rten.     Datam     Local Government Area(s) (# applicable)       54     WGS84       55     GDA94       56     Other:						
Ado atta	ditional prem	nises ai		t to this developr evelopment appli		oplication and the de	etails of these premises have been
1) Ider	tify any of t	ne follo	wing that	apply to the pren	nicos a	nd provide any rele	vant details
				r watercourse or		• •	
	of water boo		•		in or a		
		-		Transport Infras	tructur	e Act 100/	
					liuciui		
	plan descrip of port authority		• •	port land.			
	a tidal area		the lot.				
			t for the ti				
	-			idal area <i>(if applica</i>	bie):		
	-	•		a (if applicable):	oturia -	and Dianasal) Ast	2008
		under	ule Airpon	i Asseis (Restitut	Juring	and Disposal) Act 2	2000
Name	of airport:						

⊠ Listed on the Environmental Management Register (EMR) under the Environmental Protection Act 1994			
EMR site identification: 45685			
Listed on the Contaminated Land Register (CLR) under the Environmental Protection Act 1994			
CLR site identification:			

#### 5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see <u>DA Forms Guide</u>.

Yes – All easement locations, types and dimensions are included in plans submitted with this development application

🛛 No

## PART 3 – DEVELOPMENT DETAILS

#### Section 1 – Aspects of development

6.1) Provide details about the first development aspect
a) What is the type of development? (tick only one box)
Material change of use Reconfiguring a lot Operational work Building work
b) What is the approval type? (tick only one box)
Development permit Preliminary approval Preliminary approval that includes a variation approva
c) What is the level of assessment?
Code assessment Impact assessment (requires public notification)
d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into a lots):
Material Change of Use for a Shopping Centre, Food and Drink Outlet, and stand alone Shop.
e) Relevant plans Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see <u>DA Forms quide:</u> <u>Relevant plans</u> .
Relevant plans of the proposed development are attached to the development application
6.2) Provide details about the second development aspect
a) What is the type of development? (tick only one box)
Material change of use Reconfiguring a lot Operational work Building work
b) What is the approval type? (tick only one box)
Development permit Preliminary approval Preliminary approval that includes a variation approve
c) What is the level of assessment?
Code assessment Impact assessment (requires public notification)
d) Provide a brief description of the proposal (e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into lots):
e) Relevant plans <b>Note</b> : Relevant plans are required to be submitted for all aspects of this development application. For further information, see <u>DA Forms Guide</u> : <u>Relevant plans</u> .
Relevant plans of the proposed development are attached to the development application
6.3) Additional aspects of development
<ul> <li>Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application</li> <li>Not required</li> </ul>

#### Section 2 – Further development details

7) Does the proposed development application involve any of the following?			
Material change of use	$oxed{i}$ Yes – complete division 1 if assessable against a local planning instrument		
Reconfiguring a lot	Yes – complete division 2		
Operational work	Yes – complete division 3		
Building work	Yes – complete DA Form 2 – Building work details		

#### Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material char	nge of use		
Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units <i>(if applicable)</i>	Gross floor area (m²) ( <i>if applicable</i> )
Commercial/Retail	Shopping Centre	Refer to plans	Refer to plans
	Food and Drink Outlet	Refer to plans	Refer to plans
	Shop	Refer to plans	Refer to plans
8.2) Does the proposed use involve the u	use of existing buildings on the premises?		
🗌 Yes			
No			

#### Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?				
9.2) What is the nature of the lot reconfiguration? (tic	k all applicable boxes)			
Subdivision (complete 10))	Dividing land into parts by agreement (complete 11))			
Boundary realignment (complete 12))	Creating or changing an easement giving access to a lot from a constructed road <i>(complete 13))</i>			

10) Subdivision					
10.1) For this development, how	10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:	
Number of lots created					
10.2) Will the subdivision be stag	ged?				
🗌 Yes – provide additional deta	ils below				
No	No No				
How many stages will the works include?					
What stage(s) will this developm apply to?	ent application				

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?						
Intended use of parts created Residential Commercial Industrial Other, please specify:						
Number of parts created						

12) Boundary realignment						
12.1) What are the current a	nd proposed areas for each lo	t comprising the premises?				
Curre	ent lot	Propo	osed lot			
Lot on plan description         Area (m <sup>2</sup> )         Lot on plan description         Area (m <sup>2</sup> )						
12.2) What is the reason for the boundary realignment?						

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)								
Existing or proposed?Width (m)Length (m)Purpose of the easement? (e.g. pedestrian access)Identify the land/lot(s) benefitted by the easement								

#### Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operative	ational work?		
Road work	Stormwater	Water infrastructure	
Drainage work	Earthworks	Sewage infrastructure	
Landscaping	Signage	Clearing vegetation	
Other – please specify:			
14.2) Is the operational work necess	ary to facilitate the creation of n	ew lots? (e.g. subdivision)	
Yes – specify number of new lots	:		
No			
14.3) What is the monetary value of	the proposed operational work?	(include GST, materials and labour)	
\$			

# PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application
Mareeba Shire Council
16) Has the local government agreed to apply a superseded planning scheme for this development application?
Yes – a copy of the decision notice is attached to this development application
The local government is taken to have agreed to the superseded planning scheme request - relevant documents
attached
No

# PART 5 – REFERRAL DETAILS

17) Does this development application include any aspects that have any referral requirements? Note: A development application will require referral if prescribed by the Planning Regulation 2017. No, there are no referral requirements relevant to any development aspects identified in this development application - proceed to Part 6 Matters requiring referral to the Chief Executive of the Planning Act 2016: Clearing native vegetation Contaminated land (unexploded ordnance) Environmentally relevant activities (ERA) (only if the ERA has not been devolved to a local government) Fisheries – aquaculture Fisheries – declared fish habitat area Fisheries – marine plants Fisheries – waterway barrier works Hazardous chemical facilities Heritage places - Queensland heritage place (on or near a Queensland heritage place) Infrastructure-related referrals – designated premises Infrastructure-related referrals – state transport infrastructure X Infrastructure-related referrals – State transport corridor and future State transport corridor Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels Infrastructure-related referrals – near a state-controlled road intersection Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas Koala habitat in SEQ region – key resource areas Ports – Brisbane core port land – near a State transport corridor or future State transport corridor Ports – Brisbane core port land – environmentally relevant activity (ERA) Ports – Brisbane core port land – tidal works or work in a coastal management district Ports – Brisbane core port land – hazardous chemical facility Ports – Brisbane core port land – taking or interfering with water Ports – Brisbane core port land – referable dams Ports – Brisbane core port land – fisheries Ports – Land within Port of Brisbane's port limits (below high-water mark) SEQ development area SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity SEQ regional landscape and rural production area or SEQ rural living area – community activity SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation SEQ regional landscape and rural production area or SEQ rural living area – urban activity SEQ regional landscape and rural production area or SEQ rural living area – combined use Tidal works or works in a coastal management district Reconfiguring a lot in a coastal management district or for a canal Erosion prone area in a coastal management district Urban design Water-related development – taking or interfering with water Water-related development – removing quarry material (from a watercourse or lake) Water-related development – referable dams Water-related development –levees (category 3 levees only) Wetland protection area Matters requiring referral to the local government: Airport land Environmentally relevant activities (ERA) (only if the ERA has been devolved to local government)

Heritage places – Local heritage places

Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:

Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The Chief Executive of the holder of the licence, if not an individual
- The holder of the licence, if the holder of the licence is an individual

Infrastructure-related referrals - Oil and gas infrastructure

Matters requiring referral to the Brisbane City Council:

Ports – Brisbane core port land

Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:

Ports – Brisbane core port land (where inconsistent with the Brisbane port LUP for transport reasons)

Ports – Strategic port land

Matters requiring referral to the relevant port operator, if applicant is not port operator:

Ports - Land within Port of Brisbane's port limits (below high-water mark)

Matters requiring referral to the Chief Executive of the relevant port authority:

Ports - Land within limits of another port (below high-water mark)

Matters requiring referral to the Gold Coast Waterways Authority:

Tidal works or work in a coastal management district (*in Gold Coast waters*)

Matters requiring referral to the Queensland Fire and Emergency Service:

Tidal works or work in a coastal management district (involving a marina (more than six vessel berths))

#### 18) Has any referral agency provided a referral response for this development application?

☐ Yes – referral response(s) received and listed below are attached to this development application ⊠ No

Referral requirement	Referral agency	Date of referral response
Identify and dependences are done to the prevent of	development emplication that we	a the authiast of the

Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application, or include details in a schedule to this development application *(if applicable)*.

# PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules

I agree to receive an information request if determined necessary for this development application

I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:

 that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties

• Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules. Further advice about information requests is contained in the <u>DA Forms Guide</u>.

# PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)			
$\boxtimes$ Yes – provide details below or include details in a schedule to this development application $\square$ No			
List of approval/development application references	Reference number	Date	Assessment manager
Approval	MCU/17/0011	21 March 2018	Mareeba Shire Council
Approval       Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)			
Yes – a copy of the receipted QLeave form is attached to this development application			
<ul> <li>No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid</li> <li>☑ Not applicable (e.g. building and construction work is less than \$150,000 excluding GST)</li> </ul>			
Amount paid         Date paid (dd/mm/yy)         QLeave levy number (A, B or E)			
\$			

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

Yes – show cause or enforcement notice is attached

🛛 No

#### 23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act* 1994?

Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below			
🖾 No			
<b>Note</b> : Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at <u>www.qld.gov.au</u> . An ERA requires an environmental authority to operate. See <u>www.business.qld.gov.au</u> for further information.			
Proposed ERA number:		Proposed ERA threshold:	
Proposed ERA name:			
Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.			
Hazardous chemical facilities			
23.2) Is this development application for a hazardous chemical facility?			
Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development			

application

🛛 No

Note: See <u>www.business.qld.gov.au</u> for further information about hazardous chemical notifications.

Clearing native vegetation
23.3) Does this development application involve <b>clearing native vegetation</b> that requires written confirmation that the chief executive of the <i>Vegetation Management Act 1999</i> is satisfied the clearing is for a relevant purpose under section 22A of the <i>Vegetation Management Act 1999</i> ?
Yes – this development application includes written confirmation from the chief executive of the Vegetation Management Act 1999 (s22A determination)
<ul> <li>No</li> <li>Note: 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.</li> <li>See https://www.gld.gov.au/environment/land/vegetation/applying for further information on how to obtain a s22A determination.</li> </ul>
Environmental offsets
23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a <b>prescribed environmental matter</b> under the <i>Environmental Offsets Act 2014</i> ?
Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
No Note: The environmental offset section of the Queensland Government's website can be accessed at <u>www.qld.gov.au</u> for further information on environmental offsets.
Koala habitat in SEQ Region
23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?
<ul> <li>Yes – the development application involves premises in the koala habitat area in the koala priority area</li> <li>Yes – the development application involves premises in the koala habitat area outside the koala priority area</li> <li>No</li> </ul>
<b>Note</b> : If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at <u>www.des.gld.gov.au</u> for further information.
Water resources
23.6) Does this development application involve <b>taking or interfering with underground water through an</b> artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the <i>Water Act 2000</i> ?
<ul> <li>Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the <i>Water Act 2000</i> may be required prior to commencing development</li> <li>No</li> </ul>
<b>Note</b> : Contact the Department of Natural Resources, Mines and Energy at <u>www.dnrme.qld.gov.au</u> for further information.
DA templates are available from <u>https://planning.dsdmip.qld.gov.au/</u> . If the development application involves:
<ul> <li>Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1</li> <li>Taking or interfering with water in a watercourse, lake or spring: complete DA Form1 Template 2</li> </ul>
Taking overland flow water: complete DA Form 1 Template 3.
Waterway barrier works
<ul> <li>23.7) Does this application involve waterway barrier works?</li> <li>Yes – the relevant template is completed and attached to this development application</li> </ul>
$\boxtimes$ No
DA templates are available from <u>https://planning.dsdmip.qld.gov.au/</u> . For a development application involving waterway barrier works, complete DA Form 1 Template 4.
Marine activities
23.8) Does this development application involve aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?
Yes – an associated <i>resource</i> allocation authority is attached to this development application, if required under the <i>Fisheries Act 1994</i>

Note: See guidance materials at <u>www.daf.qld.gov.au</u> for further information.

Quarry materials from a wat	ercourse or lake				
23.9) Does this development a under the <i>Water Act 2000?</i>	application involve the <b>remo</b>	val of quarry materials from	a watercourse or lake		
No	Note: Contact the Department of Natural Resources, Mines and Energy at www.dnrme.gld.gov.au and www.business.gld.gov.au for further				
Quarry materials from land	under tidal waters				
23.10) Does this development under the <i>Coastal Protection</i>			m land under tidal water		
☐ Yes – I acknowledge that a ⊠ No			o commencing development		
Note: Contact the Department of Env	ironment and Science at <u>www.des.</u>	<u>qld.gov.au</u> for further information.			
Referable dams					
23.11) Does this development section 343 of the <i>Water Supp</i>					
No	his development application		dministering the Water		
Note: See guidance materials at www					
Tidal work or development	within a coastal manageme	ent district			
23.12) Does this development	application involve <b>tidal w</b> o	ork or development in a coas	stal management district?		
<ul> <li>Yes – the following is included with this development application:         <ul> <li>Evidence the proposal meets the code for assessable development that is prescribed tidal work (only required if application involves prescribed tidal work)</li> <li>A certificate of title</li> </ul> </li> <li>No</li> <li>Note: See guidance materials at www.des.gld.gov.au for further information.</li> </ul>					
Queensland and local herita					
23.13) Does this development heritage register or on a place	application propose develo				
☐ Yes – details of the heritag ➢ No Note: See guidance materials at www			Queensland heritage places		
Name of the heritage place:	<u></u>	Place ID:			
0					
Brothels 23.14) Does this development	application involve a <b>mater</b>	ial change of use for a broti	nel?		
<ul> <li>Yes – this development ap application for a brothel un</li> <li>No</li> </ul>	plication demonstrates how der Schedule 3 of the <i>Prost</i>		for a development		
Decision under section 62 of the Transport Infrastructure Act 1994					
23.15) Does this development	application involve new or e	changed access to a state-cor	ntrolled road?		
<ul> <li>Yes – this application will the Infrastructure Act 1994 (su satisfied)</li> <li>No</li> </ul>		n for a decision under section 6 stion 75 of the <i>Transport Infras</i>			

#### Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.16) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

🛛 No

Note: See guidance materials at <u>www.planning.dsdmip.qld.gov.au</u> for further information.

# PART 8 – CHECKLIST AND APPLICANT DECLARATION

24) Development application checklist	
I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17 <i>Note</i> : <i>See the Planning Regulation 2017 for referral requirements</i>	⊠ Yes
If building work is associated with the proposed development, Parts 4 to 6 of <u>DA Form 2 –</u> <u>Building work details</u> have been completed and attached to this development application	☐ Yes ⊠ Not applicable
Supporting information addressing any applicable assessment benchmarks is with the development application Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see <u>DA</u> Forms Guide: Planning Report Template.	⊠ Yes
Relevant plans of the development are attached to this development application <b>Note</b> : Relevant plans are required to be submitted for all aspects of this development application. For further information, see <u>DA Forms Guide: Relevant plans.</u>	🛛 Yes
The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued ( <i>see 21</i> )	☐ Yes ⊠ Not applicable

#### 25) Applicant declaration

- By making this development application, I declare that all information in this development application is true and correct
- Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001*

Note: It is unlawful to intentionally provide false or misleading information.

**Privacy** – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, Planning Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the Planning Regulation 2017, and the access rules made under the *Planning Act 2016* and Planning Regulation 2017; or
- required by other legislation (including the Right to Information Act 2009); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002.* 

# PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY

Date received:	Reference numb	per(s):
Notification of engagement of alternative assessment manager		
Prescribed assessment manager		
Name of chosen assessment manager		
Date chosen assessment manager engaged		

Contact number of chosen assessment manager Relevant licence number(s) of chosen assessment

manager

QLeave notification and payment Note: For completion by assessment manager if applicable			
Description of the work			
QLeave project number			
Amount paid (\$)		Date paid (dd/mm/yy)	
Date receipted form sighted by assessment manager			
Name of officer who sighted the form			



#### Queensland Titles Registry Pty Ltd ABN 23 648 568 101

## **Current Reserve Search**

Title Reference:	49001693
Date Reserve Gazetted:	21/06/1947
Page:	2238-9

#### DETAILS

Opening Ref:	RES 4162
Purpose:	LOCAL GOVERNMENT
Sub-Purpose:	AGED PERSONS HOMES
Local Name:	
Address:	LAWSON ST. MAREEBA
County (R) No:	R947
File Ref:	RES 4162 2

#### LAND DESCRIPTION

LOT 20 CROWN PLAN NR7137 GAZETTED ON 22/06/1985 PAGE 1358 Local Government: MAREEBA

Area: 3.710000 Ha. (ABOUT)

#### TRUSTEES

MAREEBA SHIRE COUNCIL GAZETTED ON 21/06/1947 PAGE 2238

EACEN	AENITO		ENC	N 1 M A	NCEC
EASEN		AND	ENC		

NIL

#### ADMINISTRATIVE ADVICES

NIL

#### UNREGISTERED DEALINGS

NIL

\*\* End of Current Reserve Search \*\*



## **Current Title Search**

## Queensland Titles Registry Pty Ltd

ABN 23 648 568 101

Title Reference:	51161439	Search Date:	14/03/2022 08:
Date Title Created:	04/10/2018	Request No:	4042210
Previous Title:	50479976, 51152924	928	

#### ESTATE AND LAND

Estate in Fee Simple

LOT 78 SURVEY PLAN 298287 Local Government: MAREEBA

REGISTERED OWNER

Dealing No: 719015100 27/09/2018

REEDLODGE PTY LTD A.C.N. 089 077 403

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

- Rights and interests reserved to the Crown by Deed of Grant No. 20371106 (POR 222) Deed of Grant No. 20371107 (POR 222) Deed of Grant No. 40033191 (Lot 69 on SP 136293) Deed of Grant No. 40075352 (Lot 2 on SP 298286) Deed of Grant No. 40075353 (Lot 79 on SP 136292) Deed of Grant No. 40075369 (Lot 4 on SP 298286)
- 2. MORTGAGE No 712282991 17/03/2009 at 13:30 NATIONAL AUSTRALIA BANK LIMITED A.B.N. 12 004 044 937 OVER PART OF THE LAND FORMERLY LOT 78 ON SP152626
- 3. MORTGAGE No 719015141 27/09/2018 at 15:27 NATIONAL AUSTRALIA BANK LIMITED A.C.N. 004 044 937

#### ADMINISTRATIVE ADVICES

NIL

#### UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority \*\* End of Current Title Search \*\*

# Company owner's consent to the making of a development application under the *Planning Act 2016*

I, Peter Franks

Chief Executive Officer

Of

Mareeba Shire Council

the company being the trustee of the premises identified as follows:

Lot 20 on NR7137 at Close Avenue, Mareeba

consent to the making of a development application under the Planning Act 2016 by:

Urban Sync on behalf of Mareeba 232 Pty Ltd (ACN 654 487 760) over PART of Lot 20 on NR7137 at Close Avenue, Mareeba

on the premises described above for:

Development Permit for a Material Change of Use (Food and Drink Outlet, Shop & Shopping Centre)

Company Name: Mareeba Shire Council

Signature of Chief Executive Officer

16/6/2022 Date

The Planning Act 2016 is administered by the Department of Local Government, Infrastructure and Planning, Queensland Government.

# Company owner's consent to the making of a development application under the *Planning Act 2016*

I. SEBASTIANO GIRGENTI

Sole Director/Secretary of the company mentioned below

Of

Reedlodge Pty Ltd (ACN: 089 077 403)

the company being the trustee of the premises identified as follows:

Lot 78 on SP298287 at 232 Byrnes Street, Mareeba

consent to the making of a development application under the Planning Act 2016 by:

Urban Sync on behalf of Mareeba 232 Pty Ltd (ACN 654 487 760)

on the premises described above for:

Development Permit for a Material Change of Use (Food and Drink Outlet, Shop & Shopping Centre)

Company Seal

Company Name and ACN: 089 077 403)

alla TI Signature of Sole Director/Secretary 30/06//2022 Date

The Planning Act 2016 is administered by the Department of Local Government, Infrastructure and Planning, Queensland Government.

Applicant template 11.0 Version 1.0—3 July 2017

RITOII7



65 Rankin Street PO Box 154 MAREEBA QLD 4880

P: 1300 308 461 F: 07 4092 3323

W: www.msc.qld.gov.au 16 JUN 2022 E: info@msc.qld.gov.au

Council Ref: CRM/19/04221

6 June 2022

MAREEBA 232 PTY LTD ACN 654 487 760 C/- Boss Private Clients Pty Ltd Level 2, 428 Little Bourke Street Melbourne VIC 3000

Dear Sir/Madam

# EXECUTED TRUSTEE LEASE A ON SP333828 IN LOT 20 ON CP NR7137 - DEALING NUMBER 721703470

I confirm to previous correspondence on the above matter and confirm that the Trustee Lease was registered with the Titles Registry on 20 May 2022. Please find *enclosed* a copy of the Trustee Lease instrument for your records.

It is a requirement under the terms of your lease and Council's relevant policy to effect public liability insurance and provide evidence of such to the lessor. Accordingly, please forward at the earliest a copy of your Certificate of Currency with Mareeba Shire Council named as an interested party.<sup>1</sup>

Should you wish to discuss any aspect of this matter further, please direct your enquiry to Council's Governance and Compliance Advisor, Craig Batchelor on 4086 4602.

Yours faithfully

MIKE SCHUCK SENIOR COMPLIANCE OFFICER

Attachments: - Executed lease - retain for your records

<sup>1</sup> See s 3 of Council's Standard Requirements for Public Liability Insurance for Approval Holders.

QUEENSLAND LAND REGISTRY

Land Title Act 1994, Land Act 1994 and Water Act 2000

Form 7 Version 6 Page 1 of 48

		Dealing N	umber 7217034	50		
Pr	ivacy Statemen		CE USE ONL			
Co use	ellection of inform	nation from this form ublicly searchable rec	is authorised by legislation an ords. For more information see			
-	Lessor			Lodger (Name, add	ress, e-mail & phone no.)	Lodger Code
	MAREEBA	SHIRE COUNCII	-	King & Company, GPO Box 758, Bri E-mail: rebecca.durrant@ .au Phone: 3243 0000	sbane Qld 4001 kingandcompany.com	
2.	Lot on Plar	Description				Reference
	LOT 20 ON	CP NR7137			4900	01693
3.	Lessee	Given names	Surname/Company name a	nd number	(include tenancy if more that	an one)
			MAREEBA 232 PTY L	TD ACN 654 487 760		
4.	Interest be	ing leased				
	RESERVE					
5.	Descriptior	n of premises be	ing leased			
	LEASE A O	N SP333828				
6.	Term of lea				<b>Rent/Consideration</b>	
		ment date/event: 13 / 04 /2052 Nil	14 / 04 / 2022 and/or Event:	R	EFER TO THE SCHED	ULE
8.	Grant/Exec	ution				
	conditions co Witn	ntained in the attac ressing officer mu L JP(()	st be aware of his/her bo	SIONER FOR DECLARAT	ted in item 6 subject to th 1 <b>62 of the <i>Land Title Act</i></b> Mareeba Shire C	1994
		PAN SOTTO		Reg.No.: 53690	X25	6
			- mermequalitication	LO INTI LULL	Delegate	
(Wit	tnessing Off tnessing officer r d Title Act 1994	icer Anna Par nust be in a <b>Corrupiss</b> e.g. Legal Practitione	isotte 53690 Domifec Declarationis r, JP, C Dec)	Execution Date	Le	ssor Signature
9. /	Acceptance					
-	The Lessee ac	cepts the lease and	d acknowledges the amour	nt payable or other conside	erations for the lease.	
				MAR	EEBA 232 PTY LTD AC	CN 654 487 760
	XI	781-	/		12	
<	21	Bre	signature		X	
	-	11 -			Director	

LEASE

✓full name

qualification

141412022 Execution Date

Director / Secretary

Lessee Signature

Witnessing Officer (Witnessing officer must be in accordance with Schedule 1 of Land Title Act 1994 e.g. Legal Practitioner, JP, C Dec)

A CI

King & Company

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ę a

#### Title Reference: 49001693

#### PART 1 REFERENCE INFORMATION

#### Item A Parties

Trustee:		Mareeba Shire Council ABN 39 114 383 874.		
Address for not	ices:			
	Delivery:	65 Rankin Street, Mareeba, Qld.		
	Post:	PO Box 154, Mareeba, Qld, 4880.		
	Facsimile:	(07) 4092 3323		
Trustee Lessee	:	– MAREEBA 232 PTY LTD ACN 654 487 760		
Address for not	ices:			
	Delivery/Post	C/- Boss Private Clients Pty Ltd, Level 2 428 Little Bourke Street, Melbourne, Vic, 3000		

#### Item B State Reserve

Opening Reference:	RES 4162
Purpose of Reserve:	Local Government - Aged Persons Homes
Area:	3.710000 Ha. (approximately).

#### Item C Trustee Authority

Enabling provision	Not applicable
Identification no .:	Not applicable
Date of effect:	Not applicable

#### Item D Premises

Description:	Lease A on SP333828
Area:	1129m <sup>2</sup>
Address:	4 James Street, Mareeba, Qld, 4880
Item E Duration	

# Term:Thirty (30) years.Commencement Date:14 April 2022Expiry Date:13 April 2052

#### Item F Rent

Commencing rent:

\$15,000 per annum plus GST

King & Company

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QUEENSLAND LAND REGISTRY Land Title Act 1994, Land Act 1994 and Wa	SCHEDULE ter Act 2000	Form 20 Version 2 Page 3 of 48	
	Title Reference: 49001693		
Item G Use of Premises	_		
Permitted use:	Construction and operation of a commercial supern facilities.	narket, retail and ancillary	
Item H Trustee Lessee Insurances			
Damage:	-		
Property to be covered:	(1) All Trustee Lessee Property.		
	(2) All other insurable items located upon the Prem	ises, including plate glass.	
Level of cover:	Full reinstatement or replacement value.		
Beneficiaries:	Trustee Lessee and Trustee (for their respective interes	sts).	
Public Liability:	-		
Level of cover:	Not less than \$20,000,000.00 per claim. (Refer to Prescribed Terms, section 5. See Item I).		
Review intervals:	Every 3 years (computed from Commencement Date).		
Beneficiaries:	Trustee Lessee, Trustee, and their respective Personne	el.	
Workers Compensation:			
Beneficiaries:	Trustee Lessee Personnel.		
Item I Prescribed Terms of Trustee Lease			
Land Regulation Provisions:	The prescribed terms in Schedule 3 of the Land Regula	tion 2020.	

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#### Title Reference: 49001693

#### PART 2 TRUSTEE LEASE STRUCTURE AND INTERPRETATION

#### 2.1 Conventions

- (1) The conventions detailed in this Clause 2.1 have been adopted in drawing this Trustee Lease instrument.
- (2) The instrument is composed of:
  - (a) the Prescribed Terms;
    - (b) Land Registry Form 7; and
    - (c) this Schedule, comprising narrative provisions and appendices.
- (3) The Schedule narrative provisions are divided into Parts.
- (4) Part 1 is composed of Items and each subsequent Part is composed of Clauses.
- (5) Some Clauses contain numbered component and subcomponent provisions. *Examples: Clause 2.5(1); Clause 2.5(2)(a).*
- (6) The following types of word begin with a capital letter:
  - (a) a word that is, or is part of, an expression defined in Clause 2.6 or another Clause;
  - (b) a word that begins a sentence;
  - (c) a proper noun.

#### 2.2 Operative Provisions

Each provision of the Trustee Lease is an operative provision of the Trustee Lease agreement unless expressly identified as non-operative.

#### 2.3 Severance

A provision is to be treated as omitted from the Trustee Lease if:

- (1) the provision is void, unenforceable, or incomprehensible; or
- (2) retaining the provision would render the Trustee Lease or part of the Trustee Lease void, unenforceable, or incomprehensible.

#### 2.4 Determining Intent of Trustee Lease Agreement

The intent of the Trustee Lease agreement is to be determined by reference at least to:

- (1) the subject of the agreement;
- (2) the express provisions of the Trustee Lease as originally made (including those omitted pursuant to Clause 2.3;
- (3) the nature of the provision/s omitted pursuant to Clause 2.3; and
- (4) the practicality of effectuating the Trustee Lease net of the omitted provisions.

#### 2.5 Interpretation of Trustee Lease Generally

- (1) The Trustee Lease is to be interpreted by reference to the provisions of this Part 2.
- (2) However, each such provision applies only to the extent that:
  - (a) a given context does not require otherwise; or
  - (b) a contrary intention is not apparent.

Act of Insolvency

SCHEDULE

#### 2.6 Glossary

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Each of the following expressions in bold to the left bears the meaning shown opposite or contained in the cross-referenced provision shown opposite:

Act

- (1) A legislative enactment of the Queensland Parliament or the Commonwealth Parliament;
- (2) subordinate legislation made under the enactment;
- (3) a direction or requirement made by a competent entity under the enactment or subordinate legislation;
- (4) a licence, authorization, consent, approval, or exemption granted under the enactment or subordinate legislation;
- (5) a planning instrument; and
- (6) a local law (including a subordinate local law).
- (1) For a Party subject to the Associations Incorporation Act 1981 or the Corporations Act 2001 (Cwlth):
  - (a) (if a company) entering voluntary administration;
  - (if a company or a Part 5.7 body<sup>1</sup>) failing to satisfy a statutory demand;
  - (c) (if an incorporated association) meeting a criterion for enforced winding up;<sup>2</sup>
  - (d) passing a voluntary winding up resolution, voluntarily applying to be wound up, or suffering presentation of an application for its winding up;
  - (e) suffering the appointment of a provisional liquidator; or
  - (f) being wound up or being deregistered.
  - (2) For the Trustee:
    - (a) suffering the declaration, by a court of competent jurisdiction, that it is unable to pay its debts as and when they fall due; or
    - (b) suffering dissolution as a legal entity without another entity acceding to its functions.
  - (3) For a Party in any event:
    - (a) suffering the appointment of a receiver, which appointment is not terminated, postponed, or enjoined within 14 days after it is made;
    - (b) suffering lawful seizure or attachment of its assets or any of them; or
    - (c) failing to pay a judgment debt, or to have the judgment set aside, within 21 days after the judgment is given against it.

<sup>2</sup> Refer to Associations Incorporation Act section 90.

<sup>&</sup>lt;sup>1</sup> Part 5.7 bodies encompass certain corporations that are neither companies nor exempt public authorities nor corporations sole, certain foreign corporations, and certain unincorporated associations and partnerships.

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SCHEDULE

		A 2000	
6			Title Reference: 49001693
	Address for Notices	For e	ach Party:
		(1)	its address for delivery, post, or facsimile shown in Item A;
		(2)	such other address for delivery, post, or facsimile as it has notified to the Party giving it a notice as its address for notices under the Trustee Lease; or
		(3)	if it is not at any of those addresses, its last principal place of business or facsimile number known to the Party giving it a notice.
	Air Conditioning Equipment	(1)	The plant, cooling towers, Electrical Installations, Electrical Equipment, ducts, valves, insulation, diffusers, and associated equipment by which conditioned air is manufactured and reticulated throughout the Premises or the Building.
		(2)	Where the context admits, the expression ( <i>Air Conditioning Equipment</i> ) includes:
			(a) all mechanical ventilation equipment; and
			(b) a package air conditioning unit/system serving just the Premises.
	Appendix	An a	ppendix to this Schedule.
	Australian Standard	For g	given materials, products, processes, and services, and/or elements or ponents of those materials, products, processes, and services: a document:
		(1)	established by consensus of a representative committee of Australian industry stakeholders;
		(2)	approved by Standards Australia Limited;
		(3)	providing, for common and repeated use, a collection of rules, and/or guidelines, and/or specifications, and/or characteristics that can be applied consistently;
		(4)	directed at ensuring the materials, products, processes, and services (and/or their elements or components) are fit for their purposes irrespective of who effects their production or delivery; and
		(5)	directed also at facilitating an optimum degree or standard of order and quality in delivery of the materials, products, processes, and services (and/or their elements or components) irrespective of who effects their production or delivery.
	Building	The	building/s comprising, containing or forming part of the Premises:
		(1)	as extended or modified from time to time; and
		(2)	including all Trustee Property within or attached to the building/s.
	Business Day	(1)	For giving notice under the Trustee Lease: a day other than a Saturday, Sunday or public holiday in the locality to which the notice is to be sent.
		(2)	For making a payment under the Trustee Lease: a day, other than a Saturday, Sunday or public holiday, upon which trading banks are open for business in the locality of the recipient's Address for Notices.
	Chief Executive Officer	The	Trustee's chief executive officer, including:
		(1)	a person acting in the position at a relevant time; and
		(2)	a person to whom the chief executive officer's power has been delegated at a relevant time for a relevant purpose concerning this Trustee Lease.

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4	Title Reference: 49001693		
City		area fo ernmer	or which the Trustee is the local government pursuant to the Local nt Act.
Claim	The assertion of entitlement to a remedy:		
	(1)	arisir	ng from, or otherwise relating to, an act or an occurrence;
	(2)	made	e by any means, including:
		(a)	by a demand; or
		(b)	by the pursuit of a cause of action before a court, a tribunal, or any other body (judicial, quasi-judicial, or administrative).
Clause	A nu	mbere	d clause, sub-clause, or other provision in this Schedule.
Co-assured	Each	of two	o or more beneficiaries under an insurance policy.
Commencement Date	The	date s	pecified as such at Item E.
Cost	Inclu	des lo	ss, liability, damage, and expense.
CPI			mer Price Index, Brisbane published by the Australian Bureau of the relevant times.
Cross-liability Provision	Co-a	ssured	ce policy provision, or collection of provisions, that covers each d upon claims made against it by each and any other Co-assured as eparate insurance policy were issued to each Co-assured.
Damage Policy	An in	suran	ce policy that indemnifies the assured against Cost borne of:
	(1)	Harn	n to the insured property, particularly Harm from Destructive Events;
	(1)	that	n to persons resulting from use of the insured property (to the extent neither of a relevant Public Liability Policy and a relevant policy of ers compensation insurance covers the Harm); and
	(2)	extei assu	nds the cover to equipment in the physical and legal control of the red.
Default Notice	Refe	r to Cl	auses 18.2 and 18.3.
<b>Destructive Events</b>	(1)	Fire.	
	(2)	Entry	y of water.
	(3)		act of irresistible natural forces, including cyclone and other storm and best, lightning, flood, and earthquake.
	(4)	Civil	commotion.
	(5)	Expl	osion and concussion from explosion.
	(6)	Impa	act of vehicles, aircraft, and articles escaping from them.
	(7)	Malio	cious acts.
	(8)	Negl	ectful acts.
	(9)	Thef	
	(10)		a Damage Policy the Trustee Lessee must obtain) other risks inated reasonably by the Trustee from time to time.
	(11)	(For the 1	a Damage Policy the Trustee must obtain) other risks against which rustee considers it prudent or appropriate to insure.

1	¢		Title F	
	Development Permit	An op	perativ	e development permit for the <i>Planning Act</i> .
				A development permit for material change of use, or for building operational work.
	Electrical Equipment	Elect	rical ec	uipment as defined in the Electricity Act 1994.
	Electrical Installation	An el	ectrica	I installation as defined in the Electricity Act 1994.
	Expiry Date	The c	date th	e Term expires, as specified in Item E.
	Fixed Improvement	(1)	A stru	ucture, of a permanent or semi-permanent character, firmly affixed:
			(a)	to the Trust Land; or
			(b)	to a structure upon the Trust Land,
			to er purpo	able the Trust Land to be used or better used for a particular ose.
			Exan	nples:
			(a)	a building, whether demountable or not;
			(c)	an observation or viewing tower;
			(d)	floodlighting apparatus (including pole);
			(e)	a swimming pool or other bathing facility;
			(f)	a brick or concrete block barbecue;
			(g)	a cold room;
			(h)	an integrated air-conditioning system and an air-conditioner that is mounted through a hole made in an external wall for the purpose of enabling the machine to be so mounted;
			(i)	an in-ground irrigation system;
			(j)	a fence or wall other than a purpose-designed temporary fence or wall;
			(k)	a building slab;
			(I)	an immovable sightscreen structure (irrespective of whether the screen itself can be repositioned from side to side upon the structure);
			(m)	a concrete, paved, or otherwise-constructed, path, patio, or similar structure;
			(n)	an entrance arch.
		(2)	The e	expression does not include an item affixed:
			(a)	to the Trust Land; or
			(b)	to a structure upon the Trust Land,
			to en	able the item or structure to be used or better used.
			Exan	nples:
			(a)	a wall-mounted dispensing machine;
			(b)	a window-mounted air-conditioner;
			(c)	football goalposts;
			(1)	a flagnala:

(d) a flagpole;

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9	•	Title Reference: 49001693
		(e) a cargo container.
	GST Act	A New Tax System (Goods and Services Tax) Act 1999 (Cwlth), including related legislation.
	Harm	All or any of:
		(1) death;
		(2) disease;
		(3) illness (including mental illness);
		(4) personal injury (including shock);
		(5) (for clarity) disablement, whether from disease, illness, or personal injury;
		(6) property damage;
		(7) property loss, including loss of use (complete or partial) and loss via misplacement and theft; and
		(8) reputation damage.
	Insurance-relevant	Information relating to:
	Information	(1) the Trustee Lessee;
		(2) any of its Personnel; or
		(3) the persons with whom the Trustee Lessee customarily deals,
		likely to affect an insurer's or another indemnifier's decision to grant or continue:
		(4) the Trustee's damage cover; or
		(5) the Trustee's public liability cover.
	Item	An alphabetically identified item of information in Part 1.
	Кеу	(1) An implement that mechanically or electronically:
		(a) locks and unlocks the Premises or any facility within them;
		(b) locks or unlocks an item of Trustee Property; or
		(c) facilitates or ceases the operation of a Service.
		(2) The expression includes an electronically encoded card or other device.
	Land Act	Land Act 1994.
	Lease Year	Each separate period of the Term:
		(1) the first Lease Year beginning on the Commencement Date and ending on 30 June 2021; and
		(2) the second and each subsequent Lease Year beginning on each 1 July.
	Licensed Activity	The activity for which a Liquor Licence is required or obtained.
	Licensing Authority	The authority the <i>Liquor Act</i> charges with regulating the sale and consumption of liquor.
	Liquor Act	Liquor Act 1992.
	Liquor Licence	A licence or permit issued under the Liquor Act for the Premises.

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(#	Title Reference: 49001693						
	Local Government Act	Local Government Act 2009.					
	Maintenance	Includes repair and replacement.					
	Minister	The Minister administering the Land Act.					
	Non-imputation Provision	An insurance provision under which the insurer covenants that breach, non-compliance, or non-disclosure by a Co-assured (the <i>defaulting party</i> ) will not prejudice a claim for indemnity made by another Co-assured if the defaulting party notifies the insurer of the breach, non-compliance, or non-disclosure without unreasonable delay after becoming aware of it.					
	Officer	(1)	(1) For the Trustee Lessee: a director, a management committee m company secretary, or an attorney.				
		(2)	For th	ne Trustee:			
			(a)	the Chief Executive Officer, including his lawful delegate; or			
			(b)	another person to whom the Trustee has delegated a relevant power.			
		(3)	For e	ither Party: its solicitor.			
	Outgoings	(1)	Insur	ances against all risks concerning the Trust Land, including:			
			(a)	public liability insurance;			
			(b)	workers compensation insurance for employees of the Trustee;			
			(c)	reinstatement of the Premises; and			
			(d)	machinery breakdown;			
		(2)	expe	nses relating to maintenance and repair of the Trust Land;			
		(3)	and				
		(4)					
	Overdraft Rate	The interest rate charged for the time being by the Trustee's banker t customers on overdraft accommodation exceeding \$100,000.00.					
	Part	A numbered part or section of the Trustee Lease, other than an Appendix or a attestations provision, containing:					
		(1)	one o	or more Items; or			
		(2)	one o	r more Clauses.			
	Party	A pai	A party to this Trustee Lease. (For the Premises) the activities specified at Item G.				
	Permitted Use	(For					
	Personnel	For e	For either Party:				
		(1)	) each of its:				
			(a)	members, including Officers;			
			(b)	employees;			
			(c)	agents (including contractors, consultants, and other service providers, and their respective servants and agents);			

		—		
3		Title Reference: 49001693		
		(d)	patrons, invitees, and visitors (whether with or without invitation); and	
		(e)	sub-tenants, licensees, franchisees, and concessionaires; and	
	(2)		her persons claiming under or through the Party; but excluding ons properly characterized as trespassers.	
Planning Act	Planr	Planning Act 2016.		
Planning Scheme	The p	olannin	g scheme governing the City, made pursuant to the <i>Planning Act</i> .	
Premises	(1)	The p	premises detailed at Item D.	
	(2)	All im	provements and Trustee Property:	
		(a)	situated upon those premises; and	
		(b)	used by the Trustee Lessee for the purposes of enjoyment or management of those premises.	
Prescribed Terms		bed terms of this Trustee Lease specified in Schedule 3 of the <i>Land</i> 2020.		
Property Law Act	Prope	erty La	w Act 1974.	
Public Liability Policy		liability policy the Trustee Lessee obtains under section 5 of the Terms.		
Quarter	Each three month period of the Term, commencing on 1 January, 1 April, 1 Juland 1 October.			
Rates	(1)		ial rates and separate rates, made and levied under the Local ernment Act or another Act (but excluding general rates).	
		Exan	nples:	
		(a)	A separate rate or charge pursuant to Fire & Emergency Services Act 1990, to fund a rural fire brigade operating in a local government area.	
		(b)	An environmental levy, or any levy otherwise named but which is imposed to assist or to facilitate preservation, restoration, or improvement of the natural environment/s within the Region.	
	(2)	Any levy that an owner or occupier of land must pay to the logovernment under an Act other than the Local Government Act.		
			nple: A levy under Fire & Emergency Services Act 1990, to fund fire ces in urban districts.	
Registration		As the context requires recording of a relevant dealing upon the title to the Trust Land, pursuant to the Land Act.		

#### Title Reference: 49001693 Includes: Reinstatement restoring the Premises, and any other part of the Trust Land the Trustee (1)Lessee has used in conjunction with pursuit of the Permitted Use, substantially to the condition in which it existed immediately before the Commencement Date: and (2)repairing or rectifying all damage or defacement caused to the Premises, the Trustee Property and any other part of the Trust Land in the process of severing and removing the trustee lessee's fixtures and other Trustee Lessee Property from the Premises. including: repairing fair wear and tear; (a) repairing Structural damage referable to the Trustee Lessee's (b) neglect, negligence or default; and (c) landscaping. (For a Damage Policy): **Remedial Expenses** the cost of repairing damage or reinstating damaged items, structures, or (1)work, in each case at least to the condition in which it existed before it was damaged; the cost of replacing destroyed items, structures, or work with items, (2)structures, or work of at least equivalent quality; the cost of demolition, debris removal and disposal, site clearance, and (3)the cost of other work required by an Act; the fees payable to architects, engineers, surveyors, solicitors, building (4) contractors, and other service providers engaged to facilitate necessary repair, reinstatement, rebuilding, or replacement; and (5) expenses incidental to the foregoing expenses. Refer to Clause 12.1. **Restricted Dealing** The utility services from time to time appurtenant to the Premises, Services (1)includina: electricity, gas, fuel, and other energy; (a) (b) water, sewerage, and drainage; fire, sprinkler, and air conditioning; and (c) electronics and communications services. (d) The infrastructure via which those utility services are delivered, including (2)fittings, fixtures, appliances, plant, and equipment. Examples: Air Conditioning Equipment and Fire Equipment. The State of Queensland. State For a Building or another structure: load-bearing or supportive, or otherwise Structural essential to the integrity or fabric of the Building or structure. An insurance provision, or collection of provisions, by which the insurer Subrogation Waiver relinquishes its right to pursue and exercise the remedies of one Co-assured (the claimant) against another Co-assured for the compensation of loss or expense against which the insurer indemnifies the claimant.

QUEENSLAND LAND REGISTRY Land Title Act 1994, Land Act 1994 and Water A	SCHEDULE	Form 20 Version 2 Page 13 of 48
	Title Reference: 49001693	
Trustee Lessee Property	Items of property owned by the Trustee Lessee of is entitled to possession (other than Trustee Prop	
	(1) located upon the Premises; or	
	(2) used by the Trustee Lessee upon the Prer	nises,
	whether or not in connection with the conduct on Premises.	of the Permitted Use upon the
Term	The term of this Trustee Lease stated in Item E.	
Trust Lease	This instrument comprising the components spearing agreement it evidences.	cified in Clause 2.1(2) and the
Trustee Property	All of the Trustee's plant, equipment, fixtures, within the Premises (if any), including (where app	
	(1) furnishings;	
	(2) floor coverings (including carpets);	
	(3) Air Conditioning Equipment;	
	(4) security equipment;	
	(5) fire alarm and response equipment; and	
	(6) equipment forming part of the Services.	
Trust Land	The land described at Panel 2 of the Form 7 of th	nis Trustee Lease.
Utility Charges	Utility charges levied by the local government p <i>Regulation 2012</i> chapter 4, part 7, including char sewerage, gas, and waste management services	rges for the provision of water,
Wilful Act	An act committed, authorized, or ordered by the Personnel:	e Trustee Lessee or any of its
	<ul> <li>(1) with the intention or in the knowledge th a breach the Trustee Lease; or</li> </ul>	at the act will cause Harm or
	(2) in deliberate disregard of, or deliberate in cause Harm or a breach the Trustee Leas	
Workers Compensation Act	Workers Compensation and Rehabilitation Act 2	003.

#### 2.7 Cognate Expressions

Derivatives of a defined expression bear meanings corresponding to and consistent with the definition.

#### 2.8 Non-defined Expressions

A term not relevantly defined in the Trustee Lease carries the meaning the Oxford Dictionary of English ascribes to it.

#### 2.9 Parties

- (1) Reference to a Party who is a natural person includes the person's personal representatives and permitted assigns.
- (2) Reference to a Party that is a legal entity other than a natural person includes the entity's successors and permitted assigns.

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# Title Reference: 49001693

Examples of a legal entity other than a natural person:

- (a) a corporation;
- (b) a body politic.

# 2.10 Concurrent Responsibility

For a Party composed of two or more persons, each item of agreement by the Party binds:

- (1) all of those persons collectively; and
- (2) each of them as an individual.

### 2.11 Durations

- (1) A day is a 24-hour period ending at midnight.
- (2) A period beginning upon a specified day begins at the beginning of that day.
- (3) A period ending upon a specified day ends at the end of that day.
- (4) Reference to the period between two specified dates, times, or periods includes each of those two dates, times, or periods.

Example: A reference to the period "from 1 January to 31 December" or "between 1 January and 31 December" is a reference to the period comprising each of those two dates and all of the days between them.

(5) Reference to the items between two specified items (in this or another instrument) includes each of those two specified items.

Example: A reference to "the items numbered 10 to 20" is a collective reference to the item numbered 10, the item numbered 20, and the numbered items between them.

### 2.12 Time for Performance

If a provision does not specify the time within which a Party must perform a given obligation, the Party must perform the obligation promptly.

#### 2.13 Inclusive References

The expression, include, and its derivatives are not expressions of limitation.

Example: In a Clause stating that item A includes item B, item B is one of the things that item A encompasses; it is not the only thin

#### 2.14 Particular References

The expressions, in particular and particularly, are not expressions of limitation.

Example: A provision requiring compliance with an approval, "particularly" (or "in particular") a specified condition of the approval or permit, does not limit the compliance obligation to the stated condition.

### 2.15 Examples

- (1) An example in or for a provision is part of the provision; it is not to be disregarded for interpretation purposes.
- (2) The example is not exhaustive, nor does it limit the meaning of the provision, but it may extend that meaning.
- (3) The example and the provision are to be read:
  - (a) relative to one another; and
  - (b) in the context of all provisions of the Trustee Lease.
- (4) If, so read, they are inconsistent, the example is to be disregarded.

44	*	Title Reference: 49001693				
2.16	References to Acts/Statutory Provisions					
	(1)	Reference to an Act includes an Act that amends, consolidates, or replaces it.				
	(2)	Reference to a provision in an Act includes a provision that amends, consolidates, or replaces it.				
	(3)	Reference to an Act not identified (by definition or otherwise) as an Act of the Commonwealth Parliament is to an Act of the Queensland Parliament.				
2.17	Misc	ellaneous References				
	(1)	Reference to the singular includes the plural, and vice-versa.				
	(2)	Reference to a gender includes each other gender.				
	(3)	Reference to a person encompasses a natural person, a corporation, any other type of legal entity (including a body politic), a firm, and a voluntary association.				
	(4)	Reference to an entity that has ceased to exist, or has reconstituted, amalgamated, reconstructed, or merged, is to be treated as a reference to the entity:				
		(a) established or constituted in its stead; or				
		(b) succeeding, as nearly as may be, to its power or function.				
	(5)	Reference to an office or a position includes an office or a position:				
		(a) established or constituted in lieu of that office or position; or				
		(b) as nearly as may be, succeeding to its power or function.				
	(6)	Reference to an agreement or other instrument is to that agreement or instrument as amended, supplemented, replaced, or novated.				
	(7)	Reference to termination of the Trustee Lease is a reference to termination by any means (for example, by expiry or merger, by frustration, or by termination for breach).				
	(8)	Reference to money is a reference to Australian dollars and cents.				
	(9)	Reference to a time of day is a reference to Australian Eastern Standard Time.				
	(10)	Reference to writing is a reference to reproduction of words, figures, symbols, and shapes in visible form, in English.				
2.18	Head	ings and Notes				
	The f	able of contents, the headings, and any notes (including footnotes and endnotes):				
	(1)	appear for convenience only; and				
	(2)	are not operative provisions of the Trustee Lease.				
2.19	Modification of Implied Covenants					
	(1)	To the extent of their inconsistency with the Trustee Lease, the covenants implied by <i>Property Law Act</i> sections 105 <sup>3</sup> and 107 <sup>4</sup> are modified by or excluded from the Trustee Lease.				
	(2)	No covenant is implied into the Trustee Lease by operation of section 109 <sup>5</sup> of that Act.				
2.20	Actions					
	(1)	Reference (direct or indirect) to person's act:				
	_	(a) encompasses an act of commission and an act of omission; and				
<sup>3</sup> Sectio otherwis		ecifies obligations to pay the agreed rent and keep the premises repaired, which apply unless the parties agree				
		ecifies a number of Trustee entitlements that are implied into a lease unless the parties agree otherwise.				

<sup>5</sup> Section 109 specifies a number of provisions that can be implied into a lease by the inclusion of short form expressions in the document.

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- (b) includes the act of another person if the law deems the other person's act also to be the first-mentioned person's act because of the legal relationship between the two.
- (2) A provision that obliges a person not to do something obliges the person also to prevent others over whom he has control or dominion from doing that thing.

### 2.21 Contra Proferentem Interpretation

A provision of the Trustee Lease is not to be interpreted against the interest of a Party merely because the Trustee Lease or provision was drawn by or on behalf of that Party.

# PART 3 STATE RESERVE

#### 3.1 Explanation of Prescribed Terms

- (1) The State owns the land the subject of this Trustee Lease.
- (2) That land is part of a State reserve created under the Land Act, of which the Trustee is the State-appointed trustee.
- (3) The State requires the inclusion of certain covenants in all leases over its reserve land.
- (4) The Prescribed Terms contains those covenants.
- (5) The Trustee cannot omit or vary any of them.

### 3.2 Ministerial Cancellation of Trustee Lease

The Trustee Lessee acknowledges the provisions of Land Act section 65:

- (1) empowering the Minister to cancel the Trustee Lease for Trustee Lessee breach or to serve the public interest; and
- (2) disentitling the Trustee Lessee to compensation for any such cancellation.

#### 3.3 Revocation of Reserve Dedication

The Trustee Lessee also acknowledges:

- (1) the Trust Land's dedication as a reserve for the Land Act;
- (2) the Minister's power under Land Act wholly or partially to revoke the dedication;
- (3) revocation cancels the Trustee Lease for the Premises (or the relevant part of the Premises) from the day it takes effect under *Land Act*, and the Trustee Lessee must vacate that Premises area immediately following the revocation;
- (4) improvements the Trustee Lessee fails to remove from that Premises area become the property of the State; and
- (5) no person acquires a compensation entitlement through the revocation.

# PART 4 DURATION OF TENANCY

#### 4.1 Term

- (1) The term of the Trustee Lease is specified in Item E.
- (2) The Term begins on the Commencement Date and expires on the Expiry Date.

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# PART 5 RENT AND CHARGES

# 5.1 Payment of Rent

- (1) The annual rent payable during the first Lease Year is specified in Item F.<sup>6</sup>
- (2) The annual rent is payable by Quarterly instalments, on the first day of each Quarter, in advance.
- (3) If any Quarter is a broken period, the amount payable must be calculated proportionately.
- (5) The annual rent for each subsequent Lease Year will be determined by applying the formula:

Rent x  $\frac{\ln dex 2}{\ln dex 1}$ 

- (6) For that formula:
  - (a) Rent is the annual rent payable for the Lease Year immediately preceding the Lease Year for which the annual rent to be paid is being calculated (for example: if the annual rent to be paid during the second Lease Year is being calculated, the Rent for the purpose of the calculation is the annual rent payable for the first Lease Year);
  - (b) *Index 2* is the CPI published for the quarter year last expiring before a relevant Adjustment Date; and
  - (c) *Index 1* is the CPI published for the quarter year expiring 12 months before expiry of the quarter year the subject of Index 2.

# 5.2 Rent Pending Adjustment

- (1) Adjusted rent will be payable from the first day of each Lease Year (excluding the first Lease Year), irrespective of when the adjustment is calculated or payment is demanded.
- (2) The rent for an expired Lease Year continues to be payable post-expiry unless and until an adjusted rent for the following Lease Year is determined.

### 5.3 Payment of Rates, Utility Charges, and Outgoings

- (1) The Trustee Lessee must pay upon demand the Trustee's accounts for Rates and Utility Charges, or their equivalents, levied or imposed concerning the Premises.
- (2) The Trustee's entitlements under this Clause 5.3 are additional to, not in derogation of, its entitlement, as local government, to levy and recover Rates and Utility Charges under the *Local Government Act* in relation to the Premises.
- (3) The Trustee Lessee also must pay upon demand the Outgoings applicable to the Premises.

# 5.4 Energy Charges

- (1) The Trustee Lessee must pay all charges for gas and electricity consumed upon the Premises, or serving them.
- (2) Without limiting Clause 5.4(1), the Trustee Lessee must:
  - (a) open an account with an electricity supplier in relation to electricity consumed upon the Premises no later than three months after the Commencement Date; and
  - (b) pay all charges for electricity consumed upon the Premises directly to the relevant electricity supplier on or before the due date therefor.

# 5.5 Cost of Approved Work

(1) The Trustee Lessee must perform at its own expense whatever work the Trustee or the Minister approves for performance by it upon the Premises or elsewhere upon the Trust Land.

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(2) The Trustee Lessee will indemnify the Trustee against every Cost borne of Harm arising from performance of the work.

# 5.6 Costs of Litigation

- (1) This Clause 5.6 applies if, through no fault of its own, the Trustee is made a party to litigation:
  - (a) commenced by or against the Trustee Lessee (other than litigation between the Trustee and the Trustee Lessee); and
  - (b) arising directly or indirectly from the Trustee Lessee's occupancy of the Premises.
- (2) The Trustee Lessee must pay the Trustee upon demand:
  - (a) all legal fees and disbursements (assessed on a solicitor and own client basis) incurred by the Trustee in connection with the litigation save those recovered from another party to the litigation; and
  - (b) costs reasonably incurred by the Trustee in seeking recovery of those costs from the other party or parties.
- (3) The Trustee is not obliged to take unreasonable steps to recover its costs from another party to the litigation.

# 5.7 Costs Generally

- (1) The Trustee Lessee must pay the Trustee:
  - (a) all duty upon or arising from this Trustee Lease and any dealing with the lease (including interest and fines other than interest and fines resulting from omissions of the Trustee); and
  - (b) the Registration fees upon the lease.
- (2) The Trustee Lessee also must pay the Trustee upon demand the Trustee's reasonable legal and other expenses of:
  - (a) negotiating, documenting, executing and Registering the Trustee Lease;
  - (b) obtaining a Registrable plan of the Premises (if they form part only of the Trust Land);
  - (c) obtaining a consent or approval (such as a reconfiguration approval or Ministerial approval) required for the Trustee Lease or a dealing with the Trustee Lease, particularly requested by the Trustee Lessee;
  - (d) negotiating, documenting, executing and Registering consent to a Trustee Lessee dealing with the Trustee Lease (for example, a transfer, a sub-letting, the grant of a security interest, or a surrender);
  - (e) exercising a Trustee entitlement concerning Trustee Lessee default under the Trustee Lease or a consent agreement (including costs of or incidental to action taken pursuant to *Property Law Act* section 124 (*Restriction on and relief against forfeiture*) or section 128 (*Relief against loss of Trustee Lessee's option*), irrespective of whether relief against forfeiture is granted); and
  - (f) preparing and serving a notice for *Property Law Act* section 127 (Relief against notice to effect decorative repairs).

# 5.8 Interest on Arrears

- (1) If rent or other Trustee Lessee payments under this Trustee Lease are in arrears, the Trustee Lessee must pay the Trustee interest upon the arrears from the due date until the date of payment.
- (2) The interest will be calculated at the Overdraft Rate and will compound at 30-day rests.

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# PART 6 GOODS & SERVICES TAX

### 6.1 Interpretation of Terms

Each of the following expressions bears the meaning the GST Act ascribes to it:

- (1) adjustment event;
- (2) *adjustment note;*
- (3) Commissioner;
- (4) consideration;
- (5) creditable acquisition;
- (6) GST;
- (7) input tax credit;
- (8) recipient;
- (9) registered;
- (10) supplier;
- (11) taxable supply;
- (12) tax invoice.

### 6.2 Character of Payments

- (1) Non-monetary consideration for a taxable supply under the Trustee Lease is GST-inclusive.
- (2) However, unless the Trustee Lease states otherwise, monetary consideration for a taxable supply under the Trustee Lease is GST-exclusive.

# 6.3 Responsibility for Payment

The recipient must:

- (1) bear the GST upon a taxable supply under the Trustee Lease;
- (2) pay the supplier a sum equivalent to that GST with the consideration for the supply.

# 6.4 Input Credits Adjustment (Reimbursements)

- (1) If the Trustee Lease requires a recipient to reimburse a supplier the cost of a creditable acquisition, the cost is to be net of the input tax credit to which the supplier is entitled for the cost.
- (2) If the Trustee Lease requires the reimbursement of a percentage of the cost of a creditable acquisition, the percentage is to be net of an equivalent percentage of the input tax credit to which the supplier is entitled for the cost.<sup>7</sup>
- (3) If the reimbursement of all or part of the cost of a creditable acquisition constitutes consideration for a taxable supply, the recipient must pay the supplier, in conjunction with the reimbursement payment, the GST referable to the supply.
- (4) If the Trustee Lease obliges a Party to indemnify the other Party against a Cost the other incurs or sustains, the Cost will be net of all input tax credits the payee is entitled to claim concerning that Cost.
- (5) For clarity, if the net Cost to be indemnified constitutes the consideration for a taxable supply, the payer must bear the GST for the taxable supply.

<sup>&</sup>lt;sup>7</sup> Example: If 75% of the cost of the creditable acquisition is to be reimbursed, the recipient may deduct from that amount 75% of the input tax credit to which the supplier is entitled concerning the acquisition.

Land Title Act 1994, Land Act 1994 and Water Act 2000

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# 6.5 Adjustments

- (1) This Clause 6.5 applies if an adjustment event occurs concerning a taxable supply made under the Trustee Lease.
- (2) The consideration for the supply will be recalculated to reflect the adjustment event.
- (3) As the case requires:
  - (a) the recipient must pay the resultant GST shortfall to the supplier; or
  - (b) the supplier must refund the resultant GST overpayment to the recipient.

### 6.6 Tax Invoices and Adjustment Notes

- (1) The supplier must give the recipient, when it makes the taxable supply or in exchange for the consideration, a tax invoice for the supply.
- (2) The supplier also must give the recipient an adjustment note:
  - (a) in exchange for payment of a GST shortfall; or
  - (b) in conjunction with the payment of a GST refund.
- (3) If the consideration for a taxable supply is non-monetary, the tax invoice for the supply, and a relevant adjustment note, must state as the consideration the GST-inclusive market value of the supply.
- (4) A Party that has been issuing recipient created tax invoices for taxable supplies under the Trustee Lease must notify the other Party promptly if it loses its entitlement to issue such invoices.

#### 6.7 Registration

- (1) Each Party declares that it is registered.
- (2) A Party must notify the other promptly if it ceases to be registered.

# PART 7 USE OF PREMISES

#### 7.1 Permitted Use of Premises

- (1) Subject to Clause 7.2, the Trustee Lessee may conduct upon the Premises the Permitted Use, and only that use.
- (2) The Trustee Lessee must use the Premises in conformity with its constitution.
- (3) The Trustee Lessee must not suspend or cease conduct of the Permitted Use upon the Premises during the Term.
- (4) The Trustee does not give any representation or warranty that the Premises can be used or is suitable for the Permitted Use. The Trustee Lessee has relied on its own enquiries in relation to the use and suitability of the Premises.

#### 7.2 Development Permit

- (1) If a Development Permit is necessary to render a Permitted Use activity lawful, the Trustee Lessee must not begin the activity until it holds the Development Permit.
- (2) The Trustee will provide the owner consent necessary to enable the Trustee Lessee to apply for the Development Permit.
- (3) However, for clarity, the Trustee is not obliged to provide owner consent if the Development Permit the Trustee Lessee seeks entails a material change of use that extends beyond the activities comprising the Permitted Use.
- (4) The Trustee Lessee must keep all licences, approvals, certificates and permits required to use the Premises for the Permitted Use in force

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To avoid doubt, the Trustee will consent to the Trustee Lessee's application for a Development Permit to carry the works reasonably necessary for the construction, installation and improvements to the Premises as shown in the DA Plan in Appendix 2.

# 7.2A Early Termination

- (1) The parties acknowledge and agree that the Trustee Lessee is required to obtain a Development Permit in order to:
  - (a) render the Permitted Use activity lawful; and
  - (b) undertake the works reasonably necessary for the construction, installation and improvements to the Premises as shown in the DA Plan in Appendix 2,

### ('Development Approval').

- (2) Despite any other provision of this Trustee Lease, if the Development Approval specified in **clause 7.2A(1)** is not obtained by the Sunset Date (or is not obtained on conditions satisfactory to the Trustee Lessee (acting reasonably)), then:
  - (a) the Trustee may terminate this Trustee Lease by giving 2 weeks written notice to the Trustee Lessee; or
  - (b) The Trustee Lessee may terminate this Trustee Lease by giving 2 weeks written notice to the Trustee,

and this Trustee Lease will end on the date specified in that notice (in the event both parties issue a notice, the termination date will the earlier of the dates specified in those notices).

- (3) On termination of this Trustee Lease under this clause, the rights and obligations of the parties will be as if this Trustee Lease had terminated by effluxion of time.
- (4) To avoid doubt, any termination of this Trustee Lease under this clause does not release a party from its liability with respect to any prior breach or non-observance of any of its obligations under this Trustee Lease arising prior to the termination.
- (5) In this clause, **Sunset Date** means the date:
  - (a) 12 months after the Commencement Date of this Trustee Lease; or
  - (b) another date consented to by the Trustee in writing.

# 7.3 Overnight Sleeping/Residential Usage

The Trustee Lessee must not permit anybody:

- (1) to sleep overnight upon the Premises (on a temporary or permanent basis); or
- (2) otherwise to use the Premises for residential purposes,

without Trustee permission.

# 7.4 Conduct Standards

- (1) The Trustee Lessee must conduct the Permitted Use competently and reputably, with due respect for the rights and interests of others.
- (2) In particular, the Trustee Lessee must not do or permit, upon or about the Premises, anything:
  - (a) that is unlawful;
  - (b) that might affect adversely, or reflect unfavourably upon, the Trustee or the Premises;
  - (c) that might confuse, mislead, or deceive the public or persons with whom the Trustee Lessee deals or might deal; or
  - (d) that is annoying, noxious, or offensive to the Trustee, or persons outside or beyond the Premises.

Title Reference: 49001693 The Trustee Lessee must keep the Trustee fully informed of industrial negotiations, disputes, and matters (3)that occur or are likely to occur from time to time, affecting or likely to impact its operation of the Premises under this Trustee Lease. The Trustee Lessee must ensure that persons it employs at the Premises receive all their remuneration (4) and related entitlements under applicable industrial awards and agreements. Assumption of Risk 7.5 The Trustee Lessee will occupy and use the Premises at its own risk, and the Trustee will not be liable for (1)Harm to Trustee Lessee Property or Trustee Lessee Personnel. However, this Clause 7.5 does not exclude Trustee liability where the Harm results from Trustee default (2)or negligence. Administration of Premises 7.6 The Trustee Lessee must make the rules and arrangements that the Trustee (acting reasonably) directs it (1)to make for: protection, control and management of the Premises; and (a) exclusion of dissolute, disreputable or otherwise undesirable persons from the Premises. (b) The Trustee Lessee also must do everything reasonable to assist the Trustee to enforce the requirements (2)of any Act applicable to the Premises. 7.7 **Particular Trustee Lessee Obligations** The Trustee Lessee must not permit its invitees to park any vehicle on the Premises otherwise than in a (1)designated car park. The Trustee Lessee must create and implement to the Trustee's reasonable satisfaction, policies and (2)procedures that comply with the Trustee Lessee's obligations as a "Person conducting a business or Undertaking" under Work Health and Safety Act 2009. The Trustee Lessee must notify the Trustee immediately of the occurrence of any incident on the Premises (3)involving injury or the risk of injury to any person on the Premises. 7.8 Improper/Noxious Behaviour The Trustee Lessee must ensure that nothing illegal, immoral, noxious or offensive is undertaken upon the (1)Premises. Without qualifying that obligation, the Trustee Lessee must ensure that nothing occurs upon the Premises (2)that might cause, in the Trustee's reasonable opinion, nuisance, annovance, or Cost to any person, particularly: (a) the Trustee: a person lawfully upon or about the Premises; (b) another person lawfully occupying or using the Trust Land; or

(c) another person lawfully occupying or using the Trust Land; or
 (d) an owner or occupier of premises neighbouring the Trust Land.

# 7.9 Intoxicating/Stupefying Substances

The Trustee Lessee must ensure that no liquor or other intoxicating or stupefying substance is supplied, sold or consumed upon the Premises without Trustee consent.<sup>8</sup>

<sup>8</sup> Refer also to Clause 7.11(2)(a).

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#### 7.10 Earthwork and Extractive Activities

Subject to Clause 7.11, the Trustee Lessee must ensure that:

- no earthwork is undertaken upon the Premises; (1)
- no sand, stone, soil, plant, vegetation or mineral is removed from the Premises. (2)

except where (and only to the extent) reasonably necessary for construction or installation of improvements to the Premises that are:

- expressly required of it under this Trustee Lease; and (3)
- approved by the Trustee. (4)

To avoid doubt, the Trustee has (subject to the Trustee Lessee obtaining the relevant Development Permits) approved the works reasonably necessary for the construction, installation and improvements to the Premises as shown in the DA Plan in Appendix 2.

#### **Compliance with Acts and Standards** 7.11

- The Trustee Lessee must discharge punctually the relevant requirements of all Acts that regulate its (1)occupation and use of the Premises.
- In particular, the Trustee Lessee must use the Premises in compliance with: (2)
  - all Acts governing fire safety, health and hygiene, and the storage, supply, sale, and consumption (a) of intoxicating or stupefying substances upon the Premises;
  - the lawful requirements of the Queensland Fire and Emergency Service; (b)
  - all relevant Australian Standards (save to the extent of inconsistency with relevant Acts); and (c)
  - all relevant industrial awards and agreements. (d)
- Further, the Trustee Lessee must not do anything9 that might render the Trustee liable to incur: (3)
  - a penalty prescribed by an Act; or (a)
  - a Cost generated by the necessity to discharge a requirement under an Act. (b)

#### 7.12 Not Used

#### 7.13 **Use of Services**

- The Trustee Lessee must not use a Service, or permit its use, for a purpose other than one for which the (1)Service is designed and constructed.
- In particular, the Trustee Lessee must ensure that no deleterious substances (for example, sweepings, (2)rubbish, rags, or ashes) are placed in water or sewerage apparatus or in Air Conditioning Equipment.
- Except to the extent the Trustee Lease permits, the Trustee Lessee must not interfere with a Service (3)without Trustee consent.

#### Light and Power 7.14

Other than during a period of power failure or power restriction (when it may use auxiliary power or lighting other than an exposed flame), the Trustee Lessee may use only light, power, or heat generated by metered electric current.

#### 7.15 **Electrical Equipment**

- The Trustee Lessee must not install or use upon the Premises, equipment that overloads the electrical (1) infrastructure or components serving the Premises.
- If the Trustee grants consent, the Trustee Lessee must meet the cost of all alterations necessary to meet (2)the requirements of:

<sup>&</sup>lt;sup>9</sup> The Trustee Lessee also must not omit to do something in this context. Refer to Clause 2.20 (Actions).

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- (a) the insurers of the Premises; or
- (b) relevant Acts.
- (3) If required by the Trustee, the Trustee Lessee must deposit with the Trustee the estimated cost of the alterations before they are commenced.

# 7.16 Heating Apparatus

- (1) The Trustee Lessee must not use, without Trustee consent, apparatus that radiates heat in a manner or at an intensity that creates a risk of Harm.
- (2) The Trustee:
  - (a) will not withhold or withdraw consent unreasonably; but
  - (b) may grant consent subject to conditions.

# 7.17 Inflammable Substances

The Trustee Lessee must not use an inflammable substance within the Premises, or permit its use there, other than in the ordinary course of conducting the Permitted Use.

# 7.18 Preservation of Insurance Protection

- (1) Other than in the ordinary course of conducting the Permitted Use, the Trustee Lessee must not do or permit to occur upon the Premises anything that it knows, or ought reasonably to know:
  - (a) will or might render void or voidable a policy of Trustee insurance over the Premises, or over property kept there; or
  - (b) will or might increase a premium payable upon the insurance.
- (2) Without prejudicing the Trustee's entitlement to terminate the Trustee Lease for breach of this Clause 7.18, the Trustee Lessee must pay the Trustee upon demand an insurance premium increase occasioned by such a breach.

# 7.19 Not Used

# 7.20 Security

The Trustee Lessee must ensure that the doors, windows, and other openings through which it is possible (irrespective of difficulty) to access or leave the Premises are locked securely at all times when the Premises are unattended.

# PART 8 MAINTENANCE

# 8.1 Water Supply and Waste Disposal Facilities

- (1) If required by the Trustee, the Trustee Lessee must install and Maintain, to the Trustee's satisfaction:
  - (a) water supply facilities; and
  - (b) sewerage facilities or effluent and waste water drainage facilities,

to serve the Premises.

- (2) For Clause 8.1(1):
  - (a) installation includes connecting the facilities to the relevant local mains pipes adjacent or opposite the Premises; and
  - (b) the Trustee Lessee's responsibility to Maintain the relevant facilities does not extend to the mains connections outside the Premises.

# 8.2 Rodents and Vermin

The Trustee Lessee must keep the Premises free of rodents, termites, cockroaches, and other vermin.

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# 8.3 Infectious Diseases

If it discovers, or possesses reasonable grounds for believing or suspecting, that there is present upon the Premises an infectious disease that requires notification under an Act, the Trustee Lessee must:

- (1) notify the proper authority or authorities as required by that Act;
- (2) notify the Trustee; and
- (3) fumigate and disinfect the Premises thoroughly.

#### 8.4 Drainage of Roof Water

The Trustee Lessee must construct whatever facilities the Trustee requires at any time for collecting and draining roof water from the Premises.

#### 8.5 Condition of Premises

- (1) The Trustee Lessee must keep the Premises in sound, clean, and sanitary condition, free from the accumulation of refuse, waste and rubbish.
- (2) In particular, the Trustee Lessee must:
  - (a) supply and Maintain sufficient and suitable refuse bins upon the Premises; and
  - (b) provide for regular collection, storage and removal of all refuse, waste and rubbish from the Premises, for disposal at a recognized refuse disposal site,

to the Trustee's satisfaction.

#### 8.6 Maintenance (General)

Subject to Clause 9.2, the Trustee Lessee must ensure proper Maintenance of the Premises, including all fixtures and fittings, to keep them in good repair, working order, and condition, without allowance for fair wear and tear.

#### 8.7 Maintenance of Premises (Particular)

- (1) Without limiting the effect of Clause 8.6, the Trustee Lessee's obligation to Maintain the Premises includes:
  - (a) rectifying damage to the Premises;
  - (b) rectifying inherent defects;
  - (c) replacing all glass broken;
  - (d) replacing inoperative or damaged light bulbs or other illumination sources within the Premises;
  - (e) ensuring that Electrical Equipment and Electrical Installations connected to the source of electricity supply in the Premises is Maintained free of defects likely to cause fire or electric shock; and
  - (f) repairing or replacing (as necessary) Trustee Property damaged by the Trustee Lessee (which repair or replacement may be, at the Trustee's option, effected by the Trustee at the Trustee Lessee's expense).
- (2) The obligation in Clause 8.7(1)(a) extends to:
  - (a) rectifying Structural deterioration and damage;
  - (b) rectifying fair wear and tear;
  - (c) rectifying deterioration and damage attributable to fair wear and tear; and
  - (d) removing graffiti, and reinstating (as necessary) the surfaces affected by the graffiti.
- (3) Reinstating a surface affected by the graffiti includes:
  - (a) repainting or re-staining the surface to which the graffiti was applied; and

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(b) to the extent it is necessary to do so to ensure reasonable consistency of finish with surfaces surrounding or adjacent that surface, repainting or re-staining the surrounding or adjacent surfaces.

#### 8.8 Not Used

# 8.9 Standard of Maintenance

The Trustee Lessee must ensure that all Maintenance is effected competently and skilfully, in compliance with all relevant Acts, relevant Australian Standards (save to the extent of inconsistency with relevant Acts), and manufacturer specifications.

#### 8.10 Licensed Personnel

- (1) For this Clause 8.10, *licensed personnel* are appropriately skilled persons licensed under an Act to perform the relevant work.
- (2) The Trustee Lessee must ensure that licensed personnel attend to all installation and Maintenance work upon the Premises concerning:
  - (a) water supply, sewerage and drainage apparatus;
  - (b) electrical and mechanical apparatus;
  - (c) buildings and other structures;
  - (d) vermin and pest control;
  - (e) wildlife removal; and
  - (f) other things for which the application of formally-accredited skill is necessary or prudent or required by an Act.

# 8.11 Notice of Damage

Upon becoming aware of it, the Trustee Lessee must notify the Trustee promptly of:

- (1) damage to the Premises, including a Service;
- (2) the defective operation of a Service;
- (3) an unsafe condition of the Premises, or an area adjacent the Trust Land via which persons access the Premises; or
- (4) a dangerous or potentially dangerous activity in which persons are engaging regularly or from time to time within the Premises, or on land adjacent the Premises via which persons access the Premises.

#### 8.12 Landscaping and Gardening

Other than where the Premises comprise only a building or part of a building, the Trustee Lessee must:

- (1) keep the Premises free of long grass, noxious plants, and other weeds;
- (2) water and fertilize all plants;
- (3) replace plants that die or are destroyed;
- (4) plant trees and lay grass upon the Premises, and otherwise landscape them, as reasonably required by the Trustee; and
- (5) Maintain throughout the Term, to the Trustee's satisfaction, what it has been completed under Clause 8.12(4).

#### 8.13 Environmental Protection

- (1) The Trustee Lessee must not dispose, or permit the disposition, of any substance or item (including refuse, garbage, oil, or a chemical):
  - (a) into a watercourse; or

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- (b) onto land (in contradistinction to deposition into an appropriate, dedicated receptacle).
- (2) Without limitation, disposition of a substance occurs if the substance leaks, or is washed, blown, or otherwise conveyed.
- (3) The Trustee Lessee must:
  - (a) use all reasonable endeavours to overcome or minimize environmental harm arising from its use of the Premises; and
  - (b) rehabilitate any watercourse, and any area of the Trust Land or any other land, suffering environmental harm resulting from its use of the Premises and any other area of the Trust Land.

### 8.14 Boundary Fences

Irrespective of the *Neighbourhood Disputes (Dividing Fences and Trees) Act 2011*, the Trustee Lessee is responsible for constructing and repairing whatever fences bound the Premises.

# PART 9 ALTERATIONS

#### 9.1 Necessity for Trustee Consent

- (1) The Trustee Lessee must not make, or allow to be made, without Trustee consent, an improvement, alteration or addition to the Premises.
- (2) To avoid doubt, the Trustee has (subject to the Trustee Lessee obtaining the relevant Development Permits) approved the works reasonably necessary for the construction, installation and improvements to the Premises as shown in the DA Plan in Appendix 2.
- (3) A request for consent must be accompanied by detailed and complete:
  - (a) drawings and specifications of the proposed work; and
  - (b) particulars of the materials to be used.
- (1) In any event, the Trustee Lessee must ensure that all improvements, alterations and additions it makes or allows to be made to the Premises are made:
  - (c) competently;
  - (d) in conformity with plans approved by the Trustee in its capacity as trustee of the Trust Land;
  - (e) in conformity with the conditions of all relevant Development Permits;
  - (f) using quality materials; and
  - (g) otherwise in conformity with the directions of the Trustee, and to its satisfaction.
- (4) The Trustee Lessee must not vary the drawings, specifications and materials the Trustee has approved unless the Trustee approves the variation.
- (5) The Trustee Lessee will indemnify the Trustee against whatever Cost results from or in connection with Harm attributable to the alteration, irrespective of Trustee consent.

# 9.2 Maintenance and Repair of Trustee Lessee Improvements

The Trustee Lessee must Maintain the improvements, alterations, or additions it makes to the Premises.

# 9.3 External Lighting

- (1) The Trustee Lessee must not install external lighting upon the Premises without Trustee approval.
- (2) The Trustee Lessee also must not allow approved external lighting (other than lighting approved for the purpose of optimizing the security of the Premises) to operate later than:
  - (a) the time (if any) nominated by the Trustee; or
  - (b) if the Trustee has not nominated a time, midnight.

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(3) The Trustee Lessee must ensure external lighting does not cause a nuisance or inconvenience to adjacent landowners.

# 9.4 Vesting of Fixed Improvements

Fixed Improvements that the Trustee Lessee constructs or installs upon the Premises become part of the Trust Land from the time of their construction or installation.

### 9.5 Severance of and Removal Fixed Improvements

- (1) Before the Expiry Date, the Trustee Lessee must remove all Fixed Improvements installed by the Trustee Lessee from the Premises unless the Trustee notifies the Trustee Lessee that it requires a Fixed Improvement to remain on the Premises.
- (2) The Trustee Lessee must:
  - (a) comply strictly with the requirements (if any) the Trustee imposes concerning the severance and removal process;
  - (b) ensure that the improvement is severed and removed, and all relevant repair and Reinstatement work (including, where applicable, necessary landscaping or land stabilization work) is completed, to the Trustee's satisfaction (acting reasonably); and
  - (c) ensure that the severance and removal is completed not later than 30 days after the date of termination.
- (3) Without limiting the effect of any other provision in this Clause 9.5, if it severs and removes a Fixed Improvement, the Trustee Lessee must:
  - (a) clear from the Trust Land what it has severed, including all debris created by the severance and removal; and
  - (b) leave the Trust Land clean and tidy,

to the Trustee's satisfaction.

#### 9.6 Signs

- (1) The Trustee Lessee must not paint or place a sign or hoarding upon an exterior surface of the Premises (irrespective of whether the surface forms part of the Premises) without Trustee consent.
- (2) Upon expiry or sooner termination of this Trustee Lease, the Trustee Lessee must:
  - (a) remove promptly each sign or hoarding it has painted or placed upon the Premises or elsewhere upon the Trust Land; and
  - (b) restore to the condition in which it existed immediately before the sign or hoarding was painted or installed, the area affected by each removal.

# 9.7 Trustee Lessee Surrender on Purchase

- (1) The Parties acknowledge that the Trustee Lessee is attempting to secure the purchase and transfer of the Premises (**Purchase**).
- (2) In the event the Purchase is secured, the parties will enter into arrangements to surrender this Lease on the date ownership of the Premises is transferred to the Trustee Lessee (or on an earlier date otherwise agreed in writing) (Surrender).
- (3) If this Lease is Surrendered, clauses 9.5 and 9.6(2) will not apply, and there will be no Reinstatement works required.

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# PART 10 TRUSTEE BENEFIT COVENANTS

#### 10.1 Provision of Trustee Lessee Information

- (1) The Trustee Lessee must give the Trustee a written return containing updated details of its office-bearers and the other members of its board of directors or its management committee whenever there is a change to those office-bearers or other members during the Term.
- (2) The Trustee Lessee must give the Trustee the return within 30 days after a change occurs.
- (3) The Trustee Lessee also must give the Trustee whatever other reasonable information the Trustee reasonably requests from time to time concerning the Trustee Lessee.
- (4) The Trustee Lessee must give the Trustee the requested information within 14 days after the Trustee's request.
- (5) However, Clause 10.1(3) does not apply if answering an enquiry would:
  - (a) breach an Act; or
  - (b) otherwise breach an obligation imposed by law.

Examples: A duty of confidence; or an obligation of non-disclosure under a suppression order made by a court.

- (6) The Trustee may audit the Trustee Lessee's financial and other records at any time, upon reasonable notice to the Trustee Lessee.
- (7) The Trustee Lessee must co-operate in good faith with the Trustee's audit personnel, giving them all reasonable assistance to facilitate an expeditious and effective audit procedure.
- (8) If the audit reveals the breach of any essential term of this Trustee Lease,<sup>10</sup> the Trustee Lessee must bear the expense the Trustee incurs in having the audit undertaken. Otherwise, the Trustee will bear the expense.

#### 10.2 Intrusion of Harmful Commodities

The Trustee Lessee releases the Trustee from liability for any Cost sustained or incurred by the Trustee Lessee through sewage, gas, electric current or any other fluid, substance or force entering or otherwise affecting the Premises (other than to the extent caused by Trustee default).

#### 10.3 Indemnity and Discharge

- (1) Without limiting section 4 of the Prescribed Terms, the indemnity the subject of that section extends to Cost resulting directly or indirectly from:
  - (a) Harm attributable in any way to the Trustee Lessee's presence upon the Premises, its use of the Premises, and its power of control over the Premises;
  - (b) Harm attributable to alterations made to the Premises, irrespective of Trustee or Ministerial consent;
  - (c) non-timely discharge of a Trustee Lessee obligation under the Trustee Lease;
  - (d) neglectful or improper use of a Service by the Trustee Lessee or its Personnel;
  - (e) escape (by leakage, overflow, or other cause) of water, fire, electricity, gas, or other harmful agents;
  - (f) Trustee Lessee failure to notify the Trustee of defect in a Service if the Trustee Lessee is, or ought reasonably to be, aware of the defect;
  - (g) improper or faulty transportation or installation of Trustee Lessee Property to or upon the Premises; and

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- (h) (without limiting the effect of Clause 10.3(1)(a)) the act of any member, servant, agent, licensee or invitee of the Trustee Lessee.
- (2) The indemnity does not extend to Costs borne of Claims for Harm resulting from the Trustee's carelessness or Wilful Act.
- (3) The Trustee Lessee releases and discharges the Trustee from liability to it upon any and every Claim the subject of its indemnity in this Clause 10.1.

# 10.4 Interruption of Services

The Trustee Lessee will possess no remedy against the Trustee if:

- (1) a Service is malfunctioning, partially or wholly inoperative, or unavailable (other than through Trustee default);
- (2) the Trustee has withdrawn the Service for Maintenance or replacement; or
- (3) the Trustee has withdrawn the Service to comply with an Act.

# 10.5 Disclosure of Insurance-relevant Information

The Trustee Lessee assures the Trustee that it disclosed all Insurance-relevant Information to the Trustee in writing before the Trustee entered the Trustee Lease.

# 10.6 Condition Precedent to Trustee Liability

Irrespective of a rule of law, and a provision of the Trustee Lease, to the contrary, the Trustee will not be liable to the Trustee Lessee for any Cost resulting from or referable to Trustee neglect or default unless:

- (1) the Trustee Lessee gives the Trustee notice of that neglect or default; and
- (2) without reasonable cause, the Trustee fails to take appropriate remedial action within a reasonable time.

# 10.7 Termination (Interests of Local Government)

- (1) The Trustee Lessee acknowledges that:
  - (a) this Trustee Lease is granted to contribute benefit to the community within the vicinity of the Premises (in particular) and within the City (generally); and
  - (b) its intent, in accepting the Trustee Lease, is to contribute community benefit through bona fide use of the Premises in accordance with the requirements of the Trustee Lease.
- (2) The Trustee may terminate the Trustee Lease by notice to the Trustee Lessee if the Trustee:
  - (a) considers that the Trustee Lessee no longer uses the Premises; or
  - (b) considers, for any other reason, that that cancellation of the Trustee Lease is in the community interest or the public interest.
- (3) A termination notice under Clause 10.7(2) must state:
  - (a) the reason the Trustee is terminating the Trustee Lease; and
  - (b) the date upon which the Trustee Lessee must vacate the Premises (which date must not be earlier than 60 days after the date upon which the Trustee gives the notice).

# PART 11 TRUSTEE LESSEE INSURANCE

# 1.2 Independence of Obligations

- (1) The insurance obligations in this Part 11 are independent of the Trustee Lessee's indemnity obligations under this Trustee Lease.
- (2) Accordingly, the limits of those indemnity obligations do not confine or limit the insurance obligations nor do the insurance obligations confine or limit those indemnity obligations.

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# 11.1 Types of Insurance

- (1) The Trustee Lessee must maintain throughout the Term:
  - (a) a Damage Policy; and
  - (b) any other insurance cover the Trustee reasonably requires.
- (2) The Trustee Lessee also must maintain cover under the *Workers Compensation Act* for all of its Officers and other staff at the Premises.

Note: The Prescribed Terms states the Trustee Lessee's obligation to maintain public liability insurance.

### 11.2 Damage Policy

The Damage Policy must cover, for full reinstatement or replacement cost, including at least the Remedial Expenses:

- (1) all Trustee Lessee Property; and
- (2) all other insurable items located upon the Premises, including plate glass.

### 11.3 Additional Public Liability Policy Obligations

- (1) The Public Liability Policy:
  - (a) must provide cover to the level required, upon individual occurrences; and
  - (b) must not include per-occurrence sub-limits.
- (2) The Trustee may require from time to time, but not more frequently than once every 3 years, that the Trustee Lessee increase the level of its cover under the Public Liability Policy to the sum nominated in a notice (an *escalation notice*) to the Trustee Lessee.
- (3) In determining the extent of an increase in the level of indemnity under the Public Liability Policy, the Trustee must act reasonably and by reference to demonstrable changes in the real value of damages awards.
- (4) Upon service of an escalation notice, the sum specified in the notice will be taken as the cover level specified at Item H.
- (5) The Trustee may not give an escalation notice earlier than the third anniversary of the Commencement Date.

#### 11.4 Insurers

- (1) Each policy of general insurance this Part 11 requires must issue from a registered insurer that the Trustee approves.
- (2) A registered insurer is an entity licensed under the Insurance Act 1973 (Cwlth) to conduct general insurance business.
- (3) For clarity, the Trustee may refuse to approve an insurer that holds a financial strength rating lower than:
  - (a) from Standard & Poor's: A minus;
  - (b) from Moody's: A3; or
  - (c) from Fitch Ratings: A minus.
- (4) The Trustee Lessee must give the Trustee upon request, for each policy of general insurance under this Part 11, evidence confirming the insurer's current financial strength rating.

#### 11.5 Common Policy Requirements

- (1) This Clause 11.5 applies to each of the Damage Policy and the Public Liability Policy.
- (2) Each policy must be occurrence-based, providing indemnity upon each claim made after expiry or cancellation of the policy where the causal event occurs during the term of the policy (irrespective of whether the occurrence is one of a series arising from or in connection with the same event).

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- (3) Each policy must expressly cover the Trustee as a third party beneficiary:
  - (a) by name or as a member of a specified class of third party beneficiary; and
  - (b) for its interests and entitlements under the Trustee Lease,

enabling the Trustee to make claims under the policy, and to enforce it, directly against the insurer.

- (4) For clarity, a policy must not merely note the Trustee as a person with an insurable interest in the Premises.
- (5) Each policy must:
  - (a) cover the Parties and their Personnel for their respective rights, interests, and liabilities connected with the insured property, the Premises, and the Trustee Lease;
  - (b) treat each Party as if the Party were issued a separate or individual policy;
  - (c) include a Cross-liability Provision, a Non-imputation Provision, and a Subrogation Waiver;
  - (d) provide automatic limit-of-indemnity reinstatement following payment of a claim;
  - (e) cover each insured against Claims resulting or arising from its own negligence; and
  - (f) include no provisions (particularly exclusions, endorsements, or alterations) that the Trustee reasonably disapproves.

### 11.6 Notices from Insurer

If it receives a notice from the insurer under a policy that also covers the Trustee, the Trustee Lessee must give the Trustee promptly a copy of that notice.

### 11.7 Policy Changes

The Trustee Lessee must not pursue or agree, without Trustee consent, a change to any policy the subject of this Part 11.

#### 11.8 Excesses

If a policy that covers the Trustee requires the insured to pay a claims excess, the Trustee Lessee will indemnify the Trustee against whatever Cost the Trustee reasonably incurs because of the requirement.

#### 11.9 Payment of Premiums

The Trustee Lessee must ensure the prompt payment of all premiums and other money (for example, duty and GST) due to any person or authority upon or concerning the insurance it is obliged to maintain.

#### 11.10 Proof of Insurance

- (1) The Trustee Lessee must give the Trustee, whenever the Trustee reasonably requests it to do so:
  - (a) a copy of each insurance policy that covers the Trustee;
  - (b) a certificate of currency of each such policy; and
  - (c) a certificate of currency of its *Workers Compensation Act* policy.
- (2) Each certificate of currency must issue from the insurer, not from the Trustee Lessee's broker.
- (3) The Trustee Lessee must comply with the Trustee's request not later than 7 days after the Trustee makes the request.

#### 11.11 Failure to Insure

If the Trustee Lessee fails to maintain insurance as this Part 11 requires:

- (1) the Trustee may obtain or maintain the insurance; and
- (2) the Trustee Lessee must reimburse the Trustee upon demand whatever Cost the Trustee incurs in the exercise of that entitlement.

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#### 11.12 Acting Reasonably

- The Trustee may not delay or withhold unreasonably an approval under this Part 11. (1)
- The Trustee may not require unreasonably the inclusion, retention, modification, or exclusion of an (2)insurance policy provision.

#### 11.13 Settlement of Claims

- The Trustee Lessee must not pursue a claim under a policy if the Trustee (acting reasonably) notifies it (1)that the Trustee has elected to pursue the claim.
- If it elects to pursue the claim, the Trustee must: (2)
  - pursue the claim diligently; and (a)
  - make every reasonable effort to ensure that each insured Party receives from the insurer no less (b) than its entitlement under the policy.

# PART 12 ASSIGNMENT, SUBLETTING, ENCUMBRANCE

#### 12.1 **Restricted Dealings**

- Each of the following is a Restricted Dealing: (1)
  - transferring an interest in the Trustee Lease; or encumbering its interest; (a)
  - assigning the Trustee Lessee's interest in the Trustee Lease; (b)
  - (c) subletting the Premises or any portion of them;
  - parting with, or sharing, possession of the Premises; and (d)
  - licensing a person to use the Premises. (e)
- While it is in default under the Trustee Lease, particularly default in the payment of rent or other money, (2)the Trustee Lessee is not entitled to engage in a Restricted Dealing.
- For clarity, the Trustee Lessee does not contravene this Clause 12.1 merely through: (3)
  - permitting persons to enter the Premises in the ordinary course of visiting and transacting (a) day-to-day business with it; or
  - letting the Premises on hire for the conduct of functions or events, not exceeding one days (b) duration in any instance, for which the Premises are suitable.

#### **Trustee Consent** 12.2

- If it is not in default under the Trustee Lease, the Trustee Lessee may engage in a Restricted Dealing only (1)if it possesses Trustee consent and obtains the prior written approval of the Minister administering the Land Act 1994.
- The Trustee is not obliged to consent to a Restricted Dealing if the Trustee Lessee fails to comply with this (2)Part 12.

#### **Application for Consent** 12.3

- The Trustee Lessee must apply for Trustee consent to a Restricted Dealing not later than 21 days before (1)the due date for completion of the dealing.
- The application must include, for a proposed assignment or sublease: (2)
  - (for an assignment) copies of all relevant contract documents; (a)
  - (for a sublease) a copy of the draft sublease instrument and of any related agreement; (b)
  - a copy of the proposed assignee's/Trustee sublessee's constitution document; (c)
  - full details of the proposed assignee/Trustee sublessee, including particularly it officers (d) (directors/management committee) and its members;

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- (e) a current statement of the proposed assignee's/Trustee sublessee's assets and liabilities; and
- (f) other relevant information the Trustee reasonably requests.
- (3) The Trustee may require preparation of the statement of assets and liabilities by a chartered accountant or certified practising accountant.

#### 12.4 Suitability of Proposed Assignee/Trustee sublessee

The Trustee Lessee must demonstrate to the Trustee's satisfaction (in which respect the Trustee must act reasonably) that a proposed assignee or Trustee sublessee:

- (1) is respectable and responsible;
- possesses sufficient financial substance to operate profitably and to discharge its obligations as tenant or sub-tenant;
- (3) (in the case of an assignee) will conduct the Permitted Use competently and otherwise will discharge the Trustee Lessee obligations under the Trustee Lease;
- (4) (in the case of Trustee sublessee or licensee) will not precipitate breach of the Trustee Lessee obligations under the Trustee Lease; and
- (5) is not likely (or certain) to cause, through its occupation or use of the Premises:
  - (a) a security risk to the Premises;
  - (b) a loss of amenity within the Premises; or
  - (c) a diminution in value of the Premises,

greater than that (if any) hitherto caused by the Trustee Lessee's occupation.

#### 12.5 Consent/Accession Agreements

Before completing a Restricted Dealing, the Trustee Lessee must execute, and ensure that the proposed assignee, Trustee sublessee, licensee, or other relevant party, executes in favour of the Trustee, a deed of agreement, in the form the Trustee reasonably requires prepared by the Trustee's solicitors, containing:

- (1) (for an assignment) an assignee covenant to discharge the Trustee Lessee obligations under the Trustee Lease, whether running with the Trust Land or not;
- (2) (for a sublease or licence) a Trustee sublessee or licensee covenant to discharge its obligations under the sublease or licence and to refrain from causing or contributing to a Trustee Lessee breach of the Trustee Lease; and
- (3) a grant of the proposed assignee's, Trustee sublessee, or licensee's power of attorney in favour of the Trustee, in terms analogous to those of the Trustee Lessee's power of attorney in the Trustee Lease.

#### 12.6 Encumbrance of Trustee Lease

- (1) The Trustee Lessee must not encumber the Trustee Lease by the grant of a security interest (for example, a mortgage).
- (2) However, the Trustee will not treat the Trustee Lessee as having breached this Clause 12.6 if the grantee executes a consent agreement, in the form the Trustee requires, specifying the conditions upon which the grantee may:
  - (a) deal with the Trustee Lessee's interest in the Trustee Lease; and
  - (b) enter and use the Premises to enforce its security.

### 12.7 Excepted Finance Dealings

- (1) If its interest in the Trustee Lease is not to be included in the secured property, the Trustee Lessee need not obtain Trustee consent where it wishes, in good faith, to secure financial accommodation in the normal course of its business via:
  - (a) a charge over its undertaking or assets; or

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- (b) a security interest over its property upon the Premises.
- (2) The Trustee Lessee also need not obtain Trustee consent where it wishes, in good faith, to secure financial accommodation in the normal course of its business via:
  - (a) a hire purchase agreement for goods to be used at the Premises; or
  - (b) a chattel leasing agreement for goods to be used at the Premises.
- (3) However, neither of Clauses 12.7(1) and 12.7(2) constitutes Trustee consent to:
  - (a) the security or dealing;
  - (b) the hire purchase or chattel leasing agreement; or
  - (c) the financier entering the Premises to enforce the security or the agreement.
- (4) Irrespective of the terms of the security, agreement, or dealing: absent Trustee consent, the financier will acquire no entitlement:
  - (a) to enter the Premises; or
  - (b) to deal with this Trustee Lease, the Premises, or the Trustee Lessee's interest in the Premises,
  - other than in compliance with the relevant provisions of this Part 12 (as if it were the Trustee Lessee).
- (5) The Trustee Lessee must bring this Clause 12.7 clearly to the attention of:
  - (a) the grantee of the security; and
  - (b) the other party to the hire purchase or chattel lease agreement.

### 12.8 Trustee Expenses

The Trustee Lessee must pay the Trustee upon demand (irrespective of whether the relevant dealing is completed) the legal costs and other expenses the Trustee reasonably incurs:

- (1) investigating a proposed assignment of the Trustee Lease, or the proposed grant of a sublease, licence, or security interest, whether proposed or completed;
- (2) drawing, settling, executing, and stamping a related deed or other instrument; and
- (3) doing anything necessary, or requested of it, to facilitate Registration of the relevant dealing.

# PART 13 TRUSTEE COVENANTS

# 13.1 Quiet Enjoyment

The Trustee Lessee may occupy and use the Premises without interruption from the Trustee, other than interruption the Trustee Lease permits, while:

- (1) it occupies the Premises under the Trustee Lease; and
- (2) it discharges promptly its obligations under the Trustee Lease.

# PART 14 DAMAGE AND DESTRUCTION

#### 14.1 Repairing Damage

Without limiting Clauses 8.5 to 8.7, if a Fixed Improvement upon or comprising the Premises is damaged, the Trustee Lessee must repair the damage promptly, to the satisfaction of the Trustee (acting reasonably), irrespective of who or what has caused the damage.

# 14.2 Replacement upon Destruction

If a Fixed Improvement upon or comprising the Premises is destroyed, the Trustee Lessee must replace the improvement to the satisfaction of the Trustee (acting reasonably), irrespective of who or what has caused the destruction.

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# 14.3 Compliance with Trustee Directions

- (1) In effecting repairs or constructing or installing a replacement, the Trustee Lessee must comply with all reasonable directions given by the Trustee, including directions concerning:
  - (a) the submission and pursuit of insurance claims; and
  - (b) the application of insurance proceeds.
- (2) The purpose of that obligation is to facilitate:
  - (a) timely and competent completion of the necessary repair or replacement work (if the Trustee Lease is to continue); or
  - (b) compensation of the Trustee for loss of or damage to the Fixed Improvement (if the Trustee Lease is terminated under this Part 14).

### 14.4 Abatement/Suspension of Obligations

- (1) Without limiting Clause 14.5, if a Fixed Improvement is destroyed, or damage to a Fixed Improvement renders it inaccessible or unfit for the Permitted Use, the Trustee Lessee obligation to clean and Maintain the improvement will be suspended until the improvement (or its replacement) is rendered accessible and fit for the Permitted Use.
- (2) If a Fixed Improvement is partially inaccessible or partially unfit for the Permitted Use, the obligations the subject of Clause 14.4(1) will abate proportionally with the extent of the damage and diminution of utility until the improvement is rendered fully accessible and fully fit for the Permitted Use.
- (3) The Trustee Lessee is entitled to the relief specified in Clauses 14.4(1) and 14.4(2) only if the destruction or damage is not the product of its Wilful Act, its neglect, or its default.

### 14.5 Entitlement to Terminate after Destruction

- (1) If the Premises are destroyed or rendered inaccessible or unfit for the Permitted Use:
  - (a) the Trustee may terminate the Trustee Lease; and
  - (b) the Trustee Lessee may surrender the Trustee Lease, but only upon satisfying the requirements of Clause 14.6.
- (2) Termination will not prejudice entitlements that have accrued to either Party beforehand.

#### 14.6 Pre-requisite for Surrender (Insurance Payment)

The Trustee Lessee may surrender the Trustee Lease pursuant to Clause 14.5(1)(b):

- (1) only if the insurer has granted full indemnity upon a claim under the Damage Policy, for the reinstatement or replacement value of the Building; and
- (2) only after the insurer or the Trustee Lessee has paid the Trustee the proceeds of the claim.

# PART 15 ENTITLEMENTS UPON TERMINATION

#### 15.1 Not Used

#### 15.2 Trustee Lessee's Fixtures

If it is not in breach of obligation under the Trustee Lease when it is to vacate the Premises, the Trustee Lessee must (unless the Trustee directs otherwise) sever and remove from the Premises its tenant fixtures and other Trustee Lessee Property.

#### 15.3 Abandonment

- (1) The Trustee may treat as abandoned any tenant fixtures and Trustee Lessee Property that the Trustee Lessee fails to remove from the Premises:
  - (a) either as-of-right or by Trustee requirement;

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- (b) within 14 days after the Trustee Lessee vacates the Premises.
- (2) Though it may deal with as its own the items it treats as abandoned, the Trustee may recover from the Trustee Lessee as a debt the expenses the Trustee incurs in storing and disposing of those items. However, the Trustee must credit against those expenses whatever it receives upon disposal of the items.
- (3) For clarity, the Trustee need not account to the Trustee Lessee for any surplus of disposal proceeds over the expenses of storage and disposal.

#### 15.4 Not Used

#### 15.5 Return of Possession

Subject to Clauses 15.2 and 15.3, when vacating the Premises, the Trustee Lessee must return them to the Trustee, properly Reinstated after severance and removal of tenant fixtures and other Trustee Lessee Property (whether the severance or removal is voluntary or by Trustee direction).

#### PART 16 RESERVATIONS

#### 16.1 Application of Part

The entitlement to exclusive possession granted by the Trustee to the Trustee Lessee under this Trustee Lease is limited to the extent of the reservations contained in this Part 16.

- 16.2 Not Used
- 16.3 Not Used
- 16.4 Not Used
- 16.5 Not Used
- 16.6 Not Used

#### 16.7 Entry by Trustee

- (1) The Trustee Lessee must permit the Trustee's Personnel to enter the Premises at all reasonable times:
  - (a) to examine their condition;
  - (b) to effect repairs and alterations that the Trustee deems necessary for their safety, preservation, or improvement;
  - (c) to monitor or verify Trustee Lessee usage of the Premises;
  - (d) to exercise any of the Trustee's entitlements under this Trustee Lease; and
  - (e) to discharge any of the Trustee's statutory duties relating to the Premises.
- (2) The Trustee is not obliged to compensate the Trustee Lessee, or any other person for inconvenience or Cost attributable to the exercise of an entitlement under this Clause 16.7.

# PART 17 NOT USED

#### PART 18 TRUSTEE LESSEE DEFAULT

#### 18.1 Events of Default

- (1) The Trustee Lessee defaults under the Trustee Lease if:
  - (a) it fails to discharge an obligation the Trustee Lease imposes upon it (a *Trustee Lessee obligation*); or
  - (b) it commits an Act of Insolvency.

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- (2) Failure to discharge a Trustee Lessee obligation includes failure to comply with a condition of Trustee consent or permission granted under the Trustee Lease.
- (3) Failure to discharge a Trustee Lessee obligation also includes failure by a third person (a person other than a Party) to discharge an obligation to the Trustee under an agreement made between the third person and the Trustee to satisfy:
  - (a) a Trustee Lessee obligation; or
  - (b) a condition of Trustee consent or permission granted under the Trustee Lease.

# 18.2 Remediable Default Entitlements

- (1) For a remediable Trustee Lessee default, the Trustee may exercise an entitlement arising from the default (whether under the Trustee Lease or at law) only if the Trustee Lessee fails to comply with a Default Notice.
- (2) A *Default Notice* for a remediable Trustee Lessee default is a notice from the Trustee to the Trustee Lessee:
  - (a) specifying the default in reasonable detail; and
  - (b) directing the Trustee Lessee to remedy the default by the date, or within the period, specified in the notice, which date or period must be reasonable.

# 18.3 Irremediable Default Entitlements

- (1) For an irremediable Trustee Lessee default, the Trustee may exercise an entitlement arising from the default (whether under the Trustee Lease or at law) only after giving the defaulting Party a Default Notice.
- (2) A *Default Notice* for an irremediable Trustee Lessee default is a notice from the Trustee to the Trustee Lessee:
  - (a) specifying the default in reasonable detail;
  - (b) stating that the default is irremediable and why; and
  - stating the Trustee's intention, or its requirements of the Trustee Lessee, arising from the default; or
  - (d) reserving the Trustee's rights arising from the default.

# 18.4 Remedies upon Default

- (1) If Clause 18.2 is satisfied, the Trustee may terminate the Trustee Lease without prejudicing the entitlements that have accrued to it for any earlier default by the Trustee Lessee.
- (2) Without limitation, the Trustee may effect the termination by retaking possession of the Premises, with or without notice.
- (3) If the default is a failure to pay money, or to discharge an obligation, to a person other than the Trustee, the Trustee may:
  - (a) pay the money or discharge the obligation as the agent of the Trustee Lessee; and
  - (b) recover from the Trustee Lessee as a debt all of the money it expends in doing so.

# 18.5 Entry without Forfeiture

- (1) If the Trustee Lessee vacates the Premises during the Term (whether or not it ceases to make rent and other payments under the Trustee Lease), none of the following Trustee actions will constitute termination of the Trustee Lease or a waiver of the Trustee's entitlement to recover the rent and other money owing by the Trustee Lessee:
  - (a) acceptance of the Keys;
  - (b) entry upon the Premises to inspect, clean, repair, or alter them, or to show them to prospective occupiers; or
  - (c) advertisement of the Premises for tenancy.

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- (2) Despite any of those actions, the Trustee Lease will continue, fully binding and effective, until the earlier of:
  - (a) the time a new tenant or licensee takes occupation of the Premises; and
  - (b) the time the Trustee Lease expires.
- (3) Trustee entry upon the Premises before that time will be deemed entry with Trustee Lessee permission.
- (4) This Clause 18.5 will not apply where the Trustee:
  - (a) gives the Trustee Lessee notice accepting repudiation of the Trustee Lease;
  - (b) gives the Trustee Lessee notice confirming forfeiture (termination) of the Trustee Lease;
  - (c) retakes possession of the Premises (whether by changing the locks or otherwise preventing the Trustee Lessee reassuming possession); or
  - (d) signs the acceptance in a formal surrender of the Trustee Lease, and gives the executed instrument to the Trustee Lessee.

#### 18.6 Removal of Equipment

- (1) Upon lawfully terminating the Trustee Lease for Trustee Lessee default, the Trustee may:
  - (a) remove Trustee Lessee Property from the Premises; and
  - (b) store that property at the Trustee Lessee's cost.
- (2) In exercising that entitlement, the Trustee will not be liable to the Trustee Lessee for:
  - (a) conversion or unlawful distress; or
  - (b) Cost occasioned by the removal or storage.
- (3) The Trustee Lessee must reimburse the Trustee upon demand expenses the Trustee reasonably incurs in removing and storing Tenant Trustee Lessee under Clause 18.6(1).

#### 18.7 Tender after Determination

Money tendered by the Trustee Lessee and accepted by the Trustee after the Trustee Lease is terminated for Trustee Lessee default, may be applied (and, absent express contrary election by the Trustee, must be applied):

- (1) first, on account of rent and other money in arrears under the Trustee Lease; and
- (2) second, on account of the Trustee's expenses of termination and re-entry.

#### 18.8 Essential Terms

Each of the following Trustee Lessee covenants is an essential term of the Trustee Lease:

Covenant		Clause
(1)	To pay the rent	5.1
(2)	To pay the Rates and Utility Charges	5.2
(3)	To pay the GST	6.3 and 6.5
(4)	To use the Premises in the required manner, in compliance with relevant Acts, and to hold any necessary use-related Development Permit	7.1 to 7.3 and 7.11
(5)	To meet the required standards for conduct of the Permitted Use.	7.4
(6)	The particular Trustee Lessee obligations	7.7
(7)	Not to undertake extractive activities upon the Premises	7.9
(8)	To refrain from doing anything that renders or might render insurance cover void or voidable	7.18
(9)	To Maintain the Premises	8.5 and 8.6

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SCHEDULE

Title Reference: 49001693 Clause Covenant 11.1 to 11.10 and To obtain and maintain Trustee Lessee insurances and to provide proof of (10)Prescribed Terms insurance section 5 Part 12 To refrain absolutely from engaging, or to refrain from engaging without (11)Trustee consent, in Restricted Dealings and the grant of security interests in the Trustee Lease 7.11(2)(a) and 7.9 The covenant not to store, sell, or supply liquor upon or from the Premises or (12)allow it to be stored, sold or supplied, without consent, or without a necessary licence or authority

### 18.9 Damages upon Termination for Breach

If the Trustee lawfully terminates the Trustee Lease for breach of an essential term (whether the term possesses the character of essentiality pursuant to or independently of Clause 18.8), the Trustee:

- (1) may recover damages for the breach, including damages for loss of bargain;<sup>11</sup> but
- (2) will not be relieved of the duty it otherwise possesses at law to mitigate its loss.

# PART 19 POWER OF ATTORNEY

#### 19.1 Additional Provisions

The power of attorney granted under this Part 19 is additional to the power of attorney granted by the Trustee Lessee under section 9 of the Prescribed Terms.

#### 19.2 Grant of Power

The Trustee Lessee irrevocably appoints the Trustee and the Chief Executive Officer (but not his or her delegate), collectively and individually, as the Trustee Lessee's attorney:

- (1) to pursue a claim under a policy of Trustee Lessee insurance, pursuant to Clause 11.13;
- (2) to terminate on behalf of the Trustee Lessee, and as the act of Trustee Lessee, a sublease, licence, or other permission to use or occupy the Premises, granted by the Trustee Lessee in breach of Part 12;
- (3) to recover on behalf of the Trustee Lessee, and as the act of the Trustee Lessee, possession of the area the subject of the terminated sublease, licence, or other permission;
- (4) to execute and Register a surrender of the Trustee Lease following termination for Trustee Lessee default; and
- (5) after Trustee termination of the Trustee Lease for Trustee Lessee default, to execute and Register an instrument withdrawing a Trustee Lessee caveat affecting the Premises.

# 19.3 Enlivenment of Power

Power under Clauses 19.2(2) to 19.2(5) is enlivened only when the Trustee becomes entitled to terminate the Trustee Lease for Trustee Lessee breach.

# **19.4 Proof of Entitlement to Terminate**

Sufficient proof of the Trustee having acquired the entitlement to terminate the Trustee Lease will be a statutory declaration to that effect by the attorney effecting the termination, which states also the basis of the entitlement.

<sup>&</sup>lt;sup>11</sup> Loss of bargain is loss of the benefit of performance of the Trustee Lessee's obligations under the Lease during the period between the date of termination by the Trustee and the date upon which the Lease otherwise would have expired.

Title Reference: 49001693

# 19.5 Ratification and/Reimbursement

- (1) The Trustee Lessee will:
  - (a) ratify whatever the attorney does; and
  - (b) reimburse the Trustee upon demand every Cost the attorney reasonably and properly incurs,

in the lawful exercise of its powers as attorney.

(2) The Trustee Lessee releases the Trustee from all liability the Trustee incurs to the Trustee Lessee through the exercise of attorney power under Clause 19.2.

# PART 20 NOTICES

### 20.1 Formal Requirements

- (1) This Part 20 governs notices under the Trustee Lease unless another provision of the Trustee Lease expressly provides otherwise.
- (2) A notice must be in writing and is ineffective unless given in writing.
- (3) The Party giving the notice, or one of its Officers, must sign the notice.
- (4) If a Party is constituted by more than one person:
  - (a) a notice by that Party need not be signed by all of those persons if it expressly states that the signatory is, or signatories are, authorized by all of those persons to sign the notice; and
  - (b) the recipient of the notice need not enquire into the validity of the authorization.

### 20.2 Service of Notices

A Party may give a notice:

- (1) by delivering it to the intended recipient's Address for Notices;
- (2) by posting it to the intended recipient at its Address for Notices; or
- (3) by transmitting it by facsimile to the intended recipient at its Address for Notices.

#### 20.3 Receipt of Notices

- (1) A notice delivered or posted will be deemed received:
  - (a) if delivered, at the moment of delivery;
  - (b) if posted to an address in Australia, 5 Business Days after posting; or
  - (c) if posted to an address outside Australia, 7 Business Days after posting.
- (2) A notice sent by facsimile transmission will be deemed received at the time of receipt specified in a confirmation report, if the report discloses that the transmission was received at or before 4:30pm.
- (3) If the confirmation report discloses receipt of the transmission after 4:30pm, the notice will be deemed received at 8:30am on the Business Day following the date of receipt disclosed in the report.
- (4) A *confirmation report* is a facsimile transmission confirmation report produced by the sender's facsimile machine:
  - (a) containing the identification code of the intended recipient's facsimile machine; and
  - (b) indicating that the machine received the transmission without error.

15

#### Title Reference: 49001693

# PART 21 MISCELLANEOUS COVENANTS

# 21.1 Payment of Money Generally

- (1) The Trustee Lessee must pay all money due to the Trustee under this Trustee Lease:
  - (a) without set-off or other deduction;
  - (b) by the date or time for payment, or within the payment period, the Trustee Lease specifies; or
  - (c) upon demand, if neither a date or time for payment, nor payment period, is specified; and
  - (d) otherwise in the manner the Trustee directs.
- (2) Absent a contrary direction from the Trustee, the Trustee Lessee must pay the Trustee the money at the latter's Address for Notices.
- (3) Absent a contrary stipulation concerning a given payment, time is of the essence of each Trustee Lessee obligation to pay money to the Trustee under the Trustee Lease.
- (4) Payment or receipt of less than a sum due to the Trustee under the Trustee Lease will be treated as made and received only in reduction of the full amount due.
- (5) If the Trustee Lessee tenders a short payment, the tender will not create an accord and satisfaction merely because:
  - (a) a letter or note accompanying the payment or giving notice of it; or
  - (b) a negotiable instrument comprising the payment,

contains or (for a negotiable instrument) is endorsed with a statement that the sum tendered represents full or final payment of what is due.

- (6) A short payment is the payment of a sum less than the full amount owing.
- (7) The Trustee may accept a short payment without prejudice to its entitlement:
  - (a) to recover the outstanding balance; or
  - (b) to pursue another remedy available to it.

# 21.2 Communications between Parties

- (3) Neither an approval nor a consent or permission given under the Trustee Lease binds the person giving it unless that person gives it in writing.
- (4) An appointment or direction made or given under the Trustee Lease is ineffective unless made or given in writing.
- (5) A statement the Trustee Lease obliges a Party to give is ineffective unless given in writing.
- (6) A request made under the Trustee Lease is deemed neither made nor received if not made in writing.
- (1) A response to a request made under or in connection with the Trustee Lease is deemed neither given nor received if not given in writing.

# 21.3 Waiver/Abandonment of Entitlement

- (1) The mere fact that a person does not exercise an entitlement under or concerning this Trustee Lease when the entitlement accrues:
  - (a) does not deprive it of the entitlement; and
  - (b) does not deprive it of similar entitlements that accrue at other times.
- (2) The mere fact that a person grants an indulgence under or concerning the Trustee Lease on a given occasion does not entitle the recipient to the same or a similar indulgence on another occasion.
- (3) The mere fact that a person grants an indulgence under or concerning the Trustee Lease in a given circumstance does not entitle the recipient to the same or a similar indulgence in a similar circumstance.
- (4) The waiver of an entitlement under the Trustee Lease is not binding unless evidenced in writing.

Title Reference: 49001693

# 21.4 Honest Refusals

- (1) Although an obligation not to refuse its consent unreasonably obliges the Trustee to consider honestly a request for the consent:
  - (a) it does not oblige the Trustee to act against its own interests in deciding the request;
  - (b) it does not oblige the Trustee to pursue the applicant for material that the applicant must or should provide to obtain the consent;
  - (c) it does not oblige the Trustee to grant the request despite the applicant having failed to satisfy a consent prerequisite the Trustee Lease specifies; and
  - (d) it does not oblige the Trustee to grant the request merely because the applicant has satisfied a consent prerequisite, or the consent prerequisites, the Trustee Lease specifies.
- (2) Similarly, if the acquisition of an entitlement or the receipt of a benefit is conditional upon a Party (the beneficiary) satisfying specified prerequisites:
  - (a) the other Party (the obligor) is not obliged to pursue the beneficiary for material, or to take other action, necessary for ensuring or establishing satisfaction of the prerequisites;
  - (b) whether it is reasonable for the obligor to refuse to permit the acquisition or receipt, or to recognize it, is irrelevant if the beneficiary fails to satisfy the prerequisites; and
  - (c) irrespective of whether it wishes to deny the beneficiary the entitlement for another reason, the obligor does not act dishonestly (or unreasonably) in declining to permit or recognize the acquisition or receipt if the beneficiary fails to satisfy the prerequisites.

# 21.5 Cumulative Entitlements

The remedies and other entitlements the Trustee Lease gives a person:

- (1) are cumulative, not alternative; and
- (2) are not exclusive of other entitlements that the person possesses (whether under an Act or at general law).

# 21.6 Survival of Provisions

- (1) A provision of the Trustee Lease continues to be fully enforceable after Registration of the Trustee Lease if:
  - (a) Registration does not give it effect; and
  - (b) it is capable of taking effect after Registration.
- (2) A provision of the Trustee Lease capable of continued application after the Trustee Lease terminates remains enforceable unless waived or released by the Party entitled to its benefit.

# 21.7 Warranty of Authority

Each person signing the Trustee Lease as an Officer, attorney, agent, or trustee, or in any other representative capacity, assures all Parties of his or her unqualified authority to execute the document in that capacity at the time of signing.

# 21.8 Character of Instrument

This instrument is executed as a deed,<sup>12</sup> binding each Party, irrespective of:

- (1) its terminology (for example, referencing "Clause" rather than "covenant"); and
- (2) whether it records the passage of consideration between the Parties.

<sup>&</sup>lt;sup>12</sup> Relevantly, a deed is a special form of written commitment, which may constitute a contract if it records an agreement (but not necessarily). A commitment made by deed binds its signatory or signatories without the necessity for consideration to pass from the recipient or beneficiary of the commitment, i.e. without the necessity for the recipient or beneficiary to do or promise something in return. Nevertheless, a contract (which does require the passage of consideration) also may take the form of a deed.

Title Reference: 49001693

# 21.9 Delivery of Instrument

Each Party delivers this instrument as its deed conditionally upon all Parties:

- (1) executing the instrument; and
- (2) notifying one another that they have done so.

#### 21.10 Governing Law

- (1) Queensland law governs the Trustee Lease.
- (2) For clarity, Queensland law includes Commonwealth laws to the extent that they bind Queensland.

# 21.11 Jurisdiction (Adjudication of Disputes)

- (1) For this Clause 21.11, a Queensland Court is:
  - (a) a court or tribunal constituted under Queensland legislation and empowered to adjudicate a dispute arising under the Trustee Lease; and
  - (b) the High Court of Australia.
- (2) The Parties submit exclusively to the jurisdiction of the Queensland Courts for the adjudication and resolution of disputes under the Trustee Lease.
- (3) Each Party undertakes to refrain from bringing action upon the Trustee Lease in a forum other than a Queensland Court.
- (4) Each Party waives all entitlement to object to a Party bringing action upon the Trustee Lease before a Queensland Court, including entitlement to claim that:
  - (a) the Queensland Court is an inconvenient forum; or
  - (b) no Queensland Court has jurisdiction.

#### 21.12 Completion of Documents

The Trustee Lessee irrevocably authorizes the Trustee and its solicitor, collectively and individually, to complete the Trustee Lease and every ancillary document by:

- (1) inserting a plan identifying the Premises;
- (2) inserting a necessary word and figure;
- (3) initialling, executing, or correcting the Trustee Lease or document (if necessary),

but to the extent only that doing so will not alter the substance of the Parties' agreement.

# PART 22 NATIVE TITLE

# 22.1 Native Title

This Trustee Lease is entered into in accordance with the provisions of section 24JA of the *Native Title Act 1993* (*Cth*). In accordance with section 24JA of the *Native Title Act 1993* (*Cth*), the non-extinguishment principle applies.

[Appendix follows]

QUEENSLAND LAND REGISTRY Land Title Act 1994, Land Act 1994 and Water Act 2000 SCHEDULE

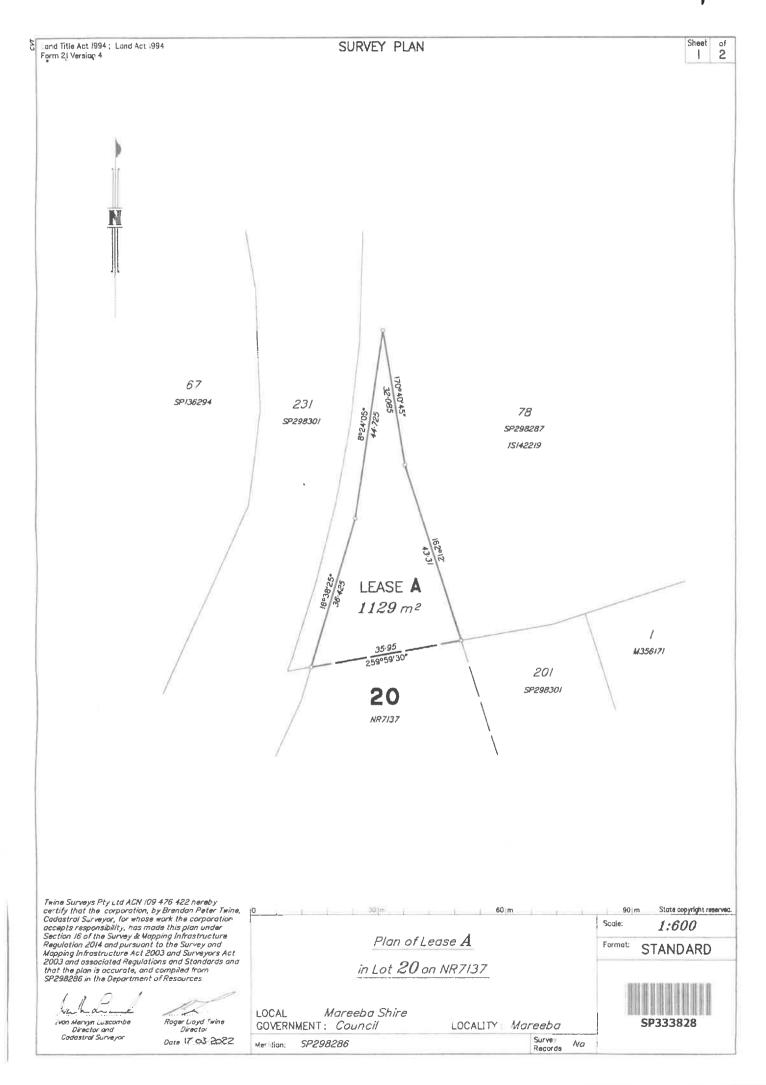


Title Reference: 49001693

**APPENDIX 1** 

[Survey plan]

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Title Reference: 49001693

APPENDIX 2

[DA plan]

QUEENSLAND LAND REGISTRY Land Title Act 1994, Land Act 1994 and Water Act 2000

SCHEDULE

Title Reference: 49001693

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King & Company

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Subject:	Agreement In Principle with Mareeba Shire Council Re: Trustee Lease - portion of Lot 20 NR7137	
Date:	Thursday, 3 March 2022 at 9:19:23 pm Australian Eastern Daylight Time	
From:	Kris Wilson	
То:	Mike Schuck	
CC:	Anthony Archie	
Priority:	High	
Attachments: image001.png, Draft Trustee Lease - Mareeba Council to Mareeba 232 Pty Ltd		
	03.03.22[2].PDF	

Dear Mike,

Thank you for the draft Trustee Lease provided for our review comment.

On behalf of Mareeba 232 Pty Ltd (ACN 654 487 760) we confirm that we agree in principle to a Trustee Lease over the land known as "a portion of Lot 20 NR7137".

We can work through the final details of the lease with you as we go, however we wish to confirm our In Principle Agreement to a Trustee Lease.

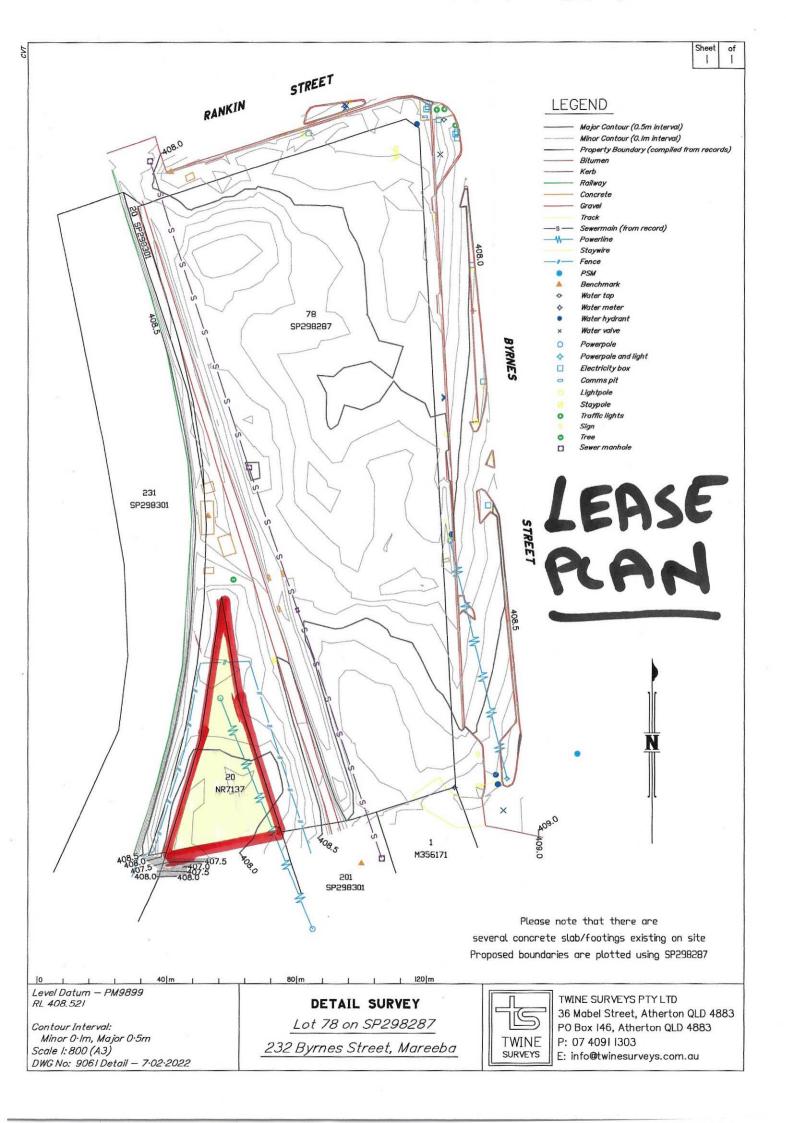
Regards,



Kris Wilson Director

0417 538 734 PO Box 91, Keilor, VIC 3036 kris@wilconprojects.com wilconprojects.com

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### **ATTACHMENT 2**

PLANS OF DEVELOPMENT (THOMSON ADSETT)

# MAREEBA NEIGHBOURHOOD **SHOPPING CENTRE**

232 BYRNES STREET, MAREEBA

## DRAWING LIST - CONCEPT

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А	0.10	SITE CONTEXT PLAN
А	1.01	SITE PLAN
Α	1.02	DEVELOPMENT PLAN
А	2.01	GROUND FLOOR PLAN - SUPERMARKET
А	2.02	ROOF PLAN - SUPERMARKET
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Α	5.01	3D VIEWS
А	5.02	3D VIEWS

## **DEVELOPMENT APPLICATION**

232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD





EXISTING VIEW FROM CORNER OF BYRNES & RANKIN STREET

## MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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**COVER SHEET** 

1 : 1 @ A1

TA # 19.0298.17 A0.00

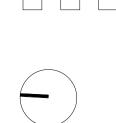
12/07/2022



**BICENTENNIAL LAKES** 



### **DEVELOPMENT APPLICATION** 0 25 50 75 125 250 m



**BASATT GULLY PARK** 

## PROPOSED MAREEBA **NEIGHBOURHOOD SHOPPING CENTRE**

## MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

232 BYRNES STREET, MAREEBA

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MAREEBA 232 PTY LTD



## SITE CONTEXT PLAN

1 : 2500 @ A1

TA # 19.0298.17 A0.10

12/07/2022

## **DEVELOPMENT SCHEDULE**

PROPOSED USES	GFA GLAR	
SUPERMARKET	3655m <sup>2</sup>	3603m <sup>2</sup>
SHOPS	1010m <sup>2</sup>	992m <sup>2</sup>
AMENITIES	90m <sup>2</sup>	
TOTAL CENTRE	4755m <sup>2</sup>	4595m <sup>2</sup>
FAST FOOD	270m <sup>2</sup>	270m <sup>2</sup>
TOTAL	5025m <sup>2</sup>	<b>4865m<sup>2</sup></b> (5/100m2)
CAR PARKING SCHEDULE		
CARS FAST FOOD	11	
CARS CENTRE (INCL. MOTOR BIKES, DIRECT TO BOOT + TAXIS)	203	
ON SITE CARS	214	
STREET CARS	5	
TOTAL CARS PROVIDED	TAL CARS PROVIDED219	
TOTAL CARS REQUIRED	193	

### NOTE:

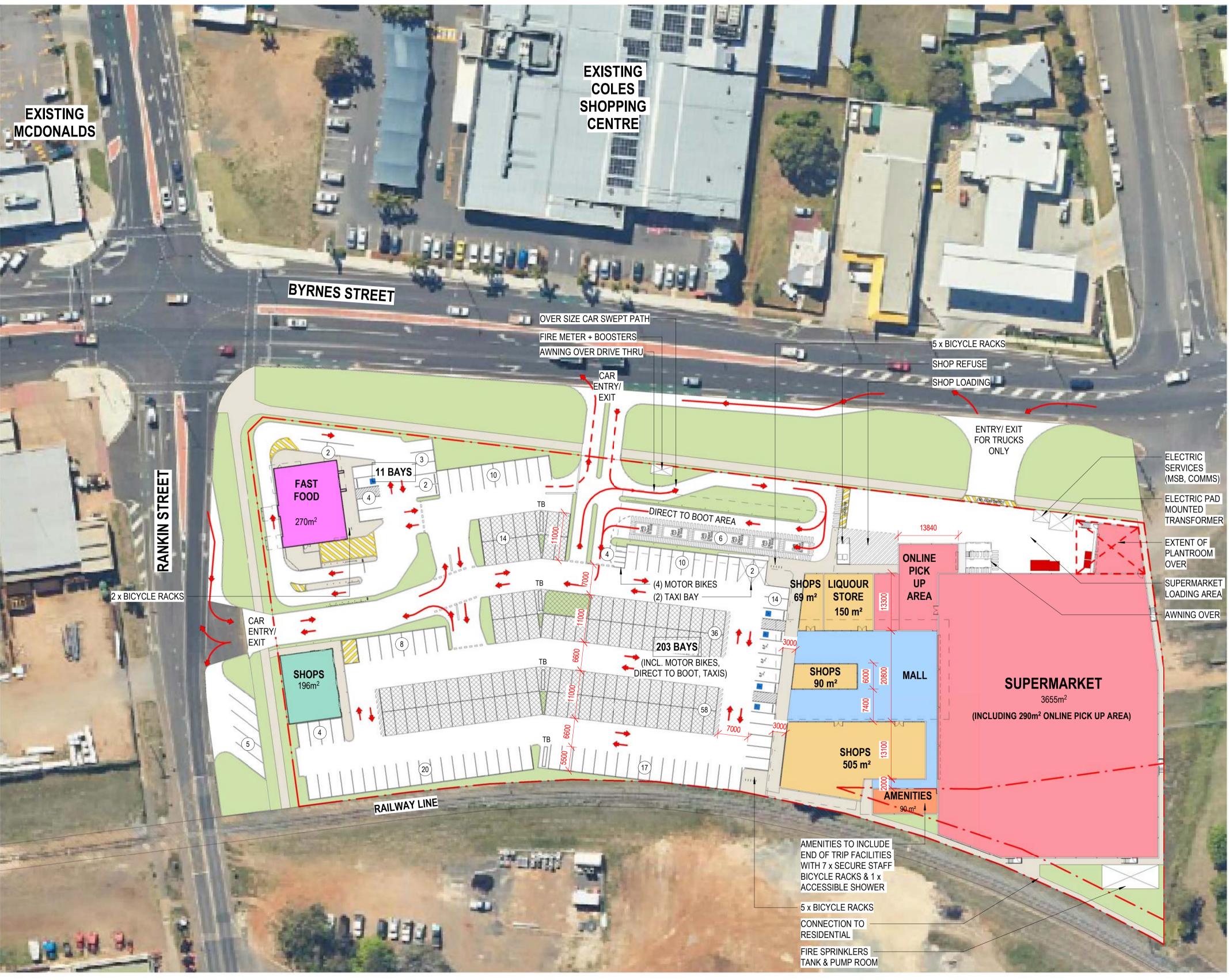
CARS REQUIRED IS BASED ON: 1/50 UP TO 400m<sup>2</sup> GFA 1/25 ABOVE 400m<sup>2</sup> GFA

### NOTE: SUPERMARKET GLAR EXCLUDES EXTERNAL WALLS AND LOADING DOCK

### **COVERED CARPARKS**

250 m

AREA OF ENCLOSED MALL / PASSAGE - 637m<sup>2</sup>





# 232 BYRNES STREET, MAREEBA



0 25 50 75

**DEVELOPMENT APPLICATION** 

125

MAREEBA 232 PTY LTD

## MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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## SITE PLAN

As indicated @ A1

TA # 19.0298.17 A1.01

12/07/2022

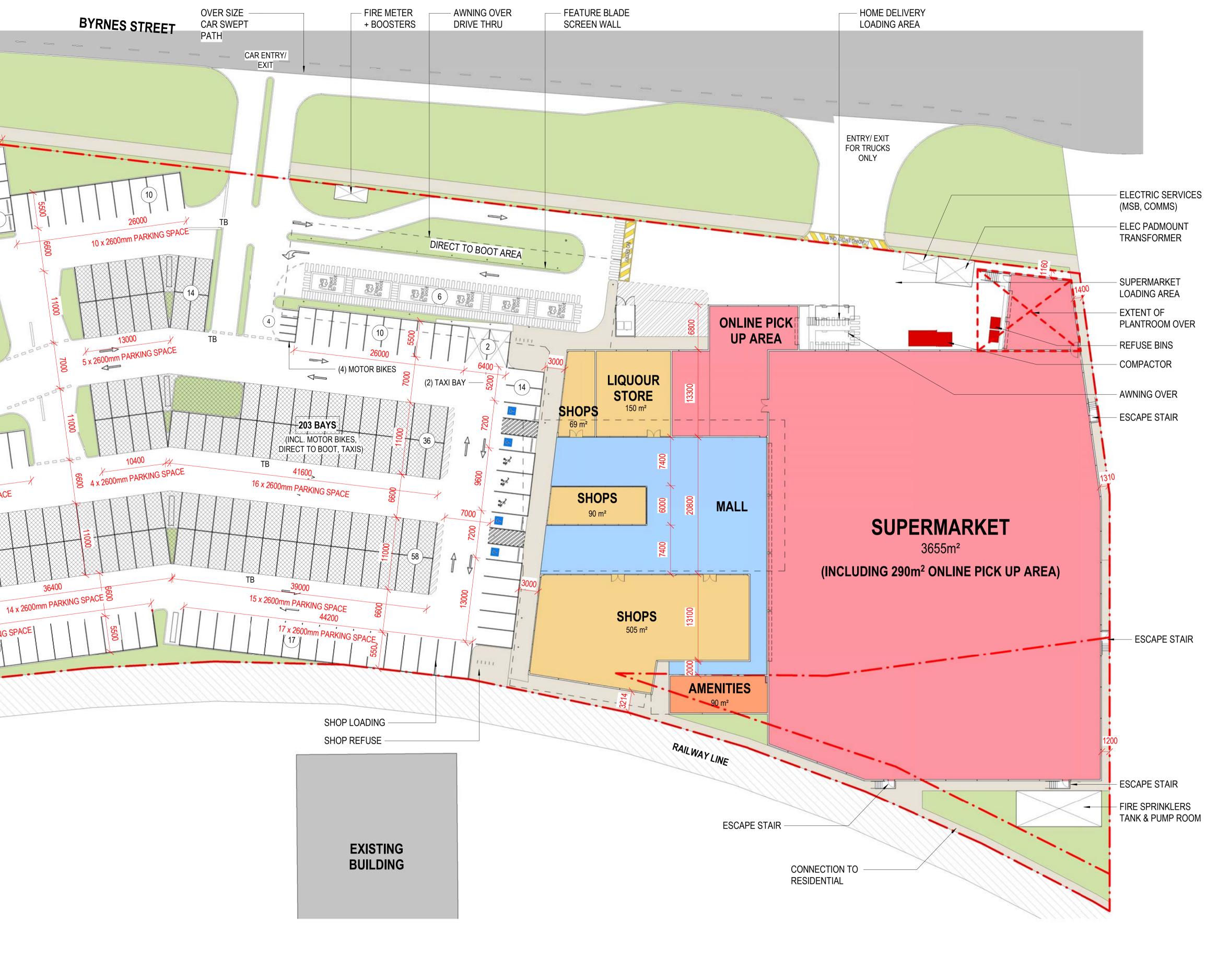


# MAREEBA 232 PTY LTD

232 BYRNES STREET, MAREEBA

### **DEVELOPMENT APPLICATION** 0 3 6 9 15 30 m







## MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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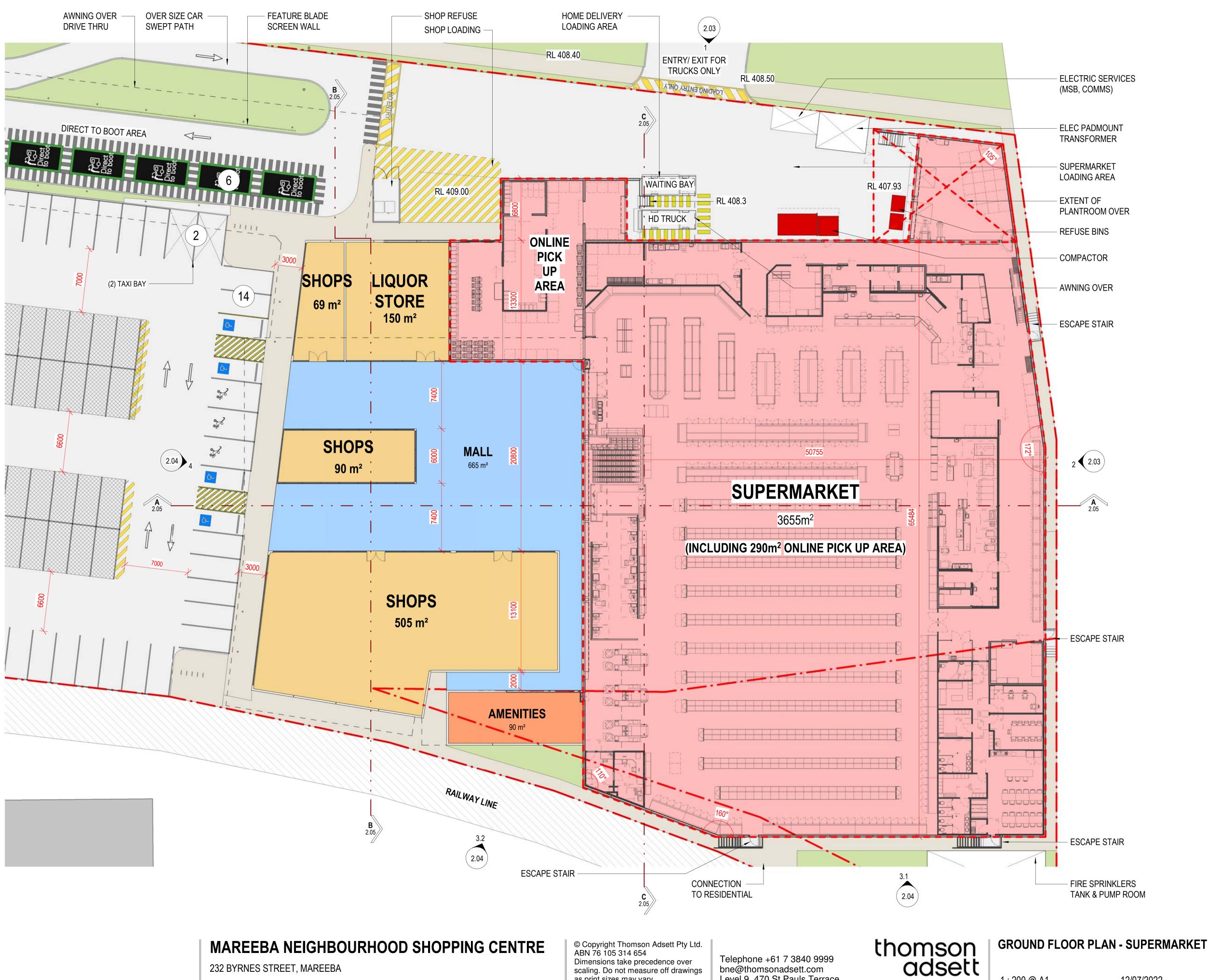


## DEVELOPMENT PLAN

1 : 300 @ A1

12/07/2022

TA # 19.0298.17 A1.02

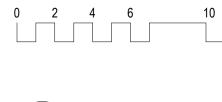






**FLOOR PLAN - SUPERMARKET** 1 : 200

# **DEVELOPMENT APPLICATION**



20 m



232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD

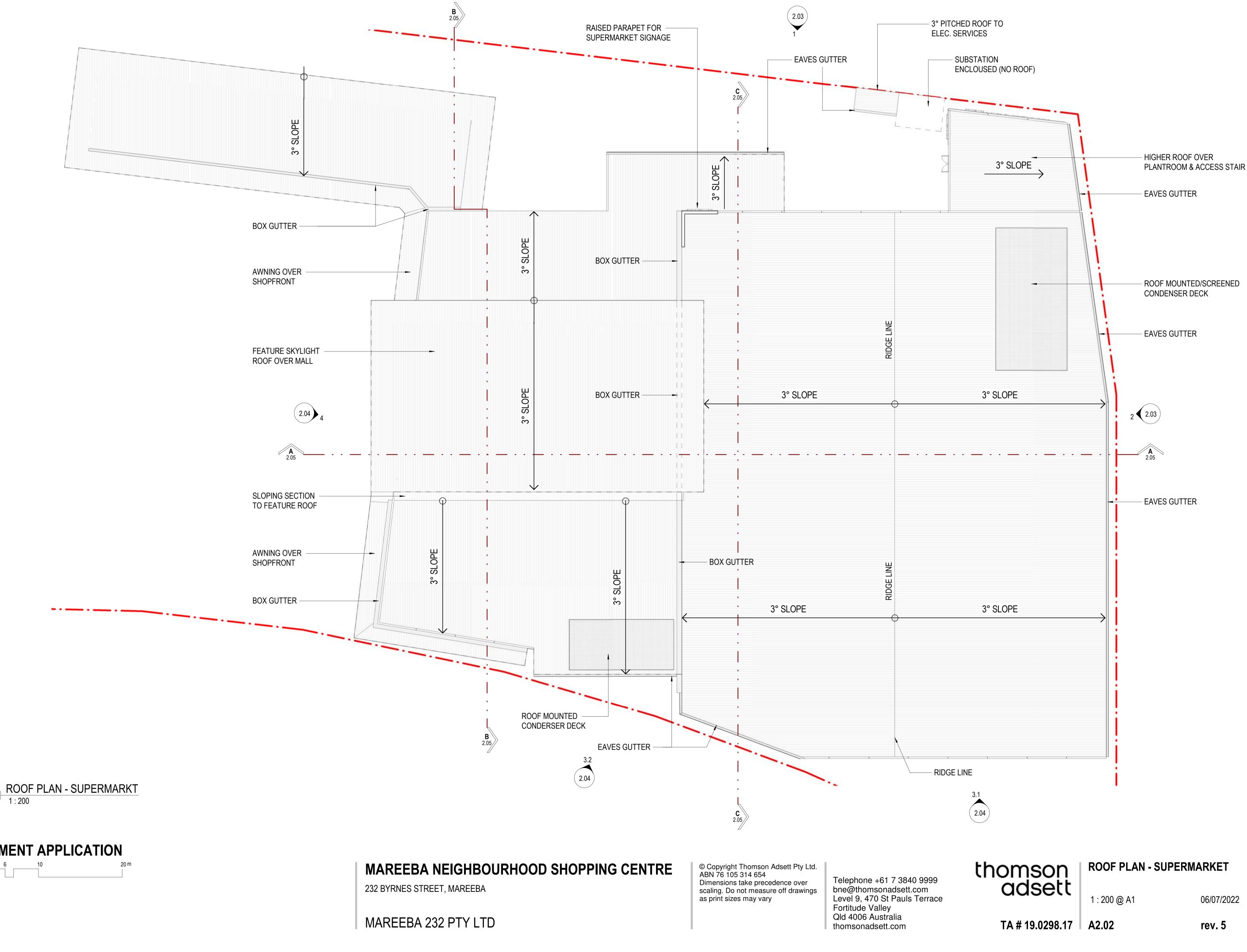
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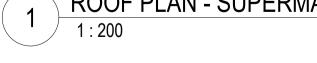
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1 : 200 @ A1

12/07/2022

TA # 19.0298.17 A2.01





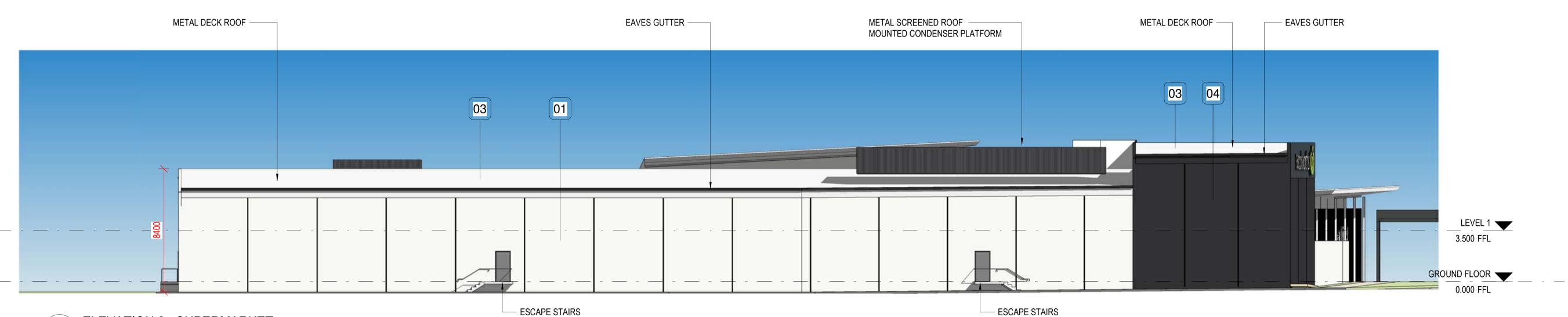
# **DEVELOPMENT APPLICATION**



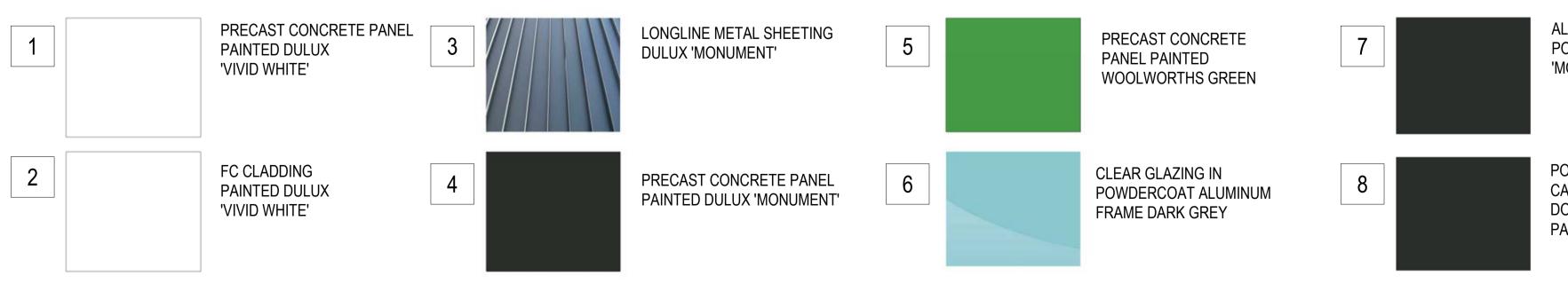




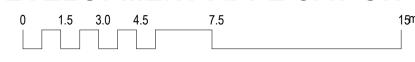








## **DEVELOPMENT APPLICATION**



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ALUCLICK FEATURE BLADES POWDERCOATED DULUX 'MONUMENT'

POWDERCOATED METAL CAPPINGS, GUTTERS, DOWNPIPES & ROLLER SHUTTER. PAINTED DULUX 'MONUMENT'





## **ELEVATIONS - SUPERMARKET**

As indicated @ A1

A2.03

06/07/2022

TA # 19.0298.17



MAREEBA 232 PTY LTD

as print sizes may vary

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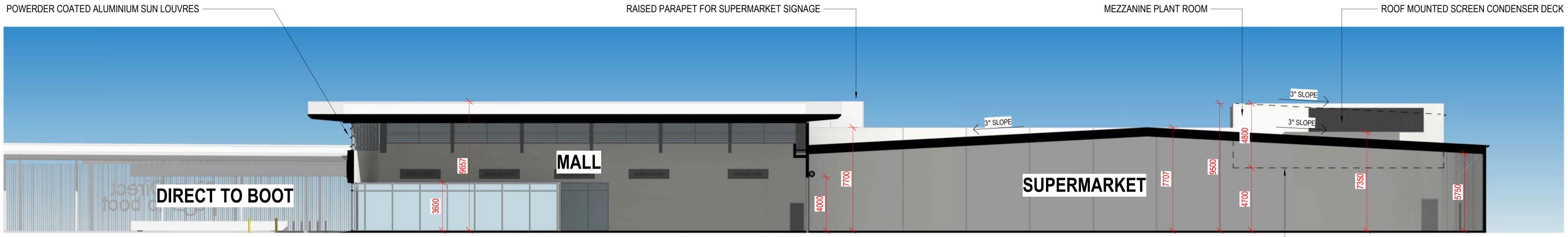
As indicated @ A1

06/07/2022

TA # 19.0298.17

A2.04



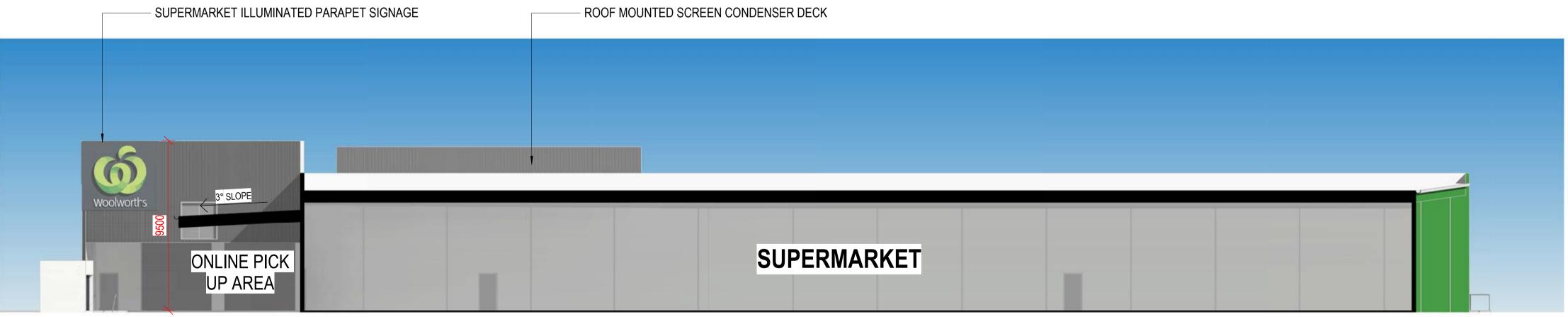


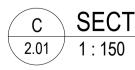


SUPERMARKET ILLUMINATED PARAPET SIGNAGE



B SECTION B - SUPERMARKET 2.01 1 : 150





**SECTION C - SUPERMARKET** 

**DEVELOPMENT APPLICATION** 

0 1.5 3.0 4.5 7.5

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- ROOF MOUNTED CONDERSER DECK

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MEZZANINE PLANT ROOM LEVEL





## **SECTIONS - SUPERMARKET**

1 : 150 @ A1

06/07/2022

TA # 19.0298.17 A2.05



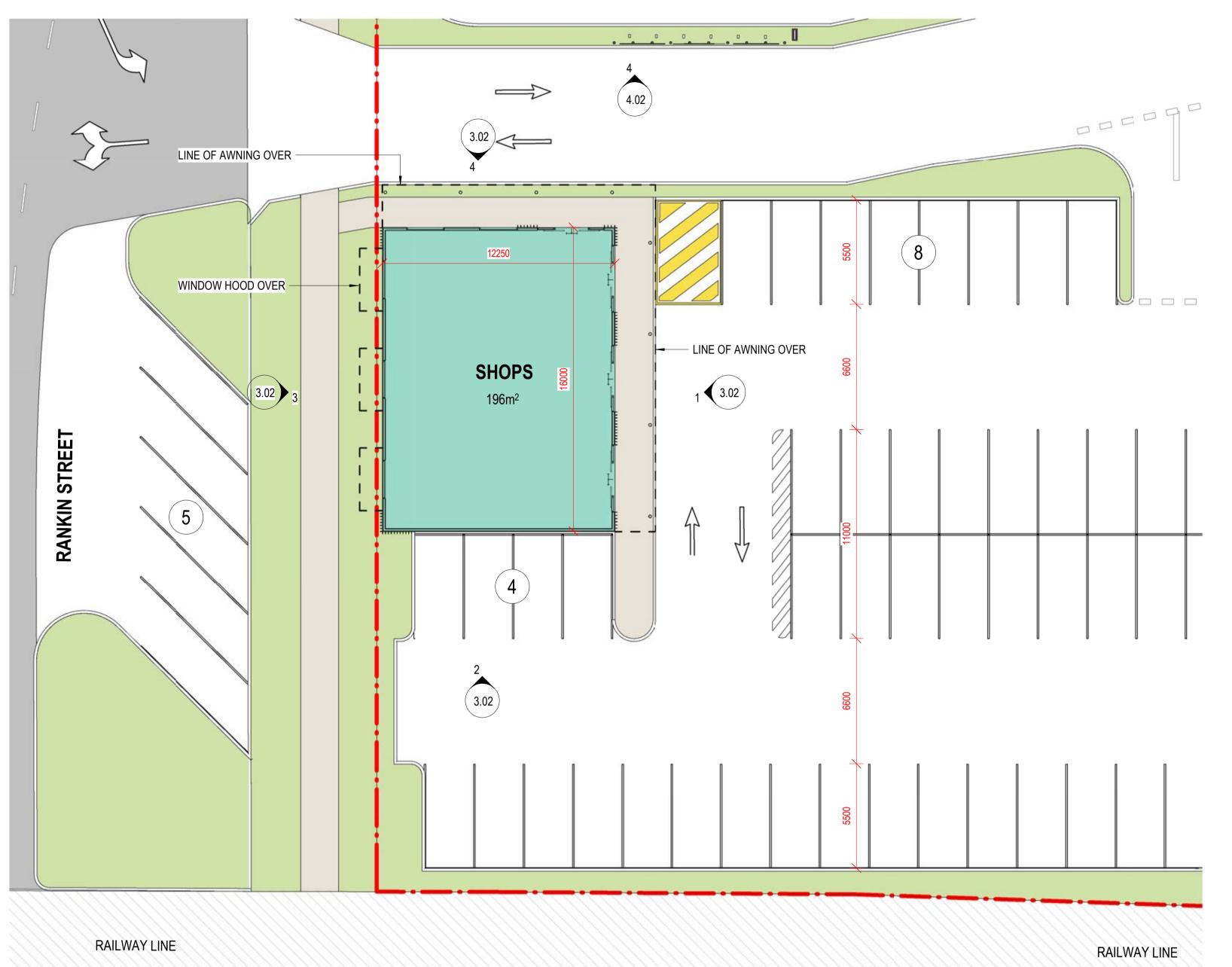
### **DEVELOPMENT APPLICATION** 0 1.5 3.0 4.5 7.5 15m

1 1 : 150

FLOOR PLAN - SHOPS

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### **GROUND FLOOR PLAN - SHOPS**

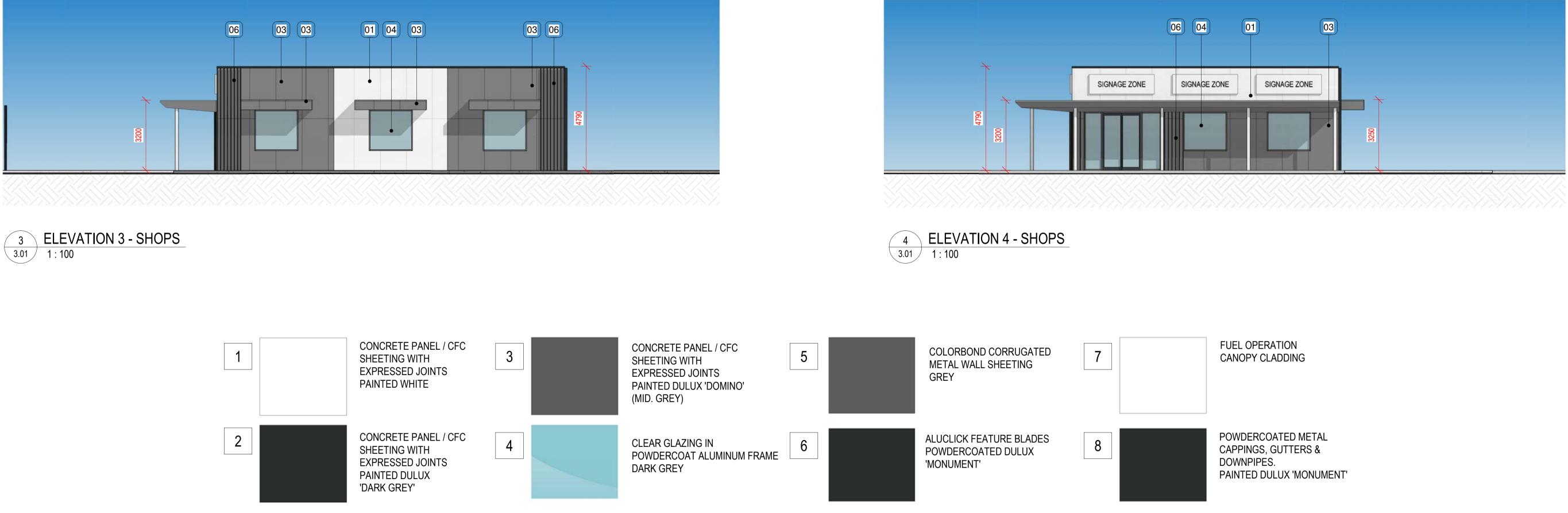
1 : 150 @ A1

06/07/2022

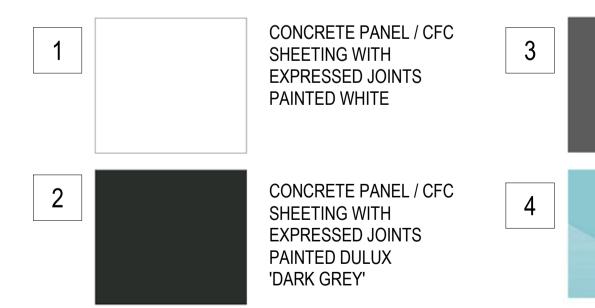
TA # 19.0298.17 A3.01











### **DEVELOPMENT APPLICATION** 10m

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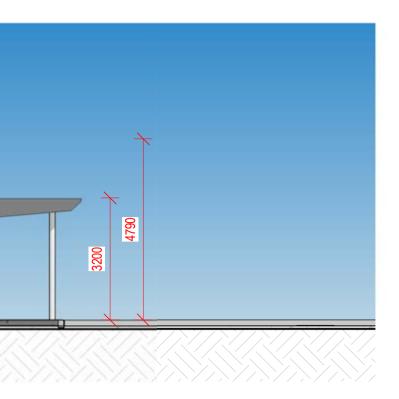


2 ELEVATION 2 - SHOPS 3.01 1 : 100

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### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION



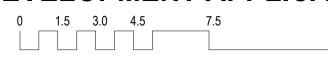
## **ELEVATIONS - SHOPS**

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06/07/2022

TA # 19.0298.17 A3.02





OVER

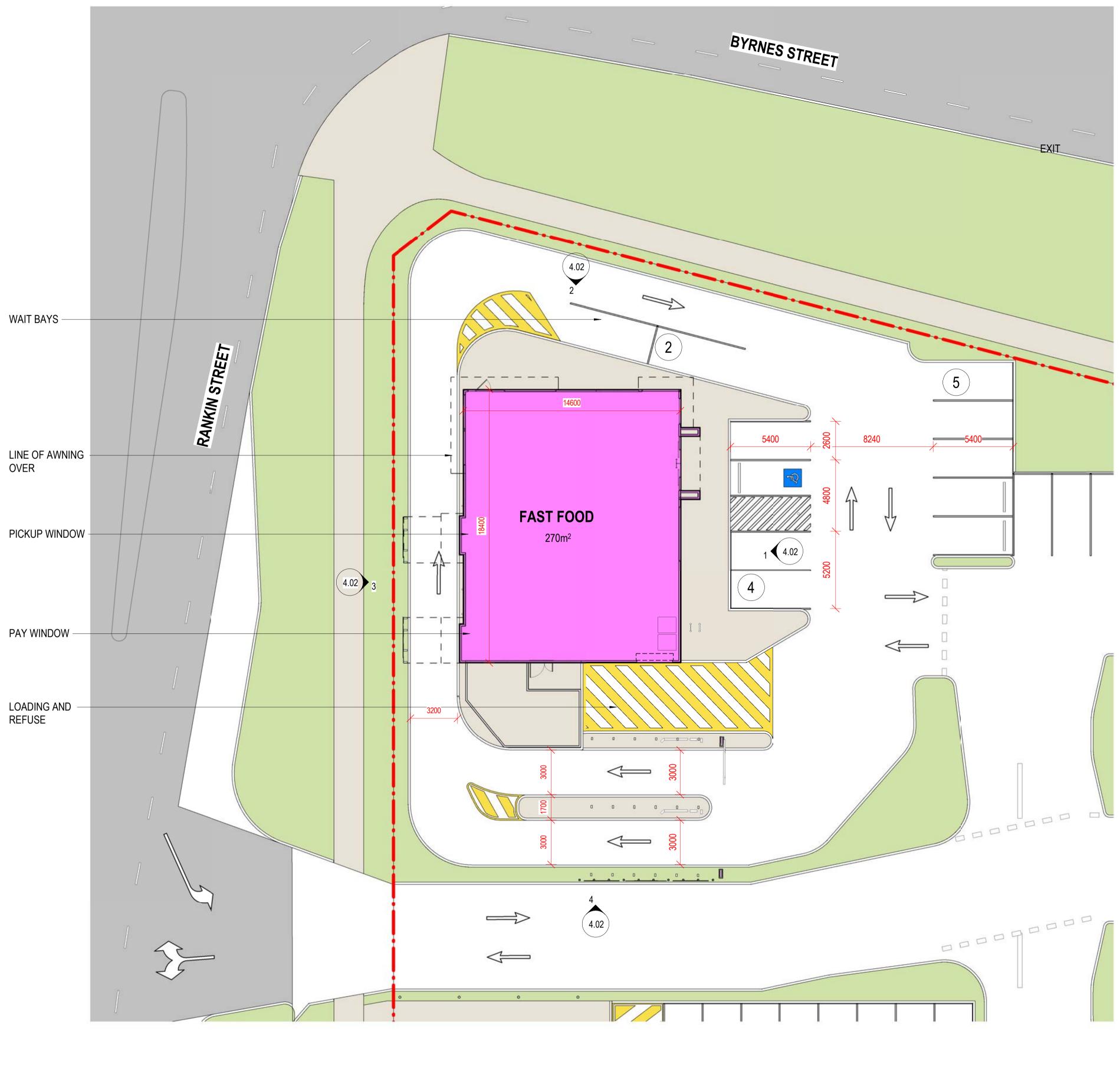
# 232 BYRNES STREET, MAREEBA

**DEVELOPMENT APPLICATION** 

FLOOR PLAN - FAST FOOD

1 : 150

1

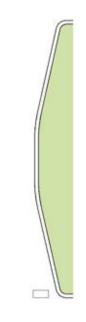


## MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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MAREEBA 232 PTY LTD





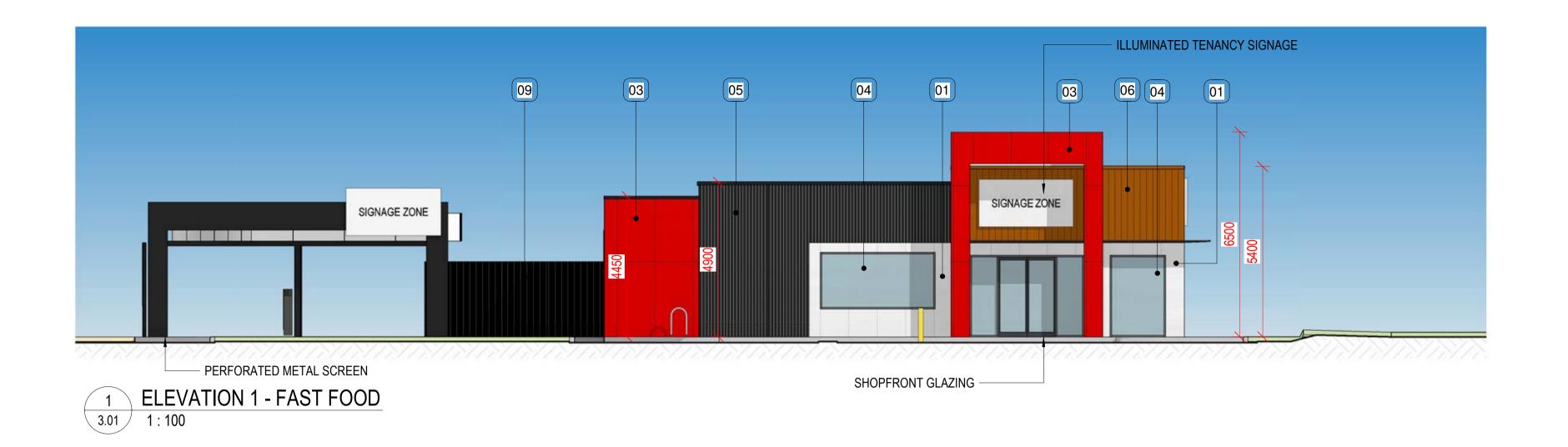


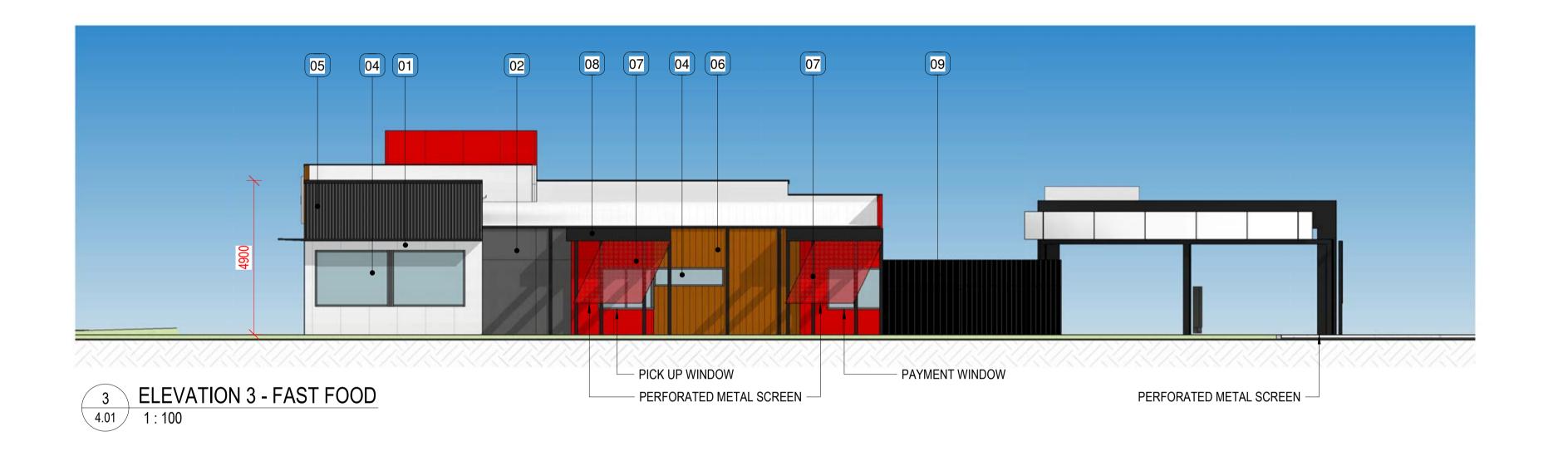
## **GROUND FLOOR PLAN - FAST FOOD**

1 : 150 @ A1

11/07/2022

TA # 19.0298.17 A4.01



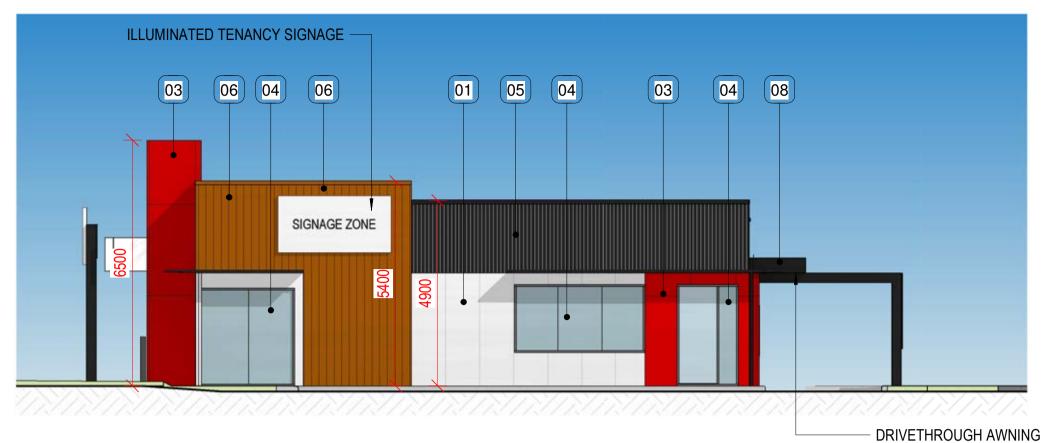




## **DEVELOPMENT APPLICATION** 0 1 2 3 5

232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD

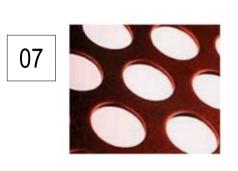






LONGLINE 305 METAL WALL SHEETING COLORBOND 'MONUMENT' (MID GREY)

TIMBER-LOOK ALUMINIUM CLADDING - KNOTWOOD



08

PERFERATED MESH SCREEN LOCKERGROUP POWDERCOAT "RED" R03341

POWDERCOATED METAL CAPPINGS, GUTTERS & DOWNPIPES. PAINTED DULUX 'MONUMENT'

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09 03 03 - LOADING AND REFUSE

09

COLORBOND CORRUGATED METAL WALL SHEETING BLACK

### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION

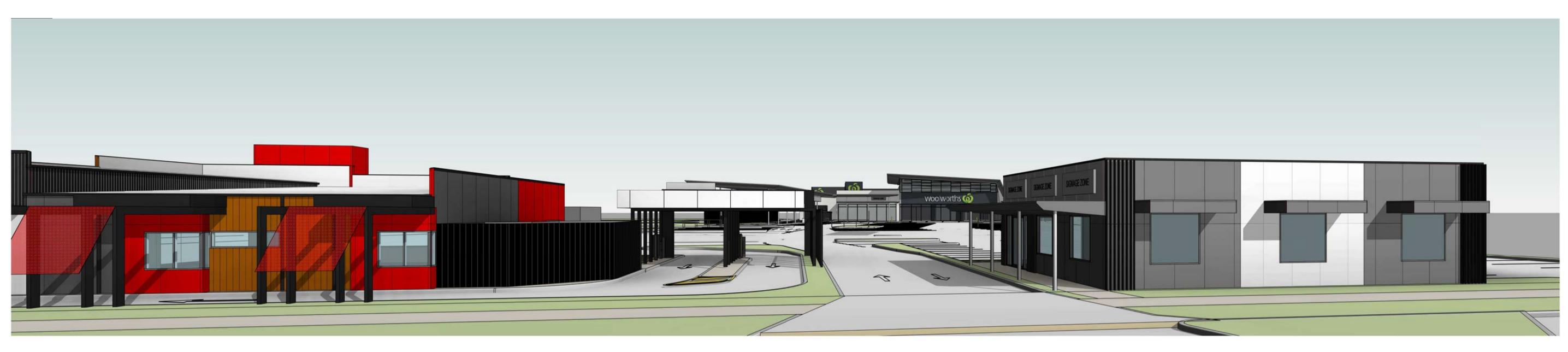


## **ELEVATIONS - FAST FOOD**

1 : 100 @ A1

06/07/2022

TA # 19.0298.17 A4.02



**RANKIN STREET - SITE ENTRANCE** 



SUPERMARKET VIEW FROM CARPARK

**DEVELOPMENT APPLICATION** 

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## **3D VIEWS**

@ A1

TA # 19.0298.17 A5.01

06/07/2022



BYRNES STREET - SITE EXIT



**BYRNES STREET - TRUCK & LOADING ENTRANCE** 

**DEVELOPMENT APPLICATION** 

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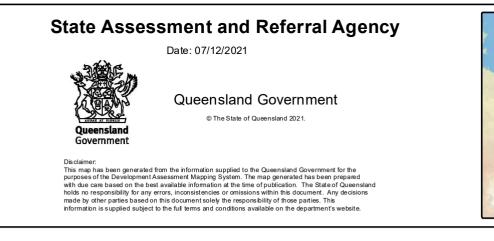
### **3D VIEWS**

@ A1

TA # 19.0298.17 A5.02

06/07/2022

ATTACHMENT 3 SITE SEARCHES



### Matters of Interest for all selected Lot Plans

Water resource planning area boundaries Railway corridor Area within 25m of a railway corridor State-controlled road Area within 25m of a State-controlled road

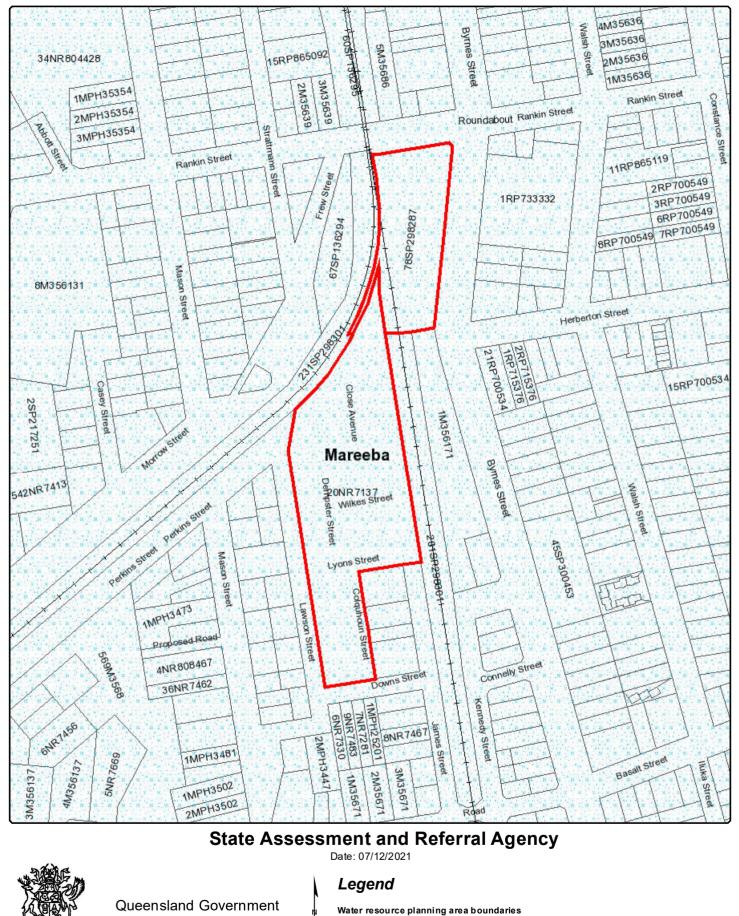
### Matters of Interest by Lot Plan

#### Lot Plan: 78SP298287 (Area: 15160 m<sup>2</sup>)

Water resource planning area boundaries State-controlled road Railway corridor Area within 25m of a State-controlled road Area within 25m of a railway corridor

#### Lot Plan: 20NR7137 (Area: 37100 m<sup>2</sup>)

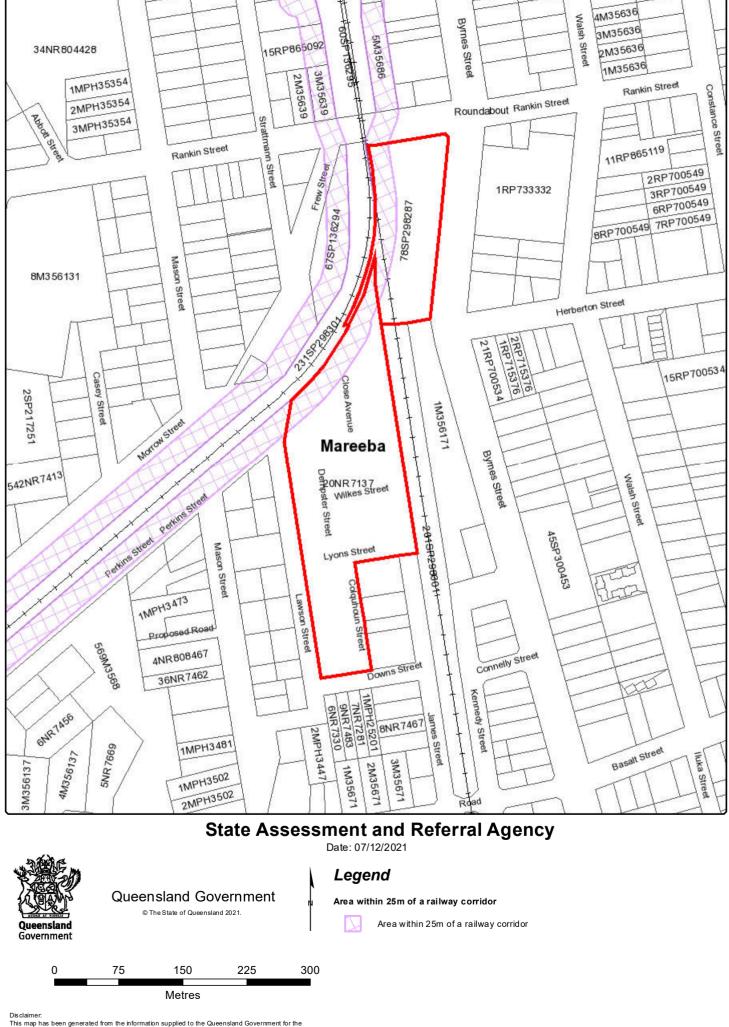
Water resource planning area boundaries Railway corridor Area within 25m of a railway corridor

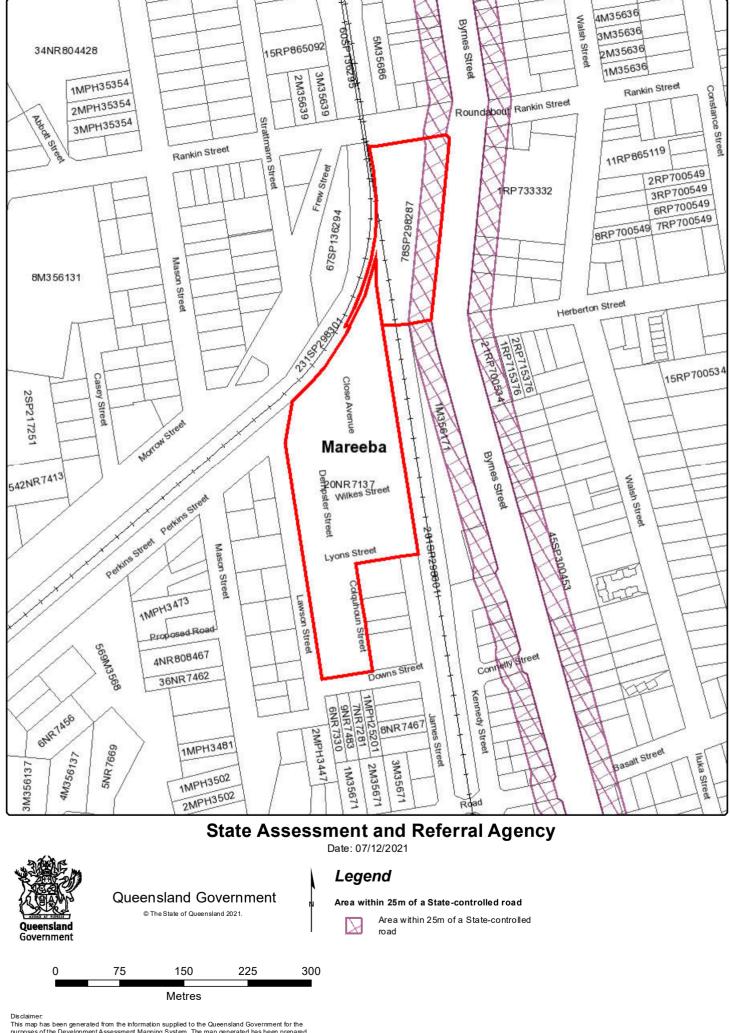


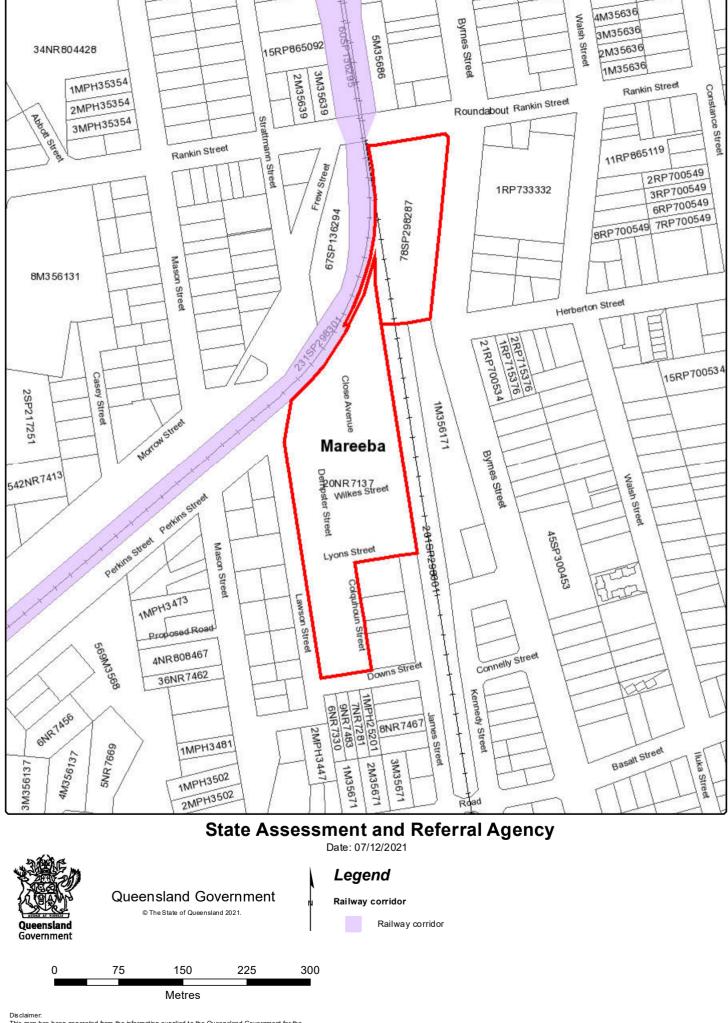


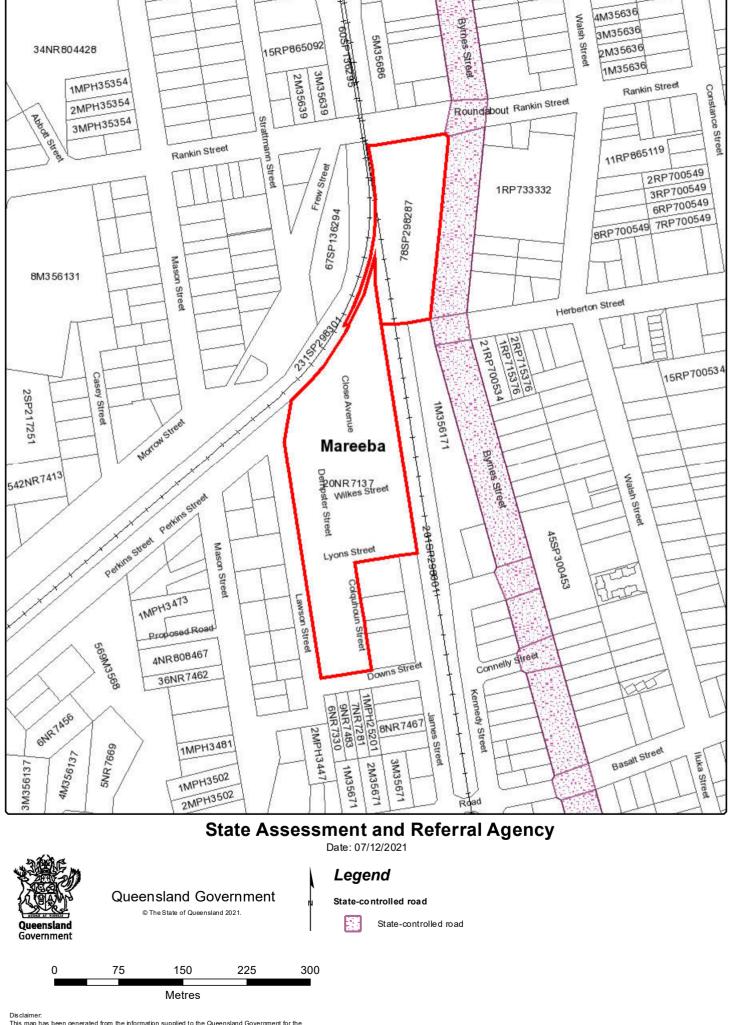
© The State of Queensland 2021. Queensland Government 225 300 0 75 150 Metres

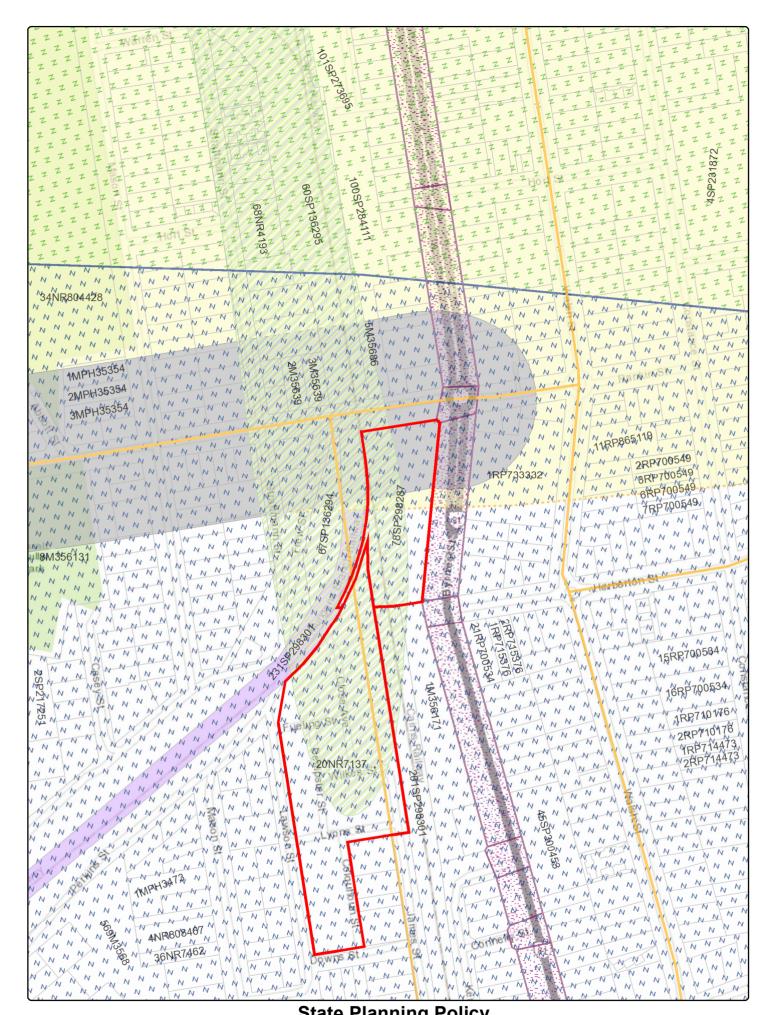
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Date: 07/12/2021

### State Planning Policy Making or amending a local planning instrument and designating land for community infrastructure 0

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140

210

280

70

### Legend

#### Drawn Polygon Layer

Override 1

#### Cadastre (5k)

Cadastre (5k)

#### Active transport corridor

Active transport corridor

#### Wildlife hazard buffer zone



8km

13km

 $\mathbf{I}_{2}$ 

#### Important agricultural areas

Important agricultural areas

#### State-controlled road



State-controlled road

#### Key resource area - transport route separation area

Key resource area - transport route separation area

### Flood hazard area - Level 1 - Queensland floodplain assessment overlay

ومعر

Flood hazard area - Level 1 - Queensland floodplain assessment overlay

#### Railway corridor

R

Railway corridor



Date: 07/12/2021

### State Planning Policy

Making or amending a local planning instrument and designating land for community infrastructure

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210

280

### Legend

Drawn Polygon Layer

Override 1

#### Cadastre (5k)

Cadastre (5k)

### Regional land use categories (SEQ, WBB, MIW, FNQ)



Rural Living Area

Regional Landscape and Rural Production Area



Date: 07/12/2021

# State Planning Policy Making or amending a local planning instrument and designating land for community infrastructure

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Department of Environment and Heritage Protection (EHP) ABN 46 640 294 485 400 George St Brisbane, Queensland 4000 GPO Box 2454 Brisbane QLD 4001 AUSTRALIA www.ehp.qld.gov.au

### SEARCH RESPONSE ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

# Transaction ID:50391240EMR Site Id: 45685This response relates to a search request received for the site:Lot: 78Plan: SP152626

11 July 2017

### **EMR RESULT**

The above site IS included on the Environmental Management Register. Lot: 78 Plan: SP152626 Address: RANKIN STREET MAREEBA 4880

The site has been subject to the following Notifiable Activity or Hazardous Contaminant. WOOD TREATMENT AND PRESERVATION - treating timber for its preservation using chemicals, including, for example, arsenic, borax, chromium, copper or creosote.

A site management plan has been prepared for this site and is included with this search response as Annexure 1. It has been determined that this site is suitable for the following uses, providing the site is used and managed according to the site management plan:

Suitable for industrial/commercial use including premises such as shops, offices and industrial buildings (but excluding uses where regular soil access by children is possible).

Following the date of effect of the site management plan, subsequent uses of the site for notifiable activities or for situations where a hazardous contaminant is released into the soil may result in the need to review suitable uses or amend the attached site management plan.

### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

### **ADDITIONAL ADVICE**

All search responses include particulars of land listed in the EMR/CLR when the search was generated. The EMR/CLR does NOT include:-

- 1. land which is contaminated land (or a complete list of contamination) if EHP has not been notified
- 2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if EHP has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

### **Administering Authority**



Department of Environment and Heritage Protection (EHP) ABN 46 640 294 485 400 George St Brisbane, Queensland 4000 GPO Box 2454 Brisbane QLD 4001 AUSTRALIA www.ehp.qld.gov.au

### **ANNEXURE 1 - SITE MANAGEMENT PLAN**

LOT : 78 PLAN : SP152626 FILE REF : BNE39948 PRINTED: 11/07/2017

DATE OF EFFECT : 01/12/2009

#### **1.0** Summary of Contamination

The site has been used for the treatment of timber using copper/chromium/arsenic preservative. Contaminated soil and associated bricks and demolition rubble remains in the site in a containment cell in zone 1 and surface soil contamination in zones 8 and 9 as shown on Figs 5 and 6 attached. The cell contains soil with levels of As (arsenic) up to 2,000mg/kg. Levels of Cu (copper) up to 2,800mg/kg were also present in contained soils.

The site has been remediated to the following levels (refer to Figure 5 for the extent of contamination and the proposed zones for future subdivision).

Zone	Contamination level
1	Contains cell with As<2 000 mg/kg and Cu<2 800 mg/kg. Surface of is within acceptable residential contamination levels.
2 - 7	Not contaminated.
8 & 9	>100mg/kg As <1,500 mg/kg As

#### 2.0 **Objective of Plan**

The objective of the plan is to manage the contamination in Zones 1, 8 and 9, in a manner which protects human health and the environment. This objective will be achieved through the following.

Restricting land uses in contaminated areas.

The placement and maintenance of barriers and markers which safely separates users of the site and the contamination.

The application of controls on site excavation works.

#### **3.0** Achievement and Maintenance Objectives

*3.1 Responsibility.* The conditions of this site management plan bind the owner and occupier of the land from time to time. The owner must provide the occupier with a copy of the site management plan prior to occupation of the site. The owner and occupier must ensure that any person engaged in building design or any earthworks, construction and service provision relating to the site is provided with a copy of the plan.

3.2 Containment cell. Zone 1 has the containment cell constructed in accordance with the attached sketch (Figure 6). Two layers of marker tape have been placed to identify the cell. A 1.5mm HDPE liner has been installed under contaminated fill. Trenched services in future site developments must not penetrate the cell or cell capping. The integrity of the cell, cell liner and marker tape must be maintained at all times. If a concrete slab or sealed pavement is constructed over the cell the 800mm clay capping can be reduced by a maximum of 400mm. Excavation in Zone 1 must not be undertaken without the written approval of the Administering Authority.

3.3 Contaminated areas and land uses. Zones 1, 8 and 9 must have a minimum of 75mm of clean topsoil and vegetation cover as a separation barrier and to prevent erosion until such time as the site is developed and capped with bitumen, concrete or equivalent impermeable capping. These zones must remain vacant land and not be used for any purpose prior to development including the storage of vehicles and heavy equipment. The land may be used for industrial and commercial uses which involve the capping of the site with bitumen or concrete pavement or equivalent low permeability cover. Site capping must be maintained in good condition at all times.

*3.4 Excavations in Zones 8 and 9.* Any future work involving excavation in Zone 8 or 9 will need to be carried out in accordance with this plan and under a sediment and erosion control plan and suitable Workplace Health and Safety Plan. The Workplace Health and Safety Plan must address health risks identified at the site including arsenic dermal, ingestion and inhalation exposures.

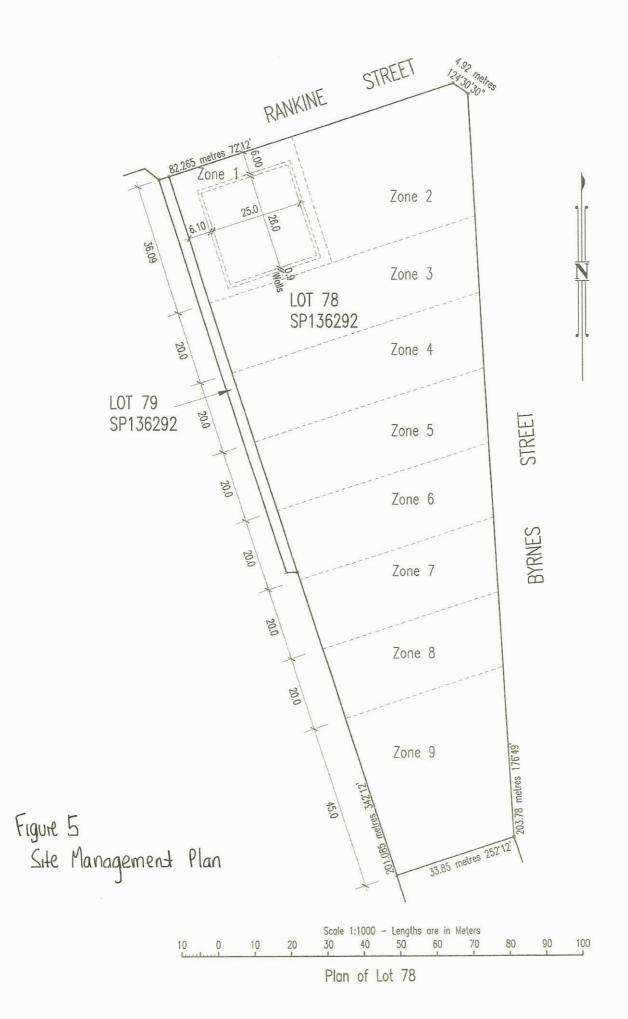
3.5 Disposal of contaminated soil. Approval under Section 424 of the Environmental Protection Act 1994 must be obtained before removing any soil off-site from any land that is listed on the Environmental Management Register.

*3.6 General environmental protection.* Site works relating to excavation, removal and/or disposal of soil from the impacted areas must include provisions to ensure the environment is protected (i.e. spread of contamination must be minimised by controlling dust, site runoff, spillage from haulage trucks or improper disposal of contaminated stormwater or seepage).

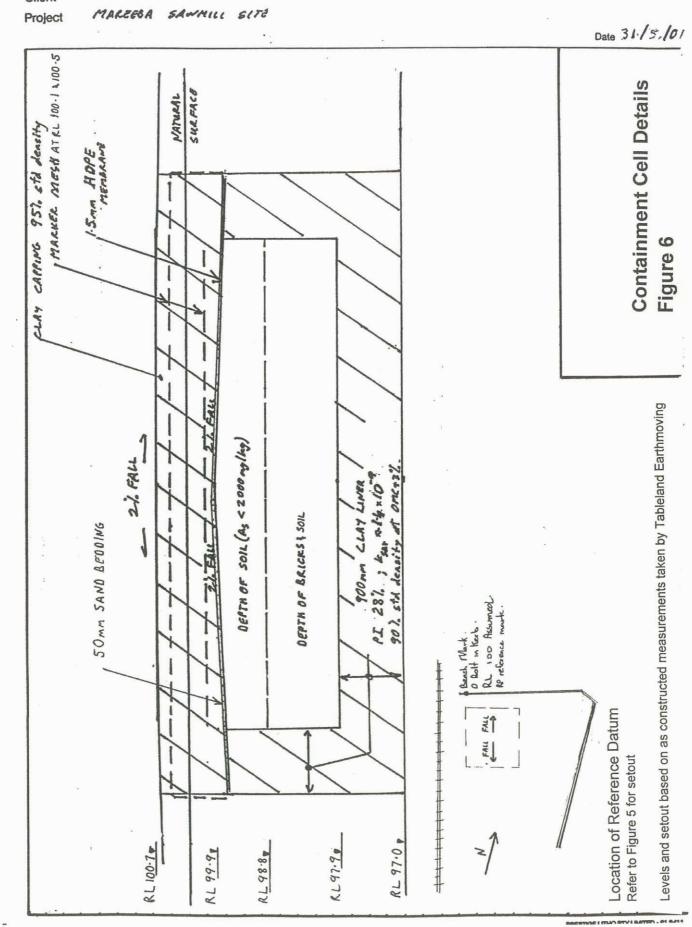
### 4.0 Monitoring

Annual inspections of the site must be undertaken to ensure that the integrity of the containment cell and site capping is maintained in sound condition. Inspections must also be undertaken in the event of damaging storms or persistent rainfall which may erode the surface in the area of the containment cells and zones 8 and 9. Records of inspections and any disposal permits issued must be maintained and provided to authorised officers under the *Environmental Protection Act 1994* on request.

Following any future development of the site which involves construction in zones 1, 8 and 9, a report is to be prepared by a person whose qualifications and experience conform with the requirements of section 395 of the *Environmental Protection Act 1994* within 60 days of completion of the development. The report must confirm that the requirements of this site management plan have been complied with during site development.



Page 4 of 5



REEQLOBGE FTY LTD Client

Page 5 of 5



01 December 2009

Site ID: 45685 File Number: BNE39948 Enquiries to: Contaminated Land Unit Telephone: (07) 3330 5685

REEDLODGE PTY LTD PO BOX 452 MAREEBA QLD 4880

# CERTIFICATE OF APPROVAL OF A SITE MANAGEMENT PLAN

This document provides written notification that, in accordance with the *Environmental Protection Act* 1994 (*EP Act*), a site management plan has been approved for the parcel of land described below, which is recorded on the Environmental Management Register (EMR). A copy of the suitability statement and the site management plan is attached.

Lot: 78 Plan: SP152626 Tablelands Regional Council

RANKIN STREET MAREEBA 4880

The owner may apply to the Department of Environment and Resource Management (DERM) to amend the site management plan in accordance with section 418 of the *EP Act*.

Under section 434 of the EP Act, a person must not contravene a site management plan.

The owner may apply for a review of, and appeal against, the decision to approve the site management plan within 14 days after receipt of this notice in accordance with sections 521 and 531 of the *EP Act*.

In accordance with the land being recorded on the EMR, the following requirements apply under section 421 of the *EP Act*:

If the owner proposes to dispose of the land to someone else, the owner must, before agreeing to dispose of the land, give written notice to the buyer:

if the particulars of the land are recorded in the EMR - that the particulars are recorded in the register; and if the land is subject to a site management plan, details of the plan.

Further information regarding this notice may be obtained by contacting the Contaminated Land Unit, EPA on telephone (07) 3225 1827. Further information about contaminated land matters may be obtained by visiting our web-site at:

http://www.epa.qld.gov.au/environmental\_management/land/contaminated\_land/

Delegate of Administering Authority Environmental Protection Act 1994



Level 15, 288 Edward St • Brisbane, Queensland • PO Box 15155 • City East, QLD, 4002 • AUSTRALIA http://www.epa.qld.gov.au/ecoaccess/contaminated\_land/

# SUITABILITY STATEMENT

**OWNER** 

DATE PRINTED: 01/12/2009

REEDLODGE PTY LTD PO BOX 452 MAREEBA QLD 4880

**DATE OF ISSUE :** 01/12/2009

# **PROPERTY DESCRIPTION**

LOT : 78 PLAN : SP152626 RANKIN STREET MAREEBA 4880

Tablelands Regional CouncilEMR Site ID: 45685FILE REFERENCE: BNE39948

# STUDIES UNDERTAKEN BY APPLICANT OR REQUESTED BY DIRECTOR

Stage 1 Preliminary Site Investigation, Former Sawmill and CCA Plant, cnr Byrnes and Rankine Streets, Mareeba Qld, prepared by Golder Associates, dated January 2000, (Doc No 99673034)

Facsimile- Demolition Waste L222 NR1791, cnr Byrnes and Rankine Streets, prepared by GHD Pty Ltd, dated 6 August 2000

Letter Report, Sawmill Site cnr Byrnes and Rankine Streets, Mareeba Qld, prepared by GHD Pty Ltd, dated 25 August 2000 (Doc No 42101691)

Letter Report, Mareeba Sawmill Site, Stage 2 Sampling Sampling Plan, prepared by GHD Pty Ltd, dated 2 October 2000, (Doc No 42101690)

Lot 222 NR 1791 Mareeba, Specification for Works, prepared by GHD Pty Ltd, dated October 2000

Lot 222 NR 1791 Mareeba, Report on Stage 2 & Stage 3 Site Contamination Assessment, prepared by GHD Pty Ltd, dated December 2000, (Doc No 42101692)

Lot 222 NR 1791 Mareeba, Validation Report, prepared by GHD Pty Ltd, dated June 2001, (Doc No 42101693)

Additional information, Revised SMP and Figures prepared by GHD Pty Ltd, provided by email 26 November 2009

# STATEMENT OF SUITABILITY

On the basis of the information supplied to this Department, the subject site is suitable for the following use(s) providing the site is used and managed as per the Site Management Plan attached as Annexure 1.

Suitable for industrial/commercial use including premises such as shops, offices and industrial buildings (but excluding uses where regular soil access by children is possible).

Other specific uses may be suitable for the site, please contact this Department for further advice. The suitability statement provides information on appropriate land uses at the date of effect. Subsequent uses of the site for notifiable activities or for situations where a hazardous contaminant is released into the soil may result in the need to review suitable uses or amend the attached site management plan.

# ENVIRONMENTAL MANAGEMENT REGISTER

LOT: 78 PLAN: SP152626 is recorded on the Environmental Management Register with a Site Management Plan. A copy of the Site Management Plan is attached as Annexure 1.

Delegate of Administering Authority Environmental Protection Act 1994



Level 15, 288 Edward St • Brisbane, Queensland • PO Box 15155 • City East, QLD, 4002 • AUSTRALIA http://www.epa.qld.gov.au/ecoaccess/contaminated\_land/

# **ANNEXURE 1 - SITE MANAGEMENT PLAN**

LOT: 78 PLAN SP152626 FILE REF: BNE39948 PRINTED: 01/12/2009

DATE OF EFFECT : 01/12/2009

# 1.0 Summary of Contamination

The site has been used for the treatment of timber using copper/chromium/arsenic preservative. Contaminated soil and associated bricks and demolition rubble remains in the site in a containment cell in zone 1 and surface soil contamination in zones 8 and 9 as shown on Figs 5 and 6 attached. The cell contains soil with levels of As (arsenic) up to 2,000mg/kg. Levels of Cu (copper) up to 2,800mg/kg were also present in contained soils.

The site has been remediated to the following levels (refer to Figure 5 for the extent of contamination and the proposed zones for future subdivision).

Zone	Contamination level
1	Contains cell with As<2 000 mg/kg and Cu<2 800 mg/kg. Surface of is within acceptable residential contamination levels.
2 - 7	Not contaminated.
8&9	>100mg/kg As <1,500 mg/kg As

# 2.0 Objective of Plan

The objective of the plan is to manage the contamination in Zones 1, 8 and 9, in a manner which protects human health and the environment. This objective will be achieved through the following.

Restricting land uses in contaminated areas.

The placement and maintenance of barriers and markers which safely separates users of the site and the contamination.

The application of controls on site excavation works.

# 3.0 Achievement and Maintenance Objectives

3.1 Responsibility. The conditions of this site management plan bind the owner and occupier of the land from time to time. The owner must provide the occupier with a copy of the site management plan prior to occupation of the site. The owner and occupier must ensure that any person engaged in building design or any earthworks, construction and service provision relating to the site is provided with a copy of the plan.

3.2 Containment cell. Zone 1 has the containment cell constructed in accordance with the attached sketch (Figure 6). Two layers of marker tape have been placed to identify the cell. A 1.5mm HDPE liner has been installed under contaminated fill. Trenched services in future site developments must not penetrate the cell or cell capping. The integrity of the cell, cell liner and marker tape must be maintained at all times. If a concrete slab or sealed pavement is constructed over the cell the 800mm clay capping can be reduced by a maximum of 400mm. Excavation in Zone 1 must not be undertaken without the written approval of the Administering Authority.

3.3 Contaminated areas and land uses. Zones 1, 8 and 9 must have a minimum of 75mm of clean topsoil and vegetation cover as a separation barrier and to prevent erosion until such time as the site is developed and capped with bitumen, concrete or equivalent impermeable capping. These zones must remain vacant land and not be used for any purpose prior to development including the storage of vehicles and heavy equipment. The land may be used for industrial and commercial uses which involve the capping of the site with bitumen or concrete pavement or equivalent low permeability cover. Site capping must be maintained in good condition at all times.

3.4 Excavations in Zones 8 and 9. Any future work involving excavation in Zone 8 or 9 will need to be carried out in accordance with this plan and under a sediment and erosion control plan and suitable Workplace Health and Safety Plan. The Workplace Health and Safety Plan must address health risks identified at the site including arsenic dermal, ingestion and inhalation exposures.

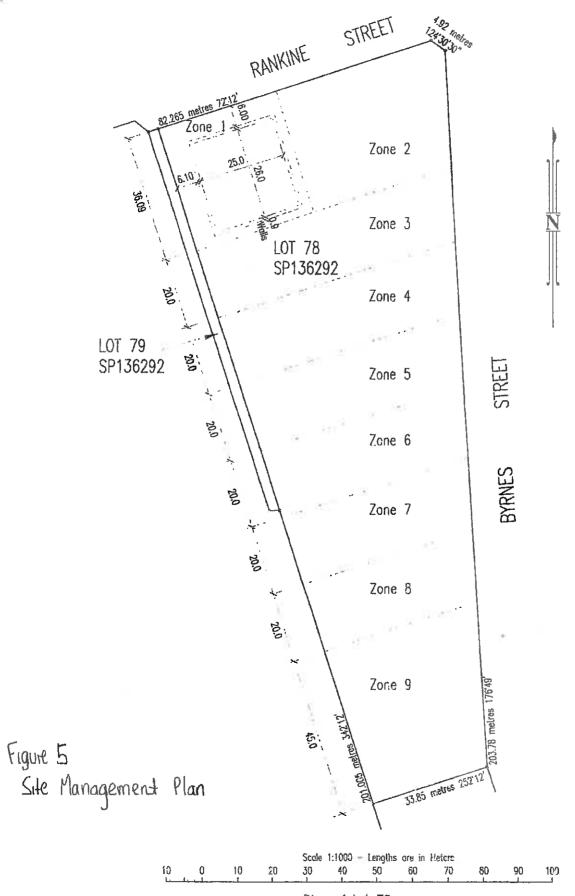
3.5 Disposal of contaminated soil. Approval under Section 424 of the Environmental Protection Act 1994 must be obtained before removing any soil off-site from any land that is listed on the Environmental Management Register.

3.6 General environmental protection. Site works relating to excavation, removal and/or disposal of soil from the impacted areas must include provisions to ensure the environment is protected (i.e. spread of contamination must be minimised by controlling dust, site runoff, spillage from haulage trucks or improper disposal of contaminated stormwater or seepage).

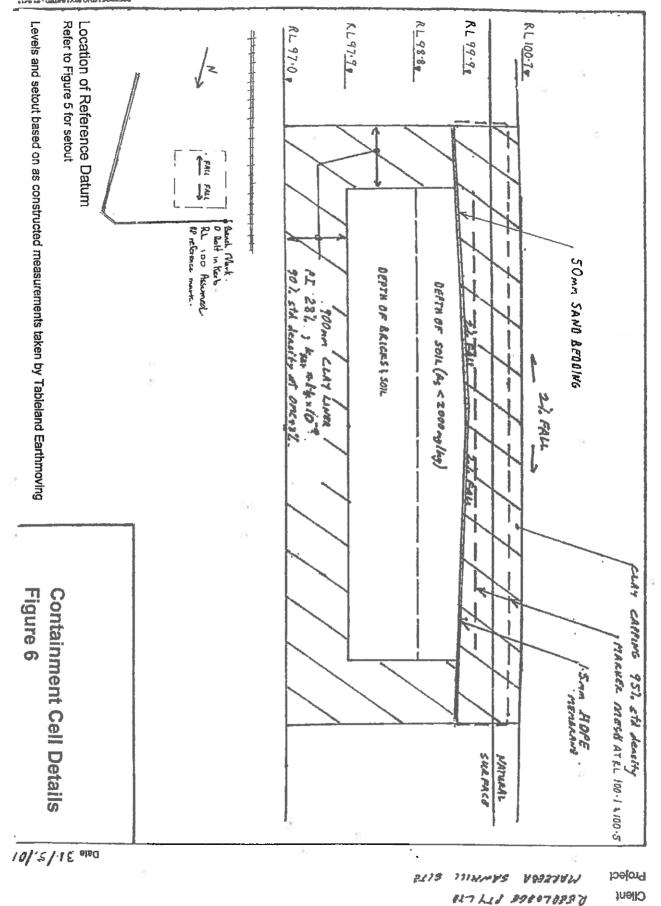
# 4.0 Monitoring

Annual inspections of the site must be undertaken to ensure that the integrity of the containment cell and site capping is maintained in sound condition. Inspections must also be undertaken in the event of damaging storms or persistent rainfall which may erode the surface in the area of the containment cells and zones 8 and 9. Records of inspections and any disposal permits issued must be maintained and provided to authorised officers under the *Environmental Protection Act 1994* on request.

Following any future development of the site which involves construction in zones 1, 8 and 9, a report is to be prepared by a person whose qualifications and experience conform with the requirements of section 395 of the *Environmental Protection Act 1994* within 60 days of completion of the development. The report must confirm that the requirements of this site management plan have been complied with during site development.

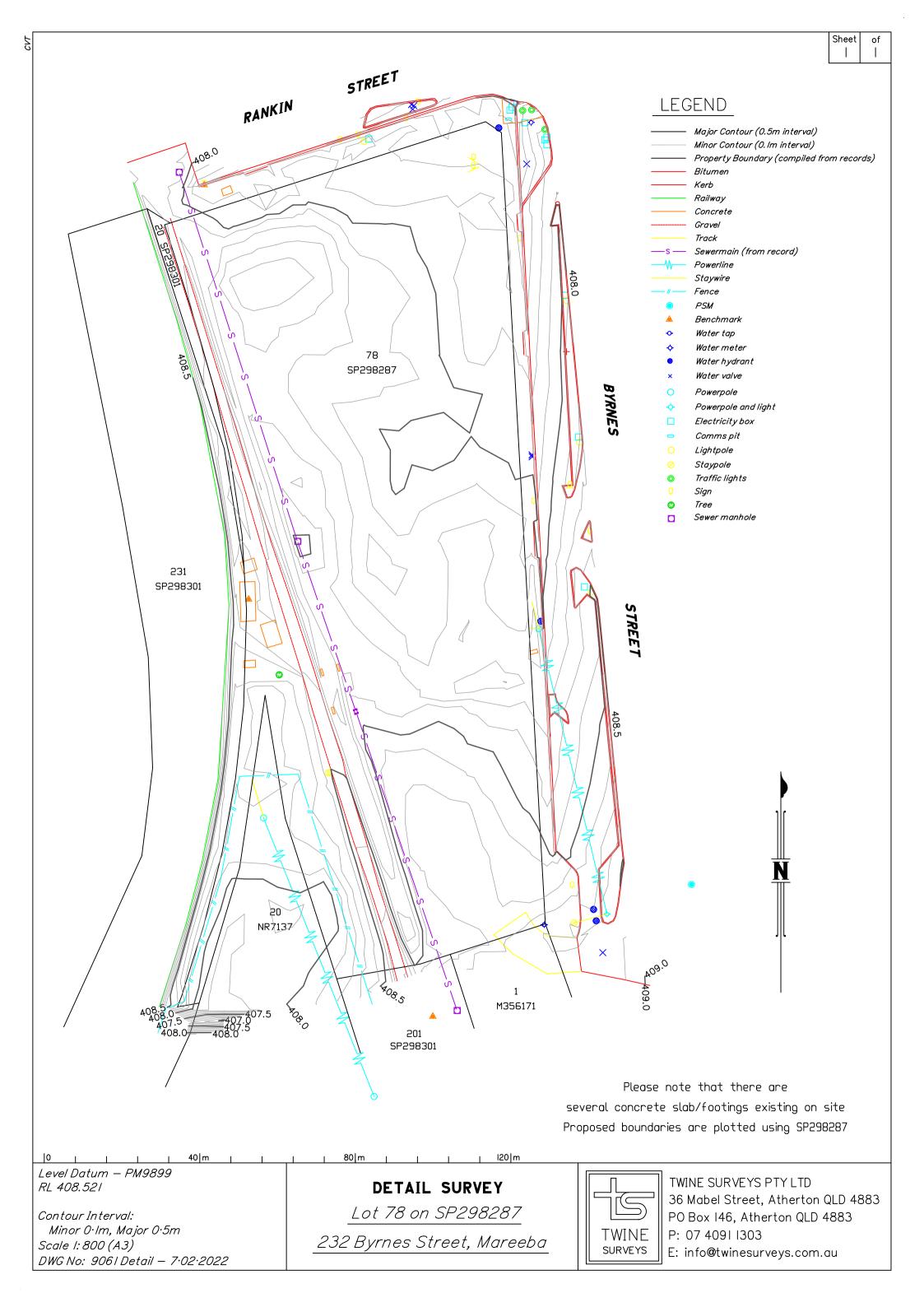


Plan of Lot 78



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ATTACHMENT 4

**RELEVANT APPROVAL** 



22 March 2018

65 Rankin Street PO Box 154 MAREEBA QLD 4880

- P: 1300 308 461
- **F:** 07 4092 3323
- W: www.msc.qld.gov.au E: info@msc.qld.gov.au

Officer: Direct Phone: Our Reference: Your Reference: Brian Millard 4086 4657 MCU/17/0011 17-230

Reedlodge Pty Ltd ACN 089 077 403 PO Box 452 MAREEBA QLD 4880

Dear Sir/Madam

# Negotiated Decision Notice Planning Act 2016

I refer to your application and the representations you made in respect to the decision notice. On 21 March 2018, Council decided your representations.

Details of the decision are as follows:

# Application No: MCU/17/0011

Application No.	
Street Address:	232 Byrnes Street MAREEBA
Real Property Description:	Lot 78 on SP152626
Planning Scheme:	Mareeba Shire Council Planning Scheme 2016

DECISION DETAILS

Council, on 21 March 2018, decided to issue the following type of approval:

Development Permit for Material Change of Use - Shopping Centre

In relation to representations, Council decided to:

A. Agree to change conditions 4.2.3 and 4.5.3.

# CURRENCY PERIOD OF APPROVAL

The currency period for this development approval is six (6) years starting the day that this development approval takes effect. (Refer to Section 85 "Lapsing of approval at end of currency period" of the *Planning Act 2016*.)

Public Office: 65 Rankin Street, Mareeba QLD 4880. Postal address: PO Box 154, Mareeba QLD 4880

#### INFRASTRUCTURE

Where conditions relate to the provision of infrastructure, these are non-trunk infrastructure conditions unless specifically nominated as a "*necessary infrastructure condition*" for the provision of trunk infrastructure as defined under Chapter 4 of the *Planning Act 2016*.

#### ASSESSMENT MANAGER CONDITIONS

- (A) ASSESSMENT MANAGER'S CONDITIONS (COUNCIL)
  - (a) <u>Development assessable against the Planning Scheme</u>
  - 1. Development must be carried out substantially in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, subject to any alterations:
    - found necessary by Council's delegated officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements; and
    - to ensure compliance with the following conditions of approval and the conditions of the State Referral Agency.
  - 2. Timing of Effect
    - 2.1 The conditions of the development permit must be complied with to the satisfaction of Council's delegated officer prior to the commencement of the use except where specified otherwise in these conditions of approval.
    - 2.2 Prior to the commencement of use, the applicant must notify Council that all the conditions have been complied with, except where specified otherwise in these conditions of approval.
    - 2.3 Prior to the commencement of use, the applicant must provide a letter from the State Referral Agency confirming that the department is satisfied their conditions are complied with and/or that the department has no objections to the commencement of the use.
  - 3. General
    - 3.1 The development approval would not have been issued if not for the conditions requiring the construction of infrastructure within the conditions of approval.
    - 3.2 The applicant/developer is responsible for the cost of necessary alterations to existing public utility mains, services or installations required by works in relation to the proposed development or any works required by condition(s) of this approval.
    - 3.3 All works must be designed, constructed and carried out in accordance with FNQROC Development Manual requirements (as amended) and to the satisfaction of Council's delegated officer.

## 3.4 Noise Nuisance

- 3.4.1 Refrigeration equipment, pumps, compressors and mechanical ventilation systems must be located, designed, installed and maintained to achieve a maximum noise level of 3dB(A) above background levels as measured from noise sensitive locations and a maximum noise level of 8dB(A) above background levels as measured from commercial locations after 10p.m. on a day to 7a.m. on the next day.
- 3.4.2 The applicant/developer is required to install and maintain suitable screening to all air conditioning, lift motor rooms, plant and service facilities located at the top of or on the external face of the building. The screening structures must be constructed from materials that are consistent with materials used elsewhere on the facade of the building. There are to be no individual external unscreened air conditioning units attached to the exterior building facade.
- 3.4.3 The use, including the unloading or loading of goods, is not to include the use of any sound projecting objects or systems that may cause a nuisance to adjoining properties.
- 3.5 Waste Management

On-site refuge storage area/s must be provided and be screened from view from adjoining properties and road reserve by 1 metre wide landscaped screening buffer or 1.8m high solid fence or building.

Where bulk bins are used and are to be serviced on site, certification by a Registered Professional Engineer of Queensland (RPEQ) must be provided to Council prior to the issue of a building permit which demonstrates that internal access is of adequate design and construction to allow waste collection/delivery vehicles to enter and exit the site in a forward gear.

3.6 Trolley Bays

Trolley bay areas must be provided on the site generally in accordance with Drawing No. SD1002 Issue G.

3.7 Rubbish Bins

Waste bins must be provided at each pedestrian entrance to the proposed development.

- 3.8 Amenity
  - 3.8.1 Any walls built to the boundary must be finished as a blank wall including low maintenance finishes and materials, to the satisfaction of Council's delegated officer.

- 3.8.2 All building materials and colours to be used must be non-reflective and be generally in accordance with the approved plans to the satisfaction of Council's delegated officer.
- 3.9 No trucks, other than service vehicles for the shopping centre, are permitted to park on the subject land when the shopping centre is closed to the public. All service vehicles must leave the subject land as soon as reasonably practical after serving the shopping centre.
- 4. Infrastructure Services and Standards
  - 4.1 Access

Any crossover/s used to access the development must be constructed to **<u>Commercial</u>** standard (from the edge of the road pavement to the property boundary of the subject lot) in accordance with the FNQROC Development Manual, to the satisfaction of Council's delegated officer.

The applicant/developer must ensure that any redundant vehicle crossovers are removed and reinstated with kerb and channel.

- 4.2 Stormwater Drainage/Water Quality
  - 4.2.1 The applicant/developer must take all reasonable steps to ensure a nonworsening effect on surrounding land as a consequence of the development.
  - 4.2.2 Prior to the issue of a development permit for operational works, the applicant/developer must submit a revised Stormwater Management Plan prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the FNQROC Development Manual, to the satisfaction of Council's delegated officer.
  - 4.2.3 Specifically, the Stormwater Management Plan, prepared by Civil Walker, dated 08/11/2017, document number 151-001-002R, revision B must be revised to:
    - (i) Determine the sizing and outlet configuration of the detention basin(s) in accordance with the Queensland Urban Drainage Manual, Fourth Edition, prepared by the Institute of Public Works Engineering Australasia (http://www.ipweaq.com/qudm) for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP). The latest QUDM recommends the use of a suitable computer software package to determine the volume and outlet configuration of the detention basin(s). The SMP will need to be updated to include such analysis.
    - (ii) Provide engineering drawings showing the design of the proposed detention basin(s), including invert levels and outlet pipe and

overflow, outlet configurations, and how they will connect to the existing drainage at the nominated legal point(s) of discharge.

- (iii) Include revised details of the mitigation measures proposed to address any potential stormwater impacts (including flooding impacts) of the proposed development. The design flood peak discharges should be shown for the mitigated case to demonstrate there is no worsening impact for all relevant design events.
- 4.2.4 The applicant/developer must construct the stormwater drainage infrastructure in accordance with the approved Stormwater Management Plan.
- 4.2.5 All stormwater drainage must be collected from site and discharged to an approved legal point of discharge.
- 4.3 Car Parking/Internal Driveways

The applicant/developer must ensure that the development is provided with at least 139 on-site car parking spaces, generally in accordance with Drawing No. SD1002 Issue G, which are available for use solely for the parking of vehicles associated with the use of the premises. All car parking spaces must be sealed, line-marked and appropriately drained prior to the commencement of the use, to the satisfaction of Council's delegated officer.

Car parking shade structures must generally be provided in accordance with Drawing No. SD1002 Issue G.

Prior to the issue of a development permit for operational works, the developer must submit engineering plans and specifications, prepared by a Registered Professional Engineer of Queensland (RPEQ) or an Architectural Building Designer, for the construction of proposed car parking facilities and internal driveways demonstrating:

- Compliance with Australian Standard AS2890:1 Off Street Parking Car Parking Facilities;
- Compliance with Australian Standard AS2890.2 Parking Facilities (Off-street Parking) Commercial Vehicle Facilities;
- Compliance with Australian Standard AS2890.3 Bicycle Parking Facilities;
- Compliance with Australian Standard AS1428:2001 Design for Access and Mobility;
- A sign must be erected in proximity to the access driveway indicating the availability of on-site car parking.
- 4.4 Frontage Works Byrnes Street

The applicant/developer is required to construct the following works, designed in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer and the Department of Transport and Main Roads:

- 4.4.1 Kerb and channelling for the full frontage of Lot 78 on SP152626.
- 4.4.2 Signage and line marking as per the Department of Transport and Main Roads Manual of Uniform Traffic control Devices (MUTCD).
- 4.4.3 On street car parking and service road generally in accordance with the extent of works shown on Drawing No. SD1002 Issue G.
- 4.4.4 A paved footpath, including kerb ramps and associated tactile indicators must be constructed on Byrnes Street to the general extent indicated on Drawing No. SD1002 Issue G. The footpath must be constructed in accordance with the FNQROC Development Manual. No section of paved footpath is to be less than two (2) metres in width.

Prior to the issue of a development permit for operational works, the developer must submit engineering plans and specifications for the construction of proposed works.

4.5 Frontage Works - Rankin Street

The developer is required to construct the following works, designed in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer:

- 4.5.1 Kerb and channelling for the full frontage of Lot 78 on SP152626.
- 4.5.2 Signage and line marking as per the Department of Transport and Main Roads Manual of Uniform Traffic control Devices (MUTCD).
- 4.5.3 The applicant must construct the areas of Rankin Street where Heavy Rigid Vehicles will undertake turning manoeuvres to ingress and egress the site with 50mm asphalt for the full frontage of Lot 78 on SP152626, for the full kerb to kerb width in accordance with the FNQROC Development Manual. The extent of the 50mm asphalt seal in Rankin Street is to be determined as part of the Operational Works application.
- 4.5.4 On street car parking and service access generally in accordance with the extent of works shown on Drawing No. SD1002 Issue G (as amended by the Department of Transport and Main Roads).
- 4.5.5 A paved footpath, including kerb ramps and associated tactile indicators must be constructed on Rankin Street to the general extent indicated on Drawing No. SD1002 Issue G. The footpath must be constructed in accordance with the FNQROC Development Manual. No section of paved footpath is to be less than two (2) metres in width.

Prior to the issue of a development permit for operational works, the developer must submit engineering plans and specifications for the construction of proposed works.

- 4.6 Landscaping and Fencing
  - 4.6.1 The development must be landscaped in accordance with an approved landscape plan.

- 4.6.2 Prior to the issue of the development permit for operational works, a detailed landscape plan must be prepared for the site and submitted to Council's delegated officer for consideration and approval.
- 4.6.3 The landscape plan should be generally consistent with landscaping shown on the submitted site plan (Drawing No. SD1002 Issue G) and demonstrate compliance with the Landscaping Code. Plant species are to be generally selected from the Plant Schedule in Planning Scheme Policy 6 - Landscaping and preferred plant species.
- 4.6.4 The planting of street trees along the Byrnes Street and Rankin Street frontages must be included in the landscape plan.
- <u>4.6.5</u> A minimum of 25% of new plants is provided as larger, advanced stock with a minimum plant height of 0.7 metres and mulched to a minimum depth of 0.1 metres with organic mulch.
- 4.6.6 The landscaping of the site must be carried out in accordance with the endorsed landscape plan/s, and prior to the commencement of the use, and mulched, irrigated and maintained to the satisfaction of Council's delegated officer.
- 4.7 Lighting

Prior to the issue of a development permit for operational works, the applicant/developer must provide to Council a detailed lighting plan prepared by a qualified professional detailing:

- (a) The lux levels on site and surrounding the site, particularly the footpaths.
- (b) The access and the car parking areas must be lit during trading hours in accordance the requirements of Australian Standard AS 1158.1.
- (c) Outdoor lighting must be in accordance with AS 4282 (as amended) Control of Obtrusive effects of outdoor lighting.
- (d) All lighting except for security lighting, internal lighting and street lighting must be turned off no later than an hour after the close of trading.
- 4.8 Water Supply
  - 4.8.1 The developer must connect the proposed development to the Council's reticulated water supply system in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

Where the existing reticulated water supply does not currently service the site or is not at an adequate capacity to serve the proposed development requirements, the developer is required to extend the reticulated water supply infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development

requirements in accordance with FNQROC Development Manual Standard (as amended).

4.8.2 Prior to the issue of a development permit for operational works, the developer must submit engineering plans and specifications for the connection of the development to Council's reticulated water supply system demonstrating compliance with Condition 4.8.1.

The engineering plans and specifications for the connection, including any requirement for onsite firefighting storage, must be accompanied by an engineering report demonstrating that Council's existing infrastructure will be able to provide the minimum acceptable standard of service for water reticulation.

- 4.9 Sewerage Connection
  - 4.9.1 The developer must connect the proposed development to Council's reticulated sewerage system in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

Where sewerage connections are not available to the site, or where existing connections are not satisfactory for the proposed development, the developer is required to extend the reticulated sewerage infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development in accordance with FNQROC Development Manual standards (as amended).

4.9.2 Prior to the issue of a development permit for operational works, the developer must submit engineering plans and specifications for the connection of the development to Council's reticulated sewerage system demonstrating compliance with Condition 4.9.1.

## **REFERRAL AGENCIES**

The referral agencies applicable to this application are:

Material change of use of pro	emises near a State transport corridor or tha corridor (Road & Rail Corridor)	t is a future State transport
Development application for a material change of use, other than an excluded material change of use, that is assessable development under a local categorizing instrument, if all or part of the premises	Schedule 10, Part 9, Division 4, Subdivision 2, Table 4	State Assessment & Referral Agency (SARA) Department of Infrastructure, Local Government & Planning PO Box 2358 Cairns Qld 4870 <u>CairnsSARA@dilgp.qld.gov.au</u>
(b) are a future State transport		

corridor; or	
(c) are—	
<ul> <li>(i) adjacent to a road that intersects with a State-controlled road; and</li> </ul>	
   (ii) within 100m of the   intersection	

A copy of any referral agency conditions is attached.

APPROVED PLANS

The following plans are Approved plans for the development:

## Approved Plans

Plan/Document Number	Plan/Document Title	Prepared by	Dated
4777 SD1001 A	Location Plan	Cotteeparker	18/08/2017
4777 SD1201 A	Existing Site Plan	Cotteeparker	08/09/2017
4777 SD1002 G	Site Plan	Cotteeparker	22/09/2017
4777 SD2001 C	Ground Floor Plan	Cotteeparker	08/09/2017
4777 SD2002 C	Roof & Mezzanine Plan	Cotteeparker	08/09/2017
4777 SD3001 D	Elevations	Cotteeparker	12/09/2017
4777 SD3101 B	Sections	Cotteeparker	08/09/2017
4777 SD0201 A	3D Drawings & Renders	Cotteeparker	08/09/2017
4777 SD0202 A	3D Drawings & Renders	Cotteeparker	08/09/2017

# REFERENCED DOCUMENTS

Not Applicable.

## ADVISORY NOTES

The following notes are included for guidance and information purposes only and do not form part of the assessment manager conditions:

- (A) ASSESSMENT MANAGER'S ADVICE
  - (a) An Adopted Infrastructure Charges Notice has been issued with respect to the approved development. The Adopted Infrastructure Charges Notice details the type of infrastructure charge/s, the amount of the charge/s and when the charge/s are payable.
  - (b) The Adopted Infrastructure Charges Notice does not include all charges or payments that are payable with respect to the approved development. A number of other charges or

payments may be payable as conditions of approval. The applicable fee is set out in Council's Fees & Charges Schedule for each respective financial year.

(c) Food Premises

Premises proposed for the storage and preparation, handling, packing or service of food must comply with the requirements of the Food Act 2006.

- (d) A Trade Waste Permit will be required prior to the commencement of use.
- (e) Compliance with applicable codes/policies

The development must be carried out to ensure compliance with the provisions of Council's Local Laws, Planning Scheme Policies, Planning Scheme and Planning Scheme Codes to the extent they have not been varied by a condition of this approval.

(f) Compliance with Acts and Regulations

The erection and use of the building must comply with the Building Act and all other relevant Acts, Regulations and Laws, and these approval conditions.

(h) Environmental Protection and Biodiversity Conservation Act 1999

The applicant is advised that referral may be required under the *Environmental Protection* and *Biodiversity Conservation Act 1999* if the proposed activities are likely to have a significant impact on a matter of national environmental significance. Further information on these matters can be obtained from www.environment.gov.au.

(i) Cultural Heritage

In carrying out the activity the applicant must take all reasonable and practicable measures to ensure that no harm is done to Aboriginal cultural heritage (the "cultural heritage duty of care"). The applicant will comply with the cultural heritage duty of care if the applicant acts in accordance with gazetted cultural heritage duty of care guidelines. An assessment of the proposed activity against the duty of care guidelines will determine whether or to what extent Aboriginal cultural heritage may be harmed by the activity. Further information on cultural heritage, together with a copy of the duty of care guidelines and cultural heritage search forms, may be obtained from www.datsip.qld.gov.au.

## (B) CONCURRENCE AGENCY CONDITIONS

Department of Infrastructure, Local Government and Planning conditions dated 30 November 2017

PROPERTY NOTES

Not Applicable

## VARIATION APPROVAL

Not Applicable.

# FURTHER DEVELOPMENT PERMITS REQUIRED

- Development Permit for Operational Work
- Development Permit for Building Work
- Compliance Permit for Plumbing and Drainage Work

SUBMISSIONS

Not Applicable

**RIGHTS OF APPEAL** 

You are entitled to appeal against this decision. A copy of the relevant appeal provisions from the *Planning Act 2016* is attached.

17. OTHER DETAILS

If you wish to obtain more information about Council's decision, electronic copies are available on line at www.msc.qld.gov.au , or at Council Offices.

## **DECISION NOTICE HISTORY**

MCU/17/0011 Original Decision Notice 20 December 2017 MCU/17/0011 Negotiated Decision Notice 22 March 2018

Yours faithfully

R. W

BRIAN MILLARD SENIOR PLANNER

- Enc: Referral Agency Response Approved Plans/Documents Appeal Rights
- Copy: Department of Infrastructure, Local Government and Planning CairnsSARA@dilgp.qld.gov.au

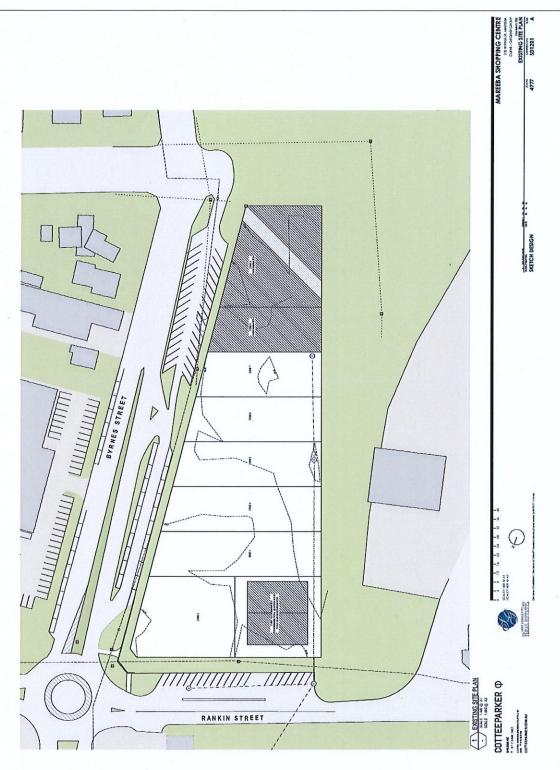
MCU/17/0011 Page 12

# **Approved Plans/Documents**

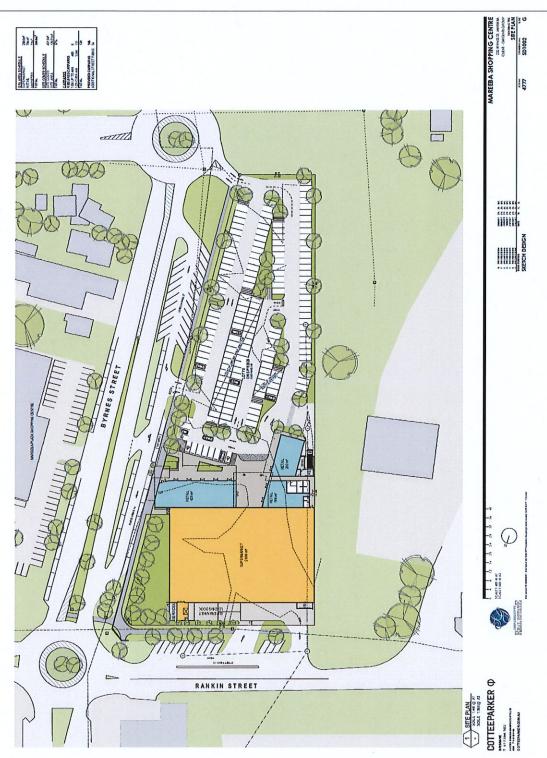


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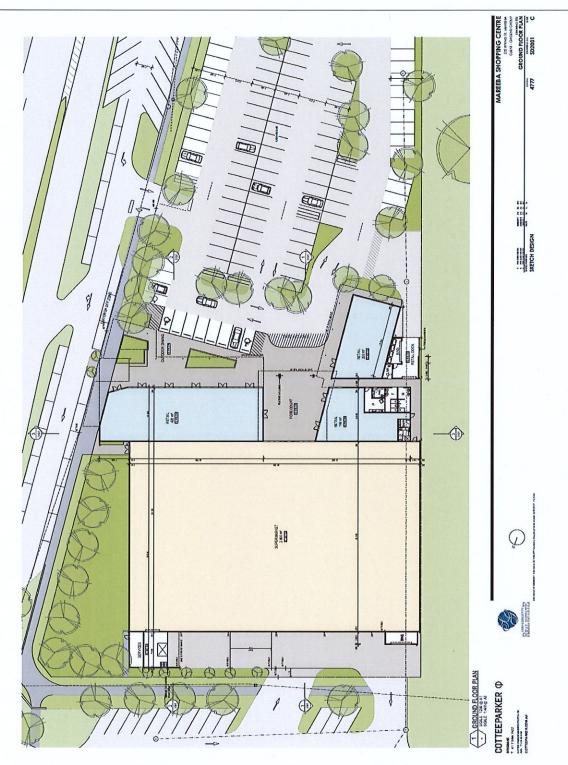
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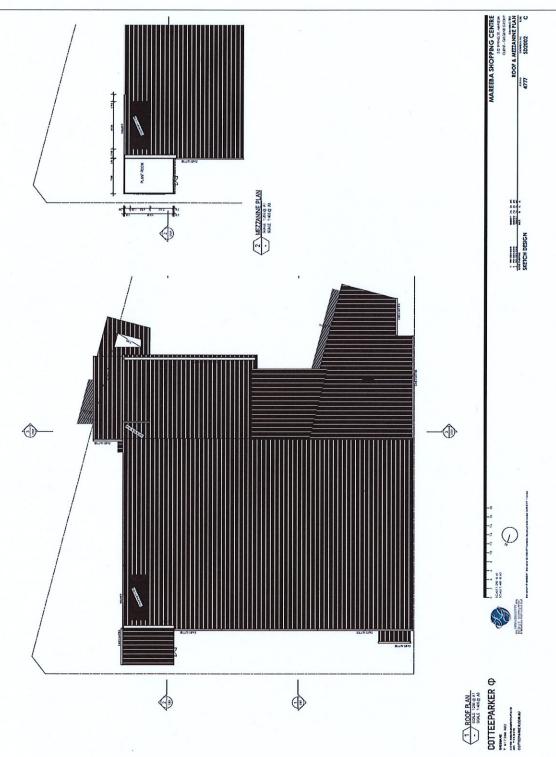
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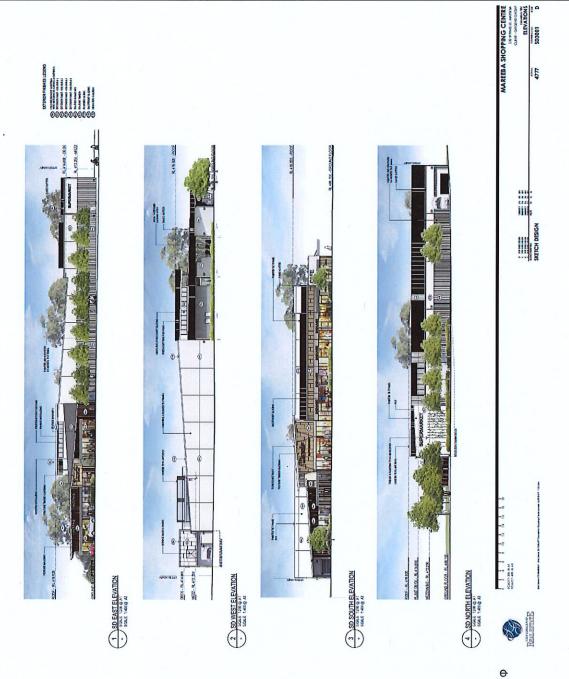
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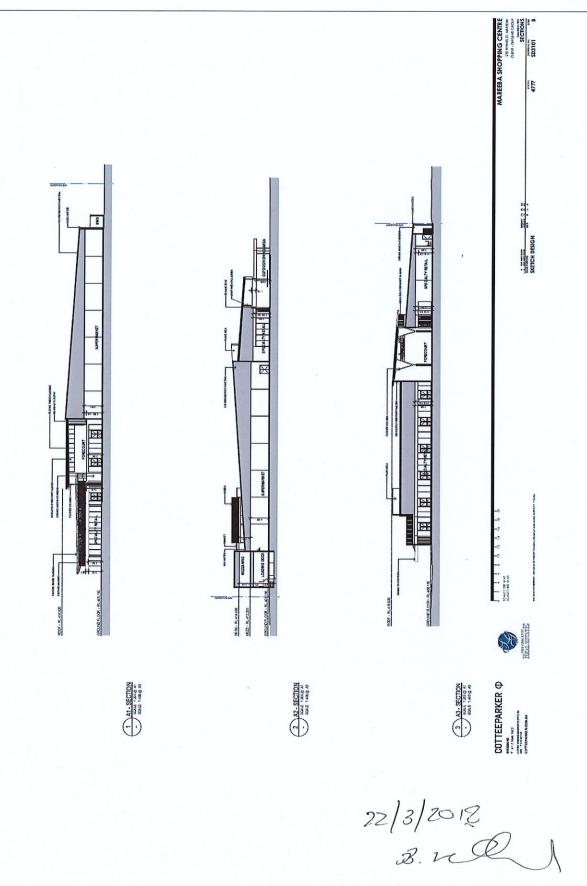


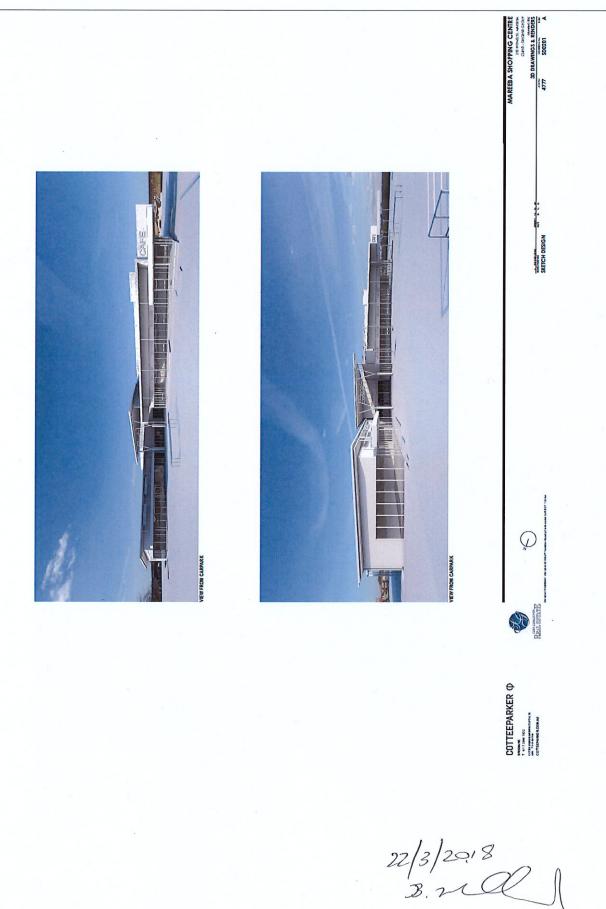
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# **Referral Agency Response**

RA6-N



Department of Infrastructure, Local Government and Planning

Our reference: Your reference: 1710-1793 SRA MCU/17/0011

30 November 2017

Chief Executive Officer Mareeba Shire Council PO Box 154 Mareeba Qld 4880

Attention: Carl Ewin

Dear Sir / Madam

Referral agency response—with conditions (Given under section 56 of the *Planning Act 2016*)

The development application described below was properly referred to the Department of Infrastructure, Local Government and Planning on 5 October 2017.

# Applicant details

Applicant name:	Reedlodge Pty Ltd
Applicant contact details:	C/- Urban Sync Pty Ltd PO Box 2970 Cairns QLD 4870 stuart@urbansync.com.au
ocation details	
Street address:	232 Byrnes Street, Mareeba
Real property description:	Lot 78 on SP152626
Local government area:	Mareeba Shire Council
Application details	
Development permit Material change of use for Proposed Shopping Centre	
Referral triggers	

Planning Regulation 2017:

10.9.4.2.4.1 State transport corridors and future State transport corridors

Far North Queensland regional office Ground Floor, Cnr Grafton and Hartley Street, Cairns PO Box 2358, Cairns QLD 4870

Page 1 of 6

#### Conditions

Under section 56(1)(b)(i) of the *Planning Act 2016* (the Act), the conditions set out in Attachment 1 must be attached to any development approval.

#### Reasons for decision to impose conditions

The department must provide reasons for the decision to impose conditions. These reasons are set out in Attachment 2.

#### Advice to the assessment manager

Under section 56(3) of the Act, the department offers advice about the application to the assessment manager—see Attachment 3.

#### Approved plans and specifications

The department requires that the plans and specifications set out below and enclosed must be attached to any development approval.

Drawing/report title	Prepared by	Date	Reference no.	Version/issue
Aspect of development: Material change of use – shopping centre				
TMR Layout Plan (664 – 1.60km)	Department of Transport and Main Roads	27 November 2017	TMR17-22687 (500/310)	С
Proposed Site Plan as amended in red	Cottee Parker	22/09/2017	SD1002	G

A copy of this response has been sent to the applicant for their Information.

For further information please contact Michele Creecy, Senior Planning Officer, on 40373206 or via email CairnsSARA@dilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Kivhunning

Brett Nancarrow Manager (Planning)

cc Reedlodge Pty Ltd, stuart@urbansync.com.au

enc Attachment 1—Conditions to be imposed Attachment 2—Reasons for decision to impose conditions Attachment 3—Advice to the assessment manager Approved plans and specifications

Department of Infrastructure, Local Government and Planning

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#### Attachment 1-Conditions to be imposed

No.	Conditions	Condition timing
Aspe	ct of development – Material change of use	
<i>Planr</i> the ei	transport corridor - State-controlled road and Railway—The chief execut ning Act 2016 nominates the Director-General of Department of Transport nforcement authority for the development to which this development appr nistration and enforcement of any matter relating to the following condition	t and Main Roads to be oval relates for the
1.	The road access location(s) between Lot 78 on SP152626 and the state-controlled road, is to be in accordance with the TMR Layout Plan (664-1.60km) prepared by the Department of Transport and Main Roads, dated 27 November 2017, reference TMR17-22687 (500/310), Version C under section 62(1) of the <i>Transport Infrastructure Act 1994</i> .	At all times.
2.	<ul> <li>(a) The development access arrangements in relation to the Rankin Street level crossing of the Mareeba Mungana Railway must be generally in accordance with Proposed Site Plan, prepared by Cottee Parker, dated 22/09/2017, drawing number SD1002, and revision G as amended in red; in particular the following must be provided at the applicant's expense: <ul> <li>A 'No right turn' sign must be provided on Rankin Street eastbound prior to the service vehicle egress to Rankin Street in accordance with Queensland Government drawing number R2-6 <i>Regulatory Sign "No Left (Right) Turn"</i>;</li> <li>A 'No left turn' sign must be provided on the site at the service vehicle egress to Rankin Street in accordance with Queensland Government drawing number R2-6 <i>Regulatory Sign "No Left (Right) Turn"</i>;</li> <li>The egress to Rankin Street must provide clearance to all railway level crossing safety controls (box marking, stop lines/pavement marking, signage and the like);</li> <li>There must be no car parking provided between the egress point on Rankin Street and the western property boundary.</li> </ul> </li> <li>(b) RPEQ certification with supporting documentation must be provided to Program Delivery and Operations Unit, Far North Queensland Region (Far.North Queensland IDAS@tmr.qld.gov.au) within the Department of Transport and Main Roads, confirming that the development has been constructed in accordance with parts (a) and (b) of this condition.</li> </ul>	(a) & (b) Prior to the commencement of use and to be maintained at all times.
3.	(a) Road works comprising of signalisation works to include a 4-way intersection and street lighting must be provided at Mareeba- Dimbulah Road (Byrnes Street) / Herberton Street Intersection.	(a) and (b) prior to the commencement of use
	<ul> <li>(b) The road works must be designed and constructed in accordance with:</li> <li>Department of Transport and Main Roads Road Planning and Design Manual 2<sup>rd</sup> July 2013 – including the Guide to Road</li> </ul>	

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	<ul> <li>Planning and Design Manual 2<sup>nd</sup> Edition: Volume 3, March 2016, and</li> <li>The Department of Main Roads Road Planning and Design Manual (2<sup>nd</sup> edition), Volume 6: Lighting, dated July 2016.</li> </ul>	
4.	(a) Stormwater management of the development must ensure no worsening or actionable nuisance to the railway corridor and State-controlled road.	(a) at all times
	<ul> <li>(b) Any works on the land must not: <ol> <li>create any new discharge points for stormwater runoff onto the railway corridor and State-controlled road;</li> <li>interfere with and/or cause damage to the existing stormwater drainage on the railway corridor and State-controlled road;</li> <li>surcharge any existing culvert or drain on the railway corridor;</li> <li>reduce the quality of stormwater discharge onto the railway corridor and State-controlled road.</li> </ol> </li></ul>	(b) at all times
	(c) RPEQ certification with a Stormwater Management Plan must be provided to the Program Delivery and Operations Unit, Far North Queensland Region <u>(Far.North.Queensland.IDAS@tmr.qld.gov.au)</u> within the Department of Transport and Main Roads, confirming that the development has been constructed in accordance with parts (a) and (b) of this condition.	(c) prior to the commencement of use
5.	<ul> <li>(a) Road works comprising of a pedestrian refuge is to be constructed on the western leg of the Byrnes Street / Rankin Street roundabout to improve pedestrian crossing movements across the full carriageway consisting of two lanes of traffic.</li> <li>(b) The pedestrian refuge must be designed and constructed in</li> </ul>	(a) and (b) prior to the commencement of use
	accordance with the Department of Transport and Main Roads' Manual of Uniform Traffic Control Devices, Part 10: Pedestrian Control and Protection, May 2017.	

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Attachment 2-Reasons for decision to impose conditions

The reasons for this decision are:

- To ensure the development is carried out generally in accordance with the plans of development submitted with the application.
- To ensure the safety and integrity of the railway level crossing.
- To ensure the road works on, or associated with, the state-controlled road network are undertaken in accordance with applicable standards.
- To ensure that the impacts of stormwater events associated with development are minimised and managed to avoid creating any adverse impacts on the state-transport corridor.

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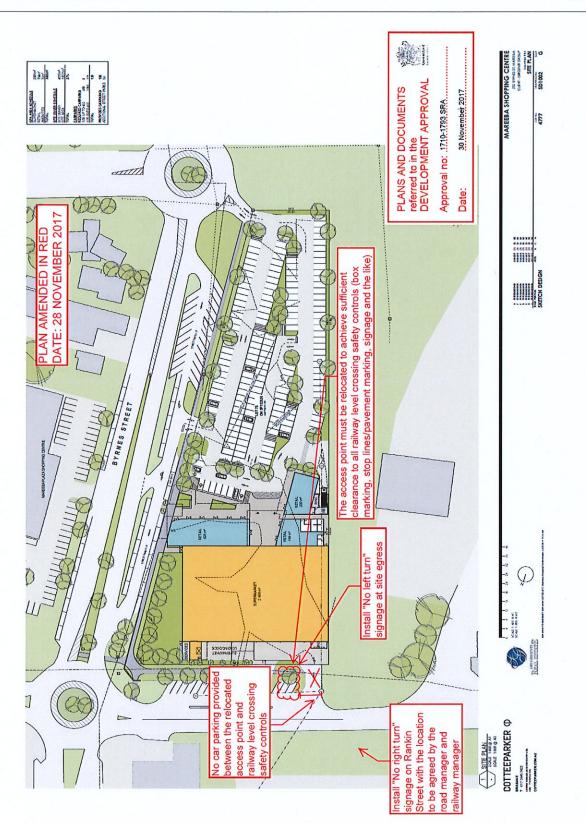
1710-1793 SRA

### Attachment 3----Advice to the assessment manager

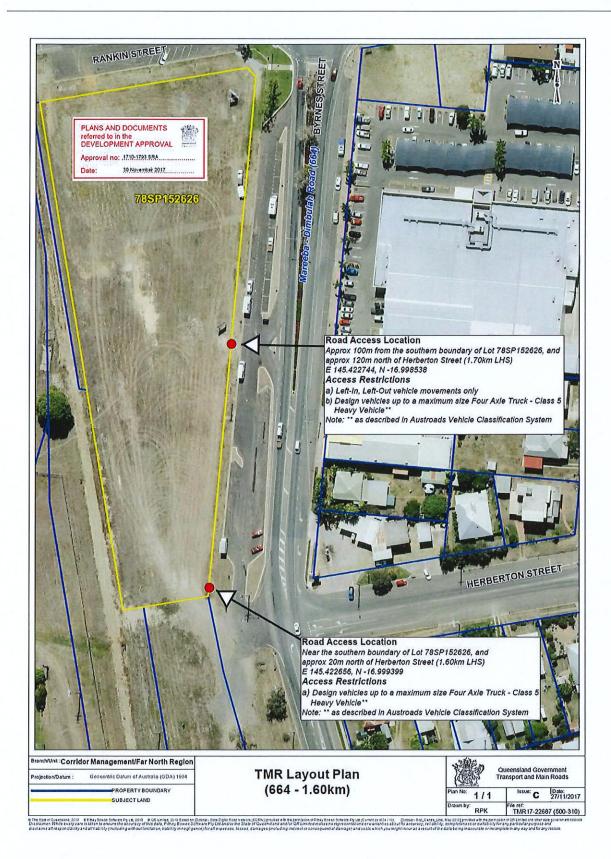
Gene	ral advice
Ref.	Condition 4 - Stormwater
1.	Department of Transport and Main roads has advised that the Stormwater Management Plan, prepared by Civil Walker, dated 08/11/2017, document number 151-001-002R, revision B does not demonstrate compliance with condition 4 of the concurrence agency response. A revised Stormwater Management Plan is required to demonstrate compliance with the concurrence agency condition 4, which addresses the following: • determines the sizing and outlet configuration of the detention basin(s) in accordance with
	the Queensland Urban Drainage Manual, Fourth Edition, prepared by the Institute of Public Works Engineering Australasia (http://www.ipweaq.com/qudm) for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP). The Stormwater Management Plan (SMP) has used the preliminary detention tank sizing methods outlined in the superseded version of Queensland Urban Drainage Manual (QUDM). The most recent edition of QUDM does not support the preliminary sizing methodology adopted in the SMP. The latest QUDM recommends the use of a suitable computer software package to determine the volume and outlet configuration of the detention basin(s). The SMP will need to be updated to include such analysis.
	<ul> <li>provide engineering drawings showing the design of the proposed detention basin(s), including invert levels and outlet pipe and overflow, outlet configurations, and how they will connect to the existing drainage at the nominated legal point(s) of discharge.</li> </ul>
	<ul> <li>Include revised details of the mitigation measures proposed to address any potential stormwater impacts (including flooding impacts) of the proposed development. The design flood peak discharges should be shown for the mitigated case to demonstrate there is no worsening impact on the railway corridor and State-controlled road for all relevant design events.</li> </ul>
Rəf.	Road Access Approval
2.	In accordance with section 33 of the Transport Infrastructure Act 1994 (TIA), an applicant must obtain written approval from Department of Transport and Main Roads (DTMR) to carry out road works, including road access works on a state-controlled road. Please contact DTMR on 4045 7144 to make an application under section 33 of the TIA to carry out road works. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ).
	The road works approval process takes time – please contact Transport and Main Roads as soon as possible to ensure that gaining approval does not delay construction.

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#### NEGOTIATED DECISION NOTICE



GE78-N



Department of Infrastructure, Local Government and Planning

Department of Infrastructure, Local Government and Planning Statement of reasons for application 1710-1793 SRA (Given under section 56 of the *Planning Act* 2016)

Departmental role:	Referral agency	
Applicant details		
Applicant name:	Reedlodge Pty Ltd	
Applicant contact details:	C/- Urban Sync Ply Ltd PO Box 2970 Cairns QLD 4870 stuart@urbansync.com.au	
Location details		
Street address:	232 Byrnes Street, Mareeba	
Real property description:	Lot 78 on SP152626	
Local government area:	Mareeba Shire Council	
Development details		
Development permit Material change of use for Proposed Shopping Centre		
Assessment matters		
Aspect of development requiring code assessment	Applicable codes	
1.Material change of use	State Development Assessment Provisions version 2.1 effective 11 August 2017 – State code1: Development in a State-controlled	

Reasons for the department's decision

The reasons for the decision are:

 The premises is located within 25 metres of two State transport corridors, being Byrnes Street, Mareeba and the Mareeba Mungana Railway and access to the site will be via the existing access on Byrnes Street.

State code 2: Development in a railways environment

road environment

- The proposed development footprint is setback 16-23m from the state-controlled road and at least 7m from the railway corridor.
- With conditions the proposed development complies with the relevant provisions in the State Development Assessment Provisions, State code1: Development in a State-controlled road environment and State code 2: Development in a railway environment.

Far North Queensland regional office Ground Floor, Cnr Grafton and Hartley Street, Cairns PO Box 2358, Cairns QLD 4870

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1710-1793 SRA

#### Decision

- The development application is for a material change of use for a shopping centre.
- The department issued a referral agency response with conditions, dated 29 November 2017, to attach to any development approval.

#### **Relevant material**

- development application material including a planning report prepared by Urban Sync Pty Ltd and plans showing the proposed development setback from the State transport corridors (statecontrolled road and railway).
- Partial response to an information request
- State Development Assessment Provisions published by the Department of Infrastructure, Local Government and Planning, version 2.1
- Planning Act 2016
- Planning Regulation 2017
- Development Assessment Rules version 1.1

Department of Infrastructure, Local Government and Planning

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MCU/17/0011 Page 31

Our ref TMR17-022687 (500-310) Your ref 17-230 Enquiries Ronald Kaden



Department of Transport and Main Roads

27 November 2017

## Decision Notice – Permitted Road Access Location (s62(1) Transport Infrastructure Act 1994)

This is not an authorisation to commence work on a state-controlled road1

Development application reference number MCU/17/0011, lodged with Mareeba Shire Council involves constructing or changing a vehicular access between Lot 78SP152626 the land the subject of the application, and Mareeba - Dimbulah Road (Byrnes Street) (a state-controlled road).

In accordance with section 62A(2) of the *Transport Infrastructure Act* 1994 (TIA), this development application is also taken to be an application for a decision under section 62(1) of TIA.

#### **Applicant Details**

Name and address	Reedlodge Pty Ltd C/- Urban Sync Pty Ltd
Application Datails	PO Box 2970 Cairns QLD 4870
Application Details	232 Byrnes Street, Mareeba QLD 4880
Address of Property	78SP152626
Real Property Description	Development Permit for Material Change of Use for Shopping
Aspect/s of Development	Centre

#### Decision (given under section 67 of TIA)

It has been decided to approve the application, subject to the following conditions:

No.	Conditions of Approval	Condition Timing
1	<ul> <li>The permitted road access location is</li> <li>a) Near the southern boundary of lot 78SP152626 and approx 20m north of Herberton Street, and</li> <li>b) Approximately 100m from the southern boundary of lot 78SP152626 and approx 120m north of Herberton Street, in accordance with:</li> <li>1. TMR Layout Plan (664 - 1.60km) Issue C 27/11/2017, and</li> <li>2. Mareeba Shopping Centre Site Plan prepared by Cottee Parker Architects issue G dated 22/09/2017 reference 4777 SD1002.</li> </ul>	At all times.

\* Please refer to the further approvals required under the heading 'Further approvals'

Program Delivery and Operations Branch Telephone (07) 4045 7 (51 Far North Region, Caims Corporate Tower, 15 Lake Street Caims Queensland 4870 Website www.tmr.qld.gov.eu PO Box 6185 Caims Queensland 4870 ABN: 39 407 690 291

No.	Conditions of Approval	Condition Timing
2	Road access works comprising of access works that can accommodate traffic volumes associated with the development by submission of detailed Engineering Design Drawings certified by a Registered Professional Engineer of Queensland (RPEQ).	Prior to commencement of use
3	Direct access is prohibited between Mareeba - Dimbulah Road (Byrnes Street) and lot 78SP152626 at any other location other than the permitted road access locations described in Condition 1.	At all times.
4	The use of the permitted road access location near the southern boundary of lot 78SP152626 is to be restricted to: a) Design vehicles up to a maximum size Four Axle Truck - Class 5 Heavy Vehicle**	At all times.
	Note: **as described in Austroads Vehicle Classification System	
5	The use of the permitted road access location at approximately 100m from the southern boundary of lot 78SP152626 is to be restricted to:	At all times.
	a) Left-In, Left-Out vehicle movements only	
	<ul> <li>b) Design vehicles up to a maximum size Four Axle Truck - Class 5 Hoovy Vabielett</li> </ul>	
	Class 5 Heavy Vehicle** Note: **as described in Austroads Vehicle Classification System	

#### Reasons for the decision

The reasons for this decision are as follows:

- a) The proposed development is seeking direct access via Mareeba-Dimbulah Road, a state-controlled road.
- b) The department notes that there is only a mid block access existing, however the proposed development.
- c) The applicant is seeking additional direct access at the southern boundary.
- d) Based on the fact that the proposed development (Shopping Centre) is increasing traffic volumes and vehicles sizes via the state-controlled road, TMR notes that the proposed development will require new section 62 approvals.
- e) The proposed accesses will only accommodate left-in / left-out vehicle movements.

Please refer to Attachment A for the findings on material questions of fact and the evidence or other material on which those findings were based.

#### Information about the Decision required to be given under section 67(2) of TIA

- 1. There is no guarantee of the continuation of road access arrangements, as this depends on future traffic safety and efficiency circumstances.
- 2. In accordance with section 70 of the TIA, the applicant for the planning application is bound by this decision. A copy of section 70 is attached as **Attachment B**, as required, for information.

#### Further information about the decision

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- 1. In accordance with section 67(7) of TIA, this decision notice:
  - a) starts to have effect when the development approval has effect; and
  - b) stops having effect if the development approval lapses or is cancelled; and
  - c) replaces any earlier decision made under section 62(1) in relation to the land.
- 2. In accordance with section 485 of the TIA and section 31 of the *Transport Planning and Coordination Act 1994* (TPCA), a person whose interests are affected by this decision may apply for a review of this decision only within 28 days after notice of the decision was given under the TIA. A copy of the review provisions under TIA and TPCA are attached in Attachment C for information.
- 3. In accordance with section 485B of the TIA and section 35 of TPCA a person may appeal against a reviewed decision. The person must have applied to have the decision reviewed before an appeal about the decision can be lodged in the Planning and Environment Court. A copy of the Appeal Provisions under TIA and TPCA is attached in Attachment C for information.

#### Further approvals

The Department of Transport and Main Roads also provides the following information in relation to this approval:

 Road Access Works Approval Required – Written approval is required from the department to carry out road works that are road access works (including driveways) on a state-controlled road in accordance with section 33 of the TIA. This approval must be obtained prior to commencing any works on the state-controlled road. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). Please contact the department to make an application.

If further information about this approval or any other related query is required, Mr Ronald Kaden, Development Control Officer, Corridor Management should be contacted by email at ron.p.kaden@tmr.qld.gov.au or on (07) 4045 7151.

Yours sincerely

Peter McNamara Principal Engineer (Civil)

Attachments: Attachment A – Decision evidence and findings Attachment B - Section 70 of TIA Attachment C - Appeal Provisions Attachment D - Permitted Road Access Location Plan and associated documents

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#### Attachment A

## **Decision Evidence and Findings**

Findings on material questions of fact:

Title of Evidence / Material	Prepared by	Date	Reference no.	Version/Issue
Planning Report -Application for a Development Permit for Material Change of Use (Shopping Centre)	UrbanSync Planning / Development	28 September 2017	17-230	-
Mareeba Shopping Centre - Traffic Impact Assessment Report	ARUP	4 October 2017	TIA-01-V1.4	Final
Response to Department's Information Request	UrbanSync Planning / Development	9 November 2017	17-230	-
Stormwater Management Plan	CivilWalker	8/11/17	151-001-002R	В
Mareeba Shopping Centre Site Plan	Cottee Parker Architects	22/09/20117	4777 SD1002	G
TMR Layout Plan	Queensland Government Transport and Main Roads	24/11/2017	TMR17-22687 (500-310)	В

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#### Attachment B

#### Section 70 of TIA

Transport Infrastructure Act 1994 Chapter 6 Road transport infrastructure Part 5 Management of State-controlled roads

- 70 Offences about road access locations and road access works, relating to decisions under s 62(1)
  - (1) This section applies to a person who has been given notice under section 67 or 68 of a decision under section 62(1) about access between a State-controlled road and adjacent land.
  - (2) A person to whom this section applies must not-
    - (a) obtain access between the land and the State-controlled road other than at a location at which access is permitted under the decision; or
    - (b) obtain access using road access works to which the decision applies, if the works do not comply with the decision and the noncompliance was within the person's control; or
    - (c) obtain any other access between the land and the road contrary to the decision; or
    - (d) use a road access location or road access works contrary to the decision; or
    - (e) contravene a condition stated in the decision; or
    - (f) permit another person to do a thing mentioned in paragraphs (a) to (e); or
    - (g) fail to remove road access works in accordance with the decision.

Maximum penalty-200 penalty units.

(3) However, subsection (2)(g) does not apply to a person who is bound by the decision because of section 68.

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#### Attachment C

#### **Appeal Provisions**

Transport Infrastructure Act 1994 Chapter 16 General provisions

#### 485 Internal review of decisions

- (1) A person whose interests are affected by a decision described in schedule 3 (the *original decision*) may ask the chief executive to review the decision.
- (2) The person is entitled to receive a statement of reasons for the original decision whether or not the provision under which the decision is made requires that the person be given a statement of reasons for the decision.
- (3) The Transport Planning and Coordination Act 1994, part 5, division 2---

(a) applies to the review; and

- (b) provides-
  - for the procedure for applying for the review and the way it is to be carried out; and
  - (ii) that the person may apply to QCAT to have the original decision stayed.

#### 485B Appeals against decisions

- (1) This section applies in relation to an original decision if a court (the appeal court) is stated in schedule 3 for the decision.
- (2) If the reviewed decision is not the decision sought by the applicant for the review, the applicant may appeal against the reviewed decision to the appeal court.
- (3) The Transport Planning and Coordination Act 1994, part 5, division 3—
   (a) applies to the appeal; and

#### (b) provides-

- (i) for the procedure for the appeal and the way it is to be disposed of; and
- that the person may apply to the appeal court to have the original decision stayed.
- (4) Subsection (5) applies if-
  - (a) a person appeals to the Planning and Environment Court against a decision under section 62(1) on a planning application that is taken, under section 62A(2), to also be an application for a decision under section 62(1); and

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- (b) a person appeals to the Planning and Environment Court against a decision under the Planning Act on the planning application.
- (5) The court may order-
  - (a) the appeals to be heard together or 1 immediately after the other; or
  - (b) 1 appeal to be stayed until the other is decided.
- (6) Subsection (5) applies even if all or any of the parties to the appeals are not the same.
- (7) In this section-

original decision means a decision described in schedule 3.

reviewed decision means the chief executive's decision on a review under section 485.

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Transport Planning and Coordination Act 1994 Part 5, Division 2 – Review of Original Decisions

### 31 Applying for review

- (1) A person may apply for a review of an original decision only within 28 days after notice of the original decision was given to the person under the transport Act.
- (2) However, if-
  - (a) the notice did not state the reasons for the original decision; and
  - (b) the person asked for a statement of the reasons within the 28 days mentioned in subsection (1)

the person may apply within 28 days after the person is given the statement of the reasons.

- (3) In addition, the chief executive may extend the period for applying.
- (4) An application must be written and state in detail the grounds on which the person wants the original decision to be reviewed.

#### 32 Stay of operation of original decision

- (1) If a person applies for review of an original decision, the person may immediately apply for a stay of the decision to the relevant entity.
- (2) The relevant entity may stay the original decision to secure the effectiveness of the review and any later appeal to or review by the relevant entity.
- (3) In setting the time for hearing the application, the relevant entity must allow at least 3 business days between the day the application is filed with it and the hearing day.
- (4) The chief executive is a party to the application.
- (5) The person must serve a copy of the application showing the time and place of the hearing and any document filed in the relevant entity with it on the chief executive at least 2 business days before the hearing.
- (6) The stay----
  - (a) may be given on conditions the relevant entity considers appropriate; and
  - (b) operates for the period specified by the relevant entity; and
  - (c) may be revoked or amended by the relevant entity.
- (7) The period of a stay under this section must not extend past the time when the chief executive reviews the original decision and any later period the relevant entity allows the applicant to enable the applicant to appeal against the decision or apply for a review of the decision as provided under the QCAT Act.

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(8) The making of an application does not affect the original decision, or the carrying out of the original decision, unless it is stayed.

(9) In this section-

### relevant entity means-

- (a) if the reviewed decision may be reviewed by QCAT--QCAT; or
- (b) if the reviewed decision may be appealed to the appeal court-the appeal court.

#### 35 Time for making appeals

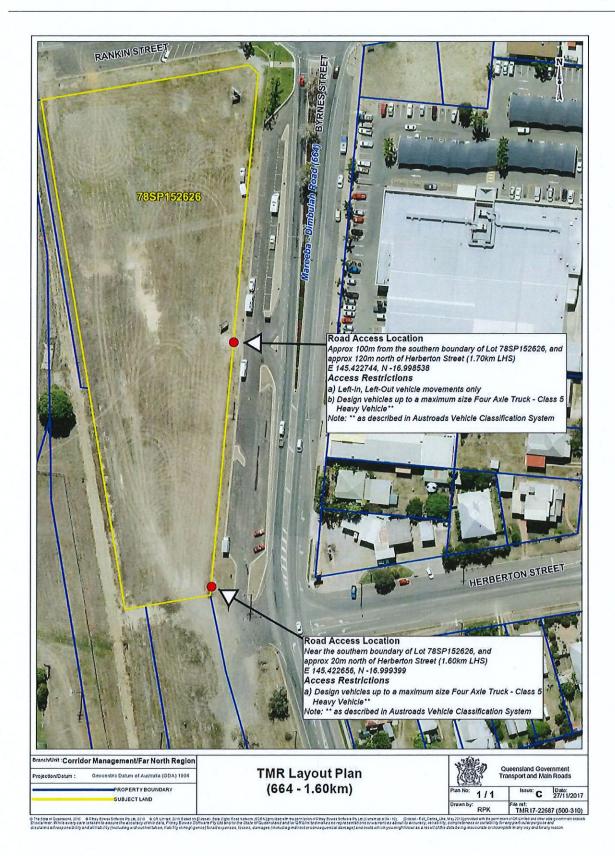
(1) A person may appeal against a reviewed decision only within-

- (a) if a decision notice is given to the person—28 days after the notice was given to the person; or
- (b) if the chief executive is taken to have confirmed the decision under section 34(5)—56 days after the application was made.
- (2) However, if---
  - (a) the decision notice did not state the reasons for the decision; and
  - (b) the person asked for a statement of the reasons within the 28 days mentioned in subsection (1)(a);

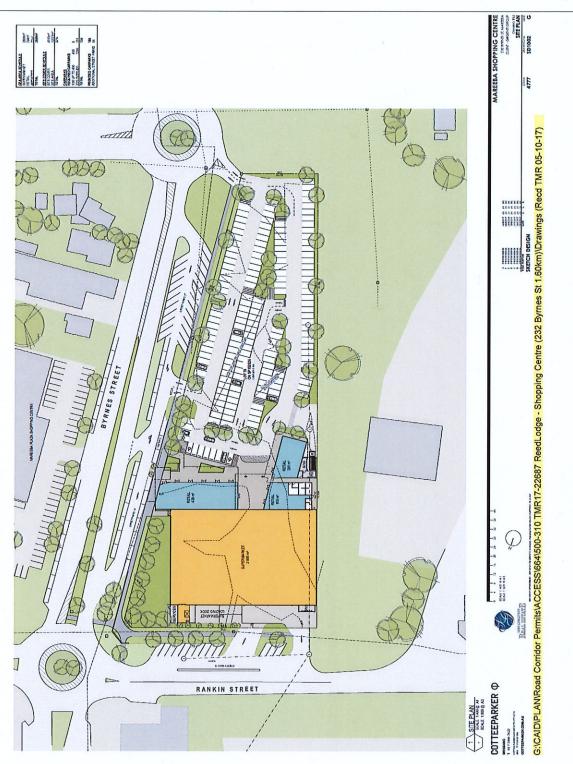
the person may apply within 28 days after the person is given a statement of the reasons.

(3) Also, the appeal court may extend the period for appealing.

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#### Guide to Traffic Management Part 3: Traffic Studies and Analysis

Level 1	Lev	el 2	Level 3		Austranda	
Length (Indicative)	Axies and axie groups		Vehicle type	Austroads classification		
Туре	Axles	Groups	Description	Class	Parameters	
		·	Light vehicles			
Short Up lo 5.5 m	2	tor2	Short Sedan, wagon, 4WD, utility, light van, bicycle, motorcycle, etc.	1	di ≤ 3.2 m and axles = 2	
	3, 4 or 5	3	Short-lowing trailer, caravan, boat, elc.	2	$\begin{array}{l} groups = 3,\\ 2.1 \ m \leq d_1 \leq 3.2 \ m \\ d_2 \geq 2.1 \ m,\\ and axies = 3, 4 \ or \ 5 \end{array}$	
			Heavy vehicles			
Medium 5.5 m to 14.5 m	2	2	Two axle truck or bus	3	d <sub>1</sub> > 3.2 m and axles = 2	
	3	2	Three axle truck or bus	4	Axles = 3 and groups = 2	
	> 3	2	Four axle truck	5	Axles > 3 and groups = 2	
Long 11.5 m to 19.0 m	3	3	Three axle articulated or rigid vehicle and trailer	6	d <sub>1</sub> > 3.2 m Axles = 3 and groups = 3	
	4	>2	Four axle articulated or rigid vehicle and trailer	7	$d_2 < 2.1 m$ , or $d_1 < 2.1 or d_1 > 3.2 m$ Axies = 4 and groups > 2	
	5	>2	Five axle articulated or rigid vehicle and trailer	8	dz < 2.1 m, or d1 < 2.1 or d1 > 3.2 m Axles = 5 and groups > 2	
	6 >6	>2 3	Six axle (or more) articulated or rigid vehicle and trailer	9	Axies = 6 and groups > 2; o axies > 6 and groups = 3	
Medium combination 17.5 m to 36.5 m	>6	4	B Double or heavy truck and trailer	10	Axles > 6 and groups = 4	
	>6	5 or 6	Double road train or heavy truck and two trailers	11	Axles > 6 and groups = 5 or 6	
Long combination over 33 m	> 6	>6	Triple road train or heavy truck and three trailers	12	Axies > 6 and groups > 6	

#### Table A 8: Austroads vehicle classification systems (updated in 1994)

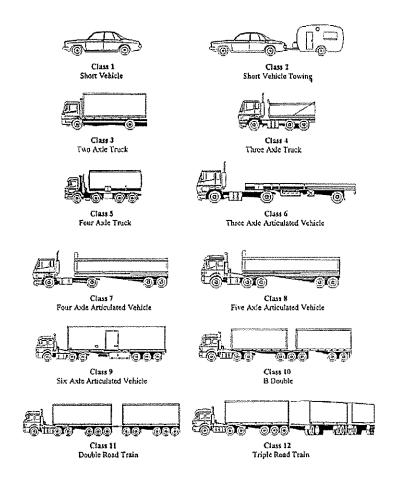
Definitions:

Group: (axle group) - where adjacent axles are loss than 2.1 m apart Groups: number of axle groups

Axles: number of axles (maximum axle spacing of 10 m) d1: distance between first and second axle

d2: distance between second and third axle.

Austroads 2013 - 119 --



Guide to Traffic Management Part 3: Traffic Studies and Analysis

Figure A 13: Representative vehicles in Austroads 12-bin classification system

#### A.5.3 Methods of Collecting Vehicle Classification Data

Manual vehicle classification methods, based on either vehicle body type (e.g. surveys by the Australian Bureau of Statistics) or axle configurations (e.g. Austroads), have been used for many years. Manual methods are now largely confined to intersection turning movement counts. As these surveys require considerable human resources, they are costly and generally limited to short period counts – generally up to 12 hours duration.

Austroads 2013 — 120—

## **Appeal Rights**

PLANNING ACT 2016 & THE PLANNING REGULATION 2017

### Chapter 6 Dispute resolution

### Part 1 Appeal rights

## 229 Appeals to tribunal or P&E Court

- (1) <u>Schedule 1 of the *Planning Act 2016* states</u>
  - (a) Matters that may be appealed to -
    - (i) either a tribunal or the P&E Court; or
    - (ii) only a tribunal; or
    - (iii) only the P&E Court; and
  - (b) The person-
    - (i) who may appeal a matter (the *appellant*); and
    - (ii) who is a respondent in an appeal of the matter; and
    - (iii) who is a co-respondent in an appeal of the matter; and
    - (iv) who may elect to be a co-respondent in an appeal of the matter.

## (Refer to Schedule 1 of the Planning Act 2016)

- (2) An appellant may start an appeal within the appeal period.
- (3) The appeal period is -
  - (a) for an appeal by a building advisory agency 10 business days after a decision notice for the decision is given to the agency; or
  - (b) for an appeal against a deemed refusal at any time after the deemed refusal happens; or
  - (c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises – 20 business days after a notice us published under section 269(3)(a) or (4); or
  - (d) for an appeal against an infrastructure charges notice 20 business days after the infrastructure charges notice is given to the person; or
  - (e) for an appeal about a deemed approval of a development application for which a decision notice has not been given – 30 business days after the applicant gives the deemed approval notice to the assessment manager; or
  - (f) for any other appeal 20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

### Note –

See the P&E Court Act for the court's power to extend the appeal period.

- (4) Each respondent and co-respondent for an appeal may be heard in the appeal.
- (5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.
- (6) To remove any doubt. It is declared that an appeal against an infrastructure charges notice must not be about-
  - (a) the adopted charge itself; or

- (b) for a decision about an offset or refund-
  - (i) the establishment cost of trunk infrastructure identified in a LGIP; or
  - (ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

## 230 Notice of appeal

- (1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that-
  - (a) is in the approved form; and
  - (b) succinctly states the grounds of the appeal.
- (2) The notice of appeal must be accompanied by the required fee.
- (3) The appellant or, for an appeal to a tribunal, the registrar must, within the service period, give a copy of the notice of appeal to
  - (a) the respondent for the appeal; and
  - (b) each co-respondent for the appeal; and
  - (c) for an appeal about a development application under schedule 1, table 1, item 1 each principal submitter for the development application; and
  - (d) for and appeal about a change application under schedule 1, table 1, item 2 each principal submitter for the change application; and
  - (e) each person who may elect to become a co-respondent for the appeal, other than an eligible submitter who is not a principal submitter in an appeal under paragraph (c) or (d); and
  - (f) for an appeal to the P&E Court the chief executive; and
  - (g) for an appeal to a tribunal under another Act any other person who the registrar considers appropriate.
- (4) The service period is -
  - (a) if a submitter or advice agency started the appeal in the P&E Court 2 business days after the appeal has started; or
  - (b) otherwise 10 business days after the appeal is started.
- (5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).
- (6) A person elects to be a co-respondent by filing a notice of election, in the approved form, within 10 business days after the notice of appeal is given to the person.

## 231 Other appeals

- (1) Subject to this chapter, schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.
- (2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.
- (3) A person who, but for subsection (1) could have made an application under the Judicial Review Act 1991 in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.
- (4) In this section *decision* includes-
  - (a) conduct engaged in for the purpose of making a decision; and
  - (b) other conduct that relates to the making of a decision; and
  - (c) the making of a decision or failure to make a decision; and
  - (d) a purported decision ; and

(e) a deemed refusal.

- non-appealable, for a decision or matter, means the decision or matter-
- (a) is final and conclusive; and
- (b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the Judicial Review Act 1991 or otherwise, whether by the Supreme Court, another court, a tribunal or another entity; and
- (c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, a tribunal or another entity on any ground.

232 Rules of the P&E Court

- (1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.
- (2) However, the P&E Court may hear and decide an appeal even if the person has not complied with the rules of the P&E Court.

# **ATTACHMENT 5**

PRE-LODGEMENT CORRESPONDENCE

## **Justin Phipps**

From:	Carl Ewin <carle@msc.qld.gov.au></carle@msc.qld.gov.au>
Sent:	Friday, 4 March 2022 12:22 PM
To:	Justin Phipps
Cc:	Matt Ingram
Subject:	RE: Request for Pre-lodgement Advice for development at 232 Byrnes Street, Mareeba
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hi Justin,

See below responses to your queries:

## <u>Setbacks</u>

Myself and Brian have no issues with the setbacks proposed. Although they don't comply with the 0 metre setback required by the Centre Zone Code, the internal layout and setbacks proposed are more logical anyway and not unlike to similar developments in larger towns. The siting proposed will satisfy PO2 of the Centre Zone Code where relevant. With regards to the setbacks from the southern and western boundaries, no real issues with this either. Nearby residential uses are appropriately setback and the building bulk presented is just standard for this type and scale of development. The elevation plans will give the community a good idea of what the end product will look like.

## Car Parking & Landscaping

Happy with the exceedance in parking spaces. The more the merrier – Coles has big car parking issues so the community will welcome this. The landscaping code requires shade trees be planted at a rate of shade tree per 4 parking spaces. You may want to proposed shade covers over part of the car park instead of the shade trees and just include other shrubbery and small trees amongst the carparks.

## Maximum height

No issues with the slight exceedance for part of the building. Again the building bulk presented is just standard for this type and scale of development. The elevation plans will give the community a good idea of what the end product will look like.

## <u>Traffic</u>

Traffic impact assessment required. Council's Tech services Dept mentioned that they'd like the TIA to look into people right turning into he site from Byrnes Street heading south, and to look at whether there will be any queuing issues over the railway crossing with people waiting to turn right into the shopping centre from Ranking Street as well as The right turn out onto Rankin Street from the shopping centre (which might be a problem). DTMR will be more concerned with traffic than us, so the TIA should be comprehensive.

### <u>Air & Water</u>

Noted. I thought this would be standard.

### Strategic Framework

Noted. The needs assessment will be a good addition and may deter submissions from say Charter Hall over the road.

### Other Comments

A comprehensive stormwater management plan needs to be included. There are already big drainage issues along Byrnes Street and Rankin Street. I don't see any on-site detention on the plans. The consulting engineers should discuss this further with Council's tech services dept.

The development proposed has been a long time coming and will likely get significant support from the community. As evidenced by the last 2 approvals issued over the site for shopping centres, Council also support the development in principle.

Regards,

Carl Ewin Planning Officer



Marceba<br/>shire councilPhone: 1300 308 461 | Direct: 07 4086 4656 | Fax: 07 4092 3323<br/>Email: carle@msc.qld.gov.au | Website: www.msc.qld.gov.au<br/>65 Rankin St, Mareeba | PO Box 154, Mareeba, Queensland, Australia, 4880

From: Justin Phipps <Justin@urbansync.com.au>
Sent: Tuesday, 1 March 2022 3:29 PM
To: Carl Ewin <carle@msc.qld.gov.au>
Cc: Matt Ingram <matt@urbansync.com.au>
Subject: Request for Pre-lodgement Advice for development at 232 Byrnes Street, Mareeba

Good afternoon Carl,

Hope you've been keeping well!

Matt has asked me to request a bit of advice from you regarding the proposed development for a Shopping Centre, drive through Food and Drink Outlet and Service Station that is proposed over land located at 232 Byrnes Street, Mareeba (Lot 78 on SP298287) and part of Lot 20 on NR7137.

I'm slowly pulling together the DA for this one and we are looking to lodge sometime before March 16 so we were just after some preliminary comments. Importantly, our DA will not include the Reconfiguring a Lot component and if this component does proceed, it will proceed under separate cover at a later date.

I have attached the most recent plans to this email and provide the following comments:

- Setbacks the site is located within a split zoning designation so I have assessed setbacks as follows:
  - Food and Drink Outlet assessed against the Centre zone Code requirements of 0m (non-compliant);
  - Service Station assessed against the Centre Zone Code requirements of 0m (non-compliant);
  - Shopping Centre setbacks to Rankin and Byrne Street assessed against Centre Zone Code requirements of 0m (non-compliant) and Community Facilities Zone Code of 3m for the southern rear and western side (non-compliant)

Proposed Setbacks -

- Shopping Centre setback approx 1m from the Brynes Street frontage and southern boundary, minimum of 0m to the western boundary and significantly more than 0m to the Rankin Street boundary (minor non-compliance);
- Food and Drink Outlet more than 0m to Byrnes Street, approx. 9m to Rankin Street, approx. 3.5m to the western side boundary and a significant distance to the southern boundary;
- Service Station 3.4m to Byrnes Street, 1m to Rankin Street, and a significant distance to the western side and southern boundary.

Understand we don't comply as we aren't building up to the street frontage; however, Om setbacks for Shopping Centres doesn't work as these premises need ample room for car parking, services and loading areas (around the side and rear of the building), etc and even the adjoining Coles provides separation to all boundaries. Furthermore, the Food and Drink Outlet requires space for queuing and the Service Station requires room for the fuel forecourt and neither of these uses are generally built up to street frontages. Thoughts?

- Car Parking We are providing a total of 235 car parking spaces, being 199 on-site and 36 on-street spaces which achieves compliance with the Acceptable Outcome (190);
- Maximum Height Centre Code requires maximum 8.5m and the tallest aspect of the Shopping Centre is approx. 9.657m; however, this is due to the parapets and screening for the mechanical plant with the main bulk of the building sitting at 8.4m. Food and Drink Outlet and Servo both comply;
- We understand that Traffic will be an issue and we have a Traffic Impact Assessment being prepared; however, if infrastructure planning have any comments, feel free to include;
- The Service Station doesn't currently identify air and water facilities but we will look to include these in plan amendments prior to lodgement;
  - Strategic Framework The Service Station makes the development Impact Assessable, as does the portion of the Shopping Centre that is located in the Community Facilities and Medium Density Residential Zone. We have sought to only address the inconsistency of the Service Station in the Strategic Framework and will undertake a needs assessment in the Planning Discussion section of our report. We also have a Needs Assessment Report prepared by a suitably qualified professional that will cover off on the overall development to demonstrate that there is a need for the development; and
- Any other matters Council may find relevant.

Thanks Carl, let me know if you need any further information.

Kind Regards

## Justin Phipps | Town Planner

T 07 4051 6946 M 0458 902 541 O Level I, 17 Aplin Street, Cairns | M PO Box 2970, Cairns Q 4870





means

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12 April 2022

Mareeba 232 Pty Ltd C/- Urban Sync Pty Ltd PO Box 2970 CAIRNS QLD 4870 justin@urbansync.com.au

Attention: Matt Ingram

Dear Sir / Madam

# SARA Pre-lodgement advice - 232 Byrnes Street, Mareeba

I refer to the pre-lodgement meeting held on 31 March 2022 in which you sought advice from the State Assessment and Referral Agency (SARA) regarding the proposed development at the above address. This notice provides interim advice on aspects of the proposal that are of relevance to SARA.

# SARA's understanding of the project

The development seeks a material change of use for a mixed-use development, involving the establishment of a Shopping Centre, inclusive of a mall with smaller specialty Shops, a drive through Food and Drink Outlet, and a Service Station. The development is proposed over Lot 78 on SP298287 and also part of Lot 20 on NR7137.

The advice given below is based on a development application for material change of use only. If the application includes reconfiguring a lot, additional referrals, fees and assessment benchmarks will apply.

## **Supporting information**

The advice in this letter is based on the following documentation that was submitted with the pre-lodgement request or tabled at the pre-lodgement meeting.

Drawing/report title	Prepared by	Date
MyDAS2 Record 2203-27933 SPL	Urban Sync	18/03/20221
Site Plan (as amended in red)	Thomson Adsett (as amended in red by SLR)	10/03/2022 Rev 3

# Pre-lodgement meeting record

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Meeting date	31 March 2022
Meeting location Conference Room, Ports North Building, Cnr Grafton and Ha	
	Streets, Cairns QLD 4870 and MS Teams
Meeting chair	Tony Croke
Meeting attendees	Refer to Attachment 1

Meet	ing outcomes						
1.	Overview of proposal:						
	• The proponent gave an overview of the development proposal and the background of the project.						
	• A high level concept plan was provided showing proposed accesses on Byrnes Street and Rankine Street.						
	• A development application has been lodged with Mareeba Shire Council (the council), however is not properly made as the applicant is to obtain land-owners consent.						
	A referral to SARA is likely to be a few weeks away.						
2.	Key matters						
	• Referrals will be required for State-controlled road (Byrnes Street) and Railway.						
	Referral would also be required for development impacting on State transport infrastructure and thresholds.						
	• An application would require assessment against State code 1 (Development in a state- controlled road environment), State code 2 (Development in a railway environment) and and State code 6 (Protection of state transport networks).						
	The following supporting information is required:						
	o a traffic report and detailed design of the accesses						
	o swept path analysis						
	o traffic data						
	o details of the type, size and volumes of vehicles is required.						
	• There are conflict points with the proposed accesses. The Department of Transport and Main Roads (DTMR) will not allow multiple accesses.						
	A right turn out on to Byrnes Street will not be possible.						
	• The development should be designed so that traffic flows on and off quickly, with queuing on the property in a slow moving environment.						
	There was a general discussion about:						
	<ul> <li>o impacts on on-street car parking. The council will also need to be consulted about proposed changes.</li> <li>o existing and future RV parking</li> <li>o duplication of the state-controlled road adjacent to the proposed development</li> <li>o on site car parking and parcel pick up bays</li> </ul>						

o concerns about cars following trucks in	
o deliveries for the service station (fuel truck) and fast food.	
o movements of vehicles on site	
<ul> <li>consideration of operational impacts of the development on the intersection at Herberton Street</li> </ul>	
o exploring the option of access via Herberton Street	
o traffic movements at the Rankine Street access	
o traffic lights at the Rankine and Byrne intersection.	
Access was the most important consideration for the state-controlled road.	
• The development will generate a need for a bus stop to be provided for the Translink Tablelands bus service (urban bus route 850 operated by Trans North).	
<ul> <li>A DDA compliant taxi rank will also be required as close as possible to the major generator (supermarket) to minimise walking.</li> </ul>	
• Short stacking in relation to the railway crossing at Rankin Street is a critical issue for the proposed Rankine Street access. An ALCAM assessment is also likely to be required for the railway level crossing based on revised traffic information/data.	
<ul> <li>An information request and advice notice will be required based on the current information provided in the application material.</li> </ul>	
<ul> <li>Next steps are to discuss detail designs. A further pre-lodgement meeting may be requested.</li> </ul>	

# Pre-lodgement advice

The following advice outlines the aspects of the proposal that are of relevance to SARA.

Inform	Information and Advice				
1.	Preliminary Information				
	Please note that the below information is general in nature due to preliminary information provided in the pre-lodgement request. This interim advice is based on the initial concept supplied.				
	More specific advice can be provided once there are detailed plans identifying the location and extent of the proposed works and any other technical supporting information.				
2.	Further Pre-lodgement Advice				
	Once detailed plans and reports are available you may request further pre-lodgement advice.				
	Further pre-lodgement advice can be requested via the 'related actions' tab in the 2203-227933 SPL MyDAS2 record and select 'Request more pre-lodgement advice from SARA'.				
	If requesting further advice please provide the additional information identified in this pre-lodgement advice.				
SARA	SARA's jurisdiction and fees				
3.	The premises are within 25 metres of a state-controlled road and a railway.				

The development appears to exceed the threshold of 4,000m <sup>2</sup> gross floor area for a Shopping Centre (including Food and Drink Outlet) in a local government area 2.				
The application will therefore require referral to SARA under the following provisions of the Planning Regulation 2017:				
<ul> <li>Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 1 – State transport corridor (State-controlled road and Railway)</li> </ul>				
<ul> <li>Schedule 10, Part 9, Division 4, Subdivision 1, Table 1 – Aspect of development sta in schedule 20 (Development impacting on State transport infrastructure and threshold)</li> </ul>				
This will require a fee of:				
<ul> <li>\$5,144.00 (\$3,430 + \$1714 for a second transport corridor) to be paid in accordance with Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 8 (d)(ii)</li> <li>\$1,714.00 (premises in local government area 2) to be paid in accordance with Schedule 10, Part 9, Division 4, Subdivision 1, Table 1, Item 8(a)(ii).</li> </ul>				
SARA would be a referral agency for the proposed application. Mareeba Shire Council is the assessment manager.				
ment material				
It is recommended that the following information is submitted when referring the application to SARA:				
DA form 1 and supporting planning report.				
• A full response to the relevant sections of the State Development Assessment Provisions (SDAP):				
o State Code 1: Development in a State-controlled road environment				
o State Code 2: Development in a Railway Environment				
o State Code 6: Protection of State transport networks				
Landowner's consent.				
• Relevant plans as per the <u>DA Forms guide</u> , including:				
o a detailed site and access location plan				
o location of parking, bus stop and taxi rank.				
Supporting technical reports.				
Further guidance on what information needs to be supplied with a formal development application can be obtained from the Department of Transport and Main Roads' <u>State</u> <u>Development Assessment Provisions (SDAP) Supporting Information</u> .				
Development Assessment Provisions				
For information				
State Development Assessment Provisions (SDAP) version 3.0 commenced on 18 February 2022. SDAP version 3.0 applies for applications properly made on or after 18 February 2022 and where SARA is a referral agency or the assessment manager.				

State controlled road				
6.	Vehicle, cyclist and pedestrian access – State-controlled road			
	The proposed Shopping Centre, Food and Drink Outlet and Service Station development is seeking changed vehicular access locations, via Mareeba-Dimbulah Road (Byrnes Street), a state-controlled road.			
	A desk top analysis by DTMR indicates that the changed vehicular access locations will be located within an 60km/hr speed environment. The Annual Average Daily Traffic (AADT) vehicle count along the road frontage of Lot 78 on SP298287 (development site) is 13,406 vehicles per day including 988 heavy vehicles. A bi-directional AADT split is in place due to a raised centre median, the bi-directional split is 6,824 vehicles travelling north and 6,582 travelling south.			
	The proposed development is considered a destination location that will generate a significant increase in traffic generation and possible traffic conflicts including vehicle queuing along Byrnes Street and Rankin Street.			
	Any new vehicular access arrangement via Byrnes Street must consider the following:			
	minimise the number of vehicular access locations onto Byrnes Street			
	minimise vehicle conflict points within the Mareeba-Dimbulah Road corridor			
	• allow adequate merging distances for vehicles exiting the development site that need to cross Byrnes Street and turn right into Rankin Street (East) at the signalised intersection			
	<ul> <li>possible queueing impacts on vehicular accesses via Byrnes Street and Rankin Street from vehicle queueing due to the function of the Byrnes Street / Rankin Street traffic signals</li> </ul>			
	<ul> <li>the proposed vehicular access location via Rankin Street as illustrated by the Thomson Adsett site plan is considered unsuitable and is unlikely to be a practical all movement vehicle access.</li> </ul>			
	• pedestrians and cyclists accessing the development site including suitable infrastructure for safe crossing of Byrnes Street at or near the Herberton Street intersection.			
7.	Traffic Impact Assessment (TIA)			
	A detailed traffic impact assessment (TIA) should be prepared by the qualified RPEQ traffic professional in accordance with Guide to Traffic Impact Assessment (GTIA).			
	The traffic impact assessment is required to demonstrate that the changed vehicular accesses will not compromise the performance outcomes and acceptable outcomes of the State Development Assessment Provisions (SDAP) v3.0; specifically:			
	State code 1: Development in a State-controlled road environment			
	PO15 – PO24 of Table 1.2 Vehicular access, road layout and local roads			
	PO25 – PO30 of Table 1.3 Network impacts.			
	State code 6: Protection of state transport networks			
	PO1 – PO13 of Table 6.2 Development in general.			
8.	Swept Path Analysis			
	DTMR is not supportive of the separate proposed truck only entry point and the single car			

	entry access location via Mareeba-Dimbulah Road (Byrnes Street) as illustrated by the Thomson Adsett site plan. The applicant should provide a single access location that can support and accommodate the largest vehicle that will enter / exit the development site via Byrnes Street.
	The applicant should provide a swept path analysis that demonstrates that the largest vehicle can enter and exit via Byrnes Street without impacting on-street parking and the safety and efficiency of Byrnes Street, the Byrnes Street / Rankin Street intersection and the Byrnes Street / Herberton Street intersection.
	Furthermore, the applicant should confirm how goods and services will be delivered to the proposed Food and Drink Outlet and Service Station development.
	A swept path analysis is required to demonstrate that the largest vehicle servicing the proposed Food and Drink Outlet and Service Station can enter, manoeuvre on-site and exit via Rankin Street without impacting the function of the Rankin Street / Byrnes Street signalised intersection and the Rankin Street railway crossing.
9.	Stormwater, Overland flow and Flooding
	The applicant is requested to provide a Stormwater Management Plan to demonstrate how the proposed development for a Shopping Centre, Food and Drink Outlet and Service Station development is able to achieve compliance with stormwater, flooding and drainage infrastructure:
	• relating to <b>PO8 – PO14</b> of State code 1: Development in a state-controlled road environment of the SDAP, and
	<ul> <li>with consideration given to the Queensland Urban Drainage Manual, Fourth Edition, prepared by the Institute of Public Works Engineering Australasia. (<u>http://www.ipweaq.com/qudm</u>).</li> </ul>
	Stormwater and drainage run-off from the proposed development must not damage or interfere with the state-controlled road or railway. Existing stormwater drainage infrastructure on the state-controlled road should not be interfered with or damaged by the proposed development through concentrated flows.
	The stormwater information should include details of the mitigation measures proposed to address any potential stormwater impacts (including flooding impacts) from the proposed development.
	The design flood peak discharges should be shown for the mitigated case to demonstrate there is a no worsening impact on Mareeba-Dimbulah Road (Byrnes Street), a state-controlled road.
Railwa	ay and Public Transport
10.	Specific advice for railway and public transport can be provided once a final site plan and supporting information for the development is provided.

This advice outlines aspects of the proposed development that are relevant to SARA's jurisdiction. This advice is provided in good faith and is:

- based on the material and information provided to SARA
- current at the time of issue
- not applicable if the proposal is changed from that which formed the basis of this advice.

The advice in this letter does not constitute an approval or an endorsement that SARA supports the development proposal. Additional information may be required to allow SARA to properly assess the development proposal after a formal application has been lodged.

For further information please contact Tony Croke, Principal Planner, on 40373205 or via email CairnsSARA@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely

Joanne Manson A/Manager (Planning)

enc Attachment 1 – Pre-lodgement meeting attendance record

Development details				
Proposal:	Material Change of Use for Shopping Centre, Food and Drink Outlet and Service Station			
Street address:	232 Byrnes Street, Mareeba			
Real property description:	Lot 78 on SP298287 and part of Lot 20 on NR7137			
SARA role:	Referral agency			
Assessment Manager:	Mareeba Shire Council			
Assessment criteria:	State Development Assessment Provisions (SDAP):         • State Code 1: Development in a state-controlled road environment         • State Code 2: Development in a Railway Environment         • State Code 6: Protection of State transport networks			
Existing use:	Vacant Land			
Relevant site history:	-			

# Attachment 1 — Pre-lodgement meeting attendance record

## Meeting attendees:

Name	Position	Organisation
Tony Croke	Principal Planner	Department of State Development Infrastructure and Planning
Kris Wilcon	Proponent	Wilcon Projects
Matt Ingram	Senior Planner	Urban Sync
Kris Stone	Principal Consultant – Transport Advisory	SLR Consulting
Peter McNamara	Principal Engineer (Civil)	Department of Transport and Main Roads (DTMR)
Steve Zelenika	Senior Town Planner	DTMR
Rebecca Kalianiotis	Manager (Rail and Public Transport Technical Advice)	DTMR
Madeline Hersant	Senior Planner	DTMR

## **Justin Phipps**

To: Subject: Matt Ingram RE: Meeting notes 2203-27933 SPL MCU (Shopping Centre) 232 Byrnes Street, Mareeba

From: Sue Lockwood <<u>Sue.Lockwood@dsdilgp.qld.gov.au</u>> Sent: Thursday, 26 May 2022 2:54 PM To: Kris Wilson <<u>kris@wilconprojects.com</u>>; <u>kstone@slrconsulting.com</u>; Matt Ingram <<u>matt@urbansync.com.au</u>>; Justin Phipps <<u>Justin@urbansync.com.au</u>>; 'peter.j.mcnamara@tmr.qld.gov.au' <<u>peter.j.mcnamara@tmr.qld.gov.au</u>>; Rebecca Kalianiotis <<u>rebecca.z.kalianiotis@tmr.qld.gov.au</u>>; Madeline J Hersant <<u>Madeline.J.Hersant@tmr.qld.gov.au</u>>; 'steven.z.zelenika@tmr.qld.gov.au' <<u>steven.z.zelenika@tmr.qld.gov.au</u>> Cc: Tony Croke <<u>Tony.Croke@dsdilgp.qld.gov.au</u>>

Subject: Meeting notes 2203-27933 SPL MCU (Shopping Centre) 232 Byrnes Street, Mareeba

## Good morning,

Thank you for your attendance at the meeting held 19/05/2022 regarding a development application for material change of use for a mixed use development involving the establishment of a shopping centre, service station and food and drink outlet at 232 Byrnes Street, Mareeba, Lot 78 on SP298287 and Lot 20 on NR7137.

## Attendance:

Kris Wilson, Wilcon Projects Kris Stone, SLR Consulting Matt Ingram, Urban Sync Rebecca Kalianiotis, Department of Transport and Main Roads (DTMR) Madelaine Hersant, DTMR Peter McNamara, DTMR Steven Zelenika, DTMR Sue Lockwood, Department of State Development, Infrastructure, Local Government and Planning

The following are the main discussion points of the meeting:

- Previous pre-lodgement advice was issued by SARA 12 April 2022. Note the development application had already been lodged with council, however it was not properly made (as it required owners consent over Lot 20 on NR7137).
  - A new concept sketch was submitted by the applicant (on 15/05/2022) removing the service station altogether. The new design includes 6 x 'bay to boot' car spaces (for Woolworths), reconfigured car parking in the centre, a fast food oulet (instead of fuel).
- DTMR require traffic data and information on all types of vechicles/trucks entering the site to be able to provide detailed advice.
- DTMR are concerned about safety/conflict with the proposed Byrne Street main entrance.
- The carpark on Byrne Street has no turning option (i.e. there is nowhere for a vehicle to turn at the end of the row of parking).
- There is no bus pull-in or taxi ranks shown on the new concept sketch.
- As the proposed supermarket is considered to be 'full' size, three taxi bays are required and they <u>must</u> be parallel to kerb.
- A bus stop is required as the site is on a bus route.
  - Kris Stone there is the potential to fit an indented bus stop on Byrnes Street closer to the Rankin Street intersection.

- DTMR require information about the size/maximum designs of vehicles at the railway crossing (for the Rankin Street entrance/exit).
- Kris Wilson reiterated that they have finalised the recently signed lease agreement over the reserve land (Lot 20 on NR7137) and that the development application that is lodged with council should now be properly made.
- Referral to the State is a few weeks away yet.

## Actions

- DTMR (Rebecca) to clarify if there is a bi-directional need for a paired bus stop in this area (a pair has to go on both sides of the road). Please provide to SARA.
- DTMR require more detail regarding safety at the railway level crossing and intersections (queing).
- For DTMR/SARA to be able to fully assess the proposal, a development application must include:
  - $\circ \quad \text{a full traffic report}$
  - o a full set of architectural drawings
  - a full response to the following State codes of the latest version of the State Development Assessment Provisions (SDAP):
    - 1: Development in a state-controlled road environment
    - 2: Development in a railway environment
    - 6: Protection of state transport networks

## Options

- DTMR/SARA can provide further advice on the above (draft) requirements (as outlined above).
- A further meeting can then be held to discuss (if required). or
- The development application (which includes the required material, as above) can be referred to SARA and if there are still issues, an information request may be required.

## End of meeting 3.35pm

With kind regards,



## Sue Lockwood

Senior Planning Officer **Planning and Development Services** Department of State Development, Infrastructure, Local Government and Planning

**Queensland** Government

Microsoft teams – <u>meet now</u>

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I acknowledge the traditional custodians of the lands and waters of Queensland. I offer my respect to elders past, present and emerging as we work towards a just, equitable and reconciled Australia.



# **ATTACHMENT 6**

# TRAFFIC IMPACT ASSESSMENT PREPARED BY SLR CONSULTING

# **TRAFFIC IMPACT ASSESSMENT**

Proposed Shopping Centre 232 Byrnes Street, Mareeba

**Prepared for:** 

Wilcon Projects 384 Keilor Road Niddrie VIC 3042

SLR

SLR Ref: 620.30842-R01 Version No: -v1.0 July 2022

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## BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Wilcon Projects (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

## DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
620.30842-R01-v1.0	12 July 2022	Samuel Joseph/Taylor Beauchamp	Kris Stone	Kris Stone



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#### APPENDICES

- Appendix A Development Plans
- Appendix B Swept Path Assessment
- Appendix C Traffic Network Diagrams
- Appendix D Detailed Sidra Outputs
- Appendix E Detailed Net Delay Table
- Appendix F Conceptual Bus Stop Plans



# 1 Introduction

### 1.1 Context

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Wilcon Projects to prepare a Traffic Impact Assessment (TIA) for the proposed mixed-use development located at 232 Byrnes Street, Mareeba. Plans for the development, as prepared by Thompson Adsett, are included in **Appendix A**.

### **1.2** Planning Application

This Development Application (DA) seeks approval for a proposed mixed-use development comprising a shopping centre (including a Woolworths supermarket), food & drink outlet and a shop on the existing Lot 78 on SP298287.

### **1.3** Assessment Scope

This TIA report assesses the consistency of the development with Council and State planning, and the impacts of the proposed development on the surrounding transport networks. The TIA identifies the transport infrastructure required to support the development, and provides an assessment of the traffic and transport aspects of the development against the requirements of the following relevant authorities:

- Mareeba Shire Council (MSC or Council).
- The Department of Transport and Main Roads (TMR).



# 2 Existing Conditions

### 2.1 Subject Site

The subject site is located at 232 Byrnes Street, Mareeba, formally described as Lot 78 on SP152626. The site is situated within the Centre Zone of the Mareeba Shire Council Planning Scheme 2016.

The site is bound by Byrnes Street to the north, Rankin Street to the east, General Residential (Next Generation Neighbourhood) detached dwellings to the south, and a rail corridor to the west. The site is shown in the context of the broader area in **Figure 1** and within the local area in **Figure 2**.







### Figure 2 Site Location: Local Context



### **2.2** Existing Site Use and Access Arrangements

This site is currently vacant, cleared land. Vehicular access to the site is via a driveway crossover to Rankin Street.

### 2.3 Surrounding Road Network

Details of the key roads surrounding the subject site are provided in **Table 1**.

### Table 1 Key Surrounding Roads

Road Name	Authority	Classification	Existing Form	Posted Speed
Byrnes Street	Department of Transport and Mains Roads (Far North District)	State Road (Rural)	Dual carriageway with single traffic lane in either direction. Typically, a rural cross-section with a mixture of cycle lanes/sealed and unsealed shoulders in both directions with parking bays on both sides of the road.	60 km/h
Herberton Street	Mareeba Shire Council	Local Road (Rural)	Single carriageway with a single traffic lane in either direction, marked. Typically, a rural cross-section with parking bays on both sides of the road.	60 km/h
Rankin Street	Mareeba Shire Council	Local Road (Rural)	Single carriageway with single traffic lane in either direction, marked. Typically, a rural cross-section with parking bays on both sides of the road.	40 km/h



Road Name	Authority	Classification	Existing Form	Posted Speed
Frew Street	Mareeba Shire Council (or privately owned)	Local Road (Rural)	Single carriageway with single traffic lane in either direction, unmarked. Typically, a rural cross-section with unsealed shoulders in both directions.	10 km/h

Byrnes Street, Herberton St and Rankin Street are all listed as part of MSC's Transport Network within Mareeba Shire Council.

### 2.4 Public Transport

The subject site is located within reasonable proximity to an existing bus stop (Hail N Ride Service serving existing bus routes) located within an approximate 250m walking distance to the north-east of the subject site on Walsh Street. Details of public transport services in the vicinity of the subject site are summarised in **Table 2**.

#### Table 2Existing Bus Services

Service	Route	Peak Frequency	Nearest Stop
850	Atherton, Tolga, Walkamin, Mareeba stops, Koah,	Only comes twice	250 m (Walsh Street near
	Speewah, Kuranda stops, Cairns	a day	Rankin Street)

### 2.5 Crash History

To highlight any existing safety deficiencies on the external road network within the vicinity of the subject site, SLR have undertaken a review of DTMR crash data for the study area. Crashes are reported for the following periods, noting that only data collected within the last five years has been analysed herein:

- Fatal crashes: January 2016 to December 2020.
- Non-fatal casualty crashes: January 2016 to December 2020.

Reflective of the above, DTMR crash data for the study area within the vicinity of the site is summarised on **Figure 3** with details and DCA codes summarised in **Table 3**.

It is noted that the crashes that occurred at the Byrnes Street/Rankin Street intersection occurred prior to the installation of the traffic signals. Crash data for this intersection following the installation of the signals is not currently available.



### Figure 3 DTMR Crash Data Summary



### Table 3 Details of Reported Crashes (2016 – 2020) near the Proposed Development

Location	Crash ID	Year	Severity	DCA Code	Description
	299651	2016	Medical Treatment	202	Veh's Opposite Approach: Thru-Right
Byrnes Street/ Rankin Street	299673	2016	Hospitalisation	101	Veh's Adjacent Approach: Thru-Thru
Kulkin Street	299714	2017	Medical Treatment	408	Veh's Manoeuvring: Entering from Footway
Byrnes Street/	299680	2016	Hospitalisation	803	Off Path Curve: Off Cway Rt Bend Hit Obj
Herberton Street	299701	2017	Medical Treatment	104	Veh's Adjacent Approach: Thru-Right
Rankin Street/ Walsh Street	299736	2018	Hospitalisation	101	Veh's Adjacent Approach: Thru-Thru
Herberton Street/ Walsh Street	299780	2019	Hospitalisation	104	Veh's Adjacent Approach: Thru-Right
	299648	2016	Hospitalisation	101	Veh's Adjacent Approach: Thru-Thru
Herberton Street/	299671	2016	Hospitalisation	101	Veh's Adjacent Approach: Thru-Thru
Constance Street	299688	2017	Hospitalisation	101	Veh's Adjacent Approach: Thru-Thru
	299793	2019	Medical Treatment	202	Veh's Opposite Approach: Thru-Right
Rankin Street/ Mason Street	299715	2017	Hospitalisation	303	Veh's Same Direction: Right Rear



The following can be surmised from a review of the crash data:

- There were no fatal crashes reported in the vicinity of the subject site.
- The crashes reported in the vicinity of the site were reported as Medical Treatment or Hospitalisation.
- The reported crashes were located at intersections, with no crashes reported mid-block.



# **3 Development Overview**

### **3.1 Proposed Development**

Based on the plans prepared by Thomson Adsett, which are included at **Appendix A**, it is proposed to develop the site for a proposed mixed-use development comprising a shopping centre (including a Woolworths supermarket), a food & drink outlet, and shop land uses. The land uses and associated yields proposed as part of the development are described in terms of Gross Floor Area (GFA) and Gross Leasable Floor Area (GLFA) in **Table 4**. Note that all floor areas have been extracted from the architectural plans and are current at the time of preparing this report.

#### Table 4 Development Summary

Tenancy	Land Use	Yield (GFA)	Yield (GLFA)
Supermarket (Woolworths)	Channing Contro	4.755m2	4 505 m2
Shops	Shopping Centre 4,755m <sup>2</sup>		4,595m <sup>2</sup>
Fast Food	Food and Drink Outlet	270m <sup>2</sup>	270m <sup>2</sup>
Total	5,025m <sup>2</sup>	4,486m <sup>2</sup>	
Car parking (including parking for persons wi	206 క	spaces	

The development layout and the proposed site access locations are mapped on Figure 4.



### Figure 4 Development Layout and Site Access



### **3.2** Site Access and Car Parking

The development's proposed vehicular access arrangements are summarised as follows:

- Access 1: Byrnes Road Passenger Vehicles Only
  - Left-in, left-out driveway designed to accommodate entry and exit for passenger vehicles.
- Access 2: Byrnes Road Service Vehicles Only
  - Left-in, left-out driveway designed to accommodate entry and exit for service vehicles only, up to an Articulated Vehicle.
- Access 3: Rankin Street Passenger and Service Vehicles
  - Left-in, all movements out driveway designed to accommodate entry and exit for passenger vehicles and service vehicles up to a Heavy Rigid Vehicle (HRV) in size.

### 3.3 Servicing

The southern driveway on Byrnes Street and the Rankin Street driveway are intended to accommodate service vehicle access to and from the site, although their design varies based on the type of service vehicle access proposed at each driveway. The service vehicle driveway to Byrnes Street will facilitate service vehicles up to an AV in size for the supermarket. The access to Rankin Street will provide access for service vehicles servicing the fast-food tenancies. Swept path figures are included at **Appendix B**.





# 4 Car Parking Provision

### 4.1 Statutory Requirements

*Table 9.4.3.3B* – *Vehicle Parking and Service Vehicle Spare Requirements* of the MSC Planning Scheme specifies the car parking rates for developments within the Centre Zone. The applicable parking rates for the proposed land uses are presented in **Table 5**.

The second second		and the state of the second
lable 5	Schedule 7 Car Parking Rates – Mixed Indust	ry and Business Zone Requirement

Land Use	Yield (GFA)	Car Parking Rate (inside the Centre Zone)	Requirement
Shopping Centre	4,755m²	One space per 50m <sup>2</sup> or part thereof of GFA up to 400m <sup>2</sup> GFA and one space per 25m <sup>2</sup> or part thereof of GFA above 400m <sup>2</sup>	183 spaces
Food and Drink Outlet	270m <sup>2</sup>	One space per 50m <sup>2</sup> or part thereof of GFA up to 400m <sup>2</sup> GFA	6 spaces
Total		189 spaces	

Given that the development proposes to provide a total of 206 car parking spaces (a 17-space surplus), the development is considered to have met the minimum car parking requirements of MSC's Planning Scheme.

It is noted that an additional 4 motorcycle bays are also provided onsite.

### 4.2 **PWD Car Parking Provision**

The Building Code of Australia (BCA) stipulates the People with Disability (PWD) car parking requirements for a building based on the class of building. The BCA requirements for each class of building proposed as part of the development are as follows:

• Shop (Class 6) buildings require one PWD space for every 50 car parking spaces or part thereof.

The PWD car parking requirement in accordance with the BCA has therefore been calculated using a rate of one PWD space for every 50 car parking spaces or part thereof. As such, a total of four (4) PWD car parking spaces are required. It is proposed that five (5) PWD parking spaces will be provided across the site and therefore the development satisfies the BCA requirement with respect to PWD car parking provision.

The locations of the PWD spaces have been designed to provide ease of access to/from the entry (doorways) of the relevant buildings.

### 4.3 Caravan and Recreational Vehicle Parking

It is noted that there is existing caravan and recreational vehicle (RV) parking provided in the road reserve along the sites Byrnes Street frontage. Through the development of the site, it is not feasible to retain this facility whilst also enabling access to the proposed development.



It is understood that this issue has been discussed with Council officers who identified the desirable provision of some caravan or RV parking within the site.

Whilst the current development plans, included in **Appendix A**, do not provide caravan parking within the site, given the parking surplus currently achieved, there may be provision to modify the plans to provide some caravan or RV parking onsite should MSC require it. One caravan/RV space would likely require the consolidation of two typical passenger vehicle parking spaces.

#### 4.4 **Taxi Facilities**

It is proposed that two taxi parking spaces will be provided on site. The provision of taxi facilities is provided in line with the requirement outlined in State Code 6. It is proposed that the taxi bays will be provided as wide (3.2m) 90-degree spaces to enable comfortable loading and unloading for passengers to access the taxis.

The provision of these taxi bays in a parallel arrangement was investigated but does not form part of the design, nor is it considered necessary given the impact on the site parking, logical traffic circulation patterns, and especially when viewed in the context of the low intensity taxi generating facility that is proposed.

#### 4.5 **Bicycle Parking**

Table 9.4.3.3D – Bicycle Parking and End of Trip Facility Requirements of the MSC Planning Scheme specifies the bicycle parking rates for proposed land uses. The bicycle provision specified is presented in Table 6.

Land Use		Yield	Bicycle Parking Rate	Requirement
Shopping	Employee	80 Staff	Secure bicycle storage for 8% of building staff (based on one person per 60m <sup>2</sup> GLA).	7 bicycle parking spaces
Centre	Visitors	4,595m² GLFA	One space per 500m <sup>2</sup> GLA or part thereof for centres under 30,000m <sup>2</sup>	10 bicycle parking spaces
Food & Dri	nk Outlet	270m <sup>2</sup> GFA	One space per 100m <sup>2</sup> GFA.	3 bicycle parking spaces

**Table 6 Bicycle Parking Requirement** 

13 bicycle racks will be provided across the site. This includes the following provision:

- 7 secured bicycle parking spaces for staff. •
- 13 publicly accessible spaces for the use of visitors.

This provision is in accordance with the bicycle parking requirements of MSC's Planning Scheme.

#### 4.5.1 **End of Trip Facilities**

Table 9.4.3.3D – Bicycle Parking and End of Trip Facility Requirements of the MSC Planning Scheme also specifies the requirement for end of trip facilities for shopping centres, including the number of showers and lockers. The end of trip facility requirements of MSC is presented in Table 7.

Table 7 End of Trip Facility Requirements			
EOT Facility	Yield	Rate	Requirement
Showers	7 bicycle parking spaces	Accessible showers at the rate of one shower per 10 bicycle spaces provided or part thereof	1 Accessible Shower

#### Table 7 End of Trip Eacility Requirements



EOT Facility	Yield	Rate	Requirement
Lockers	80 Staff	20% of building staff (based on one person per 60m <sup>2</sup> GLA to cater for walkers, cyclists and other active users.	20 Lockers

It is proposed that lockers will be provided within the individual tenancies for the use of staff, with an accessible shower provided within the onsite amenities.



# 5 Servicing Provisions

### 5.1 Statutory Requirements

The servicing provisions proposed as part of the development have been designed in accordance with the MSC Planning Scheme, and are summarised as follows:

Table 8	Service	Vehicle	Provisions
---------	---------	---------	------------

Land Use	MSC Requirement	
Shopping Centre	One AV space per 1,000m <sup>2</sup> ; and one SRV space per 500m <sup>2</sup> ; or one SRV space per every 2 specialty uses, whichever the greater.	5 x AV spaces 10 x SRV spaces
Food & Drink Outlet	One HRV space.	1 x HRV Space

Given the proposed tenancy breakdown of the development, the above servicing provision for the shopping centre component is considered excessive for the expected servicing demands. Servicing for the development has been provided based on the anticipated demands for the proposed development.

It is proposed that servicing for the shopping centre will primarily occur within a central loading area located in the south-eastern corner of the site. This will be accessed via the 'service vehicle only' crossover to Byrnes Street.

Based on the size of the tenancies proposed, service for vehicles an AV in size will occur solely for the supermarket component of the shopping centre. As outlined previously, the tenant for the proposed shopping centre will be Woolworths. Woolworths have confirmed that a single AV loading bay is required to service the development, with servicing to be scheduled. This will ensure that the supermarket loading dock is capable of catering for all servicing requirements (deliveries, refuse collection etc) for the supermarket.

It is proposed that servicing will occur with vehicles up to an SRV in size for the remaining retail tenancies. Within the centralised loading area, provision has been made for two SRV's to stand at one time, which is considered suitable to cater for the 'specialty' retail tenancies within the shopping centre.

The centralised loading area within the south-eastern corner will be separated from the 'Direct to Boot' circulation area using bollards and line marking. This will ensure that the primary servicing area will operate separate to the public parking area with passenger vehicle unable to enter the loading area.

A separate loading area has been provided for the retail tenancy located within the north-western corner of the site. Whilst the loading bay shown has a compliant width for an SRV, it has been provided with a reduced length. The provision of the reduce length ensure that the standard use of the car park and circulation aisle is not impeded by the loading bay. On the occasional instance that an SRV utilises the loading bay, it is not expected that the operation of the car park will be significantly impacted, with sufficient visibility for circulating vehicles. When the loading bay is utilised by Utes and Vans, which is expected to be the more frequent service vehicle type, these will not impact the adjacent circulation aisle at all.

For the food & drink outlet, servicing for vehicles up to a HRV has been catered for. Due to the spatial requirements of the HRV swept path, it is proposed that servicing for vehicles for HRV's will occur outside of peak operational periods to ensure they are able to manoeuvre into the loading bay.

Based on the provisions above, it is considered that the development adequately caters for the servicing requirements of each land use within the site.



Swept path assessments have been included in **Appendix B** which demonstrate how service vehicles access, circulate and manoeuvre within the development. These confirm that the swept path of each design vehicle can be adequately accommodated.

### 5.2 Refuse Collection

For the supermarket tenancy within the Shopping Centre, it is proposed that refuse collection will occur at the dedicated loading dock. For the remaining retail tenancies, refuse collection will occur within the dedicated loading areas identified in the development plans.

For the food & drink outlet, refuse collection will occur in the dedicated loading area adjacent to the tenancy.

Swept path assessments have been included in Appendix B, which show the refuse collection manoeuvres.



# 6 Design Considerations

### 6.1 **Overview**

A review of the proposed internal site layout was undertaken against the following relevant documents:

- Australian Standard for Parking Facilities Part 1: Off-street car parking (AS2890.1).
- Australian Standard for Parking Facilities Part 2: Off-street commercial vehicle facilities (AS2890.2).
- Australian Standards for *Parking Facilities Part 6: Off-street parking for people with disabilities* (AS2890.6).
- Austroads Guide to Road Design Part4A: Unsignalized and Signalised Intersections (AGRD4A).

### 6.2 Vehicular Access

Vehicular access to/from the development will be provided via driveway crossovers to both Rankin Street and Byrnes Street the form of the following:

- Access 1: Byrnes Steet
  - Priority controlled intersection which is restricted to a left-in, left out access.
  - The form of the intersection including the driveway design has been based on the swept path requirements of B99 passenger vehicles, taking into consideration the design requirements outlined in AS2890.1.
  - The length and taper of the auxiliary left-turn lane into the site has been designed in accordance with the Austroads Guide to Road Design (AGRD4A), which provides a total lane length of 50m.

#### • Access 2: Byrnes Steet

- Priority controlled intersection which is restricted to left-in, left out access.
- The form of the intersection including the driveway design has been based on the swept path requirements of an Articulated Vehicle, taking into consideration the design requirements outlined in AS2890.2.
- Access 3: Rankin Street
  - Priority controlled intersection which is restricted to a left-in, all movements out access.
  - The form of the intersection including the driveway design has been based on the swept path requirements of a HRV, taking into consideration the design requirements outlined in AS2890.2.
  - The length and taper of the auxiliary left-turn lane into the site has been designed in accordance with the Austroads Guide to Road Design (AGRD4A), which provides a total lane length of 22m.

The access to Rankin Street provides sufficient separation to the rail line to the west. From the access there is approx. 26m of queueing available, which is sufficient to cater for vehicles up to a b-double in size to queue clear of the access. As no right turn is proposed into the access, there will be no queueing from the site access back towards the rail line.

The following sections report the results of a detailed sight distance assessment and turn warrants assessment for the proposed site accesses.



### 6.2.1 Sight Distance Assessment

SLR has undertaken a review of the available sight distance at the proposed site accesses against the requirements described within Austroads *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections* (AGRD4A). **Table 9, Table 10**, and **Table 11** summarise the inputs and results of the sight distance assessment, with **Figure 5** showing the extent of sight distance at the two Byrnes Street and Rankin Street access driveway locations, as well as viewing ranges in each direction.

It is noted that the northern approach for both the Byrnes Street accesses are not required as the development does not propose any right-out movements at these locations.

#### Table 9 Sight Distance Assessment Summary – Byrnes Street Site Access (Passenger Vehicles Only)

Parameter	Southern Approach	Northern Approach
Critical Requirement	Safe Intersection Sight Distance (SISD)	
Posted Speed	60km/hr	
Offset to Roadway	5m	N/A No Dielet Turre Out
Based SISD Requirement	123m Standard	N/A– No Right Turn Out
Available Sight Distance	Over 150m	
Compliance Achieved	Yes	

#### Table 10 Sight Distance Assessment Summary – Byrnes Street Site Access (Service Vehicles Only)

Parameter	Parameter Southern Approach	
Critical Requirement	Safe Intersection Sight Distance (SISD)	
Posted Speed	60km/hr	
Offset to Roadway	5m	N/A No Bight Turn Out
Based SISD Requirement	123m Standard	N/A– No Right Turn Out
Available Sight Distance	Over 150m	
Compliance Achieved	Yes	

#### Table 11 Sight Distance Assessment Summary – Rankin Street Site Access

Parameter	Eastern Approach	Western Approach
Critical Requirement	Safe Intersection Sight Distance (SISD)	
Posted Speed	40km/hr	
Offset to Roadway	5m	
Based SISD Requirement	73m Standard 73m Standard	
Available Sight Distance	Over 100m Over 100m	
Compliance Achieved Yes		Yes





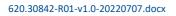
#### Figure 5 Site Accesses – Available Sight Distances

**Table 9, Table 10**, and **Table 11** show that the proposed site accesses will allow for the required SISD in alldirections. Therefore, the proposed locations for the driveways are deemed to be safe.

#### 6.2.2 Turn Warrants Assessment

Turn warrant assessments have been undertaken to establish the desirable form of both the Byrnes Street and Rankin Street accesses in accordance with the industry research summarised within the Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossing Management (AGTM66-20).

The warrants provide guidance where turning lanes should be provided based on design traffic volumes. A pictorial description of the various turn treatments considered is provided in to assist with reader interpretation of this assessment.





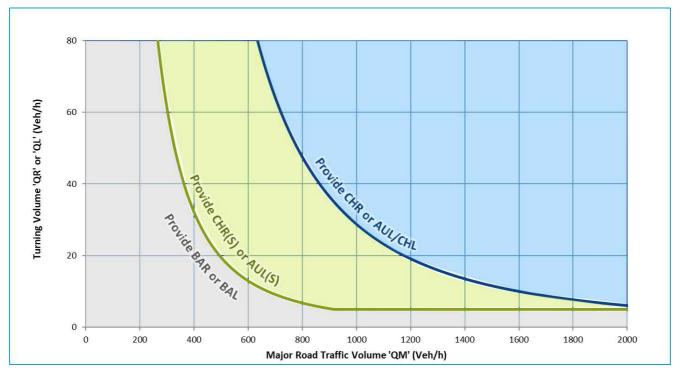


#### Figure 6 Turn Treatment Types

Acronym	Right Turn Treatment	Left Turn Treatment
BAR or BAL	BAR (Basic Right Turn)	BAL (Basic Left Turn)
CHR(S) or AUL(S)	CHR(S) (Channelised Right Turn [Short])	AUL(S) (Auxiliary Left Turn [Short])
CHR or AUL/CHL	CHR (Channelised Right Turn)	CHL (Channelised Left Turn)

\*Source: AGTM6-20

### Figure 7 Turn Treatment Types and Volume Criteria



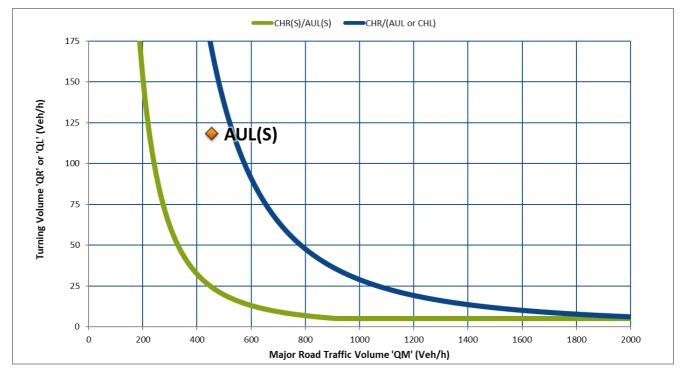


#### 6.2.2.1 Byrnes Street/Site Access

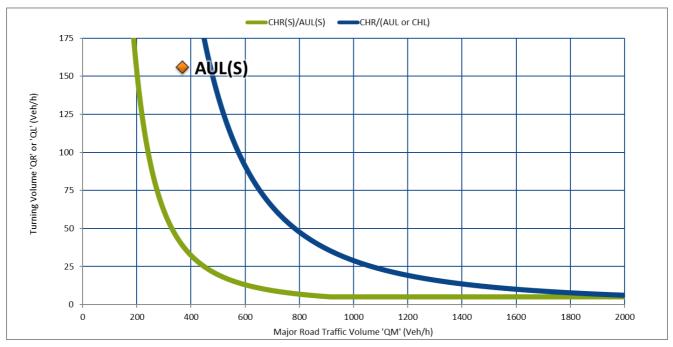
**Figure 8**, **Figure 9**, and **Figure 10** summarise the turn warrant assessments undertaken for the proposed Byrnes Street site access intersection at the 2034 design horizon for the 'With Development' traffic scenario during the Thursday AM, Thursday PM (PM), and Saturday (SAT) peak hour periods respectively. The assessment is based on the following criteria:

- Design Domain Normal Design Domain.
- Design Speed <70km/h (Posted 60km/h).
- Left Turn Splitter Island Not Applicable.



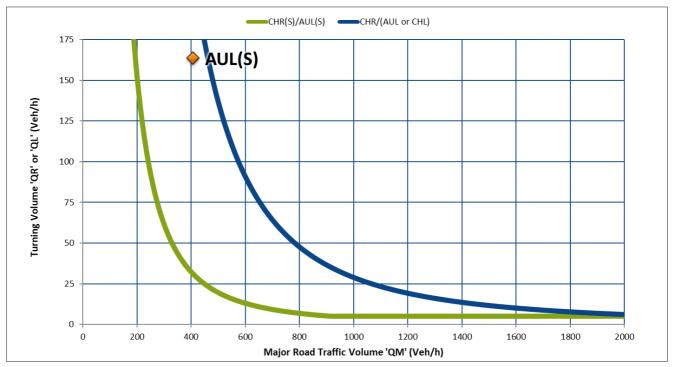






#### Figure 9Byrnes Street/Site Access Turn Warrant Assessment – 2034 PM





**Figure 8**, **Figure 9**, and **Figure 10** indicate that AUL(s) treatment is required for the left turn into the site. The design of the left turn has been provided in accordance with the standards outlined in Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (AGRD044-21) for an AUL.

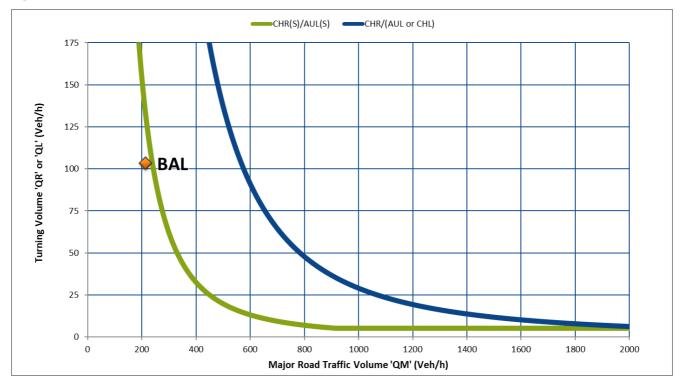


#### 6.2.2.2 Rankin Street/Site Access

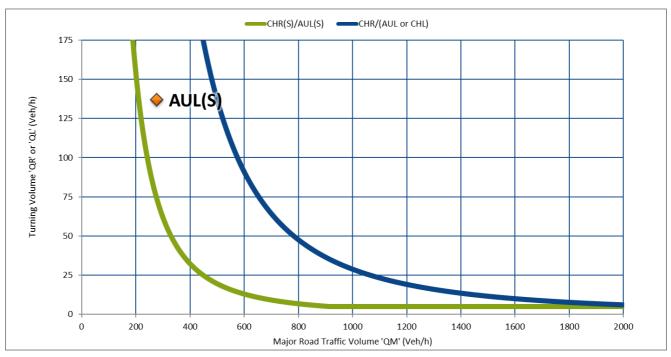
**Figure 11**, **Figure 12**, and **Figure 13** summarise the turn warrant assessments undertaken for the proposed Rankin Street site access intersection at the 2034 design horizon for the 'With Development' traffic scenario during the Thursday AM, Thursday PM (PM), and Saturday (SAT) peak hour periods respectively. The assessment is based on the following criteria:

- Design Domain Normal Design Domain
- Design Speed <70km/h (Posted 40km/h)</li>
- Left Turn Splitter Island Not Applicable

#### Figure 11 Rankin Street/Site Access Turn Warrant Assessment – 2034 AM

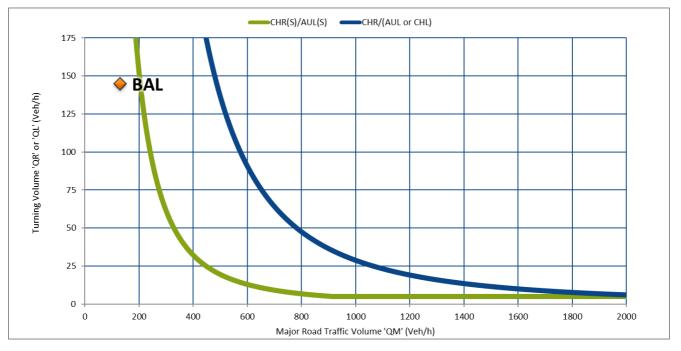






#### Figure 12 Rankin Street/Site Access Turn Warrant Assessment – 2034 PM





**Figure 11**, **Figure 12**, and **Figure 13** indicate that AUL(s) treatment is required for the left turn into the site. The design of the left turn has been provided in accordance with the standards outlined in Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (AGRD044-21) for an AUL.



### 6.3 **Queuing Provisions**

The following is noted with respect to the proposed vehicle queuing provisions across the development:

- The Australian Standard AS2890.1 specified that for a car park with capacity of more than 100 cars, that queue storage be provided that is:
  - 1<sup>st</sup> 100 cars: 3% of capacity;
  - 2<sup>nd</sup> 100 cars: 2% capacity;
  - Additional cars: 1% of capacity;
  - A minimum queueing length of 3 cars/lane.
- Based on AS2890.1, the proposed car park for the development with a capacity for 220 cars would require queue storage for six (6) cars in total divided between two driveways into the site.
- The proposed car park for the development provides queue storage for approximately 3 car lengths from Byrnes Street plus approximately 6 car lengths from Rankin Street. In total, over 9 car length of internal queueing is provided across the development, which is compliant with AS2890.1.

### 6.4 Car Parking and Circulation

The design of the proposed car parking and circulation arrangements have been assessed against the requirements of AS2890.1. A summary of the assessment is presented in **Table 12**.

Element	Proposed Design	AS2890.1 Compliant
90' Car Parking Space Dimensions (User Class 3A)	2.6m x 5.4m	Yes
Parking Aisle (User Class 3A)	6.6m min	Yes
Circulating Roadway Width		
One Way	3.0m min	Yes
• Two Way	7.0m min	Yes
Motorcycle Parking Spaces	1.2m x 2.5m	Yes

#### Table 12 Car Parking Area and Circulation Compliance Review

As demonstrated within **Table 12**, the dimensions for car parking and circulation roads are compliant with AS2890.1.

### 6.5 **Public Transport Provision**

Outlined in prelodgement meetings held with TMR, it was noted that there may be a future requirement for a bus stop to be provided along the site frontage to Byrnes Street. Whilst it is not proposed that the bus stop will be provided as part of the development, the design of the accesses to Byrnes Street as taken into consideration the spatial requirements of a bus stop.

A concept drawing has been prepared showing the provision of an indented bus stop along the site frontage suitable to facilitate a 14.5m rigid bus, and is included in **Appendix F**. It is noted however that an in-line kerb bus stop would be reasonable given the very low demand and forecast dwell time.



# 7 Assessed Traffic Demands

### 7.1 Existing Traffic Demands

In order to ascertain the existing traffics demands on the road network surrounding the site, SLR obtained traffic count data for the following intersections:

- Byrnes Street / Lloyd Street.
- Byrnes Street / Rankin Street.
- Byrnes Street / Herberton Street.
- Byrnes Street / Basalt Street.
- Byrnes Street / Kenneally Street / Costin Street.

Traffic count data for the above intersections was obtained by commissioning Austraffic to conduct traffic surveys for the Thursday AM (AM), Thursday PM (PM) and Saturday (SAT) peak periods. The traffic surveys, undertaken on Thursday 5 May 2022 and Saturday 7 May 2022, established the following peak hour periods (at the site frontage):

- AM Peak Hour: 8:00am-9:00am.
- PM Peak Hour: 4:30pm-5:30pm.
- SAT Peak Hour: 11:00am-12:00pm.

The traffic volumes surveyed during the network peak hour periods are included within the traffic network diagrams included in **Appendix C**, along with the assessed traffic volumes reflecting all the assumptions below.

### 7.2 Development Traffic Demands

Peak hour traffic demand has been forecast for the subject development based upon survey data provided in the following sources:

- Trip Generation Surveys Small Suburban Shopping Centres Analysis Report (Bitzios, 2018). (Bitzios)
- *Guide to Traffic Generating Developments* (RTA, 2002). (RTA GTGD).

**Table 13** describes the data sources and categories used for each of the corresponding land uses within the development.



#### Table 13 Data Sources for Trip Generation

Land Use	Data Source	Category/Trip Generation
Shopping Centre	Bitzios	Using the average vehicle trips per 100m <sup>2</sup> GLFA rates for each of the respective peak periods. Found in Section 4.3 of the report prepared by Bitzios.
Fast Food Outlet	RTA GTGD	It is noted that there is already a McDonalds located within the vicinity of the site, and as such the application of the higher rate (representative of a McDonalds) is not necessary, with the lower generation rate applied. For the Thursday AM Peak, it has been assumed that the fast-food tenancy will generate 80% of the PM Peak demand.

The adopted peak hour traffic generation rates for the development are presented in Table 14, which also outlines the reduction factors where applicable to account for any anticipated cross utilisation of trips within the site (i.e., where a customer visits more than one tenancy within the site).

#### Table 14 Development Trip Generation Rates

Land Use	Yield		<b>Cross Utilisation</b>		
	field	AM Peak	PM Peak	SAT Peak	Reduction
Supermarket	4,595m² GLFA	7.76vph/100m <sup>2</sup>	10.41vph/100m <sup>2</sup>	11.11vph/100m <sup>2</sup>	0%
Fast Food	1 site	80vph/site	100vph/site	100vph/site	15%

The resultant traffic demands based on the traffic generation rates above are outlined in Table 15.

#### Table 15 Development Trip Demand Forecast

Land Use	Trip Generation (In/Out)					
	AM Peak	PM Peak	SAT Peak			
Supermarket	357vph	478vph	511vph			
Fast Food	68vph	85vph	85vph			
Total	425vph	563vph	596vph			

The proportions of 'new' trips (including diverted drop-in trips from outside the local road network) and 'dropin' trips (undiverted drop-in trips from within the local road network) for development generated traffic during the network peak hour periods have been adopted as presented in Table 17.





#### Table 16 Development Trip Demand Forecast

Land Use	New Trips (New Trips and Diverted Drop-in Trips)	Drop-In Trips (Undiverted Drop-in Trips)
Supermarket	75%	25%
Fast Food	50%	50%

#### 7.3 **Traffic Distribution**

#### 7.3.1 **Directional Split**

The following inbound/outbound trip directional splits have been adopted for each assessed land use:

All uses: 50% inbound/50% outbound. •

#### 7.3.2 **External Traffic Distribution – New Trips**

The distribution of new trips to the external road network has been assigned according to that presented in Table 17. These proportions were based on a review of the scale of catchment areas local to the development in the absence of any economic studies for the proposed development.

#### Table 17 External Traffic Distribution – New Trips

Direction	Via	Proportion of New Trips			
South	Byrnes Street	10%			
South-East	Byrnes Street, Kenneally Road	10%			
South-West	Byrnes Street, Costin Street	10%			
East	Rankin Street, Herberton Street	25%			
North	Byrnes Street	30%			
West	Rankin Street	15%			

#### 7.3.3 **External Traffic Distribution - Drop-in Trips**

The distribution of drop-in trips through the development (which are a diversion of existing trips on the local road network into the development and back onto the external road network) take into consideration the major movements on the adjacent road network. They also take into consideration the restrictions regarding the allowable turns at the accesses and the ease of access for a 'drop-in' trip. This distribution, or routing of trips, is presented in Table 18.





Table 18	<b>External Traffic</b>	Distribution -	<b>Drop-In Trips</b>
----------	-------------------------	----------------	----------------------

Origin	Destination	Proportion of Drop-in Trips			
	East	0%			
South	North	30%			
	West	5%			
	South	0%			
East	North	15%			
	West	0%			
	South	30%			
North	East	15%			
	West	5%			
West^	0%				

^ Due to the restriction on movements entering the development on Rankin Street (no right turns in) and the additional routing that would be required, it is assumed that vehicles travelling from the west will not access the development as a 'drop-in' trip.

## 7.4 Background Traffic Growth

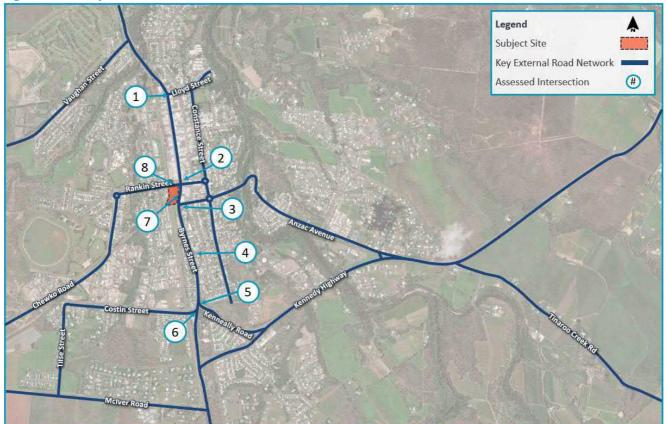
An annual growth rate of 1.59% has been applied to background traffic movements to project future background traffic volumes. This growth rate was taken from TMR's 10-year growth rate in AADT along the site frontage.



# 8 **Operational Assessment**

## 8.1 Study Intersections

A detailed analysis of the potential traffic impacts of the proposed development on the operation of the external road network has been undertaken at the eight (8) locations identified on **Figure 14**.



#### Figure 14 Study Intersections

ID	Intersection	Existing Form	Future Form	Authority
1	Byrnes Street / Lloyd Street			TMR
2	Byrnes Street / Rankin Street			TMR
3	Byrnes Street / Herberton Street	Þ	Þ	TMR
4	Byrnes Street / Basalt Street			TMR
5	Byrnes Street / Keneally Road	Þ	Þ	TMR
6	Byrnes Street / Costin Street	4	<del>(</del>	TMR
7	Byrnes Street / Site Access	-	4	TMR
8	Rankin Street / Site Access	-	T	MSC



### 8.2 Assessment Scenarios

It has been assumed that the proposed development would be completed and fully operational by 2024. Reflective of this, the following assessment scenarios have been assessed:

- State-controlled intersections:
  - **2022 'Background':** To establish existing operational conditions.
  - **2024 'Background':** To establish the year of opening baseline operating conditions in the absence of the subject development.
  - **2024 'With Development':** To identify the incremental impact of development traffic on operating conditions at the year of opening.
- Site access intersections:
  - **2024 'With Development':** To identify the incremental impact of development traffic on operating conditions at the year of opening.
  - **2034 'With Development':** To identify the incremental impact of development traffic on operating conditions at the 10-year design horizon.

The operation of the road network during the Thursday AM (AM), Thursday PM (PM) and Saturday (SAT) peak hour periods was assessed for all of the above scenarios.

### 8.3 Performance Criteria

#### 8.3.1 Intersection Performance

The maximum DOS thresholds identified by AGTM12-20 for each intersection type are reproduced in **Table 19**. These parameters are considered to be relevant and appropriate for assessing the capacity and performance of an intersection, particularly for new intersections.

#### Table 19Degree of Saturation Thresholds

Intersection Type	DOS Threshold		
Signalised intersections	Less than or equal to 0.90		
Roundabouts	Less than or equal to 0.85		
Priority controlled intersections	Less than or equal to 0.80		

DOS values exceeding those presented in **Table 19** indicate that an intersection is nearing is practical capacity and upgrade works may be required. Above these threshold values, users of the intersection are likely to experience increasing delays and queuing.

### 8.3.2 Critical Delay

The RMS (now TfNSW) *Guide to Traffic Generating Developments* (2002) recommends that the average delay statistic for the critical movement provides a better indication of intersection performance and safety for roundabouts and priority-controlled intersections than DOS. A summary of the delay thresholds recommended by TfNSW is provided in **Table 20**.



#### Table 20Critical Delay Thresholds

LOS	Description	Critical Delay (sec/vehicle)
А	Good operation	< 14 sec
В	Acceptable delays and spare capacity	15 – 28 sec
С	Satisfactory	29 – 42 sec
D	Near capacity	43 – 56 sec
E	At capacity, requires other control mode	57 – 70 sec

#### 8.3.2.1 Net Worsening of Intersection Delay

The GTIA introduced a 'no net worsening' methodology for intersection delay, whereby the impact of development generated traffic requires mitigation should the increase in intersection delay under 'with-development' conditions increase by 5% or more compared with that of the 'base case' conditions. Intersection delay is calculated using the below equation at state-controlled intersections.

$$ID = \sum_{i=1}^{n} WD - \sum_{i=1}^{n} BC$$

Where: *ID* is the aggregate intersection-delay impact in vehicle-minutes;

- *WD* is with-development intersection vehicle-minutes for the design peak periods. This is calculated by multiplying the with-development average delay by movement to the base case volume on each movement, thus not counting the impact as delays to development traffic, but rather only to pre-existing traffic that is affected by the additional delays;
- **BC** is the base case intersection vehicle-minutes for the design peak periods;
- *n* is the number of study intersections; and
- *i* is each study intersection.

It is noted that Section 11.3.1 of the GTIA states that, where traffic generated by the subject development increases the delay to base traffic by less than 5% in aggregate, no mitigation works are required.

### 8.4 Intersection Assessment

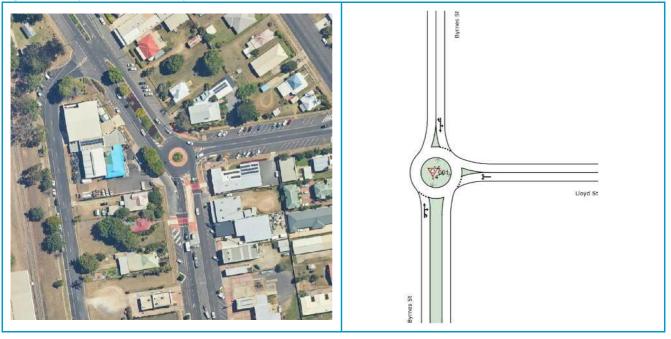
For the intersection assessment undertaken with SIDRA, to capture the interactions between the intersections along the assessed corridor, the intersections were networked within SIDRA. This was considered particularly critical to capture any interaction between the signalised intersection of Byrnes Street/Rankin Street and the proposed site accesses. It also allowed for the interaction between the priority-controlled intersections of Byrnes Street/Kenneally Road, and Byrnes Street/Costin Street given there very small separation and the provision of short lanes extending between the two.

### 8.4.1 Intersection 1 – Byrnes Street / Lloyd Street

The Byrnes Street / Lloyd Street intersection is currently formed as a three-legged roundabout. The existing layout and the assessed SIDRA intersection form are shown on **Figure 15**. The results of the SIDRA assessment are presented in **Table 21**. Detailed SIDRA outputs are provided at **Appendix D**.



#### Figure 15 Byrnes Street / Lloyd Street – Intersection Form



#### Table 21 SIDRA Outputs: Byrnes Street / Lloyd Street Intersection

	AM Peak Hour		PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue
Without Development	Without Development								
2022 Background	0.43	12s	24m	0.35	12s	18m	0.31	11s	16m
2024 Background	0.45	12s	25m	0.36	12s	19m	0.32	11s	17m
With Development									
2024 With Development	0.49	12s	29m	0.41	12s	23m	0.37	12s	21m

The SIDRA analysis summarised in Table 21 identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.

#### 8.4.2 Intersection 2 – Byrnes Street / Rankin Street Intersection

The Byrnes Street / Rankin Street intersection is currently a traffic signal controlled four-way intersection. The existing layout and the assessed SIDRA intersection form are shown on Figure 16.

The cycle time for the three assessment periods was derived from the existing operations as observed in the Austraffic survey footage. To undertake the net delay assessment as required, to accurately compare the two scenarios (without and with development traffic) in 2024, phase times are required to be set.

Due to existing limitations within SIDRA, to run set phase times, the minimum pedestrian crossing time had to be taken into consideration. A phase time lower than the minimum pedestrian crossing time could not be applied in the timing data. This results in some 'minor' phases running with higher average times than what was observed.





Given the continual growth of traffic through the intersection, it is also anticipated that the phase times currently experienced will adjust over time, irrespective of the proposed development. With the signalised intersection running in isolation (no coordination along the corridor), when the demand on an approach increases, so will the respective phase times. The incremental development traffic demand on some intersection movements, i.e. right turn from north-to-west will naturally 'call' more green time compared to the existing Background situation.

To provide consistent phase times between the 2024 'Background' and 'With Development', phase times that did not prejudice either scenario were utilised to provide a comparative assessment. This in turn allows for the minimum pedestrian crossing phase times to be input and run in SIDRA.

The results of the SIDRA assessment are presented in **Table 22**. Detailed SIDRA outputs are provided at **Appendix D**.



## Figure 16 Byrnes Street / Rankin Street – Intersection Form

### Table 22 SIDRA Outputs: Byrnes Street / Rankin Street Intersection

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Average Delay	95%ile Queue	DOS	Average Delay	95%ile Queue	DOS	Average Delay	95%ile Queue	
Without Development										
2022 Background	0.48	42s	114m	0.53	41s	114m	0.46	34s	110m	
2024 Background	0.57	45s	128m	0.73	47s	151m	0.77	44s	157m	
With Development										
2024 With Development	0.80	48s	90m	0.73	50s	103m	0.64	45s	104m	

The SIDRA analysis summarised in **Table 22** identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.



The reduction in the 95% tile queue experienced at the intersection is attributed to the existing traffic passing the site that will become 'drop-in' trips to the centre. This reallocation of existing traffic will results in a redistribution on the existing network and the reduction of the critical queue lengths.

## 8.4.3 Intersection 3 – Byrnes Street / Herberton Street Intersection

The Byrnes Street / Herberton Street intersection is currently a priority-controlled t-intersection. The existing layout and the assessed SIDRA intersection form are shown on **Figure 17**. The results of the SIDRA assessment are presented in **Table 23**. Detailed SIDRA outputs are provided at **Appendix D**.

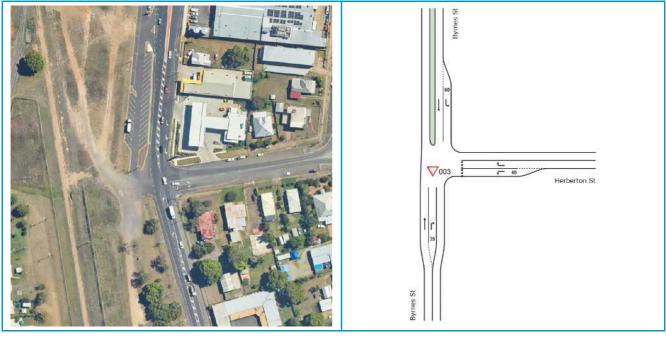


Figure 17 Byrnes Street / Herberton Street – Intersection Form

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
Without Development										
2022 Background	0.31	20s	12m	0.26	18s	9m	0.22	17s	7m	
2024 Background	0.32	21s	13m	0.27	19s	9m	0.23	17s	7m	
With Development										
2024 With Development	0.38	33s	15m	0.47	36s	12m	0.46	33s	13m	

The SIDRA analysis summarised in **Table 23** identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.

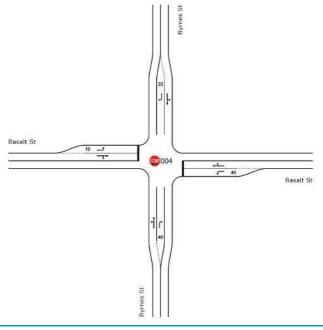
## 8.4.4 Intersection 4 – Byrnes Street / Basalt Street Intersection

The Byrnes Street / Basalt Street intersection is currently a priority-controlled four-way intersection. The existing layout and the assessed SIDRA intersection form are shown on **Figure 18**. The results of the SIDRA assessment are presented in **Table 24**. Detailed SIDRA outputs are provided at **Appendix D**.



## Figure 18 Byrnes Street / Basalt Street – Intersection Form





### Table 24 SIDRA Outputs: Byrnes Street / Basalt Street Intersection

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
Without Development										
2022 Background	0.22	15s	3m	0.31	20s	4m	0.25	17s	4m	
2024 Background	0.23	16s	3m	0.32	20s	4m	0.25	17s	4m	
With Development										
2024 With Development	0.26	18s	3m	0.36	24s	4m	0.29	20s	5m	

The SIDRA analysis summarised in **Table 24** identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.

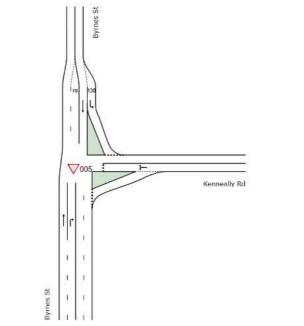


## 8.4.5 Intersection 5 – Byrnes Street / Kenneally Road Intersection

The Byrnes Street / Kenneally Road intersection is currently a priority-controlled T-intersection. The existing layout and the assessed SIDRA intersection form are shown on **Figure 19**. As outlined above, the intersections were networked for the assessment. The provision of 'full lanes' in the SIDRA layout represent the portion of the short turn lanes attributed to the Byrnes Street/Kenneally Road intersection, with the remainder of the short turn lane provided within the Byrnes Street/Costin Street SIDRA layout.

The results of the SIDRA assessment are presented in **Table 25**. Detailed SIDRA outputs are provided at **Appendix D**.





## Figure 19 Byrnes Street / Kenneally Road – Intersection Form

### Table 25 SIDRA Outputs: Byrnes Street / Kenneally Road Intersection

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
Without Development										
2022 Background	0.47	29s	15m	0.28	21s	8m	0.29	16s	9m	
2024 Background	0.52	32s	18m	0.30	23s	8m	0.31	16s	10m	
With Development										
2024 With Development	0.68	42s	26m	0.45	30s	14m	0.43	21s	15m	

The SIDRA analysis summarised in **Table 25** identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.

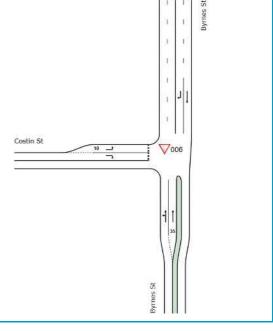
## 8.4.6 Intersection 6 – Byrnes Street / Costin Street Intersection

The Byrnes Street / Costin Street intersection is currently a priority-controlled T-intersection. The existing layout and the assessed SIDRA intersection form are shown on **Figure 20**. The results of the SIDRA assessment are presented in **Table 26**. Detailed SIDRA outputs are provided at **Appendix D**.



## Figure 20 Byrnes Street / Costin Street – Intersection Form





### Table 26 SIDRA Outputs: Byrnes Street / Costin Street Intersection

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
Without Development										
2022 Background	0.33	24s	6m	0.24	16s	4m	0.18	12s	3m	
2024 Background	0.34	25s	6m	0.25	17s	4m	0.18	12s	3m	
With Development										
2024 With Development	0.35	27s	7m	0.26	18s	5m	0.19	13s	4m	

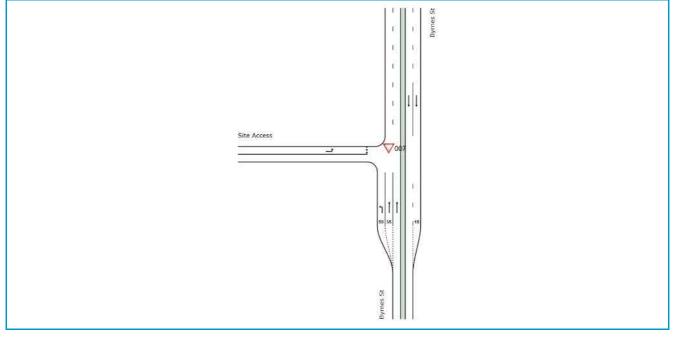
The SIDRA analysis summarised in **Table 26** identifies that the intersection will operate at an acceptable performance level, with spare capacity, through to and beyond 2024.



## 8.4.7 Intersection 7 – Byrnes Street / Site Access

The Byrnes Street / Site Access intersection is proposed as a priority-controlled t-intersection restricted to leftin, left-out movements. The SIDRA layout of the proposed intersection form is shown on **Figure 21**. The results of the SIDRA assessment are presented in **Table 27**. Detailed SIDRA outputs are provided at **Appendix D**.





### Table 27 SIDRA Outputs: Byrnes Street / Site Access

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
With Development										
2024 With Development	0.26	6s	2m	0.32	6s	2m	0.29	6s	2m	
2034 With Development	0.30	6s	2m	0.37	6s	2m	0.33	6s	3m	

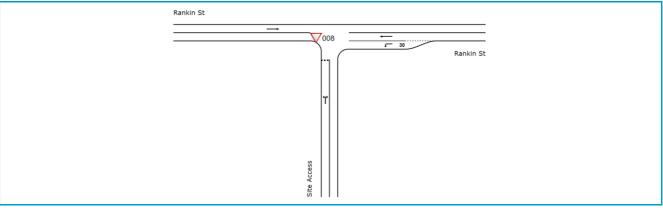
The SIDRA analysis summarised in **Table 27** identifies that the proposed site access will operate at an acceptable performance level, with spare capacity, through to and beyond 2034. Given the provision of the access as leftin, left-out, no queueing external to the site will occur due to the operation of the site access. The queueing that occurs internal to the development will not extend into the car park circulation area and will not impact internal circulation.



#### 8.4.8 Intersection 8 – Rankin Street / Site Access

The Rankin Street / Site Access intersection is proposed as a priority-controlled t-intersection restricted to leftin, all movements out. The SIDRA layout of the proposed intersection form is shown on Figure 22. The results of the SIDRA assessment are presented in Table 28. Detailed SIDRA outputs are provided at Appendix D.

### Figure 22 Rankin Street / Site Access – Intersection Form



### Table 28 SIDRA Outputs: Rankin Street / Site Access

	AM Peak Hour			PM Peak Hour			SAT Peak Hour			
Scenario	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	DOS	Critical Delay	95%ile Queue	
With Development										
2024 With Development	0.43	8s	10m	0.63	12s	20m	0.48	8s	14m	
2034 With Development	0.46	10s	27m	0.68	15s	23m	0.56	9s	17m	

The SIDRA analysis summarised in Table 28 identifies that the proposed site access will operate at an acceptable performance level, with spare capacity, through to and beyond 2034. As the site access does not allow for a right turn into the site, no additional queueing along Rankin Street will occur beyond that capture in the Byrnes Street/Rankin Street results. The queueing that occurs internal to the development will not extend into the car park circulation area and will not impact internal circulation.

#### 8.5 **Net Worsening Assessment**

The results of the net worsening assessment are summarised within Table 29, with the detailed net worsening assessment spreadsheet provided in Appendix E.







## Table 29 Net Worsening Assessment Outputs

Peak Period	ΣΒΟ	Σ₩D	ID = ΣWD - ΣBC			
Peak Periou	(Total Base Case Delays)	(Total With- Development Delays)	Δ	%		
AM	810min	849min	40min	+4.9%		
PM	787min	824min	37min	+4.7%		
SAT	682min	713min	31min	+4.6%		
Total	2,278min	2,387min	109min	+4.8%		

The results presented in **Table 29** indicates that an increase in the net delay metric of less than 5% is reported to occur during the Thursday AM, Thursday PM peak and Saturday midday peak periods. As such, no mitigation works are warranted in accordance with the GTIA which identified 5% as a threshold defining a significant impact that should be mitigated.

Accordingly, no capacity upgrades beyond those proposed at the site access locations have been assessed or are proposed at this time.



## 9 Safety Assessment

## 9.1 Overview

Section 6 of the GTIA requires an assessment of the impacts of a proposed development on the safety of the state-controlled road network.

The following activities were undertaken as part of the road safety assessment:

- Review of existing crash data, aerial imagery and a site inspection to identify any existing safety deficiencies along either of the study corridors within the vicinity of the subject site; and
- A risk assessment to establish a risk scope for any existing safety risks, the level of impact of the subject development on these existing safety risks, as well as any additional risks introduced by the proposal.

## 9.2 Risk Assessment

A risk assessment was undertaken to evaluate the severity of any safety risks introduced or exacerbated by the proposed development of the subject site. This has been conducted using the safety risk score matrix detailed within Figure 9.3.2(a) of the GTIA, which has been reproduced in **Figure 23** for reference.

			Pc	otential Consequen	ce	
		1. Property damage	2. Minor injury	3. Medical treatment	4. Hospitalisation	5. Fatality
	5. Almost certain	М	Μ	Н	н	Н
ial d	4. Likely	Μ	Μ	М	н	Н
tential	3. Moderate	L	М	М	М	н
Pote	2. Unlikely	L	L	Μ	Μ	Μ
	1. Rare	L	L	L	М	Μ

## Figure 23 GTIA Safety Risk Score Matrix

L = low risk, M = medium risk, H = high risk

The purpose of the road safety risk assessment as defined within the GTIA is to ensure that the subject development does not 'significantly' worsen road safety and/or mitigate any existing safety hazards. In this case a 'significant' worsening is defined as a change in the safety risk rating (for example from 'low' to 'medium'), with the following criteria provided for the mitigation of safety risks:

- The aim of the assessment is to return the 'with development' risk score to the 'without development' score and below the 'high' category in all scenarios with mitigation measures in place; and
- Any risk item classified as 'high' risk required mitigation regardless of whether this risk is pre-existing or introduced by the development.

Given the above considerations, a summary of the safety risk assessment for the subject development provided in **Table 30**.



## Table 30Safety Risk Assessment

		Nithou velopm		Dev	With velopm	ent	With Develop Mitigati			
Potential Risk	Likelihood	Consequence	Risk Score	Likelihood	Consequence	Risk Score	Mitigation Measures	Likelihood	Consequence	Risk Score
Increased demand for turning movements at the surrounding intersections which may result in increased rear-end and angle crashes	2	4	М	3	4	М	As documented in the operat intersections within the study operate at an acceptable leve the development traffic. The intersections with the additio traffic is unlikely to promote driver behaviour, and therefor likelihood of accidents. No m	v area wi I with th operatio n of the an increa	Il contin ne addition on of the develop ase in ris creased	ue to on of ment ky
Queues extending back into intersections – risk of vehicles stopping in vulnerable locations (such as the middle of intersections) and obstructing vehicle movements.	2	3	Μ	2	3	Μ	No mitigation required.			
The queue along the Rankin Street frontage will queue beyond the rail line crossing increasing the chance a car will queue on the crossing.	1	5	М	2	5	М	Documented in the SIDRA res Rankin Street frontage of the within the available approach line crossing. The addition of traffic will not cause the queu beyond the rail crossing. No r	site will distanc the deve le length	be conta e from tl elopmen i to exte	ained he rail t nd
Increase in pedestrian demand travelling along the site frontage.	1	4	М	3	4	М	A footpath in the verges would reduce the likelihood of crashes resulting from pedestrians not having any dedicated facility.	1	4	М

The risk assessment summarised above suggests that the subject development is unlikely to have a material impact on road safety with the study area and therefore no mitigation treatments are justified.



## **10 Code Assessment**

The traffic and transport aspects of the proposed development have been assessed against the relevant requirements of the following state codes:

- State code 1: Development in a state-controlled road environment; and
- State code 6: Protection of state transport networks.

Responses to these codes regarding the traffic and transport aspects have been prepared by SLR and are included within the planning reporting prepared by Urban Sync.



## **11** Summary and Conclusions

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Wilcon Projects to prepare a Traffic Impact Assessment (TIA) for the proposed mixed-use development located at 232 Byrnes Street, Mareeba. Plans for the development, as prepared by Thompson Adsett, are included in **Appendix A**.

Based on the analysis and discussion documented herein, the following is concluded:

- The proposed development seeks to develop the existing site to include a shopping centre (including a Woolworths supermarket), a food & drink outlet and shop land uses.
- It is proposed that access to the site be via three new driveways, which are:
  - A left-in, left-out driveway on Byrnes Street for passenger vehicle only.
  - A left-in, left-out driveway on Byrnes Street for service vehicles only, facilitating vehicles up to the size of an Articulated Vehicle.
  - A left-in, all movements out driveway to Rankin Street, facilitating access for passenger vehicles and service vehicles up to the size of a Heavy Rigid Vehicle.
- The proposed car park with a capacity of 220 parking spaces (including 5 PWD spaces) exceeds the requirements of the MSC Planning Scheme and is therefore adequate.
- The proposed bicycle parking and end of trip facilities will be provided in accordance with the requirements outlined in the MSC Planning Scheme.
- All servicing is proposed to occur within the site within dedicated service areas/loading bays. Waste collection is to occur via the same service areas/loading bays as for deliveries. Swept path assessments of these facilities have confirmed that the design vehicles can be accommodated.
- All elements of the car park, circulation roadways and driveways are compliant with Australian Standards.
- The intersection assessments have identified the following:
  - The state-controlled intersections assessed will operate acceptably with the inclusion of the development at the opening year of 2024.
  - The site access intersections will operate acceptably up to and beyond the 2034 design horizon.
- The net delay assessment found that an increase in the net delay metric of less than 5% occurs across the three assessed peak periods.





# **Appendix A** Development Plans





# MAREEBA NEIGHBOURHOOD **SHOPPING CENTRE**

232 BYRNES STREET, MAREEBA

# DRAWING LIST - CONCEPT

<ul> <li>A 0.00 COVER SHEET</li> <li>A 0.10 SITE CONTEXT PLAN</li> <li>A 1.01 SITE PLAN</li> <li>A 1.02 DEVELOPMENT PLAN</li> <li>A 2.01 GROUND FLOOR PLAN - SUPERMARKET</li> <li>A 2.02 ROOF PLAN - SUPERMARKET</li> <li>A 2.03 ELEVATIONS - SUPERMARKET</li> <li>A 2.04 ELEVATIONS - SUPERMARKET</li> </ul>		1	
<ul> <li>A 1.01 SITE PLAN</li> <li>A 1.02 DEVELOPMENT PLAN</li> <li>A 2.01 GROUND FLOOR PLAN - SUPERMARKET</li> <li>A 2.02 ROOF PLAN - SUPERMARKET</li> <li>A 2.03 ELEVATIONS - SUPERMARKET</li> </ul>	Α	0.00	COVER SHEET
A1.02DEVELOPMENT PLANA2.01GROUND FLOOR PLAN - SUPERMARKETA2.02ROOF PLAN - SUPERMARKETA2.03ELEVATIONS - SUPERMARKET	А	0.10	SITE CONTEXT PLAN
<ul> <li>A 2.01 GROUND FLOOR PLAN - SUPERMARKET</li> <li>A 2.02 ROOF PLAN - SUPERMARKET</li> <li>A 2.03 ELEVATIONS - SUPERMARKET</li> </ul>	А	1.01	SITE PLAN
A2.02ROOF PLAN - SUPERMARKETA2.03ELEVATIONS - SUPERMARKET	Α	1.02	DEVELOPMENT PLAN
A 2.03 ELEVATIONS - SUPERMARKET	Α	2.01	GROUND FLOOR PLAN - SUPERMARKET
	Α	2.02	ROOF PLAN - SUPERMARKET
A 2.04 ELEVATIONS - SUPERMARKET	Α	2.03	ELEVATIONS - SUPERMARKET
	Α	2.04	ELEVATIONS - SUPERMARKET
A 2.05 SECTIONS - SUPERMARKET	Α	2.05	SECTIONS - SUPERMARKET
A 3.01 GROUND FLOOR PLAN - SHOPS	Α	3.01	GROUND FLOOR PLAN - SHOPS
A 3.02 ELEVATIONS - SHOPS	Α	3.02	ELEVATIONS - SHOPS
A 4.01 GROUND FLOOR PLAN - FAST FOOD	Α	4.01	GROUND FLOOR PLAN - FAST FOOD
A 4.02 ELEVATIONS - FAST FOOD	Α	4.02	ELEVATIONS - FAST FOOD
A 5.01 3D VIEWS	А	5.01	3D VIEWS
A 5.02 3D VIEWS	Α	5.02	3D VIEWS

# **DEVELOPMENT APPLICATION**

232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD





EXISTING VIEW FROM CORNER OF BYRNES & RANKIN STREET

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

© Copyright Thomson Adsett Pty Ltd. ABN 76 105 314 654 Dimensions take precedence over scaling. Do not measure off drawings as print sizes may vary

Telephone +61 7 3840 9999 bne@thomsonadsett.com Level 9, 470 St Pauls Terrace Fortitude Valley Qld 4006 Australia thomsonadsett.com



**COVER SHEET** 

1 : 1 @ A1

TA # 19.0298.17 A0.00

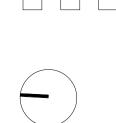
12/07/2022



**BICENTENNIAL LAKES** 



## **DEVELOPMENT APPLICATION** 0 25 50 75 125 250 m



MAREEBA 232 PTY LTD

**BASATT GULLY PARK** 

# PROPOSED MAREEBA **NEIGHBOURHOOD SHOPPING CENTRE**

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

232 BYRNES STREET, MAREEBA

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## SITE CONTEXT PLAN

1 : 2500 @ A1

TA # 19.0298.17 A0.10

12/07/2022

# **DEVELOPMENT SCHEDULE**

PROPOSED USES	GFA	GLAR	
SUPERMARKET	3655m <sup>2</sup>	3603m <sup>2</sup>	
SHOPS	1010m <sup>2</sup>	992m <sup>2</sup>	
AMENITIES	90m <sup>2</sup>		
TOTAL CENTRE	4755m <sup>2</sup>	4595m <sup>2</sup>	
FAST FOOD	270m <sup>2</sup>	270m <sup>2</sup>	
TOTAL	5025m <sup>2</sup>	<b>4865m<sup>2</sup></b> (5/100m2)	
CAR PARKING SCHEDULE			
CARS FAST FOOD	11		
CARS CENTRE (INCL. MOTOR BIKES, DIRECT TO BOOT + TAXIS)	203		
ON SITE CARS	214		
STREET CARS 5			
TOTAL CARS PROVIDED 219		9	
TOTAL CARS REQUIRED	193	3	

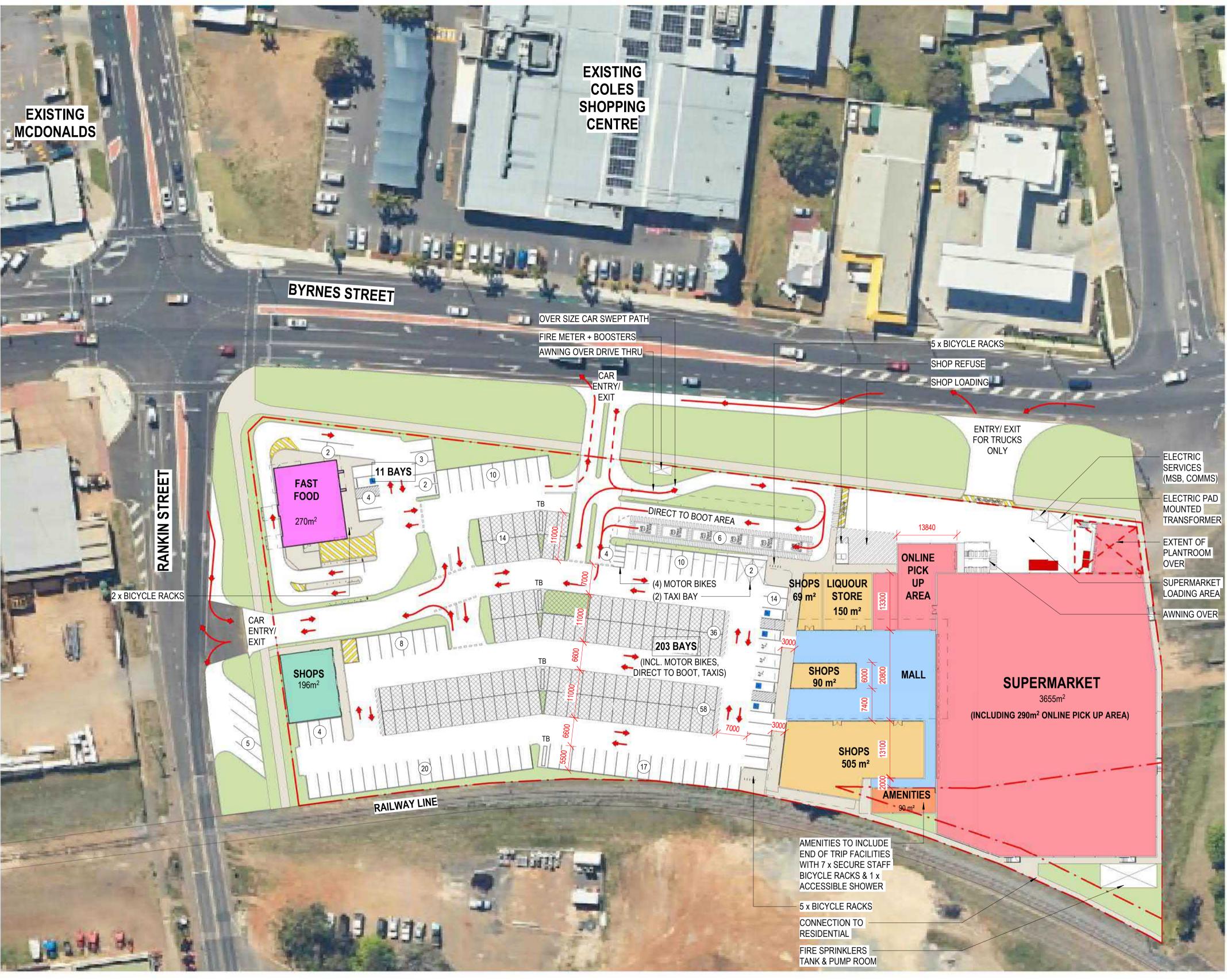
## NOTE:

CARS REQUIRED IS BASED ON: 1/50 UP TO 400m<sup>2</sup> GFA 1/25 ABOVE 400m<sup>2</sup> GFA

## NOTE: SUPERMARKET GLAR EXCLUDES EXTERNAL WALLS AND LOADING DOCK

## **COVERED CARPARKS**

AREA OF ENCLOSED MALL / PASSAGE - 637m<sup>2</sup>



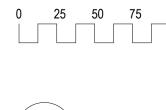
SITE PLAN 1 1 : 500

# 232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD



125



 $\left( - \right)$ 

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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## SITE PLAN

As indicated @ A1

12/07/2022

TA # 19.0298.17 A1.01



# MAREEBA 232 PTY LTD

232 BYRNES STREET, MAREEBA

## **DEVELOPMENT APPLICATION** 0 3 6 9 15 30 m





# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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# DEVELOPMENT PLAN

1 : 300 @ A1

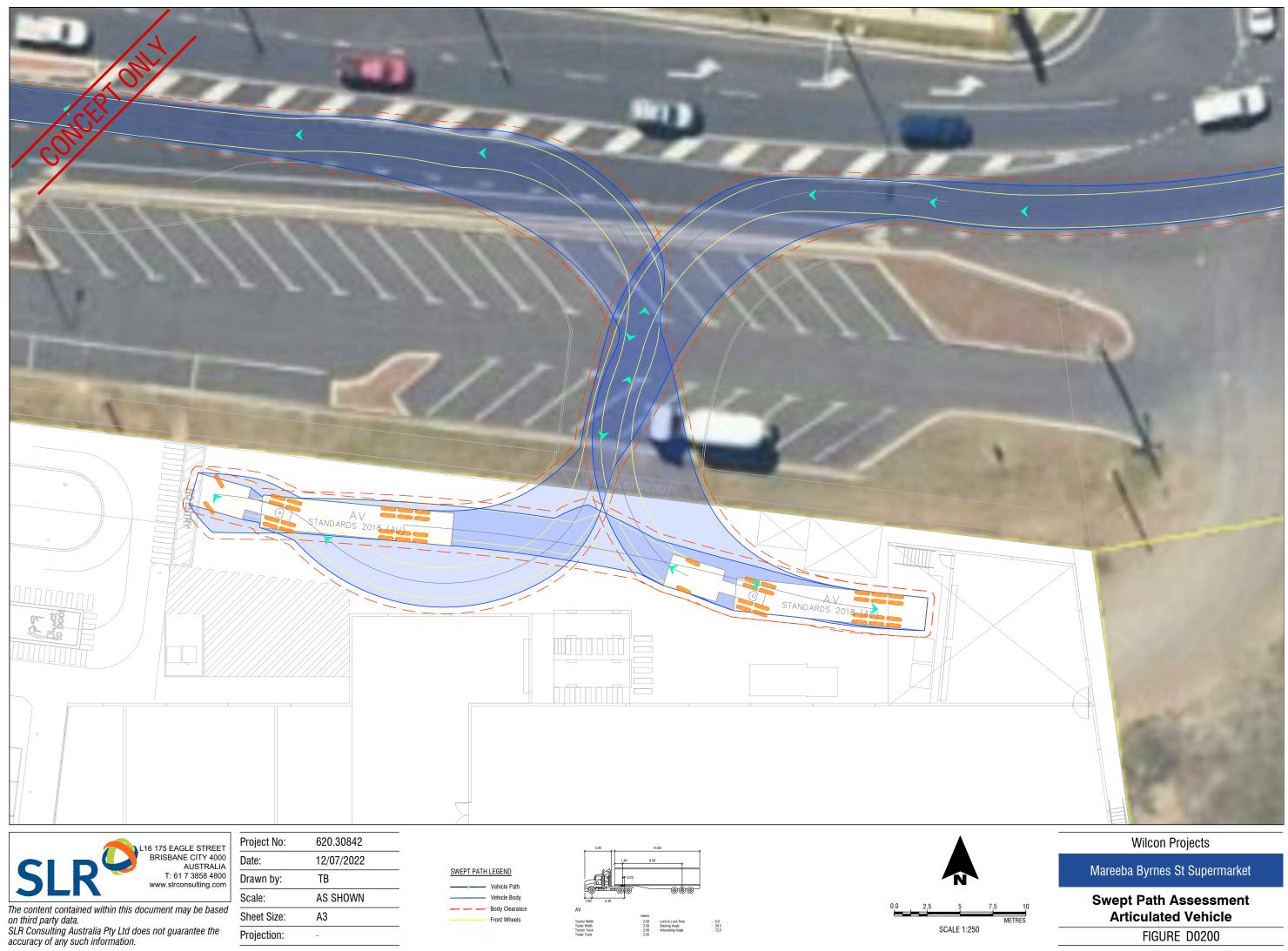
12/07/2022

TA # 19.0298.17 A1.02

# **Appendix B**

Swept Path Assessment





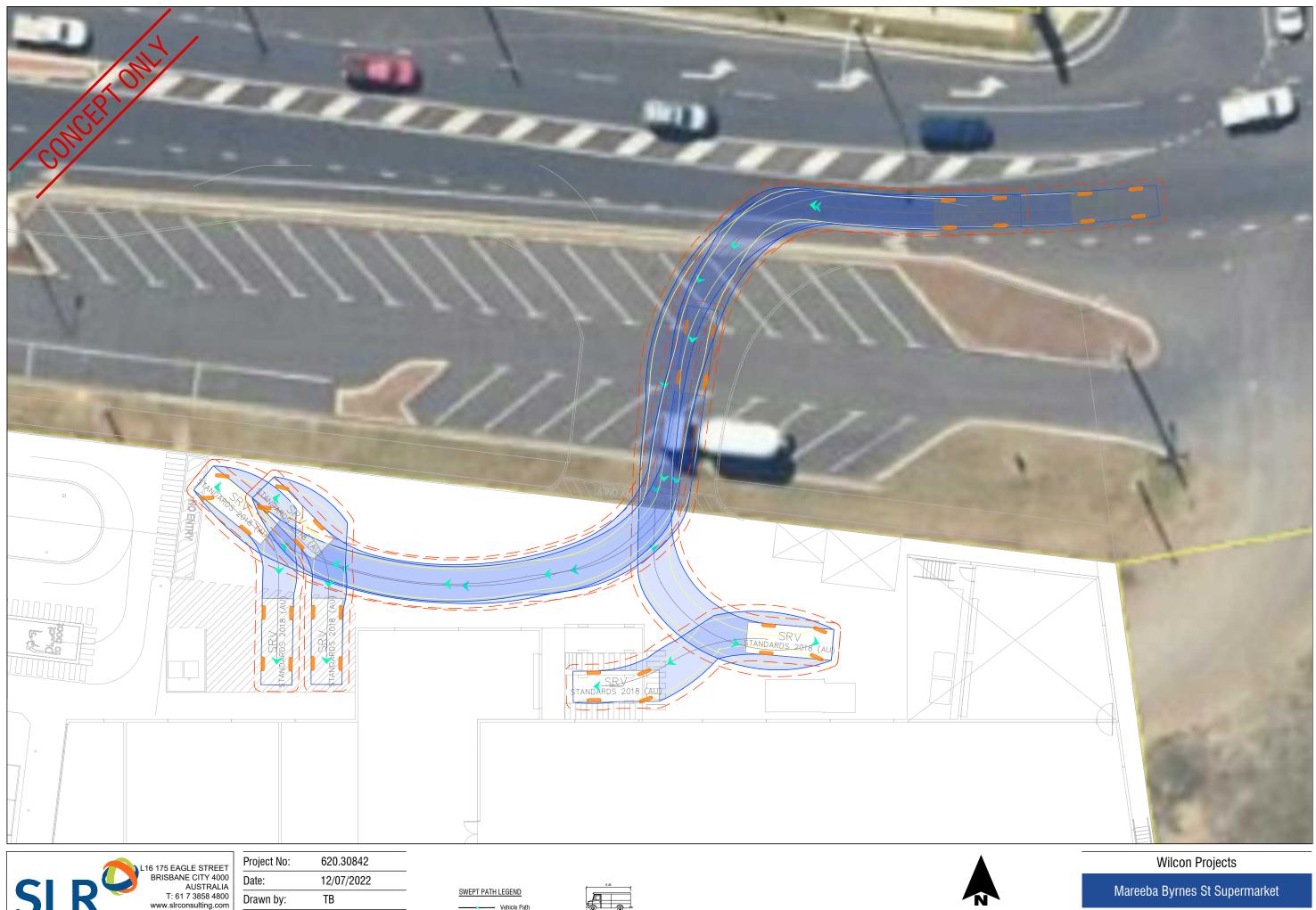
Projection:

-

2.50 2.50 2.50 2.50 2.50 Lock to Lock Time Steering Angle Articulating Angle

SCALE 1:250

FIGURE D0200



AS SHOWN

Scale: Sheet Size: A3

Projection: -

Vehicle Path Vehicle Body - - Body Clearance Front Wheels

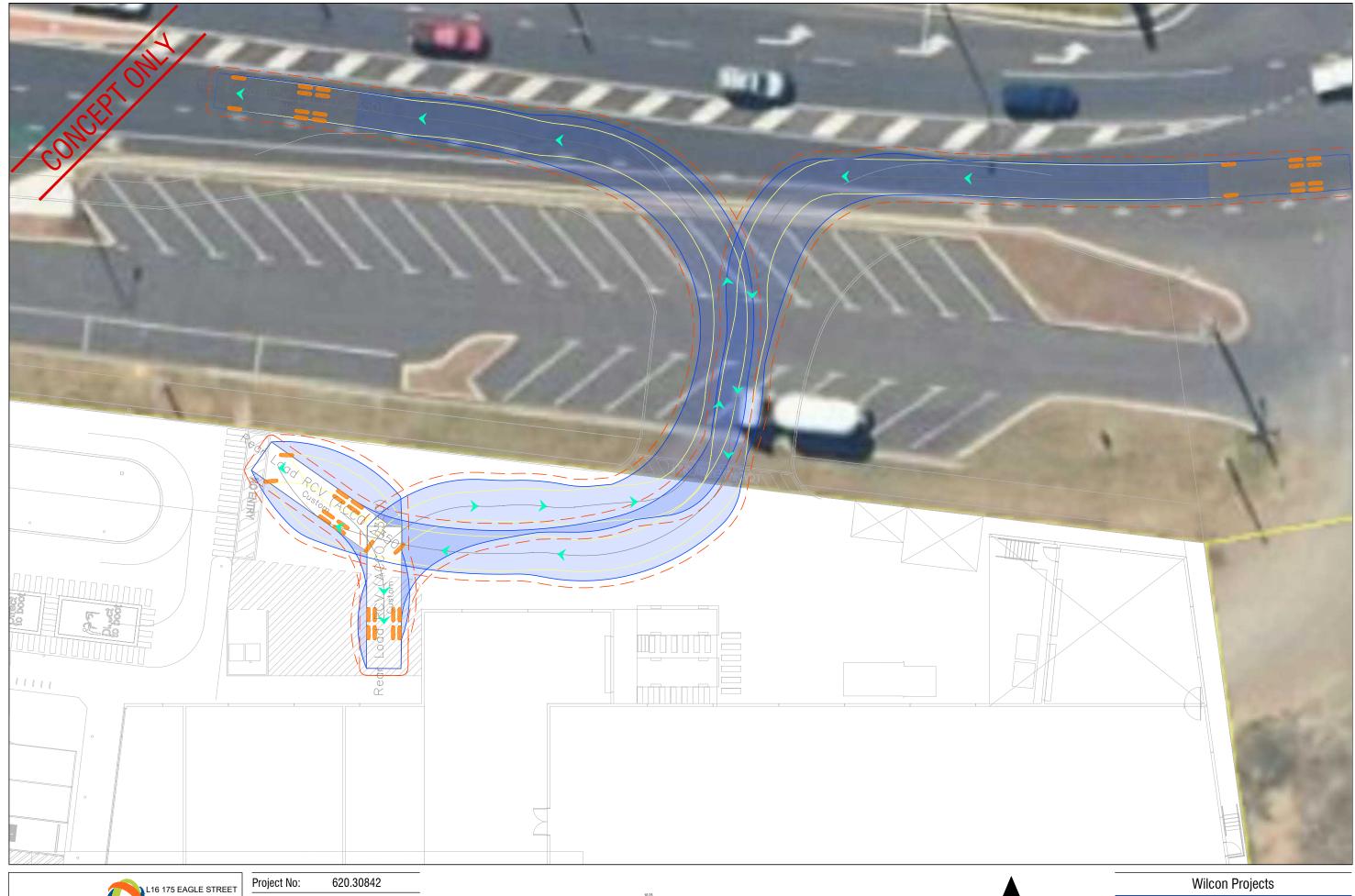
meters : 2.30 : 2.30 : 6.0 : 38.1 Width Track Lock to Lock Time Steering Angle



SCALE 1:250



Swept Path Assessment SRV FIGURE D0201





Date: 12/07/2022 Drawn by: ΤB AS SHOWN Scale:

A3

-

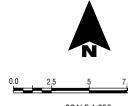
Sheet Size:

Projection:

## SWEPT PATH LEGEND

Vehicle Path Vehicle Body - - Body Clearance Front Wheels





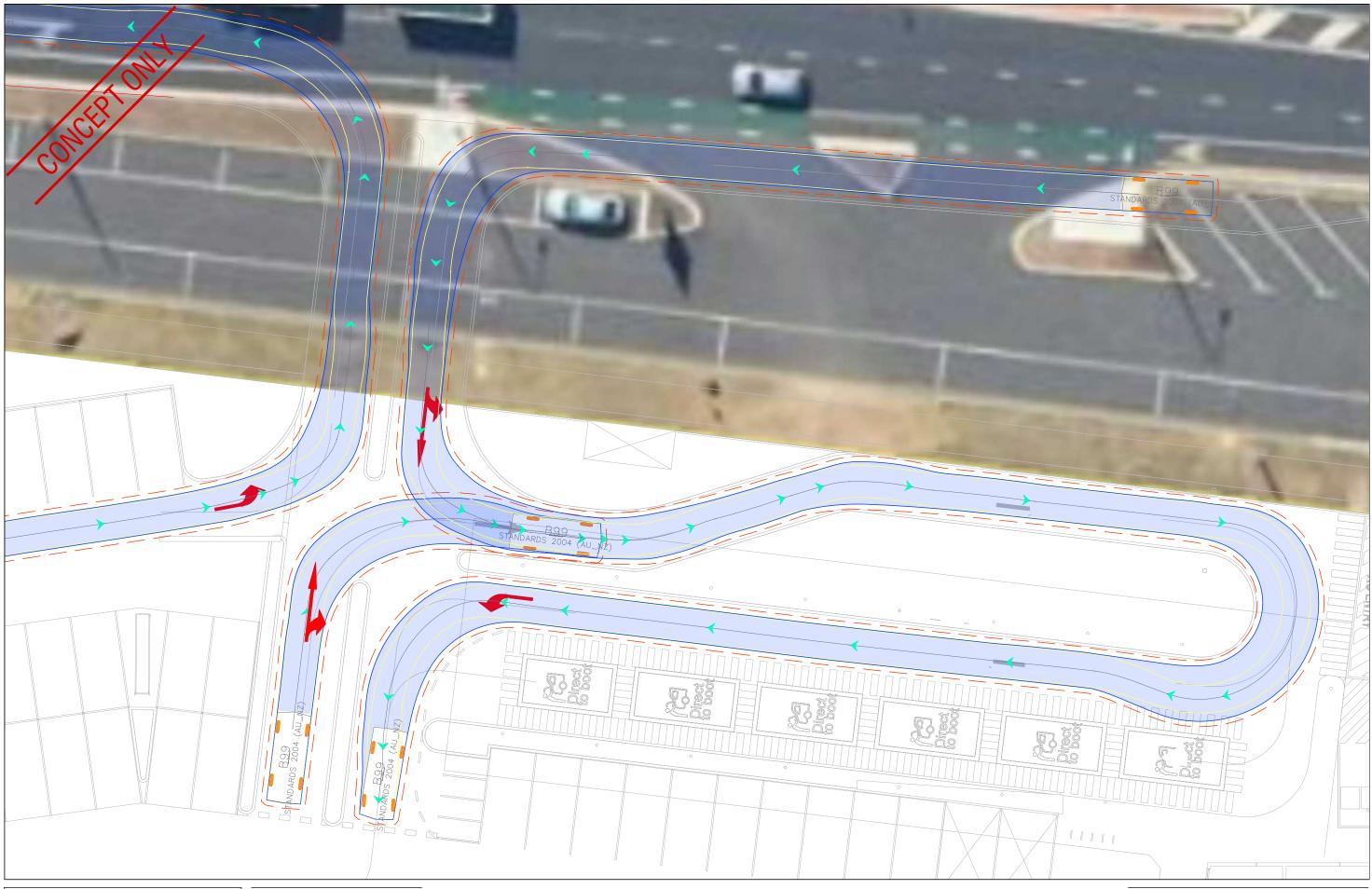
SCALE 1:250

Mareeba Byrnes St Supermarket



Swept Path Assessment Rear Load RCV

FIGURE D0202





620.30842 Project No: 12/07/2022

Drawn by: ΤB AS SHOWN Scale:

A3

-

Date:

Sheet Size:

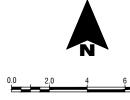
Projection:

## SWEPT PATH LEGEND

Vehicle Path Vehicle Body - - Body Clearance Front Wheels







SCALE 1:200

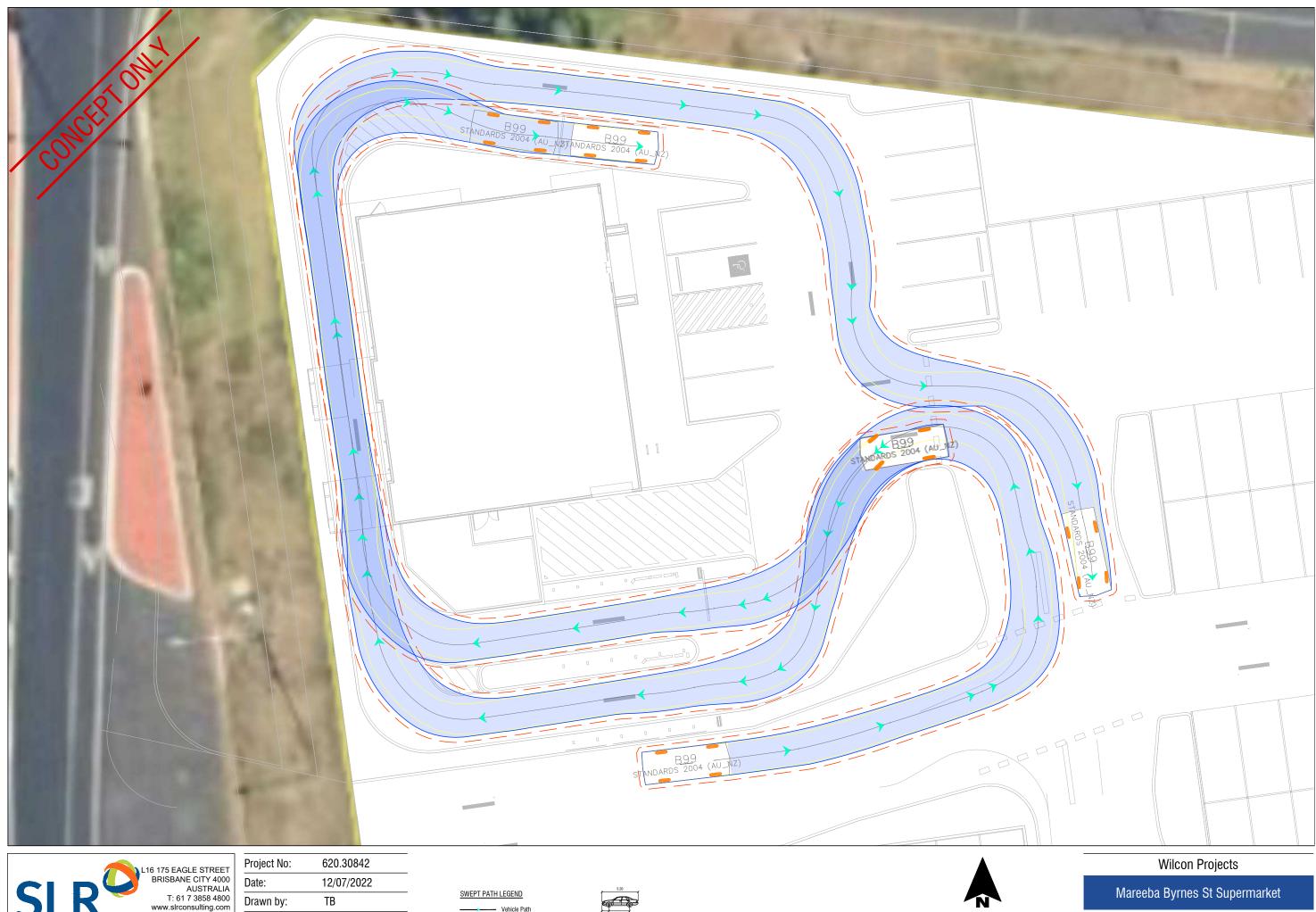
METRES

Wilcon Projects

Mareeba Byrnes St Supermarket

Swept Path Assessment B99 Entry & DTB Circulation





ΤB AS SHOWN

Scale: Sheet Size:

Projection:

A3 -

Vehicle Path Vehicle Body Body Clearance Front Wheels





0.0

SCALE 1:200

Swept Path Assessment B99 Drive Thru FIGURE D0204





12/07/2022 ΤB Drawn by:

Date:

Projection:

AS SHOWN Scale: Sheet Size: A3

-

#### SWEPT PATH LEGEND

Vehicle Path Vehicle Body Body Clearance Front Wheels





0.0

SCALE 1:250

Mareeba Byrnes St Supermarket









620.30842 Project No: 12/07/2022 Drawn by: ΤB

Date:

Scale:

Projection:

AS SHOWN Sheet Size: A3

-

SWEPT PATH LEGEND

Vehicle Path Vehicle Body Body Clearance Front Wheels

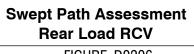




SCALE 1:250

Wilcon Projects

Mareeba Byrnes St Supermarket





# **Appendix C**

Traffic Network Diagrams

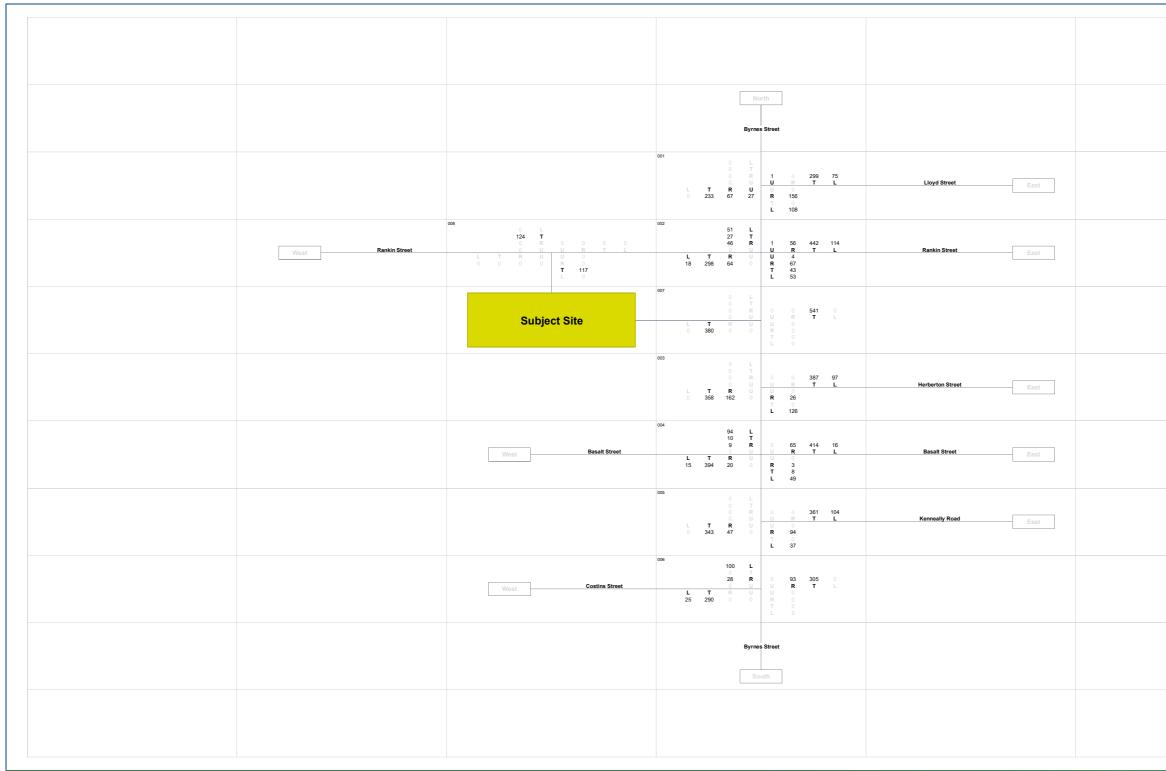


	North	
	Byrnes Street	
	001 (0) 0 L (0) 0 T (2) (0) (283) (120)	
	Constant Co	
008 (0) 0 L (183) 177 T (0) (0) (0) (0) 0 R 0 0 0 0 (0) 0 R 0 0 0 0	(48) 51 L (40) 75 T (3) (64) (446) (71) (95) 51 R 1 47 385 92	
West         Rankin Street         (0)         0         U         R         T         L           U         L         T         R         0         0         0         0         0         0         0         0         0         0         0         0         0         0         134         (240)	Image: Constraint of the state of	
Subject Site	007 (0) 0 L (0) 0 T (0) (0) (602) (0) (0) 0 R 0 0 490 0 (0) 0 U U R T L L T R U U 0 (0)	
	L T R U 0 0 (0) 0 410 0 R 0 (0) (0) (346) (0) (0) T 0 (0) L 0 (0)	
	003 (0) 0 L (0) 0 T (0) (0) (460) (86) (0) 0 R 0 0 373 74	
	(0)         0         U         T         L         Herberton Street         East           L         T         R         U         0         (0)         East           0         409         261         U         R         10         (21)	
	L 161 (152)	
West Basalt Street	(77) 70 L (9) 2 T (0) (61) (525) (26) (9) 7 R 0 101 373 21 0 0 U U R T L Basalt Street	
West Basar Street	L T R U U 0 (0) 17 306 66 0 R 4 (1) (21) (401) (45) (0) T 9 (11) L 47 (73)	
	() R 0 356 92	
	i(i)         0         U         R         T         L         Kenneally Road         East           L         T         R         U         0         (i)         L         East         East           0         633         40         0         R         90         (56)         East         East           (ii)         (407)         (58)         (0)         R         90         (56)         East         East	
	006 (101) 131 L (0) T (0) (112) (428) (0) (34) 244 R 0 88 315 0 V R T L	
West Costina Street		
	47       542       0       R       0       (0)         (53)       (364)       (0)       (0)       T       0       (0)         L       0       (0)       L       (0)	
	Byrnes Street	
	South	



2022 Surveyed Traffic Volumes (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

				-
L Left Turn T Through R Right Turn U U-Turn	Legend 00 Weekday AM (00) Weekday P Subject	Peak Hour Volum A Peak Hour Volum Site	es	



SLR

C2 2022 Surveyed Traffic Volumes (Sat Peak) 620.30842 Mareeba Shopping Centre

L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

		North	
		Byrnes Street	
		001 (I) 0 L (I) 0 T (2) (I) (292) (124) (I) 0 R 2 0 331 166 (I) 0 U U R T L Lloyd Street Fact	
		L T R U U 0 (0) 0 192 121 35 R 117 (217) (0) (206) (91) (20) T 0 (0)	
	008 (□) 0 L (189) 183 T (□) (□) (□) (□) (□) □ R □ 0 0 0 0	002 (50) 53 1	
West Rankin Street	(0) 0 R 0 0 0 0 (0) U U R T L L T R U U 0 (0) 0 0 0 R 0 (1) (0) (0) (0) (0) <b>T 190 (248)</b>	(41)         77         T         (3)         (66)         (460)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (73)         (74)         (73)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)         (74)	
		007	
	Subject Site	(0)     0     L       (0)     0     T       (0)     0     R       (0)     0     U       (1)     0     0       (2)     0       (3)     0       (423)     0       (3)     (357)       (0)     (0)       (1)     (1)       (2)     (2)       (3)     (357)       (423)     (1)       (1)     (1)       (2)     (2)       (3)     (357)       (3)     (357)	
		003 0 0 L 0 0 0 (475) (89) 0 0 R 0 0 385 75 (89) 0 0 R 0 0 385 75 Herberton Street East 0 422 269 0 R 10 (22) 0 (324) (196) 0 L 166 (157)	
		nn4	
	West Basalt Street	(79)         72         L         (9)         (9)         7         R         (9)         (63)         (542)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)         (27)	
		L T R U U R I L Dasar Street East 18 316 68 0 R 4 (1) (22) (414) (46) (0) T 9 (11) L 48 (75)	
		005 (0) 0 L (0) 0 T (0) (0) (517) (130) (0) 0 R 0 367 95 (0) 0 U U R T L Kenneally Road East	
		Image: Constraint of the second sec	
		0066 (104) 135 L (0) 0 T (0) (116) (442) (0) (35) 25 R 0 91 325 0 (0) 0 U U R T L L T R U U 0 (0)	
	West Costins Street	(i)         0         U         R         T         L           L         T         R         U         0         (i)           48         559         0         R         0         (i)           (55)         (376)         (i)         (i)         T         0           L         0         (i)         T         0         (i)	
		Byrnes Street	
		South	



2024 Background Traffic Volumes (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

L Left Turn	<b>Legend</b> 00 Weekday AM Peak I (00) Weekday PM Peak	Hour Volumes

	North	
	Byrnes Street	
	100	
	L T R U U R T L Lloyd Street East	
	L T R U U O East 0 240 69 28 R 161 T O L 111	
	L 111	
008	002 53 L	
0 L 128 T 0 R 0 0 0 West Rankin Street 0 U U R T L	53 L 28 T 47 R 1 58 456 118 0 U U R T L Rankin Street East	
Rankin Street         0         U         R         L         R         U         0           0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         <	Image: Non-Street         Image: Non-Street         East           L         T         R         U         4         L         Rankin Street         East           19         307         66         R         69         T         44         L         S5	
West         L         T         U         0         0         0         0         0         0         0         0         0         0         1         121         1         1         121         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0<	19 307 66 0 <b>R</b> 69 T 44	
	007	
	0 L	
Subject Site		
	L T R U U O O 392 O O R O	
	003 0 L	
	0 T 0 R 0 0 399 100 0 U U R <b>T L Herberton Street</b> 	
	0         U         R         T         L         Herberton Street         East           L         T         R         U         0         0         R         27         East	
	L T R U U O Edist 0 369 167 0 R 27 T O L 130	
	97 L 10 T 9 R 67 427 17	
West Basalt Street	0 U R T L Basalt Street Fact	
	L T R U U U U 15 407 21 0 R 3 L 51 L 51 L 51 L Dasan Junet L East L East L 51 L East	
	005 0 L	
	0 0 372 107 0 U U R T L Kenneally Road Fast	
	0 U R T L Kenneally Road East 0 354 48 0 R 97	
	L T R U U O Edit 0 354 48 0 R 97 T O L 38	
	006 103 L	
	006 103 L 29 R 0 96 315 0 L T R U 26 299 0 0 R R 0	
West Costins Street	29         R         0         96         315         0           0         U         R         T         L           26         299         0         0         R         0	
	26 299 0 0 R 0 T 0 L 0	
	Byrnes Street	
	Carada	
	South	

SLR

C4 2024 Background Traffic Volumes (Sat Peak) 620.30842 Mareeba Shopping Centre

L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

		North	
		Byrnes Street	
		001 (0) 0 L (0) 0 T (2) (0) (337) (143) (0) 0 R 2 0 382 192 (0) 0 U U R T L Lloyd Street	
		(a) (b) 0 L (c) 0 T (c) 0	East
	008 (7) 0 L (218) 211 T (0) (0) (0) (0) 0 R 0 0 0 0	002 (57) 61 L (48) 89 T (4) (76) (531) (85) (113) 61 R 1 56 458 110 U R T L Rankin Street	
West Rankin Street	(i)         0         U         U         R         T         L           L         T         R         U         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Image: Constraint of the state of	East
		007 (0) 0 L (0) 0 T (0) 0 R (0) 0 S83 0 (0) 0 U U R T L	
	Subject Site	Image: Constraint of the sector of	
			East
		004 /02) 83 1	
	West Basalt Street	L T R U U 0 0 20 364 79 0 R 5 (1) (25) (478) (54) (0) T 11 (13)	East
		005	
		(0) 0 R 0 0 424 110 (0) 0 U U R T L Kenneally Road [ T R U U 0 (0) 0 754 48 0 R 107 (67)	last
		006 (120) 156 1	
	West Costins Street	(12)       130       C       (1)       (133)       (550)       (0)         (40)       29       R       0       105       375       0         (40)       29       R       0       105       375       0         L       T       L       R       L       L       105         56       645       0       R       0       0         (63)       (433)       (0)       (0)       T       0         L       0       0       0       105       105	
		Byrnes Street	
		South	



2034 Background Traffic Volumes (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

L Left Turn	<b>Legend</b> 00 Weekday AM Peak I (00) Weekday PM Peak	Hour Volumes

	North	
	100 01	
	Byrnes Street	
	Byrnes oueet	
	001	
	L T R U U C T L Lloyd Street Ea 0 277 80 32 R 186	st
	L T R U U 0 L 129 East L L L L L L L L L L L L L L L L L L L	
	002 61 L	
008 0 L 148 T 0 R 0 0 West Rankin Street 0 U U R	61 L 32 T 0 0 55 R 1 67 526 136 T L 0 U R T L Rankin Street Ea	
West         Rankin Street         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	T         L         0         U         R         T         L         Rankin Street         Ea           L         T         R         U         U         5         5         21         355         76         0         R         80         Ea	st
West         Rankin Street         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         R         0         0         1         139         L         0         0         0         0         0         1         139         L         0         0         0         0         0         1         100         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10 <th10< th=""> <th10< th="">         10</th10<></th10<>	T         L         T         U         V         R         T         L         Rankin Street         Ea           L         T         R         U         S         L         T         R         Ea         21         355         76         R         60         T         S1         L         63         Ea	
	007	
	0 L 0 T 0 R 0 0 644 0 0 U U R T L	
Subject Site	L T R U U R T L 0 453 0 0 R 0 0 644 0 0 453 0 0 R 0 7 0 453 0 0 R 0	
	0 453 0 0 R 0 T 0	
	L 0	
	0 L	
	0 R 0 0 461 116 0 U U R T L Herberton Street	et
	0 U R T L Herberton Street Ea 0 426 193 0 R 31 1 L 150	
	L 150	
	004 112 L	
	112         L           12         T           11         R           12         R           13         R           14         R           15         R           16         R           17         R           18         R           19         R           10         R           10         R	
West	Jasait Street         0         U         R         T         L         Basait Street         Ea           L         T         R         U         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td>st</td>	st
	L T R U U 0 18 469 24 0 R 4 T 10 L 58	
	005	
	0 L 0 T 0 P 0 0 430 134	
	L T R U U R 112 0 408 56 0 R 112	st
	L T R U U 0 0 408 56 0 R 112 T 0 L 44	
	ооо 119 L 0 Т	
West Co	ostins Street	
TUGA	L         T         R         U         0         C           30         345         0         R         0         T         0	
	Byrnes Street	
	South	

SLR®

C6 2034 Background Traffic Volumes (Sat Peak) 620.30842 Mareeba Shopping Centre

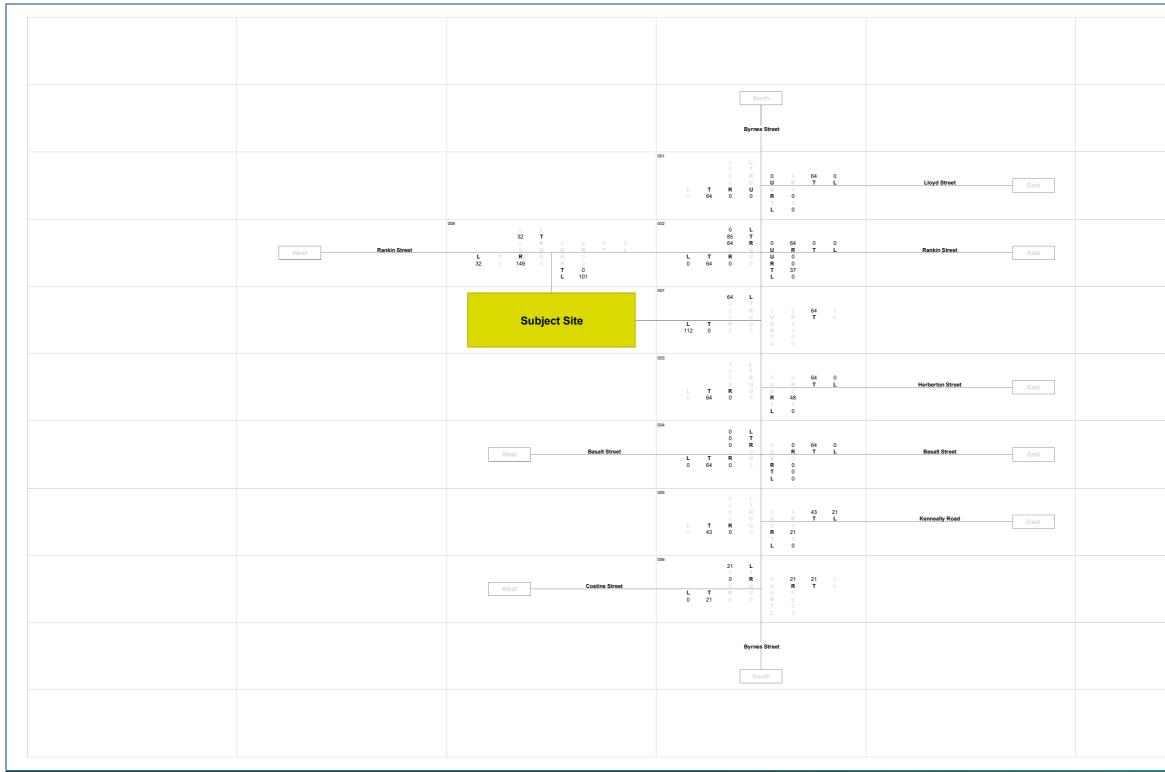
L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

		North		
		Byrnes Street		
		001		
		(0) 0 L (0) (0) (60) (0) (0) 0 R 0 0 45 0 (0) 0 U R T L L T R U U 0 (0)	Lloyd Street East	
		L T R U O O 45 0 0 R 0 (0) (0) (60) (0) (0) T O O L 0 (0)		
	008	002		
	(30) 23 T (0) (0) (0) (0) V R 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
West	Rankin Street	Image: Constraint of the state of	Rankin Street East	
	L T R U U 0 (0) 23 0 106 0 R 0 (0) (30) (0) (140) (0) T 0 (0) L 72 (95)	L T R U U 0 (0) 0 45 0 0 R 0 (0) (0) (60) (0) 0 T 26 (35) L 0 (0)		
		007		
		(60) 45 L (0) U T (0) (0 (60) (0) (0) 0 R 0 0 45 0 (0) 0 U U R T L L T R U U 0 (0) 79 0 0 0 R 0 (0) (105) (0) (0) (0) T 0 (0) L 0 (0)		
	Subject Site	L T R U U 0 (0) 79 0 0 0 R 0 (0) (105) (0) (0) (0) T 0 (0)		
		(105) (0) (0) T 0 (0) L 0 (0)		
		003		
		(0) 0 T (0) (0 (60) (0) (0) 0 R 0 0 45 0 (0) 0 U R T L	Herberton Street East	
		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Last	
		(-)		
		004 (0) 0 L (0) 0 T (0) (60) (0) (0) 0 R 0 0 45 0		
	West Basalt Street	(0) 0 L (0) 0 T (0) 0 R 0 0 45 0 (0) 0 U U R T L L T R U U 0 (0)	Basalt Street East	
		0 45 0 0 <b>R</b> 0 (0) (0) (60) (0) (0) <b>T</b> 0 (0)		
		L 0 (0)		
		(0) 0 L (0) 0 T (0) (40) (20) (0) 0 R 0 30 15 (0) 0 U U R T L		
			Kenneally Road East	
		L T R U 0 (0) 0 30 0 0 R 15 (20) (0) (40) (0) (0 L 0 (0)		
		005 (20) 15 L (0) 0 R (0) (20) (0) (0) 0 R 0 15 15 0 (0) 0 U R T L L T R U U U (0)		
	West Costins Street	(0) 0 U R T L L T R U U 0 (0) 0 15 0 0 R 0 (0)		
		0 15 0 0 R 0 (0) (0) (20) (0) (0) T 0 (0) L 0 (0)		
		Byrnes Street		
		South		



C7 New Development Trips (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

	Legend	
L Left Turn T Through	00 Weekday AM Peak Hour Volumes (00) Weekday PM Peak Hour Volumes	TRA S



SLR<sup>©</sup> <sup>C8</sup> New De <sup>620.3084</sup> Mareeba

New Development Trips (Sat Peak) 620.30842 Mareeba Shopping Centre

LTRU	Left Turn Through Right Turn U-Turn	Legend 00 Satur	rday Midday Peak Hour Vo Subject Site	olumes	*

		Byrnes Street	
		001 (0) 0 L (0) 0 R (0) 0 R (0) 0 C L T R U (0) (0) (0) (0) (0) (0) 0 U U R T L U 0 (0) (0) (0) (0) U 0 0 0 U 0 0 0 U 0 0 0 U 0	Lloyd Street East
West Rankin Street	008         (0)         0         L           (0)         0         T         (0)         (0)         (0)         (0)           (0)         0         R         0         0         0         0           (1)         0         U         U         R         L         1         R         0         0           6         0         37         0         R         0         0         L         32         (49)         0         L         32         (42)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Rankin Street East
	Subject Site	007         (24)         18         L         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)	
		003 (0) 0 L (0) 0 T (0) 0 R (0) 0 R (0) 0 U L T R (0) 0 U (0) 0 U U C T L U 0 (0) (0) (0) (0) (0) 0 U U 0 C (0) 0 U U 0 C U 0	Herberton Street East
	West Basalt Street	004 (0) 0 L (0) 0 R (0) 0 R (0) 0 R (0) 0 R (0) 0 R (0) 0 0 R (0) 0 0 0 (0) 0 0 0 (0) 0 0 0 (0) 0 0 (0) 0 0 (0) 0 0 (0) 0 0 (0) 0 0 (0) 0 (	Basalt Street East
		005 (0) 0 L (0) 0 R (0) 0 R (0) 0 R (0) 0 U U 0 0 0 (0) 0 U U 0 0 (0) 0 0 U 0 0 U 0 0 (0) 0 U 0 0 U	Kenneally Road East
	West Costins Street	Image: construct of the second seco	
		Byrnes Street	

SLR

C9 Drop-in Trips Total (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

Left Turn Through Right Turn U-Turn	1	.egend 00 Weekday AM (00) Weekday Pi Subject	l Peak Hour Volu A Peak Hour Vol Site	imes umes	

		North Byrnes Street	
		001 0 L 0 R 0 R 0 0 0 0 0 U 0 R T U 0 0 0 0 U 0 0 0 U 0 0 0 0 0 U 0 0 0 0	Lloyd Street East
West Rankin Street	008 0 I 0 T 0 R 0 R 0 R 0 O 0 R 0 O 0 U 0 C 0 O 0 O 0 O 0 O 0 O 0 O 0 O 0 O	002 13 L 13 T 26 R 0 U 4 -11 0 0 13 T 0 U 0 U 13 T 10 38 -26 -13 0 U 10 T 10 C 10	Rankin Street
	Subject Site	007 266 L 0 T 0 R 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	
		003 0 L 0 T 0 R 0 0 0 0 0 U 0 0 0 0 U 0 0 0 0 0	Herberton Street East
	West Besalt Street	004 0 L 0 R 0 R 0 R T L T R U 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Basalt Street East
		005 0 L 0 R 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	Kenneally Road East
	West Costins Street	006 0 L 0 L 0 R 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C	
		Byrnes Street South	



C10 Drop-in Trips Total (Sat Peak) 620.30842 Mareeba Shopping Centre

LTRU	Left Turn Through Right Turn U-Turn	Legend 00 Satur	rday Midday Peak Hour Vo Subject Site	olumes	*

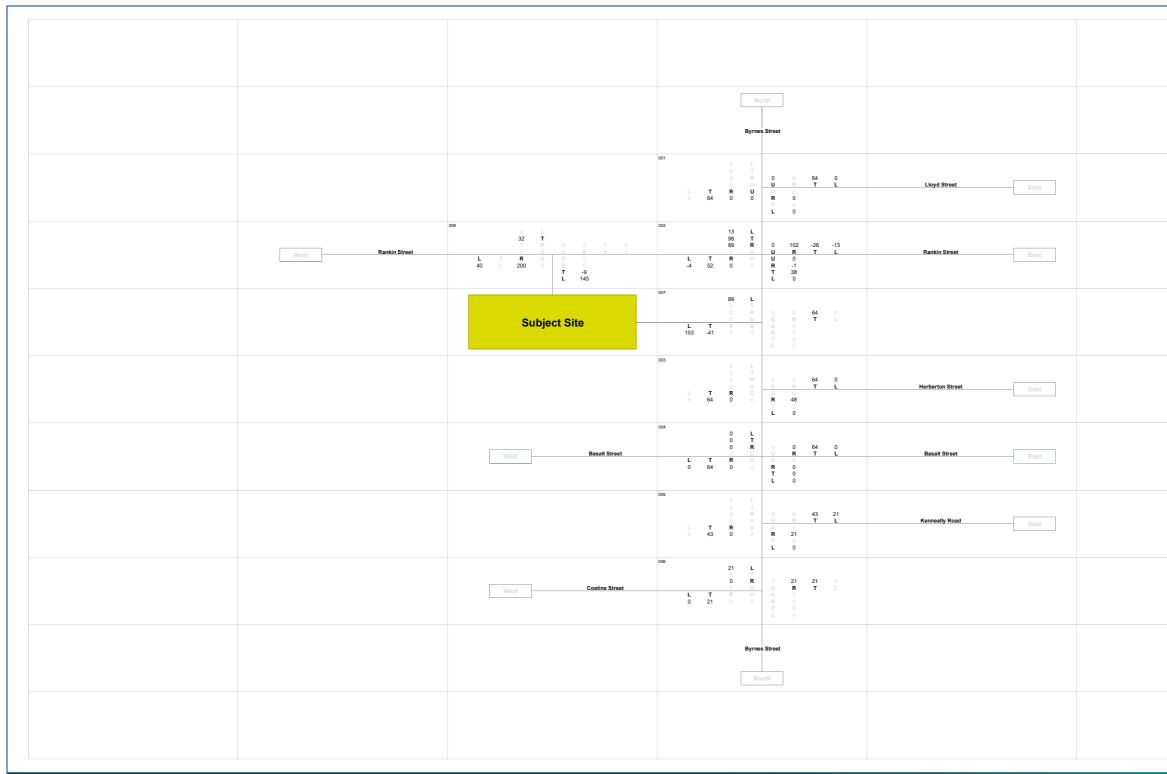
	North	
	Byrnes Street	
	001	
	C. (0) 0 L (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)	
	T         R         U         C         L         Logo ducet         East           0         45         0         0         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         (0)         <	
008 (0) 0 L (30) 23 T (0) (0) (0) (0) 0 R 0 0 0 (0) 0 0 0 0	002 (12) 9 L (92) 70 T (0) (97) -(24) -(12) (85) 64 R 0 73 -18 -9 U R T L Rankin Street East	
West         Rankin Street         (0)         U         U         R         L           29         0         142         0         0         (0)           (38)         (0)         (189)         (0)         T         -6         -(8)           L         103         (137)         -6         -(8)         -(103)         -(103)	Image: Constraint of the state of	
L 103 (137)	007	
Subject Site	(0) 0 R 0 0 45 0 (0) 0 U U R T L	
	(0) 0 L (0) (60) (0) (0) 0 R 0 45 0 (0) 0 R 0 45 L Herberton Street	
	(i)         0         0         R         T         L         Herberton Street         East           1         T         R         U         0         (0)         East	
	004	
West Basalt Street	L T R II II 0 (0) East	
	Obs         0         L         0         0         C         0         0         C         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	
	L T R U U 0 0(0) 0 30 0 0 R 15 (20) (0) (40) (0) (0) T 0 (0) L 0 (0)	
	006 (20) 15 L (0) 0 T (0) (20) (0) (0) 0 R 0 15 15 (1) 15 15 L T R U U 0 (0) (2) 15 L (2) 200 (0) (2)	
West Costins Street	(i)         0         U         R         T         L           L         T         R         U         0         (i)           0         15         0         R         0         (i)           (0)         (20)         (i)         (ii)         T         0         0           L         0         (i)         T         0         (i)         T         0         (i)	
	Byrnes Street	
	South	



C11
Development Traffic Volumes (New + Drop-in) (AM & PM Peaks)
620.30842

Mareeba Shopping Centre

L Left Turn	<b>Legend</b> 00 Weekday AM Peak I (00) Weekday PM Peak	Hour Volumes



SLR

C12 Development Traffic Volumes (New + Drop-in) (Sat Peak) 620.30842 Mareeba Shopping Centre

L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

	North	
	Byrnes Street	
	001 (0) 0 L (0) 0 T (2) (0) (352) (124) (0) 0 R 2 0 376 166 (0) 0 U U R T L Lloyd Street East	
	L T R U U 0 (0) 0 237 121 35 R 117 (217) (0) (267) (91) (20) T 0 (0)	
	002 (62) 62 1	
West         Rankin Street         I         R         U         U         R         L         R         U         U         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O         O	002         (62)         62         L           (134)         147         T         (3)         (163)         (436)         (61)           (183)         116         R         1         121         379         86         Image: Constraint of the second	
29         142         0         (0)           (38)         (0)         (189)         (0)         T         184         (240)           L         103         (137)	L T R U U 18 (1) East 41 349 67 0 R 99 (46) (56) (304) (42) (0) T 124 (158) L 56 (63)	
	007 (85) 64 L (0) 0 T (0) (0) (681) (0) (0) 0 R 0 0 551 0 (0) 0 U U R T L	
Subject Site	Image: Constraint of the state of	
	003         00         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	
	(i)     (384)     (196)     (i)     T     (ii)       L     166     (157)	
	(79) 72 L (9) 2 T (0) (63) (602) (27) (9) 7 R 0 104 430 22	
West Basart street	L         T         L         Basart street         East           18         361         68         0         R         4         (1)           (22)         (474)         (46)         (0)         T         9         (11)           L         48         (75)         L         48         (75)	
	005	
	Image: Non-State State         Image: Non-State         Image: Non-	
	006	
	(124) 150 L (0) 0 T (0) (136) (462) (0) (35) 25 R 0 106 340 0	
West Costins Street	Image: Image index	
	Byrnes Street	
	South	



C13 2024 Background + Development Traffic Volumes (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

L Left Turn	<b>Legend</b> 00 Weekday AM Peak I (00) Weekday PM Peak	Hour Volumes

		Byrnes Street		
		0 L 0 T 0 R 1 0 372 77 0 U U R L U R 1 0 372 77 U R 1 0 172 T L U 0 0 304 69 28 R 161 T 0 L 111	Lloyd Street East	
West	0 L 100 T 0 R 0 0 0 U U R T L L T R U U 0 40 0 200 0 R 0 T 112 L 145	002 65 L 126 T 0 U R T L 137 R U U R T L 14 360 66 0 R 68 T 83 L 55	Rankin Street East	
	Subject Site	007 89 L 0 R 0 R 0 U 153 351 0 0 L T R 0 U 0 R 0 U 0 R 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C		
		003 0 L 0 T 0 R 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Herberton Street East	
	West Basalt Street	004 97 L 10 T 9 R 0 67 491 17 0 U 0 R T L 15 470 21 0 R 3 T 8 L 15 5 470 21 5 R 3 15 5 1 8 10 10 10 10 10 10 10 10 10 10 10 10 10	Basalt Street East	
		005 0 L 0 T 0 R 0 U 0 0 415 129 U 0 415 129 U 0 L 0 396 48 0 C 1 0 0 415 129 U 0 T C 1 0 0 0 U 0 L 0 0 L 0 U 0 0	Kenneally Road East	
	West	008 124 L 29 R 0 T 29 R 0 117 336 0 U R T 26 320 0 0 R 0 U R 0 0 U R 0 0 U 0 C 0 U 0 C 0 U 0 C 0 U 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C		
		Byrnes Street South		

SLR

C14 2024 Background + Development Traffic Volumes (Sat Peak) 620.30842

Mareeba Shopping Centre

L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

		North		
		Byrnes Street		
		001 (0) 0 L (0) 0 T (2) (0) (397) (143)		
		C. (0) 0 L (0) 0 T (2) (0) (397) (143) (0) 0 R 2 0 427 192 (0) 0 U U R T L L T R U U 0 T L 0 267 139 40 R 135 (250) (0) (298) (105) (23) T 0 (251)	Lloyd Street East	
0		002 (69) 70 1		
West Rankin Street	(248) 233 T (0) (0) (0) (0) (0) 0 R 0 (0) R T L (0) 0 U U R T L L T R U U 0 (0) 29 0 142 0 R 0 (0)	(69) 70 L (140) 159 T (198) 124 R 1 129 440 100 L U U R T L L U U U U U U U U U U U U	Rankin Street East	
	(38) (0) (189) (0) T 213 (278) L 103 (137)	L T R U U 20 (1) 48 397 77 0 R 115 (54) (65) (343) (49) (0) T 139 (177) L 64 (73) 007		
	Subject Site	(85) 64 L (0) 0 T (0) (0) (777) (0) (0) 0 R 0 0 629 0 (0) 0 U U R T L		
		L T R U 0 (0) 109 458 0 0 R 0 (0) (145) (373) (0) (0) T 0 (0) L 0 (0)		
		003 (0) 0 L (0) 0 T (0) 0 R 0 0 489 88 (0) 0 U U R T L		
		(1) 0 U R T L C T R U U 0 (0) 0 532 311 0 R 46 (70) (0) (434) (226) (0) T 0 (0) L 192 (181)	Herberton Street East	
		004 (02) 83 1		
	West Basalt Street	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Basalt Street East	
		005 (0) 0 1		
		(0) 0 T (0) (637) (170) (0) 0 R 0 0 454 125 (0) 0 U U R T L L T R U U 0 (0)	Kenneally Road East	
		0 784 48 0 R 122 (87) (0 (525) (69) (0 L 56 (46) 006		
	West Costins Street	(140) 171 L (0) 0 T (40) 29 R (153) (530) (0) (40) 29 R 120 390 0 (0) 0 U R T L		
		L T R U U 0 (0) 56 660 0 0 R 0 (0) (63) (454) (0) (0) T 0 (0) L 0 (0)		
		Byrnes Street		
		South		



C15 2034 Background + Development Traffic Volumes (AM & PM Peaks) 620.30842 Mareeba Shopping Centre

L Left Turn	<b>Legend</b> 00 Weekday AM Peak I (00) Weekday PM Peak	Hour Volumes

		Byrnes Street		
		001 0 L		
		L T R U 0 341 80 32 T L L 129	Lloyd Street East	
009 Wost Rankin Street L 40	0 L 180 T 0 R 0 0 0 0 U U R L 7 R U U 0 200 R 0 T 131 L 145	CO2         73         L           130         T           144         R           0         U         R           17         407         76           R         79           L         R           17         407           L         63	Rankin Street East	
	Subject Site	007 89 L 0 T 0 R 0 U U R T L U R T L U R 153 411 0 U R 0 L 0 L 0 L 0 L 0 L 0 L 0 L 0 L		
		0003 0 L 0 T 0 R 0 0 525 116 U R T L U 0 U 0 0 490 193 0 T 0 L 150	Herberton Street East	
	West Basak Street	112 L 12 T 11 R 0 77 557 19 L T R U U R L 18 533 24 0 R 4 T 10 L 58	Basalt Street East	
		0055 0 C 0 T 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C	Kenneally Road East	
	West Costins Street	0066 140 L 33 R 0 T 33 R 0 U U R T 30 367 0 0 T 0 U 0 T 0 U 0 R 0 L 0 C 0 U 0 C 0 U 0 R 0 L 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C		
		Byrnes Street		

SLR

C16 2034 Background + Development Traffic Volumes (Sat Peak) 620.30842

Mareeba Shopping Centre

L T R U	Left Turn Through Right Turn U-Turn	lay Midday Peak Hour Volume Subject Site	25

# **Appendix D**

**Detailed Sidra Outputs** 



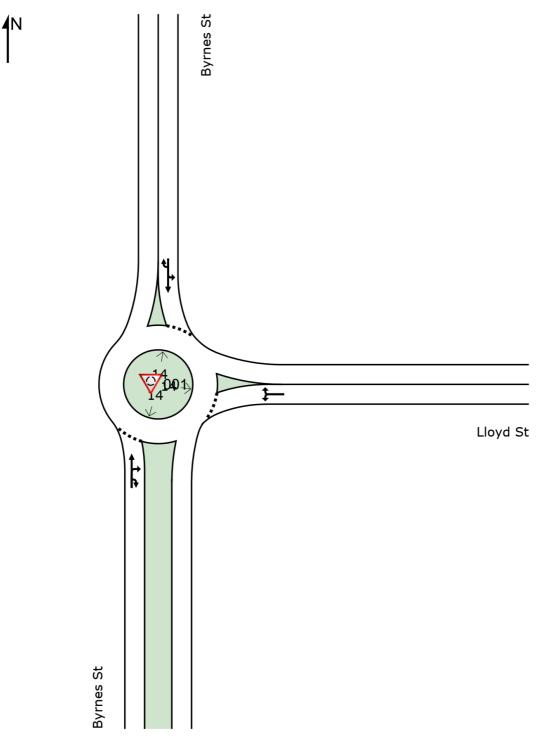


## SITE LAYOUT

# **W** Site: 001 [1\_2022 Survey AM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



V Site: 001 [1\_2022 Survey AM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	196	7.0	196	7.0	0.295	5.3	LOS A	1.9	13.9	0.36	0.57	0.36	54.8
3	R2	123	7.0	123	7.0	0.295	9.2	LOS A	1.9	13.9	0.36	0.57	0.36	35.0
3u	U	36	7.0	36	7.0	0.295	11.0	LOS B	1.9	13.9	0.36	0.57	0.36	52.6
Appro	bach	355	7.0	355	7.0	0.295	7.2	LOS A	1.9	13.9	0.36	0.57	0.36	47.0
East:	Lloyd S	St												
4	L2	169	7.0	169	7.0	0.317	6.9	LOS A	2.0	14.7	0.62	0.73	0.62	29.0
6	R2	119	7.0	119	7.0	0.317	11.0	LOS B	2.0	14.7	0.62	0.73	0.62	48.3
Appro	bach	288	7.0	288	7.0	0.317	8.6	LOS A	2.0	14.7	0.62	0.73	0.62	41.9
North	: Byrne	s St												
7	L2	169	7.0	169	7.0	0.432	5.5	LOS A	3.2	23.9	0.47	0.54	0.47	49.1
8	T1	338	7.0	338	7.0	0.432	5.7	LOS A	3.2	23.9	0.47	0.54	0.47	49.4
9u	U	2	7.0	2	7.0	0.432	11.5	LOS B	3.2	23.9	0.47	0.54	0.47	54.3
Appro	bach	509	7.0	509	7.0	0.432	5.7	LOS A	3.2	23.9	0.47	0.54	0.47	49.3
All Ve	ehicles	1153	7.0	1153	7.0	0.432	6.9	LOS A	3.2	23.9	0.47	0.60	0.47	47.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2022 Survey PM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh	ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	s St												
2	T1	211	7.0	211	7.0	0.310	6.1	LOS A	1.9	14.3	0.49	0.62	0.49	54.6
3	R2	93	7.0	93	7.0	0.310	9.9	LOS A	1.9	14.3	0.49	0.62	0.49	34.9
3u	U	20	7.0	20	7.0	0.310	11.8	LOS B	1.9	14.3	0.49	0.62	0.49	52.3
Appro	oach	323	7.0	323	7.0	0.310	7.5	LOS A	1.9	14.3	0.49	0.62	0.49	48.2
East:	Lloyd S	St												
4	L2	101	7.0	101	7.0	0.335	6.5	LOS A	2.1	15.6	0.58	0.72	0.58	28.5
6	R2	221	7.0	221	7.0	0.335	10.7	LOS B	2.1	15.6	0.58	0.72	0.58	47.6
Appro	oach	322	7.0	322	7.0	0.335	9.4	LOS A	2.1	15.6	0.58	0.72	0.58	44.9
North	: Byrne	s St												
7	L2	126	7.0	126	7.0	0.345	5.0	LOS A	2.4	18.0	0.37	0.50	0.37	49.5
8	T1	298	7.0	298	7.0	0.345	5.3	LOS A	2.4	18.0	0.37	0.50	0.37	50.0
9u	U	2	7.0	2	7.0	0.345	11.0	LOS B	2.4	18.0	0.37	0.50	0.37	54.6
Appro	oach	426	7.0	426	7.0	0.345	5.2	LOS A	2.4	18.0	0.37	0.50	0.37	49.9
All Ve	ehicles	1072	7.0	1072	7.0	0.345	7.2	LOS A	2.4	18.0	0.47	0.60	0.47	48.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Network Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	s St												
2	T1	245	7.0	245	7.0	0.305	5.6	LOS A	1.9	14.5	0.43	0.57	0.43	54.9
3	R2	71	7.0	71	7.0	0.305	9.5	LOS A	1.9	14.5	0.43	0.57	0.43	35.1
3u	U	28	7.0	28	7.0	0.305	11.4	LOS B	1.9	14.5	0.43	0.57	0.43	52.7
Appro	oach	344	7.0	344	7.0	0.305	6.9	LOS A	1.9	14.5	0.43	0.57	0.43	50.2
East:	Lloyd S	St												
4	L2	114	7.0	114	7.0	0.294	6.6	LOS A	1.8	13.1	0.57	0.71	0.57	28.7
6	R2	164	7.0	164	7.0	0.294	10.7	LOS B	1.8	13.1	0.57	0.71	0.57	47.9
Appro	oach	278	7.0	278	7.0	0.294	9.0	LOS A	1.8	13.1	0.57	0.71	0.57	44.1
North	: Byrne	s St												
7	L2	79	7.0	79	7.0	0.313	4.9	LOS A	2.1	15.6	0.33	0.48	0.33	49.7
8	T1	315	7.0	315	7.0	0.313	5.2	LOS A	2.1	15.6	0.33	0.48	0.33	50.2
9u	U	1	7.0	1	7.0	0.313	10.9	LOS B	2.1	15.6	0.33	0.48	0.33	54.7
Appro	oach	395	7.0	395	7.0	0.313	5.1	LOS A	2.1	15.6	0.33	0.48	0.33	50.1
All Ve	ehicles	1017	7.0	1017	7.0	0.313	6.8	LOS A	2.1	15.6	0.43	0.58	0.43	49.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2024 BG AM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

### ■ Network: N101 [2024 BG AM Peak (Network Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	202	7.0	202	7.0	0.306	5.3	LOS A	1.9	14.4	0.36	0.57	0.36	54.8
3	R2	127	7.0	127	7.0	0.306	9.2	LOS A	1.9	14.4	0.36	0.57	0.36	35.0
3u	U	37	7.0	37	7.0	0.306	11.1	LOS B	1.9	14.4	0.36	0.57	0.36	52.5
Appro	bach	366	7.0	366	7.0	0.306	7.3	LOS A	1.9	14.4	0.36	0.57	0.36	46.9
East:	Lloyd S	St												
4	L2	175	7.0	175	7.0	0.331	7.0	LOS A	2.1	15.6	0.63	0.74	0.63	28.8
6	R2	123	7.0	123	7.0	0.331	11.1	LOS B	2.1	15.6	0.63	0.74	0.63	48.2
Appro	bach	298	7.0	298	7.0	0.331	8.7	LOS A	2.1	15.6	0.63	0.74	0.63	41.7
North	: Byrne	s St												
7	L2	175	7.0	175	7.0	0.447	5.5	LOS A	3.4	25.4	0.49	0.55	0.49	49.0
8	T1	349	7.0	349	7.0	0.447	5.8	LOS A	3.4	25.4	0.49	0.55	0.49	49.3
9u	U	2	7.0	2	7.0	0.447	11.5	LOS B	3.4	25.4	0.49	0.55	0.49	54.2
Appro	bach	526	7.0	526	7.0	0.447	5.7	LOS A	3.4	25.4	0.49	0.55	0.49	49.2
All Ve	hicles	1189	7.0	1189	7.0	0.447	7.0	LOS A	3.4	25.4	0.48	0.60	0.48	47.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2024 BG PM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

### ■ Network: N101 [2024 BG PM Peak (Network Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed <u>km/h</u>
South	n: Byrne	s St												
2	T1	217	7.0	217	7.0	0.322	6.1	LOS A	2.0	14.6	0.48	0.62	0.48	54.6
3	R2	96	7.0	96	7.0	0.322	10.0	LOS B	2.0	14.6	0.48	0.62	0.48	34.9
3u	U	21	7.0	21	7.0	0.322	11.9	LOS B	2.0	14.6	0.48	0.62	0.48	52.3
Appro	bach	333	7.0	333	7.0	0.322	7.6	LOS A	2.0	14.6	0.48	0.62	0.48	48.2
East:	Lloyd S	St												
4	L2	104	7.0	104	7.0	0.349	6.6	LOS A	2.2	16.4	0.60	0.73	0.60	28.3
6	R2	228	7.0	228	7.0	0.349	10.8	LOS B	2.2	16.4	0.60	0.73	0.60	47.5
Appro	bach	332	7.0	332	7.0	0.349	9.5	LOS A	2.2	16.4	0.60	0.73	0.60	44.8
North	: Byrne	s St												
7	L2	130	7.0	130	7.0	0.356	5.1	LOS A	2.6	19.0	0.38	0.50	0.38	49.5
8	T1	307	7.0	307	7.0	0.356	5.3	LOS A	2.6	19.0	0.38	0.50	0.38	49.9
9u	U	2	7.0	2	7.0	0.356	11.1	LOS B	2.6	19.0	0.38	0.50	0.38	54.6
Appro	bach	440	7.0	440	7.0	0.356	5.3	LOS A	2.6	19.0	0.38	0.50	0.38	49.8
All Ve	ehicles	1106	7.0	1106	7.0	0.356	7.2	LOS A	2.6	19.0	0.48	0.60	0.48	48.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# V Site: 001 [1\_2024 BG SAT Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	253	7.0	253	7.0	0.317	5.7	LOS A	2.0	14.5	0.42	0.58	0.42	54.9
3	R2	73	7.0	73	7.0	0.317	9.6	LOS A	2.0	14.5	0.42	0.58	0.42	35.1
3u	U	29	7.0	29	7.0	0.317	11.4	LOS B	2.0	14.5	0.42	0.58	0.42	52.7
Appro	oach	355	7.0	355	7.0	0.317	6.9	LOS A	2.0	14.5	0.42	0.58	0.42	50.2
East:	Lloyd S	St												
4	L2	117	7.0	117	7.0	0.306	6.7	LOS A	1.9	13.8	0.59	0.72	0.59	28.6
6	R2	169	7.0	169	7.0	0.306	10.8	LOS B	1.9	13.8	0.59	0.72	0.59	47.8
Appro	oach	287	7.0	287	7.0	0.306	9.1	LOS A	1.9	13.8	0.59	0.72	0.59	43.9
North	: Byrne	s St												
7	L2	81	7.0	81	7.0	0.324	4.9	LOS A	2.2	16.6	0.34	0.48	0.34	49.7
8	T1	325	7.0	325	7.0	0.324	5.2	LOS A	2.2	16.6	0.34	0.48	0.34	50.1
9u	U	1	7.0	1	7.0	0.324	10.9	LOS B	2.2	16.6	0.34	0.48	0.34	54.7
Appro	oach	407	7.0	407	7.0	0.324	5.2	LOS A	2.2	16.6	0.34	0.48	0.34	50.0
All Ve	ehicles	1049	7.0	1049	7.0	0.324	6.9	LOS A	2.2	16.6	0.44	0.58	0.44	49.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2024 BG+D AM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	es St												
2	T1	250	7.0	250	7.0	0.344	5.4	LOS A	2.3	16.9	0.37	0.57	0.37	54.8
3	R2	127	7.0	127	7.0	0.344	9.3	LOS A	2.3	16.9	0.37	0.57	0.37	35.1
3u	U	37	7.0	37	7.0	0.344	11.1	LOS B	2.3	16.9	0.37	0.57	0.37	52.6
Appr	oach	414	7.0	414	7.0	0.344	7.1	LOS A	2.3	16.9	0.37	0.57	0.37	47.9
East:	Lloyd S	St												
4	L2	175	7.0	175	7.0	0.347	7.4	LOS A	2.2	16.6	0.67	0.76	0.67	28.1
6	R2	123	7.0	123	7.0	0.347	11.5	LOS B	2.2	16.6	0.67	0.76	0.67	47.8
Appro	oach	298	7.0	298	7.0	0.347	9.1	LOS A	2.2	16.6	0.67	0.76	0.67	41.1
North	n: Byrne	s St												
7	L2	175	7.0	175	7.0	0.485	5.6	LOS A	3.9	29.0	0.51	0.55	0.51	48.8
8	T1	396	7.0	396	7.0	0.485	5.9	LOS A	3.9	29.0	0.51	0.55	0.51	49.1
9u	U	2	7.0	2	7.0	0.485	11.6	LOS B	3.9	29.0	0.51	0.55	0.51	54.1
Appr	oach	573	7.0	573	7.0	0.485	5.8	LOS A	3.9	29.0	0.51	0.55	0.51	49.0
All Ve	ehicles	1284	7.0	1284	7.0	0.485	7.0	LOS A	3.9	29.0	0.50	0.61	0.50	47.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2024 BG+D PM Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	s St												
2	T1	281	7.0	281	7.0	0.380	6.2	LOS A	2.5	18.3	0.50	0.62	0.50	54.7
3	R2	96	7.0	96	7.0	0.380	10.1	LOS B	2.5	18.3	0.50	0.62	0.50	34.9
3u	U	21	7.0	21	7.0	0.380	11.9	LOS B	2.5	18.3	0.50	0.62	0.50	52.4
Appro	oach	397	7.0	397	7.0	0.380	7.4	LOS A	2.5	18.3	0.50	0.62	0.50	49.3
East:	Lloyd S	St												
4	L2	104	7.0	104	7.0	0.370	7.1	LOS A	2.4	17.7	0.65	0.76	0.65	27.5
6	R2	228	7.0	228	7.0	0.370	11.3	LOS B	2.4	17.7	0.65	0.76	0.65	47.0
Appro	oach	332	7.0	332	7.0	0.370	10.0	LOS A	2.4	17.7	0.65	0.76	0.65	44.2
North	: Byrne	s St												
7	L2	130	7.0	130	7.0	0.405	5.1	LOS A	3.1	23.0	0.41	0.50	0.41	49.3
8	T1	371	7.0	371	7.0	0.405	5.4	LOS A	3.1	23.0	0.41	0.50	0.41	49.7
9u	U	2	7.0	2	7.0	0.405	11.1	LOS B	3.1	23.0	0.41	0.50	0.41	54.5
Appro	oach	503	7.0	503	7.0	0.405	5.3	LOS A	3.1	23.0	0.41	0.50	0.41	49.6
All Ve	ehicles	1232	7.0	1232	7.0	0.405	7.3	LOS A	3.1	23.0	0.50	0.61	0.50	48.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 001 [1\_2024 BG+D SAT Peak\_Byrnes St/Lloyd St (Site Folder: General)]

Int 001 - Byrnes St / Lloyd St Prepared: TB Reviewed: Site Category: -Roundabout

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	h: Byrne	es St												
2	T1	320	7.0	320	7.0	0.373	5.7	LOS A	2.5	18.3	0.44	0.58	0.44	54.9
3	R2	73	7.0	73	7.0	0.373	9.6	LOS A	2.5	18.3	0.44	0.58	0.44	35.1
3u	U	29	7.0	29	7.0	0.373	11.5	LOS B	2.5	18.3	0.44	0.58	0.44	52.8
Appro	oach	422	7.0	422	7.0	0.373	6.8	LOS A	2.5	18.3	0.44	0.58	0.44	50.9
East:	Lloyd S	St												
4	L2	117	7.0	117	7.0	0.325	7.2	LOS A	2.0	15.0	0.64	0.76	0.64	27.7
6	R2	169	7.0	169	7.0	0.325	11.4	LOS B	2.0	15.0	0.64	0.76	0.64	47.3
Appro	oach	287	7.0	287	7.0	0.325	9.7	LOS A	2.0	15.0	0.64	0.76	0.64	43.3
North	n: Byrne	s St												
7	L2	81	7.0	81	7.0	0.374	5.0	LOS A	2.8	20.5	0.36	0.48	0.36	49.5
8	T1	392	7.0	392	7.0	0.374	5.2	LOS A	2.8	20.5	0.36	0.48	0.36	49.9
9u	U	1	7.0	1	7.0	0.374	11.0	LOS B	2.8	20.5	0.36	0.48	0.36	54.6
Appro	oach	474	7.0	474	7.0	0.374	5.2	LOS A	2.8	20.5	0.36	0.48	0.36	49.9
All Ve	ehicles	1184	7.0	1184	7.0	0.374	6.9	LOS A	2.8	20.5	0.46	0.58	0.46	49.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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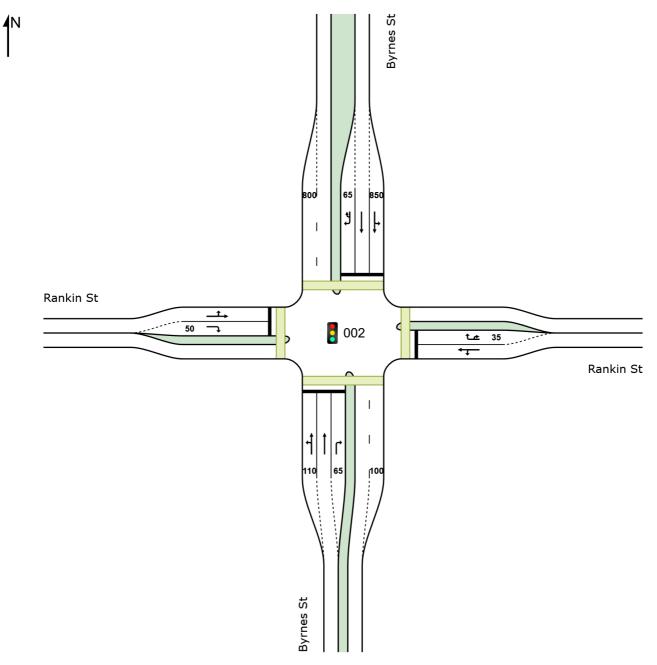
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## SITE LAYOUT

# Site: 002 [2\_2022 Survey AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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## PHASING SUMMARY

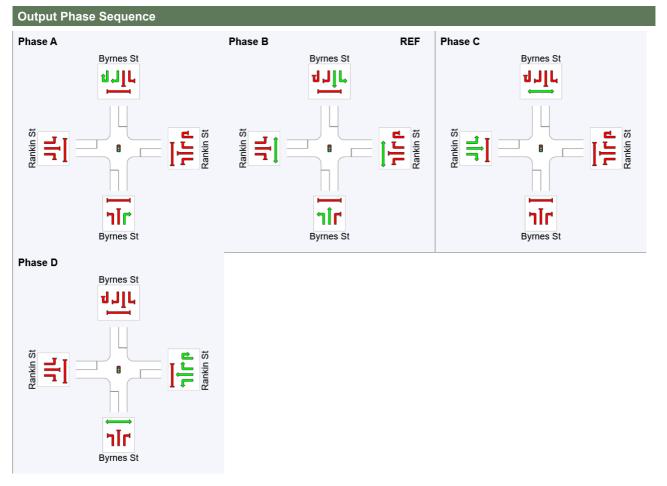
Site: 002 [2\_2022 Survey AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

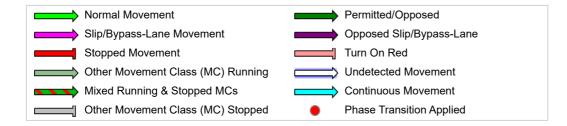
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing Summary				
Phase	Α	В	С	D
Phase Change Time (sec)	113	0	56	82
Green Time (sec)	11	50	20	25
Phase Time (sec)	17	56	26	31
Phase Split	13%	43%	20%	24%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2022 Survey AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Veh	icle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEM/ FLO [ Total		ARRI FLO [ Total	WS	Deg. Satn	Aver. Delay	Level of Service	95% BA QUE [ Veh.		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed
Sout	h: Byrne	veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
1	L2	45	7.0	45	7.0	0.255	34.6	LOS C	7.7	57.1	0.72	0.65	0.72	10.6
2	T1	318	7.0	318	7.0	0.255	29.2	LOS C	7.8	58.1	0.72	0.62	0.72	18.1
3	R2	68	7.0	68	7.0	* 0.457	69.3	LOS E	4.3	32.0	0.99	0.76	0.99	12.5
-	roach	432	7.0	432	7.0	0.457	36.2	LOS D	7.8	58.1	0.77	0.65	0.77	15.2
East	: Rankin	St												
4	L2	57	7.0	57	7.0	*0.469	56.8	LOS E	8.8	65.5	0.93	0.78	0.93	7.1
5	T1	99	7.0	99	7.0	0.469	50.5	LOS D	8.8	65.5	0.93	0.78	0.93	12.0
6	R2	102	7.0	102	7.0	0.370	55.3	LOS E	6.7	49.7	0.92	0.79	0.92	6.7
6u	U	18	7.0	18	7.0	0.370	56.5	LOS E	6.7	49.7	0.92	0.79	0.92	10.8
Аррі	roach	276	7.0	276	7.0	0.469	54.0	LOS D	8.8	65.5	0.93	0.78	0.93	9.0
Nort	h: Byrne	s St												
7	L2	97	7.0	97	7.0	0.254	34.6	LOS C	7.5	55.5	0.72	0.69	0.72	33.9
8	T1	405	7.0	405	7.0	*0.470	31.4	LOS C	15.3	113.8	0.78	0.69	0.78	37.9
9	R2	49	7.0	49	7.0	0.340	68.5	LOS E	3.1	23.3	0.98	0.75	0.98	21.7
9u	U	1	7.0	1	7.0	0.340	69.7	LOS E	3.1	23.3	0.98	0.75	0.98	26.7
Аррі	roach	553	7.0	553	7.0	0.470	35.4	LOS D	15.3	113.8	0.79	0.70	0.79	34.6
Wes	t: Rankir	n St												
10	L2	54	7.0	54	7.0	*0.480	61.3	LOS E	7.8	58.2	0.96	0.78	0.96	6.6
11	T1	79	7.0	79	7.0	0.480	55.2	LOS E	7.8	58.2	0.96	0.78	0.96	11.1
12	R2	54	7.0	54	7.0	0.197	57.9	LOS E	3.0	22.3	0.91	0.75	0.91	6.5
Аррі	roach	186	7.0	186	7.0	0.480	57.7	LOS E	7.8	58.2	0.95	0.77	0.95	8.6
All V	ehicles	1446	7.0	1446	7.0	0.480	42.0	LOS D	15.3	113.8	0.83	0.71	0.83	23.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Mo	vement	Perform	nance							
Mov	Dem.	Aver.	Level of	AVERAGE	BACK OF	Prop. Ef	fective	Travel	Travel	Aver.
ID Crossing	Flow	Delay	Service	QUE	UE	Que	Stop	Time	Dist.	Speed
				[Ped	Dist ]		Rate			
	ped/h	sec		ped	m			sec	m	m/sec
South: Byrnes St	t									
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96
East: Rankin St										

P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
North: Byrnes St										
P3 Full	21	59.2	LOS E	0.1	0.1	0.95	0.95	229.0	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	53	59.2	LOS E	0.1	0.1	0.95	0.95	226.9	218.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

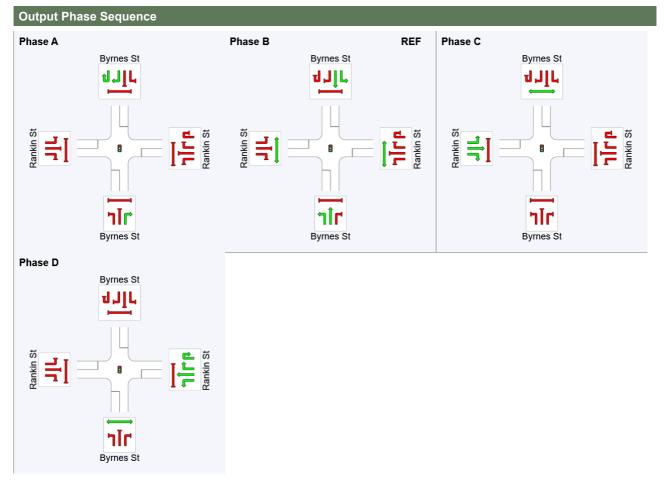
Site: 002 [2\_2022 Survey PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

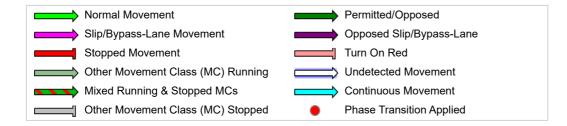
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing Summary				
Phase	Α	В	С	D
Phase Change Time (sec)	114	0	60	80
Green Time (sec)	10	54	14	28
Phase Time (sec)	16	60	20	34
Phase Split	12%	46%	15%	26%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2022 Survey PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Cycle Time)

Vehi	icle Mo	vement	Perfo	rmano	:e _									
Mov ID	Turn	DEM/ FLO [ Total		ARRI FLO [ Total	WS	Deg. Satn	Aver. Delay	Level of Service	95% BA QUE [ Veh.		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed
		veh/h	%	veh/h		v/c	sec		veh	m				km/h
Sout	h: Byrne	s St												
1	L2	61	7.0	61	7.0	0.210	31.4	LOS C	6.3	47.0	0.68	0.64	0.68	10.9
2	T1	260	7.0	260	7.0	0.210	25.9	LOS C	6.5	48.2	0.68	0.59	0.68	19.5
3	R2	43	7.0	43	7.0	0.317	69.5	LOS E	2.7	20.1	0.98	0.74	0.98	12.5
Appr	oach	364	7.0	364	7.0	0.317	32.0	LOS C	6.5	48.2	0.71	0.62	0.71	15.5
East	: Rankin	St												
4	L2	64	7.0	64	7.0	*0.510	55.0	LOS D	10.5	78.3	0.93	0.78	0.93	7.4
5	T1	124	7.0	124	7.0	0.510	48.4	LOS D	10.5	78.3	0.93	0.78	0.93	12.4
6	R2	48	7.0	48	7.0	0.131	49.9	LOS D	2.5	18.8	0.84	0.74	0.84	7.4
6u	U	1	7.0	1	7.0	0.131	51.0	LOS D	2.5	18.8	0.84	0.74	0.84	11.7
Appr	roach	238	7.0	238	7.0	0.510	50.5	LOS D	10.5	78.3	0.91	0.77	0.91	10.2
Nort	h: Byrne	s St												
7	L2	75	7.0	75	7.0	0.269	32.2	LOS C	8.4	62.0	0.70	0.65	0.70	35.0
8	T1	469	7.0	469	7.0	*0.498	28.5	LOS C	15.3	113.6	0.75	0.66	0.75	39.3
9	R2	67	7.0	67	7.0	*0.526	71.0	LOS E	4.5	33.6	1.00	0.77	1.00	21.4
9u	U	3	7.0	3	7.0	0.526	72.1	LOS E	4.5	33.6	1.00	0.77	1.00	26.2
Appr	roach	615	7.0	615	7.0	0.526	33.9	LOS C	15.3	113.6	0.77	0.67	0.77	35.2
Wes	t: Rankir	n St												
10	L2	51	7.0	51	7.0	0.490	66.8	LOS E	5.7	42.5	0.99	0.78	0.99	6.0
11	T1	42	7.0	42	7.0	0.490	60.9	LOS E	5.7	42.5	0.99	0.78	0.99	10.2
12	R2	100	7.0	100	7.0	* 0.525	66.7	LOS E	6.2	46.1	0.99	0.79	0.99	5.7
Appr	oach	193	7.0	193	7.0	0.525	65.5	LOS E	6.2	46.1	0.99	0.78	0.99	6.8
All V	ehicles	1409	7.0	1409	7.0	0.526	40.5	LOS D	15.3	113.6	0.81	0.69	0.81	24.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Mo	vement	Perform	nance							
Mov ID Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE QUE		Prop. E <sup>.</sup> Que	ffective Stop	Travel Time	Travel Dist	Aver. Speed
		Dolay	0011100	[Ped	Dist ]	0,00	Rate	11110	Diot.	
	ped/h	sec		ped	m			sec	m	m/sec
South: Byrnes S	t									
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96
East: Rankin St										

P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
North: Byrnes St										
P3 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	42	59.2	LOS E	0.0	0.0	0.95	0.95	226.3	217.3	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2022 Survey SAT Peak\_Byrnes St/Rankin St (Site Network: N101 [2022 Survey Folder: General)]

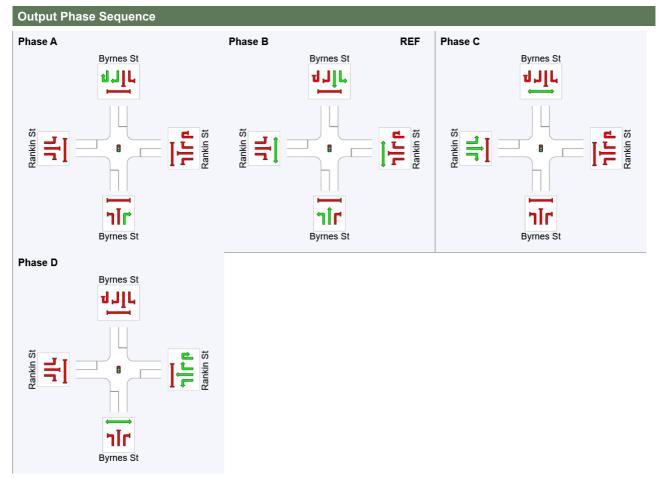
General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

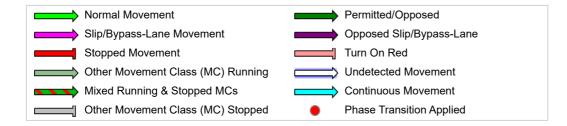
Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing Summary	,			
Phase	Α	В	С	D
Phase Change Time (sec)	104	0	63	82
Green Time (sec)	10	57	13	16
Phase Time (sec)	16	63	19	22
Phase Split	13%	53%	16%	18%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2022 Survey SAT Peak\_Byrnes St/Rankin St (Site Network: N101 [2022 Survey SAT Peak (Network Folder: SAT Peak (Network Folder:

General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Veh	icle Mo	vement	Perfo	rmano	:e _									
Mov	Turn	DEM		ARRI		Deg.		Level of	95% BA		Prop.	EffectiveA		Aver.
ID		FLO [ Total	WS HV 1	FLO [ Total		Satn	Delay	Service	QUE [ Veh.	EUE Dist ]	Que	Stop Rate	Cycles	Speed
		veh/h	пvј %	veh/h		v/c	sec		veh	m m		Nale		km/h
Sout	h: Byrne	es St												
1	L2	19	7.0	19	7.0	0.188	24.8	LOS C	5.5	40.8	0.61	0.54	0.61	11.8
2	T1	314	7.0	314	7.0	0.188	19.4	LOS B	5.5	41.1	0.61	0.52	0.61	23.8
3	R2	67	7.0	67	7.0	*0.457	64.9	LOS E	3.9	29.3	0.99	0.76	0.99	13.1
Appr	oach	400	7.0	400	7.0	0.457	27.3	LOS C	5.5	41.1	0.68	0.56	0.68	19.1
East	: Rankin	St												
4	L2	56	7.0	56	7.0	*0.431	59.4	LOS E	5.6	41.5	0.96	0.77	0.96	6.7
5	T1	45	7.0	45	7.0	0.431	53.0	LOS D	5.6	41.5	0.96	0.77	0.96	11.3
6	R2	71	7.0	71	7.0	0.323	57.6	LOS E	4.1	30.2	0.95	0.77	0.95	6.5
6u	U	4	7.0	4	7.0	0.323	58.8	LOS E	4.1	30.2	0.95	0.77	0.95	10.5
Appr	oach	176	7.0	176	7.0	0.431	57.0	LOS E	5.6	41.5	0.96	0.77	0.96	8.0
Nort	n: Byrne	s St												
7	L2	120	7.0	120	7.0	0.235	25.4	LOS C	6.8	50.5	0.63	0.66	0.63	37.0
8	T1	465	7.0	465	7.0	*0.435	21.9	LOS C	14.8	109.5	0.70	0.63	0.70	42.6
9	R2	59	7.0	59	7.0	0.409	64.6	LOS E	3.5	26.0	0.99	0.76	0.99	22.3
9u	U	1	7.0	1	7.0	0.409	65.7	LOS E	3.5	26.0	0.99	0.76	0.99	27.6
Appr	oach	645	7.0	645	7.0	0.435	26.5	LOS C	14.8	109.5	0.71	0.65	0.71	38.0
Wes	t: Rankir	n St												
10	L2	54	7.0	54	7.0	*0.439	62.0	LOS E	4.7	34.7	0.98	0.77	0.98	6.3
11	T1	28	7.0	28	7.0	0.439	56.0	LOS E	4.7	34.7	0.98	0.77	0.98	10.8
12	R2	48	7.0	48	7.0	0.253	60.0	LOS E	2.7	19.9	0.95	0.74	0.95	6.3
Appr	oach	131	7.0	131	7.0	0.439	60.0	LOS E	4.7	34.7	0.97	0.76	0.97	7.3
All V	ehicles	1352	7.0	1352	7.0	0.457	34.0	LOS C	14.8	109.5	0.76	0.65	0.76	28.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Mo	Pedestrian Movement Performance													
Mov	Dem.	Aver.	Level of	AVERAGE	BACK OF	Prop. Ef	ffective	Travel	Travel	Aver.				
ID Crossing	Flow	Delay	Service	QUE	UE	Que	Stop	Time	Dist.	Speed				
				[Ped	Dist]		Rate							
	ped/h	sec		ped	m			sec	m	m/sec				
South: Byrnes St	:													
P1 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99				
East: Rankin St														

P2 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
North: Byrnes St										
P3 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99
West: Rankin St										
P4 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
All Pedestrians	42	54.2	LOS E	0.0	0.0	0.95	0.95	221.3	217.3	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

### ■ Network: N101 [2024 BG AM Peak (Network Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

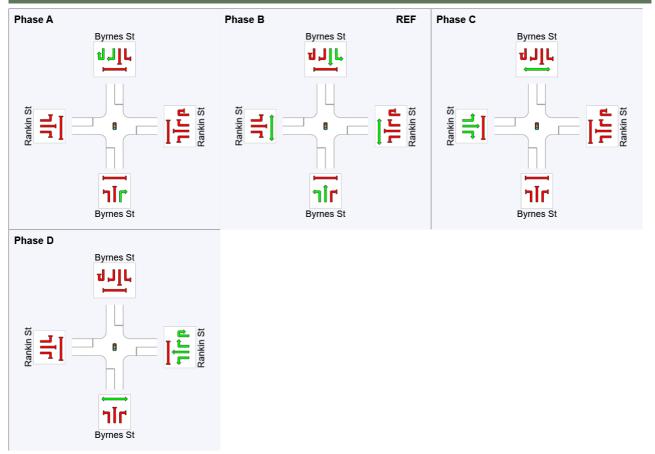
Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing	Summary
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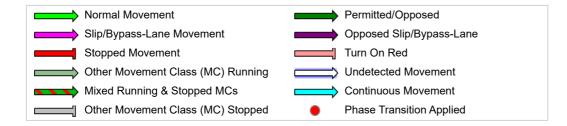
Phase	Α	В	С	D
Phase Change Time (sec)	107	0	49	76
Green Time (sec)	17	43	21	25
Phase Time (sec)	23	49	27	31
Phase Split	18%	38%	21%	24%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

### **Output Phase Sequence**



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Vehi	cle M <u>o</u>	vement	Perfo	rma <u>nc</u>	:e _									
Mov ID	Turn	DEM/ FLO [ Total veh/h	AND	ARRI FLO [ Total veh/h	VAL WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	n: Byrne	s St												
1	L2	47	7.0	47	7.0	0.306	40.2	LOS D	8.7	64.6	0.79	0.69	0.79	10.1
2	T1	328	7.0	328	7.0	0.306	34.8	LOS C	8.9	65.7	0.79	0.67	0.79	16.0
3	R2	71	7.0	71	7.0	*0.305	61.9	LOS E	4.1	30.8	0.95	0.76	0.95	13.6
Appr	oach	445	7.0	445	7.0	0.306	39.7	LOS D	8.9	65.7	0.81	0.69	0.81	14.3
East:	Rankin	St												
4	L2	59	7.0	59	7.0	0.497	57.0	LOS E	9.1	67.8	0.94	0.78	0.94	7.1
5	T1	102	7.0	102	7.0	*0.497	50.7	LOS D	9.1	67.8	0.94	0.78	0.94	11.9
6	R2	105	7.0	105	7.0	0.382	55.5	LOS E	6.9	51.4	0.92	0.79	0.92	6.7
6u	U	18	7.0	18	7.0	0.382	56.6	LOS E	6.9	51.4	0.92	0.79	0.92	10.8
Appr	oach	285	7.0	285	7.0	0.497	54.1	LOS D	9.1	67.8	0.93	0.78	0.93	9.0
North	n: Byrne	s St												
7	L2	100	7.0	100	7.0	0.309	40.3	LOS D	8.6	63.7	0.79	0.73	0.79	32.2
8	T1	418	7.0	418	7.0	*0.572	37.5	LOS D	17.3	128.1	0.86	0.75	0.86	35.5
9	R2	51	7.0	51	7.0	0.227	61.2	LOS E	3.0	22.4	0.93	0.75	0.93	22.7
9u	U	1	7.0	1	7.0	0.227	62.4	LOS E	3.0	22.4	0.93	0.75	0.93	28.4
Appr	oach	570	7.0	570	7.0	0.572	40.2	LOS D	17.3	128.1	0.85	0.74	0.85	33.0
West	: Rankir	n St												
10	L2	55	7.0	55	7.0	0.471	60.3	LOS E	8.0	59.5	0.96	0.78	0.96	6.7
11	T1	81	7.0	81	7.0	*0.471	54.2	LOS D	8.0	59.5	0.96	0.78	0.96	11.3
12	R2	55	7.0	55	7.0	0.194	56.9	LOS E	3.1	22.8	0.90	0.75	0.90	6.6
Appr	oach	192	7.0	192	7.0	0.471	56.7	LOS E	8.0	59.5	0.94	0.77	0.94	8.7
All Ve	ehicles	1492	7.0	1492	7.0	0.572	44.8	LOS D	17.3	128.1	0.87	0.74	0.87	22.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Mo	Pedestrian Movement Performance													
Mov ID Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Et Que	ffective Stop	Travel Time	Travel Dist.	Aver. Speed				
	ped/h	sec		[ Ped ped	Dist ] m		Rate	sec	m	m/sec				
South: Byrnes St														
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96				
East: Rankin St														
P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96				

North: Byrnes St										
P3 Full	21	59.2	LOS E	0.1	0.1	0.95	0.95	229.0	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	53	59.2	LOS E	0.1	0.1	0.95	0.95	226.9	218.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

### ■ Network: N101 [2024 BG PM Peak (Network Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

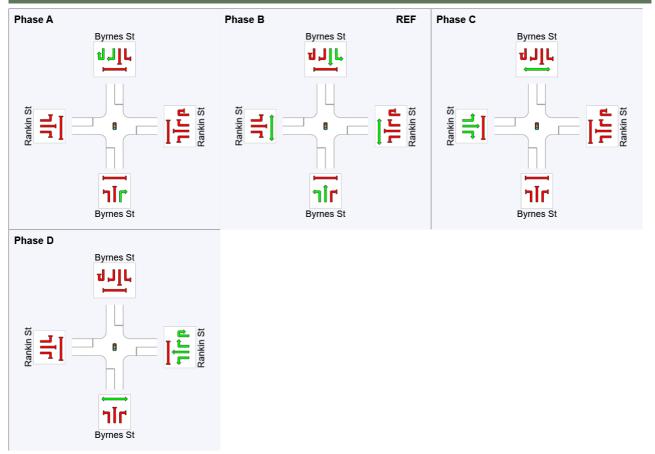
Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing	Summary
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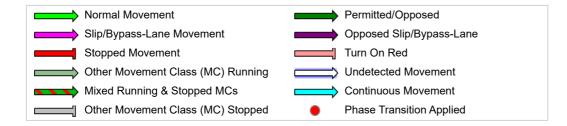
Phase	Α	В	С	D
Phase Change Time (sec)	104	0	43	70
Green Time (sec)	20	37	21	28
Phase Time (sec)	26	43	27	34
Phase Split	20%	33%	21%	26%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

### **Output Phase Sequence**



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	DEM/ FLO [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c		Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	es St												
1	L2	63	7.0	63	7.0	0.317	44.8	LOS D	8.1	60.2	0.83	0.73	0.83	9.7
2	T1	268	7.0	268	7.0	0.317	39.4	LOS D	8.3	61.9	0.83	0.70	0.83	14.6
3	R2	45	7.0	45	7.0	0.164	57.6	LOS E	2.5	18.4	0.90	0.74	0.90	14.3
Appr	oach	376	7.0	376	7.0	0.317	42.4	LOS D	8.3	61.9	0.84	0.71	0.84	13.1
East	: Rankin	St												
4	L2	66	7.0	66	7.0	0.530	55.2	LOS E	10.9	81.1	0.93	0.78	0.93	7.4
5	T1	128	7.0	128	7.0	*0.530	48.6	LOS D	10.9	81.1	0.93	0.78	0.93	12.4
6	R2	50	7.0	50	7.0	0.135	49.9	LOS D	2.6	19.4	0.84	0.74	0.84	7.4
6u	U	1	7.0	1	7.0	0.135	51.1	LOS D	2.6	19.4	0.84	0.74	0.84	11.7
Appr	oach	245	7.0	245	7.0	0.530	50.7	LOS D	10.9	81.1	0.91	0.77	0.91	10.1
Nort	h: Byrne	s St												
7	L2	77	7.0	77	7.0	0.394	45.9	LOS D	10.4	77.0	0.85	0.75	0.85	30.9
8	T1	484	7.0	484	7.0	*0.731	44.0	LOS D	20.3	150.8	0.92	0.81	0.93	33.2
9	R2	70	7.0	70	7.0	*0.271	58.7	LOS E	4.1	30.7	0.92	0.76	0.92	23.1
9u	U	3	7.0	3	7.0	0.271	59.9	LOS E	4.1	30.7	0.92	0.76	0.92	29.0
Appr	oach	634	7.0	634	7.0	0.731	45.9	LOS D	20.3	150.8	0.91	0.79	0.92	31.2
Wes	t: Rankir	n St												
10	L2	52	7.0	52	7.0	0.334	58.8	LOS E	5.5	40.5	0.93	0.76	0.93	6.7
11	T1	43	7.0	43	7.0	0.334	52.8	LOS D	5.5	40.5	0.93	0.76	0.93	11.4
12	R2	103	7.0	103	7.0	*0.361	58.6	LOS E	5.9	43.9	0.93	0.78	0.93	6.4
Appr	oach	199	7.0	199	7.0	0.361	57.4	LOS E	5.9	43.9	0.93	0.77	0.93	7.6
All V	ehicles	1454	7.0	1454	7.0	0.731	47.4	LOS D	20.3	150.8	0.90	0.77	0.90	22.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov ID Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Et Que	ffective Stop	Travel Time	Travel Dist.	Aver. Speed		
	ped/h	sec		[Ped ped	Dist ] m		Rate	sec	m	m/sec		
South: Byrnes St												
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96		
East: Rankin St												
P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96		

North: Byrnes St										
P3 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	42	59.2	LOS E	0.0	0.0	0.95	0.95	226.3	217.3	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG SAT Peak\_Byrnes St/Rankin St (Site Folder: General)]

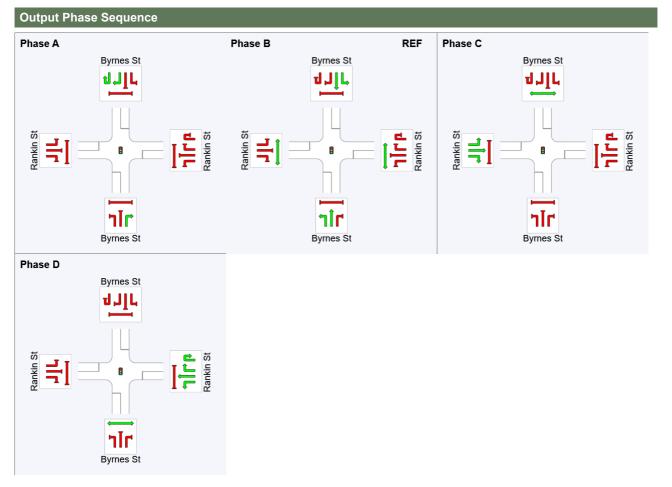
Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

#### Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

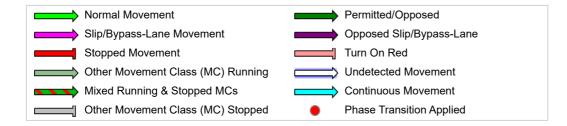
Phase Timin	g Summary
-------------	-----------

Phase	Α	В	С	D
Phase Change Time (sec)	95	0	41	68
Green Time (sec)	19	35	21	21
Phase Time (sec)	25	41	27	27
Phase Split	21%	34%	23%	23%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG SAT Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	DEM/ FLO <sup>v</sup> [ Total veh/h	AND	ARRI FLO [ Total veh/h	VAL WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	s St												
1	L2	20	7.0	20	7.0	0.317	41.3	LOS D	7.8	57.8	0.83	0.69	0.83	10.1
2	T1	324	7.0	324	7.0	0.317	35.9	LOS D	7.9	58.3	0.83	0.69	0.83	15.8
3	R2	70	7.0	70	7.0	*0.248	54.1	LOS D	3.6	26.9	0.92	0.76	0.92	15.0
Appr	oach	413	7.0	413	7.0	0.317	39.2	LOS D	7.9	58.3	0.84	0.70	0.84	15.1
East	: Rankin	St												
4	L2	58	7.0	58	7.0	0.336	54.0	LOS D	5.4	40.3	0.92	0.76	0.92	7.4
5	T1	47	7.0	47	7.0	*0.336	47.5	LOS D	5.4	40.3	0.92	0.76	0.92	12.3
6	R2	73	7.0	73	7.0	0.254	52.2	LOS D	4.0	29.3	0.90	0.76	0.90	7.1
6u	U	4	7.0	4	7.0	0.254	53.4	LOS D	4.0	29.3	0.90	0.76	0.90	11.3
Appr	oach	181	7.0	181	7.0	0.336	51.6	LOS D	5.4	40.3	0.91	0.76	0.91	8.7
North	n: Byrne	s St												
7	L2	124	7.0	124	7.0	0.413	42.5	LOS D	10.1	75.2	0.85	0.77	0.85	31.5
8	T1	480	7.0	480	7.0	*0.765	42.0	LOS D	21.1	156.7	0.94	0.85	0.98	33.8
9	R2	61	7.0	61	7.0	0.222	53.8	LOS D	3.2	23.8	0.91	0.75	0.91	23.8
9u	U	1	7.0	1	7.0	0.222	55.0	LOS D	3.2	23.8	0.91	0.75	0.91	30.3
Appr	oach	666	7.0	666	7.0	0.765	43.2	LOS D	21.1	156.7	0.92	0.82	0.95	32.0
West	t: Rankir	n St												
10	L2	55	7.0	55	7.0	0.276	52.9	LOS D	4.4	32.4	0.91	0.75	0.91	7.3
11	T1	29	7.0	29	7.0	*0.276	46.9	LOS D	4.4	32.4	0.91	0.75	0.91	12.3
12	R2	50	7.0	50	7.0	0.161	51.3	LOS D	2.5	18.6	0.89	0.74	0.89	7.2
Appr	oach	135	7.0	135	7.0	0.276	51.0	LOS D	4.4	32.4	0.90	0.75	0.90	8.4
All V	ehicles	1395	7.0	1395	7.0	0.765	43.8	LOS D	21.1	156.7	0.89	0.77	0.91	24.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov					BACK OF	Prop. Ef	fective	Travel	Travel	Aver.		
ID Crossing	Flow	Delay	Service	QUE	UE	Que	Stop	Time	Dist.	Speed		
				[Ped	Dist ]		Rate					
	ped/h	sec		ped	m			sec	m	m/sec		
South: Byrnes St	t											
P1 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99		
East: Rankin St												

P2 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
North: Byrnes St										
P3 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99
West: Rankin St										
P4 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
All Pedestrians	42	54.2	LOS E	0.0	0.0	0.95	0.95	221.3	217.3	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG+D AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

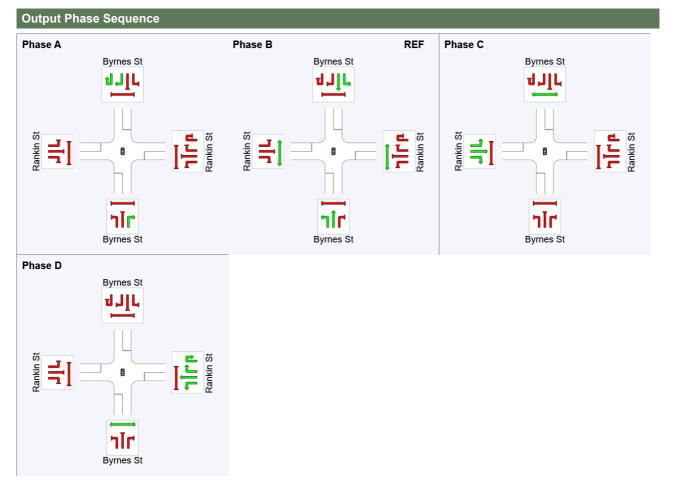
Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

#### Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

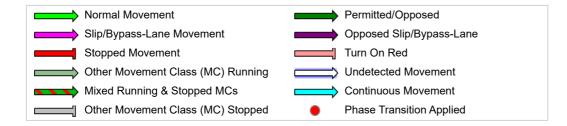
Phase Timing	Summary
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Phase	Α	В	С	D
Phase Change Time (sec)	107	0	49	76
Green Time (sec)	17	43	21	25
Phase Time (sec)	23	49	27	31
Phase Split	18%	38%	21%	24%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG+D AM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Vehicle Movement Performance														
Mov ID	Turn	DEM/ FLO [ Total veh/h	AND	ARRI FLO [ Total veh/h	VAL WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	s St												
1	L2	43	7.0	43	7.0	0.335	40.3	LOS D	9.6	71.6	0.80	0.70	0.80	8.5
2	T1	367	7.0	367	7.0	0.335	35.3	LOS D	9.8	72.7	0.80	0.68	0.80	8.6
3	R2	71	7.0	71	7.0	0.305	61.6	LOS E	4.1	30.8	0.95	0.76	0.95	9.4
Appr	oach	481	7.0	481	7.0	0.335	39.6	LOS D	9.8	72.7	0.82	0.69	0.82	8.8
East	: Rankin	St												
4	L2	59	7.0	59	7.0	0.637	57.2	LOS E	11.0	81.4	0.95	0.79	0.95	7.1
5	T1	131	7.0	131	7.0	*0.637	51.6	LOS D	11.0	81.4	0.95	0.79	0.95	7.1
6	R2	104	7.0	104	7.0	0.379	55.4	LOS E	6.9	51.0	0.92	0.79	0.92	6.7
6u	U	18	7.0	18	7.0	0.379	56.6	LOS E	6.9	51.0	0.92	0.79	0.92	10.8
Appr	oach	312	7.0	312	7.0	0.637	54.2	LOS D	11.0	81.4	0.94	0.79	0.94	7.2
North	n: Byrne	s St												
7	L2	90	7.0	90	7.0	*0.402	41.6	LOS D	11.7	87.1	0.82	0.74	0.82	34.2
8	T1	399	7.0	399	7.0	0.402	35.9	LOS D	12.0	89.4	0.82	0.71	0.82	35.9
9	R2	128	7.0	128	7.0	* 0.559	64.3	LOS E	7.9	58.5	0.99	0.80	0.99	27.7
9u	U	1	7.0	1	7.0	0.559	65.4	LOS E	7.9	58.5	0.99	0.80	0.99	27.7
Appr	oach	618	7.0	618	7.0	0.559	42.6	LOS D	12.0	89.4	0.86	0.73	0.86	33.6
West	t: Rankir	n St												
10	L2	65	7.0	65	7.0	0.800	66.2	LOS E	12.1	89.8	1.00	0.92	1.15	4.0
11	T1	155	7.0	155	7.0	* 0.800	61.4	LOS E	12.1	89.8	1.00	0.92	1.15	8.6
12	R2	122	7.0	122	7.0	0.428	57.9	LOS E	7.1	52.8	0.95	0.79	0.95	4.1
Appr	oach	342	7.0	342	7.0	0.800	61.1	LOS E	12.1	89.8	0.98	0.88	1.08	6.2
All V	ehicles	1753	7.0	1753	7.0	0.800	47.5	LOS D	12.1	89.8	0.89	0.76	0.90	20.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov					BACK OF	Prop. Ef	fective	Travel	Travel	Aver.		
ID Crossing	Flow	Delay	Service	QUE	UE	Que	Stop	Time	Dist.	Speed		
				[Ped	Dist ]		Rate					
	ped/h	sec		ped	m			sec	m	m/sec		
South: Byrnes St	t											
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96		
East: Rankin St												

P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
North: Byrnes St										
P3 Full	21	59.2	LOS E	0.1	0.1	0.95	0.95	229.0	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	53	59.2	LOS E	0.1	0.1	0.95	0.95	226.9	218.0	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG+D PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

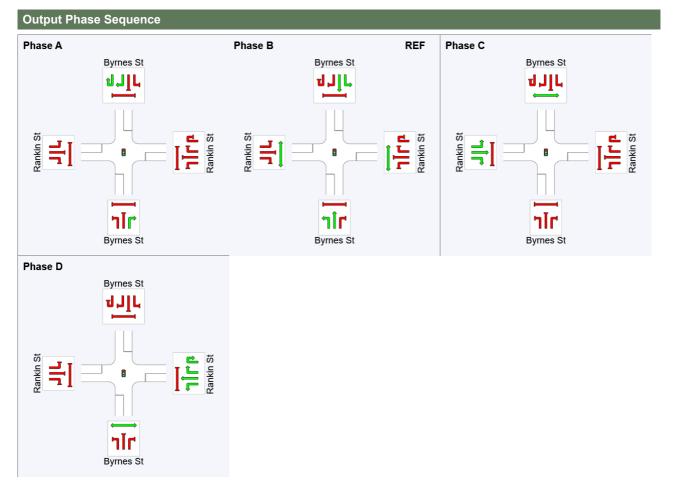
Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

#### Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

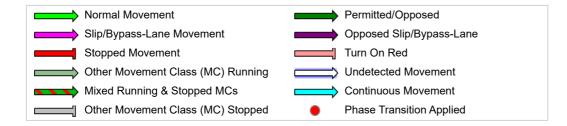
Phase Timing S	Summary
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Phase	Α	В	С	D
Phase Change Time (sec)	104	0	43	70
Green Time (sec)	20	37	21	28
Phase Time (sec)	26	43	27	34
Phase Split	20%	33%	21%	26%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG+D PM Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site User-Given Phase Times)

Veh	icle Mo	vement	: Perfo	rmano	:e _									
Mov ID	Turn	DEM/ FLO [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	s St												
1	L2	59	7.0	59	7.0	0.361	45.1	LOS D	9.4	70.1	0.84	0.73	0.84	7.5
2	T1	320	7.0	320	7.0	0.361	40.0	LOS D	9.7	71.7	0.84	0.72	0.84	7.6
3	R2	45	7.0	45	7.0	0.164	57.3	LOS E	2.5	18.4	0.90	0.74	0.90	10.0
Appr	oach	423	7.0	423	7.0	0.361	42.5	LOS D	9.7	71.7	0.85	0.72	0.85	8.0
East	: Rankin	St												
4	L2	66	7.0	66	7.0	0.643	55.4	LOS E	13.4	99.4	0.95	0.81	0.95	7.3
5	T1	166	7.0	166	7.0	*0.643	49.8	LOS D	13.4	99.4	0.95	0.81	0.95	7.3
6	R2	49	7.0	49	7.0	0.132	49.9	LOS D	2.5	18.9	0.84	0.74	0.84	7.4
6u	U	1	7.0	1	7.0	0.132	51.0	LOS D	2.5	18.9	0.84	0.74	0.84	11.7
Appr	roach	282	7.0	282	7.0	0.643	51.2	LOS D	13.4	99.4	0.93	0.79	0.93	7.3
Nort	h: Byrne	s St												
7	L2	64	7.0	64	7.0	*0.497	47.3	LOS D	13.7	101.6	0.89	0.77	0.89	32.6
8	T1	459	7.0	459	7.0	0.497	41.7	LOS D	13.9	103.4	0.89	0.76	0.89	33.9
9	R2	171	7.0	171	7.0	*0.645	62.7	LOS E	10.7	79.2	0.99	0.82	1.00	28.0
9u	U	3	7.0	3	7.0	0.645	63.9	LOS E	10.7	79.2	0.99	0.82	1.00	28.0
Appr	oach	698	7.0	698	7.0	0.645	47.5	LOS D	13.9	103.4	0.91	0.78	0.91	32.1
Wes	t: Rankir	n St												
10	L2	65	7.0	65	7.0	0.733	63.0	LOS E	12.1	89.8	1.00	0.87	1.08	4.1
11	T1	141	7.0	141	7.0	*0.733	58.4	LOS E	12.1	89.8	1.00	0.87	1.08	8.9
12	R2	192	7.0	192	7.0	0.672	61.0	LOS E	11.8	87.5	0.99	0.83	1.02	3.9
Appr	oach	398	7.0	398	7.0	0.733	60.4	LOS E	12.1	89.8	1.00	0.85	1.05	5.8
All V	ehicles	1801	7.0	1801	7.0	0.733	49.7	LOS D	13.9	103.4	0.92	0.78	0.93	20.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov	Dem.	Aver.	Level of	AVERAGE BACK OF		Prop. Ef	fective	Travel	Travel	Aver.		
ID Crossing	Flow	Delay	Service	QUE	UE	Que	Stop	Time	Dist.	Speed		
				[Ped	Dist ]		Rate					
	ped/h	sec		ped	m			sec	m	m/sec		
South: Byrnes St	t											
P1 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96		
East: Rankin St												

P2 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
North: Byrnes St										
P3 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	228.9	220.7	0.96
West: Rankin St										
P4 Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	223.7	213.9	0.96
All Pedestrians	42	59.2	LOS E	0.0	0.0	0.95	0.95	226.3	217.3	0.96

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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## PHASING SUMMARY

Site: 002 [2\_2024 BG+D SAT Peak\_Byrnes St/Rankin St (Site Folder: General)]

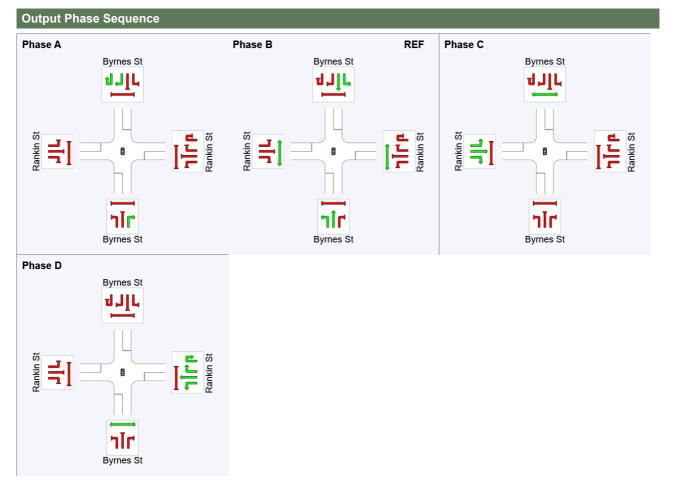
Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

#### Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Surveyed Phasing Reference Phase: Phase B Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

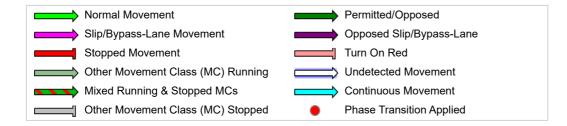
Phase Timin	g Summary
-------------	-----------

Phase	Α	В	С	D
Phase Change Time (sec)	95	0	41	68
Green Time (sec)	19	35	21	21
Phase Time (sec)	25	41	27	27
Phase Split	21%	34%	23%	23%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



REF: Reference Phase VAR: Variable Phase



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Site: 002 [2\_2024 BG+D SAT Peak\_Byrnes St/Rankin St (Site Folder: General)]

Int 001 - Byrnes St / Rankin St Prepared: TB Reviewed: Site Category: -

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Vehi	cle M <u>o</u>	vement	Perfo	rmano	;e _									
Mov ID	Turn	DEM/ FLO <sup>v</sup> [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	s St												
1	L2	15	7.0	15	7.0	0.363	41.5	LOS D	9.1	67.5	0.84	0.71	0.84	8.3
2	T1	379	7.0	379	7.0	0.363	36.5	LOS D	9.1	67.9	0.84	0.70	0.84	8.4
3	R2	70	7.0	70	7.0	0.248	53.8	LOS D	3.6	26.9	0.92	0.76	0.92	10.5
Appr	oach	463	7.0	463	7.0	0.363	39.2	LOS D	9.1	67.9	0.85	0.71	0.85	8.8
East	Rankin	St												
4	L2	58	7.0	58	7.0	0.460	54.2	LOS D	7.7	57.5	0.95	0.78	0.95	7.3
5	T1	87	7.0	87	7.0	*0.460	48.7	LOS D	7.7	57.5	0.95	0.78	0.95	7.3
6	R2	71	7.0	71	7.0	0.249	52.2	LOS D	3.9	28.8	0.90	0.76	0.90	7.1
6u	U	4	7.0	4	7.0	0.249	53.4	LOS D	3.9	28.8	0.90	0.76	0.90	11.3
Appr	oach	221	7.0	221	7.0	0.460	51.4	LOS D	7.7	57.5	0.93	0.77	0.93	7.3
North	n: Byrne	s St												
7	L2	110	7.0	110	7.0	* 0.526	44.0	LOS D	13.6	101.1	0.89	0.78	0.89	33.4
8	T1	453	7.0	453	7.0	0.526	38.3	LOS D	14.0	104.1	0.89	0.77	0.89	35.0
9	R2	168	7.0	168	7.0	*0.606	57.5	LOS E	9.5	70.2	0.98	0.81	0.98	29.3
9u	U	1	7.0	1	7.0	0.606	58.7	LOS E	9.5	70.2	0.98	0.81	0.98	29.3
Appr	oach	733	7.0	733	7.0	0.606	43.6	LOS D	14.0	104.1	0.91	0.78	0.91	33.3
West	: Rankir	n St												
10	L2	69	7.0	69	7.0	0.636	55.2	LOS E	11.2	82.8	0.98	0.82	0.98	4.7
11	T1	132	7.0	132	7.0	* 0.636	50.5	LOS D	11.2	82.8	0.98	0.82	0.98	10.0
12	R2	144	7.0	144	7.0	0.465	52.9	LOS D	7.7	57.3	0.95	0.80	0.95	4.5
Appr	oach	345	7.0	345	7.0	0.636	52.4	LOS D	11.2	82.8	0.97	0.81	0.97	6.8
All Ve	ehicles	1762	7.0	1762	7.0	0.636	45.2	LOS D	14.0	104.1	0.91	0.77	0.91	22.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

\* Critical Movement (Signal Timing)

Pedestrian Movement Performance												
Mov	Dem.	Aver.	Level of	AVERAGE BACK OF		Prop. Et	ffective	Travel	Travel	Aver.		
ID Crossing	Flow	Delay	Service	QUEUE		Que	Stop	Time	Dist.	Speed		
				[Ped	Dist ]		Rate					
	ped/h	sec		ped	m			sec	m	m/sec		
South: Byrnes S	t											
P1 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99		
East: Rankin St												

P2 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
North: Byrnes St										
P3 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.9	220.7	0.99
West: Rankin St										
P4 Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	218.7	213.9	0.98
All Pedestrians	42	54.2	LOS E	0.0	0.0	0.95	0.95	221.3	217.3	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay) Pedestrian movement LOS values are based on average delay per pedestrian movement. Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

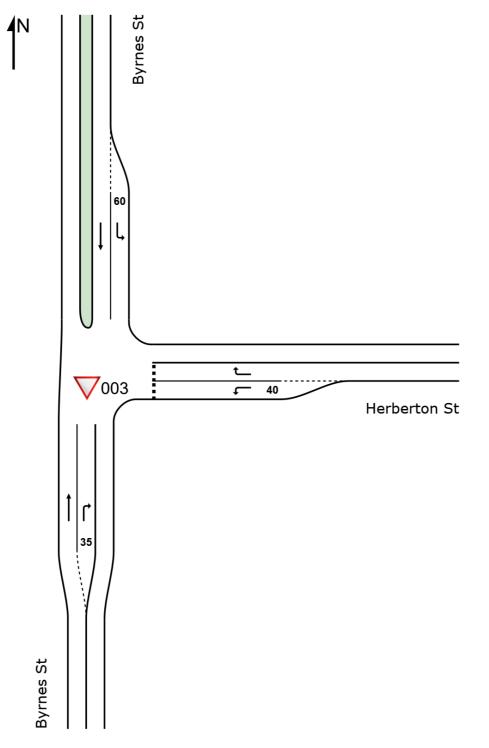
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## SITE LAYOUT

# V Site: 003 [3\_2022 Survey AM Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



V Site: 003 [3\_2022 Survey AM Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	South: Byrnes St													
2	T1	431	7.0	431	7.0	0.232	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	275	7.0	275	7.0	0.310	8.5	LOS A	1.6	11.9	0.56	0.75	0.58	38.7
Appro	bach	705	7.0	705	7.0	0.310	3.3	NA	1.6	11.9	0.22	0.29	0.23	47.1
East:	Herber	ton St												
4	L2	169	7.0	169	7.0	0.193	7.9	LOS A	0.8	6.2	0.47	0.68	0.47	30.1
6	R2	11	7.0	11	7.0	0.048	19.9	LOS C	0.1	1.1	0.79	0.91	0.79	16.7
Appro	bach	180	7.0	180	7.0	0.193	8.6	LOS A	0.8	6.2	0.49	0.70	0.49	28.8
North	: Byrne	s St												
7	L2	78	7.0	78	7.0	0.044	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	393	7.0	393	7.0	0.211	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	471	7.0	471	7.0	0.211	1.0	NA	0.0	0.0	0.00	0.10	0.00	55.0
All Ve	hicles	1356	7.0	1356	7.0	0.310	3.2	NA	1.6	11.9	0.18	0.28	0.18	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2022 Survey PM Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2 3	T1 R2	331 200	7.0 7.0	331 200	7.0 7.0	0.179 0.255	0.0 9.1	LOS A LOS A	0.0 1.2	0.0 8.6	0.00 0.58	0.00 0.78	0.00 0.58	59.9 38.0
Appro		531	7.0	531	7.0	0.255	3.4	NA	1.2	8.6	0.22	0.29	0.22	46.9
East:	Herber	ton St												
4 6	L2 R2	160 22	7.0 7.0	160 22	7.0 7.0	0.204 0.089	8.6 18.3	LOS A LOS C	0.9 0.3	6.4 2.1	0.53 0.77	0.73 0.90	0.53 0.77	28.7 17.8
Appro		182	7.0	182	7.0	0.204	9.8	LOSA	0.9	6.4	0.55	0.76	0.55	26.8
North	: Byrne	s St												
7	L2	91	7.0	91	7.0	0.051	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	484	7.0	484	7.0	0.260	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	575	7.0	575	7.0	0.260	0.9	NA	0.0	0.0	0.00	0.09	0.00	55.1
All Ve	hicles	1287	7.0	1287	7.0	0.260	3.2	NA	1.2	8.6	0.17	0.27	0.17	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

Minor Road Approach LOS values are based on average delay for all venicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2022 Survey SAT Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	377	7.0	377	7.0	0.203	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	171	7.0	171	7.0	0.202	8.4	LOS A	0.9	6.7	0.54	0.74	0.54	38.8
Appro	bach	547	7.0	547	7.0	0.203	2.6	NA	0.9	6.7	0.17	0.23	0.17	49.0
East:	Herber	ton St												
4	L2	133	7.0	133	7.0	0.155	7.9	LOS A	0.6	4.8	0.47	0.68	0.47	30.0
6	R2	27	7.0	27	7.0	0.102	17.2	LOS C	0.3	2.4	0.75	0.90	0.75	18.6
Appro	bach	160	7.0	160	7.0	0.155	9.5	LOS A	0.6	4.8	0.52	0.72	0.52	27.2
North	: Byrne	s St												
7	L2	102	7.0	102	7.0	0.058	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	407	7.0	407	7.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	509	7.0	509	7.0	0.218	1.1	NA	0.0	0.0	0.00	0.12	0.00	54.1
All Ve	hicles	1217	7.0	1217	7.0	0.218	2.9	NA	0.9	6.7	0.14	0.25	0.14	48.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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#### V Site: 003 [3\_2024 BG AM Peak\_Byrnes St/Herberton St (Site ■ Network: N101 [2024 BG AM Folder: General)]

Peak (Network Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF IEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	444	7.0	444	7.0	0.240	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	283	7.0	283	7.0	0.323	8.7	LOS A	1.7	12.9	0.57	0.76	0.61	38.5
Appro	bach	728	7.0	728	7.0	0.323	3.4	NA	1.7	12.9	0.22	0.30	0.24	46.9
East:	Herber	ton St												
4	L2	175	7.0	175	7.0	0.201	8.0	LOS A	0.9	6.6	0.48	0.69	0.48	29.9
6	R2	11	7.0	11	7.0	0.052	20.8	LOS C	0.2	1.2	0.80	0.92	0.80	16.2
Appro	bach	186	7.0	186	7.0	0.201	8.7	LOS A	0.9	6.6	0.50	0.70	0.50	28.5
North	: Byrne	s St												
7	L2	80	7.0	80	7.0	0.045	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	405	7.0	405	7.0	0.217	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	485	7.0	485	7.0	0.217	1.0	NA	0.0	0.0	0.00	0.10	0.00	54.9
All Ve	hicles	1399	7.0	1399	7.0	0.323	3.3	NA	1.7	12.9	0.18	0.28	0.19	47.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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#### V Site: 003 [3\_2024 BG PM Peak\_Byrnes St/Herberton St (Site 🛛 💵 Network: N101 [2024 BG PM Folder: General)]

Peak (Network Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	:e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	341	7.0	341	7.0	0.184	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	206	7.0	206	7.0	0.263	9.2	LOS A	1.2	9.2	0.59	0.78	0.60	37.9
Appro	bach	547	7.0	547	7.0	0.263	3.5	NA	1.2	9.2	0.22	0.30	0.22	46.8
East:	Herber	ton St												
4	L2	165	7.0	165	7.0	0.211	8.7	LOS A	0.9	6.9	0.54	0.74	0.54	28.5
6	R2	23	7.0	23	7.0	0.094	18.7	LOS C	0.3	2.2	0.77	0.91	0.77	17.5
Appro	bach	188	7.0	188	7.0	0.211	9.9	LOS A	0.9	6.9	0.56	0.76	0.56	26.5
North	: Byrne	s St												
7	L2	93	7.0	93	7.0	0.053	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	500	7.0	500	7.0	0.268	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	593	7.0	593	7.0	0.268	0.9	NA	0.0	0.0	0.00	0.09	0.00	55.1
All Ve	hicles	1328	7.0	1328	7.0	0.268	3.2	NA	1.2	9.2	0.17	0.27	0.17	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2024 BG SAT Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2 3	T1 R2	389 176	7.0 7.0	389 176	7.0 7.0	0.210 0.207	0.0 8.5	LOS A LOS A	0.0 1.0	0.0 7.1	0.00 0.54	0.00 0.73	0.00 0.54	59.9 38.8
Appro		565	7.0	565	7.0	0.207	2.7	NA	1.0	7.1	0.34	0.73	0.34	49.0
East:	Herber	ton St												
4 6	L2 R2	137 28	7.0 7.0	137 28	7.0 7.0	0.159 0.106	8.0 17.4	LOS A LOS C	0.7 0.3	5.2 2.5	0.48 0.75	0.68 0.90	0.48 0.75	29.9 18.4
Appro		165	7.0	165	7.0	0.159	9.6	LOS C	0.3	5.2	0.73	0.90	0.73	27.0
North	: Byrne	s St												
7	L2	105	7.0	105	7.0	0.060	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	43.3
8	T1	420	7.0	420	7.0	0.225	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	526	7.0	526	7.0	0.225	1.1	NA	0.0	0.0	0.00	0.12	0.00	54.1
All Ve	hicles	1256	7.0	1256	7.0	0.225	2.9	NA	1.0	7.1	0.15	0.24	0.15	48.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Miner Dood Approach LOC values are based on average delay for all vehicle movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2024 BG+D AM Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	es St												
2 3	T1 R2	492 283	7.0 7.0	492 283	7.0 7.0	0.266 0.381	0.0 10.3	LOS A LOS B	0.0 2.0	0.0 15.2	0.00 0.62	0.00 0.90	0.00 0.79	59.8 36.6
Appro East:	bach Herber	775 ton St	7.0	775	7.0	0.381	3.8	NA	2.0	15.2	0.23	0.33	0.29	46.1
4 6	L2 R2	175 47	7.0 7.0	175 47	7.0 7.0	0.229 0.321	8.5 33.2	LOS A LOS D	0.9 1.0	6.4 7.7	0.52 0.90	0.77 0.99	0.52 1.05	28.8 11.3
Appro		221	7.0	221	7.0	0.321	13.7	LOS B	1.0	7.7	0.60	0.82	0.63	21.8
North	: Byrne	s St												
7	L2	80	7.0	80	7.0	0.045	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	39.5
8	T1	453	7.0	453	7.0	0.243	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	533	7.0	533	7.0	0.243	0.9	NA	0.0	0.0	0.00	0.09	0.00	53.0
All Ve	hicles	1530	7.0	1530	7.0	0.381	4.2	NA	2.0	15.2	0.20	0.32	0.24	43.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2024 BG+D PM Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	es St												
2	T1	404	7.0	404	7.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	206	7.0	206	7.0	0.334	11.4	LOS B	1.6	11.6	0.65	0.91	0.81	35.4
Appro	bach	611	7.0	611	7.0	0.334	3.9	NA	1.6	11.6	0.22	0.31	0.27	45.9
East:	Herber	ton St												
4	L2	165	7.0	165	7.0	0.255	9.9	LOS A	1.0	7.4	0.58	0.84	0.62	26.6
6	R2	70	7.0	70	7.0	0.467	36.3	LOS E	1.7	12.3	0.91	1.04	1.21	10.5
Appro	bach	235	7.0	235	7.0	0.467	17.8	LOS C	1.7	12.3	0.68	0.90	0.80	18.3
North	: Byrne	s St												
7	L2	93	7.0	93	7.0	0.053	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	39.5
8	T1	563	7.0	563	7.0	0.302	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	656	7.0	656	7.0	0.302	0.8	NA	0.0	0.0	0.00	0.08	0.00	53.2
All Ve	hicles	1503	7.0	1503	7.0	0.467	4.7	NA	1.7	12.3	0.20	0.30	0.24	41.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 003 [3\_2024 BG+D SAT Peak\_Byrnes St/Herberton St (Site Folder: General)]

Int 003 - Byrnes St / Herberton St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	456	7.0	456	7.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	176	7.0	176	7.0	0.257	9.9	LOS A	1.1	8.1	0.60	0.85	0.64	37.0
Appro	bach	632	7.0	632	7.0	0.257	2.8	NA	1.1	8.1	0.17	0.24	0.18	48.7
East:	Herber	ton St												
4	L2	137	7.0	137	7.0	0.188	8.8	LOS A	0.7	5.1	0.52	0.78	0.52	28.5
6	R2	79	7.0	79	7.0	0.463	32.6	LOS D	1.7	12.5	0.90	1.04	1.21	11.5
Appro	bach	215	7.0	215	7.0	0.463	17.5	LOS C	1.7	12.5	0.66	0.87	0.77	18.5
North	: Byrne	s St												
7	L2	105	7.0	105	7.0	0.060	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	39.5
8	T1	487	7.0	487	7.0	0.261	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	593	7.0	593	7.0	0.261	1.0	NA	0.0	0.0	0.00	0.10	0.00	52.0
All Ve	hicles	1440	7.0	1440	7.0	0.463	4.3	NA	1.7	12.5	0.17	0.28	0.19	42.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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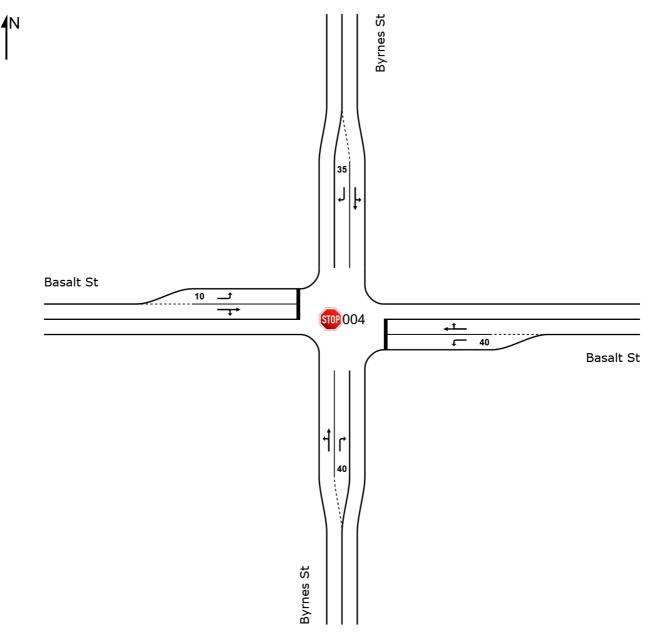
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## SITE LAYOUT

# Site: 004 [4\_2022 Survey AM Peak\_Byrnes St/Basalt St (Site Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Site: 004 [4\_2022 Survey AM Peak\_Byrnes St/Basalt St (Site ■ Network: N101 [2022 Survey Folder: General)]

General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	:e									
Mov ID	Turn	DEM/ FLO		ARRI FLO		Deg. Satn		Level of Service		ACK OF EUE	Prop. Que	EffectiveA Stop	ver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h		v/c	sec		[ Veh. veh	Dist ] m		Rate		km/h
Sout	h: Byrne	s St												
1	L2	18	7.0	18	7.0	0.184	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
2	T1	322	7.0	322	7.0	0.184	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.4
3	R2	69	7.0	69	7.0	0.062	7.3	LOS A	0.3	1.9	0.47	0.65	0.47	51.8
Appr	oach	409	7.0	409	7.0	0.184	1.5	NA	0.3	1.9	0.08	0.14	0.08	56.9
East:	Basalt	St												
4	L2	49	7.0	49	7.0	0.070	11.0	LOS B	0.2	1.8	0.46	0.93	0.46	45.7
5	T1	9	7.0	9	7.0	0.030	14.5	LOS B	0.1	0.8	0.68	0.96	0.68	47.9
6	R2	4	7.0	4	7.0	0.030	15.3	LOS C	0.1	0.8	0.68	0.96	0.68	42.1
Appr	oach	63	7.0	63	7.0	0.070	11.8	LOS B	0.2	1.8	0.51	0.93	0.51	46.0
North	n: Byrne	s St												
7	L2	22	7.0	22	7.0	0.224	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	56.8
8	T1	393	7.0	393	7.0	0.224	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	58.5
9	R2	106	7.0	106	7.0	0.087	6.9	LOS A	0.4	2.8	0.43	0.63	0.43	49.0
Appr	oach	521	7.0	521	7.0	0.224	1.7	NA	0.4	2.8	0.09	0.15	0.09	53.9
West	: Basalt	St												
10	L2	74	7.0	74	7.0	0.094	10.4	LOS B	0.3	2.5	0.42	0.92	0.42	46.2
11	T1	2	7.0	2	7.0	0.021	14.5	LOS B	0.1	0.6	0.69	0.94	0.69	47.8
12	R2	7	7.0	7	7.0	0.021	15.0	LOS B	0.1	0.6	0.69	0.94	0.69	42.0
Appr	oach	83	7.0	83	7.0	0.094	10.9	LOS B	0.3	2.5	0.45	0.92	0.45	45.9
All Ve	ehicles	1077	7.0	1077	7.0	0.224	2.9	NA	0.4	2.8	0.14	0.25	0.14	53.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2022 Survey PM Peak\_Byrnes St/Basalt St (Site ■ Network: N101 [2022 Survey Folder: General)]
PM Peak (Network Folder:

General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	:e									
Mov ID	Turn	DEM/ FLO		ARRI FLO		Deg. Satn	Aver. Delay	Level of Service		ACK OF EUE	Prop. Que	EffectiveA Stop	ver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h		v/c	sec		[ Veh. veh	Dist] m		Rate		km/h
Sout	h: Byrne	s St												
1	L2	22	7.0	22	7.0	0.240	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
2	T1	422	7.0	422	7.0	0.240	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.3
3	R2	47	7.0	47	7.0	0.053	8.4	LOS A	0.2	1.6	0.56	0.72	0.56	51.1
Appr	oach	492	7.0	492	7.0	0.240	1.1	NA	0.2	1.6	0.05	0.10	0.05	57.7
East:	Basalt	St												
4	L2	77	7.0	77	7.0	0.141	13.0	LOS B	0.5	3.6	0.57	1.01	0.57	43.7
5	T1	12	7.0	12	7.0	0.039	18.0	LOS C	0.1	1.0	0.77	1.00	0.77	46.0
6	R2	1	7.0	1	7.0	0.039	19.5	LOS C	0.1	1.0	0.77	1.00	0.77	39.3
Appr	oach	89	7.0	89	7.0	0.141	13.8	LOS B	0.5	3.6	0.60	1.01	0.60	44.1
North	n: Byrne	s St												
7	L2	27	7.0	27	7.0	0.313	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	56.7
8	T1	553	7.0	553	7.0	0.313	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	58.6
9	R2	64	7.0	64	7.0	0.060	7.5	LOS A	0.2	1.9	0.49	0.66	0.49	48.8
Appr	oach	644	7.0	644	7.0	0.313	1.0	NA	0.2	1.9	0.05	0.09	0.05	55.6
West	: Basalt	St												
10	L2	81	7.0	81	7.0	0.120	11.4	LOS B	0.4	3.2	0.49	0.96	0.49	45.3
11	T1	9	7.0	9	7.0	0.061	18.3	LOS C	0.2	1.5	0.79	1.00	0.79	45.6
12	R2	9	7.0	9	7.0	0.061	19.5	LOS C	0.2	1.5	0.79	1.00	0.79	38.7
Appr	oach	100	7.0	100	7.0	0.120	12.8	LOS B	0.4	3.2	0.55	0.96	0.55	44.7
All Ve	ehicles	1325	7.0	1325	7.0	0.313	2.8	NA	0.5	3.6	0.13	0.22	0.13	54.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2022 Survey SAT Peak\_Byrnes St/Basalt St (Site ■ Network: N101 [2022 Survey Folder: General)]

General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	:e									
Mov ID	Turn	DEM/ FLO [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF JEUE Dist ]	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne		70	ven/n	70	V/C	Sec	_	ven	m	_	_	_	K111/11
1	L2	16	7.0	16	7.0	0.232	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
2	T1	415	7.0	415	7.0	0.232	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.5
3	R2	21	7.0	21	7.0	0.020	7.4	LOS A	0.1	0.6	0.48	0.63	0.48	51.8
Appr	oach	452	7.0	452	7.0	0.232	0.6	NA	0.1	0.6	0.02	0.05	0.02	58.6
East	Basalt	St												
4	L2	52	7.0	52	7.0	0.078	11.4	LOS B	0.3	2.0	0.49	0.94	0.49	45.2
5	T1	8	7.0	8	7.0	0.028	15.1	LOS C	0.1	0.7	0.71	0.97	0.71	47.5
6	R2	3	7.0	3	7.0	0.028	16.5	LOS C	0.1	0.7	0.71	0.97	0.71	41.5
Appr	oach	63	7.0	63	7.0	0.078	12.2	LOS B	0.3	2.0	0.53	0.95	0.53	45.6
North	n: Byrne	s St												
7	L2	17	7.0	17	7.0	0.245	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	56.9
8	T1	436	7.0	436	7.0	0.245	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	58.9
9	R2	68	7.0	68	7.0	0.062	7.4	LOS A	0.3	1.9	0.48	0.66	0.48	48.8
Appr	oach	521	7.0	521	7.0	0.245	1.2	NA	0.3	1.9	0.06	0.11	0.06	55.2
West	: Basalt	St												
10	L2	99	7.0	99	7.0	0.144	11.4	LOS B	0.5	3.9	0.50	0.96	0.50	45.3
11	T1	11	7.0	11	7.0	0.048	15.3	LOS C	0.2	1.2	0.71	1.00	0.71	47.5
12	R2	9	7.0	9	7.0	0.048	15.9	LOS C	0.2	1.2	0.71	1.00	0.71	41.4
Appr	oach	119	7.0	119	7.0	0.144	12.1	LOS B	0.5	3.9	0.53	0.97	0.53	45.3
All V	ehicles	1155	7.0	1155	7.0	0.245	2.7	NA	0.5	3.9	0.12	0.22	0.12	54.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2024 BG AM Peak\_Byrnes St/Basalt St (Site Folder: General)]

#### ■■ Network: N101 [2024 BG AM Peak (Network Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	icle Mo	vement	Perfo	rmand	:e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne		/0	VCII/II	70	v/C	360		Ven					K11/11
1	L2	18	7.0	18	7.0	0.190	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
2	T1	332	7.0	332	7.0	0.190	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.4
3	R2	72	7.0	72	7.0	0.065	7.4	LOS A	0.3	2.0	0.48	0.66	0.48	51.8
Appr	oach	422	7.0	422	7.0	0.190	1.5	NA	0.3	2.0	0.08	0.14	0.08	56.9
East	: Basalt	St												
4	L2	51	7.0	51	7.0	0.073	11.1	LOS B	0.3	1.9	0.47	0.93	0.47	45.6
5	T1	10	7.0	10	7.0	0.033	14.9	LOS B	0.1	0.8	0.70	0.97	0.70	47.7
6	R2	4	7.0	4	7.0	0.033	15.8	LOS C	0.1	0.8	0.70	0.97	0.70	41.8
Appr	oach	65	7.0	65	7.0	0.073	12.0	LOS B	0.3	1.9	0.52	0.94	0.52	45.8
Nort	h: Byrne	s St												
7	L2	23	7.0	23	7.0	0.231	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	56.7
8	T1	405	7.0	405	7.0	0.231	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	58.5
9	R2	110	7.0	110	7.0	0.091	7.0	LOS A	0.4	3.0	0.44	0.64	0.44	49.0
Appr	oach	538	7.0	538	7.0	0.231	1.7	NA	0.4	3.0	0.09	0.16	0.09	53.8
Wes	t: Basalt	St												
10	L2	76	7.0	76	7.0	0.098	10.5	LOS B	0.4	2.6	0.43	0.92	0.43	46.1
11	T1	2	7.0	2	7.0	0.023	14.9	LOS B	0.1	0.6	0.70	0.95	0.70	47.6
12	R2	8	7.0	8	7.0	0.023	15.4	LOS C	0.1	0.6	0.70	0.95	0.70	41.6
Appr	oach	86	7.0	86	7.0	0.098	11.0	LOS B	0.4	2.6	0.46	0.92	0.46	45.8
All V	ehicles	1111	7.0	1111	7.0	0.231	3.0	NA	0.4	3.0	0.14	0.25	0.14	53.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2024 BG PM Peak\_Byrnes St/Basalt St (Site Folder: General)]

#### ■ Network: N101 [2024 BG PM Peak (Network Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South: Byrnes St														
1	L2	23	7.0	23	7.0	0.248	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
2	T1	436	7.0	436	7.0	0.248	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.3
3	R2	49	7.0	49	7.0	0.056	8.5	LOS A	0.2	1.7	0.56	0.73	0.56	51.0
Appr	oach	507	7.0	507	7.0	0.248	1.1	NA	0.2	1.7	0.05	0.10	0.05	57.6
East	East: Basalt St													
4	L2	79	7.0	79	7.0	0.150	13.3	LOS B	0.5	3.9	0.58	1.00	0.58	43.4
5	T1	12	7.0	12	7.0	0.043	18.8	LOS C	0.1	1.0	0.79	1.00	0.79	45.6
6	R2	1	7.0	1	7.0	0.043	20.4	LOS C	0.1	1.0	0.79	1.00	0.79	38.7
Appr	oach	92	7.0	92	7.0	0.150	14.1	LOS B	0.5	3.9	0.61	1.00	0.61	43.8
North	n: Byrne	s St												
7	L2	28	7.0	28	7.0	0.323	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	56.7
8	T1	570	7.0	570	7.0	0.323	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	58.6
9	R2	66	7.0	66	7.0	0.063	7.5	LOS A	0.3	1.9	0.50	0.67	0.50	48.8
Appr	oach	665	7.0	665	7.0	0.323	1.0	NA	0.3	1.9	0.05	0.09	0.05	55.6
West	West: Basalt St													
10	L2	84	7.0	84	7.0	0.126	11.5	LOS B	0.4	3.3	0.50	0.96	0.50	45.1
11	T1	10	7.0	10	7.0	0.067	19.1	LOS C	0.2	1.6	0.80	1.00	0.80	45.1
12	R2	10	7.0	10	7.0	0.067	20.4	LOS C	0.2	1.6	0.80	1.00	0.80	38.0
Appr	oach	103	7.0	103	7.0	0.126	13.1	LOS B	0.4	3.3	0.56	0.97	0.56	44.4
All V	ehicles	1367	7.0	1367	7.0	0.323	2.9	NA	0.5	3.9	0.13	0.22	0.13	54.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# Site: 004 [4\_2024 BG SAT Peak\_Byrnes St/Basalt St (Site Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	D FLOWS			ARRIVAL FLOWS		Deg. Satn		Level of Service	95% BACK OF QUEUE		Prop. Que	EffectiveAver. No. Stop Cycles		Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h		v/c	sec		[ Veh. veh	Dist] m		Rate		km/h
South: Byrnes St														
1	L2	16	7.0	16	7.0	0.239	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
2	T1	428	7.0	428	7.0	0.239	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.5
3	R2	22	7.0	22	7.0	0.021	7.5	LOS A	0.1	0.6	0.49	0.64	0.49	51.7
Appr	oach	466	7.0	466	7.0	0.239	0.6	NA	0.1	0.6	0.02	0.05	0.02	58.6
East:	East: Basalt St													
4	L2	53	7.0	53	7.0	0.082	11.6	LOS B	0.3	2.1	0.50	0.95	0.50	45.1
5	T1	9	7.0	9	7.0	0.030	15.6	LOS C	0.1	0.8	0.72	0.98	0.72	47.2
6	R2	3	7.0	3	7.0	0.030	17.1	LOS C	0.1	0.8	0.72	0.98	0.72	41.1
Appr	oach	65	7.0	65	7.0	0.082	12.4	LOS B	0.3	2.1	0.54	0.96	0.54	45.4
North	n: Byrne	s St												
7	L2	17	7.0	17	7.0	0.252	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	56.8
8	T1	450	7.0	450	7.0	0.252	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	58.9
9	R2	71	7.0	71	7.0	0.065	7.5	LOS A	0.3	2.0	0.49	0.67	0.49	48.8
Appr	oach	538	7.0	538	7.0	0.252	1.2	NA	0.3	2.0	0.06	0.11	0.06	55.1
West: Basalt St														
10	L2	102	7.0	102	7.0	0.152	11.5	LOS B	0.6	4.1	0.51	0.97	0.51	45.1
11	T1	11	7.0	11	7.0	0.052	15.7	LOS C	0.2	1.3	0.72	1.00	0.72	47.2
12	R2	10	7.0	10	7.0	0.052	16.4	LOS C	0.2	1.3	0.72	1.00	0.72	41.0
Appr	oach	123	7.0	123	7.0	0.152	12.3	LOS B	0.6	4.1	0.54	0.97	0.54	45.1
All Ve	ehicles	1191	7.0	1191	7.0	0.252	2.7	NA	0.6	4.1	0.12	0.22	0.12	54.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2024 BG+D AM Peak\_Byrnes St/Basalt St (Site Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	D FLOWS		NS	ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	EffectiveAver. No. Stop Cycles		Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h		v/c	sec		[ Veh. veh	Dist ] m		Rate		km/h
South: Byrnes St														
1	L2	18	7.0	18	7.0	0.215	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	57.7
2	T1	380	7.0	380	7.0	0.215	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.4
3	R2	72	7.0	72	7.0	0.069	7.7	LOS A	0.3	2.1	0.51	0.68	0.51	51.6
Appr	oach	470	7.0	470	7.0	0.215	1.4	NA	0.3	2.1	0.08	0.13	0.08	57.1
East:	East: Basalt St													
4	L2	51	7.0	51	7.0	0.079	11.6	LOS B	0.3	2.0	0.50	0.95	0.50	45.1
5	T1	10	7.0	10	7.0	0.038	16.4	LOS C	0.1	1.0	0.74	1.00	0.74	46.8
6	R2	4	7.0	4	7.0	0.038	17.5	LOS C	0.1	1.0	0.74	1.00	0.74	40.5
Appr	oach	65	7.0	65	7.0	0.079	12.7	LOS B	0.3	2.0	0.55	0.96	0.55	45.2
North	n: Byrne	s St												
7	L2	23	7.0	23	7.0	0.257	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	56.8
8	T1	453	7.0	453	7.0	0.257	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	58.6
9	R2	110	7.0	110	7.0	0.096	7.3	LOS A	0.4	3.1	0.47	0.66	0.47	48.9
Appr	oach	585	7.0	585	7.0	0.257	1.6	NA	0.4	3.1	0.09	0.15	0.09	54.1
West: Basalt St														
10	L2	76	7.0	76	7.0	0.105	10.9	LOS B	0.4	2.8	0.46	0.94	0.46	45.7
11	T1	2	7.0	2	7.0	0.027	16.3	LOS C	0.1	0.7	0.74	0.98	0.74	46.7
12	R2	8	7.0	8	7.0	0.027	17.0	LOS C	0.1	0.7	0.74	0.98	0.74	40.3
Appr	oach	86	7.0	86	7.0	0.105	11.6	LOS B	0.4	2.8	0.50	0.94	0.50	45.2
All Ve	ehicles	1206	7.0	1206	7.0	0.257	2.9	NA	0.4	3.1	0.14	0.24	0.14	54.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2024 BG+D PM Peak\_Byrnes St/Basalt St (Site Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	cle Mo	vement	Perfo	rmand	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
Sout	h: Byrne	es St												
1 2 3	L2 T1 R2	23 499 49	7.0 7.0 7.0	23 499 49	7.0 7.0 7.0	0.282 0.282 0.062	5.7 0.1 9.1	LOS A LOS A LOS A	0.0 0.0 0.2	0.0 0.0 1.8	0.00 0.00 0.59	0.03 0.03 0.77	0.00 0.00 0.59	57.7 59.4 50.6
Appr	oach	571	7.0	571	7.0	0.282	1.1	NA	0.2	1.8	0.05	0.09	0.05	57.8
East:	Basalt	St												
4 5 6	L2 T1 R2	79 12 1	7.0 7.0 7.0	79 12 1	7.0 7.0 7.0	0.169 0.053 0.053	14.4 21.9 24.1	LOS B LOS C LOS C	0.6 0.2 0.2	4.3 1.3 1.3	0.64 0.83 0.83	1.00 1.00 1.00	0.64 0.83 0.83	42.5 43.9 36.3
Appr		92	7.0	92	7.0	0.169	15.5	LOS C	0.6	4.3	0.67	1.00	0.67	42.7
North	n: Byrne	s St												
7 8 9	L2 T1 R2	28 634 66	7.0 7.0 7.0	28 634 66	7.0 7.0 7.0	0.357 0.357 0.068	5.7 0.1 8.0	LOS A LOS A LOS A	0.0 0.0 0.3	0.0 0.0 2.1	0.00 0.00 0.53	0.03 0.03 0.71	0.00 0.00 0.53	56.7 58.7 48.4
Appr		728	7.0	728	7.0	0.357	1.0	NA	0.3	2.1	0.05	0.09	0.05	55.7
West	: Basalt	St												
10	L2	84	7.0	84	7.0	0.140	12.3	LOS B	0.5	3.7	0.54	0.99	0.54	44.4
11 12	T1 R2	10 10	7.0 7.0	10 10	7.0 7.0	0.084 0.084	22.3 24.0	LOS C LOS C	0.3 0.3	2.0 2.0	0.85 0.85	1.00 1.00	0.85 0.85	43.3 35.6
Appr	oach	103	7.0	103	7.0	0.140	14.4	LOS B	0.5	3.7	0.60	0.99	0.60	43.3
All Ve	ehicles	1494	7.0	1494	7.0	0.357	2.8	NA	0.6	4.3	0.13	0.21	0.13	54.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Site: 004 [4\_2024 BG+D SAT Peak\_Byrnes St/Basalt St (Site Folder: General)]

Int 004 - Byrnes St / Basalt St Prepared: TB Reviewed: Site Category: -Stop (Two-Way)

Vehi	cle Mo	vement	Perfo	rmano	:e									
Mov ID	Turn	DEM/ FLO	WS	ARRI FLO	WS	Deg. Satn	Aver. Delay	Level of Service		EUE	Prop. Que	EffectiveA Stop	ver. No. Cycles	Aver. Speed
		[ Total veh/h	HV ] %	[ Total veh/h		v/c	sec		[ Veh. veh	Dist] m		Rate		km/h
Sout	h: Byrne	es St												
1	L2	16	7.0	16	7.0	0.275	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	57.7
2	T1	495	7.0	495	7.0	0.275	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.5
3	R2	22	7.0	22	7.0	0.023	7.9	LOS A	0.1	0.7	0.53	0.66	0.53	51.4
Appr	oach	533	7.0	533	7.0	0.275	0.6	NA	0.1	0.7	0.02	0.05	0.02	58.7
East	Basalt	St												
4	L2	53	7.0	53	7.0	0.092	12.4	LOS B	0.3	2.3	0.54	0.98	0.54	44.3
5	T1	9	7.0	9	7.0	0.038	17.9	LOS C	0.1	0.9	0.78	1.00	0.78	45.9
6	R2	3	7.0	3	7.0	0.038	19.8	LOS C	0.1	0.9	0.78	1.00	0.78	39.1
Appr	oach	65	7.0	65	7.0	0.092	13.5	LOS B	0.3	2.3	0.58	0.98	0.58	44.4
North	n: Byrne	s St												
7	L2	17	7.0	17	7.0	0.288	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	56.9
8	T1	517	7.0	517	7.0	0.288	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.0
9	R2	71	7.0	71	7.0	0.072	7.9	LOS A	0.3	2.2	0.53	0.70	0.53	48.4
Appr	oach	605	7.0	605	7.0	0.288	1.1	NA	0.3	2.2	0.06	0.10	0.06	55.3
West	: Basalt	St												
10	L2	102	7.0	102	7.0	0.170	12.4	LOS B	0.6	4.5	0.55	1.00	0.55	44.3
11	T1	11	7.0	11	7.0	0.064	18.1	LOS C	0.2	1.6	0.78	1.00	0.78	45.8
12	R2	10	7.0	10	7.0	0.064	19.0	LOS C	0.2	1.6	0.78	1.00	0.78	39.0
Appr	oach	123	7.0	123	7.0	0.170	13.4	LOS B	0.6	4.5	0.59	1.00	0.59	44.1
All Ve	ehicles	1326	7.0	1326	7.0	0.288	2.6	NA	0.6	4.5	0.12	0.20	0.12	54.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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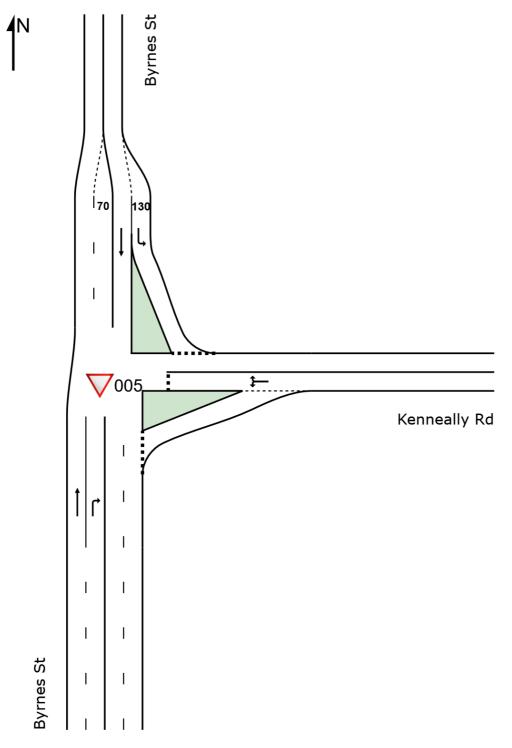
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# SITE LAYOUT

# V Site: 005 [5\_2022 Survey AM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



V Site: 005 [5\_2022 Survey AM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist ] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	666	7.0	666	7.0	0.357	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
3	R2	42	7.0	42	7.0	0.036	4.2	LOS A	0.2	1.1	0.44	0.58	0.44	49.8
Appro	bach	708	7.0	708	7.0	0.357	0.3	NA	0.2	1.1	0.03	0.03	0.03	54.4
East:	Kennea	ally Rd												
4	L2	49	7.0	49	7.0	0.469	10.9	LOS B	2.1	15.4	0.74	0.95	1.09	35.5
6	R2	95	7.0	95	7.0	0.469	28.6	LOS D	2.1	15.4	0.74	0.95	1.09	35.5
Appro	bach	144	7.0	144	7.0	0.469	22.5	LOS C	2.1	15.4	0.74	0.95	1.09	35.5
North	: Byrne	s St												
7	L2	97	7.0	97	7.0	0.064	5.8	LOS A	0.3	1.9	0.12	0.52	0.12	53.6
8	T1	375	7.0	375	7.0	0.201	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	472	7.0	472	7.0	0.201	1.2	LOS A	0.3	1.9	0.02	0.11	0.02	57.6
All Ve	hicles	1324	7.0	1324	7.0	0.469	3.0	NA	2.1	15.4	0.10	0.16	0.14	51.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Miner Dood Approach LOC values are based on average delay for all vehicle movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2022 Survey PM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	428	7.0	428	7.0	0.230	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	61	7.0	61	7.0	0.063	5.2	LOS A	0.3	1.9	0.53	0.68	0.53	48.6
Appro	oach	489	7.0	489	7.0	0.230	0.7	NA	0.3	1.9	0.07	0.08	0.07	51.6
East:	Kennea	ally Rd												
4	L2	41	7.0	41	7.0	0.271	8.5	LOS A	1.0	7.5	0.71	0.87	0.81	40.0
6	R2	59	7.0	59	7.0	0.271	21.3	LOS C	1.0	7.5	0.71	0.87	0.81	40.0
Appro	oach	100	7.0	100	7.0	0.271	16.1	LOS C	1.0	7.5	0.71	0.87	0.81	40.0
North	: Byrne	s St												
7	L2	133	7.0	133	7.0	0.089	5.9	LOS A	0.4	2.8	0.15	0.52	0.15	53.5
8	T1	527	7.0	527	7.0	0.283	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	660	7.0	660	7.0	0.283	1.3	LOS A	0.4	2.8	0.03	0.10	0.03	57.6
All Ve	ehicles	1249	7.0	1249	7.0	0.283	2.2	NA	1.0	7.5	0.10	0.16	0.11	54.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2022 Survey SAT Peak\_Byrnes St/Kenneally Rd 🛛 🖿 Network: N101 [2022 Survey (Site Folder: General)] SAT Peak (Network Folder:

General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	361	7.0	361	7.0	0.194	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	49	7.0	49	7.0	0.042	4.3	LOS A	0.2	1.3	0.45	0.59	0.45	49.7
Appro	oach	411	7.0	411	7.0	0.194	0.5	NA	0.2	1.3	0.05	0.07	0.05	52.6
East:	Kennea	ally Rd												
4	L2	39	7.0	39	7.0	0.288	7.6	LOS A	1.2	8.7	0.62	0.83	0.72	42.5
6	R2	99	7.0	99	7.0	0.288	15.6	LOS C	1.2	8.7	0.62	0.83	0.72	42.5
Appro	oach	138	7.0	138	7.0	0.288	13.3	LOS B	1.2	8.7	0.62	0.83	0.72	42.5
North	: Byrne	s St												
7	L2	109	7.0	109	7.0	0.072	5.8	LOS A	0.3	2.2	0.13	0.52	0.13	53.6
8	T1	380	7.0	380	7.0	0.204	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	489	7.0	489	7.0	0.204	1.3	LOS A	0.3	2.2	0.03	0.12	0.03	57.4
All Ve	ehicles	1038	7.0	1038	7.0	0.288	2.6	NA	1.2	8.7	0.12	0.19	0.13	53.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG AM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmano	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF IEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	s St												
2	T1	688	7.0	688	7.0	0.369	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
3	R2	43	7.0	43	7.0	0.037	4.3	LOS A	0.2	1.2	0.45	0.59	0.45	49.7
Appro	bach	731	7.0	731	7.0	0.369	0.3	NA	0.2	1.2	0.03	0.04	0.03	54.3
East:	Kennea	ally Rd												
4	L2	51	7.0	51	7.0	0.518	12.3	LOS B	2.4	17.5	0.77	0.99	1.19	34.0
6	R2	98	7.0	98	7.0	0.518	31.6	LOS D	2.4	17.5	0.77	0.99	1.19	34.0
Appro	bach	149	7.0	149	7.0	0.518	25.0	LOS C	2.4	17.5	0.77	0.99	1.19	34.0
North	: Byrne	s St												
7	L2	100	7.0	100	7.0	0.066	5.8	LOS A	0.3	2.0	0.12	0.52	0.12	53.6
8	T1	387	7.0	387	7.0	0.207	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	487	7.0	487	7.0	0.207	1.2	LOS A	0.3	2.0	0.03	0.11	0.03	57.6
All Ve	hicles	1366	7.0	1366	7.0	0.518	3.3	NA	2.4	17.5	0.11	0.16	0.15	50.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG PM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne		70	VOII/II	/0	0,0	000		V011					N11/11
2	T1	442	7.0	442	7.0	0.237	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	63	7.0	63	7.0	0.067	5.3	LOS A	0.3	2.0	0.54	0.69	0.54	48.4
Appro	bach	505	7.0	505	7.0	0.237	0.7	NA	0.3	2.0	0.07	0.09	0.07	51.5
East:	Kennea	ally Rd												
4	L2	42	7.0	42	7.0	0.296	8.9	LOS A	1.1	8.3	0.73	0.90	0.86	39.2
6	R2	61	7.0	61	7.0	0.296	22.8	LOS C	1.1	8.3	0.73	0.90	0.86	39.2
Appro	bach	103	7.0	103	7.0	0.296	17.1	LOS C	1.1	8.3	0.73	0.90	0.86	39.2
North	: Byrne	s St												
7	L2	137	7.0	137	7.0	0.092	5.9	LOS A	0.4	2.9	0.16	0.52	0.16	53.5
8	T1	544	7.0	544	7.0	0.292	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	681	7.0	681	7.0	0.292	1.3	LOS A	0.4	2.9	0.03	0.10	0.03	57.6
All Ve	hicles	1289	7.0	1289	7.0	0.296	2.3	NA	1.1	8.3	0.10	0.16	0.11	54.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG SAT Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	373	7.0	373	7.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	51	7.0	51	7.0	0.044	4.3	LOS A	0.2	1.4	0.46	0.60	0.46	49.6
Appro	bach	424	7.0	424	7.0	0.200	0.5	NA	0.2	1.4	0.05	0.07	0.05	52.5
East:	Kennea	ally Rd												
4	L2	40	7.0	40	7.0	0.308	7.8	LOS A	1.3	9.5	0.64	0.85	0.77	41.9
6	R2	102	7.0	102	7.0	0.308	16.4	LOS C	1.3	9.5	0.64	0.85	0.77	41.9
Appro	bach	142	7.0	142	7.0	0.308	14.0	LOS B	1.3	9.5	0.64	0.85	0.77	41.9
North	: Byrne	s St												
7	L2	113	7.0	113	7.0	0.075	5.8	LOS A	0.3	2.3	0.14	0.52	0.14	53.6
8	T1	392	7.0	392	7.0	0.210	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	505	7.0	505	7.0	0.210	1.4	LOS A	0.3	2.3	0.03	0.12	0.03	57.4
All Ve	hicles	1071	7.0	1071	7.0	0.308	2.7	NA	1.3	9.5	0.12	0.20	0.14	53.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG+D AM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF IEUE Dist ] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	es St												
2	T1	719	7.0	719	7.0	0.386	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
3	R2	43	7.0	43	7.0	0.039	4.5	LOS A	0.2	1.2	0.47	0.61	0.47	49.5
Appro	bach	763	7.0	763	7.0	0.386	0.3	NA	0.2	1.2	0.03	0.03	0.03	54.3
East:	Kennea	ally Rd												
4	L2	51	7.0	51	7.0	0.678	19.1	LOS C	3.5	26.2	0.84	1.13	1.61	28.8
6	R2	114	7.0	114	7.0	0.678	42.1	LOS E	3.5	26.2	0.84	1.13	1.61	28.8
Appro	bach	165	7.0	165	7.0	0.678	35.0	LOS E	3.5	26.2	0.84	1.13	1.61	28.8
North	: Byrne	s St												
7	L2	116	7.0	116	7.0	0.076	5.8	LOS A	0.3	2.4	0.12	0.52	0.12	53.6
8	T1	418	7.0	418	7.0	0.224	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	534	7.0	534	7.0	0.224	1.3	LOS A	0.3	2.4	0.03	0.11	0.03	57.5
All Ve	hicles	1462	7.0	1462	7.0	0.678	4.6	NA	3.5	26.2	0.12	0.19	0.21	48.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG+D PM Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
2	T1	484	7.0	484	7.0	0.260	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	63	7.0	63	7.0	0.071	5.6	LOS A	0.3	2.1	0.56	0.71	0.56	48.0
Appro	bach	547	7.0	547	7.0	0.260	0.7	NA	0.3	2.1	0.06	0.08	0.06	51.4
East:	Kennea	ally Rd												
4	L2	42	7.0	42	7.0	0.450	11.9	LOS B	1.9	13.9	0.81	1.01	1.14	34.6
6	R2	82	7.0	82	7.0	0.450	29.6	LOS D	1.9	13.9	0.81	1.01	1.14	34.6
Appro	bach	124	7.0	124	7.0	0.450	23.5	LOS C	1.9	13.9	0.81	1.01	1.14	34.6
North	: Byrne	s St												
7	L2	158	7.0	158	7.0	0.106	5.9	LOS A	0.5	3.3	0.16	0.52	0.16	53.5
8	T1	586	7.0	586	7.0	0.314	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	744	7.0	744	7.0	0.314	1.3	LOS A	0.5	3.3	0.03	0.11	0.03	57.4
All Ve	hicles	1416	7.0	1416	7.0	0.450	3.0	NA	1.9	13.9	0.11	0.18	0.14	53.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 005 [5\_2024 BG+D SAT Peak\_Byrnes St/Kenneally Rd (Site Folder: General)]

Int 005 - Byrnes St / Kenneally Rd Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne		,,,											
2	T1	417	7.0	417	7.0	0.224	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	51	7.0	51	7.0	0.047	4.6	LOS A	0.2	1.5	0.48	0.62	0.48	49.3
Appro	bach	468	7.0	468	7.0	0.224	0.5	NA	0.2	1.5	0.05	0.07	0.05	52.5
East:	Kennea	ally Rd												
4	L2	40	7.0	40	7.0	0.429	9.5	LOS A	1.9	14.5	0.73	0.95	1.02	38.7
6	R2	124	7.0	124	7.0	0.429	20.5	LOS C	1.9	14.5	0.73	0.95	1.02	38.7
Appro	bach	165	7.0	165	7.0	0.429	17.8	LOS C	1.9	14.5	0.73	0.95	1.02	38.7
North	: Byrne	s St												
7	L2	135	7.0	135	7.0	0.090	5.8	LOS A	0.4	2.8	0.14	0.52	0.14	53.6
8	T1	437	7.0	437	7.0	0.234	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	572	7.0	572	7.0	0.234	1.4	LOS A	0.4	2.8	0.03	0.12	0.03	57.3
All Ve	hicles	1205	7.0	1205	7.0	0.429	3.3	NA	1.9	14.5	0.14	0.21	0.18	52.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is

not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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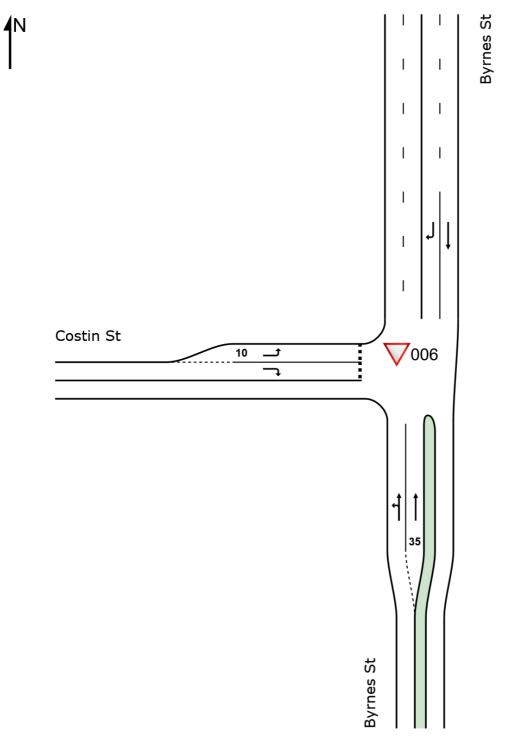
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# SITE LAYOUT

# V Site: 006 [6\_2022 Survey AM Peak\_Byrnes St/Costin St (Site Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



V Site: 006 [6\_2022 Survey AM Peak\_Byrnes St/Costin St (Site Metwork: N101 [2022 Survey AM Peak (Network Folder: AM Peak (Network Folder:

General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	49	7.0	49	7.0	0.330	5.7	LOS A	0.0	0.0	0.00	0.05	0.00	57.4
2	T1	571	7.0	571	7.0	0.330	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	59.0
Appro	bach	620	7.0	620	7.0	0.330	0.6	NA	0.0	0.0	0.00	0.05	0.00	58.7
North	: Byrne	s St												
8	T1	332	7.0	332	7.0	0.178	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	93	7.0	93	7.0	0.146	7.2	LOS A	0.5	4.0	0.59	0.80	0.59	46.6
Appro	bach	424	7.0	424	7.0	0.178	1.6	NA	0.5	4.0	0.13	0.18	0.13	56.4
West	: Costin	St												
10	L2	138	7.0	138	7.0	0.210	9.5	LOS A	0.8	5.7	0.56	0.81	0.56	45.9
12	R2	25	7.0	25	7.0	0.129	23.5	LOS C	0.4	3.1	0.83	0.93	0.83	42.1
Appro	bach	163	7.0	163	7.0	0.210	11.7	LOS B	0.8	5.7	0.61	0.83	0.61	44.9
All Ve	hicles	1207	7.0	1207	7.0	0.330	2.4	NA	0.8	5.7	0.13	0.20	0.13	55.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is

not a good LOS measure due to zero delays associated with major road movements. Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2022 Survey PM Peak\_Byrnes St/Costin St (Site Metwork: N101 [2022 Survey Folder: General)] **PM Peak (Network Folder:** 

General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEM/ FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	s St												
1	L2	56	7.0	56	7.0	0.231	5.7	LOS A	0.0	0.0	0.00	0.08	0.00	57.3
2	T1	383	7.0	383	7.0	0.231	0.1	LOS A	0.0	0.0	0.00	0.08	0.00	58.5
Appro	bach	439	7.0	439	7.0	0.231	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.3
North	: Byrne	s St												
8	T1	451	7.0	451	7.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	118	7.0	118	7.0	0.141	5.4	LOS A	0.6	4.1	0.50	0.69	0.50	48.7
Appro	bach	568	7.0	568	7.0	0.242	1.1	NA	0.6	4.1	0.10	0.14	0.10	57.1
West	Costin	St												
10	L2	106	7.0	106	7.0	0.124	7.7	LOS A	0.5	3.4	0.44	0.68	0.44	48.2
12	R2	36	7.0	36	7.0	0.114	15.7	LOS C	0.4	2.7	0.75	0.90	0.75	46.3
Appro	bach	142	7.0	142	7.0	0.124	9.7	LOS A	0.5	3.4	0.52	0.74	0.52	47.4
All Ve	hicles	1149	7.0	1149	7.0	0.242	2.1	NA	0.6	4.1	0.12	0.19	0.12	55.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2022 Survey SAT Peak\_Byrnes St/Costin St (Site ■ Network: N101 [2022 Survey Folder: General)] SAT Peak (Network Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	26	7.0	26	7.0	0.176	5.7	LOS A	0.0	0.0	0.00	0.05	0.00	57.5
2	T1	305	7.0	305	7.0	0.176	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.1
Appro	bach	332	7.0	332	7.0	0.176	0.5	NA	0.0	0.0	0.00	0.05	0.00	58.8
North	: Byrne	es St												
8	T1	321	7.0	321	7.0	0.172	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	98	7.0	98	7.0	0.102	4.6	LOS A	0.4	3.0	0.43	0.62	0.43	49.7
Appro	bach	419	7.0	419	7.0	0.172	1.1	NA	0.4	3.0	0.10	0.14	0.10	57.2
West	: Costin	n St												
10	L2	105	7.0	105	7.0	0.112	7.2	LOS A	0.4	3.1	0.39	0.64	0.39	48.8
12	R2	29	7.0	29	7.0	0.064	11.5	LOS B	0.2	1.6	0.62	0.83	0.62	48.9
Appro	bach	135	7.0	135	7.0	0.112	8.1	LOS A	0.4	3.1	0.44	0.68	0.44	48.8
All Ve	hicles	885	7.0	885	7.0	0.176	1.9	NA	0.4	3.1	0.11	0.19	0.11	56.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2024 BG AM Peak\_Byrnes St/Costin St (Site Folder: General)]

#### ■■ Network: N101 [2024 BG AM Peak (Network Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF JEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	51	7.0	51	7.0	0.340	5.7	LOS A	0.0	0.0	0.00	0.05	0.00	57.4
2	T1	589	7.0	589	7.0	0.340	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	58.9
Appro	bach	640	7.0	640	7.0	0.340	0.6	NA	0.0	0.0	0.00	0.05	0.00	58.7
North	: Byrne	s St												
8	T1	342	7.0	342	7.0	0.183	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	96	7.0	96	7.0	0.156	7.5	LOS A	0.6	4.3	0.60	0.81	0.60	46.3
Appro	bach	438	7.0	438	7.0	0.183	1.6	NA	0.6	4.3	0.13	0.18	0.13	56.3
West	Costin	St												
10	L2	142	7.0	142	7.0	0.223	9.8	LOS A	0.8	6.1	0.57	0.82	0.58	45.6
12	R2	26	7.0	26	7.0	0.143	25.0	LOS C	0.5	3.4	0.85	0.94	0.85	41.4
Appro	bach	168	7.0	168	7.0	0.223	12.2	LOS B	0.8	6.1	0.62	0.84	0.62	44.4
All Ve	hicles	1246	7.0	1246	7.0	0.340	2.5	NA	0.8	6.1	0.13	0.20	0.13	55.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2024 BG PM Peak\_Byrnes St/Costin St (Site Folder: General)]

# ■ Network: N101 [2024 BG PM Peak (Network Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	:e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF IEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	58	7.0	58	7.0	0.239	5.7	LOS A	0.0	0.0	0.00	0.08	0.00	57.2
2	T1	395	7.0	395	7.0	0.239	0.1	LOS A	0.0	0.0	0.00	0.08	0.00	58.5
Appro	bach	453	7.0	453	7.0	0.239	0.8	NA	0.0	0.0	0.00	0.08	0.00	58.2
North	: Byrne	s St												
8	T1	465	7.0	465	7.0	0.249	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	122	7.0	122	7.0	0.148	5.6	LOS A	0.6	4.3	0.51	0.71	0.51	48.5
Appro	bach	586	7.0	586	7.0	0.249	1.2	NA	0.6	4.3	0.11	0.15	0.11	57.1
West	Costin	St												
10	L2	110	7.0	110	7.0	0.130	7.8	LOS A	0.5	3.5	0.45	0.69	0.45	48.1
12	R2	37	7.0	37	7.0	0.123	16.5	LOS C	0.4	3.0	0.77	0.90	0.77	45.8
Appro	bach	147	7.0	147	7.0	0.130	10.0	LOS A	0.5	3.5	0.53	0.75	0.53	47.2
All Ve	hicles	1186	7.0	1186	7.0	0.249	2.1	NA	0.6	4.3	0.12	0.19	0.12	55.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# V Site: 006 [6\_2024 BG SAT Peak\_Byrnes St/Costin St (Site Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	es St												
1	L2	27	7.0	27	7.0	0.181	5.7	LOS A	0.0	0.0	0.00	0.05	0.00	57.5
2	T1	315	7.0	315	7.0	0.181	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.1
Appro	bach	342	7.0	342	7.0	0.181	0.5	NA	0.0	0.0	0.00	0.05	0.00	58.8
North	: Byrne	s St												
8	T1	331	7.0	331	7.0	0.178	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	101	7.0	101	7.0	0.106	4.7	LOS A	0.4	3.1	0.44	0.63	0.44	49.6
Appro	bach	432	7.0	432	7.0	0.178	1.1	NA	0.4	3.1	0.10	0.15	0.10	57.1
West	Costin	St												
10	L2	109	7.0	109	7.0	0.117	7.2	LOS A	0.4	3.2	0.40	0.65	0.40	48.7
12	R2	30	7.0	30	7.0	0.068	11.8	LOS B	0.2	1.7	0.63	0.85	0.63	48.7
Appro	bach	139	7.0	139	7.0	0.117	8.2	LOS A	0.4	3.2	0.45	0.69	0.45	48.7
All Ve	hicles	913	7.0	913	7.0	0.181	2.0	NA	0.4	3.2	0.12	0.19	0.12	56.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2024 BG+D AM Peak\_Byrnes St/Costin St (Site Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	51	7.0	51	7.0	0.349	5.7	LOS A	0.0	0.0	0.00	0.05	0.00	57.4
2	T1	605	7.0	605	7.0	0.349	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	59.0
Appro	bach	656	7.0	656	7.0	0.349	0.6	NA	0.0	0.0	0.00	0.05	0.00	58.7
North	: Byrne	s St												
8	T1	358	7.0	358	7.0	0.192	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
9	R2	111	7.0	111	7.0	0.187	7.8	LOS A	0.7	5.2	0.62	0.82	0.62	46.0
Appro	bach	469	7.0	469	7.0	0.192	1.8	NA	0.7	5.2	0.15	0.19	0.15	55.9
West	: Costin	St												
10	L2	158	7.0	158	7.0	0.254	10.2	LOS B	1.0	7.4	0.59	0.84	0.64	45.2
12	R2	26	7.0	26	7.0	0.157	27.1	LOS D	0.5	3.7	0.86	0.94	0.86	40.4
Appro	bach	184	7.0	184	7.0	0.254	12.6	LOS B	1.0	7.4	0.63	0.86	0.67	43.9
All Ve	hicles	1309	7.0	1309	7.0	0.349	2.7	NA	1.0	7.4	0.14	0.21	0.15	55.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Miner Dood Approach LOC values are based on average delay for all vehicle movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2024 BG+D PM Peak\_Byrnes St/Costin St (Site Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2 T1	58	7.0	58	7.0	0.250	5.7	LOS A	0.0	0.0	0.00	0.07	0.00	57.3
2 Appro		416 474	7.0 7.0	416 474	7.0 7.0	0.250 0.250	0.1 0.8	LOS A NA	0.0	0.0	0.00	0.07 0.07	0.00	58.6 58.3
North	: Byrne	s St												
8 9	T1 R2	486 143	7.0 7.0	486 143	7.0 7.0	0.261 0.179	0.0 5.8	LOS A LOS A	0.0 0.7	0.0 5.3	0.00 0.53	0.00 0.73	0.00 0.53	59.9 48.2
Appro		629	7.0	629	7.0	0.261	1.3	NA	0.7	5.3	0.12	0.17	0.12	56.7
West	: Costin	St												
10	L2	131	7.0	131	7.0	0.159	8.0	LOS A	0.6	4.4	0.47	0.71	0.47	47.8
12	R2	37	7.0	37	7.0	0.137	17.9	LOS C	0.4	3.3	0.79	0.91	0.79	45.0
Appro	bach	168	7.0	168	7.0	0.159	10.2	LOS B	0.6	4.4	0.54	0.76	0.54	46.8
All Ve	hicles	1271	7.0	1271	7.0	0.261	2.3	NA	0.7	5.3	0.13	0.21	0.13	55.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 006 [6\_2024 BG+D SAT Peak\_Byrnes St/Costin St (Site Folder: General)]

Int 006 - Byrnes St / Costin St Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	: Byrne	es St												
1 2	L2 T1	27 337	7.0 7.0	27 337	7.0 7.0	0.193 0.193	5.7 0.1	LOS A LOS A	0.0 0.0	0.0 0.0	0.00 0.00	0.04 0.04	0.00 0.00	57.5 59.1
Appro		365	7.0	365	7.0	0.193	0.5	NA	0.0	0.0	0.00	0.04	0.00	58.9
North	: Byrne	s St												
8 9	T1 R2	354 123	7.0 7.0	354 123	7.0 7.0	0.190 0.134	0.0 4.9	LOS A LOS A	0.0 0.5	0.0 4.0	0.00 0.46	0.00 0.65	0.00 0.46	59.9 49.4
Appro	bach	477	7.0	477	7.0	0.190	1.3	NA	0.5	4.0	0.12	0.17	0.12	56.8
West	Costin	St												
10	L2	131	7.0	131	7.0	0.145	7.4	LOS A	0.5	4.0	0.42	0.67	0.42	48.5
12	R2	30	7.0	30	7.0	0.075	12.8	LOS B	0.3	1.9	0.67	0.86	0.67	48.1
Appro	bach	161	7.0	161	7.0	0.145	8.4	LOS A	0.5	4.0	0.47	0.71	0.47	48.4
All Ve	hicles	1003	7.0	1003	7.0	0.193	2.1	NA	0.5	4.0	0.13	0.21	0.13	55.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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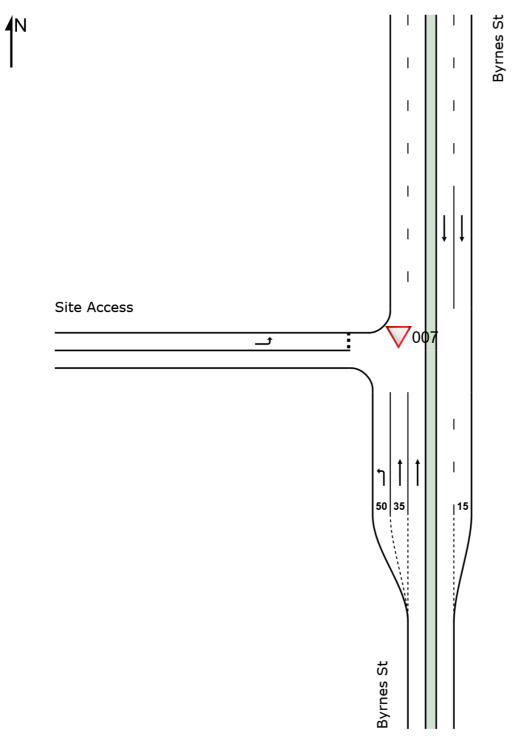
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# SITE LAYOUT

# V Site: 007 [7\_2024 BG+D AM Peak\_Byrnes St/Site Access (Site Folder: General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



V Site: 007 [7\_2024 BG+D AM Peak\_Byrnes St/Site Access (Site Metwork: N101 [2024 BG+D Folder: General)] AM Peak (Network Folder:

General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		BACK OF JEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	115	7.0	115	7.0	0.065	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	33.7
2	T1	414	7.0	414	7.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	529	7.0	529	7.0	0.111	1.2	NA	0.0	0.0	0.00	0.12	0.00	50.2
North	: Byrne	s St												
8	T1	580	7.0	580	7.0	0.259	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	580	7.0	580	7.0	0.259	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.9
West	Site A	ccess												
10	L2	67	7.0	67	7.0	0.064	3.6	LOS A	0.2	1.7	0.31	0.54	0.31	22.3
Appro	bach	67	7.0	67	7.0	0.064	3.6	LOS A	0.2	1.7	0.31	0.54	0.31	22.3
All Ve	hicles	1175	7.0	1175	7.0	0.259	0.8	NA	0.2	1.7	0.02	0.09	0.02	52.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 007 [7\_2024 BG+D PM Peak\_Byrnes St/Site Access (Site Metwork: N101 [2024 BG+D Folder: General)] **PM Peak (Network Folder:** 

General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF JEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	152	7.0	152	7.0	0.086	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	33.7
2	T1	334	7.0	334	7.0	0.090	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Appro	bach	487	7.0	487	7.0	0.090	1.8	NA	0.0	0.0	0.00	0.18	0.00	47.0
North	: Byrne	s St												
8	T1	717	7.0	717	7.0	0.320	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	717	7.0	717	7.0	0.320	0.3	NA	0.0	0.0	0.00	0.00	0.00	59.8
West	: Site A	ccess												
10	L2	89	7.0	89	7.0	0.082	3.4	LOS A	0.3	2.2	0.28	0.53	0.28	23.1
Appro	bach	89	7.0	89	7.0	0.082	3.4	LOS A	0.3	2.2	0.28	0.53	0.28	23.1
All Ve	hicles	1293	7.0	1293	7.0	0.320	1.0	NA	0.3	2.2	0.02	0.10	0.02	51.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 007 [7\_2024 BG+D SAT Peak\_Byrnes St/Site Access (Site Folder: General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	е									
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO\ [ Total veh/h	NS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	161	7.0	161	7.0	0.091	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	33.7
2	T1	369	7.0	369	7.0	0.099	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Appro	oach	530	7.0	530	7.0	0.099	1.7	NA	0.0	0.0	0.00	0.17	0.00	47.3
North	: Byrne	s St												
8	T1	655	7.0	655	7.0	0.293	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	oach	655	7.0	655	7.0	0.293	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.9
West	: Site Ad	ccess												
10	L2	94	7.0	94	7.0	0.088	3.5	LOS A	0.3	2.4	0.29	0.54	0.29	22.7
Appro	oach	94	7.0	94	7.0	0.088	3.5	LOS A	0.3	2.4	0.29	0.54	0.29	22.7
All Ve	ehicles	1279	7.0	1279	7.0	0.293	1.1	NA	0.3	2.4	0.02	0.11	0.02	50.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 007 [7\_2034 BG+D AM Peak\_Byrnes St/Site Access (Site Network: N101 [2034 BG+D AM Peak (Network Folder: AM Peak (Network Folder:

General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehi	cle Mo	vement	Perfo	rmanc	e:									
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1 2	L2 T1	115 482	7.0 7.0	114 479	7.0 7.0	0.064 0.133	5.6 0.0	LOS A LOS A	0.0 0.0	0.0 0.0	0.00 0.00	0.57 0.00	0.00 0.00	33.7 59.9
Appro		597	7.0	593 <sup>N1</sup>	7.0	0.133	1.1	NA	0.0	0.0	0.00	0.00	0.00	51.1
North	: Byrne	s St												
8	T1	662	7.0	662	7.0	0.296	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	662	7.0	662	7.0	0.296	0.2	NA	0.0	0.0	0.00	0.00	0.00	59.8
West	: Site A	ccess												
10	L2	67	7.0	67	7.0	0.068	3.8	LOS A	0.2	1.8	0.34	0.56	0.34	21.6
Appro	bach	67	7.0	67	7.0	0.068	3.8	LOS A	0.2	1.8	0.34	0.56	0.34	21.6
All Ve	hicles	1326	7.0	<mark>1322</mark> N	7.0	0.296	0.8	NA	0.2	1.8	0.02	0.08	0.02	53.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

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V Site: 007 [7\_2034 BG+D PM Peak\_Byrnes St/Site Access (Site Metwork: N101 [2034 BG+D Folder: General)] **PM Peak (Network Folder:** 

General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV ]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF IEUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	152	7.0	152	7.0	0.086	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	33.7
2	T1	392	7.0	392	7.0	0.107	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	oach	545	7.0	545	7.0	0.107	1.6	NA	0.0	0.0	0.00	0.16	0.00	48.0
North	n: Byrne	s St												
8	T1	818	7.0	818	7.0	0.365	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	oach	818	7.0	818	7.0	0.365	0.3	NA	0.0	0.0	0.00	0.00	0.00	59.8
West	: Site A	ccess												
10	L2	89	7.0	89	7.0	0.085	3.6	LOS A	0.3	2.3	0.30	0.54	0.30	22.4
Appro	oach	89	7.0	89	7.0	0.085	3.6	LOS A	0.3	2.3	0.30	0.54	0.30	22.4
All Ve	ehicles	1451	7.0	1451	7.0	0.365	1.0	NA	0.3	2.3	0.02	0.09	0.02	52.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 007 [7\_2034 BG+D SAT Peak\_Byrnes St/Site Access (Site Folder: General)]

Int 007 - Byrnes St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Byrne	es St												
1	L2	161	7.0	161	7.0	0.091	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	33.7
2	T1	433	7.0	433	7.0	0.116	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	oach	594	7.0	594	7.0	0.116	1.5	NA	0.0	0.0	0.00	0.16	0.00	48.3
North	: Byrne	s St												
8	T1	745	7.0	745	7.0	0.333	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	oach	745	7.0	745	7.0	0.333	0.3	NA	0.0	0.0	0.00	0.00	0.00	59.8
West	: Site Ad	ccess												
10	L2	94	7.0	94	7.0	0.091	3.7	LOS A	0.3	2.5	0.32	0.55	0.32	22.0
Appro	bach	94	7.0	94	7.0	0.091	3.7	LOS A	0.3	2.5	0.32	0.55	0.32	22.0
All Ve	ehicles	1433	7.0	1433	7.0	0.333	1.0	NA	0.3	2.5	0.02	0.10	0.02	51.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# SITE LAYOUT

# V Site: 008 [8\_2024 BG+D AM Peak\_Rankin St/Site Access (Site Folder: General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

# N Rankin St

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V Site: 008 [8\_2024 BG+D AM Peak\_Rankin St/Site Access (Site Metwork: N101 [2024 BG+D AM Peak (Network Folder: AM Peak (N

General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO\ [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BA QUE [ Veh. veh		Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	30	7.0	30	7.0	0.432	5.9	LOS A	0.9	6.8	0.47	0.76	0.59	22.2
3	R2	150	7.0	150	7.0	0.432	8.4	LOS A	0.9	6.8	0.47	0.76	0.59	19.4
Appro	bach	180	7.0	180	7.0	0.432	8.0	LOS A	0.9	6.8	0.47	0.76	0.59	20.0
East:	Rankin	St												
4	L2	109	7.0	109	7.0	0.061	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	193	7.0	193	7.0	0.104	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Appro	bach	302	7.0	302	7.0	0.104	1.5	NA	0.0	0.0	0.00	0.20	0.00	43.8
West	Rankir	n St												
11	T1	216	7.0	216	7.0	0.116	0.0	LOS A	1.3	9.7	0.00	0.00	0.00	59.9
Appro	bach	216	7.0	216	7.0	0.116	0.0	NA	1.3	9.7	0.00	0.00	0.00	59.9
All Ve	hicles	698	7.0	698	7.0	0.432	2.7	NA	1.3	9.7	0.12	0.28	0.15	35.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 008 [8\_2024 BG+D PM Peak\_Rankin St/Site Access (Site Metwork: N101 [2024 BG+D PM Peak (Network Folder: PM Peak (N

General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	40	7.0	40	7.0	0.629	9.1	LOS A	2.7	19.9	0.56	0.92	0.96	17.8
3 Appro	R2 bach	199 239	7.0 7.0	199 239	7.0 7.0	0.629 0.629	12.4 11.9	LOS B LOS B	2.7 2.7	19.9 19.9	0.56 0.56	0.92 0.92	0.96 0.96	14.6 15.3
East:	Rankin	St												
4	L2	144	7.0	144	7.0	0.082	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	252	7.0	252	7.0	0.135	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	396	7.0	396	7.0	0.135	1.5	NA	0.0	0.0	0.00	0.20	0.00	43.7
West	: Rankir	n St												
11	T1	230	7.0	230	7.0	0.124	0.0	LOS A	0.4	3.2	0.00	0.00	0.00	59.9
Appro	bach	230	7.0	230	7.0	0.124	0.0	NA	0.4	3.2	0.00	0.00	0.00	59.9
All Ve	hicles	866	7.0	866	7.0	0.629	4.0	NA	2.7	19.9	0.15	0.35	0.26	31.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 008 [8\_2024 BG+D SAT Peak\_Rankin St/Site Access (Site Folder: General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	43	7.0	43	7.0	0.476	5.6	LOS A	1.9	14.3	0.41	0.70	0.51	23.2
3	R2	210	7.0	210	7.0	0.476	7.7	LOS A	1.9	14.3	0.41	0.70	0.51	20.6
Appro	bach	253	7.0	253	7.0	0.476	7.3	LOS A	1.9	14.3	0.41	0.70	0.51	21.1
East:	Rankin	St												
4	L2	152	7.0	152	7.0	0.086	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	118	7.0	118	7.0	0.063	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Appro	bach	271	7.0	271	7.0	0.086	2.3	NA	0.0	0.0	0.00	0.31	0.00	38.6
West	: Rankir	n St												
11	T1	168	7.0	168	7.0	0.157	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	168	7.0	168	7.0	0.157	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Ve	hicles	692	7.0	692	7.0	0.476	3.6	NA	1.9	14.3	0.15	0.38	0.19	31.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 008 [8\_2034 BG+D AM Peak\_Rankin St/Site Access (Site Metwork: N101 [2034 BG+D AM Peak (Network Folder: Network))

General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLO\ [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	30	7.0	30	7.0	0.462	6.5	LOS A	2.2	16.2	0.51	0.81	0.68	20.8
3	R2	150	7.0	150	7.0	0.462	9.5	LOS A	2.2	16.2	0.51	0.81	0.68	17.8
Appro	bach	180	7.0	180	7.0	0.462	9.0	LOS A	2.2	16.2	0.51	0.81	0.68	18.5
East:	Rankin	St												
4	L2	109	7.0	109	7.0	0.061	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	224	7.0	224	7.0	0.120	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	333	7.0	333	7.0	0.120	1.3	NA	0.0	0.0	0.00	0.18	0.00	44.9
West	: Rankir	n St												
11	T1	246	7.0	246	7.0	0.132	0.0	LOS A	3.6	26.6	0.00	0.00	0.00	59.9
Appro	bach	246	7.0	246	7.0	0.132	0.0	NA	3.6	26.6	0.00	0.00	0.00	59.9
All Ve	hicles	759	7.0	<mark>758</mark> <sup>N1</sup>	7.0	0.462	2.7	NA	3.6	26.6	0.12	0.27	0.16	35.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

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V Site: 008 [8\_2034 BG+D PM Peak\_Rankin St/Site Access (Site Metwork: N101 [2034 BG+D PM Peak (Network Folder: PM Peak (N

General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	40	7.0	40	7.0	0.683	11.0	LOS B	3.1	22.9	0.60	0.99	1.15	15.9
3	R2	199	7.0	199	7.0	0.683	15.0	LOS B	3.1	22.9	0.60	0.99	1.15	12.6
Appro	bach	239	7.0	239	7.0	0.683	14.3	LOS B	3.1	22.9	0.60	0.99	1.15	13.3
East:	Rankin	St												
4	L2	144	7.0	144	7.0	0.082	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	292	7.0	292	7.0	0.157	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Appro	bach	437	7.0	437	7.0	0.157	1.4	NA	0.0	0.0	0.00	0.18	0.00	44.7
West	: Rankir	n St												
11	T1	261	7.0	261	7.0	0.140	0.0	LOS A	1.6	11.7	0.00	0.00	0.00	59.9
Appro	bach	261	7.0	261	7.0	0.140	0.0	NA	1.6	11.7	0.00	0.00	0.00	59.9
All Ve	hicles	937	7.0	937	7.0	0.683	4.3	NA	3.1	22.9	0.15	0.34	0.29	30.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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V Site: 008 [8\_2034 BG+D SAT Peak\_Rankin St/Site Access (Site Folder: General)]

Int 008 - Rankin St / Site Access Prepared: TB Reviewed: Site Category: -Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMA FLOV [ Total veh/h		ARRI FLO [ Total veh/h	WS HV]	Deg. Satn v/c	Aver. Delay sec	Level of Service		ACK OF EUE Dist] m	Prop. Que	EffectiveA Stop Rate	ver. No. Cycles	Aver. Speed km/h
South	n: Site A	ccess												
1	L2	43	7.0	43	7.0	0.564	6.8	LOS A	2.3	17.2	0.44	0.76	0.64	21.1
3	R2	210	7.0	210	7.0	0.564	9.2	LOS A	2.3	17.2	0.44	0.76	0.64	18.1
Appro	bach	253	7.0	253	7.0	0.564	8.8	LOS A	2.3	17.2	0.44	0.76	0.64	18.7
East:	Rankin	St												
4	L2	152	7.0	152	7.0	0.086	4.1	LOS A	0.0	0.0	0.00	0.55	0.00	31.4
5	T1	138	7.0	138	7.0	0.074	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Appro	bach	290	7.0	290	7.0	0.086	2.2	NA	0.0	0.0	0.00	0.29	0.00	39.4
West	: Rankir	n St												
11	T1	189	7.0	189	7.0	0.203	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Appro	bach	189	7.0	189	7.0	0.203	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.8
All Ve	hicles	732	7.0	732	7.0	0.564	3.9	NA	2.3	17.2	0.15	0.38	0.22	30.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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### **Appendix E** Detailed Net Delay Table



SLR

Peak		ΣΒC	ΣWD	ID = Σ\	ND - ΣBC
Period	Intersection	(Total Base Case Delays)	(Total With-Development Delays)	Δ	%
	1	136	140	3	2.5%
	2	470	477	7	1.5%
	3	62	72	10	15.8%
AM Peak	4	22	23	1	3.5%
	5	72	89	17	24.2%
	6	48	49	1	3.1%
	Sub-Total	810	849	40	4.9%
	1	135	139	4	2.8%
	2	469	477	8	1.7%
	3	59	73	14	24.4%
PM Peak	4	32	35	3	10.2%
	5	52	59	7	14.0%
	6	40	41	1	2.0%
	Sub-Total	787	824	37	4.7%
	1	120	123	3	2.3%
	2	409	417	8	1.9%
	3	52	63	11	21.5%
SAT Peak	4	21	23	1	5.7%
	5	50	57	7	14.6%
	6	30	31	1	4.2%
	Sub-Total	682	713	31	4.6%
	1	391	401	10	2.6%
	2	1347	1370	23	1.7%
	3	173	208	35	20.4%
All Peaks	4	75	81	5	7.0%
	5	174	206	32	18.4%
	6	118	121	3	3.0%
	Total	2278	2387	109	4.8%

# Appendix F

Conceptual Bus Stop Plans





The content contained within this document may be based on third part/ data. SLR Consulting Australia Pty Ltd does not guarantee the accuracy of any such information.

Project No:	620.30842
Date:	12/07/2022
Drawn by:	ТВ
Scale:	AS SHOWN
Sheet Size:	A3
Projection:	

SCALE 1:250

METRES

Concept Drawing Indented Bus Stop

FIGURE D0207

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### **ATTACHMENT 7**

ENGINEERING REPORT AND STORMWATER MANAGEMENT PLAN PREPARED BY TRINITY ENGINEERING

# DEVELOPMENT ENGINEERING REPORT FOR

### 232 BYRNES STREET MAREEBA

PREPARED FOR

MAREEBA 232 Pty Ltd



July 2022



### DOCUMENT CONTROL SHEET

Trinity Engineering and Consulting	Title:	Development Engineering Report
Cairns Office:	Project Manager:	Scott Christensen
21 Sheridan Street Cairns QLD 4870	Author:	Joe Chen
PO Box 7963 Cairns QLD 4870	Client:	Mareeba 232 Pty Ltd
Tolenkons (07) 4040 7444	Client Contact:	
Telephone (07) 4040 7111	Client Reference:	
www.trinityengineering.com.au	Synopsis:	Engineering Report to support Material Change of Use Application



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APPENDIX B SITE SURVEY

APPENDIX C SITE MANAGEMENT PLAN AND CERTIFICATE OF APPROVAL



### 1. INTRODUCTION

This report has been prepared by Trinity Engineering and Consulting (TEC) on behalf of the developer, Mareeba 232 Pty Ltd. It is understood that this report will form part of a Development Application for Material Change of Use submitted by Urban Sync for proposed development on Lot 78 SP298287, located at 232 Byrnes Street.

This report seeks to address the engineering elements of the application, in particular:

- Earthworks;
- Water Supply;
- Sewerage; and
- Electricity and Telecommunication.

The purpose of this report is to demonstrate to Council Officers that the development can provide the level of services intended under Council's Planning Scheme and FNQROC Development Manual. Stormwater drainage and flooding are addressed in an independent Stormwater Management Plan.

### 2. GENERAL OVERVIEW AND BACKGROUND

The development site, referred to as Lot 78 on SP298287, is situated at 232 Byrnes Street, Mareeba.

Lot 78 on SP298287 is 15160 m<sup>2</sup> in area. It is understood that the developer has gained approval from the adjacent landowner to utilise a portion of Lot 20 NR7137 for the development.

The site is bound with Byrnes Street from the east and Rankin Street from the north. A railway corridor is located along the western boundary of the development site. An abandoned railway formation crosses through the development site. Refer Figure 1 below.

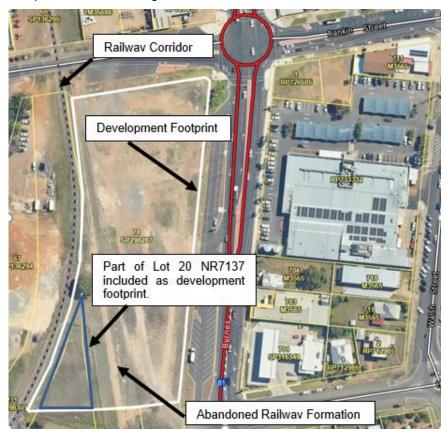


Figure 1 Development Site Shown in Queensland Globe (2021)



The development site is currently vacant. It is understood that the site was previously developed as a sawmill. Refer Figure 2.



Figure 2 Development Site Shown in QImagery (1994)

The proposed development seeks to construct a shopping centre precinct including a Woolworths supermarket, fast food restaurant, shops, mall and car park. The site is located in the Centre Zone classified in Mareeba Shire Council's Planning Scheme Mapping.

Further details of the development are provided in the Planning Report by Urban Sync Pty Ltd.

### 3. SITE CONDITIONS

The is currently covered with gravel tracks, weeds/grass and one tree. A site inspection was undertaken by TEC on 2 March 2022. The following photos demonstrate the current site conditions.



Figure 3 Southeast Corner of the Development Site





Figure 4 Southwest Corner of the Development Site



Figure 5 Abandoned Railway Formation





Figure 6 Eastern Site Boundary



Figure 7 Northern Site Boundary (looking south)





Figure 8 Northeast Corner of the Development Site



Figure 9 Northwest Corner of the Development Site



### 4. EARTHWORKS

Detailed survey dated 7 February 2022 (attached as **Appendix B**) indicates that the site is relatively flat and the existing site levels vary from approximately 408.8m AHD to 407.8m AHD. The Lot generally falls from south to northeast toward the Byrnes Street / Rankin Street intersection. The triangular area of Lot 20 NR7137 generally falls towards south.

The development seeks to achieve a balanced earthworks design and minimise the import or export of material. All earthworks will be designed and undertaken in accordance with the FNQROC Development Manual – D2 Site Grading and AS3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The operation of the previously developed sawmill involved hazardous materials, it is understood that the site was registered as Contaminated Land.

A Site Management Plan addressing this matter was developed in 2009 and received a Certificate of Approval by the Environmental Protection Agency. The Certificate of Approval clarifies that the development site is suitable for commercial use and the site will be managed and developed in accordance with the Site Management Plan.

The Site Management Plan and Certificate of Approval are attached as Appendix C.

### 5. WATER SUPPLY

Existing service information sourced from Council indicates the location and type of existing water mains in the vicinity of the site.

The information provided by Council indicates that 225mm diameter AC water main is located along eastern side of the development site (Byrnes Street) and connects to 225mm diameter DICL water main at the northeast corner of the development site. Refer Figure 10 below.

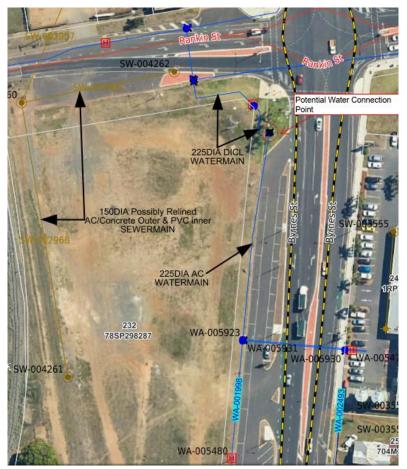


Figure 10 Water Main Network in the Vicinity of the Development Site (provided by Council)

The site visit identified an existing connection point for water reticulation at southeast corner of the site and a hydrant at northeast corner of the site. Refer photos below.





Figure 11 Existing Connection Point at Southeast Corner of the Site



Figure 12 Fire Hydrant at Northwest Corner of the Site



The size of this existing connection is unlikely to be able to meet the required water supply and firefighting demand for the proposed development.

It is proposed that the development connects to Council's existing 225mm diameter DICL water mains at the northeast corner of the development site (as shown in Figure 10). These are trunk mains and typically have significant capacity. On this basis, it is expected that the external water supply system will provide sufficient pressure to accommodate the peak hour demand and firefighting due to proposed development.

Notwithstanding the above, the pressure and flow of the connection point of Council's water main will be assessed in the detailed design stage to confirm the compliance with firefighting requirements. If required, additional internal firefighting measures will be designed and installed for the proposed development.

A desktop analysis has been undertaken to calculate the water supply demand from the proposed development, in relation to the water reticulation network and the design criteria adopted from FNQROC Development Manual and Mareeba Shire Council Planning Scheme.

As indicated in Table 4.2.11.2.1 of the Mareeba Shire Council Planning Scheme, the proposed development is under the category of Retail uses, which has demand generation rate of 1 EP/connection per 100m<sup>2</sup> use area for water supply. Relevant section of the table has been extracted and shown in figure below.

Table 4.2.11.2.1	Demand genera	ation rates				
					Assume	ed
Planning scl	heme area ident	ification & land use		Water supply units of demand	Sewerage units of demand	
Use	Zone	Planning scheme use type	Use intensity	Demand Ratio	Demand Ratio	
Residential uses	Low density residential	Detached house	Detached house and lot	1.0	1.0	Γ
	density D residential	Attached House	1 bed unit	0.5	0.6	T.
		Duplex Attached house	2 bed unit	0.7	0.8	t
			3 bed or more	1.0	1.0	T
			1 bed unit	0.5	0.6	T
		retirement	2 bed unit	0.7	0.8	T
		village	3 bed or more	1.0	1.0	T
		Attached house Conventional	1 bed unit	0.5	0.6	T
		multi-unit	2 bed unit	0.7	0.8	Τ
			3 bed or more	1.0	1.0	Γ
Industrial uses			100m <sup>2</sup> use area	0.03	0.03	Γ
Retail uses			100m <sup>2</sup> use area	1.0	1.0	Ľ
Commercial uses			100m <sup>2</sup> use area	1.0	1.0	

Figure 13 Extract of Mareeba Shire Council Planning Scheme

The design criteria adopted for the proposed network and calculation results are summarised below.

### Table 1 Water Supply Demand Calculation for Proposed Development

Criteria	Adopted Value
Number of Lots	1
Equivalent Persons per Connection (EP)	1EP/100m <sup>2</sup> use area (Retail uses from "Mareeba Shire Planning Scheme Table 4.2.11.2.1 Demand Generation Rates")
Equivalent Population	51 EP (5025m <sup>2</sup> GFA based on provided Development Concept Plan)
Average Daily (AD) Consumption	500 litres/EP/day
Average Daily (AD) demand	25.5 kL/d
Mean Day Max Month (MDMM) demand	38.25 kL/d
Peak Day (PD) demand	57.38 kL/d



Peak Hour (PH) demand	1.33 L/s	
Minimum Pressures	22 m head @ peak hourly consumption	
	12 m head @ hydrant for firefighting scenario	
Maximum Pressure	60 metres head	
Fire Flow Requirement	30 L/s for 4 hours (Commercial)	

It is concluded that the impact to Council's greater reticulated water supply network from the proposed development will be insignificant. The proposed development does not have an appreciable change to the network system elements (water supply, treatment, and trunk mains), which are considered to be headworks items.

In the context of the whole system, this development size is minor and does not create a larger demand. It is broadly part of what these major system elements are provided for.

Based on the desktop analysis completed, it is considered that this development can be connected to Council's reticulated water supply network in accordance with the Design Guidelines set out in the FNQROC Development Manual. Therefore, it is considered that there is no impediment to the development in terms of water supply.

### 6. SEWERAGE

Existing service information sourced from Council confirms the location of existing gravity sewer main in the vicinity of the site.

Council's 150mm diameter sewer mains are located along the western boundary within the development site and north from the development site along Rankin Street. Refer Figure 14 below.



Figure 14 Sewer Main Network in the Vicinity of the Development Site (provided by Council)



The site inspection identified the two sewer manholes (SW-004260 and SW-004261 indicated in figure above) along western boundary of the site. Refer photos below.



Figure 15 Sewer Manhole at Northwest Corner of the Site (SW-004260)



Figure 16 Sewer Manhole in Middle of Western Boundary of the Site (SW-004261)



The potential connection point for the development is proposed to be the manhole SW-004262 (as shown in Figure 14). The sewer main segment within the development site would likely be demolished due to the proposed development.

A desktop analysis has been undertaken to calculate the sewerage loading from the proposed development, in relation to the sewerage reticulation network and the design criteria adopted from FNQROC Development Manual and Mareeba Shire Council Planning Scheme.

The design criteria adopted for the proposed network and calculation results are summarised below.

### Table 2 Sewerage Demand Calculation for Proposed Development

Criteria	Adopted Value
Number of Lots	1
Equivalent Persons per Connection (EP)	1EP/100m <sup>2</sup> use area (Retail uses from "Mareeba Shire Planning Scheme Table 4.2.11.2.1 Demand Generation Rates")
Equivalent Population (EP)	51 EP (5025m <sup>2</sup> GFA based on provided Development Concept Plan)
Equivalent Domestic Connections(EDC)	18.2 EDC
Average Daily Use	270 litres/EP/day
Average Dry Weather Flow (ADWF) loading	13.77 kL/d
Peak Dry Weather Flow (PDWF) loading	42.83 kL/d
Peak Wet Weather Flow (PWWF) loading	110.67 kL/d

Per the FNQROC Development Manual Table 7.5, a 150mm diameter sewer has capacity for in excess of 250 Equivalent Domestic Connections at minimum grade. Therefore, the capacity of the existing sewer main exceeds the sewerage load from the proposed development of 17.8 Equivalent Domestic Connections.

Based on the above analysis, it is concluded that this development can be connected to Council's sewerage reticulation network in accordance with the Design Guidelines set out in the FNQROC Development Manual. Therefore, it is considered that there is no impediment to the development in terms of sewerage.

### 7. ELECTRICITY AND TELECOMMUNICATION

A Dial Before You Dig (DBYD) search was undertaken and the received information indicates the electricity and telecommunication infrastructure in the vicinity of development site.

An existing Ergon Energy electricity cable line is located on Byrnes Street adjacent to the development site. A NBN connection point is located at the northeast corner of the development site.

It is considered that the proposed development can be connected to the local electricity and telecommunication networks.

### 8. SUMMARY AND CONCLUSION

This report provides the engineering overview of the site with specific advice in engineering areas of:

- Earthworks;
- Water Supply;
- Sewerage; and
- Electricity and Telecommunication.

Based on the information presented, it is concluded that there are no impediments to the development proceeding with the imposition of relevant and reasonable conditions.

It is recommended that Council therefore approves this application for Material Change of Use with standard engineering conditions being attached to the development approval.



Appendix A Development Concept Plan

# MAREEBA NEIGHBOURHOOD **SHOPPING CENTRE**

232 BYRNES STREET, MAREEBA

# DRAWING LIST - CONCEPT

	1	
A	0.00	COVER SHEET
А	0.10	SITE CONTEXT PLAN
А	1.01	SITE PLAN
Α	1.02	DEVELOPMENT PLAN
А	2.01	GROUND FLOOR PLAN - SUPERMARKET
Α	2.02	ROOF PLAN - SUPERMARKET
А	2.03	ELEVATIONS - SUPERMARKET
А	2.04	ELEVATIONS - SUPERMARKET
А	2.05	SECTIONS - SUPERMARKET
А	3.01	GROUND FLOOR PLAN - SHOPS
А	3.02	ELEVATIONS - SHOPS
Α	4.01	GROUND FLOOR PLAN - FAST FOOD
Α	4.02	ELEVATIONS - FAST FOOD
Α	5.01	3D VIEWS
А	5.02	3D VIEWS

# **DEVELOPMENT APPLICATION**

232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD





EXISTING VIEW FROM CORNER OF BYRNES & RANKIN STREET

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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**COVER SHEET** 

1 : 1 @ A1

TA # 19.0298.17 A0.00

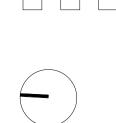
12/07/2022



**BICENTENNIAL LAKES** 



### **DEVELOPMENT APPLICATION** 0 25 50 75 125 250 m



**BASATT GULLY PARK** 

### PROPOSED MAREEBA **NEIGHBOURHOOD SHOPPING CENTRE**

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

232 BYRNES STREET, MAREEBA

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MAREEBA 232 PTY LTD



### SITE CONTEXT PLAN

1 : 2500 @ A1

TA # 19.0298.17 A0.10

12/07/2022

# **DEVELOPMENT SCHEDULE**

PROPOSED USES	GFA	GLAR	
SUPERMARKET	3655m <sup>2</sup>	3603m <sup>2</sup>	
SHOPS	1010m <sup>2</sup>	992m <sup>2</sup>	
AMENITIES	90m <sup>2</sup>		
TOTAL CENTRE	4755m <sup>2</sup>	4595m <sup>2</sup>	
FAST FOOD	270m <sup>2</sup>	270m <sup>2</sup>	
TOTAL	5025m <sup>2</sup>	<b>4865m<sup>2</sup></b> (5/100m2)	
CAR PARKING SCHEDULE			
CARS FAST FOOD	11		
CARS CENTRE (INCL. MOTOR BIKES, DIRECT TO BOOT + TAXIS)	203		
ON SITE CARS	SITE CARS 214		
STREET CARS 5			
TOTAL CARS PROVIDED	219		
TOTAL CARS REQUIRED	193	3	

### NOTE:

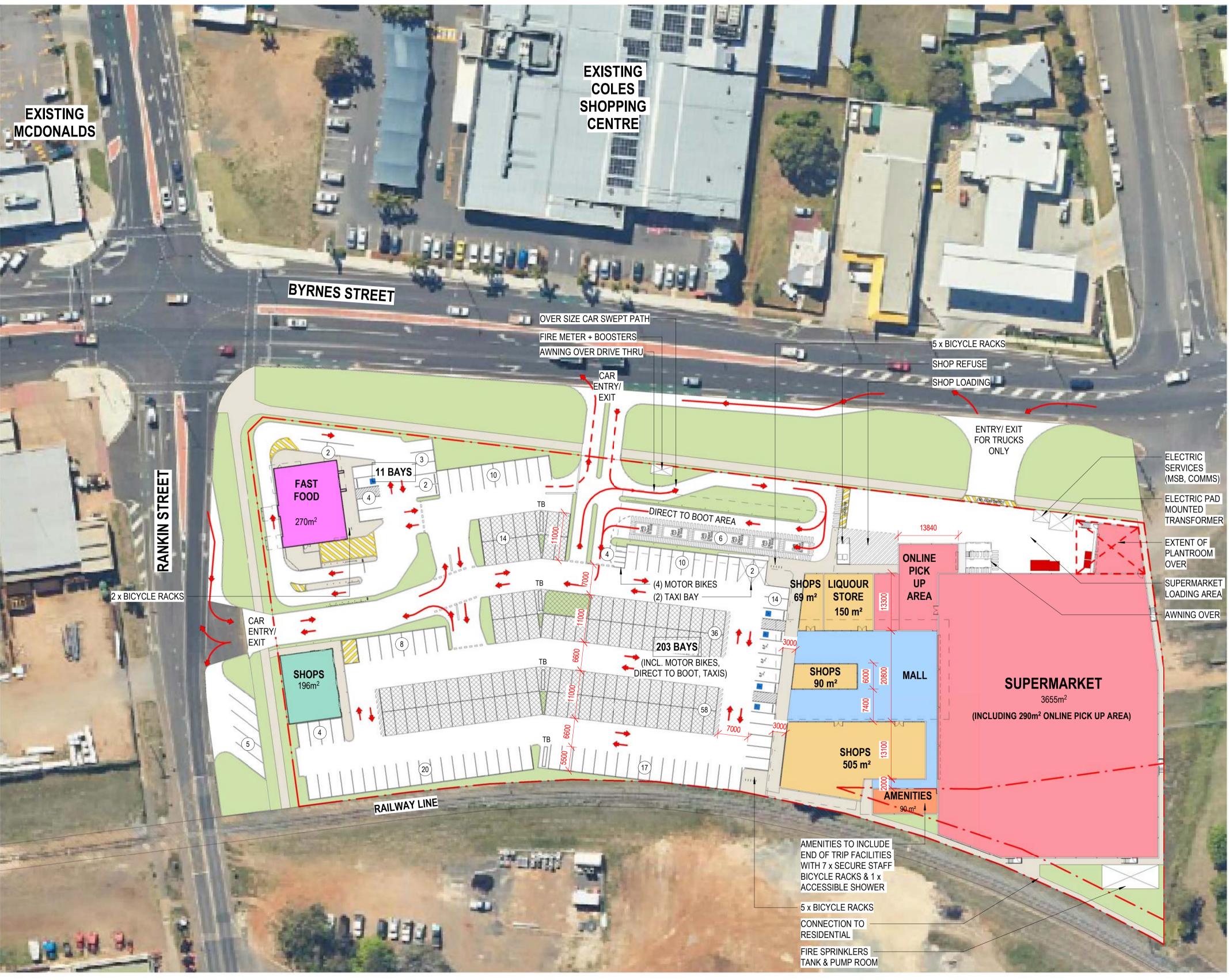
CARS REQUIRED IS BASED ON: 1/50 UP TO 400m<sup>2</sup> GFA 1/25 ABOVE 400m<sup>2</sup> GFA

### NOTE: SUPERMARKET GLAR EXCLUDES EXTERNAL WALLS AND LOADING DOCK

### **COVERED CARPARKS**

250 m

AREA OF ENCLOSED MALL / PASSAGE - 637m<sup>2</sup>





# 232 BYRNES STREET, MAREEBA



0 25 50 75

**DEVELOPMENT APPLICATION** 

125

MAREEBA 232 PTY LTD

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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### SITE PLAN

As indicated @ A1

TA # 19.0298.17 A1.01

12/07/2022

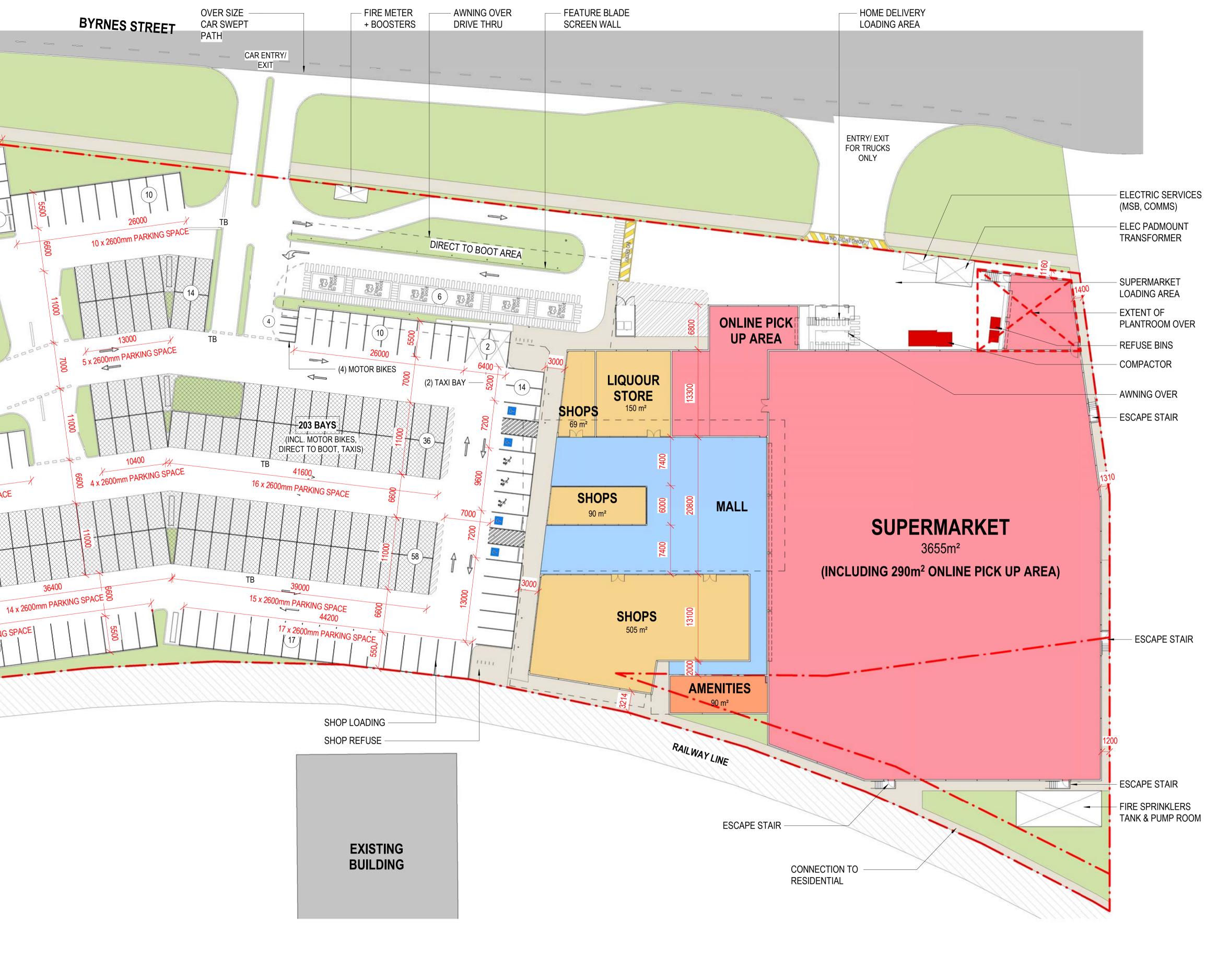


# MAREEBA 232 PTY LTD

232 BYRNES STREET, MAREEBA

### **DEVELOPMENT APPLICATION** 0 3 6 9 15 30 m







# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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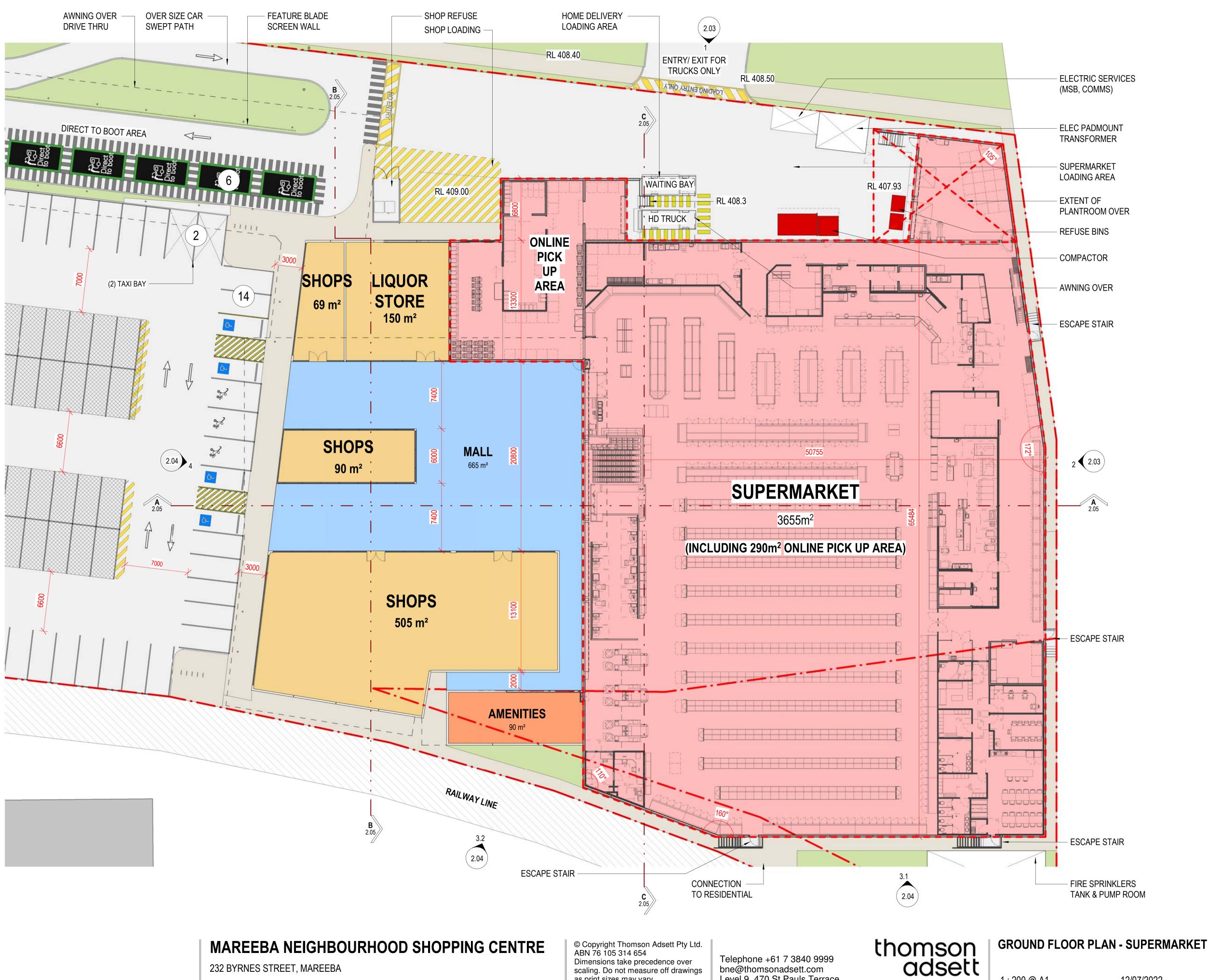


### **DEVELOPMENT PLAN**

1 : 300 @ A1

12/07/2022

TA # 19.0298.17 A1.02

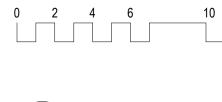






**FLOOR PLAN - SUPERMARKET** 1 : 200

# **DEVELOPMENT APPLICATION**



20 m



232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD

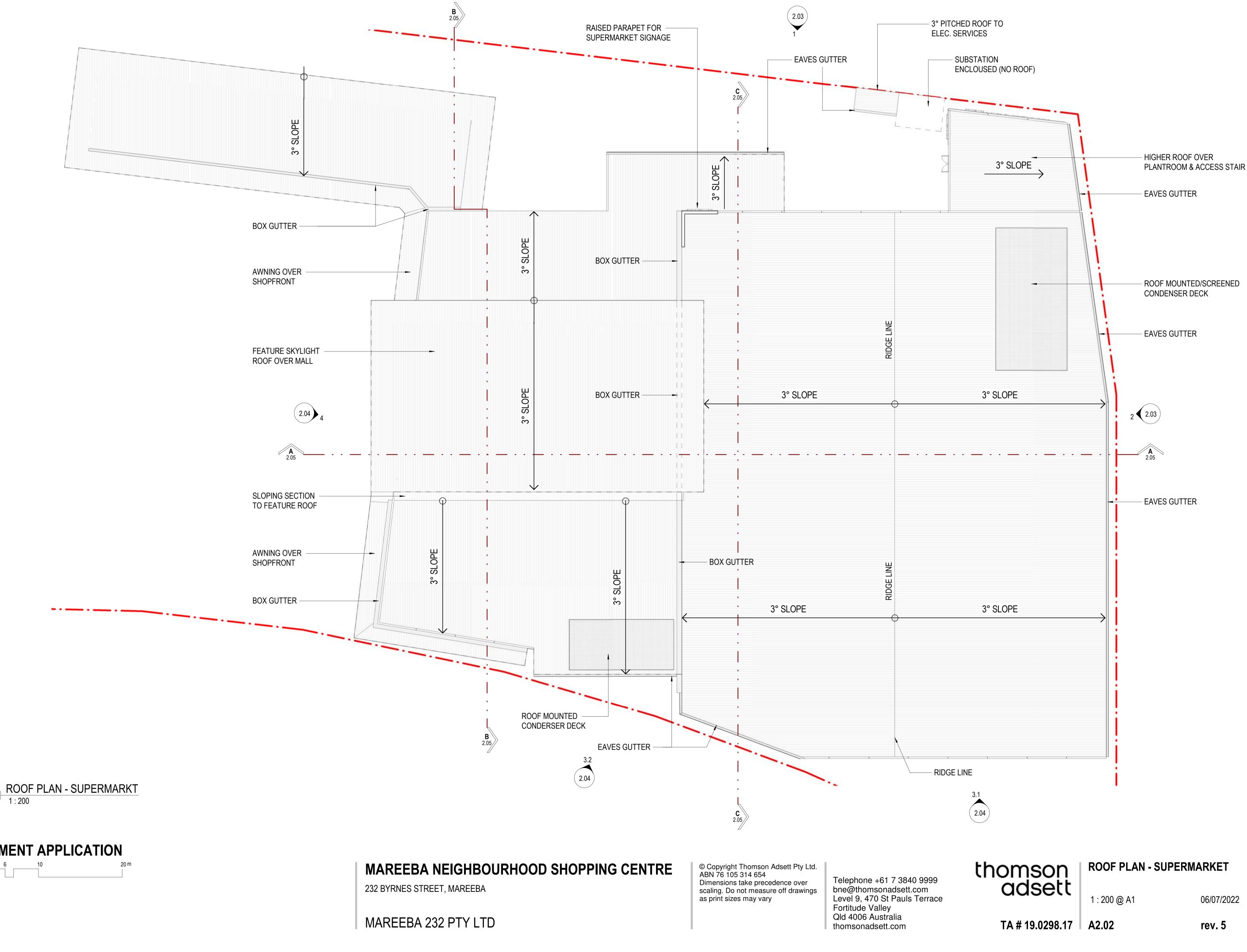
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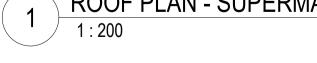
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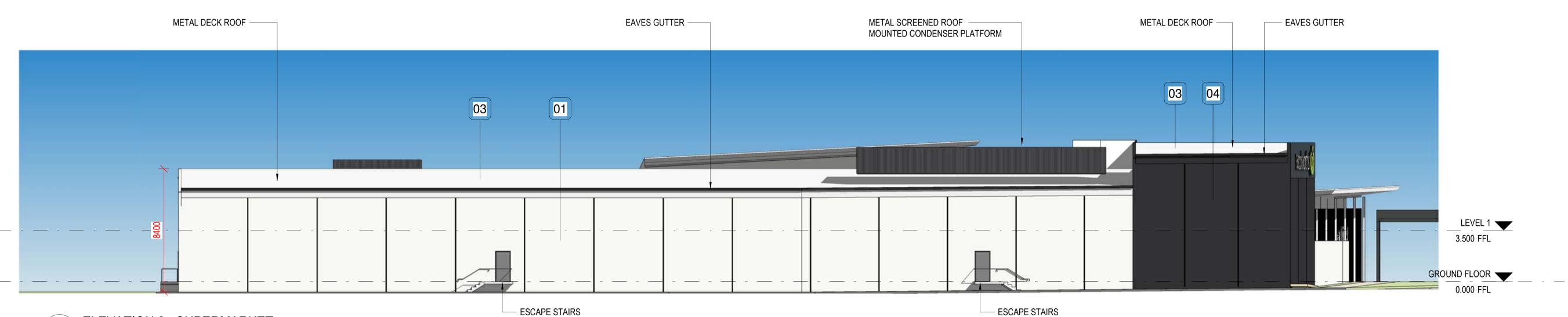
# **DEVELOPMENT APPLICATION**



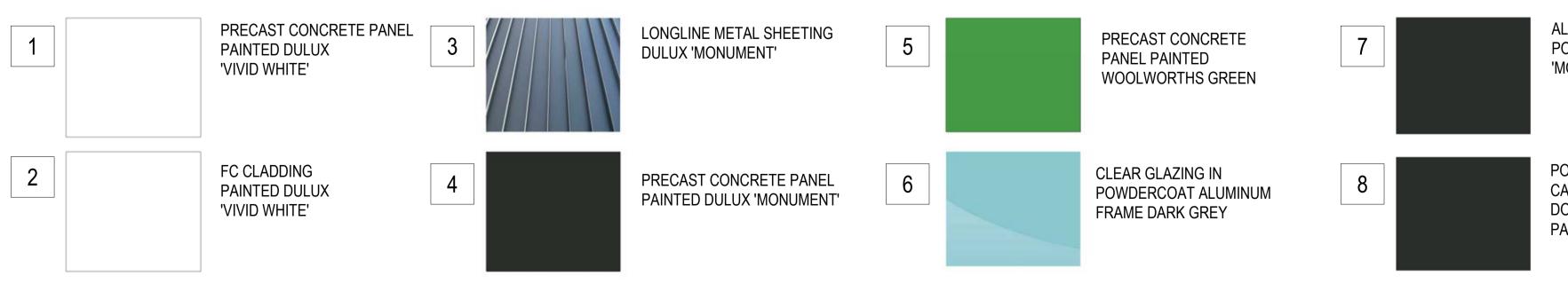




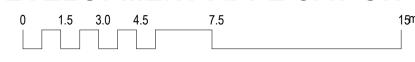








# **DEVELOPMENT APPLICATION**



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ALUCLICK FEATURE BLADES POWDERCOATED DULUX 'MONUMENT'

POWDERCOATED METAL CAPPINGS, GUTTERS, DOWNPIPES & ROLLER SHUTTER. PAINTED DULUX 'MONUMENT'





### **ELEVATIONS - SUPERMARKET**

As indicated @ A1

A2.03

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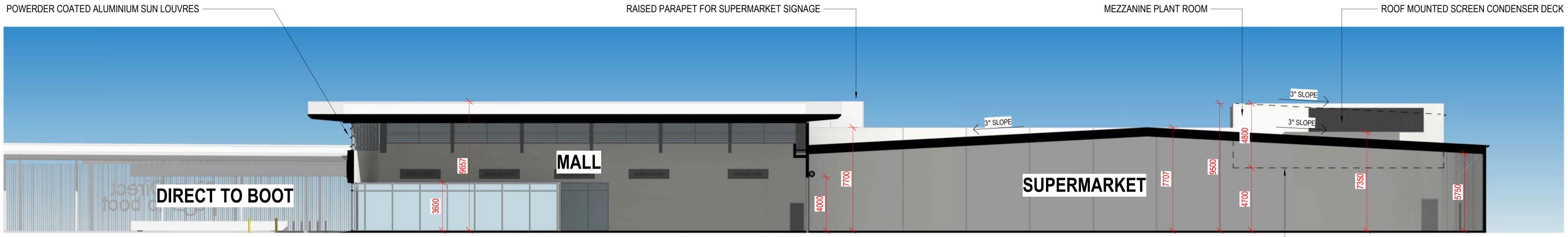
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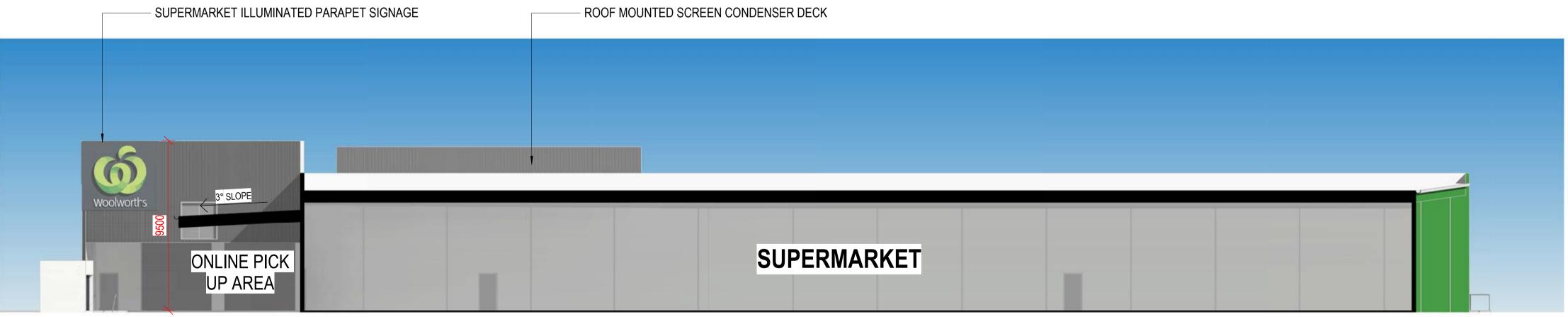


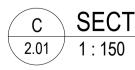


SUPERMARKET ILLUMINATED PARAPET SIGNAGE



B SECTION B - SUPERMARKET 2.01 1 : 150





**SECTION C - SUPERMARKET** 

**DEVELOPMENT APPLICATION** 

0 1.5 3.0 4.5 7.5

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- ROOF MOUNTED CONDERSER DECK

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MEZZANINE PLANT ROOM LEVEL





### **SECTIONS - SUPERMARKET**

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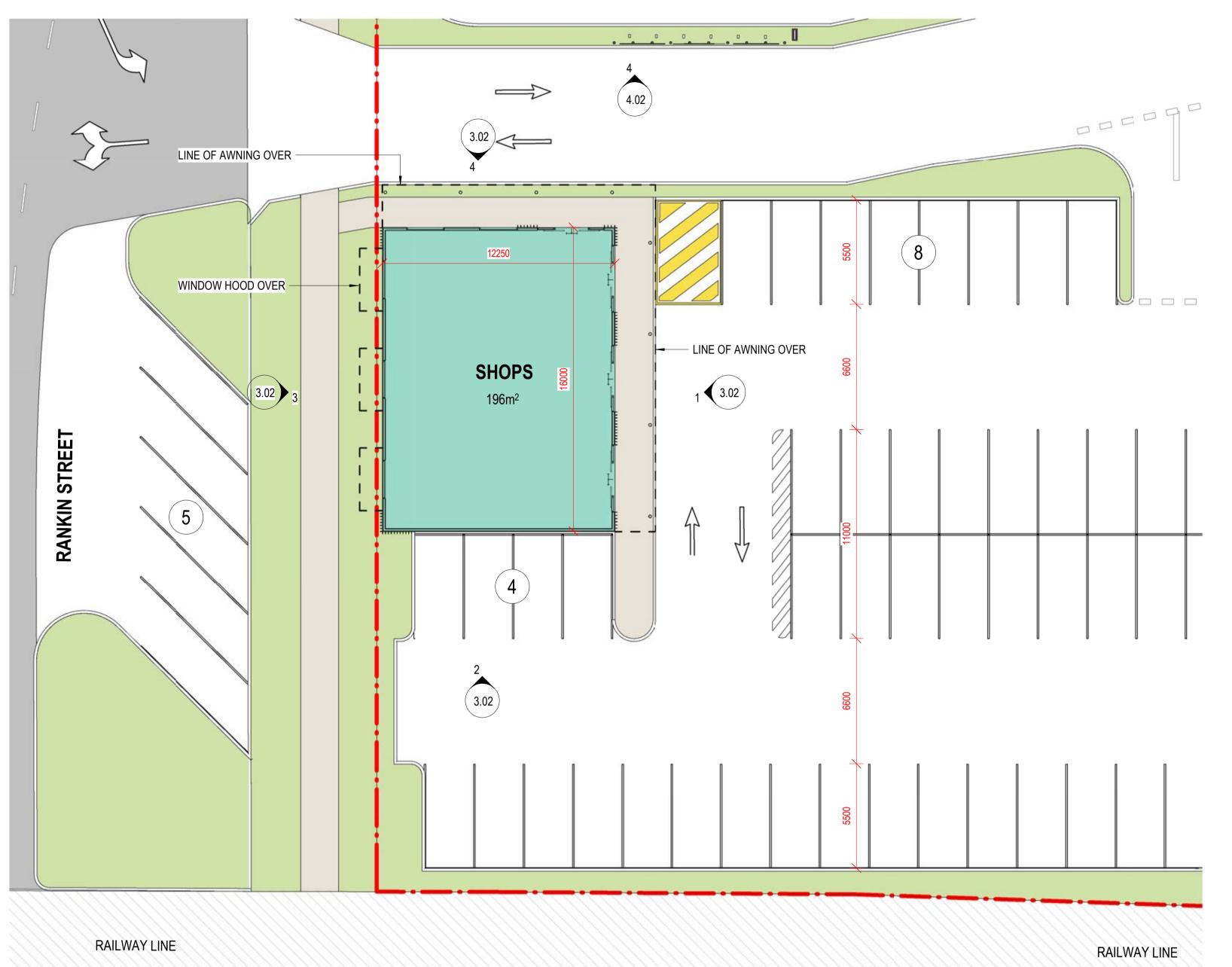
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1 1 : 150

FLOOR PLAN - SHOPS

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### **GROUND FLOOR PLAN - SHOPS**

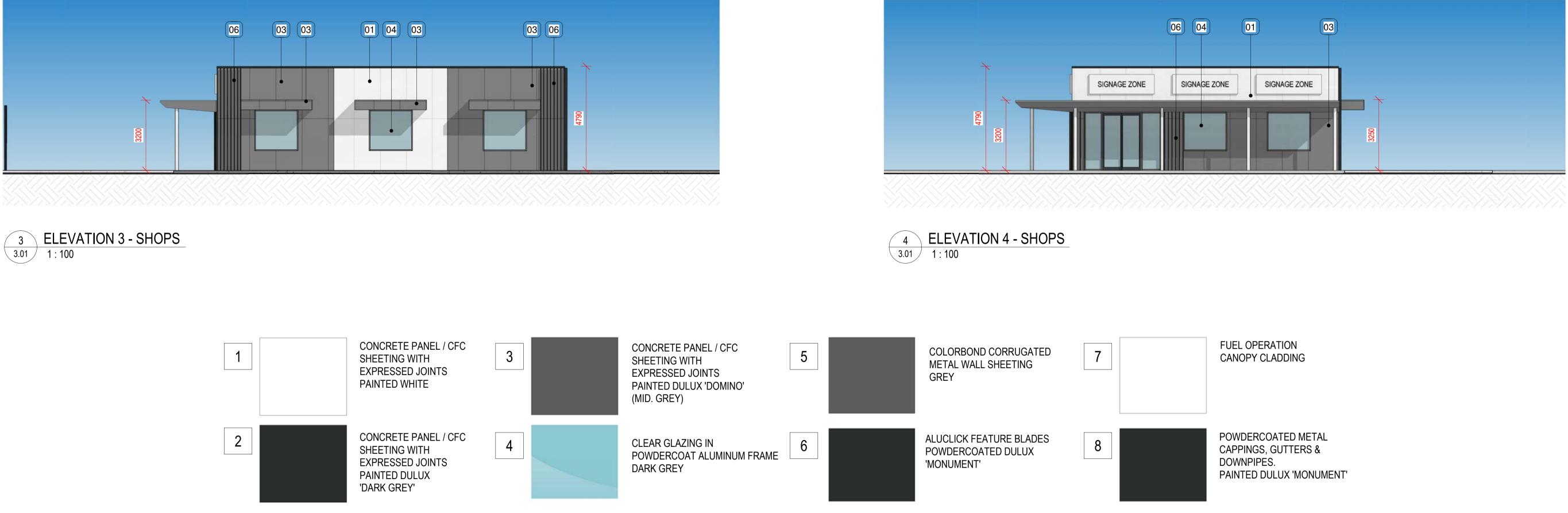
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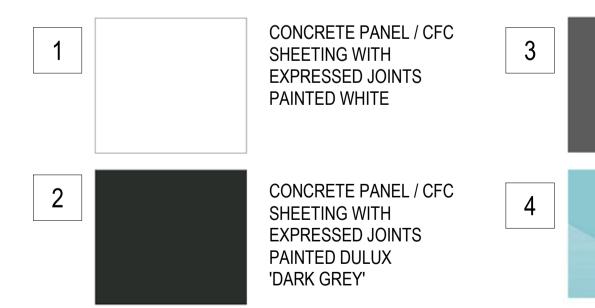
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### **DEVELOPMENT APPLICATION** 10m

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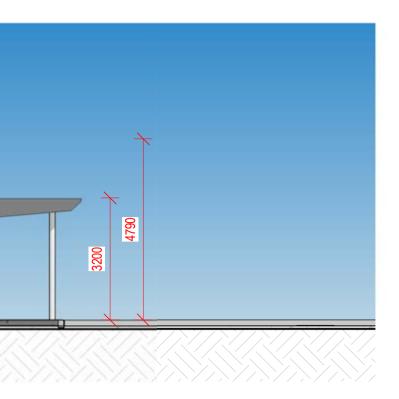


2 ELEVATION 2 - SHOPS 3.01 1 : 100

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### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION



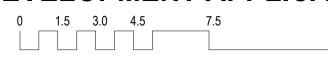
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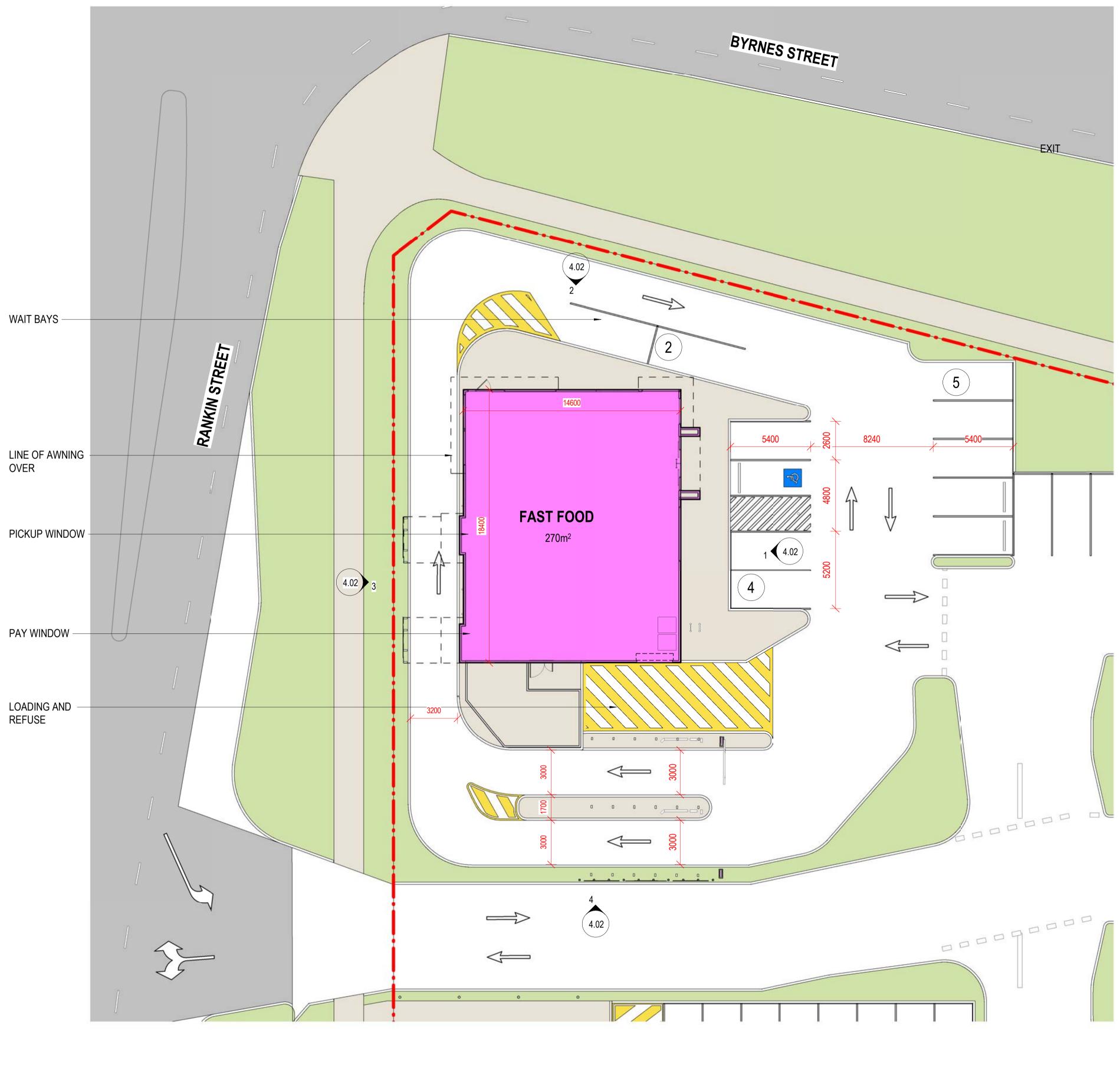
# 232 BYRNES STREET, MAREEBA

**DEVELOPMENT APPLICATION** 

FLOOR PLAN - FAST FOOD

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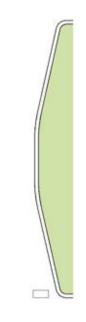


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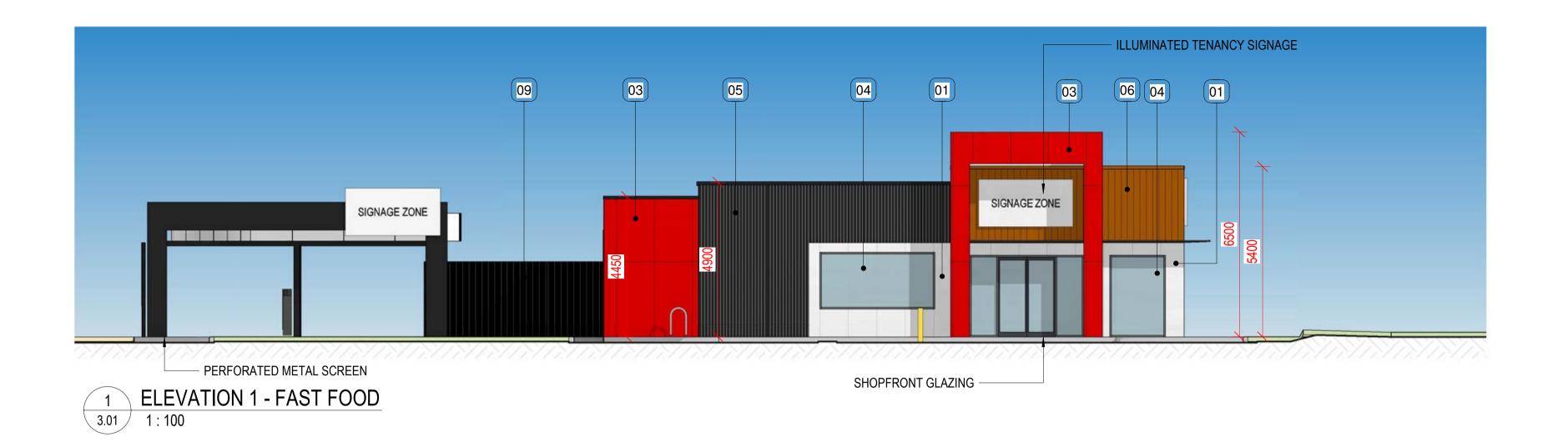


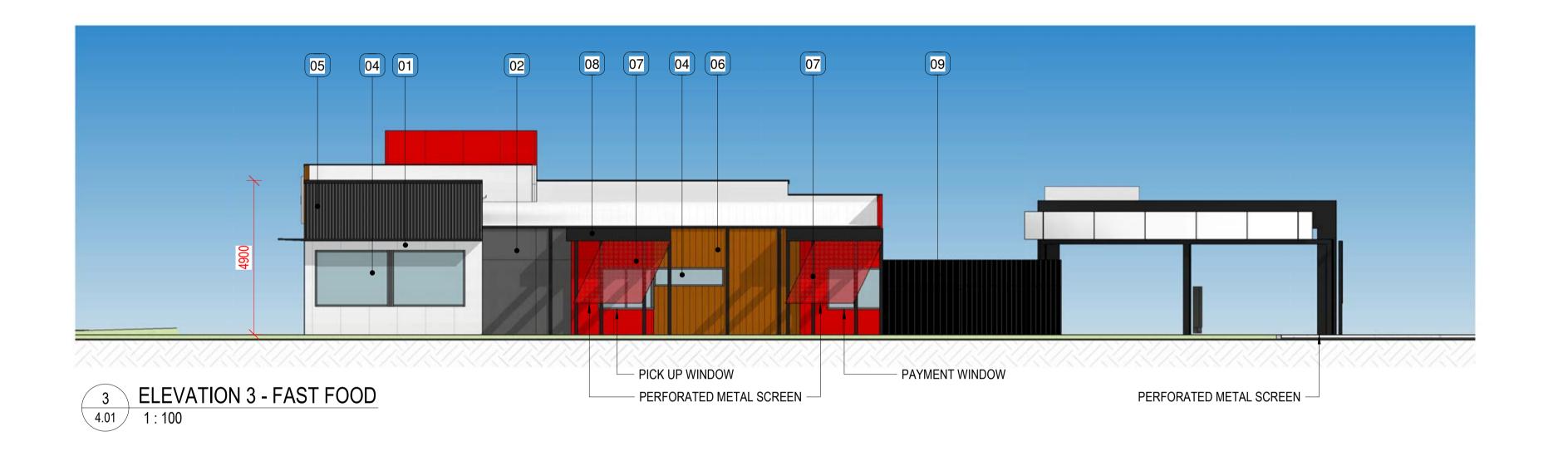
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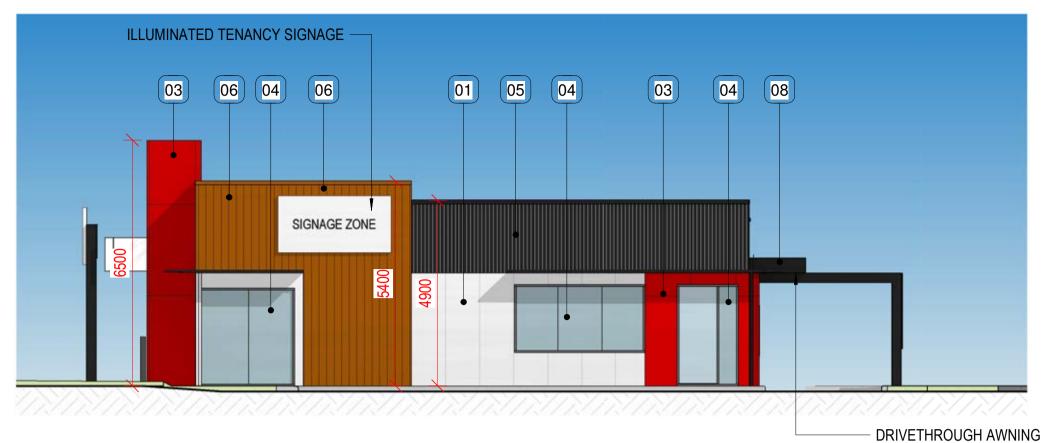






232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD

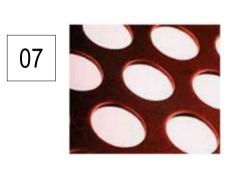






LONGLINE 305 METAL WALL SHEETING COLORBOND 'MONUMENT' (MID GREY)

TIMBER-LOOK ALUMINIUM CLADDING - KNOTWOOD



08

PERFERATED MESH SCREEN LOCKERGROUP POWDERCOAT "RED" R03341

POWDERCOATED METAL CAPPINGS, GUTTERS & DOWNPIPES. PAINTED DULUX 'MONUMENT'

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09 03 03 - LOADING AND REFUSE

09

COLORBOND CORRUGATED METAL WALL SHEETING BLACK

### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION

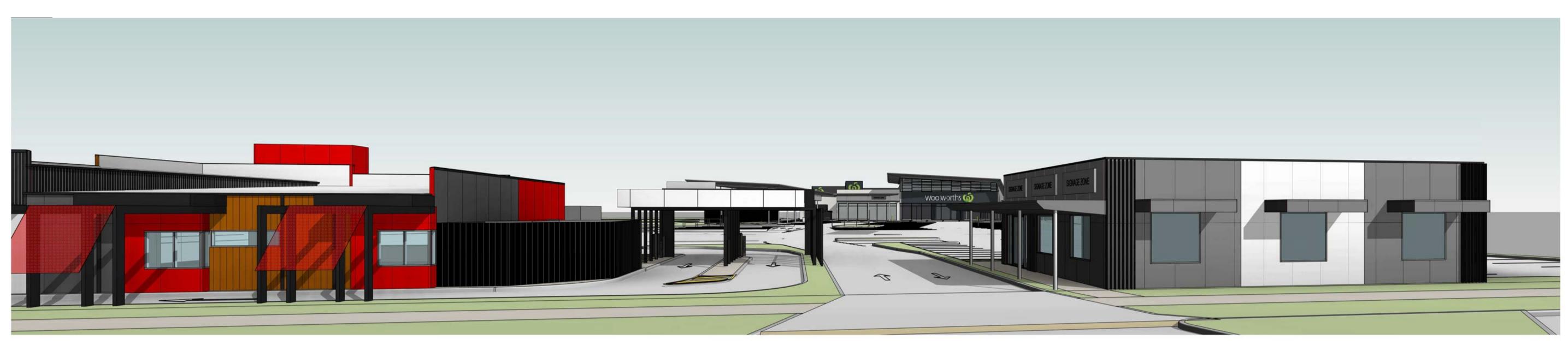


## **ELEVATIONS - FAST FOOD**

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06/07/2022

TA # 19.0298.17 A4.02



**RANKIN STREET - SITE ENTRANCE** 



SUPERMARKET VIEW FROM CARPARK

**DEVELOPMENT APPLICATION** 

232 BYRNES STREET, MAREEBA

MAREEBA 232 PTY LTD

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### **3D VIEWS**

@ A1

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BYRNES STREET - SITE EXIT



BYRNES STREET - TRUCK & LOADING ENTRANCE

**DEVELOPMENT APPLICATION** 

232 BYRNES STREET, MAREEBA

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### **3D VIEWS**

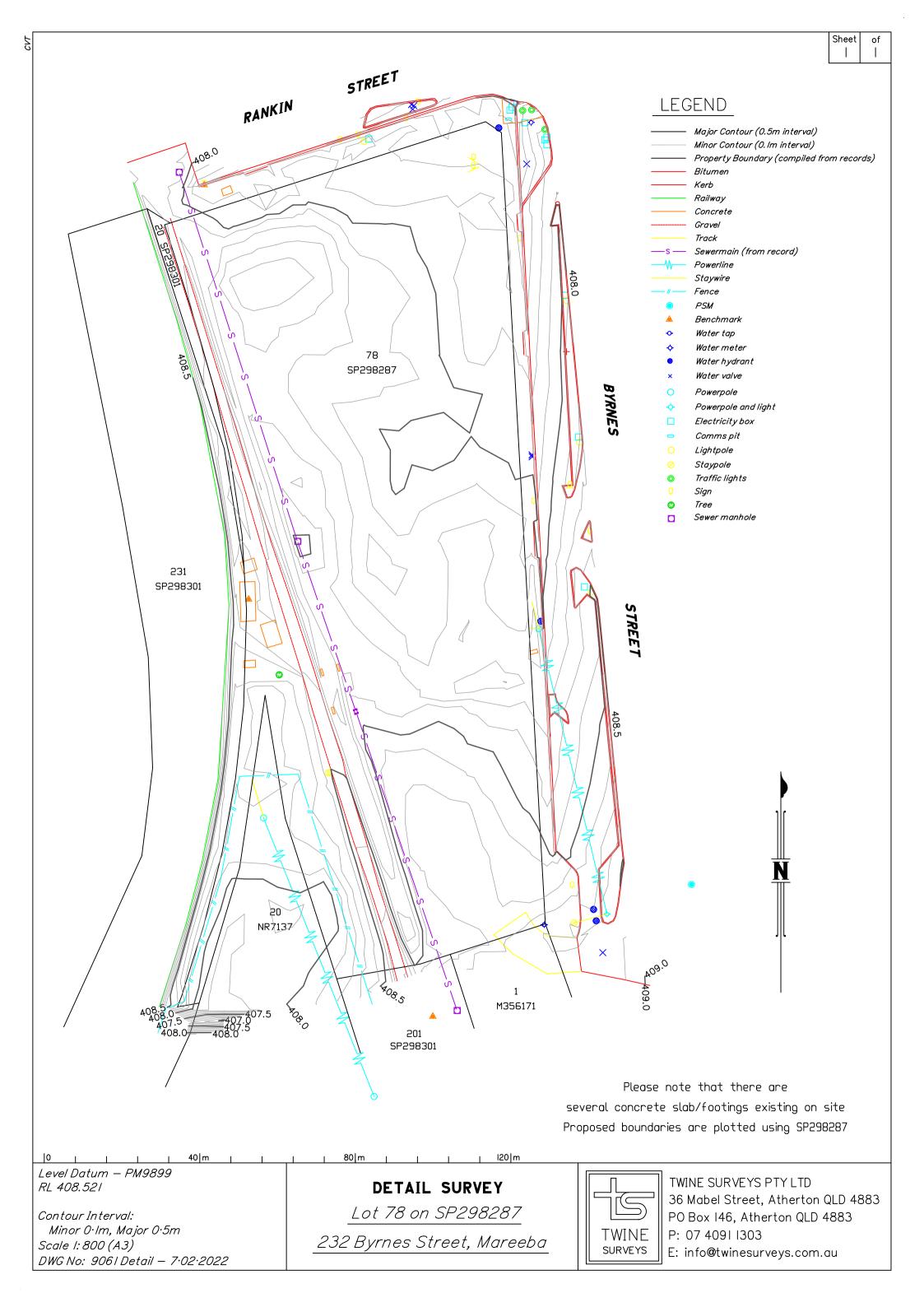
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TA # 19.0298.17 A5.02

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Appendix B Site Survey





Appendix C Site Management Plan and Certificate of Approval



Level 15, 288 Edward St • Brisbane, Queensland • PO Box 15155 • City East,QLD,4002 • AUSTRALIA http://www.epa.qld.gov.au/ecoaccess/contaminated\_land/

01 December 2009

Site ID: 45685 File Number: BNE39948 Enquiries to: Contaminated Land Unit Telephone: (07) 3330 5685

REEDLODGE PTY LTD PO BOX 452 MAREEBA QLD 4880

CERTIFICATE OF APPROVAL OF A SITE MANAGEMENT PLAN

This document provides written notification that, in accordance with the *Environmental Protection Act* 1994 (*EP Act*), a site management plan has been approved for the parcel of land described below, which is recorded on the Environmental Management Register (EMR). A copy of the suitability statement and the site management plan is attached.

Lot: 78 Plan: SP152626 Tablelands Regional Council

RANKIN STREET MAREEBA 4880

The owner may apply to the Department of Environment and Resource Management (DERM) to amend the site management plan in accordance with section 418 of the *EP Act*.

Under section 434 of the EP Act, a person must not contravene a site management plan.

The owner may apply for a review of, and appeal against, the decision to approve the site management plan within 14 days after receipt of this notice in accordance with sections 521 and 531 of the *EP Act*.

In accordance with the land being recorded on the EMR, the following requirements apply under section 421 of the *EP Act*:

If the owner proposes to dispose of the land to someone else, the owner must, before agreeing to dispose of the land, give written notice to the buyer:

if the particulars of the land are recorded in the EMR - that the particulars are recorded in the register; and if the land is subject to a site management plan, details of the plan.

Further information regarding this notice may be obtained by contacting the Contaminated Land Unit, EPA on telephone (07) 3225 1827. Further information about contaminated land matters may be obtained by visiting our web-site at:

http://www.epa.qld.gov.au/environmental\_management/land/contaminated\_land/

Delegate of Administering Authority Environmental Protection Act 1994



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#### SUITABILITY STATEMENT

#### DATE PRINTED: 01/12/2009

OWNER

REEDLODGE PTY LTD PO BOX 452 MAREEBA QLD 4880

**DATE OF ISSUE :** 01/12/2009

**PROPERTY DESCRIPTION** 

LOT : 78 PLAN : SP152626 RANKIN STREET MAREEBA 4880

Tablelands Regional CouncilEMR Site ID: 45685FILE REFERENCE: BNE39948

### STUDIES UNDERTAKEN BY APPLICANT OR REQUESTED BY DIRECTOR

Stage 1 Preliminary Site Investigation, Former Sawmill and CCA Plant, cnr Byrnes and Rankine Streets, Mareeba Qld, prepared by Golder Associates, dated January 2000, (Doc No 99673034)

Facsimile- Demolition Waste L222 NR1791, cnr Byrnes and Rankine Streets, prepared by GHD Pty Ltd, dated 6 August 2000

Letter Report, Sawmill Site cnr Byrnes and Rankine Streets, Mareeba Qld, prepared by GHD Pty Ltd, dated 25 August 2000 (Doc No 42101691)

Letter Report, Mareeba Sawmill Site, Stage 2 Sampling Sampling Plan, prepared by GHD Pty Ltd, dated 2 October 2000, (Doc No 42101690)

Lot 222 NR 1791 Mareeba, Specification for Works, prepared by GHD Pty Ltd, dated October 2000

Lot 222 NR 1791 Mareeba, Report on Stage 2 & Stage 3 Site Contamination Assessment, prepared by GHD Pty Ltd, dated December 2000, (Doc No 42101692)

Lot 222 NR 1791 Mareeba, Validation Report, prepared by GHD Pty Ltd, dated June 2001, (Doc No 42101693)

Additional information, Revised SMP and Figures prepared by GHD Pty Ltd, provided by email 26 November 2009

#### STATEMENT OF SUITABILITY

On the basis of the information supplied to this Department, the subject site is suitable for the following use(s) providing the site is used and managed as per the Site Management Plan attached as Annexure 1.

Suitable for industrial/commercial use including premises such as shops, offices and industrial buildings (but excluding uses where regular soil access by children is possible).

Other specific uses may be suitable for the site, please contact this Department for further advice. The suitability statement provides information on appropriate land uses at the date of effect. Subsequent uses of the site for notifiable activities or for situations where a hazardous contaminant is released into the soil may result in the need to review suitable uses or amend the attached site management plan.

#### ENVIRONMENTAL MANAGEMENT REGISTER

LOT: 78 PLAN: SP152626 is recorded on the Environmental Management Register with a Site Management Plan. A copy of the Site Management Plan is attached as Annexure 1.

Delegate of Administering Authority Environmental Protection Act 1994



Level 15, 288 Edward St • Brisbane, Queensland • PO Box 15155 • City East,QLD,4002 • AUSTRALIA http://www.epa.qld.gov.au/ecoaccess/contaminated\_land/

#### **ANNEXURE 1 - SITE MANAGEMENT PLAN**

LOT: 78 PLAN SP152626 FILE REF: BNE39948 PRINTED: 01/12/2009

DATE OF EFFECT : 01/12/2009

#### 1.0 Summary of Contamination

The site has been used for the treatment of timber using copper/chromium/arsenic preservative. Contaminated soil and associated bricks and demolition rubble remains in the site in a containment cell in zone 1 and surface soil contamination in zones 8 and 9 as shown on Figs 5 and 6 attached. The cell contains soil with levels of As (arsenic) up to 2,000mg/kg. Levels of Cu (copper) up to 2,800mg/kg were also present in contained soils.

The site has been remediated to the following levels (refer to Figure 5 for the extent of contamination and the proposed zones for future subdivision).

Zone	Contamination level
1	Contains cell with As $< 2000 \text{ mg/kg}$ and Cu $< 2800 \text{ mg/kg}$ . Surface of is within acceptable residential contamination levels.
2 - 7	Not contaminated.
8&9	>100mg/kg As <1,500 mg/kg As

#### 2.0 Objective of Plan

The objective of the plan is to manage the contamination in Zones 1, 8 and 9, in a manner which protects human health and the environment. This objective will be achieved through the following.

Restricting land uses in contaminated areas.

The placement and maintenance of barriers and markers which safely separates users of the site and the contamination.

The application of controls on site excavation works.

#### 3.0 Achievement and Maintenance Objectives

3.1 Responsibility. The conditions of this site management plan bind the owner and occupier of the land from time to time. The owner must provide the occupier with a copy of the site management plan prior to occupation of the site. The owner and occupier must ensure that any person engaged in building design or any earthworks, construction and service provision relating to the site is provided with a copy of the plan.

3.2 Containment cell. Zone 1 has the containment cell constructed in accordance with the attached sketch (Figure 6). Two layers of marker tape have been placed to identify the cell. A 1.5mm HDPE liner has been installed under contaminated fill. Trenched services in future site developments must not penetrate the cell or cell capping. The integrity of the cell, cell liner and marker tape must be maintained at all times. If a concrete slab or sealed pavement is constructed over the cell the 800mm clay capping can be reduced by a maximum of 400mm. Excavation in Zone 1 must not be undertaken without the written approval of the Administering Authority.

3.3 Contaminated areas and land uses. Zones 1, 8 and 9 must have a minimum of 75mm of clean topsoil and vegetation cover as a separation barrier and to prevent erosion until such time as the site is developed and capped with bitumen, concrete or equivalent impermeable capping. These zones must remain vacant land and not be used for any purpose prior to development including the storage of vehicles and heavy equipment. The land may be used for industrial and commercial uses which involve the capping of the site with bitumen or concrete pavement or equivalent low permeability cover. Site capping must be maintained in good condition at all times.

3.4 Excavations in Zones 8 and 9. Any future work involving excavation in Zone 8 or 9 will need to be carried out in accordance with this plan and under a sediment and erosion control plan and suitable Workplace Health and Safety Plan. The Workplace Health and Safety Plan must address health risks identified at the site including arsenic dermal, ingestion and inhalation exposures.

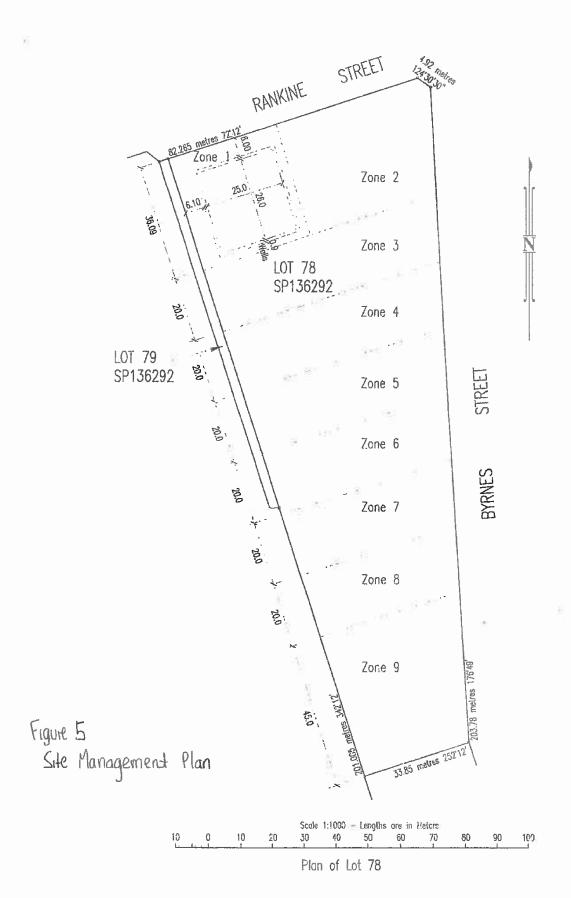
3.5 Disposal of contaminated soil. Approval under Section 424 of the Environmental Protection Act 1994 must be obtained before removing any soil off-site from any land that is listed on the Environmental Management Register.

3.6 General environmental protection. Site works relating to excavation, removal and/or disposal of soil from the impacted areas must include provisions to ensure the environment is protected (i.e. spread of contamination must be minimised by controlling dust, site runoff, spillage from haulage trucks or improper disposal of contaminated stormwater or seepage).

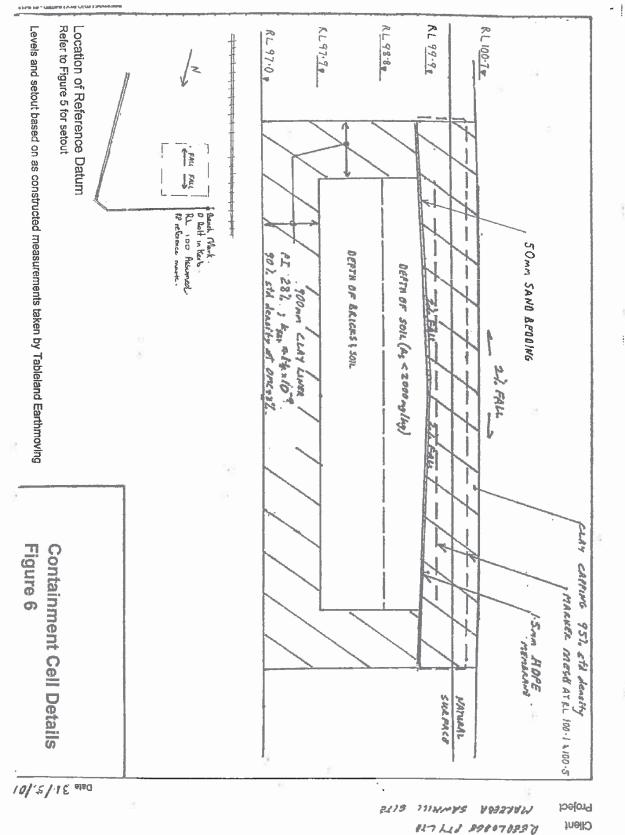
#### 4.0 Monitoring

Annual inspections of the site must be undertaken to ensure that the integrity of the containment cell and site capping is maintained in sound condition. Inspections must also be undertaken in the event of damaging storms or persistent rainfall which may erode the surface in the area of the containment cells and zones 8 and 9. Records of inspections and any disposal permits issued must be maintained and provided to authorised officers under the *Environmental Protection Act 1994* on request.

Following any future development of the site which involves construction in zones 1, 8 and 9, a report is to be prepared by a person whose qualifications and experience conform with the requirements of section 395 of the *Environmental Protection Act 1994* within 60 days of completion of the development. The report must confirm that the requirements of this site management plan have been complied with during site development.



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# STORMWATER MANAGEMENT PLAN

## FOR

# **232 BYRNES STREET MAREEBA**

**PREPARED FOR** 

MAREEBA 232 PTY LTD



July 2022



#### DOCUMENT CONTROL SHEET

Trinity Engineering and Consulting	Title:	Stormwater Management Plan
Cairns Office:	Proposal Manager:	Scott Christensen
21-23 Sheridan Street	Author:	Joe Chen
Cairns QLD 4870	Client:	Mareeba 232 Pty Ltd
PO Box 7963 Cairns QLD 4870	Client Contact:	
	Client Reference:	
Telephone (07) 4040 7111	Synopsis:	The report investigates the pre and post development stormwater
www.trinityengineering.com.au		drainage characteristics of the site and proposes stormwater management infrastructure.



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Any recommendations contained in this report are based largely on our understanding of the information that has been supplied to us and should be balanced against additional information that you may hold or seek. The client is cautioned to exercise due commercial diligence in the interpretation of any material herein and accept our findings as suggestions given in good faith requiring interpretation within the context of the client's own enterprise environment.

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	REVISION/CHECKING HISTORY							
Rev	Author	Reviewer Approved for Issue						
No.			Name	Signature	Date			
0	J. Chen	P. Steele	P. Steele	Pftah	08/07/2022			

DISTRIBUTION		REVISION									
	0	1	2	3	4	5	6	7	8	9	10
Mareeba 232	1	1									



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	APPENDIX F TMR Intersection Upgrades Drainage Plan
	APPENDIX G Stormwater Peak Flows Calculations



## **1 INTRODUCTION**

This report has been prepared by Trinity Engineering and Consulting on behalf of Mareeba 232 Pty Ltd, to provide advice on stormwater drainage for the proposed development on Lot 78 SP298287 (232 Byrnes Street, Mareeba). This report is intended to provide supporting information as part of the Material Change of Use Application.

This report addresses the following stormwater elements:

- Site Characteristics;
- Flood Immunity;
- Development Impact; and
- Stormwater Management.

The report aims to assist the client to demonstrate to Council that the development does not result in actionable nuisance of stormwater drainage within surrounding properties, including the adjacent railway and state-controlled road.

The Development Concept Plan is attached as Appendix C.

## 2 SITE CHARACTERISTICS

The subject Lot (Lot 78 SP298287) has road frontage to Rankin Street (northern boundary) and Byrnes Street (eastern boundary).

A railway corridor is located along the western boundary of the development site.

An abandoned railway formation also exists near the western boundary of the development site.

It is understood that the developer has gained approval from the adjacent landowner to utilise a portion of Lot 20 NR7137 for the development (the triangular area at the southwest corner of the site). Refer Figure 1 below.

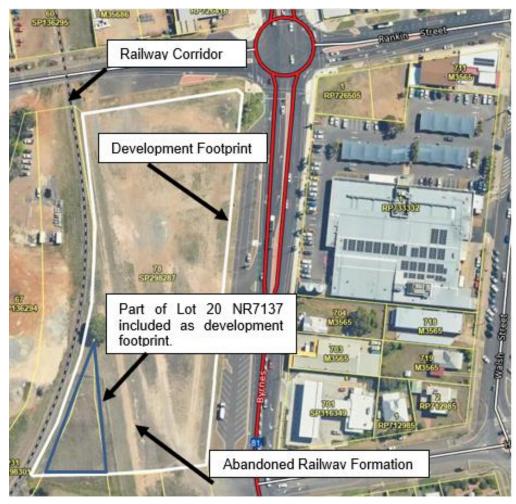


Figure 1 Development Site (Queensland Globe)



The Mareeba CBD area (including the development site) is located on a broad ridge between two watercourses, Basalt Creek and the Barron River.

Basalt Creek is approximately 400m west from the development site and the Barron River is approximately 700m east from the development site. Refer Figure 2.



Figure 2 Site Locality (Queensland Globe)

The development site has an approximate area of 1.6ha. By comparison, the Mareeba CBD is nominated on the Mareeba Shire Council Zoning Maps and is measured to be approximately 40ha. Refer to Figure 3 below, the dark blue areas represent the "centre" (CBD) zone.



Figure 3 Mareeba Centre Area shown in Dark Blue (Mareeba Shire Council Zoning Maps)

Based on the detailed survey dated 7 February 2022 (attached as Appendix D), existing site levels vary from approximately 408.8m AHD to 407.8m AHD.

The subject Lot (Lot 78 SP298287) generally falls from south to northeast towards the Byrnes Street / Rankin Street Intersection.

The triangular parcel of Lot 20 NR7137 (approximately 0.1128ha) falls toward the south. A small portion of Lot 78 SP298287 also falls toward the south (approximately 0.1792ha).

The development site is currently vacant and has gravel tracks, weeds/grass and one tree (used as a reference point) near the midpoint on the western site boundary.

Historical aerial imagery confirms that the site was previously used as a sawmill with multiple building structures and hardstand areas. From a stormwater perspective, it is noted that the natural ground condition of the site was previously modified for the sawmill development and operation. The current site is expected to exhibit increased runoff compared with a "greenfield" site due to surface compaction and hardstand areas.



## **3 FLOOD IMMUNITY**

The development site's immunity from flooding was assessed based on the information on Mareeba Shire Council Flood Hazard Overlap Map (attached as Appendix E). The mapping indicates that the development site is not subject to flood hazard under the 1% AEP (100-year ARI) Defined Flood Event.

It is understood that this map was sourced from the "Queensland Reconstruction Authority – Flood Hazard Mapping – Mareeba, Kuranda, Biboohra, Bilwon and Koah, 12 April 2013."

Flood hazards nominated on this (QRA) mapping include:

- Extreme Flood Hazard;
- High Flood Hazard;
- Low Flood Hazard; and
- General Extent of Modelled Flood Hazard Levels.

The development site and the surrounding properties are located in the area identified as "General Extent of Modelled Flood Hazard Levels". That is, the hazard rating of the site is less than "Low Flood Hazard".

Therefore, it is concluded that the site is not subject to inundation under the 1% AEP Defined Flood Event and development on the site will not result in an increase in the risk of flooding during a Barron River flood event.

### 4 DEVELOPMENT IMPACT

#### 4.1 PRE-DEVELOPMENT DRAINAGE

#### 4.1.1 GENERAL

Information on the stormwater drainage network in the vicinity of the development site was sourced from Council and reviewed in site inspections by engineers from TEC.

The available information and site observations indicate that there is minimal underground stormwater infrastructure in the vicinity of the development site (and Mareeba CBD in general), when compared with current FNQROC Development Manual and Queensland Urban Drainage Manual standards.

The Byrnes Street/Rankin Street Intersection has been upgraded recently by the Department of Transport and Main Roads (TMR). Drawing from TMR provide further details on the drainage infrastructure (attached as Appendix F). Figure 4 shows the drainage infrastructure in the vicinity of the development site.



Figure 4 Drainage Infrastructure in the Vicinity of Development Site



The following findings are summarised based on Council's information, TMR Design Drawings and site inspections.

Northern end of development site:

- A grated inlet pit (recently upgraded) is located near the northeast corner of the development site at the Byrnes Street/Rankin Street Intersection. The pit invert level is AHD 407.125m with depth of approximately 300mm based on TMR's drawings. The grate size is 900mm×600mm;
- The TMR upgrades have installed traffic island and kerb crossings that resulted in a more confined overland flow path on Byrnes Street (upstream from the grated inlet pit). TMR has constructed a 300mm wide,100mm high grated drain to accommodate the pedestrian walkways, which has reduced the stormwater runoff capacity approaching the grated inlet pit;
- Kerb and channel is located along the eastern and northern boundaries of the development site on Byrnes Street and Rankin Street respectively;
- Rankin Street falls from west to east, from the high point at the railway line towards Byrnes Street. The kerb and channel runs east to discharge into the grated inlet pit at the intersection;
- Byrnes Street falls generally from south to north. Byrnes Street kerb and channel runs north to discharge into the grated inlet pit at the intersection;
- Along the eastern boundary of the development site, the Byrnes Street half road profile (to the road crown) appears to be capable of containing stormwater runoff with no opportunity of overtopping until it reaches the intersection;
- A small and shallow underground culvert (600mmx300mm RCBC) crosses north under Rankin Street starting at the abovementioned grated inlet pit and discharging through the "Beaurepaires" driveway back to the surface drainage (kerb and channel) on the northern side of Rankin Street;
- The "Beaurepaires" driveway crossover further restricts the flow capacity, reducing the culvert profile to an opening of approximately 500mm wide and 200mm high;
- North from Rankin Street, there is no underground drainage on western side of Byrnes Street for approximately 700m.

Southern end of development site (refer numbering in Figure 5 for clarity):

- A kerb inlet pit (1) is located on the eastern side of Byrnes Street at the Byrnes Street/Herberton Street Intersection (This is the upstream inlet for the southern drainage line);
- Another kerb inlet pit (3) is located on the western side of Byrnes Street at the Byrnes Street/Herberton Street Intersection, with underground pipes (2) crossing Byrnes Street heading west;
- A culvert headwall (5) is located west from and behind the Brynes Street kerb line, servicing a table drain (4) running parallel to Byrnes Street. The headwall is connected to a pipe (5), entering a junction pit (6);
- Pipes west from the junction pit (7) outlet next to a culvert crossing under the abandoned railway formation (8) at the southern end of the site (outside the development footprint);
- This culvert crossing under the abandoned railway formation (8) is outlet to a table drain (9) running further to the west through a chain wire fence;
- The table drain conveys runoff to a culvert crossing under the operating railway to the west (10).

Figure 5 shows the southern drainage infrastructure (with numbering) commencing at the Byrnes Street/Herberton Street Intersection, south from the development site.

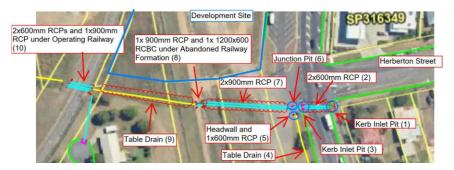


Figure 5 Drainage Infrastructure in the Vicinity of Byrnes Street/Herberton Street Intersection



#### 4.1.2 EXISTING STORMWATER SYSTEM OPERATION

The operation of the stormwater drainage in the vicinity of the development relies heavily on overland flow with underground drainage capacity and location extremely limited. This reflects a wider trend in the Mareeba CBD generally.

Commentary on this upstream (southern) drainage is shown in Appendix A, with references of the numbering shown in Figure 5. The summary is shown below:

- Ponding will likely occur at the headwall (5) on the western side of Byrnes Street. It is unclear whether the flows from this upstream catchment during peak rainfall events are fully intercepted and conveyed to the west. Any bypass runoff will continue northwards along the eastern boundary of the development site.
- When the peak runoff flow rate exceeds the capacity of the culvert crossing under the abandoned railway formation (8), ponding is also likely to occur at this location and bypass runoff will travel northward into the development site or along the kerb and channel on Byrnes Street to the Byrnes Street/Rankin Street Intersection.
- A key point of reference for the local drainage network is the grated inlet pit and the underground culvert north across Rankin Street at the Byrnes Street/Rankin Street Intersection. However, it is difficult to accurately determine the contributing catchments to this point, noting the capacity issues upstream from the site during peak rainfall events and the lack of underground drainage generally within the system.
- Given the limited inlet pit number and location, significant overland flows with undefined ponding extents, tip out levels and flow paths are expected. This creates uncertainty with drainage patterns upstream and downstream from the development site. Noting the above, it is difficult to assess the drainage impacts from the development site.

The lack of underground drainage infrastructure continues beyond the development site north along Byrnes Street. The limited underground drainage infrastructure downstream from the development site requires all runoff to be conveyed as overland flows.

Recent TMR upgrades of the intersection have altered the road crossfall and is expected to have exacerbated the uncertainty of drainage characteristics within the area.

From the development site (north along Byrnes Street), the next point of discharge to direct runoff from Byrnes Street into Basalt Creek is at the Byrnes Street/Jacobsen Street Intersection. This is approximately 1km from the southern drainage network (Byrnes Street/Herberton Street Intersection).

A preliminary assessment (assuming 50% of each lot drains to rear of lots) indicates a catchment of approximately 5.6 ha (including the development site), contributing to the kerb inlet pit on western side of Byrnes Street at the Byrnes Street/Jacobsen Street Intersection. Refer Figure 6 below.



Figure 6 Catchment (Including Development Site) of the Kerb Inlet Pit on Western Side of Byrnes Street at the Byrnes Street/Jacobsen Street Intersection



This catchment downstream from the site is considered fully developed, with limited opportunity for infiltration and the majority of rainfall converted to runoff. Due to the lack of drainage infrastructure, the runoff travels as overland flows along the western kerb of the Brynes Street. Various kerb crossovers appear to constrain the flows and are likely to create ponding within the areas adjacent the kerb.

The kerb inlet pit at the Byrnes Street/Jacobsen Street Intersection also appears to be under capacity noting the large contributing catchment. Ponding is expected to occur based on these observations.

Under this circumstance, it is considered that assessing the site in isolation does not properly account for the operating scenario upstream and downstream from the site.

It is noted that the development site is approximately 1.6ha within the Mareeba CBD zone of approximately 40ha.

Site photos of drainage infrastructure are shown in Appendix B.

#### 4.1.3 DEVELOPMENT SITE (CURRENT SCENARIO)

As stated in the previous section, assessment of the development site as an isolated catchment does not reflect existing operation of the Mareeba stormwater system. Any such assessment is potentially simplified.

Stormwater runoff within the site currently travels as overland sheet flow in a north/northeast direction then crosses the Lot boundaries into the kerb and channel on Byrnes Street and Rankin Street.

The flows are then directed into the shallow grated inlet pit located at the Byrnes Street/ Rankin Street Intersection. Runoff collected by this pit is then conveyed north across Rankin Street by the shallow underground culvert (600mm wide and 300mm high) into the kerb and channel north from Rankin Street. The underground culvert discharges north from the "Beaurepaires" driveway and travels further north as overland flow along the kerb and channel on the western side of Byrnes Street.

Note that the "Beaurepaires" crossover has a reduced waterway cross section of approximately 500mm wide and 200mm high. In addition, the grated drain upstream from the grated inlet pit has a profile of 300mm wide and 100mm high. These structures further restrict the flow capacity of the 600mm×300mm culvert crossing.

Stormwater runoff from the southwest portion of the site including the triangular area of Lot 20 NR7137 ("Catchment B" in Figure 7) travels south to the culvert crossing under the operating railway.

The current Points of Discharge of the development site are therefore the grated inlet pit at Byrnes Street/ Rankin Street Intersection and the culvert crossing under the operating railway.

The stormwater runoff from upstream catchments (south from development site) is also discharged to the culvert crossing under the operating railway (at Point of Reference B). It is difficult to determine the bypass flows from these upstream catchments to the Byrnes Street kerb and channel along the frontage of the development site.

Appendix A discusses the upstream drainage in more details and it concludes that significant catchment areas discharge to the southern drainage system (including at Point of Reference B).

The catchment plan of the development site in the current scenario is shown in Figure 7 below. Catchment A is divided into Catchment A1 (development footprint) and A2 (roads and verge areas).



Figure 7 Pre-development (Current Scenario) Catchment Plan



Peak flow rates from the defined catchments have been calculated using the Rational Method in accordance with QUDM.

Due to the previous sawmill development, the areas within the site have been disturbed and soils are generally compacted. The site inspection also identified gravel tracks/hardstand areas. Therefore, the surface condition of the site is not considered to be "natural" grassed surfacing.

Regarding the modified site conditions, the fraction impervious (for the current site condition) was adopted to be 0.2 for Catchment A1 and 0.8 for Catchment A2, resulting in a fraction impervious of approximately 0.4 for the whole Catchment A. The combined coefficient of discharge  $C_{10}$  for Catchment A is then 0.78.

The fraction impervious for Catchment B was adopted to be 0.2, resulting in a coefficient of discharge  $C_{10}$  of 0.74.

Time of Concentration was estimated based on longest flow paths to the point of reference for the defined catchments shown in Figure 7. Refer to Table 1 below.

	Catchment A	Catchment B
Slope of surface	0.5%	0.5%
Sheet flow path	100 m	80 m
Horton's Surface Roughness Factor	0.035 (poorly grassed surface)	0.035 (poorly grassed surface)
Sheet flow travel time	18 mins	17 mins
Kerb and channel flow path	60 m	
Kerb and channel flow time	2 mins	
Total time of concentration	20 mins	17 mins

Table 1 Parameters for Determining Time of Concentration (Current Scenario)

The results of peak flow rates are shown in Table 2 below. Detailed calculation is attached as Appendix G.

Table 2	Current	Scenario	Peak	Flow	Rates

Point of	Catchment	Peak Flow Rates (m <sup>3</sup> /s) (Current Condition)						
Reference	Area (ha)	1-year ARI	2-year ARI	5-year ARI	10-year ARI	20-year ARI	50-year ARI	100-year ARI
A	2.142	0.234	0.318	0.443	0.520	0.624	0.794	0.916
В	0.292	0.032	0.044	0.062	0.072	0.087	0.111	0.128

Note that the flow capacity of the 600mm×300mm underground culvert across Rankin Street is assessed as only approximately 0.27m<sup>3</sup>/s. This is further impacted by the "Beaurepaires" driveway crossover (proximately 0.125 m<sup>3</sup>/s flow capacity).

#### 4.1.3 DEVELOPMENT SITE (SAWMILL SCENARIO)

Aerial imagery from 1994 confirms that the site was previously developed as a sawmill. The site was occupied by multiple structures and the ground condition appeared to be bare soil/hardstand without vegetation cover.

The sawmill catchment area is assumed to be the same as the defined Catchment A per the current scenario catchment boundaries. Refer Figure 8 below.



Figure 8 Development Site Shown in QImagery (1994)



Noting the absence of downstream stormwater infrastructure, it is assumed that the sawmill did not include underground drainage infrastructure. Therefore, stormwater runoff on site travelled as overland sheet flows through the kerb and channel on Byrnes Street and Rankin Street (similar to the current scenario).

The Point of Discharge from the sawmill development and adjacent verge/road area appears to have been the grated inlet pit at the intersection.

Based on the aerial imagery and the industrial use of sawmill, fraction impervious was chosen as 0.9, resulting in a coefficient of discharge  $C_{10}$  of 0.88.

Time of concentration was determined as shown in Table 3.

	Catchment A
Roof drainage travel time	5 mins
Slope of surface	0.5%
Sheet flow path	10 m
Horton's Surface Roughness Factor	0.0275 (bare soil surface)
Sheet flow travel time	7 min
Kerb and channel flow path	140m
Kerb and channel flow time	5 min
Total time of concentration	17 min

#### Table 3 Parameters for Determining Time of Concentration (Sawmill Scenario)

The results of peak flow rates for the previous sawmill development (adopting time of concentration of 17 minutes) are shown in Table 4 below. Detailed calculation is attached as Appendix G.

Point of	Catchment	Peak Flow Rates (m³/s) (Sawmill)						
Reference	Area (ha)	1-year ARI	2-year ARI	5-year ARI	10-year ARI	20-year ARI	50-year ARI	100-year ARI
Α	2.142	0.283	0.384	0.537	0.632	0.758	0.966	1.117

The calculated peak flow rates of various design storm events under the sawmill scenario indicate that the peak site runoff under sawmill scenario was likely to have been approximately 120% of the peak flows under the current vacant lot scenario.

The aerial imagery shows that there was no detention device implemented when the site was operated as sawmill.

#### 4.2 POST-DEVELOPMENT DRAINAGE

At the detailed design stage, the feasibility of an internal network of field inlet pits and underground pipes to capture and convey stormwater runoff within the site will need to be verified.

It is challenging and potentially impractical to connect an internal underground system to the grated inlet pit at the Byrnes Street/Rankin Street Intersection due to the shallow depth and limited dimension of this grated inlet pit.

The alternative approach is to have outlets through the internal kerbing to discharge site runoff to the kerb and channel on Byrnes Street, similar to the arrangement adopted at the Coles Shopping Centre east from the development site (across Byrnes Street).

The development footprint includes Catchment A1 and Catchment B. As addressed in Section 4.1, the grated inlet pit and adjacent grated drain have limited capacity and significant ponding is expected due to these existing constrictions. Any increase in runoff arriving at this grated inlet pit due to the proposed development will be partly attenuated by these restrictions and associated on-road ponding.

Further minimisation of peak flows to the grated inlet pit at the intersection can be achieved by diverting some postdevelopment runoff via a southern detention facility to the culvert crossing under the operating railway line (point of discharge of Catchment B).

Catchment B area is assumed to be the same as the pre-development scenario. The development concept plan shows that the Catchment B footprint will be predominantly roof area with a small vegetated area at the southwest corner of the site. Refer Figure 9 below.



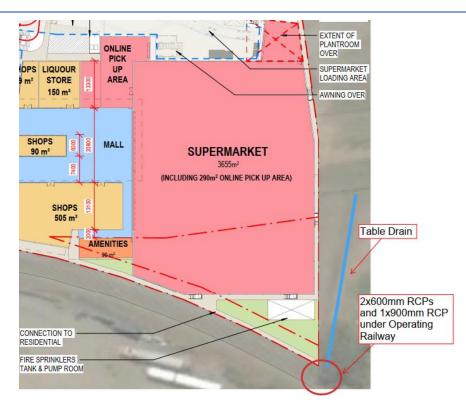


Figure 9 Southwest Corner of Development Footprint

It is noted that these assumptions are considered sufficiently conservative for the proposed development at the current stage of concept development.

Time of concentration was determined as shown in Table 5,

	Catchment A	Catchment B
Roof drainage travel time	5 mins	5 mins
Slope of surface	0.5%	0.5%
Kerb and channel flow path	220m (internal + external)	
Kerb and channel flow time	8 min	
Total time of concentration	13 min	5 mins

#### Table 5 Parameters for Determining Time of Concentration (Proposed Development)

The fraction impervious for Catchment A and B was adopted to be 0.9 for development category of "Commercial/Local Business" in accordance with QUDM, with the resulting coefficient of discharge  $C_{10}$  selected to be 0.88.

Results of peak flow rates are shown in Table 6 below. Detailed calculation is attached as Appendix G.

Table 6 Post-development Peak Flow Rates

	Point of Reference	Catchment Area (ha)	Peak Flow Rates (m³/s)						
			1-year ARI	2-year ARI	5-year ARI	10-year ARI	20-year ARI	50-year ARI	100-year ARI
	А	2.142	0.314	0.427	0.601	0.709	0.852	1.089	1.261
	В	0.292	0.059	0.081	0.116	0.138	0.167	0.214	0.249



## 5 STORMWATER DETENTION

#### 5.1 GENERAL

Concern is raised with providing detention on this site (development footprint of approximate 1.6 ha), given the practicality of providing on-site detention and the absence of formalised detention in other developments within the Mareeba CBD of approximately 40ha. The limited underground stormwater infrastructure in the vicinity of the site is also a constraint in providing underground detention.

The grated inlet pit at the Byrnes Street/Rankin Street Intersection is connected to a very small culvert crossing (600mm×300mm) under Rankin Street that discharges runoff back to the kerb and channel level on Byrnes Street in front of the "Beaurepaires" business.

On this basis, there is very limited level control to be able to implement effective stormwater detention volume on site. Adequate depth of ponding would be difficult to achieve due to the high invert level of the grated inlet pit and the crossroad culvert.

Potential bypass flows from the system at Byrnes Street/Herberton Street Intersection may also run along the western kerb of Byrnes Street and enter the grated inlet pit and crossroad culvert at the Byrnes Street/Rankin Street Intersection.

Upstream of the grated inlet pit, there are pinch points along the western kerb on Byrnes Street near the intersection, where the kerb profile is restricted and the flows are throttled by the median/traffic island, and the 300mm wide, 100mm high grated drain recently constructed by TMR (flow capacity of approximately 0.025 m<sup>3</sup>/s).

The capacities of the grated inlet pit, crossroad culvert (600mmx300mm) and reduced culvert profile under the "Beaurepaires" crossover (500mmx200mm) are very low in the context of the contributing catchments.

The capacity of this crossroad culvert is assessed as approximately 0.27m<sup>3</sup>/s and the reduced culvert profile under the "Beaurepaires" crossover has an assessed capacity of approximately 0.125 m<sup>3</sup>/s. In comparison, the predevelopment 100-year ARI peak discharge from site Catchment A is 0.916 m<sup>3</sup>/s (excluding any bypass flows from the upstream system).

Therefore, the flows through the shallow grated inlet pit and crossroad culvert at the intersection are further throttled at the "Beaurepaires" crossover. Refer Figure 10.

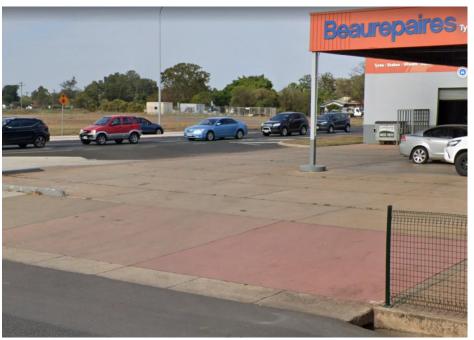


Figure 10 Culvert under the "Beaurepaires" Crossover (Google Street View)



#### **5.2 ON-ROAD DETENTION**

Given the disparity between the approach flows and underground drainage capacity, ponding is expected to occur during most rainfall events around the grated inlet pit and along the kerb lines of Byrnes Street and Rankin Street (the capacity of the crossroad culvert is less than the post-development 1-year ARI peak flow).

In higher rainfall events, ponding can occur to the depth of the Rankin Street road crown before it tips over the road and runs north along Byrnes Street. The recent TMR upgrades have constructed a median on Rankin Street perpendicular to the flow path, meaning that the water has to flow around the front of this median to "tip over" into the northern side of Rankin Street.

With the assessed capacity limit (compared to catchment discharge), it is considered that storage from ponding should be playing a significant role to attenuate the peak flows.

TMR "As-constructed Drawings" indicate that ponding would need to build up to a level of 407.852m AHD before any flows pass over the Rankin Street road crown. Allowing a nominal depth of flow of 100-200mm to achieve capacity at the tip out point indicates a water level at the Rankin Street Road crown to a level of around 408m AHD.

This will inundate a large area and pond back significantly along the western kerb on Byrnes Street, resulting in a large volume of storage. The predicted ponding (storage volume) has the effect of attenuating the peak flows, which may explain why downstream systems are not experiencing flooding more regularly.

Preliminary calculations indicate that if ponding occurs to the level of 408m AHD at the Byrnes Street/Rankin Street Intersection, the resulting ponded volume would be approximately 360m<sup>3</sup> (volume calculated is based on the LiDAR contour levels). Refer Figure 11 below.



Figure 11 Potential Ponding Extent at Byrnes Street/Rankin Street Intersection

#### 5.3 ON-SITE DETENTION

As part of this assessment, options to include stormwater detention on site were investigated. Given the existing drainage scenario and the absence of underground drainage infrastructure generally in the Mareeba CBD area, it is considered impractical and of limited utility to construct a conventional on-site detention to discharge runoff to the Byrnes Street/Rankin Street Intersection.

Connection between any on-site detention basin and the grated inlet pit at the intersection is problematic due to the shallow depth and limited dimensions of this pit.

This review concludes that a conventional detention basin for runoff of Catchment A1 is unlikely to have meaningful improvement of drainage downstream from the development site due to the lack of level control available at the outlet north from the site. That is, there is limited difference between the outlet water level (crossroad culvert invert level) and the existing surface levels for a basin to store water.



In addition, the absence of underground drainage infrastructure north from the site, between Byrnes Street/Rankin Street Intersection and Byrnes Street/Jacobsen Street Intersection makes detention on site inconsistent with the "level of service" (pipe capacity) downstream from the site. Ponding is expected to occur along Byrnes Street downstream from the site even if detention was implemented on site.

Notwithstanding the above concerns with a conventional detention basin, there are opportunities to mitigate the development impact by adopting storage principles within sub catchments on site. That is, storing small volumes of runoff in carpark modules/kerb lines on site.

For example, parking modules can be designed so that storage is achieved in the parking bays and can be released through kerb discharge points at a lesser rate than the peak runoff. In addition to providing some storage, this aims to increase the response time on site and lengthen the time of concentration.

The combination of these measures and the existing large on-road storage volume are considered to be capable of achieving the same outcome as providing a conventional on-site detention basin.

Fundamentally, due to the significant capacity restrictions at the Byrnes Street/Rankin Street Intersection, the runoff downstream from the crossroad culvert is not expected to change appreciably post development.

The increase in impervious surface is assessed to result in an increase of stormwater runoff compared with the current scenario (2022). However, when compared with the previous use of the site (sawmill), the post-development peak flows do not differ substantially. The implementation of storage principles will further manage the changed conditions.

It is considered that the development can be designed to achieve no appreciable impact downstream from the development site compared to the previous site use.

Noting the constraints on the northern discharge point (grated inlet pit at the Byrnes Street/Rankin Street Intersection), it appears that a more beneficial point of discharge is to the south to the culvert crossing (2×600mm RCPs and 1× 900mm RCP) under operating railway line.

Providing a detention basin is more feasible at this location due to the lower invert level of the culvert crossing under the operating railway and therefore the ability to have connection to the detention basin outlet.

In addition, the concept layout for the proposed development appears to afford the opportunity to include some detention in the southwest corner.

Therefore, the strategy for the site should be maximising Catchment B (contributing to the southwest corner) and providing detention accordingly to control the post-development peak flows to be consistent with the peak flows from Catchment B under current scenario. This also means that the Catchment A1 contributing to the northeast corner will be reduced, further mitigating the peak discharge to the grated inlet pit at the Byrnes Street/Rankin Street Intersection.

Preliminary assessment has been undertaken using the Basha Equation in accordance with QUDM (2007 Edition) to determine the preliminary detention storage volume required at the southwest corner of the site.

To limit the post-development peak discharge for the 100-year ARI design rainfall event from Catchment B to the current vacant site scenario, adopting time of concentration of 5 minutes, the minimum detention storage volume of 40.26 m<sup>3</sup> would be required. This calculation has been based on the same area of "Catchment B" pre and post development.

In order to limit the post-development peak discharge for the 100-year ARI design rainfall event from Catchment A to be the same as the sawmill scenario, a minimum detention storage volume of approximately 118.98 m<sup>3</sup> would be required.

It is noted that the above calculations are indicative. It is noted that this does not take into account the existing onroad storage capacity.



## **6 STORMWATER QUALITY**

#### 6.1 POST-CONSTRUCTION PHASE

Performance Outcomes in relation to stormwater quality are specified in PO10, Table 9.4.5.3 of Mareeba Shire Council's Planning Scheme for assessable development:

- Optimise the interception, retention and removal of waterborne pollutants, prior to the discharge to receiving waters;
- protect the environmental values of waterbodies affected by the development, including upstream, onsite and downstream waterbodies;
- achieve specified water quality objectives;

The FNQROC Development Manual has specified the following reduction objectives for stormwater quality management in post-construction phase:

- 80% Total Suspended Solids (TSS)
- 60%Total Phosphorus (TP)
- 40%Total Nitrogen (TN)
- 90% Gross Pollutants (>3mm)

To manage the quality of the stormwater runoff, provision of appropriate interception and treatment devices such as Gross Pollutant Trap (GPT) are sometimes incorporated to the site stormwater network to achieve the desired stormwater quality objectives.

A modified GPT may be able to be incorporated into the detention system to improve quality of runoff from Catchment B.

Runoff from Catchment A (A1+A2) will travel north along the kerb and channel on Byrnes Street and join with runoff from other developed areas and roads where runoff is untreated. In relation to the point of discharge at the Byrnes Street/Jacobsen Street Intersection, Catchment A1 (approximately 1.3ha) is less than 25% of the downstream contributing catchment (approximately 5.6 ha including the development site).

Given that the vehicular contaminant and litter are the main sources affecting stormwater runoff quality, achieving the stormwater quality objectives for the runoff from Catchment A1 is unlikely to have an overall improvement on the quality of combined runoff downstream from the site, in the context of the developed CBD area upstream and downstream from the site.

#### 6.2 CONSTRUCTION PHASE

The FNQROC Development Manual requires that stormwater quality treatments need to be implemented during construction.

An Erosion and Sediment Control Strategy (ESCS) prepared by a Certified Professional in Erosion and Sediment Control (CPESC) or a suitably qualified person will be provided as part of the future Development Application for Operational Works.



## 7 SUMMARY

The report has demonstrated that the development site has flood immunity from the Barron River flooding under 1% AEP (100-year ARI) defined flood event.

The report has also addressed the existing site drainage characteristics. The review on existing drainage network in the vicinity of the development site indicates capacity issues and limited underground drainage infrastructure in the local area. This creates some uncertainties to the drainage characteristics upstream and downstream of the development site.

Hydrology analysis of the site under different scenarios was undertaken and the report discusses the results of peak stormwater runoff.

The peak stormwater runoff from proposed development does not increase significantly compared to the sawmill uses previously occupying the site. That use is understood to have been undertaken without underground drainage infrastructure or detention device(s).

Further assessment has considered the changes made during the TMR upgrades of the Byrnes Street/Rankin Street Intersection. These changes have had a noted impact on drainage capacity of the system and also appear to have changed the road surface levels on Rankin Street with the introduction of the median, creating additional ponding upstream.

The possibility of implementing a conventional on-site detention basin was explored as an option to mitigate peak discharges from the developed site.

It is considered that a detention basin near the northern boundary of the site would be impractical due to the shallow outlet drainage (grated inlet pit) available at the Brynes Street/Rankin Street Intersection.

In addition, it is questionable whether the detention of this site (in isolation) will have an effective improvement of the drainage downstream (north) from the development site, due to the lack of underground drainage infrastructure and uncertainty of the drainage characteristics along Byrnes Street.

This report finds that detention may be possible in the southwest corner of the site to control the post-development runoff discharged to the culvert crossing under the operating railway line. The contributing catchment can be determined and maximised based on detention area available.

The remaining site area is to be discharged into the grated inlet pit and crossroad culvert at Byrnes Street/Rankin Street Intersection. As noted in this report, the runoff will be attenuated by the on-road ponding created due to existing drainage restrictions.

The runoff can be further managed by implementing practical storage through parking modules and internal kerbing within the site. The concept is to utilise kerb and bund to contain and slowly release runoff from the site to the western kerb line on Byrnes Street.

The above measures are considered to meet the intent of no worsening impact of downstream drainage. It is stressed that it is not within the capability of this relatively small development site (approximately 1.6 ha) within the Mareeba CBD area (approximately 40ha) to address all existing stormwater drainage deficiency, from the site to the downstream discharge point to Basalt Creek (Byrnes Street/Jacobsen Street Intersection).

On this basis, measures proposed are considered both reasonable and reflective of existing constraints, given the current drainage limitations upstream and downstream from the site.

Based on the information presented in this report, it is concluded that the proposed development will not have a noticeable drainage impact on surrounding properties including the adjacent railway corridor and stated controlled road (Byrnes Street) with implementation of the proposed stormwater management measures.



APPENDIX A

Commentary on Upstream (Southern) Drainage System



The drainage investigation has identified an upstream catchment of approximately 7.2 ha. This catchment is bounded by Byrnes Street from west, Herberton Street from north, Basalt Street from south and Walsh Street from east . Refer Figure 12 below.

This catchment runoff is served by a single kerb inlet pit (1) on eastern side of Byrnes Street, seeking to capture all runoff from the catchment. Runoff from this catchment is contained by high road crowns and all runoff is conveyed by kerb and channel to the inlet pit.



Figure 12 Catchment of the Kerb Inlet Pit on Eastern Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection

This kerb inlet pit (1) and the two 600mm RCPs (2) across Byrnes Street have limited capacity to capture and convey peak flows from this 7.2ha catchment.

Significant ponding at this location is expected to occur due to the lack of capacity in the capture point servicing this catchment. A consequence of that is higher water levels at the inlet, which is likely to impact the hydraulic grade within the pipes and has the potential to cause surcharge at downstream pits/inlets. Ponding volume has been calculated to be approximately 70m<sup>3</sup> with extent of contour level of 408.8m AHD from LiDAR. Refer Figure 13 below.



Figure 13 Potential Ponding Extent at Byrnes Street/Herberton Street Intersection



A matching kerb inlet pit (3) is located on the western side of Byrnes Street connecting to the two 600mm RCPs (2) across Byrnes Street. This pit captures runoff (mainly road runoff from wester side of Byrnes Street) from a catchment of approximately 0.3ha. Refer Figure 14 below.



Figure 14 Catchment of the Kerb Inlet Pit on Western Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection

An open drain (4) is located within the road reserves behind the kerb on the western side of Byrnes Street. This open drain is lower than the road formation and kerb levels, and appears to act as a roadside table drain collecting surface runoff from a catchment of approximately 1 ha from the south. Refer Figure 15.

The open drain directs runoff to a headwall and a 600mm RCP (5), joining the crossroad pipelines at approximately 90° at the junction pit (6).



Figure 15 Catchment of Headwall (Table Drain) on Western Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection



The junction pit (6) connecting the abovementioned headwall (5) and two 600mm RCPs from the kerb inlet pit (3) is connected to two downstream 900mm RCPs (7) running west with a headwall outlet next to the abandoned railway formation. The flows enter from the abovementioned headwall will join with the flows conveyed across Byrnes Street. This may result in a hydraulic grade line that limits the capture from the side single 600mm RCP (5).

The total contributing catchment area of the 3 abovementioned catchments is 8.5ha. This combined catchment is served by the two 900mm RCPs (7), which has the capacity of approximately 2.7m<sup>3</sup>/s. The 1% AEP peak flow from this combined 8.5ha catchment is approximately 3.3 m<sup>3</sup>/s, which exceeds the capacity of the two 900mm RCPs. (Note: inlet capacity is even more restrictive)

A consequence of the drainage infrastructure at this area being under capacity is that the runoff in the table drain (4) to the headwall (5) on western side of Byrnes Street may be prevented from entering the underground pipes.

In the current scenario, ponding will likely occur at the headwall (5) and the bypass runoff will continue northwards along the eastern boundary of the development site. It is therefore unclear whether the flows from this upstream catchment during peak rainfall events are fully intercepted and conveyed west away from the Byrnes Street/Rankin Street Intersection and further downstream areas.

The next downstream capture point is at the culvert crossing under the abandoned railway formation (8). At this headwall, a further catchment from south is required to join the stormwater system. This upstream contributing catchment is approximately 3.6 ha with runoff conveyed through a drain path along eastern side of the abandoned railway formation. Refer Figure 16 below.

The combined catchment runoff seeks to discharge to the culvert crossing under the abandoned railway formation (8).



Figure 16 Catchment of Culvert Crossing under Abandoned Railway Formation

Therefore, the culvert crossing under the abandoned railway formation (8) seeking to capture all runoff accumulated from these 4 defined catchments, with a total catchment area of approximately 12.1 ha.

Runoff through the culvert crossing under the abandoned railway formation is then conveyed further west through a table drain (9), a culvert crossing (10) under the operating railway then further infrastructure and eventually discharge into the Basalt Creek.

When the peak runoff flow rate exceeds the capacity of the culvert crossing under abandoned railway formation (8), ponding is also likely to occur at this location and bypass runoff will travel northward into the development site or along the kerb and channel on Byrnes Street to the Byrnes Street/Rankin Street Intersection.

These factors potentially lead to significant overland flows with undefined ponding extents, tip out levels and flow paths, creating uncertainty of drainage patterns upstream from the development site. Noting the above issues, it is difficult to assess the actual drainage impacts from the development site.



## APPENDIX B

Site Photos





Figure 17 Kerb and Channel on Byrnes Street – 1



Figure 18 Kerb and Channel on Byrnes Street - 2 (Note: Restriction in Flow Path Capacity Created by the Traffic Island)





Figure 19 Kerb and Channel on Rankin Street – 1 (Looking West Near the Northwest Corner of the Site)



Figure 20 Kerb and Channel on Rankin Street – 2 (Looking West Near the North-eastern Corner of the Site, Note the High Point at the Railway Line Represents the Catchment Boundary to the West)





Figure 21 Grated Inlet Pit at Byrnes Street/Rankin Street Intersection – 1 (Note: Further Restriction of Channel Flow Created by the Grated Drain as Part of the Intersection Upgrades. The Grated Inlet Pit was Blocked by Debris and was Cleared During Inspection.)



Figure 22 Grated Inlet Pit at Byrnes Street/Rankin Street Intersection - 2





Figure 23 Culvert Crossing (1×900mm RCP and 1×1200mm×600mm RCBC) under Abandoned Railway Formation – 1 (Southwest from the Site, the Tree is on Western Site Boundary)



Figure 24 Culvert Crossing (1× 900mm RCP and 1×1200mm×600mm RCBC) under Abandoned Railway Formation – 2 (Looking North with Development Site on Right of Image)



Figure 25 Table Drain West from the Abandoned Railway Formation (Looking West Downstream, Showing the Culvert Crossing Under the Operating Railway)





Figure 26 Kerb Inlet Pit on Eastern Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection (Looking West downstream)



Figure 27 Kerb Inlet Pit on Western Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection (Looking North. Pipes cross from right to left in direction of flows)



Figure 28 Table Drain and Headwall on Western Side of Byrnes Street at the Byrnes Street/Herberton Street Intersection (Looking North. Note: Surface Flows not Captured at This Point Will Bypass the Southern Pipe System and Travel North along the Site Road Frontage to the Recently Upgraded Byrnes Street/Rankin Street Intersection)



Figure 29 Kerb Inlet Pit on Western Side of Byrnes Street at the Byrnes Street/Jacobsen Street Intersection (Google Street View, Approximately 1km downstream from site)



APPENDIX C Development Concept Plan

# MAREEBA NEIGHBOURHOOD **SHOPPING CENTRE**

232 BYRNES STREET, MAREEBA

# DRAWING LIST - CONCEPT

	1	
A	0.00	COVER SHEET
А	0.10	SITE CONTEXT PLAN
А	1.01	SITE PLAN
Α	1.02	DEVELOPMENT PLAN
А	2.01	GROUND FLOOR PLAN - SUPERMARKET
Α	2.02	ROOF PLAN - SUPERMARKET
А	2.03	ELEVATIONS - SUPERMARKET
А	2.04	ELEVATIONS - SUPERMARKET
А	2.05	SECTIONS - SUPERMARKET
А	3.01	GROUND FLOOR PLAN - SHOPS
А	3.02	ELEVATIONS - SHOPS
Α	4.01	GROUND FLOOR PLAN - FAST FOOD
Α	4.02	ELEVATIONS - FAST FOOD
А	5.01	3D VIEWS
А	5.02	3D VIEWS

# **DEVELOPMENT APPLICATION**

232 BYRNES STREET, MAREEBA

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EXISTING VIEW FROM CORNER OF BYRNES & RANKIN STREET

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**COVER SHEET** 

1 : 1 @ A1

TA # 19.0298.17 A0.00

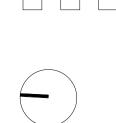
12/07/2022



**BICENTENNIAL LAKES** 



### **DEVELOPMENT APPLICATION** 0 25 50 75 125 250 m



**BASATT GULLY PARK** 

### PROPOSED MAREEBA **NEIGHBOURHOOD SHOPPING CENTRE**

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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MAREEBA 232 PTY LTD



### SITE CONTEXT PLAN

1 : 2500 @ A1

TA # 19.0298.17 A0.10

12/07/2022

# **DEVELOPMENT SCHEDULE**

PROPOSED USES	GFA	GLAR			
SUPERMARKET	3655m <sup>2</sup>	3603m <sup>2</sup>			
SHOPS	1010m <sup>2</sup>	992m <sup>2</sup>			
AMENITIES	90m <sup>2</sup>				
TOTAL CENTRE	4755m <sup>2</sup>	4595m <sup>2</sup>			
FAST FOOD	270m <sup>2</sup>	270m <sup>2</sup>			
TOTAL	5025m <sup>2</sup>	<b>4865m<sup>2</sup></b> (5/100m2)			
CAR PARKING SCHEDULE					
CARS FAST FOOD	11				
CARS CENTRE (INCL. MOTOR BIKES, DIRECT TO BOOT + TAXIS)	203	3			
ON SITE CARS	214	4			
STREET CARS	5				
TOTAL CARS PROVIDED	219	9			
TOTAL CARS REQUIRED	193				

### NOTE:

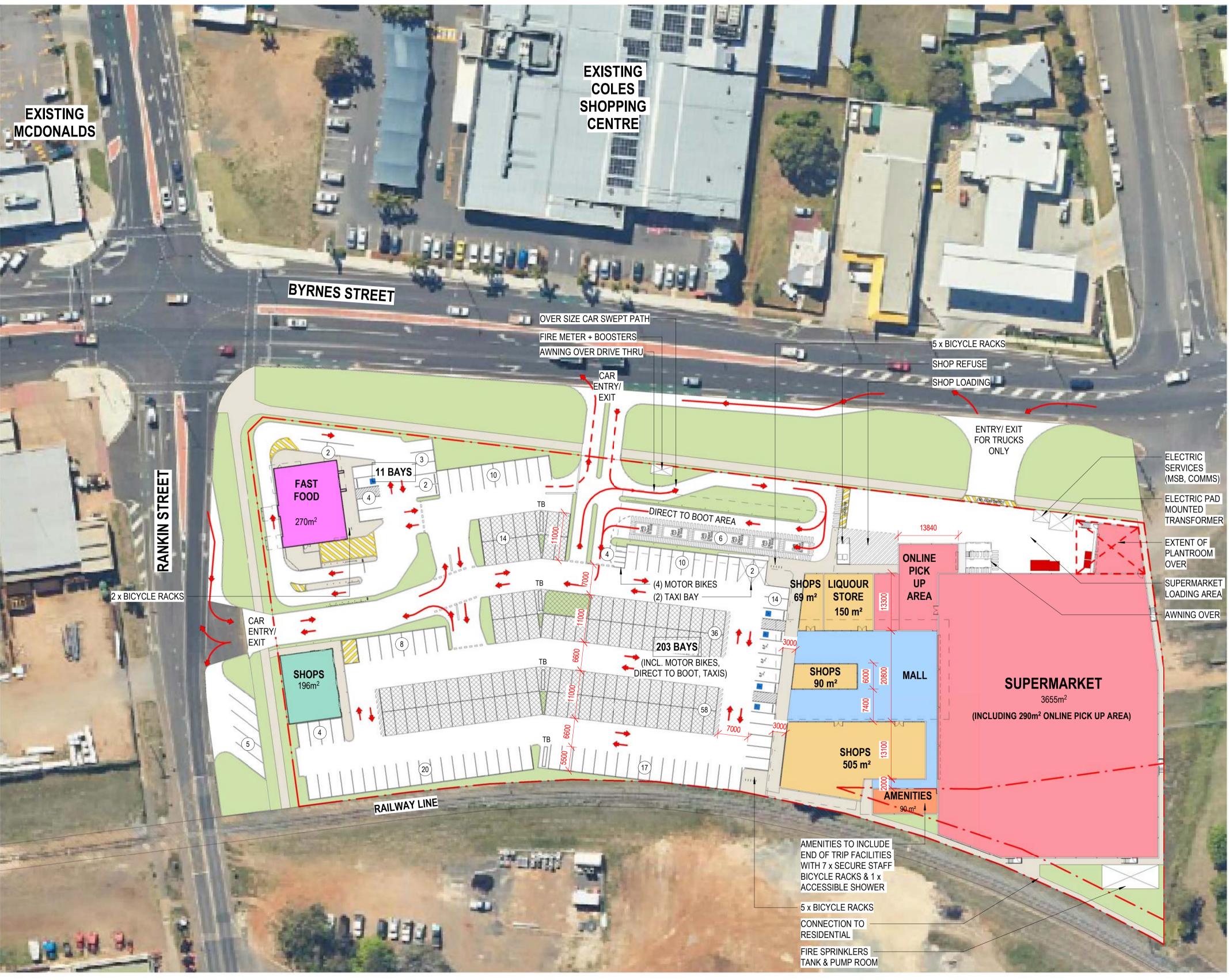
CARS REQUIRED IS BASED ON: 1/50 UP TO 400m<sup>2</sup> GFA 1/25 ABOVE 400m<sup>2</sup> GFA

### NOTE: SUPERMARKET GLAR EXCLUDES EXTERNAL WALLS AND LOADING DOCK

### **COVERED CARPARKS**

250 m

AREA OF ENCLOSED MALL / PASSAGE - 637m<sup>2</sup>





# 232 BYRNES STREET, MAREEBA



0 25 50 75

**DEVELOPMENT APPLICATION** 

125

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### SITE PLAN

As indicated @ A1

TA # 19.0298.17 A1.01

12/07/2022

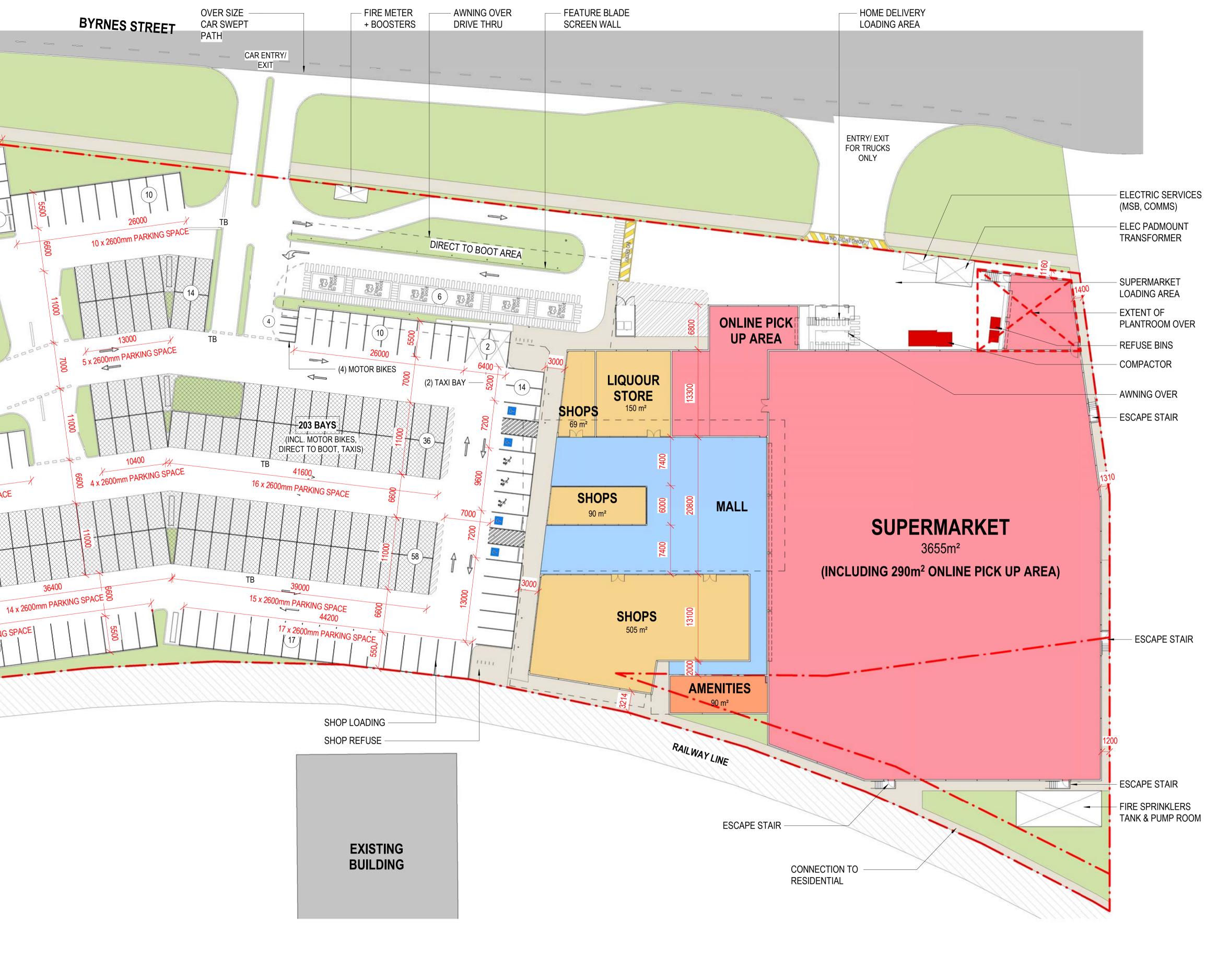


# MAREEBA 232 PTY LTD

232 BYRNES STREET, MAREEBA

### **DEVELOPMENT APPLICATION** 0 3 6 9 15 30 m







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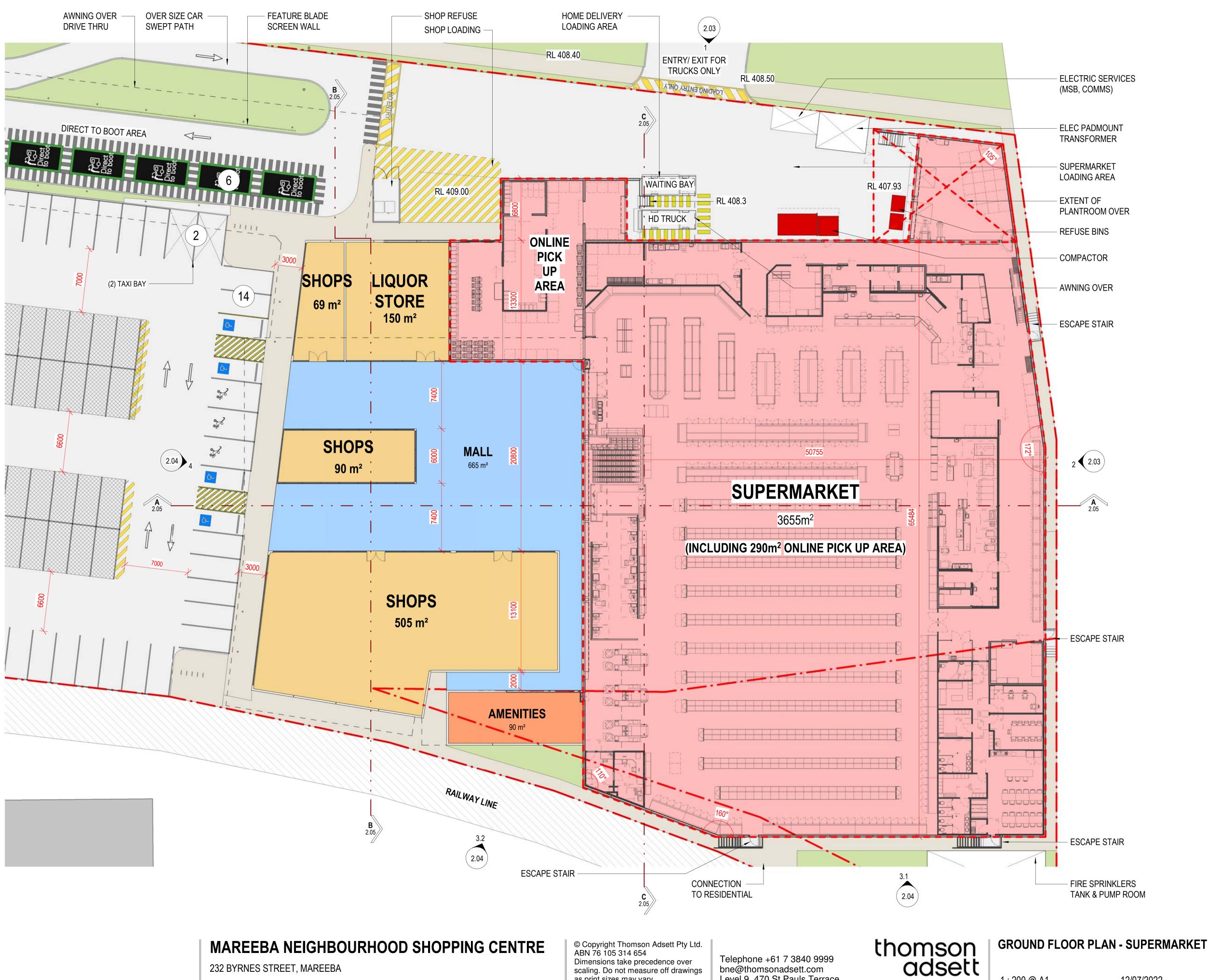


## **DEVELOPMENT PLAN**

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12/07/2022

TA # 19.0298.17 A1.02

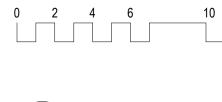






**FLOOR PLAN - SUPERMARKET** 1 : 200

# **DEVELOPMENT APPLICATION**



20 m



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MAREEBA 232 PTY LTD

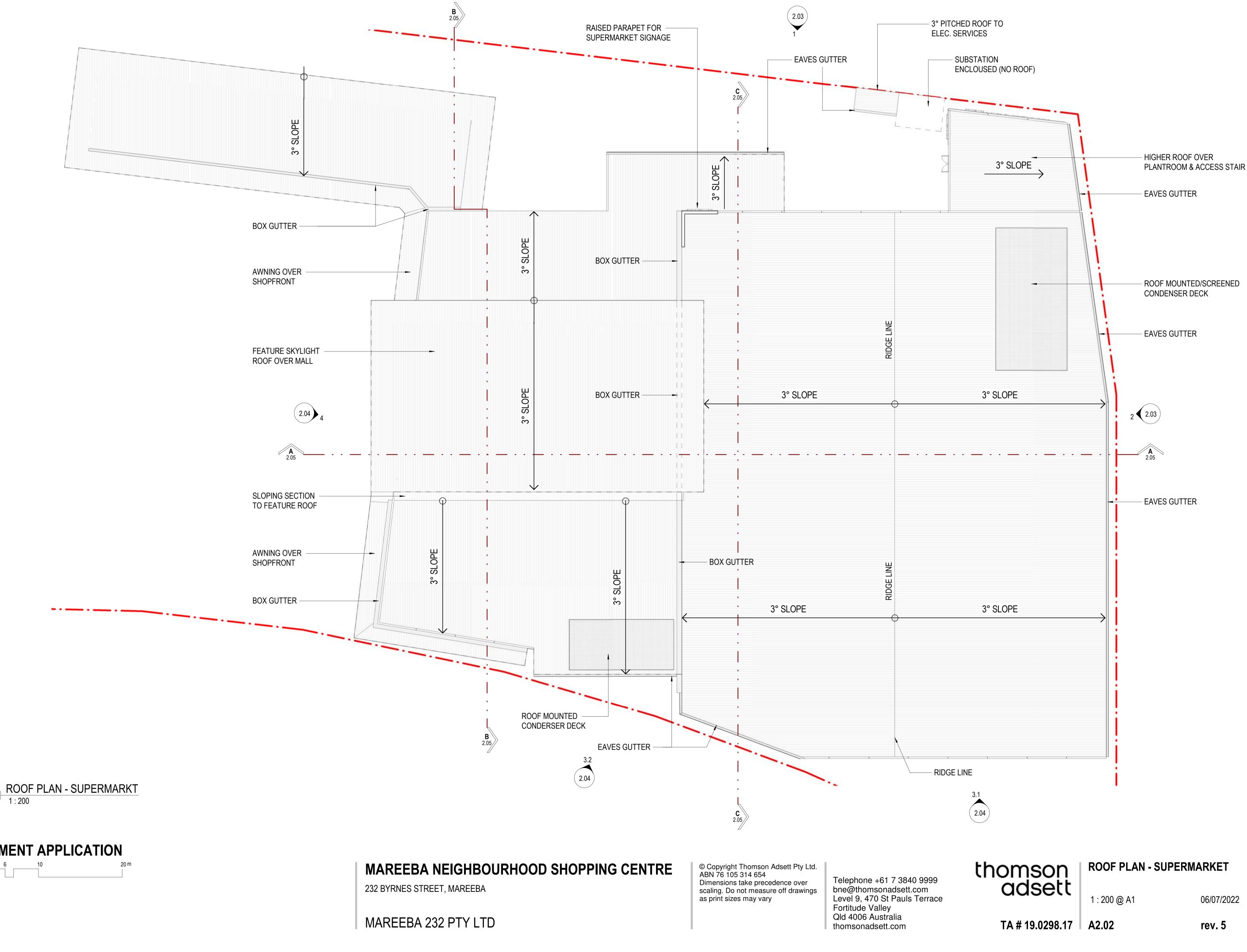
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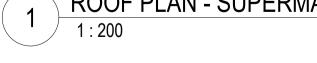
Telephone +61 7 3840 9999 bne@thomsonadsett.com Level 9, 470 St Pauls Terrace Fortitude Valley Qld 4006 Australia thomsonadsett.com

1 : 200 @ A1

12/07/2022

TA # 19.0298.17 A2.01





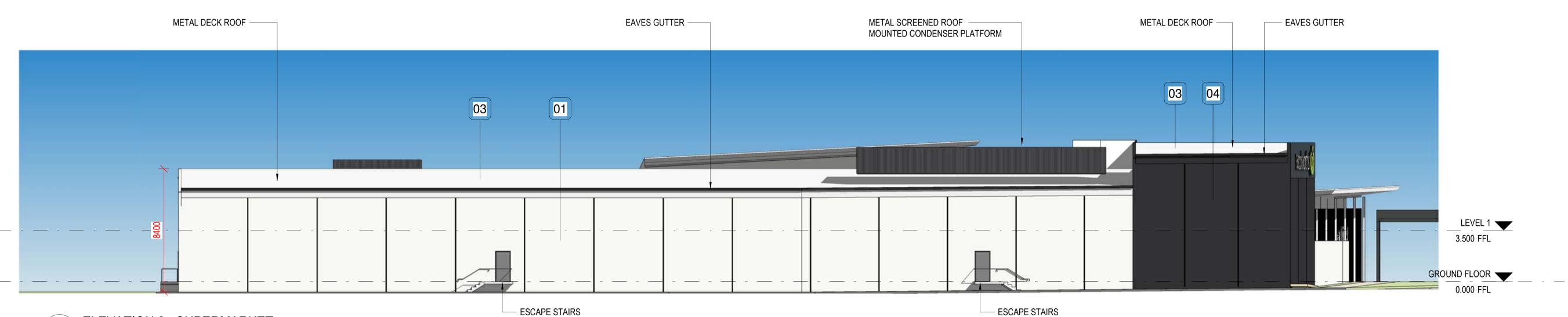
# **DEVELOPMENT APPLICATION**



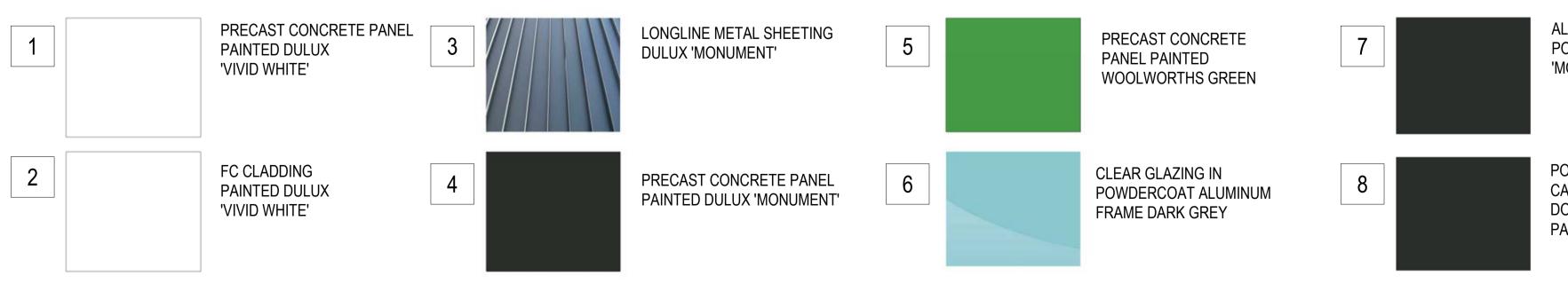




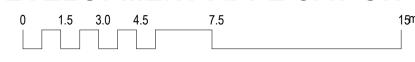








# **DEVELOPMENT APPLICATION**



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ALUCLICK FEATURE BLADES POWDERCOATED DULUX 'MONUMENT'

POWDERCOATED METAL CAPPINGS, GUTTERS, DOWNPIPES & ROLLER SHUTTER. PAINTED DULUX 'MONUMENT'





### **ELEVATIONS - SUPERMARKET**

As indicated @ A1

A2.03

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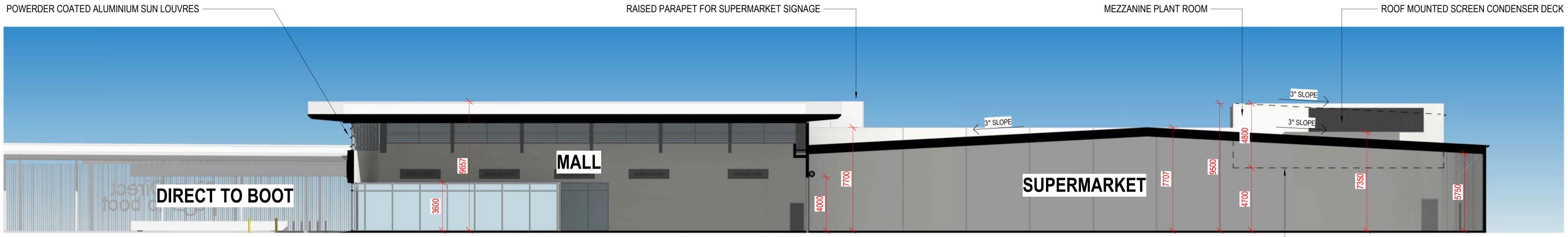
As indicated @ A1

06/07/2022

TA # 19.0298.17

A2.04



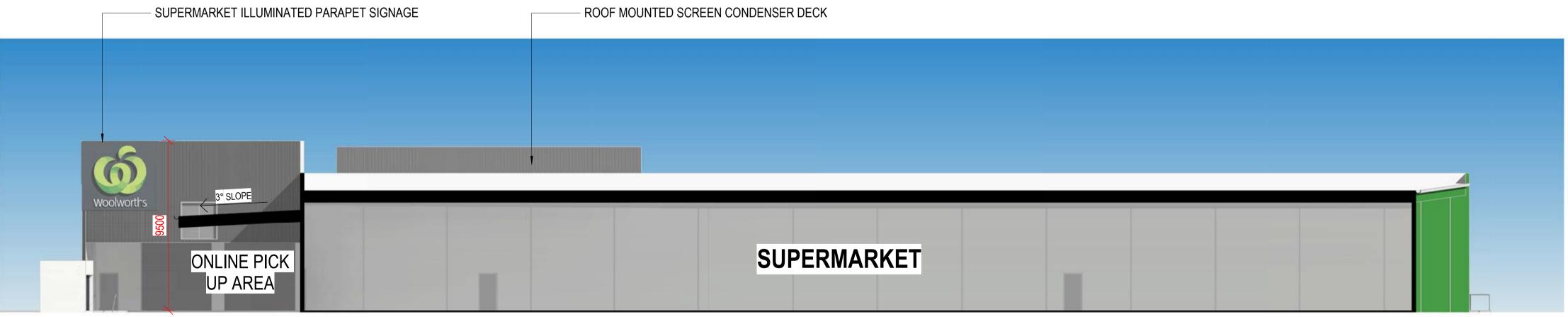


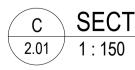


SUPERMARKET ILLUMINATED PARAPET SIGNAGE



B SECTION B - SUPERMARKET 2.01 1 : 150





**SECTION C - SUPERMARKET** 

**DEVELOPMENT APPLICATION** 

0 1.5 3.0 4.5 7.5

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- ROOF MOUNTED CONDERSER DECK

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MEZZANINE PLANT ROOM LEVEL





### **SECTIONS - SUPERMARKET**

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TA # 19.0298.17 A2.05



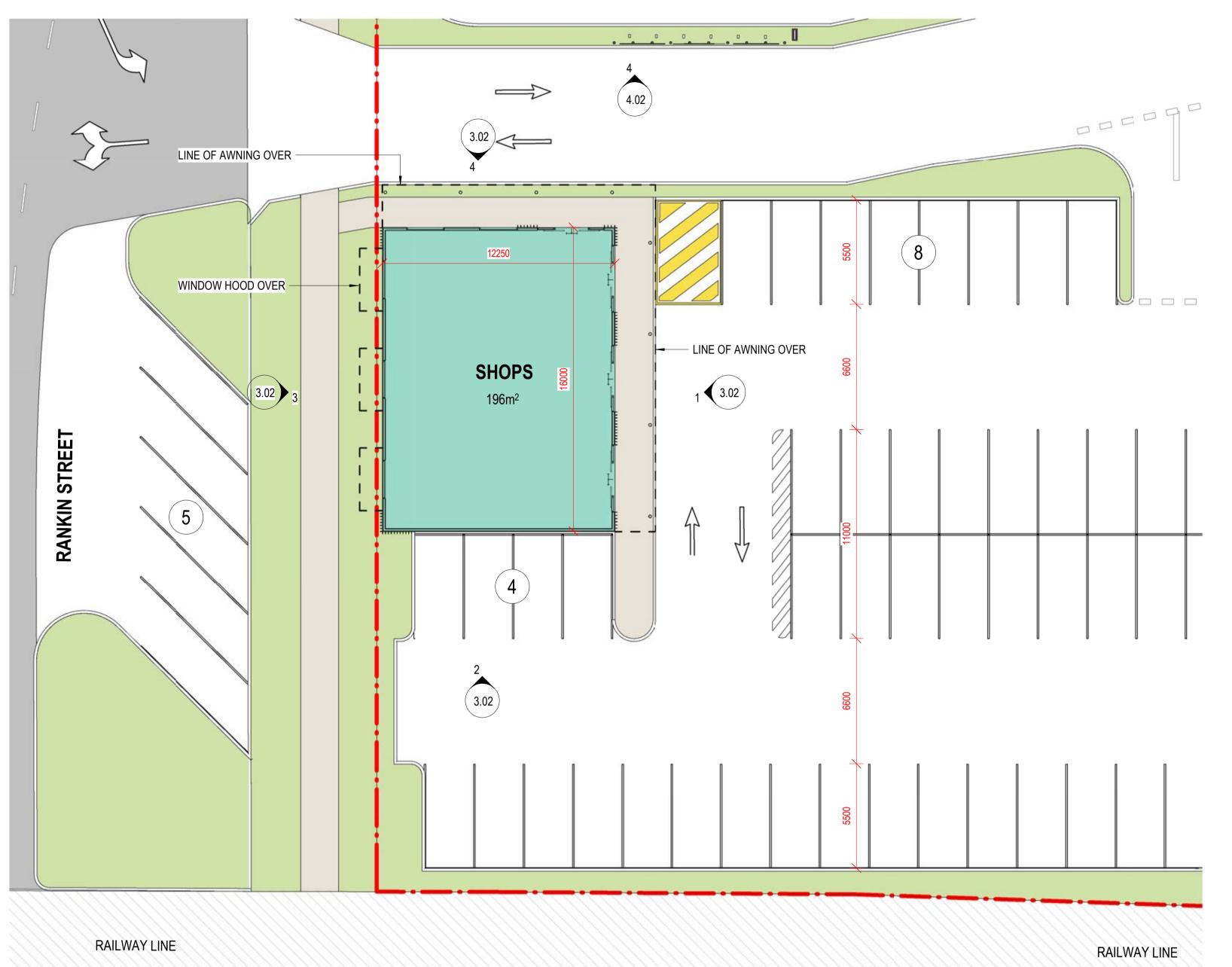
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1 1 : 150

FLOOR PLAN - SHOPS

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### **GROUND FLOOR PLAN - SHOPS**

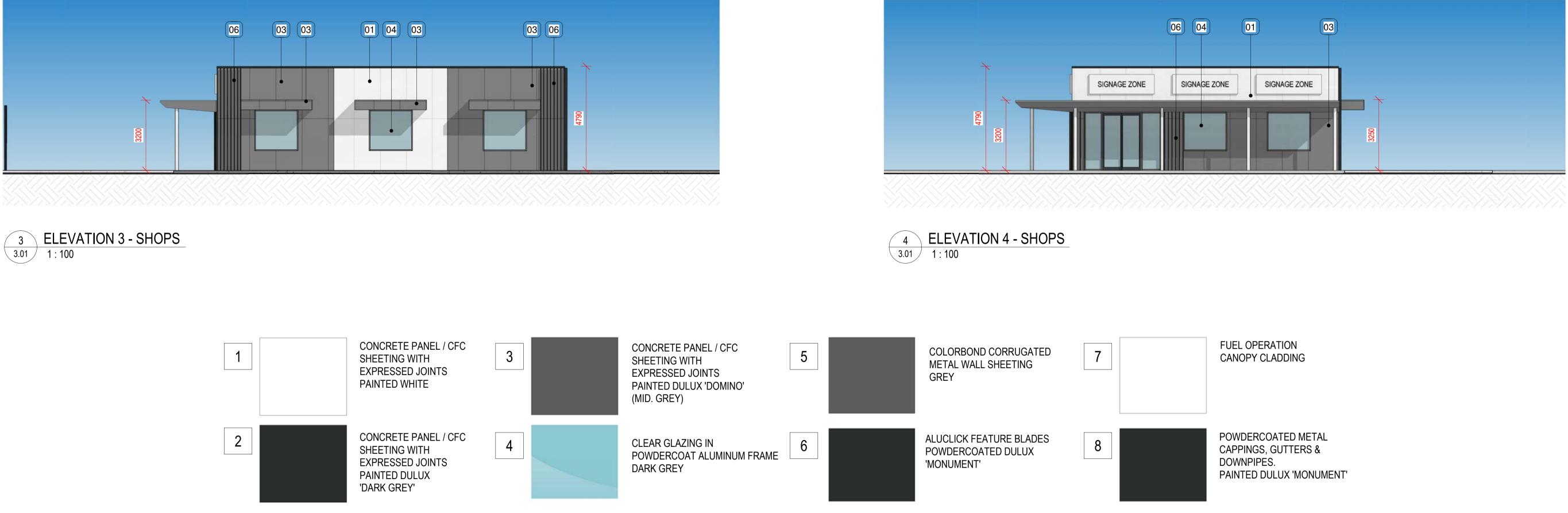
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06/07/2022

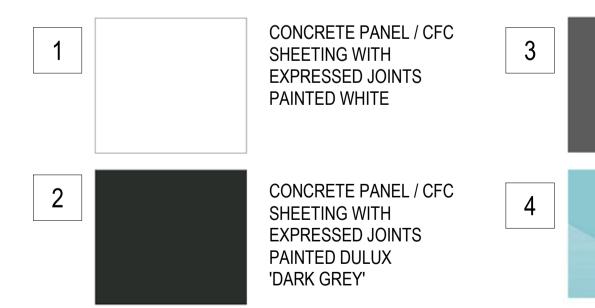
TA # 19.0298.17 A3.01











### **DEVELOPMENT APPLICATION** 10m

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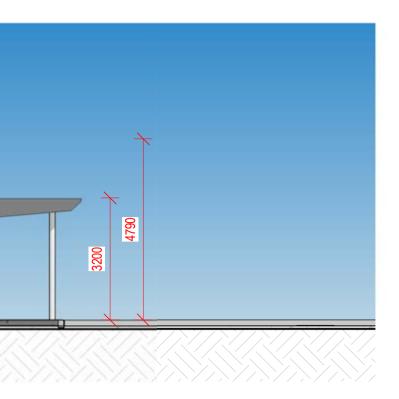


2 ELEVATION 2 - SHOPS 3.01 1 : 100

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### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION



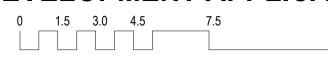
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06/07/2022

TA # 19.0298.17 A3.02





OVER

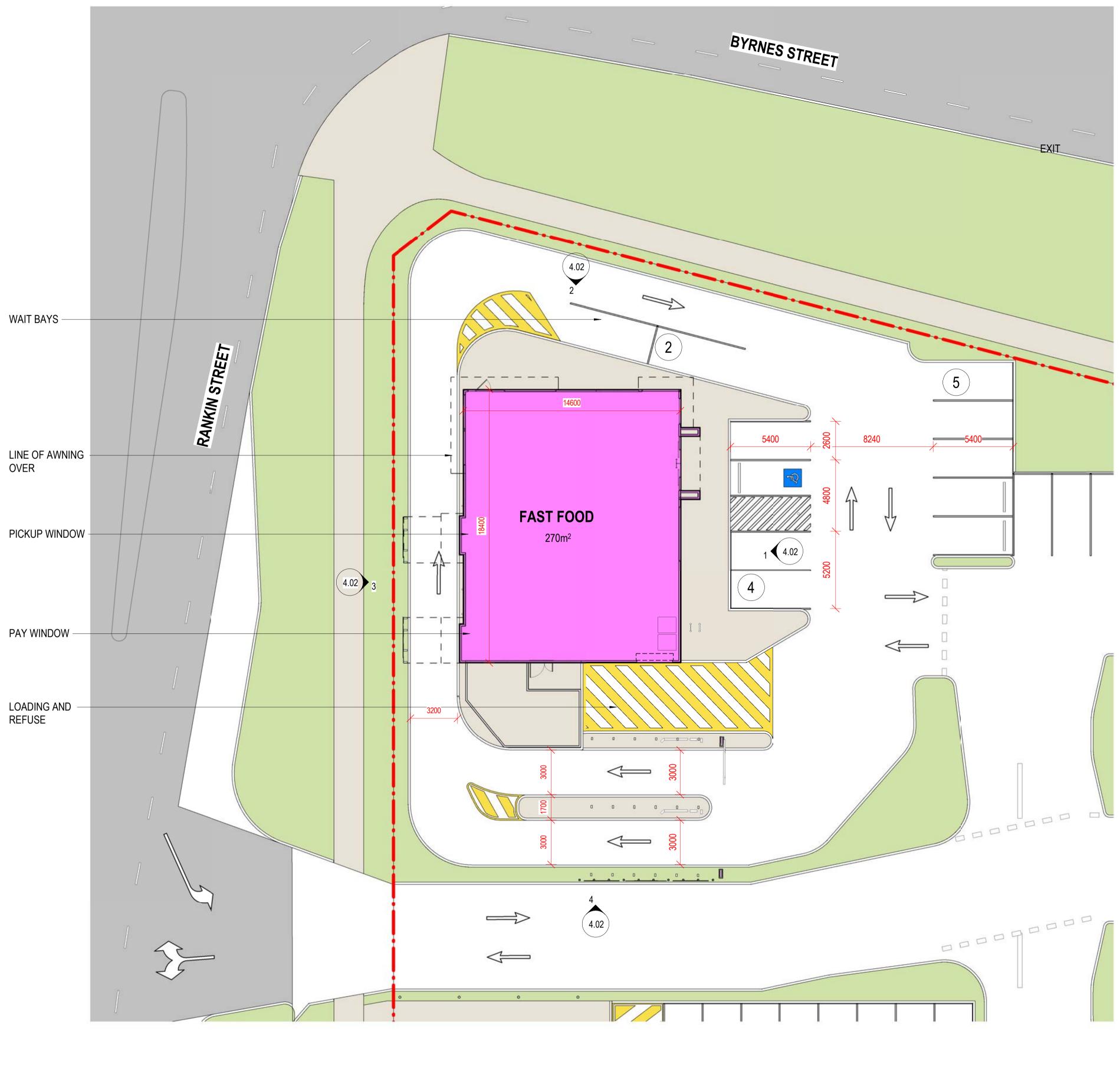
# 232 BYRNES STREET, MAREEBA

**DEVELOPMENT APPLICATION** 

FLOOR PLAN - FAST FOOD

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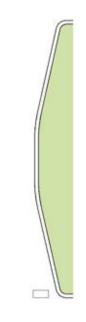


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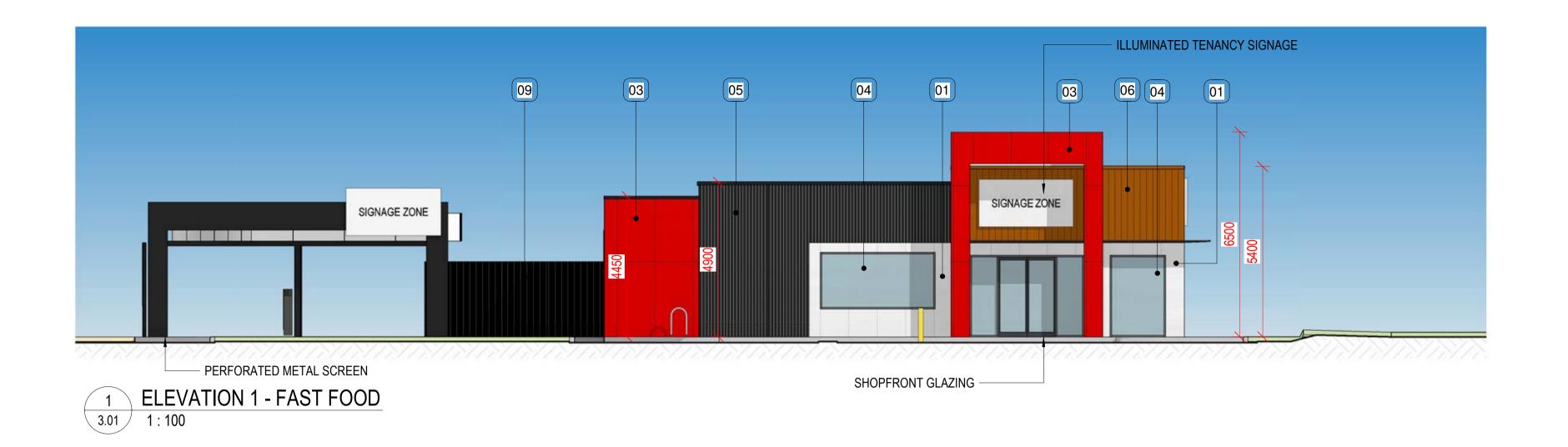


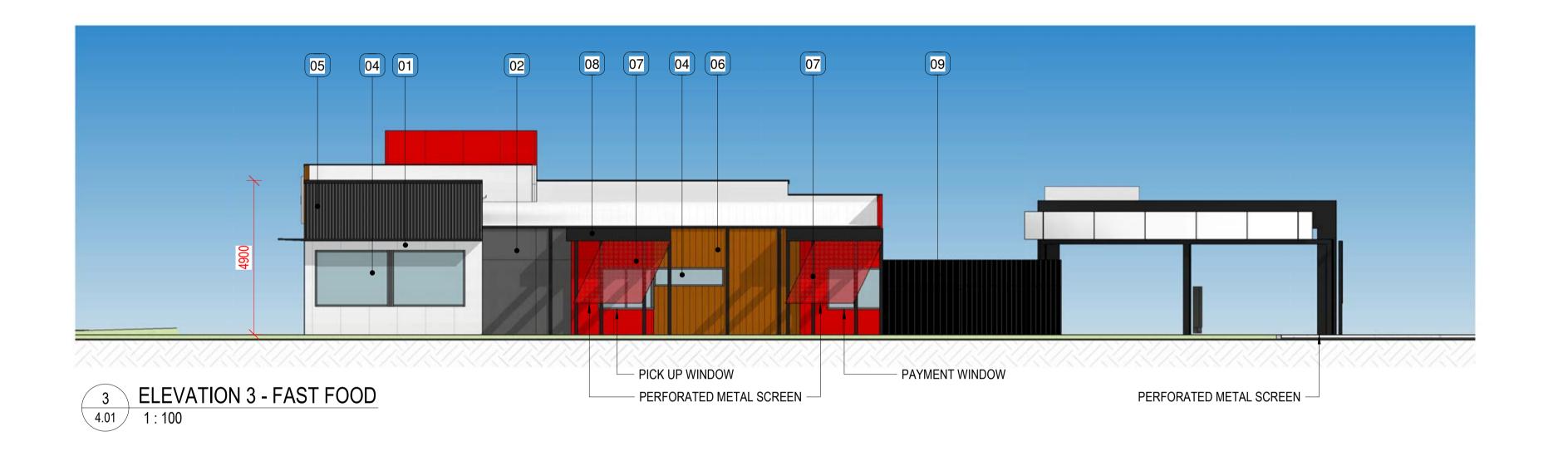
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11/07/2022

TA # 19.0298.17 A4.01



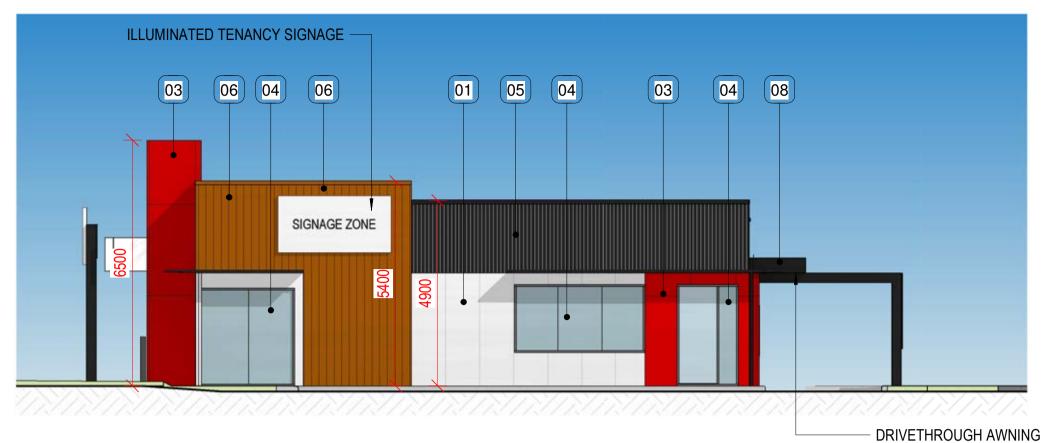




# **DEVELOPMENT APPLICATION** 0 1 2 3 5

232 BYRNES STREET, MAREEBA

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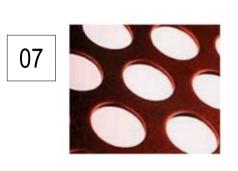






LONGLINE 305 METAL WALL SHEETING COLORBOND 'MONUMENT' (MID GREY)

TIMBER-LOOK ALUMINIUM CLADDING - KNOTWOOD



08

PERFERATED MESH SCREEN LOCKERGROUP POWDERCOAT "RED" R03341

POWDERCOATED METAL CAPPINGS, GUTTERS & DOWNPIPES. PAINTED DULUX 'MONUMENT'

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09 03 03 - LOADING AND REFUSE

09

COLORBOND CORRUGATED METAL WALL SHEETING BLACK

### NOTE: SIGNAGE DOES NOT FORM PART OF THIS APPLICATION

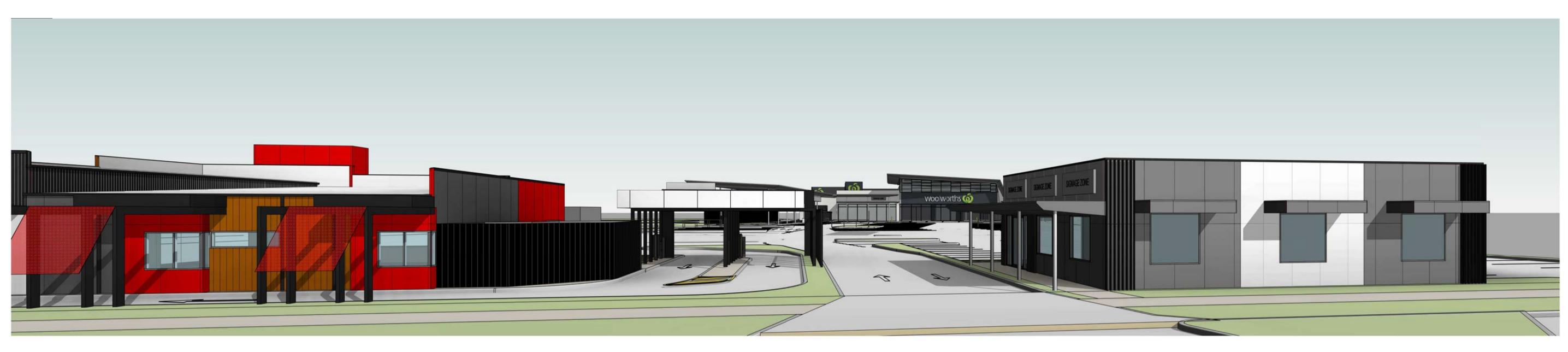


## **ELEVATIONS - FAST FOOD**

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06/07/2022

TA # 19.0298.17 A4.02



**RANKIN STREET - SITE ENTRANCE** 



SUPERMARKET VIEW FROM CARPARK

**DEVELOPMENT APPLICATION** 

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### **3D VIEWS**

@ A1

TA # 19.0298.17 A5.01

06/07/2022



BYRNES STREET - SITE EXIT



**BYRNES STREET - TRUCK & LOADING ENTRANCE** 

**DEVELOPMENT APPLICATION** 

232 BYRNES STREET, MAREEBA

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### **3D VIEWS**

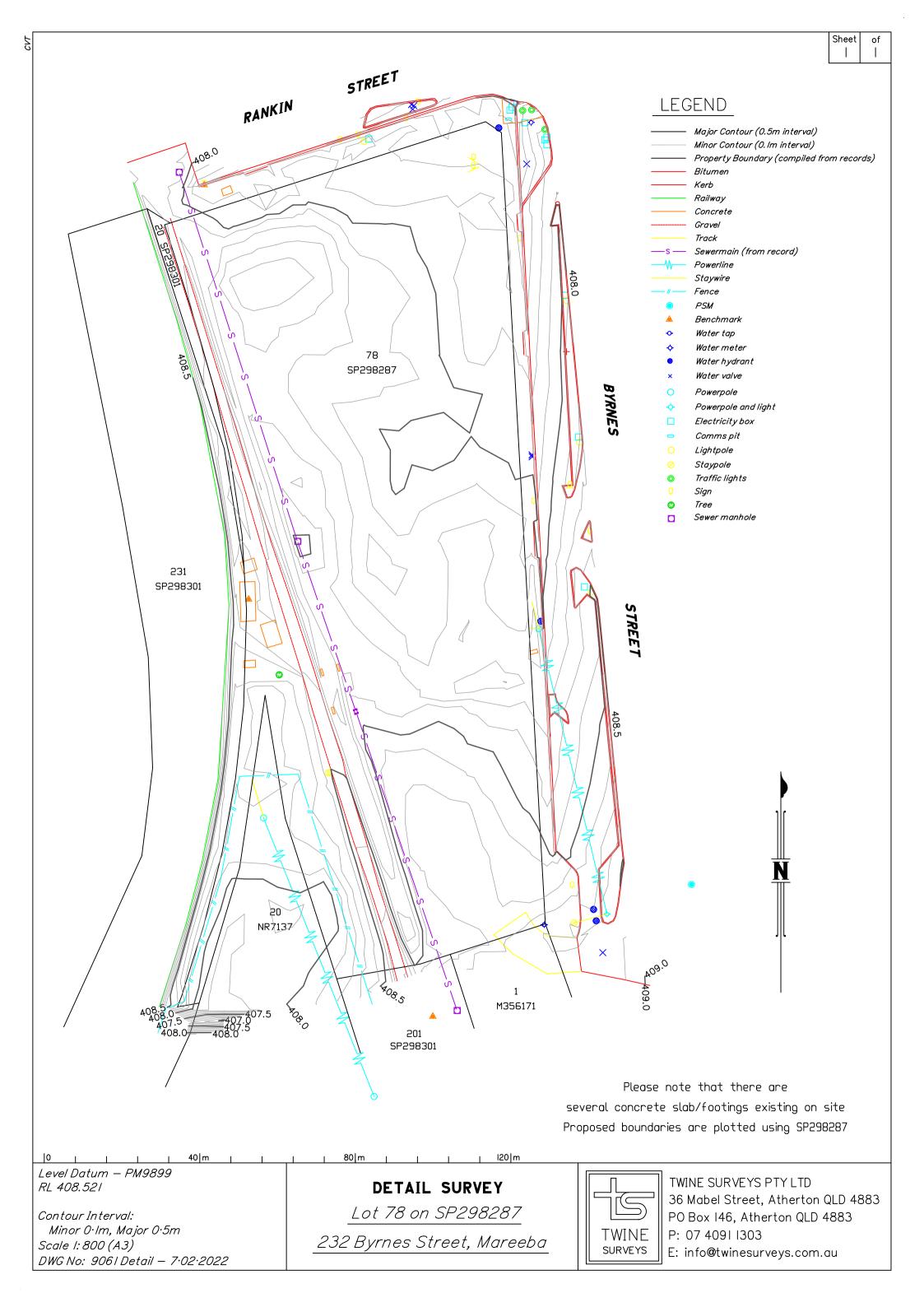
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TA # 19.0298.17 A5.02

06/07/2022

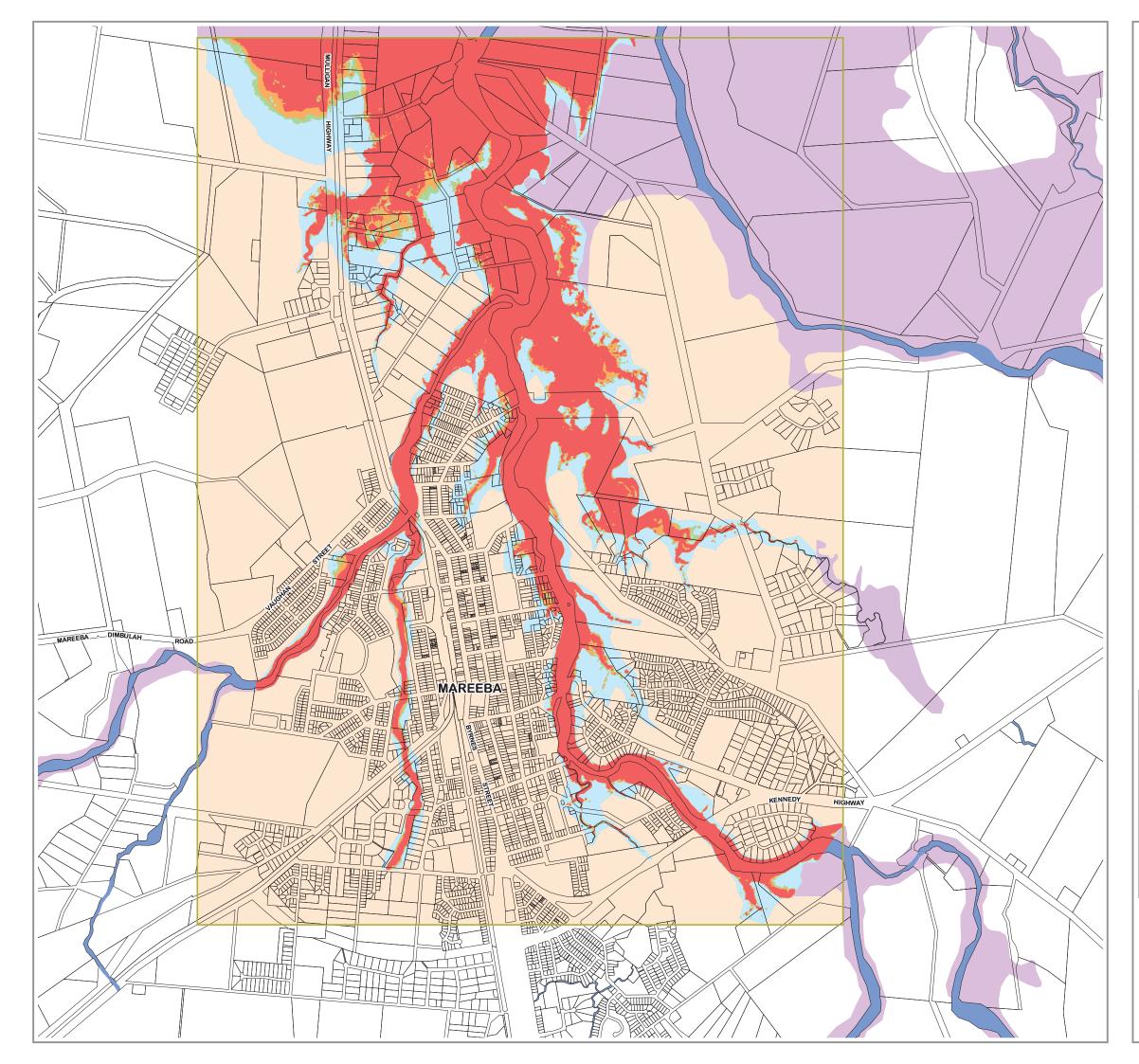


### APPENDIX D Site Survey





APPENDIX E Mareeba Shire Council Flood Hazard Overlap Map





#### LEGEND

#### Modelled Flood Hazard Levels<sup>(1)</sup>

1% AEP Defined Flood Event (DFE):

Extreme Flood Hazard

High Flood Hazard

Significant Flood Hazard

Low Flood Hazard

General Extent of Modelled Flood Hazard Levels

#### Queensland Floodplain Assessment Overlay Mapping<sup>(2)</sup>

Potential Flood Hazard Area

#### Other

Cadastre

Watercourse

- (1) The Modelled Flood Hazard Levels are sourced from the Queensland Reconstruction Authority - Flood Hazard Mapping - Mareeba, Kuranda, Biboohra, Bilwon and Koah, 12 April 2013 which models the predicted flood impact of the Defined Flood Event (DFE).
- (2) In areas outside the limits of the specific flood modelling undertaken in (1) above Flood Hazard Areas are sourced from the State Wide Queensland Floodplain Overlay mapping. These maps have been derived from various state-wide datasets and the result is a spatial extent of where flooding has previously or has the potential to occur. These maps are not based on any flood model and do not represent a particular flood event.

#### Information

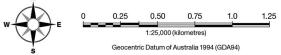
Information Whilst every care is taken to ensure the accuracy of this product, neither the Mareeba Shire Council or the State of Queensland make any representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs that may occur as a result of the product being inaccurate or incomplete in any way or for any reason.

All data depicted on this map has been sourced from either the Mareeba Shire Council or the State of Queensland from the latest datasets available at the time of map compilation. Map compilation date: August 2015.

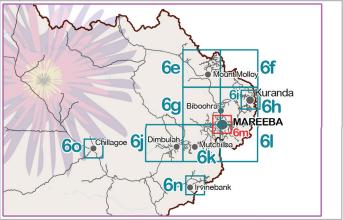
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#### Note

Where information on the map is obscured by text or other map elements contact Council for a determination



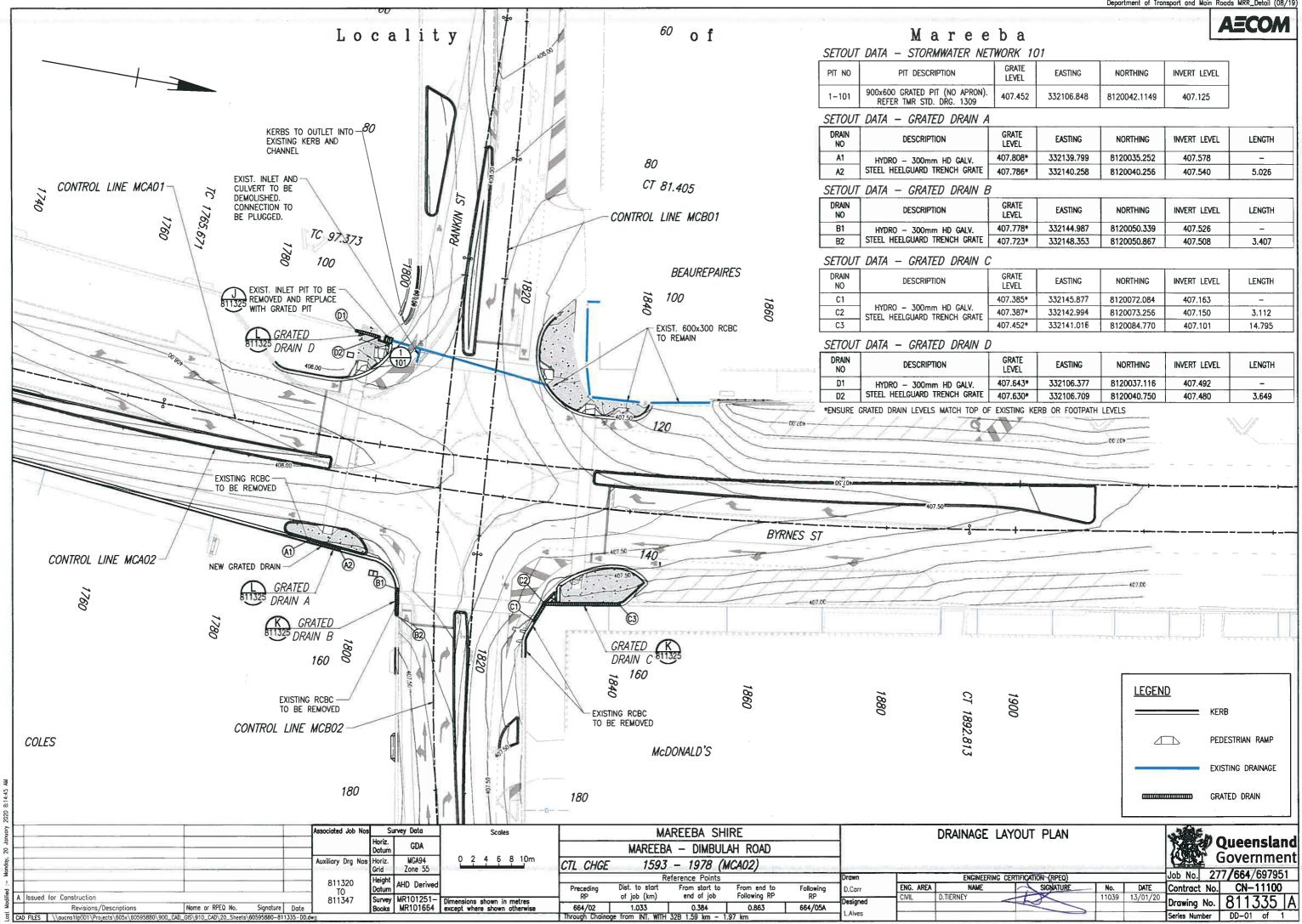
#### Map Index







APPENDIX F TMR Intersection Upgrades Drainage Plan



grate Level	EASTING	NORTHING	INVERT LEVEL
407.452	332106.848	8120042.1149	407.125

GRATE LEVEL	EASTING	NORTHING	INVERT LEVEL	LENGTH
407.808*	332139.799	8120035.252	407.578	-
407.786*	332140.258	8120040.256	407.540	5.026

GRATE LEVEL	EASTING	NORTHING	INVERT LEVEL	LENGTH
407.778*	332144.987	8120050.339	407.526	-
407.723*	332148.353	8120050.867	407.508	3.407

GRATE LEVEL	EASTING	NORTHING	INVERT LEVEL	LENGTH
407.385*	332145.877	8120072.084	407.163	-
407.387*	332142.994	8120073.256	407.150	3.112
407.452*	332141.016	8120084.770	407.101	14.795

GRATE LEVEL	EASTING	NORTHING	INVERT LEVEL	LENGTH
407.643*	332106.377	8120037.116	407.492	-
407.630*	332106.709	8120040.750	407.480	3.649
F EXISTING KE	RB OR FOOTPATH	LEVELS	ų	



APPENDIX G Stormwater Peak Flows Calculations

Client:	Mareeba 2	•					]														
Project Name:	232 Byrne	s Street Ma	ireeba					Regiona	al Method	Catchme	nt Calcul	ations									
Project Number:	1604															151	) Rainfall I	Data	Slope Da	ta	
Calculations By:	(Click to si	gn)						Notes:									7 Kaimaini		Siope Da		
Calculation Date:								1. Items ir	red must be	entered ma	anually.				TEC						
	•						-														
			Catchmen	t Propertie	s					Time of	Concentra	tion (min)					Catchmen	t Properties			or me r
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3 upstream catchments (approx.)	8.500														30.00				0.80	estimate o

		Runoff Coefficient								Rainfa	II Intensity	(mm/hr)				Peak Flow Rate (m <sup>3</sup> /s)							
Catchment ID	63% AEP	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP	63% AEP	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP	63% AEP	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP		
Pre-development Catchment A	0.62	0.66	0.74	0.78	0.82	0.90	0.94	63	81	101	112	128	149	165	0.234	0.318	0.443	0.520	0.624	0.794	0.916		
0	0.70	0.75	0.84	0.88	0.92	1.01	1.06	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
Pre-development Catchment B	0.59	0.63	0.70	0.74	0.78	0.85	0.89	68	86	108	121	138	160	178	0.032	0.044	0.062	0.072	0.087	0.111	0.128		
Sawmill Scenario	0.70	0.75	0.84	0.88	0.92	1.01	1.06	68	86	108	121	138	160	178	0.283	0.384	0.537	0.632	0.758	0.966	1.117		
0	0.00	0.00	0.00		0.00	0.00	0.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
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Post-development Catchment A	0.70	0.75	0.84	0.88	0.92	1.01	1.06	75	96	121	135	155	181	201	0.314	0.427	0.601	0.709	0.852	1.089	1.261		
Post-development Catchment B	0.70	0.75	0.84	0.88	0.92	1.01	1.06	104	134	171	193	222	261	291	0.059	0.081	0.116	0.138	0.167	0.214	0.249		
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Post-development Catchment A adjusted for detention	0.70	0.75	0.84	0.88	0.92	1.01	1.06	75	96	121	135	155	181	201	0.279	0.379	0.533	0.629	0.756	0.966	1.119		
Post-development Catchment B adjusted for detention	0.70	0.75	0.84	0.88	0.92	1.01	1.06	104	134	171	193	222	261	291	0.108	0.148	0.212	0.252	0.304	0.392	0.456		
0	0.00	0.00	0.00		0.00	0.00	0.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
3 upstream catchments (approx.)	0.69	0.73	0.82	0.86	0.90	0.99	1.03	53	67	83	93	105	122	134	0.859	1.161	1.608	1.879	2.243	2.843	3.273		
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0	0.00	0.00	0.00		0.00	0.00	0.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		



tonowing estimation procedures.

$$V_{z}/V_{i} = r(1+2r)/3$$
(After Culp 1948)
$$V_{z}/V_{i} = r$$
(After Boyd 1989)
$$V_{z}/V_{i} = r(3+5r)/8$$
(After Carroll 1990)
$$V_{z}/V_{i} = r(2+r)/3$$
(5.04)

$$V_2/V_1 = r(2+r)/3$$
  
(After Basha 1994)

where r is the reduction ratio calculated as:

$$r = (Q_i - Q_o)/Q_i$$
 (5.05)

e above procedures may give widely different answers and thus should be d with care. Typically Basha's equation produces a result closest to an rage of the four methods.

he Rational Method is used for the determination of  $Q_i$ , then the initial mate of the inflow volume  $(V_i)$  may be determined as:  $V_i = 4t_c Q_i / 3$ .

Detention storage (Catchment B area uncahnged)

	63% AEP	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP
Vi	23.73	32.45	46.32	55.04	66.60	85.75	99.78
r	0.45	0.46	0.47	0.47	0.48	0.48	0.49
Vs	0.00	12.17	17.84	21.49	26.31	34.31	40.26

Detention Storage (Catchment B area adjusted)

	63 AE P	39 86 86 P	18 AE %	10 AE P	5% AE P	2% AE P	1% AE P
Vi	43.40	59.35	84.72	100.65	121.80	156.81	182.47
r	0.70	0.70	0.71	0.71	0.71	0.72	0.72
Vs	27.40	37.62	54.25	64.80	78.77	101.92	118.98

### **ATTACHMENT 8**

### ECONOMIC NEEDS ASSESSMENT PREPARED BY FORESIGHT PARTNERS



# ECONOMIC NEED AND IMPACT ASSESSMENT

### **PROPOSED RETAIL CENTRE** 232 BYRNES STREET, MAREEBA

PREPARED FOR: MAREEBA 232 PTY LTD 21034 JANUARY 2022



ABN 59 111 524 673

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#### Disclaimer

The sole purpose of this report is to provide Mareeba 232 Pty Ltd (the Client) with information in accordance with Foresight Partners Pty Ltd's scope of services set out in its proposal to the Client.

Foresight Partners has relied upon information relevant to this report provided by government agencies, the Client and others. Except as otherwise stated in the report, Foresight Partners has not attempted to verify the accuracy or completeness of such information.

The assumptions underlying the findings, observations, forecasts and conclusions presented in this report are subject to significant uncertainties and contingencies. Therefore, actual results may differ significantly from forecast results. Foresight Partners do not make or imply any warranty or guarantee with respect to the data reported or to the findings, observations, forecasts and conclusions expressed in this report. Foresight Partners cannot confirm or guarantee achievement of any forecast growth or performance, as future events, by nature, are not amenable to independent confirmation or substantiation.

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### **EXECUTIVE SUMMARY**

Mareeba 232 Pty Ltd (the applicant) propose to develop a retail centre at 232 Byrnes Street, Mareeba. The development is proposed to include:

- A full line supermarket (3,365m<sup>2</sup> Gross Floor Area plus 290m<sup>2</sup> online pick-up area);
- Retail specialty stores (1,010m<sup>2</sup> GFA); and
- A drive-through fast food outlet (270m<sup>2</sup> GFA).

The subject land is predominately zoned Centre under the current Mareeba Shire Council Planning Scheme. It is understood that the proposed development is Impact Assessable under the current Mareeba Shire Council Planning Scheme.

The applicant has indicated that they have engaged in discussion with Woolworths as the likely tenant for the full-line supermarket. It is assumed that the subject centre will open around January 2024, implying the year ending June 2025 will be the first full financial year of trading for the centre.

The purpose of this report is to address the economic and community need and impact implications of the proposed development.

### Existing Centre Network

Key designated centres relevant to this assessment include:

- **Mareeba Centre** the designated centre zone in Mareeba includes 'Mareeba Square' and 'Mareeba Centre', as well as several specialty stores, professional services, large format retailers, and food and drink outlets fronting Byrnes Street.
- Atherton Centre Atherton's designated centre zone encompasses Main Street and surrounding areas. The central business district includes Atherton Square Shopping Centre in the north and the Silo Central Shopping Centre in the south, and many other specialty stores and large format retailers.
- **Kuranda Centre** the Kuranda centre zone is anchored by Foodworks (1,012m<sup>2</sup> GLA) and contains an Australia Post, real estate agent, pharmacy, a number of food and drink outlets, and several other specialty tourism/leisure retailers.
- **Smithfield Centres** Smithfield is part of the Cairns Regional Council area and has several centre zone designations in distinct areas, including a Major Centre zone (which includes the Smithfield Shopping Centre), a large format retail precinct on Mixed-Use zoned land, and two smaller Local Centre precincts.
- **Cairns Principal Centre (Cairns CBD)** the Cairns Principal Centre zone extends from Bunda Street in the west to the esplanade in the east, as well as a small area beyond the esplanade which encompasses The Pier Cairns Shopping Mall.

### **Defined Trade Areas**

A Total Trade Area (TTA) comprised of a Primary Trade Area (PTA), a Secondary West Trade Area (SWTA) and a Secondary North Trade Area (SNTA) was defined in order to



capture the likely market from which the proposed centre would draw the majority of its trade.

### **Population Projections**

It is estimated that the June 2021 **Total Trade Area** population was around 20,480 persons in 8,155 households. This is projected to increase to 21,335 persons in 8,540 households by the year ending June 2025, which is the assumed first full year of trading for the proposed retail centre. By June 2029, the population of the **Total Trade Area** is forecast to reach around 22,080 persons.

Population growth in the Primary Trade Area is expected to account for around 84% of growth in the Total Trade Area between 2021 and 2029.

### Socio-economic Characteristics

In general, the Total Trade Area is characterised by a slightly older population, which correlates with a low labour force participation rate and low average annual household income. However, a high proportion of Total Trade Area residents own their homes outright, and housing occupancy costs are far lower in the Total Trade Area than compared to Queensland. Total Trade Area households are likely to exhibit slightly lower than average levels of demand for retail shops and services.

### Retail Spending Capacity

Total retail expenditure potential generated by **Total Trade Area** residents is expected to increase from around \$242.1 million in 2021 to \$263.8 million by 2029, an increase of around \$21.7 million.

Only a portion of this spending will be available to supermarkets, however. It is estimated the Total Trade Area generated around \$81.6 million in supermarket spending in the year ending June 2021. Available supermarket spending is forecast to increase to around \$85.4 million by YE June 2025, and \$88.9 million by YE June 2029.

Assuming an average productivity (sales per m<sup>2</sup>) of \$9,000/m<sup>2</sup>, supermarket spending generated by Total Trade Area residents in YE June 2021 could theoretically support around 9,067m<sup>2</sup> of supermarket floorspace.

By comparison, there is currently around 5,276m<sup>2</sup> of total supermarket floorspace supplied within the defined trade areas (Coles Mareeba, SUPA IGA Mareeba, Foodworks Kuranda). This analysis indicates that the Total Trade Area population could support a significantly greater amount of supermarket floorspace than the existing provision within the Total Trade Area.

### Forecast Performance

Market shares are applied to the available retail spend of trade area households by commodity group at the assumed first full year of trading to derive an estimate of centre sales. It is estimated that the proposed retail centre could achieve sales of around \$41.3 million in its first full year of trade (YE June 2025). This reflects a healthy centre productivity level of \$8,893/m<sup>2</sup> indicating the proposed centre would be viable.



### Economic Impacts

The impact on existing retailers and designated centres should not be cause for concern for the following reasons:

- Retail spending generated by Total Trade Area residents is more than sufficient to support the proposal and existing retail facilities.
- The total projected impact amount would be redirected from many retailers including supermarkets, food outlets, and retail specialties, therefore the impact on any one trader would be only a fraction of the total.
- The estimated combined turnover of retailers in the Mareeba Centre zone (which are likely to experience the greatest economic impact) after the development of the proposal is forecast at a viable level.
- Given the proposal is located primarily on Centre zoned land, establishment of a retail centre at the subject site will effectively consolidate the capture of local resident retail spending in the Mareeba Centre zone, without threatening the viability of existing retailers.

Based on the above, it is concluded that the proposed retail centre would not jeopardise or compromise any existing centre, nor will it diminish their role and function in serving the retail, employment, entertainment and service needs of their residential and visitor populations. Rather, the proposal would result in a recapture of escape spending and consolidate centre activities within the designated Mareeba Centre zone.

### Need and Community Benefits

Need for the proposed development is demonstrated by the following:

- The population of the Total Trade Area is expected to grow by around 1,600 persons between 2021 and 2029.
- Total Trade Area average household expenditure in the relevant retail categories<sup>1</sup> is expected to increase from around \$166.9 million in 2021 to around \$174.8 million in 2025, and \$181.8 million by 2029. This growth, along with the current estimated supportable retail floorspace, is sufficient to accommodate the proposed development and the existing Mareeba retail network.
- Total Trade Area spending available to supermarkets (\$81.6m in 2021) is currently sufficient to support the proposed supermarket component, in addition to existing supermarket facilities.
- Based on an economic impact analysis, potential impacts of the proposed centre would unlikely threaten the vitality or viability of retailers or designated centres in or near the defined trade areas.
- The proposed centre generally aligns with the Mareeba Shire Council Planning Scheme, in that it will be established on land predominately zoned as Centre.

<sup>&</sup>lt;sup>1</sup> Take Home Food, Meals Out/Takeaway, and Convenience Homewares/Services



Community benefits of the proposal include:

- Provision of complementary retail options resulting in improved choice, variety, availability and accessibility.
- Provision of an additional full-line supermarket where only one option is available within a 30km drive distance from the subject site.
- Contribution to local and regional employment during the construction and operational phases. Based on typical benchmark employment measures, it is estimated that the proposed retail centre will support around:
  - 180 direct ongoing operational jobs (comprising full-time and part-time jobs); and
  - 120 direct and indirect full-time equivalent (FTE) job-years during the construction period.
- The proposed retail centre would not jeopardise or compromise any existing centre. Rather, it will recapture escape spending and consolidate centre activities within the designated Mareeba Centre zone.

### Conclusion

The proposed development represents a substantial net benefit to the residents of the greater Mareeba area and the Mareeba LGA as a whole.

In our opinion, there is a strong need for the proposed development which would improve the community's well-being without undermining the retail or centre network.



# **1. INTRODUCTION**

### 1.1 Proposed Development

Mareeba 232 Pty Ltd (the applicant) propose to develop a retail centre at 232 Byrnes Street, Mareeba. The development is proposed to include:

- A full line supermarket (3,365m<sup>2</sup> Gross Floor Area plus 290m<sup>2</sup> online pick-up area);
- Retail specialty stores (1,010m<sup>2</sup> GFA); and
- A drive-through fast food outlet (270m<sup>2</sup> GFA).

The applicant has indicated that they have engaged in discussion with Woolworths as the likely tenant for the full-line supermarket. It is assumed that the subject centre will open around January 2024, implying the year ending June 2025 will be the first full financial year of trading for the centre.

Current concept plans for the proposed development are shown in Appendix 1.

### 1.2 Subject Site

The subject land (232 Byrnes Street, Mareeba) is largely zoned Centre under the current Mareeba Shire Council Planning Scheme. It is understood that the proposed development is Impact Assessable under the current Mareeba Shire Council Planning Scheme.

The proposed retail centre will be opposite the existing Mareeba Square shopping centre, which includes a full-line Coles supermarket. It will have frontage to, and access from, Rankin Street and Byrnes Street. The Savannahlander train line runs along the western boundary of the subject site. Low and medium density residential uses are located to the west and south of the subject land.

Figure 1.1 shows an aerial view of the subject site and the surrounding land uses.

### 1.3 Purpose of Report and Methodology

Mareeba 232 Pty Ltd (the proponent of the retail centre) commissioned Foresight Partners to prepare this economic need and impact assessment. The primary objectives of this assessment are to:

- Assess the market potential of the proposed retail centre;
- Evaluate its potential economic impacts upon the viability and vitality of nearby centre facilities, and its implications for other approved or planned developments;
- Assess the economic need for the proposed retail centre, and the potential benefits accruing to the surrounding community.

In preparing this report, a number of investigations were undertaken. These included:



- Inspection of the existing retail centres and uses in the local area, including a supply analysis of the surrounding supermarkets, and food and drink outlets, including relevant proposed and approved developments;
- Determination of the subject centre's likely trade areas, based upon the proposed uses, the location of other centres and their functional role and competitiveness, the road network, travel times, topography and other factors;
- Estimation of the past and current population of the defined trade areas, and forecast population, based on ABS Censuses, Queensland Government population projections, ABS dwelling approval data and approved residential developments in the area;
- Extraction and analysis of socio-economic characteristics of the trade area's population as at the 2016 Census, and discussion of implications for retail demand;
- Estimation of the pool of retail expenditure generated by trade area households in the year ending June 2021 and forecasts of how this pool will increase over time (in constant dollar values);
- Estimation of likely turnover of the proposed retail centre in its assumed first full year of trading, and in its third and fifth year of trading;
- Analysis of the proposal's likely impact implications; and
- Assessment of the economic and community need for the proposed retail centre.

These investigations provide the basis for this economic need and impact assessment.

#### COVID-19 Implications

It is relevant to note that the current market conditions and constraints imposed as a consequence of the COVID-19 virus may have some fundamental and longer-term implications for many retail and other economic activities in Australia. Our assessment can only assume a pre-virus status quo re-emerges in the short-term.



Source: MetroMap aerial imagery dated October 2021

# 2. CENTRE NETWORK AND RETAIL SUPPLY ANALYSIS

This section describes the surrounding centre network and sets out key retailers in the local area relevant to this assessment.

### 2.1 Existing Centre Network

Typically, a designated retail centre network comprises different types of centres which satisfy various needs of consumers. However, in the case of the current Mareeba Planning Scheme, there is only one Centre zone designation to provide for primarily retail and commercial uses.

The adjoining Tablelands region operates with the same planning principle (one Centre zone designation), however Cairns Regional Council defines (in order) Principal, Major, District, Local, and Neighbourhood Centres which perform various functions in a hierarchical manner.

Key designated centres relevant to this assessment are described below and their locations are shown in Figure 2.1.

#### Mareeba Centre

The designated Centre zone in Mareeba follows both sides of the main road, Byrnes Street, and extends from Lloyd Street in the North to just beyond Lerra Street in the south. There are two centralised offerings, Mareeba Square and Mareeba Centre, as well as several specialty stores, professional services, large format retailers, and food and drink outlets predominately fronting Byrnes Street.

Mareeba Square, located towards the southern end of town, is the largest shopping centre in Mareeba (4,269m<sup>2</sup> GLA) and is anchored by a Coles supermarket (3,064m<sup>2</sup> GLA). The centre also hosts seven specialty retailers. Tenants include a liquor store, chemist, butcher, discount store, tobacconist, and two food and drink outlets. There is also a Kmart K Hub to the east of Mareeba Square across Walsh St.

The 'Mareeba Centre', located towards the middle of the Centre zone area, is anchored by a SUPA IGA (~1,200m<sup>2</sup> GLA) and hosts a liquor store, café, pharmacy and various commercial services.

#### Atherton Centre

Atherton's designated centre zone encompasses Main Street and surrounding areas. The central business district includes Atherton Square Shopping Centre in the north and the Silo Central Shopping Centre in the south, and many other specialty stores and large format retailers.

Atherton Square (4,926m<sup>2</sup> GLA) is anchored by Woolworths (3,294m<sup>2</sup> GLA) and hosts ten speciality stores/services including a liquor store and a pharmacy.



The Silo Central Shopping Centre is anchored by a large IGA supermarket and hosts nine specialty stores and services, including a liquor store, a bank branch and a pharmacy.

Retail offerings in Atherton outside of these shopping centres include a multitude of specialty stores, professional services, food and drink outlets, and large format retailers such as Big W, Bunnings, Repco, and the Reject Shop.

#### Kuranda Centre

The Kuranda Centre zone follows the area contained by, and adjacent to, Coondoo Street, Thooree Street and Therwine Street. This Centre precinct is anchored by Foodworks (1,012m<sup>2</sup> GLA) and contains an Australia Post, real estate agent, pharmacy, a number of food and drink outlets, and several other specialty retailers.

Many retailers in Kuranda rely heavily on the visitor market and can be described as gift, apparel, and leisure retail. Due to COVID-19 induced travel restrictions, retail performance in Kuranda has slumped. It is expected that visitation and retail sales levels will recover to historic levels in the medium-term future.

#### Smithfield Centres

Smithfield is part of the Cairns Regional Council area and has several centre zone designations in distinct areas.

The highest order Centre in Smithfield, located at the corner of Kennedy Highway and Captain Cook Highway, is zoned Major Centre and includes the Smithfield Shopping Centre (30,307m<sup>2</sup> GLA). This mall is anchored by Kmart (6,460m<sup>2</sup> GLA), Woolworths (4,128m<sup>2</sup> GLA) and Coles (3,005m<sup>2</sup> GLA), and offers around 87 specialty retailers.

Opposite the Smithfield Shopping Centre, across the Captain Cook Highway, there are several large format retailers including Supercheap Auto, Anaconda, BCF, Petstock, and two home goods stores on Mixed-Use zoned land.

Two smaller Local Centre precincts which accommodate specialty retail offerings and food and drink outlets are located north of the Smithfield Major Centre zone along the Captain Cook Highway.

#### Cairns Principal Centre (Cairns CBD)

The Cairns Principal Centre zone extends from Bunda Street in the west to the esplanade in the east, as well as a small area beyond the esplanade which encompasses The Pier Cairns Shopping Mall.

The largest consolidated offering of the Cairns Principal Centre is the Cairns Central Shopping Centre (41,401m<sup>2</sup> GLA) which is in the north-western area of the Principal Centre precinct. Cairns Central is anchored by Coles (3,630m<sup>2</sup> GLA), a recently opened Woolworths (~3,700m<sup>2</sup> GLA), Myer (12,488m<sup>2</sup> GLA) and Kmart (4,236m<sup>2</sup> GLA). The centre also hosts around 158 specialty tenants.

Beyond Cairns Central Shopping Centre, the Principal Centre area offers a plethora of specialty stores, food and drink outlets, hotels, night markets, and two additional supermarkets (Woolworths and IGA X-Press Esplanade).



### 2.2 Supermarket Supply

Table 2.1 sets out the existing supermarkets in Mareeba and the surrounding area in order of their distance (by road) from the subject site. The locations of these facilities are shown in Figure 2.1.

Table 2.1: Existing Supermarket Network, Mareeba and Surrounds

Name	Address	Size (m²)	Distance from Subject Site (km)*
Coles Mareeba	Mareeba Plaza Shopping Centre, Byrnes St, Mareeba QLD 4880	3,064	0.1
Cornetts Supa IGA	135 Byrnes Street, Mareeba QLD 4880	~1,200	1.0
Woolworths Atherton	4 Cook St, Atherton QLD 4883	3,294	33.1
IGA Atherton	2-4 Silo Road, Atherton QLD 4883	2,700	33.9
FoodWorks	16 Thooree St, Kuranda QLD 4881	1,012	37.2

Source: PCA Shopping Centre Directory, Foresight Partners, Google Maps. \*Distance by road from subject site.

There are three supermarkets in Mareeba and the surrounding areas, namely Coles, SUPA IGA, and Foodworks. Only one supermarket within 30 kilometres of the subject site meets the definition of a full-line supermarket (Coles).

## 2.3 Food and Drink Retail Supply

Table 2.2 sets out the existing food and drink facilities in Mareeba in order of their distance (by road) from the subject site, noting which facilities have drive-through amenities. The locations of these facilities are shown in Appendix 2.

Map ID	Name	Address	Distance from Subject Site (km)*
	Drive-Through		
F1	McDonald's	235 Byrnes St, Mareeba QLD 4880	0.1
F2	Curcio's Drive-thru Bakery	188 Walsh St, Mareeba QLD 4880	0.2
F3	Red Rooster	74 Byrnes St, Mareeba QLD 4880	0.9
	No Drive-Through		
	Why Not Ice Cream Parlour	186 Walsh St, Mareeba QLD 4880	0.2
	Nastasi's Takeaway & Seafood	Shop 3/210 Byrnes St, Mareeba QLD 4880	0.3
	Secret Recipe Thai Restaurant	Shop1/210 Byrnes St, Mareeba QLD 4880	0.3
	Dino's Europa Deli & Cafe	192 Byrnes St, Mareeba QLD 4880	0.4
	Skybury Coffee Bar	shop 1/150 Byrnes St, Mareeba QLD 4880	0.6
	Subway	shop 1/150 Byrnes St, Mareeba QLD 4880	0.6
	Domino's Pizza Mareeba	150 Byrnes St, Mareeba QLD 4880	0.6
	KFC Mareeba	114 Byrnes St, Mareeba QLD 4880	0.7
	Cage & Co. Eatz	6 Atherton St, Mareeba QLD 4880	0.7
	Mareeba kebab & more	7/11 Atherton St, Mareeba QLD 4880	0.7

Table 2.2: Existing Food and Drink Network, Mareeba



Map ID	Name	Address	Distance from Subject Site (km)*
	Malaysia Noodle House Mareeba	5/11 Atherton St, Mareeba QLD 4880	0.7
	L&Bs Fish n Chips	9 Atherton St, Mareeba QLD 4880	0.7
	Domigo Coffee	165-167 Byrnes St, Mareeba QLD 4880	0.7
	SUSHIAFFAIRE	195 Byrnes St, Mareeba QLD 4880	0.7
	Vincenzo's Coffee Lounge	94 Byrnes St, Mareeba QLD 4880	0.8
	Cafe Trieste	135 Byrnes St, Mareeba QLD 4880	0.9
	Baba curry	53A Byrnes St, Mareeba QLD 4880	1.1
	Hong Kong Chinese Takeaway Restaurant	85 Byrnes St, Mareeba QLD 4880	1.1
	Joe's Pizza Parlour & Cafe	85 Byrnes St, Mareeba QLD 4880	1.1
	Sunrise Chinese Restaurant	69 Byrnes St, Mareeba QLD 4880	1.2
	The Hungry Pug Mareeba	95 Byrnes St, Mareeba QLD 4880	1.2
	Signature Pies	95 Byrnes St, Mareeba QLD 4880	1.2
	Buzz Bar	127-131 Byrnes St, Mareeba QLD 4880	1.3
	Coffee Works	136 Mason St, Mareeba QLD 4880	1.7
	Mareeba Heritage Coffee House	inside museum, 345 Byrnes St, Mareeba QLD 4880	2.1

Source: Google Maps, Foresight Partners. \*Distance by road from subject site.

Within the Mareeba area, three food and drink outlets with drive-through facilities (McDonald's, Curcio's Drive-Thru Bakery and Red Rooster) and 25 additional food and drink outlets without drive-through facilities were identified.

In Kuranda, there are around 17 food and drink outlets, however there are none with drivethrough facilities.

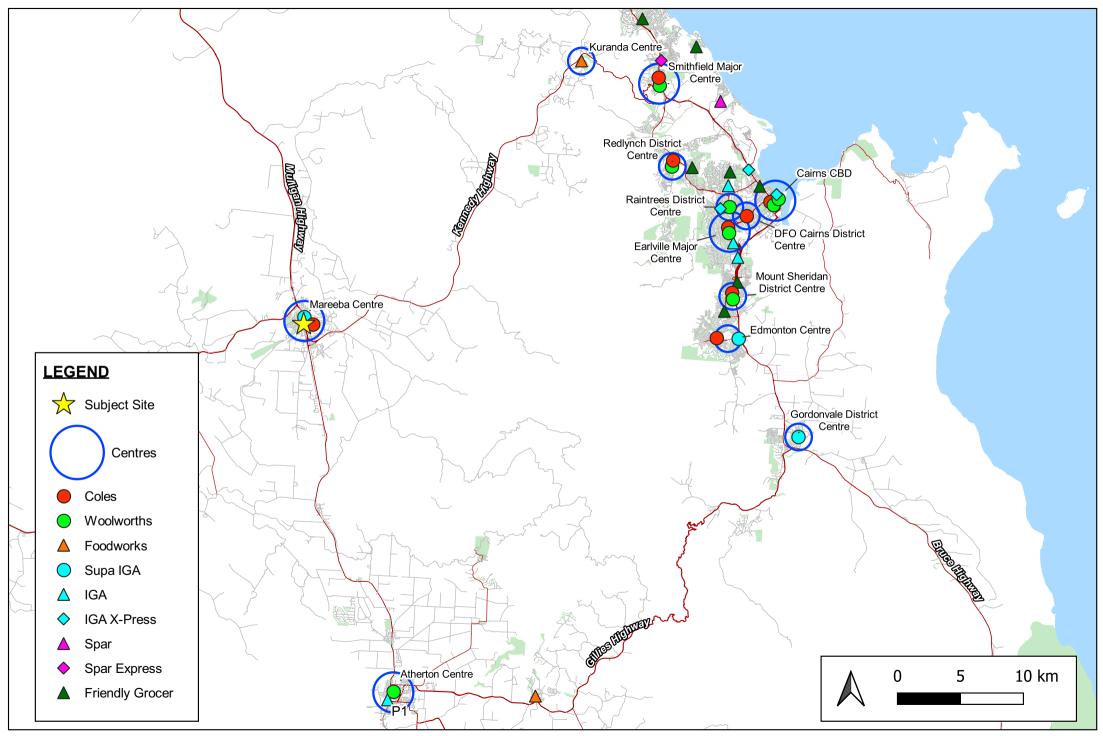
The Atherton Centre has a number of food and drink offerings, however only two (KFC and McDonald's) offer drive-through facilities.

### 2.4 Proposed and Approved Developments

Searches of various Council's Development Application databases revealed the following relevant retail/commercial development applications.

- **Map ID A1 (Appendix 2):** as part of an expansion planned for the Mareeba Industrial Precinct, development of a 92m<sup>2</sup> GFA food and drink outlet at 3 Martin Tenni Drive, Mareeba (MCU/21/0017) is approved.
- **Map ID P1 (Figure 2.1):** A development application to increase the retail floorspace in the Silo Central Shopping Centre in Atherton is under assessment. If it proceeds, this development will increase the centre floorspace by 1,135m<sup>2</sup> to a total GFA of 5,287m<sup>2</sup>. The majority of this proposed increase is a 1,000m<sup>2</sup> extension to the existing IGA.

Figure 2.1: Existing Centre Network, Mareeba and Surrounds



Note: Only District Centres and Major Centres shown in Cairns. Locations are indicative only.

# **3. MARKET FUNDAMENTALS**

This section defines trade areas likely to be primarily served by the proposed centre, examines socio-economic characteristics and forecasts growth in population and households over time. Estimates of retail expenditure potential generated by trade area households now and in future years are also presented.

### 3.1 Defined Trade Area

Several factors influence the geographic extent of the proposed centre's defined trade areas, such as:

- the size, composition and function of the proposed centre;
- its layout, ambience and parking;
- the size, composition, access, and proximity of competitive centres and facilities;
- the nature and proximity of other attractions;
- ease of access by car and foot; and
- natural and man-made barriers to movement such as the road network and topographic features.

The proposed retail centre will be anchored by a full-line supermarket and supported by several convenience shops and services, including a drive-through food outlet.

Figure 3.1 shows the defined trade areas for the proposed retail centre based on ABS Statistical Area (SA1) boundaries.

The Primary Trade Area (PTA) encompasses the localities of Mareeba, Walkamin, Biboohra, Koah and Speewah. It is expected that the proposed retail centre will draw much of its trade from residents of these areas.

The Secondary West Trade Area (SWTA) includes the localities of Mount Molloy, Southedge, Paddy's Green, Glen Russell, Thornborough, Chewko, Arriga, Mutchilba, Dimbulah, and Petford.

The Secondary North Trade Area (SNTA) includes the localities of Mona Mona and Kuranda. Given its proximity to Cairns (and its associated retail network), it is expected that the proposed retail centre will capture a smaller market share of retail spending from this area.

### 3.1.1 External Demand

The proposed centre is likely to capture a portion of its trade from beyond the defined trade areas, commonly described as external demand. For example, the drive times from Cooktown to the subject site and potentially competitive retail destinations are set out below (Source: Google Maps):

- Cooktown to subject site: 2hr 56min or 264km.
- Cooktown to Coles Port Douglas: 3hr 6min or 266km.

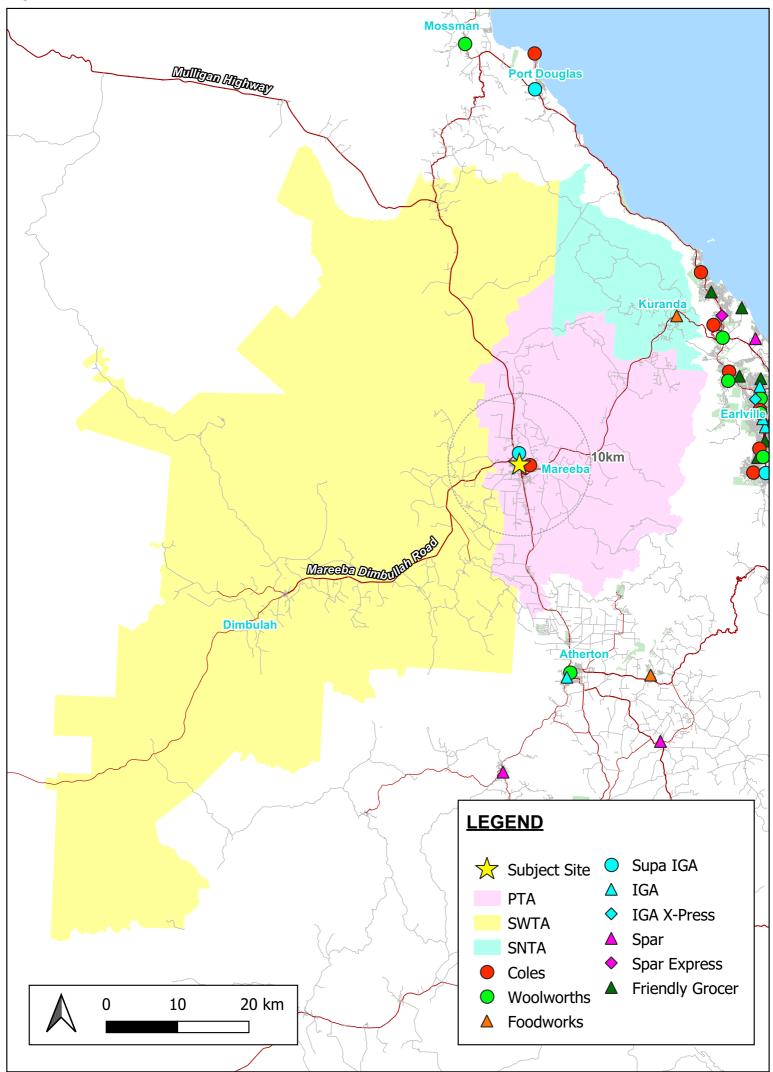


- Cooktown to Woolworths Mossman: 2hr 55min or 254km.
- Cooktown to Smithfield Shopping Centre: 3hr 41min or 314 km (noting that quickest route passes through Mareeba).

In essence, travel times to the nearest full-line supermarkets (Mossman, Port Douglas, Mareeba) for Cooktown residents are effectively equal (~3 hours). This implies that Cooktown residents may utilise retail facilities in Mareeba to some degree, including the subject centre (if developed).

Sales at the subject centre to Cooktown and other non-trade area residents would comprise a part of 'external sales' as described later in this report.

Figure 3.1: Defined Trade Areas





### 3.2 **Population Projections**

Table 3.1 sets out estimated population and households in the defined trade areas between 2011 and 2029.

Catchment area population projections are Foresight Partners' estimates based on ABS Census data, ABS resident population estimates, Queensland Government Statistician's Office (QGSO) projections by SA2, and proposed and approved residential developments.

The most significant of these include:

- Within PTA: 36 Anzac Avenue, Mareeba (Savannah Lifestyle Resorts Mareeba) – a 170 dwelling retirement community is currently under construction. Around 100 of these have been built.
- Within PTA: Antonio Drive, Mareeba (RAL/20/0012 and OPW/21/0002) two residential developments (one as part of the Edge Estate) are approved over adjacent sites at Antonio Drive. The developments will result in a combined addition of 62 residential dwellings.
- Within PTA: Amaroo Drive, Mareeba (OPW/20/0004) The final stages (Stages 11 and 12) of the Amaroo Estate were approved in December 2020. Latest plans indicate that these final stages will add 39 residential dwellings.
- Within PTA: 85 Godfrey Road, Mareeba (RAL/21/0016) a 49 lot residential subdivision is proposed over Lot 219 NR378. As at the time of writing, this application is at the Information Request stage.
- Within SNTA: 112 Barnwell Road, Kuranda (RAL/18/0002) a 191 lot subdivision is approved over a large area located between Warril Drive and Barnwell Road. Current plans indicate that 179 of these will be non-urban residential lots (with the remainder as drainage and balance lots).

These, and other smaller residential developments, form the basis of catchment area population projections.

It is estimated that the June 2021 **Total Trade Area (TTA)** population was around 20,480 persons in 8,155 households. This is projected to increase to around 21,335 persons in 8,540 households by the year ending June 2025, which is the assumed first full year of trading for the proposed retail centre. By June 2029, the population of the **Total Trade Area** is forecast to reach around 22,080 persons.

Population growth in the Primary Trade Area is expected to account for around 84% of growth in the Total Trade Area between 2021 and 2029.



	2011	2016	2019	2021	2023	2025	2027	2029	Inc. 2021- 29
<u>PTA</u>									
Population	12,730	13,680	14,220	14,560	14,910	15,260	15,580	15,900	1,340
Households	5,050	5,375	5,600	5,745	5,895	6,045	6,185	6,325	580
Persons per Dwelling	2.52	2.55	2.54	2.53	2.53	2.52	2.52	2.51	
<u>SWTA</u>									
Population	2,595	2,650	2,690	2,705	2,750	2,790	2,820	2,845	140
Households	1,025	1,055	1,085	1,095	1,120	1,140	1,155	1,170	75
Persons per Dwelling	2.53	2.51	2.48	2.47	2.46	2.45	2.44	2.43	
<u>SNTA</u>									
Population	3,050	3,085	3,160	3,215	3,250	3,285	3,310	3,335	120
Households	1,175	1,250	1,300	1,315	1,335	1,355	1,370	1,385	70
Persons per Dwelling	2.60	2.47	2.43	2.44	2.43	2.42	2.42	2.41	
TOTAL TA									
Population	18,370	19,415	20,070	20,480	20,910	21,335	21,710	22,080	1,600
Households	7,250	7,680	7,985	8,155	8,350	8,540	8,715	8,885	730
Persons per Dwelling	2.53	2.53	2.51	2.51	2.50	2.50	2.49	2.49	

Table 3.1: Estimated Population and Households, Defined Trade Areas, June 2011 to June 2029

Source: ABS Census 2016, Foresight Partners' estimates based on ABS ERP by SA1 2020 (unpublished), QGSO Medium Series Population Projections (2018 edition), approved residential projects, ABS Dwelling Approvals by SA1 (unpublished). Figures may not add due to rounding. Population refers to persons in private households.

### 3.3 Demographics

A summary of the key socio-economic characteristics of trade area residents and households at the 2016 Census is shown in Table 3.2. Data for the Mareeba LGA and Queensland are included as benchmarks. Notable characteristics of the trade areas and key differences from the benchmark areas include:

- The PTA had an older age profile with 20.6% of persons aged 65+, compared to 15.2% aged 65+ in Queensland.
- The TTA had a low labour force participation rate (57.3%) compared to Queensland (65.7%).
- Average annual household income of \$74,956 in the TTA was greater than the Mareeba LGA (\$73,806) but considerably lower than Queensland (\$95,000).
- A higher proportion of TTA households owned their homes outright (39.9%) compared to Queensland households (29.3%).
- Both average annual mortgage and rental costs were far lower in the TTA compared to the Queensland averages.
- The TTA had a lower proportion of households comprising couples with children (26.1%) compared to Queensland (30.3%).



These characteristics suggest that Total Trade Area households are likely to exhibit slightly lower than average levels of demand for retail shops and services.

	РТА	SWTA	SNTA	Total TA	Mareeba LGA	QLD
Age (%)						
0-14	19.0	13.4	19.7	18.1	18.0	19.4
15-24	11.3	13.6	7.9	11.2	10.8	13.0
25-44	22.5	29.2	21.7	23.5	23.1	27.1
45-64	26.7	29.5	33.6	28.2	29.1	25.2
65+	20.6	14.3	17.1	19.0	18.9	15.2
Employment (%)						
In labour force	60.5	45.1	58.3	57.3	57.0	65.7
Unemployed	8.2	7.3	9.1	8.2	8.4	7.6
White collar occupations	61.2	64.3	72.1	63.2	62.9	67.8
Employed per household	1.0	1.0	0.9	1.0	1.0	1.2
Household Income						
Average (\$2020 values)	\$75,492	\$75,611	\$72,139	\$74,956	\$73,806	\$95,000
Dwelling Structure (%)						
Detached	90.7	93.9	95.0	91.8	91.9	77.2
Semi-detached	2.0	0.3	0.6	1.6	1.6	10.6
Flats/units	4.5	0.8	2.1	3.6	3.4	11.3
Other structure	2.8	5.0	2.2	3.0	3.2	0.9
Dwelling Tenure (%)						
Owned	40.2	43.2	35.5	39.9	40.6	29.3
Purchasing	28.9	26.8	35.0	29.6	29.5	34.7
Renting	30.8	29.1	28.3	30.2	29.2	35.2
Housing Cost (\$)						
Average Annual Occupancy Cost - Mortgagees	\$8,322	\$8,141	\$10,923	\$8,730	\$8,483	\$13,166
Average Annual Occupancy Cost - Rentals	\$13,175	\$9,270	\$13,617	\$12,753	\$12,551	\$18,812
Mobility (%)						
No car	7.6	3.6	7.1	7.0	6.8	6.1
1 Car	32.9	27.0	37.7	32.8	33.0	35.4
2 or more cars	59.5	69.4	55.2	60.2	60.2	58.5
Education (Aged 20+) (%)						
Bachelors Degree	8.8	4.8	13.6	8.7	8.6	14.1
Grad Dip/Grad Cert	0.9	0.2	2.4	1.0	0.9	1.9
Postgraduate Degree	1.3	0.6	3.9	1.5	1.5	3.8
Family Type (%)						
Couples with Children	26.6	28.4	21.7	26.1	25.7	30.3
Couples without Children	31.8	33.3	30.7	31.8	31.6	28.9
Single Parent Household	11.6	8.7	12.6	11.4	11.0	11.1
Lone Person Household	26.0	27.0	26.9	26.3	27.0	23.9
Group/Other Household	4.1	2.6	8.1	4.5	4.7	5.7

Table 3.2: Selected Socio-economic Characteristics, Defined Trade Areas

Source: ABS Census 2016.



### 3.4 Retail Trends

Retailing is a dynamic industry which must respond to, and often anticipate, demographic and social changes in order to compete and survive in a highly competitive environment. This section provides an overview of the current retailing industry in Australia and identifies possible future avenues for innovation. Specific attention is paid to retail trends that are relevant to the role, function and scale of the proposed centre.

### 3.4.1 General Trends

Current and future retail and centre trends are influenced by consumer demand and preferences, retailer strategies and lifestyle changes. Recent retail trends include:

**Increased Expenditure on Dining Out and Takeaway Food** – Increased expenditure on food and drinks outside of the home has been a long-running trend, predating delivery apps. Eating out at cafes, restaurants and fast-casual dining have become more common, as food and drink outlets have become a key offering of local and regional shopping centres to attract consumers.

**Reliance on Convenience-Based Retail** – The average Australian consumer is moving away from large fortnightly grocery shopping trips, in favour of more regular weekly grocery shopping trips. Despite this shift in preferences, consumers continue to place a high level of importance on the ability to conveniently access supermarket facilities that offer a full range of goods. Going forward, the appeal of these highly convenient centres will be contingent on the positioning of a centre and its proximity to the local residential catchment.

**Diversity in Tenancy Mix** – Health care services in addition to entertainment, lifestyle retail and other services now commonly form part of the modern shopping centre tenancy mix, even at the local level. Tenants commonly found in modern local shopping centres include fitness services (e.g. gyms, boxing, yoga, Pilates), health care services (e.g. doctors, dentists, allied health), and other services (e.g. childcare, veterinarian, travel agent, real estate).

**Modern Design and Function** – New centres are typically designed to a high standard to meet the expectations of emerging communities. In addition to a diverse tenancy mix, new centres often include ancillary community meeting and public spaces with open space and outdoor seating. This can lead to benefits such as fostering greater community connection and interaction at the local level.

### 3.4.2 Supermarket Trends

**Market Growth** – There has been significant market growth in supermarket and grocery retailing in recent years. Total turnover for supermarkets and grocery stores in Queensland has increased from around \$20.1 billion in 2010-11 to \$23.9 billion in 2019-20 (in constant 2020 dollars)<sup>2</sup>. The average annual growth rate of sales over this period (2.4%) is greater than that of the Queensland population (1.6%), which suggests that market growth is outstripping population growth.

<sup>&</sup>lt;sup>2</sup> ABS Retail Trade (2010 to 2020).



**Delivery** – Woolworths and Coles experienced a significant increase in demand for delivery services during the COVID-19 pandemic. It remains to be seen if this will continue in the future or if consumers will prefer the in-store supermarket experience. Considering the trends toward smaller and more frequent baskets of goods and the use of ready-meal delivery services, there is some doubt if home delivery will continue to increase as a portion of major supermarket retailers' revenues.

**Click and Collect** – As an alternative to supermarket delivery services, 'click and collect' services have seen a considerable rise in popularity since their introduction and adoption. Both Woolworths and Coles have introduced a free service in many of their stores where groceries chosen online are packed by staff members in preparation for pick up by the customer. Woolworths has built upon this convenience-focused model to provide drive-through grocery pick up at selected stores, which allows customers to collect their shopping without leaving their vehicle.

**Self-Checkouts** – Self checkout services have become an important tool for supermarkets to decrease staffing requirements, whilst improving speed and convenience for consumers. Self-checkout facilities require less floor space than traditional checkouts, which may provide opportunities for supermarket operators to change the store footprint in future developments.

**Market Entrants** – After arriving in Australia in 2004, Aldi is now a well-established brand with over 113 stores across Queensland and around a 12% market share of the total grocery market (source: Roy Morgan). Low-cost and bulky goods retailer, Costco, now has 12 Australian stores, including two in South East Queensland. Kaufland was due to open 20 stores in Australia, but the German supermarket brand announced in January 2020 that their expansion into Australia will not go ahead, despite having already purchased several sites.

The above trends highlight the demand for convenient and modern retail centres that meet the needs and standards typically expected by modern communities.

### 3.5 Retail Spending

Average retail expenditure levels for households in the trade areas were derived using average household income data based upon the 2016 Census, the ABS 2015-16 Household Expenditure Survey, National and State Accounts and Retail Trade data. Dollar values from these sources were inflated to common December 2020 values. Household retail expenditures consist of five broad categories:

- **Take home food** which includes food expenditure at supermarkets, grocery stores, greengrocers, butchers, bakers, tobacconists, delis and bottle shops;
- **Meals out and take away food** includes restaurants, takeaways, cafes, coffee shops and alcohol consumed on premises;
- **Apparel** clothing and footwear, including hire services;
- **Convenience homewares and personal services** includes non-food projects typically sold in chemists, newsagents and supermarkets (e.g. paper products, pet



supplies, cleaning items and personal health and beauty products) and personal services (e.g. hairdresser, dry cleaning); and

• **Comparison homewares** – goods that consumers buy at infrequent intervals and would normally compare prices before purchasing (e.g. furniture, appliances, tools, computers, jewellery and luggage).

Household spending on Take Home Food, Meals Out/Takeaway and Convenience Homewares/Services will likely be most relevant to the proposed retail centre.

### 3.5.1 Average Annual Household Retail Spending

Figure 3.2 displays the estimated average annual household retail expenditure potential generated by trade area residents (segmented by retail group) compared to Mareeba LGA and Queensland (all figures are in constant December 2020 dollar values).

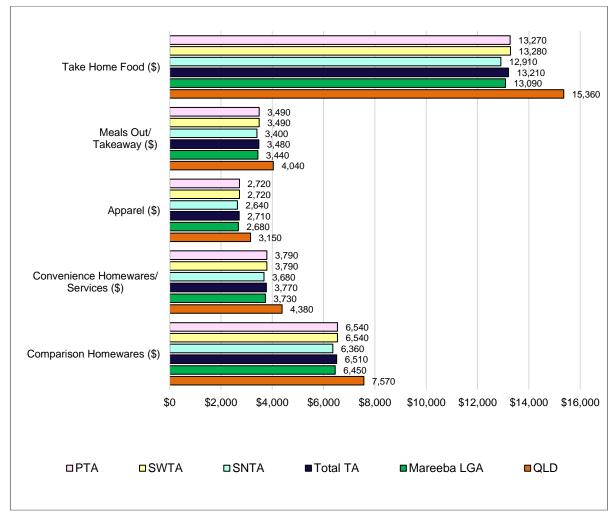


Figure 3.2: Average Annual Household Retail Expenditure Potential, Defined Trade Areas, 2021

Source: Foresight Partners' estimates based on ABS Census 2016, ABS 2015-16 Household Expenditure Survey, National and State Accounts and Retail Trade Data. Figures are in December 2020 dollar values.



#### 3.5.2 Current and Forecast Household Spending Potential

Multiplying average household expenditure by the number of trade area households at the June 2016 base year produces an estimate of total retail expenditure potential. Similar calculations for forecast years (2021 to 2029) produces estimates of the pool of expenditure generated by trade area residents, as shown in Table 3.3.

	Take Home Food (\$m)	Meals Out/ Takeaway (\$m)	Apparel (\$m)	Convenience Homewares/ Services (\$m)	Comparison Homewares (\$m)	Total (\$m)
<u>2016</u>						
PTA	71.3	18.8	14.6	20.4	35.1	160.2
SWTA	14.0	3.7	2.9	4.0	6.9	31.5
SNTA	16.2	4.3	3.3	4.6	8.0	36.3
Total TA	101.5	26.7	20.8	29.0	50.0	228.0
<u>2021</u>						
PTA	76.3	20.1	15.6	21.8	37.6	171.3
SWTA	14.6	3.8	3.0	4.2	7.2	32.7
SNTA	17.0	4.5	3.5	4.8	8.4	38.1
Total TA	107.8	28.4	22.1	30.8	53.1	242.1
<u>2023</u>						
PTA	78.3	20.6	16.0	22.4	38.6	175.8
SWTA	14.9	3.9	3.1	4.3	7.3	33.4
SNTA	17.2	4.5	3.5	4.9	8.5	38.7
Total TA	110.4	29.0	22.6	31.5	54.4	247.9
<u>2025</u>						
PTA	80.2	21.1	16.5	22.9	39.6	180.3
SWTA	15.1	4.0	3.1	4.3	7.5	34.0
SNTA	17.5	4.6	3.6	5.0	8.6	39.3
Total TA	112.9	29.7	23.1	32.2	55.6	253.5
2027						
PTA	82.1	21.6	16.8	23.5	40.5	184.4
SWTA	15.4	4.0	3.1	4.4	7.6	34.5
SNTA	17.7	4.7	3.6	5.0	8.7	39.7
Total TA	115.1	30.3	23.6	32.9	56.7	258.6
2029						
PTA	84.0	22.1	17.2	24.0	41.4	188.6
SWTA	15.6	4.1	3.2	4.4	7.7	35.0
SNTA	17.9	4.7	3.7	5.1	8.8	40.2
Total TA	117.4	30.9	24.1	33.5	57.9	263.8
<u>Inc 2021-</u> 2029						
PTA	7.7	2.0	1.6	2.2	3.8	17.3
SWTA	1.0	0.3	0.2	0.3	0.5	2.3
SNTA	0.9	0.2	0.2	0.3	0.5	2.1
Total TA	9.6	2.5	2.0	2.8	4.8	21.7

Source: Table 3.1, Figure 3.2, Foresight Partners. No allowance for inflation over time or increases in real spending. Constant December 2020 dollars. Figures may not add due to rounding.



The proposed retail centre would compete with other centres (or retailers) for a share of this estimated retail expenditure potential.

Total retail expenditure potential generated by **Total Trade Area** residents is expected to increase from around \$242.1 million in 2021 to \$263.8 million by 2029, an increase of around \$21.7 million.

### 3.6 Supermarket Spending

A portion of retail expenditure in the Take Home Food and Convenience Homewares/Services retail categories will be directed to supermarkets. Estimates of trade area retail spending likely available to supermarkets is set out in Table 3.4.

Assuming around 70% of Take Home Food and 20% of Convenience Homewares/Service expenditure is available to supermarkets, it is estimated that the Total Trade Area generated around \$81.6 million in supermarket spending in the year ending June 2021. This is forecast to increase to around \$85.4 million by YE June 2025, and \$88.9 million by YE June 2029.

#### Theoretically Supportable Supermarket Floorspace

Table 3.4 also sets out estimates of theoretically supportable supermarket floorspace by converting supermarket spending generated by trade area residents to floorspace using an assumed average productivity level.

	2021	2023	2025	2027	2029	Inc. 2021-29		
Supermarket Spending (\$m	Supermarket Spending (\$m)							
PTA	57.7	59.2	60.8	62.2	63.6	5.8		
SWTA	11.0	11.3	11.5	11.6	11.8	0.8		
SNTA	12.8	13.0	13.2	13.4	13.6	0.7		
Total TA	81.6	83.5	85.4	87.2	88.9	7.3		
Theoretically Supportable S	Supermarket	Floorspace	<u>(m²)</u>					
PTA	6,415	6,583	6,750	6,907	7,063	648		
SWTA	1,225	1,251	1,274	1,291	1,310	85		
SNTA	1,427	1,449	1,470	1,488	1,506	78		
Total TA	9,067	9,283	9,494	9,686	9,878	811		
Supermarket Floorspace Supply (m <sup>2</sup> )								
Total TA	5,276							

#### Table 3.4: Theoretically Supportable Supermarket Floorspace, 2021 to 2029

Source: Table 3.3, Foresight Partners. Figures may not add due to rounding. No allowance for external trade.

Assuming an average productivity (sales per m<sup>2</sup>) of \$9,000/m<sup>2</sup>, supermarket spending generated by Total Trade Area residents in YE June 2021 could theoretically support around 9,067m<sup>2</sup> of supermarket floorspace. This is forecast to increase to 9,878m<sup>2</sup> by 2029.



By comparison, there is currently around 5,276m<sup>2</sup> of total supermarket floorspace supplied within the defined trade areas (including Coles Mareeba, SUPA IGA Mareeba, Foodworks Kuranda). This analysis indicates that the Total Trade Area population could support a significantly greater amount of supermarket floorspace than the existing provision within the Total Trade Area.

It is relevant to note that these estimates do not account for additional expenditure (or demand) generated by external trade (i.e. non-trade area residents), nor do they imply that all supermarket spending or floorspace demand will be (or should be) met within the defined trade areas.



# 4. FORECAST PERFORMANCE

### 4.1 Assumptions

The forecast performance of the proposed centre has been estimated under the following assumptions:

- The proposed retail centre will open around January 2024, therefore the year ending June 2025 is the assumed first full year of trading.
- The proposed retail centre will have an assumed tenancy mix as set out in Table 4.1.
- There will be no changes in the competitive environment other than those noted in Section 2.5.

#### Table 4.1: Indicative Tenancy Mix, Proposed Centre

Category	GFA (m²)	% of Total
Take Home Food	3,170	68.3%
Meals Out/Takeaway	670	14.4%
Convenience Homewares/Services	805	17.3%
Centre Total	4,645	100.0%

Source: Foresight Partners assumptions based on current concept plans. Includes drive-through food outlet. Supermarket floorspace is allocated between the Take Home Food and Convenience Homewares/Services categories.

## 4.2 Centre Performance

Market shares are applied to the available retail spend generated by trade area households by commodity group at the assumed first full year of trading as a basis for estimated centre sales.

However, this does not capture the spending of workers, visitors and residents from outside the trade area who will also have occasion to shop at the centre. Given the size, likely attraction, and location of the proposed retail centre on Byrnes Street, this component of sales derived from these sources is estimated at around 12% of the total turnover. This component of sales is generally described as external sales, as it is derived from people who reside outside the defined trade area, and can be geographically diverse in origin.

Table 4.2 sets out the forecast sales of the proposed centre in the year ending June 2025 (the assumed first full year of operation).

It is estimated that the proposed retail centre could achieve sales of around \$41.3 million in its first full year of trade (YE June 2025). This reflects a healthy centre productivity level of \$8,893/m<sup>2</sup> indicating the proposed centre would be viable.



	Take Home Food	Meals Out/ Takeaway	Convenience HWs/Services	Total
PTA Retail Spend (\$m)	80.2	21.1	22.9	124.3
Est. Market Shares (%)	30%	14%	14%	24%
Sales from PTA (\$m)	24.1	3.0	3.2	30.2
SWTA Retail Spend (\$m)	15.1	4.0	4.3	23.4
Est. Market Shares (%)	18%	9%	10%	15%
Sales from SWTA (\$m)	2.7	0.4	0.4	3.5
SNTA Retail Spend (\$m)	17.5	4.6	5.0	27.1
Est. Market Shares (%)	11%	5%	9%	10%
Sales from SNTA (\$m)	1.9	0.2	0.4	2.6
TTA Retail Spend (\$m)	112.9	29.7	32.2	174.8
Est. Market Shares of TTA (%)	25.4%	11.9%	12.7%	20.8%
Sales from TTA (\$m)	28.7	3.5	4.1	36.4
External Sales (12%) (\$m)	3.9	0.5	0.6	5.0
Total Turnover at 2025 (\$m)	32.6	4.0	4.6	41.3
Centre Productivity (\$/m <sup>2</sup> )	10,295	6,008	5,774	8,893

Table 4.2: Forecast Sales of Proposed Centre, YE June 2025 (2020 \$ values)

Source: Table 4.1, Foresight Partners. Assumes 12% of total sales originate from outside the defined trade areas. Figures may not add due to rounding. Centre productivity is equal to annual sales divided by <u>retail</u> floorspace.

### 4.3 Potential Sources of External Sales

As discussed in Section 3.1.1, the travel time to other full-line supermarkets (at Mossman and Port Douglas) for Cooktown residents is effectively equal to the travel time to the subject site (~3 hours). As such, it is likely that the residents of Cooktown and surrounds may represent a source of external sales.

As at June 2021, the population of Cooktown and its surrounds is estimated at around 3,100 persons in around 1,300 households. Utilising the same methodology detailed in Section 3.5.2, the population of Cooktown and its surrounds has an estimated retail expenditure potential of around \$40.0 million in YE June 2021.

Given the provision of only an IGA supermarket and limited other retail facilities in Cooktown, it is likely that a portion of this retail expenditure will be directed elsewhere, and potentially to the subject development in Mareeba.

# 5. IMPACT ASSESSMENT

This section defines economic impacts and sets out an impact assessment of the proposed development.

### 5.1 Economic Impact Defined

Economic impact stems from the probable reduction in turnover at existing designated centres (and other facilities) attributable to the introduction of competitive development in the form of new or expanded retail facilities. The turnover generated by a new centre (or centre extension) represents the dollar impact on an area's centre network/facilities in the first full year of operation in which it is introduced.

Dollar impacts are usually distributed among competitive centres, taking into account:

- the size and function of the proposed centre;
- the location of competitive centres and their size and/or function;
- access relative to competitive centres; and
- physical attributes of competitive centres, such as age, design, situation (freestanding centre or part of a central business area), etc.

### 5.2 Centre Impacts

Table 5.1 sets out the estimated distribution of the projected impacts at YE June 2025 upon nearby designated centres by value 'with and without' the proposed development's inclusion in the market.

Turnover estimates for other centres in the year ending June 2025 are Foresight Partners' estimates based on known sales for similar sized centres and anchor tenants located elsewhere, industry benchmarks and other data.

		Forecast Turnover		Impact
Centre/Store (Anchor)	% of Subject Centre Turnover	Without	With	(\$m)
Proposed Centre	100%	-	41.3	41.3
Mareeba Centre	60%	165.0	140.2	-24.8
Kuranda Centre	5%	38.0	35.9	-2.1
Smithfield Centres	5%	270.0	267.9	-2.1
Atherton Centre	20%	175.0	166.7	-8.3
Other	10%	N/A	N/A	-4.1
Net Change	-			-

Table 5.1: Forecast Impacts of Proposed Development, YE June 2025

Source: Table 4.2 and Foresight Partners.



Although the impact of \$24.8 million on existing retailers in the Mareeba centre zone may appear significant, in our opinion, it should not be cause for concern for the following reasons:

- The total projected impact amount (\$24.8m) would be redirected from many retailers including supermarkets, food outlets, and retail specialties, therefore the impact on any one trader would be only a fraction of the total.
- The estimated combined turnover of retailers in the Mareeba Centre zone postimpact is at a viable level.
- Retail spending generated by Total Trade Area residents in 2021 (\$242.1m) is theoretically sufficient to support around 40,350m<sup>2</sup> of retail floorspace (at \$6,000/m<sup>2</sup>), not all of which would be provided within the Total Trade Area. This is more than sufficient to support existing retailers and the proposed development (with consideration of likely spending outflows and inflows).
- Given the proposal is located primarily on Centre zoned land, establishment of a retail centre at the subject site will effectively consolidate the capture of local resident retail spending in the Mareeba Centre zone, without threatening the viability of existing retailers.

Projected impacts on other centres (Kuranda, Smithfield, Atherton, free-standing facilities, and centres further afield) are within normal competitive ranges and should not be cause for concern.

It should be noted that the COVID-19 pandemic has had significant impacts on the visitation and sales levels of retailers in Kuranda, as a large proportion of the Kuranda retail economy is dependent on spending by tourists. It is assumed that visitation and sales will return to historic levels by around 2025, resulting in a recovery of leisure/tourism retail in Kuranda.

### 5.3 Amelioration of Impacts

Amelioration of initial impacts will occur through population and retail spending growth in and outside the defined trade area.

It is estimated that between 2021 and 2029, population growth in the defined trade areas alone is projected to increase the available pool of retail spending by around \$21.7 million. Growth outside the trade areas would also assist in the amelioration of initial economic impacts borne by existing retailers.

### 5.4 Implications

Based on the above, it is concluded that the proposed retail centre would not jeopardise or compromise any existing centre/retailer, nor will it diminish their role and function in serving the retail, employment, entertainment and service needs of their residential and visitor populations. Rather, the proposal would result in a recapture of escape spending and consolidate centre activities within the designated Mareeba Centre zone.

# 6. NEED AND BENEFITS

Need for the proposed development is demonstrated by the following:

- The population of the Total Trade Area is expected to grow by around 1,600 persons between 2021 and 2029.
- Total Trade Area average household expenditure in the relevant retail categories<sup>3</sup> is expected to increase from around \$166.9 million in 2021 to around \$174.8 million in 2025, and \$181.8 million by 2029. This growth, along with the current estimated supportable retail floorspace, is sufficient to accommodate the proposed development and the existing Mareeba retail network.
- Total Trade Area spending available to supermarkets (\$81.6m in 2021) is <u>currently</u> sufficient to support the proposed supermarket component, in addition to existing supermarket facilities.
- Based on an economic impact analysis, potential impacts of the proposed centre would unlikely threaten the vitality or viability of retailers or designated centres in or near the defined trade areas.
- The proposed centre generally aligns with the Mareeba Shire Council Planning Scheme, in that it will be established on land predominately zoned as Centre.

Community benefits of the proposal include:

- Provision of complementary retail options resulting in improved choice, variety, availability and accessibility.
- Provision of an additional full-line supermarket where only one option is available within a 30km drive distance from the subject site.
- Contribution to local and regional employment during the construction and operational phases. Based on typical benchmark employment measures, it is estimated that the proposed retail centre will support around:
  - 180 direct ongoing operational jobs (comprising full-time and part-time jobs); and
  - 120 direct and indirect full-time equivalent (FTE) job-years during the construction period.
- The proposed retail centre would not jeopardise or compromise any existing centre. Rather, it will recapture escape spending and consolidate centre activities within the designated Mareeba Centre zone.

<sup>&</sup>lt;sup>3</sup> Take Home Food, Meals Out/Takeaway, and Convenience Homewares/Services



### 6.1 Conclusion

The proposed development represents a substantial net benefit to the residents of the greater Mareeba area and the Mareeba LGA as a whole.

In our opinion, there is a strong need for the proposed development which would improve the community's well-being without undermining the retail or centre network.





**Appendix 1: Current Concept Plans** 

# **DEVELOPMENT SCHEDULE**

PROPOSED USES	GFA	GLAR	
SUPERMARKET	3655m <sup>2</sup>	3603m <sup>2</sup>	
SHOPS	1010m <sup>2</sup>	992m <sup>2</sup>	
AMENITIES	90m <sup>2</sup>		
TOTAL CENTRE	4755m <sup>2</sup>	4595m <sup>2</sup>	
FAST FOOD	270m <sup>2</sup>	270m <sup>2</sup>	
TOTAL	5025m <sup>2</sup>	<b>4865m<sup>2</sup></b> (5/100m2)	
CAR PARKING SCHEDULE			
CARS FAST FOOD	11		
CARS CENTRE (INCL. MOTOR BIKES, DIRECT TO BOOT + TAXIS)	203		
ON SITE CARS	214		
STREET CARS	5		
TOTAL CARS PROVIDED	219		
TOTAL CARS REQUIRED	193	3	

# NOTE:

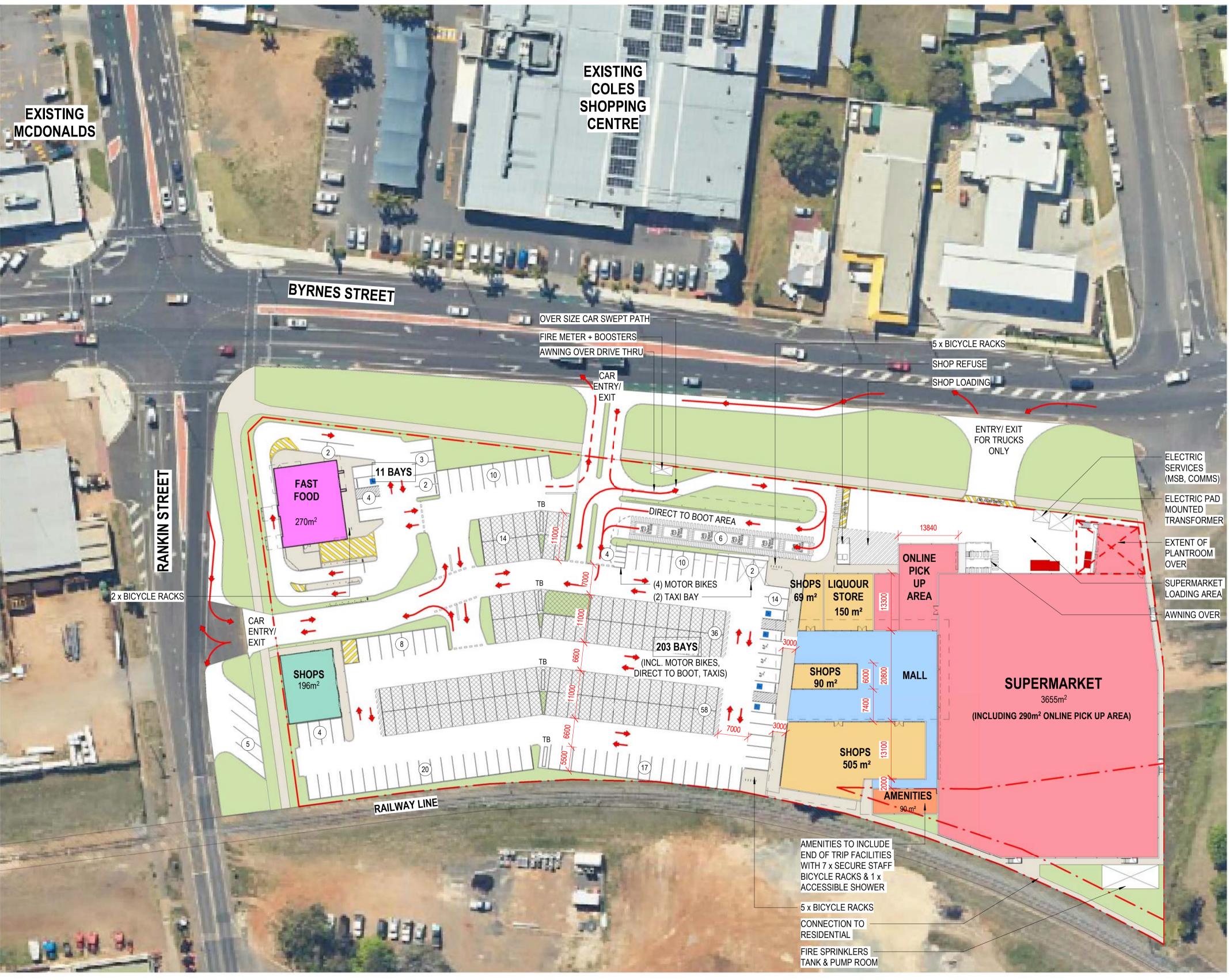
CARS REQUIRED IS BASED ON: 1/50 UP TO 400m<sup>2</sup> GFA 1/25 ABOVE 400m<sup>2</sup> GFA

# NOTE: SUPERMARKET GLAR EXCLUDES EXTERNAL WALLS AND LOADING DOCK

# **COVERED CARPARKS**

250 m

AREA OF ENCLOSED MALL / PASSAGE - 637m<sup>2</sup>





# 232 BYRNES STREET, MAREEBA



0 25 50 75

**DEVELOPMENT APPLICATION** 

125

MAREEBA 232 PTY LTD

# MAREEBA NEIGHBOURHOOD SHOPPING CENTRE

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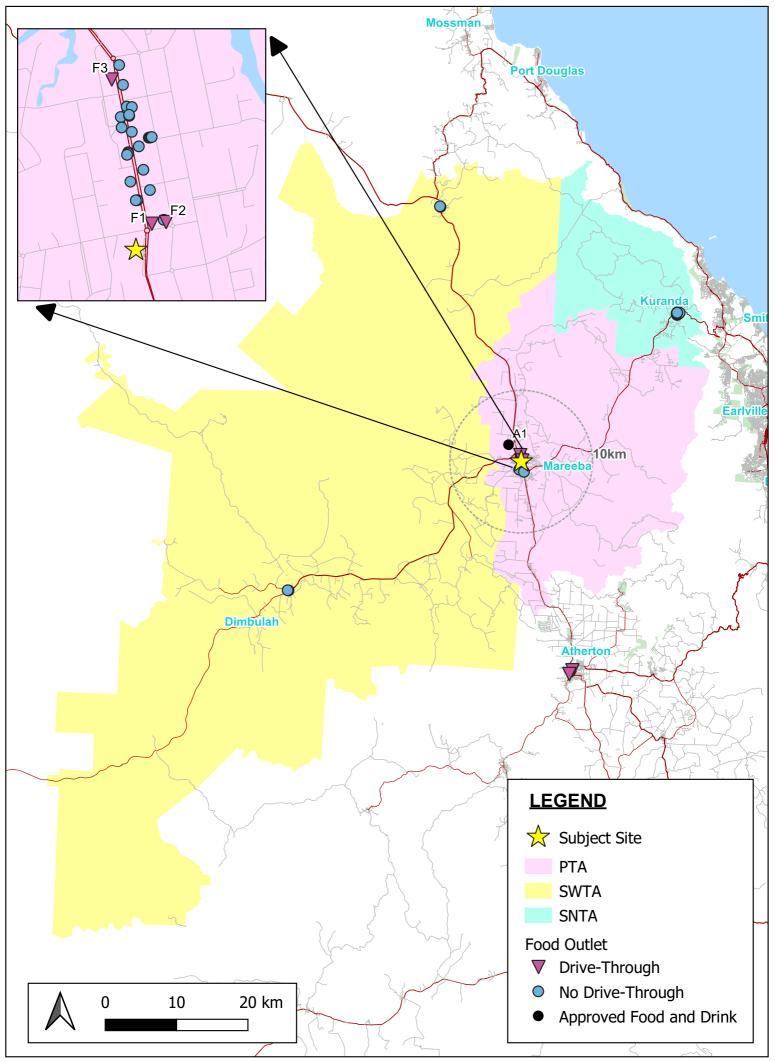
# SITE PLAN

As indicated @ A1

TA # 19.0298.17 A1.01

12/07/2022

rev. 13



Note: Excludes many food establishments outside the trade areas. Locations are indicative only.

### **ATTACHMENT 9**

ASSESSMENT AGAINST APPLICABLE STATE DEVELOPMENT ASSESSMENT PROVISIONS STATE CODES

# State code 1: Development in a state-controlled road environment

#### Performance outcomes Acceptable outcomes Response Buildings, structures, infrastructure, services and utilities **PO1** The location of the development does not AO1.1 Development is not located in a state-Complies with AO1.1 & AO1.2 create a safety hazard for users of the statecontrolled road. Buildings, structures, infrastructure, services and controlled road. utilities are not located in, or in proximity to the road reserve of a state-controlled road and can be AND maintained without accessing a state-controlled road. Compliance can also be conditioned. AO1.2 Development can be maintained without requiring access to a state-controlled road. Complies with PO2 PO2 The design and construction of the No acceptable outcome is prescribed. The design and construction of the development will development does not adversely impact the not adversely impact the structural integrity or physical structural integrity or physical condition of the condition of the state-controlled road or road transport state-controlled road or road transport infrastructure. Compliance can also be conditioned. infrastructure. **PO3** The location of the development does not No acceptable outcome is prescribed. Complies with PO3 The location of the development does not obstruct road obstruct road transport infrastructure or transport infrastructure or adversely impact the adversely impact the operating performance of operating performance of the state-controlled road the state-controlled road. (refer to Section 8 of the Traffic Impact Assessment prepared by SLR in Attachment 6). Compliance can also be conditioned. PO4 The location, placement, design and No acceptable outcome is prescribed. Not Applicable The development application does not include any operation of advertising devices, visible from advertising devices (approval for all proposed the state-controlled road, do not create a advertising devices will be sought separately to this safety hazard for users of the state-controlled application). road.

### **Table 1.1 Development in general**

State Development Assessment Provisions v3.0

Performance outcomes	Acceptable outcomes	Response
<b>PO5</b> The design and construction of buildings and <b>structures</b> does not create a safety hazard by distracting users of the <b>state-controlled</b> <b>road</b> .	AO5.1 Facades of buildings and structures fronting the state-controlled road are made of non-reflective materials. AND	<b>Complies with PO5</b> The façade of the development that fronts Byrnes Street does not include reflective materials. Compliance with all other acceptable outcomes can be conditioned.
	<b>AO5.2</b> Facades of buildings and <b>structures</b> do not direct or reflect point light sources into the face of oncoming traffic on the <b>state-controlled road</b> .	
	AND	
	<b>AO5.3</b> External lighting of buildings and <b>structures</b> is not directed into the face of oncoming traffic on the <b>state-controlled road</b> .	
	AND	
	<b>AO5.4</b> External lighting of buildings and <b>structures</b> does not involve flashing or laser lights.	
<b>P06</b> Road, pedestrian and bikeway bridges over a <b>state-controlled road</b> are designed and constructed to prevent projectiles from being thrown onto the <b>state-controlled road</b> .	<b>AO6.1</b> Road, pedestrian and bikeway bridges over the <b>state-controlled road</b> include throw protection screens in accordance with section 4.11 of the Design Criteria for Bridges and Other Structures Manual, Department of Transport and Main Roads, 2020.	<b>Not Applicable</b> The development does not include any bridges over the State-controlled road.
Landscaping	-	
<b>PO7</b> The location of landscaping does not create a safety hazard for users of the <b>state-controlled road</b> .	AO7.1 Landscaping is not located in a state- controlled road. AND	<b>Complies with PO7</b> The development proposes a grassed area within the Byrnes Street road reserve (which will replace the existing on-street car parking spaces that are proposed to be removed). We are agreeable to discuss DTMR's
	<b>AO7.2</b> Landscaping can be maintained without requiring access to a <b>state-controlled road</b> .	preference for this grassed area to ensure compliance with PO7 can be achieved.

State Development Assessment Provisions v3.0

Performance outcomes	Acceptable outcomes	Response
	AND	
	AO7.3 Landscaping does not block or obscure	
	the sight lines for vehicular access to a state-	
	controlled road.	
Stormwater and overland flow		
PO8 Stormwater run-off or overland flow from	No acceptable outcome is prescribed.	Complies with PO8
the development site does not create or		Please refer to the Stormwater Management Plan in
exacerbate a safety hazard for users of the state-controlled road.		<b>Attachment 7</b> for a demonstration of compliance with PO8.Compliance can also be conditioned.
<b>PO9</b> Stormwater run-off or overland flow from	No apportable outcome is properihed	Complies with PO9
the development site does not result in a	No acceptable outcome is prescribed.	Please refer to the Stormwater Management Plan in
material worsening of the operating		Attachment 7 for a demonstration of compliance with
performance of the state-controlled road or		PO9. Compliance can also be conditioned.
road transport infrastructure.		
<b>PO10</b> Stormwater run-off or overland flow from	No acceptable outcome is prescribed.	Complies with PO10
the development site does not adversely impact		Please refer to the Stormwater Management Plan in
the structural integrity or physical condition of		Attachment 7 for a demonstration of compliance with
the state-controlled road or road transport		PO10. Compliance can also be conditioned.
infrastructure.		Occurrent's a service DO44
<b>PO11</b> Development ensures that stormwater is	A011.1 Development does not create any new	Complies with PO11
lawfully discharged.	points of discharge to a <b>state-controlled road</b> .	Please refer to the Stormwater Management Plan in <b>Attachment 7</b> for a demonstration of compliance with
	AND	PO11. Compliance can also be conditioned.
	AO11.2 Development does not concentrate	
	flows to a state-controlled road.	
	AND	
	AO11.3 Stormwater run-off is discharged to a	
	lawful point of discharge.	
	AND	

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Performance outcomes	Acceptable outcomes	Response
	AO11.4 Development does not worsen the condition of an existing <b>lawful point of discharge</b> to the <b>state-controlled road</b> .	
Flooding		
<b>PO12</b> Development does not result in a material worsening of flooding impacts within a <b>state-controlled road</b> .	AO12.1 For all flood events up to 1% annual exceedance probability, development results in negligible impacts (within +/- 10mm) to existing flood levels within a state-controlled road.	<b>Not Applicable</b> The site is not impacted by the 1% AEP flood event.
	AO12.2 For all flood events up to 1% annual exceedance probability, development results in negligible impacts (up to a 10% increase) to existing peak velocities within a state-controlled road.	
	AND	
	<b>AO12.3</b> For all flood events up to 1% <b>annual</b> <b>exceedance probability</b> , development results in negligible impacts (up to a 10% increase) to existing time of submergence of a <b>state</b> - <b>controlled road</b> .	
Drainage Infrastructure		
<b>PO13</b> Drainage infrastructure does not create a safety hazard for users in the <b>state-controlled road</b> .	<b>AO13.1</b> Drainage infrastructure is wholly contained within the development site, except at the <b>lawful point of discharge</b> . AND	<ul> <li>Complies with PO13</li> <li>Please refer to the Engineering Report in Attachment</li> <li>7 for a demonstration of compliance with PO13.</li> <li>Compliance can also be conditioned.</li> </ul>

State Development Assessment Provisions v3.0

Performance outcomes	Acceptable outcomes	Response
	AO13.2 Drainage infrastructure can be maintained without requiring access to a state-controlled road.	
<b>PO14</b> Drainage infrastructure associated with, or within, a <b>state-controlled road</b> is constructed, and designed to ensure the <b>structural integrity</b> and physical condition of existing drainage infrastructure and the surrounding drainage network.	No acceptable outcome is prescribed.	<b>Complies with PO14</b> Please refer to the Engineering Report in <b>Attachment</b> <b>7</b> for a demonstration of compliance with PO13. Compliance can also be conditioned

# Table 1.2 Vehicular access, road layout and local roads

Performance outcomes	Acceptable outcomes	Response		
Vehicular access to a state-controlled road or within 100 metres of a state-controlled road intersection				
<b>PO15</b> The location, design and operation of a <b>new or changed access</b> to a <b>state-controlled road</b> does not compromise the safety of users of the <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Complies with PO15</b> The location, design and operation of the new accesses to the state-controlled road do not compromise the safety of users of the state- controlled road (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).		
<b>P016</b> The location, design and operation of a <b>new or changed access</b> does not adversely impact the <b>functional requirements</b> of the <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Complies with PO16</b> The location, design and operation of the new accesses do not adversely impact the functional requirements of the state-controlled road (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).		
<b>PO17</b> The location, design and operation of a <b>new or changed access</b> is consistent with the <b>future intent</b> of the <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Complies with PO17</b> The location, design and operation of the new accesses are consistent with the future intent of the state-controlled road (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).		
<ul> <li>PO18 New or changed access is consistent with the access for the relevant limited access road policy:</li> <li>1. LAR 1 where direct access is prohibited; or</li> </ul>	No acceptable outcome is prescribed.	<b>Not Applicable</b> The site is not mapped as fronting a limited access road.		

State Development Assessment Provisions v3.0

Performance outcomes	Acceptable outcomes	Response
2. LAR 2 where access may be permitted, subject to assessment.		
<b>PO19 New or changed access</b> to a <b>local road</b> within 100 metres of an intersection with a <b>state-controlled road</b> does not compromise the safety of users of the <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Complies with PO19</b> The proposed access to the development has been designed in accordance with the relevant standards outlined in Austroads and Australian Standards (refer to section 6.2 of the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO20 New or changed access</b> to a <b>local road</b> within 100 metres of an intersection with a <b>state-controlled road</b> does not adversely impact on the operating performance of the intersection.	No acceptable outcome is prescribed.	Complies with PO20 Refer to Section 6.2 of the Traffic Impact Assessment prepared by SLR in Attachment 6 for demonstration of compliance with PO20.
Public passenger transport and active transport		
<b>PO21</b> Development does not compromise the safety of users of <b>public passenger transport infrastructure</b> , <b>public passenger services</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO21</b> The development does not compromise the safety of users of public passenger transport infrastructure, public passenger services and active transport infrastructure (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO22</b> Development maintains the ability for people to access <b>public passenger transport</b> <b>infrastructure, public passenger services</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	Complies with PO22 The development maintains the ability for people to access public passenger transport infrastructure, public passenger services and active transport infrastructure (refer to the Traffic Impact Assessment prepared by SLR in Attachment 6).
PO23 Development does not adversely impact the operating performance of public passenger transport infrastructure, public passenger services and active transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO23</b> The development does not adversely impact the operating performance of public passenger transport infrastructure, public passenger services and active transport infrastructure (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).

Performance outcomes	Acceptable outcomes	Response
<b>PO24</b> Development does not adversely impact the <b>structural integrity</b> or physical condition of	No acceptable outcome is prescribed.	Complies with PO24 The development does not adversely impact the
public passenger transport infrastructure and		structural integrity or physical condition of public
active transport infrastructure.		passenger transport infrastructure and active
		transport infrastructure.

### Table 1.3 Network impacts

Performance outcomes	Acceptable outcomes	Response
<b>PO25</b> Development does not compromise the safety of users of the <b>state-controlled road</b> network.	No acceptable outcome is prescribed.	Complies with PO25 The development does not compromise the safety of users of the state-controlled road network (refer to the Traffic Impact Assessment prepared by SLR in Attachment 6).
<b>PO26</b> Development ensures <b>no net worsening</b> of the operating performance of the <b>state-controlled road</b> network.	No acceptable outcome is prescribed.	<b>Complies with PO26</b> The development ensures no net worsening of the operating performance of the state-controlled road network (refer to section 8.5 of the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO27</b> Traffic movements are not directed onto a <b>state-controlled road</b> where they can be accommodated on the <b>local road</b> network.	No acceptable outcome is prescribed.	<b>Complies with PO27</b> Due to the nature of the development as a 'major' development, access to the state-controlled road is required. The development traffic could not be solely accommodated on the local road network.
<b>PO28</b> Development involving haulage exceeding 10,000 tonnes per year does not adversely impact the pavement of a <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve the haulage of more than 10,000 tons of fill.
<b>PO29</b> Development does not impede delivery of <b>planned upgrades</b> of <b>state-controlled roads</b> .	No acceptable outcome is prescribed.	<b>Complies with PO29</b> No planned upgrades of the state-controlled network are proposed within the vicinity of the site.
<b>PO30</b> Development does not impede delivery of <b>corridor improvements</b> located entirely within the <b>state-controlled road corridor</b> .	No acceptable outcome is prescribed.	<b>Complies with PO30</b> No planned corridor improvements are proposed within the vicinity of the site.

State Development Assessment Provisions v3.0

Performance outcomes	Acceptable outcomes	Response
<b>PO31</b> Development does not create a safety hazard for users of the <b>state-controlled road</b> or <b>road transport infrastructure</b> .	No acceptable outcome is prescribed.	Complies with PO31 Compliance can be conditioned.
<b>PO32</b> Development does not adversely impact the operating performance of the <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Complies with PO32</b> Compliance can be conditioned.
<b>PO33</b> Development does not undermine, damage or cause subsidence of a <b>state-controlled road</b> .	No acceptable outcome is prescribed.	Complies with PO33 Compliance can be conditioned.
<b>PO34</b> Development does not cause ground water disturbance in a <b>state-controlled road</b> .	No acceptable outcome is prescribed.	Complies with PO34 Compliance can be conditioned.
<b>PO35</b> Excavation, boring, piling, blasting and fill compaction do not adversely impact the physical condition or <b>structural integrity</b> of a <b>state-</b> <b>controlled road</b> or <b>road transport</b> <b>infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO35</b> Compliance can be conditioned.
<b>PO36</b> Filling and excavation associated with the construction of <b>new or changed access</b> do not compromise the operation or capacity of existing drainage infrastructure for a <b>state-controlled road.</b>	No acceptable outcome is prescribed.	<b>Complies with PO36</b> Compliance can be conditioned.

### Table 1.4 Filling, excavation, building foundations and retaining structures

### **Table 1.5 Environmental emissions**

Statutory note: Where a **state-controlled road** is co-located in the same transport corridor as a railway, the development should instead comply with Environmental emissions in State code 2: Development in a railway environment.

Performance outcomes	Acceptable outcomes	Response
Reconfiguring a lot		
Involving the creation of 5 or fewer new residen	tial lots adjacent to a state-controlled road or typ	e 1 multi-modal corridor
PO37 Development minimises free field noise		Not Applicable
intrusion from a state-controlled road.	earth mound which is designed, sited and	The development does not involve reconfiguring a
	constructed:	lot.
	1. to achieve the maximum free field acoustic	
	levels in reference table 2 (item 2.1);	

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Performance outcomes	Acceptable outcomes	Response
	<ul> <li>2. in accordance with: <ul> <li>a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013;</li> <li>b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> <li>c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020.</li> </ul> </li> <li>OR <ul> <li>AO37.2 Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound.</li> <li>OR</li> </ul> </li> <li>AO37.3 Development provides a solid gap-free fence or other solid gap-free structure along the full extent of the boundary closest to the state-</li> </ul>	
Involving the creation of 6 or more new resident	controlled road. ial lots adjacent to a state-controlled road or type	a 1 multi-modal corridor
<b>PO38</b> Reconfiguring a lot minimises free field noise intrusion from a <b>state-controlled road</b> .	<b>AO38.1</b> Development provides noise barrier or earth mound which is designed, sited and	<b>Not Applicable</b> The development does not involve reconfiguring a lot.

Performance outcomes	Acceptable outcomes	Response
	<ul> <li>Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013;</li> <li>b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> <li>c. Technical Specification-MRTS04 Genera Earthworks, Transport and Main Roads, 2020.</li> </ul>	
	OR	
	<b>AO38.2</b> Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by <b>alternative noise attenuation measures</b> where it is not practical to provide a noise barrier or earth mound.	
Material change of use (accommodation activity	•	-
<b>PO39</b> Development minimises noise intrusion from	ate-controlled road or type 1 multi-modal corrido AO39.1 Development provides a noise barrier or	n Not Applicable
a state-controlled road in private open space.	<ul> <li>Action 1 Development provides a horse barrier of earth mound which is designed, sited and constructed:</li> <li>1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.2) for private open space at the ground floor level;</li> <li>2. in accordance with: <ul> <li>a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013;</li> <li>b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> </ul> </li> </ul>	The development does not involve an accommodation activity.

Performance outcomes	Acceptable outcomes	Response
	<ul> <li>Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020.</li> </ul>	
	OR <b>AO39.2</b> Development achieves the maximum free field acoustic level in reference table 2 (item 2.2) for <b>private open space</b> by <b>alternative noise</b> <b>attenuation measures</b> where it is not practical to provide a noise barrier or earth mound.	
PO40 Development (excluding a relevant residential building or relocated building) minimises noise intrusion from a state- controlled road in habitable rooms at the facade.	residential building or relocated building)	
	OR AO40.2 Development (excluding a relevant residential building or relocated building) achieves the maximum building façade acoustic	

Performance outcomes	Acceptable outcomes	Response
	level in reference table 1 (item 1.1) for habitable	
	rooms by alternative noise attenuation	
	measures where it is not practical to provide a noise barrier or earth mound.	
PO41 Habitable rooms (excluding a relevant	No acceptable outcome is provided.	Not Applicable
residential building or relocated building) are		The development does not involve an
designed and constructed using materials to		accommodation activity.
achieve the maximum internal acoustic level in		
reference table 3 (item 3.1).		
	nodation activity) adjacent to a state-controlled ro	
<b>PO42</b> Balconies, podiums, and roof decks include:	No acceptable outcome is provided.	Not Applicable
1. a continuous <b>solid gap-free structure</b> or		The development does not involve an accommodatio
balustrade (excluding gaps required for drainage purposes to comply with the Building		activity.
Code of Australia);		
2. highly acoustically absorbent material		
treatment for the total area of the soffit above		
balconies, podiums, and roof decks.		
PO43 Habitable rooms (excluding a relevant	No acceptable outcome is provided.	Not Applicable
residential building or relocated building) are		The development does not involve an
designed and constructed using materials		accommodation activity.
to achieve the maximum internal acoustic level in		
reference table 3 (item 3.1).		
Material change of use (other uses)		
Ground floor level requirements (childcare cent corridor	re, educational establishment, hospital) adjacent	to a state-controlled road or type 1 multi-modal
PO44 Development:	No acceptable outcome is provided.	Not Applicable
1. provides a noise barrier or earth mound that		The development does not involve a childcare
is designed, sited and constructed:		centre, educational establishment or hospital.
a. to achieve the maximum free field		
acoustic level in reference table 2 (item		
2.3) for all <b>outdoor education areas</b> and		
outdoor play areas;		
b. in accordance with:		

Perfor	mance outcomes	Acceptable outcomes	Response
leve out pla atte	<ul> <li>i. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013;</li> <li>ii. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> <li>iii. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or</li> <li>nieves the maximum free field acoustic el in reference table 2 (item 2.3) for all tdoor education areas and outdoor by areas by alternative noise enuation measures where it is not inctical to provide a noise barrier or earth und.</li> </ul>		
or educ 1. pro is d 2. to a acc 1.2 3. in a a.	evelopment involving a <b>childcare centre</b> <b>ational establishment</b> : wides a noise barrier or earth mound that designed, sited and constructed: achieve the maximum building facade bustic level in reference table 1 (item ); accordance with: Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;		Not Applicable The development does not involve a childcare centre or educational establishment.

Performance outcomes	Acceptable outcomes	Response
c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or		
4. achieves the maximum building facade		
acoustic level in reference table 1 (item		
1.2) by <b>alternative noise attenuation</b> <b>measures</b> where it is not practical to provide		
a noise barrier or earth mound.		
PO46 Development involving:	No acceptable outcome is provided.	Not Applicable
1. <b>indoor education areas</b> and <b>indoor play</b>		The development does not involve a childcare centre
areas; or		or hospital.
2. sleeping rooms in a <b>childcare centre</b> ; or		
3. patient care areas in a hospital achieves the		
maximum internal acoustic level in reference		
table 3 (items 3.2-3.4).		
Above ground floor level requirements (childcai modal corridor	re centre, educational establishment, hospital) ad	Jacent to a state-controlled road or type 1 multi-
<b>PO47</b> Development involving a <b>childcare centre</b>	No acceptable outcome is provided.	Not Applicable
or educational establishment which have		The development does not involve a childcare
balconies, podiums or elevated <b>outdoor play</b>		centre, educational establishment or hospital.
areas predicted to exceed the maximum free		
field acoustic level in reference table 2 (item 2.3)		
due to noise from a <b>state-controlled road</b> are		
provided with: 1. a continuous <b>solid gap-free structure</b> or		
balustrade (excluding gaps required for		
drainage purposes to comply with the Building		
Code of Australia);		
2. highly acoustically absorbent material		
treatment for the total area of the soffit above		
balconies or elevated outdoor play areas.		

Performance outcomes	Acceptable outcomes	Response
<ul> <li>PO48 Development including:</li> <li>1. indoor education areas and indoor play areas in a childcare centre or educational establishment; or</li> <li>2. sleeping rooms in a childcare centre; or</li> <li>3. patient care areas in a hospital located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4).</li> </ul>	No acceptable outcome is provided.	Not Applicable The development does not involve a childcare centre
Air, light and vibration		
PO49 Private open space, outdoor education areas and outdoor play areas are protected from air quality impacts from a state-controlled road.	AO49.1 Each dwelling or unit has access to a private open space which is shielded from a state-controlled road by a building, solid gap-free fence, or other solid gap-free structure.	<b>Not Applicable</b> The development does not involve any dwellings or a childcare centre.
	OR	
	AO49.2 Each outdoor education area and outdoor play area is shielded from a state- controlled road by a building, solid gap-free fence, or other solid gap-free structure.	
<b>PO50 Patient care areas</b> within <b>hospitals</b> are protected from vibration impacts from a <b>state</b> - <b>controlled road</b> or <b>type 1 multi-modal corridor</b> .	AO50.1 Hospitals are designed and constructed to ensure vibration in the patient treatment area does not exceed a vibration dose value of 0.1m/s <sup>1.75</sup> .	<b>Not Applicable</b> The development does not involve a hospital.
	<b>AO50.2 Hospitals</b> are designed and constructed to ensure vibration in the ward of a <b>patient care area</b> does not exceed a vibration dose value of 0.4m/s <sup>1.75</sup> .	

Performance outcomes	Acceptable outcomes	Response
<ul> <li>PO51 Development is designed and sited to ensure light from infrastructure within, and from users of, a state-controlled road or type 1 multimodal corridor, does not:</li> <li>1. intrude into buildings during night hours (10pm to 6am);</li> <li>2. create unreasonable disturbance during evening hours (6pm to 10pm).</li> </ul>		<b>Not Applicable</b> The development does not involve any dwellings, no a childcare centre, educational establishment or hospital.

Performance outcomes	Acceptable outcomes	Response
<b>PO52</b> Development does not impede delivery of a <b>future state-controlled road</b> .	AO52.1 Development is not located in a future state-controlled road.	<b>Complies with PO52</b> No future state-controlled roads are proposed within the vicinity of the subject site.
	<b>AO52.2</b> Development does not involve filling and excavation of, or material changes to, a <b>future state-controlled road</b> .	
	AND	
	<b>AO52.3</b> The intensification of lots does not occur within a <b>future state-controlled road</b> .	
	AND	
	AO52.4 Development does not result in the landlocking of parcels once a future state-controlled road is delivered.	
PO53 The location and design of new or	AO53.1 Development does not include new or	Complies with PO53
changed access does not create a safety hazard	changed access to a future state-controlled	No future state-controlled roads are proposed
for users of a future state-controlled road.	road.	within the vicinity of the subject site.
<b>PO54</b> Filling, excavation, building foundations and	No acceptable outcome is prescribed.	Complies with PO54
retaining structures do not undermine, damage		No future state-controlled roads are proposed
or cause subsidence of a <b>future state-controlled road</b> .		within the vicinity of the subject site.
PO55 Development does not result in a material	No acceptable outcome is prescribed.	Complies with PO55
worsening of stormwater, flooding, overland flow		No future state-controlled roads are proposed
or drainage impacts in a <b>future state-controlled</b>		within the vicinity of the subject site.
road or road transport infrastructure.		
<b>PO56</b> Development ensures that stormwater is	AO56.1 Development does not create any new	Complies with PO56
lawfully discharged.	points of discharge to a <b>future state-controlled road</b> .	No future state-controlled roads are proposed within the vicinity of the subject site

### Table 1.6: Development in a future state-controlled road environment

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Performance outcomes	Acceptable outcomes	Response
	AND	
	<b>AO56.2</b> Development does not concentrate flows to a <b>future state-controlled road</b> .	
	AND	
	AO56.3 Stormwater run-off is discharged to a lawful point of discharge.	
	AND	
	<b>AO56.4</b> Development does not worsen the condition of an existing <b>lawful point of discharge</b> to the <b>future state-controlled road</b> .	

# State code 2: Development in a railway environment

Guide to Development in a Transport Environment: Rail which provides direction on how to address this code.

### Table 2.1 Development in general

Performance outcomes	Acceptable outcomes	Response
Building, structures, infrastructure, services and	utilities	
<b>PO1</b> Development does not create a safety hazard within the <b>railway corridor</b> .	No acceptable outcome is prescribed.	<b>Complies with PO1</b> The development will not create a safety hazard within the railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO2</b> Development does not cause damage to the railway corridor, rail transport infrastructure or other rail infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO2</b> Compliance can be conditioned.
<b>PO3</b> Development does not interfere with, or obstruct, the <b>rail transport infrastructure</b> or <b>other</b> <b>rail infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO3</b> The development does not interfere with or obstruct the railway transport infrastructure or other rail infrastructure as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO4</b> Development does not adversely impact the <b>structural integrity</b> or physical condition of the <b>railway</b> , <b>other rail infrastructure</b> or the <b>railway corridor</b> by adding or removing <b>loading</b> .	No acceptable outcome is prescribed.	<b>Complies with PO4</b> The development does not adversely impact the structural integrity or physical condition of a railway corridor or rail transport infrastructure. Compliance can also be conditioned.
<b>PO5</b> Development above a <b>railway</b> is designed to enable natural ventilation and smoke dispersion in the event of a fire emergency.	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve any works above the rail corridor.
<b>PO6</b> Development does not adversely impact the operating performance of the <b>railway corridor</b> .	No acceptable outcome is prescribed.	Complies with PO6

Performance outcomes	Acceptable outcomes	Response
		The development does not adversely impact the operating performance of the existing railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO7</b> Buildings and <b>structures</b> in a <b>railway corridor</b> are designed and constructed to protect persons in the event of a derailed train.	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve any works within the rail corridor.
<b>PO8</b> Buildings and <b>structures</b> in <b>high risk</b> <b>locations</b> and where also located within 10 metres of the centreline of the nearest <b>railway</b> track are design and constructed to protect persons in the event of a derailed train.	<b>AO8.1</b> Buildings and <b>structures</b> , in a <b>railway</b> <b>corridor</b> , including foundations, retaining and other support elements, are designed and constructed in accordance with Civil Engineering Technical Requirement CIVIL-SR-012 Collision protection of supporting elements adjacent to <b>railways</b> , Queensland Rail, 2011, AS5100 Bridge design, and AS1170 Structural design actions.	<b>Not Applicable</b> The development does not involve any works within the rail corridor.
<b>PO9</b> Buildings and <b>structures</b> are designed and constructed to protect people from electrocution.	<b>AO9.1</b> The outermost projection of development is set back horizontally a minimum of 3 metres from the outermost projection of <b>overhead line</b> equipment.	<b>Not Applicable</b> The adjacent rail corridor does not include any overhead line equipment.
<b>PO10</b> Development in the <b>railway corridor</b> is designed and constructed to prevent projectiles being thrown onto the <b>railway</b> .	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve any works within the rail corridor.
<b>PO11</b> Buildings, and <b>structures</b> with publicly accessible or communal areas within 20 metres from the centreline of the nearest <b>railway</b> track are designed and constructed to prevent projectiles from being thrown onto a <b>railway</b> .	AO11.1 Publicly accessible areas located within 20 metre from the centreline of the nearest <b>railway</b> do not overlook a <b>railway</b> . OR	<b>Not Applicable</b> The development does not involve any public access to the rail corridor. Compliance can also be conditioned.
	<b>AO11.2</b> Buildings and <b>structures</b> are designed to ensure publicly accessible areas located within 20 metres from the centreline of the nearest <b>railway</b> track and that overlook the <b>railway</b> may include throw protection screens in accordance with the relevant provisions of the Civil Engineering	

Performance outcomes	Acceptable outcomes	Response
	Technical Requirement – CIVIL-SR005 Design of buildings over or near <b>railways</b> , Queensland Rail, 2011, and the Civil Engineering Technical Requirement – CIVIL-SR008 Protection screens, Queensland Rail.	
Stormwater and overland flow		
<b>PO12</b> Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard in a <b>railway corridor</b> .	No acceptable outcome is prescribed.	<b>Complies with PO12</b> The development does not involve any stormwater run-off to the rail corridor. Compliance can also be conditioned.
<b>PO13</b> Stormwater run-off or overland flow from the development site does not result in a material worsening of operating performance of the <b>railway corridor</b> , <b>rail transport infrastructure</b> or <b>other rail infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO13</b> The development does not involve any stormwater run-off to the rail corridor. Compliance can also be conditioned.
<b>P014</b> Stormwater run-off or overland flow from the development site does not interfere with the <b>structural integrity</b> or physical condition of the <b>railway corridor, rail transport infrastructure</b> or <b>other rail infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO14</b> The development does not involve any stormwater run-off to the rail corridor. Compliance can also be conditioned.
Flooding	·	
<b>PO15</b> Development does not result in a material worsening of flooding impacts within a <b>railway corridor</b> .	No acceptable outcome is prescribed.	<b>Complies with PO15</b> The development does not involve any stormwater run-off to the rail corridor. Compliance can also be conditioned.
Drainage Infrastructure		
<b>PO16</b> Drainage infrastructure does not create a safety hazard in a <b>railway corridor</b> .	<ul> <li>AO16.1 Drainage infrastructure is wholly contained within the development site.</li> <li>AND</li> <li>AO16.2 Drainage infrastructure can be maintained</li> </ul>	<b>Complies with PO16</b> All drainage infrastructure will be located entirely within the site. Please refer to the Engineering Report in <b>Attachment 7</b> for a demonstration of compliance with PO16. Compliance can also be conditioned.
Ocucetory etiens been acte	without requiring access to a <b>railway corridor</b> .	
Construction Impacts		Compliance with DO47
<b>PO17</b> Construction activities do not cause ground movement or vibration impacts in a <b>railway corridor</b> .	No acceptable outcome is prescribed.	Complies with PO17 Compliance can also be conditioned.

Performance outcomes	Acceptable outcomes	Response
Access		
<b>PO18</b> Development prevents unauthorised access to the <b>railway corridor</b> .	<b>AO18.1</b> Development abutting the <b>railway corridor</b> incorporates fencing along the property boundary with the <b>railway corridor</b> in accordance with the <b>railway manager's</b> standards.	<b>Complies with PO18</b> Fencing will be provided along the site's common bounty with the rail corridor to restrict access to the rail corridor. Compliance can also be conditioned.
	AND	
	<b>AO18.2</b> A road barrier designed in accordance with Queensland Rail Civil Engineering Technical Requirement CIVIL-SR-007 – Design Criteria for Road Rail Barriers.	
	AND	
	AO18.3 Vehicle manoeuvring areas, driveways, loading areas and carparks abutting the railway corridor incorporate rail interface barriers along the boundary to the railway corridor.	
<b>PO19</b> Development maintains existing maintenance and authorised access to the <b>railway corridor</b> .	AO19.1 Development does not obstruct existing authorised access points and access routes for maintenance and emergency works to the <b>railway</b> <b>corridor</b> at all times.	<b>Complies with PO19</b> Compliance can also be conditioned.
<b>PO20</b> Development does not impede the maintenance of a <b>railway bridge</b> or authorised access to a <b>railway bridge</b> .	<b>AO20.1</b> Buildings and other <b>structures</b> are set back horizontally a minimum of 3 metres from a <b>railway bridge</b> .	<b>Not Applicable</b> The adjacent rail corridor does not include any railway bridges.
	AND	
	<b>AO20.2</b> Permanent <b>structures</b> are not located below or abutting a <b>railway bridge</b> .	
	AND	
	AO20.3 Temporary activities below or abutting a railway bridge do not impede access to a railway corridor.	

Performance outcomes	Acceptable outcomes	Response
Public passenger transport and active transport		
PO21 Development does not compromise the safety of public passenger transport infrastructure and active transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO21</b> The development will not compromise the safety of public passenger transport infrastructure or active transport infrastructure associated with the railway (as there is none in proximity to the site).
<b>PO22</b> Development maintains pedestrian and cycle access to a <b>railway</b> station or other <b>public passenger transport infrastructure</b> and <b>active transport infrastructure</b> associated with the <b>railway</b> .	No acceptable outcome is prescribed.	<b>Complies with PO22</b> The development will not compromise any public passenger transport infrastructure or active transport infrastructure associated with the railway (as there is none in proximity to the site).
<b>PO23</b> Development does not adversely impact the structural integrity or physical condition of public passenger transport infrastructure and active transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO23</b> The development will not compromise the structural integrity of any public passenger transport infrastructure or active transport infrastructure associated with the railway (as there is none in proximity to the site).
<b>PO24</b> Development does not adversely impact the operating performance of <b>public passenger</b> <b>transport infrastructure, public passenger</b> <b>services</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO24</b> The development will not compromise the operating performance of any public passenger transport infrastructure or active transport infrastructure associated with the railway (as there is none in proximity to the site).
Planned upgrades		
<b>PO25</b> Development does not impede delivery of planned upgrades of rail transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO</b> 25 There are no planned upgrades of the rail corridor adjacent to the site.
Network safety		
<b>PO26</b> Development involving <b>dangerous goods</b> does not adversely impact on the safety or operations of the <b>railway</b> and <b>rail transport</b> <b>infrastructure</b> .	<b>AO26.1</b> Development does not involve handling or storage of hazardous chemicals above the threshold quantities listed in table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals, Office of Industrial Relations, Department of Justice and Attorney- General, 2016.	Not Applicable The development does not include an dangerous goods.

Performance outcomes	Acceptable outcomes	Response
<b>PO27</b> Development does not create a safety hazard	No acceptable outcome is prescribed.	Complies with PO27
for users of the railway or other rail infrastructure.		Compliance can be conditioned.
PO28 Development does not adversely impact on	No acceptable outcome is prescribed.	Complies with PO28
the operating performance of the <b>railway</b> or <b>other</b>		Compliance can be conditioned.
rail infrastructure within the railway corridor.		
<b>PO29</b> Development does not undermine, damage,	No acceptable outcome is prescribed.	Complies with PO29
or cause subsidence of, the <b>railway corridor</b> .		Compliance can be conditioned.
PO30 Development does not adversely impact the	No acceptable outcome is prescribed.	Complies with PO30
structural integrity or physical condition of the		Compliance can be conditioned.
railway, other rail infrastructure or the railway		
corridor by adding or removing loading.		
<b>PO31</b> Development does not cause ground water	No acceptable outcome is prescribed.	Complies with PO31
disturbance in the <b>railway corridor</b> .		Compliance can be conditioned.
<b>PO32</b> Development does not adversely impact the	No acceptable outcome is prescribed.	Complies with PO32
railway or other rail infrastructure within the		Compliance can be conditioned.
railway corridor.		
<b>PO33</b> Excavation, boring, piling, blasting, drilling, fill	No acceptable outcome is prescribed.	Complies with PO33
compaction or similar activities does not adversely		Compliance can be conditioned.
impact the operating performance of the <b>railway</b> or		
other rail infrastructure within the railway		
corridor.		
<b>PO34</b> Filling and excavation material does not cause	<b>AO34.1</b> Fill, spoil or any other material is not stored	Complies with PO34
an obstruction or nuisance in the <b>railway corridor</b> .	in, or adjacent to, the <b>railway corridor</b> .	Compliance can be conditioned.

### Table 2.2 Filling, excavation, building foundations and retaining structures

## Table 2.3 Railway crossings

Performance outcomes	Acceptable outcomes	Response
<b>PO35</b> Development does not require a new level <b>railway crossing</b> .	No acceptable outcome is prescribed.	<b>Complies with PO35</b> The development does not require a new railway level crossing.
<b>PO36</b> Development does not adversely impact on the operating performance of an existing <b>railway</b> <b>crossing</b> .	No acceptable outcome is prescribed.	<b>Complies with PO36</b> The development does not adversely impact the operating performance of the existing railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO37</b> Development does not adversely impact on the safety of an existing <b>railway crossing</b> .	No acceptable outcome is prescribed.	<b>Complies with PO37</b> The development does not adversely impact on the safety of an existing railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO38</b> Development is designed and constructed to allow for on-site circulation to ensure vehicles do not queue in a <b>railway crossing</b> .	No acceptable outcome is prescribed.	<b>Complies with PO38</b> The development is designed and constructed to allow for on-site circulation to ensure vehicles do not queue in the railway crossing.

### **Table 2.4 Environmental emissions**

Statutory note: Where development is adjacent to a railway with 15 or fewer passing trains per day, compliance with table 2.4 is not required.

Performance outcomes	Acceptable outcomes	Response
Reconfiguring a Lot		
Involving the creation of 5 or fewer new residentia	al lots adjacent to a railway or type 2 multi-modal co	rridor
PO39 Development minimises free field noise intrusion from a railway.	<ul> <li>AO39.1 Development provides a noise barrier or earth mound which is designed, sited and constructed:</li> <li>1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1);</li> <li>2. in accordance with: <ul> <li>a. Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers, Queensland Rail, 2018;</li> <li>b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> <li>c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020.</li> </ul> </li> </ul>	Not Applicable The development does not involve reconfiguring a lot
	OR <b>AO39.2</b> Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by <b>alternative noise attenuation measures</b> where it is not practical to provide a noise barrier or earth mound.	
Involving the creation of 6 or more new residentia	OR AO39.3 Development provides a solid gap-free fence or other solid gap-free structure along the full extent of the boundary closest to a railway. I lots adjacent to a railway or type 2 multi-modal co	rridor
<b>PO40</b> Reconfiguring a lot minimises free field noise intrusion from a <b>railway</b> .	<ul> <li>AO40.1 Development provides a noise barrier or earth mound which is designed, sited and constructed:</li> <li>1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1);</li> </ul>	<b>Not Applicable</b> The development does not involve reconfiguring a lot.

Material change of use (accommodation activity)	<ul> <li>2. in accordance with: <ul> <li>a. Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers;</li> <li>b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019;</li> <li>c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020.</li> </ul> </li> <li>OR <ul> <li>AO40.2 Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound.</li> </ul> </li> </ul>	
Ground floor level requirements adjacent to a rail	vay or type 2 multi-modal corridor	
<b>PO41</b> Development minimises noise intrusion from a		Not Applicable
railway in private open space at the ground floor.	earth mound which is designed, sited and	The development does not involve an accommodation activity.
	OR <b>AO41.2</b> Development achieves the maximum free field acoustic level in reference table 2 (item 2.2) for <b>private open space</b> at the ground floor level	

	by <b>alternative noise attenuation measures</b> where it is not practical to provide a noise barrier or earth	
	mound.	
PO42 Development (excluding a relevant	AO42.1 Development (excluding a relevant	Not Applicable
residential building or relocated	residential building or relocated building)	The development does not involve an
building) minimises noise intrusion from the railway	provides a noise barrier or earth mound which is	accommodation activity.
in habitable rooms at the facade of the ground floor	designed, sited and constructed:	
level.	1. to achieve the maximum building facade	
	acoustic level in reference table 1 (item 1.1) for	
	habitable rooms at the ground floor level;	
	2. in accordance with:	
	a. Civil Engineering Standard Specification	
	QR-CTS-Part 41 – Part 41, Design and	
	Construction of Noise Fences/Barriers,	
	Queensland Rail, 2018;	
	b. Technical Specification-MRTS15 Noise	
	Fences, Transport and Main Roads, 2019;.	
	<ul> <li>Technical Specification-MRTS04 General Earthworks, Transport and Main Roads,</li> </ul>	
	2020.	
	2020.	
	OR	
	AQ12 2 Development (evoluding a relevant	
	AO42.2 Development (excluding a relevant	
	residential building or relocated building) achieves the maximum building facade acoustic level	
	in reference table 1 (item 1.1) for <b>habitable rooms</b> at	
	the ground floor level by alternative noise	
	attenuation measures where it is not practical to	
	provide a noise barrier or earth mound.	
PO43 Habitable rooms (excluding a relevant	No acceptable outcome is prescribed.	Not Applicable
residential building or relocated building) are	no acceptable outcome is prescribed.	The development does not involve an
designed and constructed using materials to achieve		accommodation activity.
the maximum internal acoustic level in Table 3 (item		accommodation activity.
3.1).		
/	dation activity) adjacent to a railway or type 2 multi	-modal corridor
<b>PO44</b> Balconies, podiums and roof decks include:		Not Applicable
<ol> <li>a continuous solid gap-free structure or</li> </ol>		The development does not involve an accommodation
balustrade (excluding gaps required for drainage		activity.

<ul><li>purposes to comply with the Building Code of Australia);</li><li>2. highly acoustically absorbent material treatment</li></ul>		
for the total area of the soffit above balconies, podiums and roof decks		
PO45 Habitable rooms (excluding a relevant	No acceptable outcome is prescribed.	Not Applicable
<b>residential building</b> or <b>relocated building</b> ) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1).		The development does not involve an accommodation activity.
Material change of use (other uses)		
	, educational establishment, hospital) adjacent to a	
PO46 Development:	No acceptable outcome is prescribed.	Not Applicable
1. provides a noise barrier or earth mound that is		The development does not involve a childcare centre,
designed, sited and constructed: a. to achieve the maximum free field acoustic		educational establishment or hospital.
level in reference table 2 (item 2.3) for all		
outdoor education areas and outdoor		
play areas;		
b. in accordance with:		
i. Civil Engineering Standard		
Specification QR-CTS-Part 41 – Part		
41, Design and Construction of Noise Fences/Barriers, Queensland Rail,		
2018;		
ii. Technical Specification-MRTS15 Noise		
Fences, Transport and Main Roads,		
2019;		
iii. Technical Specification-MRTS04		
General Earthworks, Transport and Main Roads, 2020; or		
2. achieves the maximum free field acoustic level in		
reference table (item 2.3) for all <b>outdoor</b>		
education areas and outdoor play areas by		
alternative noise attenuation measures where		
it is not practical to provide a noise barrier or earth		
mound.		
PO47 Development involving a childcare centre or educational establishment:	No acceptable outcome is prescribed.	Not Applicable
		The development does not involve a childcare centre of educational establishment
		educational establishment.

<ol> <li>provides a noise barrier or earth mound that is designed, sited and constructed:         <ul> <li>a. to achieve the maximum building facade acoustic level in reference table 1 (item 1.2);</li> <li>b. in accordance with:                 <ul> <li>Civil Engineering Standard Specification QR-CTS-Part 41 – Part 41, Design and Construction of Noise Fences/Barriers, Queensland Rail, 2018; or</li> </ul> </li> </ul> </li> </ol>		
<ol> <li>achieves the maximum building facade acoustic level in reference table 1 (item 1.2) by alternative noise attenuation measures where it is not practical to provide a noise barrier or earth mound.</li> </ol>		
<ul> <li>PO48 Development involving:</li> <li>1. indoor education areas and indoor play areas; or</li> <li>2. sleeping rooms in a childcare centre; or</li> <li>3. patient care areas in a hospital; achieves the maximum internal acoustic level in reference table 3 (items 3.2, 3.3 and 3.4).</li> </ul>	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve a childcare centre or hospital.
	centre, educational establishment, hospital) adjace	nt to a railway or type 2 multi-modal corridor
<ul> <li>PO49 Development involving a childcare centre; or educational establishment which have balconies, podiums or elevated outdoor play areas predicted to exceed the maximum free field acoustic level in reference table 2 (item 2.3) due to noise from the railway are provided with:</li> <li>1. a continuous solid gap-free structure or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); and</li> <li>2. highly acoustically absorbent material treatment for the total area of the soffit above balconies, podiums and elevated outdoor play areas.</li> </ul>	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve a childcare centre, educational establishment or hospital.

<ol> <li>PO50 Development including:</li> <li>indoor education areas and indoor play areas in a childcare centre or educational establishment; or</li> <li>sleeping rooms in a childcare centre; or</li> <li>patient care areas in a hospital located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4).</li> </ol>	No acceptable outcome is prescribed.	
Air, light and vibration	AOE1 1 Fach dwelling or unit has assess to a	Not Applicable
<b>PO51 Private open space</b> , <b>outdoor education</b> <b>areas</b> and <b>outdoor play areas</b> are protected from air quality impacts from a <b>railway</b> .	private open space which is shielded from a	<b>Not Applicable</b> The development does not involve any dwellings or a childcare centre.
	OR	
	AO51.2 Each outdoor education area and outdoor play area is shielded from a railway by a building, noise barrier, solid gap-free fence, or other solid gap-free structure.	
PO52 Patient care areas within hospitals are		Not Applicable
protected from vibration impacts from a <b>railway</b> .	ensure vibration in the patient treatment area does not exceed a vibration dose value of 0.1m/s <sup>1.75</sup> .	The development does not involve a hospital.
	AND	
	<b>AO52.2 Hospitals</b> are designed and constructed to ensure vibration in the ward of a <b>patient care area</b> does not exceed a vibration dose value of 0.4m/s <sup>1.75</sup> .	
<ul> <li>PO53 Development is designed and sited to ensure light from infrastructure within, and use of, a railway does not:</li> <li>1. intrude into buildings during night hours (10pm to 6am); and</li> <li>2. create unreasonable disturbance during evening</li> </ul>		<b>Not Applicable</b> The development does not involve any dwellings, nor a childcare centre, educational establishment or hospital.
hours (6pm to 10pm).		

Table 2.5 Development in a luture ranway cornuor			
Performance outcomes	Acceptable outcomes	Response	
<b>PO54</b> Development does not impede the planning, design and delivery of <b>rail transport infrastructure</b> in a <b>future railway corridor</b> .	<ul> <li>AO54.1 Development is not located in a future railway corridor.</li> <li>OR both of the following acceptable outcomes apply:</li> <li>AO54.2 The intensification of lots does not occur within a future railway corridor.</li> <li>AND</li> <li>AO54.3 Development does not result in the landlocking of parcels once a future railway</li> </ul>	<b>Not Applicable</b> There is no mapped future railway adjacent to the site.	
<b>PO55</b> Development, including filling, excavation, building foundations and <b>retaining structures</b> do not undermine or cause subsidence of a <b>future railway corridor</b> .	<b>corridor</b> is delivered. No acceptable outcome is prescribed.	<b>Not Applicable</b> There is no mapped future railway adjacent to the site.	
<b>PO56</b> Development does not result in a material worsening of stormwater, flooding, overland flow or drainage impacts in a <b>future railway corridor</b> .	No acceptable outcome is prescribed.	<b>Not Applicable</b> There is no mapped future railway adjacent to the site.	

### Table 2.5 Development in a future railway corridor

# **State code 6: Protection of state transport networks**

### Table 6.2 Development in general

Performance outcomes	Acceptable outcomes	Response
Network impacts		
<b>PO1</b> Development does not compromise the safety of users of the <b>state-controlled road</b> network.	No acceptable outcome is prescribed.	Complies with PO1 The development does not compromise the safety of users of the state-controlled road network (refer to the Traffic Impact Assessment prepared by SLR in Attachment 6).
<b>PO2</b> Development does not adversely impact the structural integrity or physical condition of a <b>state-controlled road</b> or <b>road transport</b> <b>infrastructure</b> .	No acceptable outcome is prescribed.	Complies with PO2 The design and construction of the development will not adversely impact the structural integrity or physical condition of the state-controlled road or road transport infrastructure. Compliance can also be conditioned.
<b>PO3</b> Development ensures <b>no net worsening</b> of the operating performance the <b>state-controlled road</b> network.	No acceptable outcome is prescribed.	Complies with PO3 The development ensures no net worsening of the operating performance of the state-controlled road network (refer to section 8.5 of the Traffic Impact Assessment prepared by SLR in Attachment 6).
<b>PO4</b> Traffic movements are not directed onto a <b>state-controlled road</b> where they can be accommodated on the <b>local road</b> network.	No acceptable outcome is prescribed.	Complies with PO4 Due to the nature of the development as a 'major' development, access to the state- controlled road is required. The development traffic could not be solely accommodated on the local road network.
<b>PO5</b> Development involving haulage exceeding 10,000 tonnes per year does not damage the pavement of a <b>state-controlled road</b> .	No acceptable outcome is prescribed.	<b>Not Applicable</b> The development does not involve the haulage of more than 10,000 tons of fill.
<b>PO6</b> Development does not require a new <b>railway</b> level crossing.	No acceptable outcome is prescribed.	<b>Complies with PO6</b> The development does not require a new railway level crossing.
<b>PO7</b> Development does not adversely impact the operating performance of an existing <b>railway crossing</b> .	No acceptable outcome is prescribed.	<b>Complies with PO7</b> The development does not adversely impact the operating performance of the existing railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable

Performance outcomes	Acceptable outcomes	Response
		separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO8</b> Development does not adversely impact on	No acceptable outcome is prescribed.	Complies with PO8
the safety of an existing <b>railway crossing</b> .		The development does not adversely impact on the safety of an existing railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO9</b> Development is designed and constructed	No acceptable outcome is prescribed.	Complies with PO9
to allow for on-site circulation to ensure vehicles do not queue in a <b>railway crossing</b> .		The development is designed and constructed to allow for on-site circulation to ensure vehicles do not queue in the railway crossing.
PO10 Development does not create a safety	No acceptable outcome is prescribed.	Complies with PO7
hazard within the <b>railway corridor</b> .		The development will not create a safety hazard within the railway crossing as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
PO11 Development does not adversely impact	No acceptable outcome is prescribed.	Complies with PO11
the operating performance of the <b>railway corridor</b> .		The development does not adversely impact the operating performance of the railway corridor as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
PO12 Development does not interfere with or	No acceptable outcome is prescribed.	Complies with PO12
obstruct the <b>railway transport infrastructure</b> or other rail infrastructure.		The development does not interfere with or obstruct the railway transport infrastructure or other rail infrastructure as no 'right turn in access' is proposed from Rankin Street which allows for suitable separation and queueing to the railway crossing (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).

Performance outcomes	Acceptable outcomes	Response
<b>PO13</b> Development does not adversely impact the structural integrity or physical condition of a <b>railway corridor</b> or <b>rail transport</b>	No acceptable outcome is prescribed.	<b>Complies with PO13</b> The development does not adversely impact the structural integrity or physical condition of a
infrastructure.		railway corridor or rail transport infrastructure. Compliance can also be conditioned.
Stormwater and overland flow		
<b>PO14</b> Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard for users of a <b>state</b> <b>transport corridor</b> or <b>state transport</b> <b>infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO14</b> Please refer to the Stormwater Management Plan in <b>Attachment 7</b> for a demonstration of compliance with PO14.Compliance can also be conditioned.
<b>PO15</b> Stormwater run-off or overland flow from the development site does not result in a material worsening of operating performance of a <b>state transport corridor</b> or <b>state transport</b> <b>infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO15</b> Please refer to the Stormwater Management Plan in <b>Attachment 7</b> for a demonstration of compliance with PO15. Compliance can also be conditioned.
<b>PO16</b> Stormwater run-off or overland flow from the development site does not interfere with the structural integrity or physical condition of the state transport corridor or state transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO16</b> Please refer to the Stormwater Management Plan in <b>Attachment 7</b> for a demonstration of compliance with PO16. Compliance can also be conditioned.
<b>PO17</b> Development associated with a <b>state-</b> <b>controlled road</b> or <b>road transport</b> <b>infrastructure</b> ensures that stormwater is lawfully discharged.	AO17.1 Development does not create any new points of discharge to a state transport corridor or state transport infrastructure. AND	<b>Complies with PO17</b> Please refer to the Stormwater Management Plan in <b>Attachment 7</b> for a demonstration of compliance with PO17. Compliance can also be conditioned.
	<b>AO17.2</b> Development does not concentrate flows to a <b>state transport corridor</b> .	
	AND	
	AO17.3 Stormwater run-off is discharged to a lawful point of discharge.	
	AND	
	AO17.4 Development does not worsen the condition of an existing <b>lawful point of</b>	

Performance outcomes	Acceptable outcomes	Response
	discharge to a state transport corridor or state transport infrastructure.	
Flooding		
PO18 Development does not result in a material worsening of flooding impacts within a state transport corridor or state transport infrastructure	<ul> <li>For a state-controlled road or road transport infrastructure, all of the following apply:</li> <li>AO18.1 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (within +/- 10mm) to existing flood levels within a state transport corridor.</li> <li>AND</li> <li>AO18.2 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (up to a 10% increase) to existing peak velocities within a state transport corridor.</li> <li>AND</li> <li>AO18.3 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (up to a 10% increase) to existing peak velocities within a state transport corridor.</li> <li>AND</li> <li>AO18.3 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (up to a 10% increase) to existing time of submergence of a state transport corridor.</li> <li>No acceptable outcome is prescribed for a railway corridor or rail transport</li> </ul>	Not Applicable The site is not impacted by the 1% AEP flood event.
Drainage infrastructure	infrastructure.	
<b>PO19</b> Drainage infrastructure does not create a	For a state-controlled road environment, both	Complies with PO19
safety hazard in a state transport corridor.	AO19.1 Drainage infrastructure associated with, or in a state-controlled road is wholly contained within the development site, except at the <b>lawful</b> point of discharge.	Please refer to the Engineering Report in Attachment 7 for a demonstration of compliance with PO19. Compliance can also be conditioned.

Performance outcomes	Acceptable outcomes	Response
	AND	
	<b>AO19.2</b> Drainage infrastructure can be maintained without requiring access to a <b>state transport corridor</b> .	
	For a <b>railway</b> environment both of the following apply:	
	AO19.3 Drainage infrastructure associated with a railway corridor or rail transport infrastructure is wholly contained within the development site.	
	AND	
	AO19.4 Drainage infrastructure can be maintained without requiring access to a state transport corridor.	
<b>PO20</b> Drainage infrastructure associated with, or in a state-controlled road or road transport infrastructure is constructed and designed to ensure the structural integrity and physical condition of existing drainage infrastructure and the surrounding drainage network is maintained.	No acceptable outcome is prescribed.	<b>Complies with PO20</b> Please refer to the Engineering Report in <b>Attachment 7</b> for a demonstration of compliance with PO20. Compliance can also be conditioned.
Planned upgrades	·	
PO21 Development does not impede delivery of planned upgrades of state transport infrastructure.	No acceptable outcome is prescribed.	<b>Complies with PO21</b> There are no planned upgrades of the state- controlled road network adjacent to the site.

## Table 6.3 Public passenger transport infrastructure and active transport

Performance outcomes	Acceptable outcomes	Response
<b>PO22</b> Development does not damage or interfere with <b>public passenger transport</b> <b>infrastructure</b> , active transport infrastructure or <b>public passenger services</b> .	No acceptable outcome is prescribed.	<b>Complies with PO22</b> The development does not damage or interfere with public passenger transport infrastructure, active transport infrastructure or public passenger services (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO23</b> Development does not compromise the safety of <b>public passenger transport infrastructure</b> , <b>public passenger services</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO23</b> The development does not compromise the safety of public passenger transport infrastructure, public passenger services and active transport infrastructure (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO24</b> Development does not adversely impact the operating performance of <b>public passenger</b> <b>transport infrastructure, public passenger</b> <b>services</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO24</b> The development does not adversely impact the operating performance of public passenger transport infrastructure, public passenger services and active transport infrastructure (refer to the Traffic Impact Assessment prepared by SLR in <b>Attachment 6</b> ).
<b>PO25</b> Development does not adversely impact the structural integrity or physical condition of <b>public passenger transport infrastructure</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO25</b> The development does not adversely impact the structural integrity or physical condition of public passenger transport infrastructure and active transport infrastructure. Compliance can also be conditioned.
PO26 Upgraded or new public passenger transport infrastructure and active transport infrastructure is provided to accommodate the demand for public passenger transport and active transport generated by the development.	No acceptable outcome is prescribed.	<b>Not Applicable</b> No new public passenger transport infrastructure or active transport infrastructure are proposed as part of the development.
<b>PO27</b> Development is designed to ensure the location of <b>public passenger transport</b> <b>infrastructure</b> prioritises and enables efficient <b>public passenger services</b> .	No acceptable outcome is prescribed.	<b>Not Applicable</b> No new public passenger transport infrastructure is proposed as part of the development.
PO28 Development enables the provision or extension of public passenger services, public passenger transport infrastructure and active	No acceptable outcome is prescribed.	<b>Complies with PO28</b> The development enables the provision or extension of public passenger services, public

Performance outcomes	Acceptable outcomes	Response
<b>transport infrastructure</b> to the development and avoids creating indirect or inefficient routes for <b>public passenger services</b> .		passenger transport infrastructure and active transport infrastructure to the development and avoids creating indirect or inefficient routes for public passenger services. As documented in the drawing provided in Appendix F of Traffic Impact Assessment prepared by SLR (see <b>Attachment</b> <b>6</b> ), the location of the proposed accesses to Byrnes Street does not impede the ability to provide a bus stop along the site frontage in the future if required.
<b>PO29</b> New or modified road networks are designed to enable development to be serviced by <b>public passenger services</b> .	<b>AO29.1</b> Roads catering for buses are arterial or <b>sub-arterial roads</b> , collector or their equivalent. AND	Not Applicable The development does not involve any new roads.
	<ul> <li>AO29.2 Roads intended to accommodate buses are designed and constructed in accordance with:</li> <li>1. Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design; Department of Transport and Main Roads;</li> <li>2. Supplement to Austroads Guide to Road Design (Parts 3, 4-4C and 6), Department of Transport and Main Roads;</li> <li>3. Austroads Guide to Road Design (Parts 3, 4-4C and 6);</li> <li>4. Austroads Design Vehicles and Turning Path Templates;</li> <li>5. Queensland Manual of Uniform Traffic Control Devices, Part 13: Local Area Traffic Management and AS 1742.13-2009 Manual of Uniform Traffic Control Devices – Local Area Traffic Management;</li> </ul>	
	<b>AO29.3</b> Traffic calming devices are not installed on roads used for buses in accordance with section 2.3.2 Bus Route Infrastructure, Public	

Performance outcomes	Acceptable outcomes	Response
	Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.	
<b>PO30</b> Development provides safe, direct and convenient access to existing and future <b>public passenger transport infrastructure</b> and <b>active transport infrastructure</b> .	No acceptable outcome is prescribed.	<b>Complies with PO30</b> The development provides safe, direct and convenient access to the existing and any potential future public passenger transport infrastructure and active transport infrastructure.
<b>PO31</b> On-site vehicular circulation ensures the safety of both <b>public passenger transport services</b> and pedestrians.	No acceptable outcome is prescribed.	<b>Complies with PO31</b> The developments on-site vehicular circulation is wholly contained within the site and as such, ensures the safety of both public passenger transport services and pedestrians.
<b>PO32 Taxi facilities</b> are provided to accommodate the demand generated by the development.	No acceptable outcome is prescribed.	<b>Complies with PO32</b> The development provides taxi facilities to accommodate the demand generated by the development.
<b>PO33</b> Facilities are provided to accommodate the demand generated by the development for community transport services, courtesy transport services, and <b>booked hire services</b> other than taxis.	No acceptable outcome is prescribed.	<b>Complies with PO33</b> The development provides car parking, short- term passenger loading and taxi facilities to accommodate the demand generated by the development
<b>PO34 Taxi facilities</b> are located and designed to provide convenient, safe and equitable access for passengers.	<ul> <li>AO34.1 A taxi facility is provided parallel to the kerb and adjacent to the main entrance.</li> <li>AND</li> <li>AO34.2 Taxi facilities are designed in accordance with: <ol> <li>AS2890.5–1993 Parking facilities – on-street parking and AS1428.1–2009 Design for access and mobility – general requirements for access – new building work;</li> <li>AS1742.11–1999 Parking controls – manual of uniform traffic control devices</li> <li>AS/NZS 2890.6–2009 Parking facilities;</li> <li>Disability standards for accessible public</li> <li>transport 2002 made under section 31(1) of the Disability Discrimination Act 1992;</li> </ol> </li> </ul>	<b>Complies with PO34</b> The development provides taxi facilities located close to the main entrance of the shopping centre. The taxi bays have been provided as 90- degree spaces, with additional width (3.2m min) to improve passenger accessibility to the taxis.

Performance outcomes	Acceptable outcomes	Response
	<ol> <li>AS/NZS 1158.3.1 – Lighting for roads and public spaces, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements;</li> <li>Chapter 7 Taxi Facilities, Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.</li> </ol>	
<b>PO35</b> Educational establishments are designed to ensure the safe and efficient operation of <b>public passenger services</b> , pedestrian and cyclist access and <b>active transport</b> <b>infrastructure</b> .	<b>AO35.1</b> Educational establishments are designed in accordance with the provisions of the Planning for Safe Transport Infrastructure at Schools, Department of Transport and Main Roads, 2011.	<b>Not Applicable</b> The development does not include an educational establishment.

## **ATTACHMENT 10**

MAREEBA SHIRE COUNCIL PLANNING SCHEME CODE ASSESSMENT

#### Application

- (1) This code applies to assessing development where:
  - (a) Located in the Centre Zone; and
  - (b) It is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

#### Criteria for assessment

Table Error! No text of specified style in document.A – Centre Zone Code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT				
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREN	FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT						
HEIGHT							
<ul> <li>PO1</li> <li>Building height takes into consideration and respects the following: <ul> <li>(a) the height of existing buildings on adjoining premises;</li> <li>(b) the development potential, with respect to height, on adjoining premises;</li> <li>(c) the height of buildings in the vicinity of the site;</li> <li>(d) access to sunlight and daylight for the site and adjoining sites;</li> <li>(e) privacy and overlooking; and</li> <li>(f) site area and street frontage length.</li> </ul> </li> </ul>	AO1.1 Development has a maximum building height of: (a) 8.5 metres; and (b) 2 storeys above ground level.	YES	Please refer to Section 7.3 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.				



### 6.2.1 Centre Zone Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
SITING			
<ul> <li>Development is sited in a manner that considers and respects:</li> <li>(a) the siting and use of adjoining premises;</li> <li>(b) access to sunlight and daylight for the site and adjoining sites;</li> <li>(c) privacy and overlooking;</li> <li>(d) opportunities for casual surveillance of adjoining public spaces;</li> </ul>	<ul> <li>AO2.1</li> <li>Buildings are built to the road frontage/s of the site.</li> <li>Note—Awning structures may extend into the road reserve where provided in accordance with PO5.</li> <li>AO2.2</li> <li>Buildings are setback and boundary treatment(s) are undertaken in accordance with Table 6.2.1.3B.</li> </ul>	N/A YES	Please refer to AO2.2 below. Please refer to Section 7.4 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.
<ul> <li>The density of Accommodation activities:</li> <li>(a) contributes to housing choice and affordability;</li> <li>(b) respects the nature and density of surrounding land use;</li> </ul>	<ul> <li>AO3.1</li> <li>Development provides a maximum density for Accommodation activities of:</li> <li>(a) 1 dwelling or accommodation unit per 120m<sup>2</sup> site area; and</li> <li>(b) 1 bedroom per 60m<sup>2</sup> site area.</li> </ul>	N/A	The proposed development does not involve accommodation activities.



PERF	ORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
SITE	COVER			
(a) (b) (c) <b>FOR</b>	ings and structures occupy the site in a manner that: makes efficient use of land; is consistent with the bulk and scale of surrounding buildings; and appropriately balances built and natural features. ASSESSABLE DEVELOPMENT DING DESIGN	AO4.1 Site cover does not exceed 90%.	YES	The proposed development will not exceed 90% site cover.
PO5		AO5.1	YES	The proposed development will provide pedestrian footpaths for the full frontage of the site in both Byrnes
Buildi (a) (b) (c) (d) (e) (f)	ing facades are appropriately designed to: provide an active and vibrant streetscape; include visual interest and architectural variation; maintain and enhance the character of the surrounds; provide opportunities for casual surveillance; include a human scale; and encourage occupation of outdoor space.	<ul> <li>Buildings address and provide pedestrian entrances to:</li> <li>(a) the primary pedestrian frontage where a single frontage lot or multiple frontage lot that is not a corner lot;</li> <li>(b) the primary and secondary frontages where a corner lot, with a pedestrian entrance provided on each frontage and/or as part of a corner truncation; and</li> <li>(c) any adjoining public place, with the main entrance provided on this boundary.</li> </ul>		Street and Rankin Street. Internal pedestrian connections from these footpaths to each building will also be provided and compliance with the Acceptable Outcome can be ensured through reasonable and relevant conditions of approval. In terms of addressing the street frontages, the proposed development is not built up to, nor directly addresses the road frontage of either Rankin or Byrnes Street and as such, an assessment against the Performance Outcome is required and of which is provided below:
				(a) The proposed development will facilitate an active and vibrant streetscape through the inclusion of articulation, fenestration, variations to the roof profile, landscaping, pedestrian footpaths and the central forecourt mall. Further, specific compliance



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			<ul> <li>can be ensured through reasonable and relevant conditions of approval where required;</li> <li>(b) Each building will be provided with articulation and fenestration via variation in built form, the use of materials and the use of awnings and parapets which will facilitate visual and architectural interest;</li> <li>(c) The buildings will not be out of character with the type and scale of development on adjacent sites i.e., Coles, and/or MacDonalds, that are envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the termunity;</li> <li>(d) There are ample opportunities for casual surveillance such as from the outdoor dining and central forecourt mall, as well as throughout the car parking areas, and dining areas within the food and drink outlet;</li> <li>(e) The buildings include several human scale elements such as the outdoor dining and central forecourt mall, speciality shops and forecourt mall will all facilitate the outdoor occupation of the site.</li> </ul>
	<ul> <li>AO5.2</li> <li>Building frontages: <ul> <li>(a) are broken into smaller, 10 metre wide components by doors, display windows, pillars and structural elements;</li> <li>(b) are articulated with projections and recesses;</li> <li>(c) include windows where the bottom of the window is located between 0.6 metres and 0.9 metres above the footpath level; and</li> </ul> </li> </ul>	N/A	Please refer to AO5.1 above where compliance with the performance outcome has been demonstrated.

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PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	(d) have a minimum 40% of the building facade facing the street is comprised of windows that are not painted or treated to obscure transparency.		
	<ul> <li>AO5.3</li> <li>Buildings incorporate cantilevered awnings that are: <ul> <li>(a) provided along the full length of the building's frontage to the street;</li> <li>(b) set back 0.6 metres from the face of the kerb or to match the alignment of the awning/s of the adjoining building/s;</li> <li>(c) a minimum of 3 metres and a maximum of 4.2 metres above the finished level of the footpath from the underside of the awning; and</li> <li>(d) truncated at the corner with a 2 metre single cord truncation where located on a corner site.'</li> </ul> </li> </ul>	N/A	Please refer to AO5.1 above where compliance with the performance outcome has been demonstrated.
<ul> <li>PO6</li> <li>Development complements and integrates with the established built character of the Centre zone, having regard to:</li> <li>(a) roof form and pitch;</li> <li>(b) eaves and awnings;</li> <li>(c) building materials, colours and textures; and</li> <li>(d) window and door size and location.</li> </ul>	AO6.1 No acceptable outcome is provided.	YES	The proposed development will include development elements such as those described in the performance outcome, that are similar to the established built form found on the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on the other side of Byrnes Street. This ensures the proposed development will complement and integrate with the established character of the immediate locality and in turn, comply with the performance outcome.



#### 6.2.1 Centre Zone Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
ACCOMMODATION ACTIVITIES			
<ul> <li>PO7</li> <li>Accommodation activities are appropriately located in buildings in the Centre zone, having regard to:</li> <li>(a) the use of adjoining premises; and</li> <li>(b) the provision of an active and vibrant streetscape.</li> </ul>	<b>A07.1</b> Accommodation activities are located above the ground floor.	N/A	The proposed development does not involve accommodation activities.
PO8         Development must not detract from the amenity of the local area, having regard to:         (a) noise;         (b) hours of operation;         (c) traffic;         (d) advertising devices;         (e) visual amenity;         (f) privacy;         (g) lighting;         (h) odour; and         (i) emissions.	<b>AO8.1</b> No acceptable outcome is provided.	YES	Please refer to Section 7.5 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.
<ul> <li>PO9</li> <li>Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to:</li> <li>(a) noise;</li> <li>(b) hours of operation;</li> <li>(c) traffic;</li> <li>(d) advertising devices;</li> </ul>	<b>AO9.1</b> No acceptable outcome is provided.	YES	See AO8.1 above.

### 6.2.1 Centre Zone Code

PER	FORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
(e) (f) (g) (h) (i)	visual amenity; privacy; lighting; odour; and emissions.			

#### Application

- (1) This code applies to assessing development where:
  - (a) located in the Community facilities zone; and
  - (b) is identified in the assessment benchmarks for assessable development requirements for accepted development column of an assessment table Part 5 pf the planning scheme.

#### Criteria for assessment

#### Table code 6.2.2.3 – Community facilities zone code – For accepted development subject to requirements and assessable development PERFORMANCE OUTCOMES ACCEPTABLE OUTCOMES COMPLIES COMMENT FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT HEIGHT Please refer to Section 7.3 of the Planning Report for PO1 AO1.1 YES Building height takes into consideration and Development has a maximum building height of: commentary on this matter and a demonstration of respects the following: compliance with the Performance Outcome. (a) 8.5 metres; and (a) the height of existing buildings on adjoining (b) 2 storeys above ground level. premises; (b) the development potential, with respect to height, on adjoining premises; (c) the height of buildings in the vicinity of the site; (d) access to sunlight and daylight for he site and adjoining sites; (e) privacy and overlooking; and (f) site area and street frontage length.

### 6.2.2 Community Facilities Zone Code

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
SITING			
<ul> <li>PO2</li> <li>Development is sited in a manner that considers and respects:</li> <li>(a) the siting and use of adjoining premises;</li> <li>(b) access to sunlight and daylight for the site and adjoining sites;</li> <li>(c) privacy and overlooking;</li> <li>(d) opportunities for casual surveillance of adjoining premises of a surveillance of adjoining premises.</li> </ul>	<ul> <li>AO2.1</li> <li>Buildings and structures include a minimum setback of:</li> <li>(a) 10 metres from a frontage to a State-controlled road;</li> <li>(b) 6 metres from a frontage to any other road; and</li> <li>(c) 3 metres from a boundary to an adjoining lot.</li> </ul>	YES	Please refer to Section 7.4 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.
adjoining public spaces; (e) air circulation and access to natural breezes; (f) appearance of building bulk; and (g) relationship with road corridors.	<ul><li>AO2.2</li><li>Car parking and set down areas are set back:</li><li>(a) 3 metres from the road frontage; and</li><li>(b) 2 metres from side and rear boundaries.</li></ul>	YES	See AO2.1 above.
SITE COVER			
<ul> <li>PO3</li> <li>Buildings and structures occupy the site in a manner that:</li> <li>(a) makes efficient use of land;</li> <li>(b) is consistent with the bulk and scale of surrounding buildings; and</li> <li>(c) appropriately balances built and natural features.</li> </ul>	<ul> <li>AO3.1</li> <li>Site cover does not exceed:</li> <li>(a) 90% where adjoining the side boundary of land in the Centre zone; or</li> <li>(b) 50% otherwise.</li> </ul>	YES	The proposed development will not exceed 90% site cover.
FOR ASSESSABLE DEVELOPMENT			
BUILDING DESIGN			
<ul> <li>PO4</li> <li>Building facades are appropriately designed to:</li> <li>(a) include visual interest and architectural variation;</li> </ul>	<b>AO4.1</b> Buildings address the principle road frontage of the site through the location of windows and pedestrian access.	YES	The proposed development is not built up to the road frontage and will not have windows directly facing either Rankin or Byrnes Street and as such, an assessment against the Performance Outcome is required:

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
<ul> <li>(b) maintain and enhance the character of the surrounds;</li> <li>(c) provide opportunities for casual surveillance;</li> <li>(d) include a human scale; and</li> <li>(e) encourage occupation of outdoor space.</li> </ul>			<ul> <li>(a) Each building will be provided with articulation and fenestration via variation in built form, the use of materials and the use of awnings and parapets which will facilitate visual and architectural interest;</li> <li>(b) The buildings will not be out of character with the type and scale of development on adjacent sites i.e., Coles, and/or MacDonalds, that envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the community;</li> <li>(c) There are ample opportunities for casual surveillance such as from the outdoor dining and central forecourt mall, as well as throughout the car parking areas, and dining areas within the food and drink outlet;</li> <li>(d) The buildings include several human scale elements such as the outdoor dining and central forecourt mall will all facilitate the outdoor occupation of the site.</li> </ul>
	<b>AO4.2</b> Buildings do not include blank walls to road frontages exceeding 3 metres high.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
<b>PO5</b> Development complements and integrates with the established build character of the immediate surrounds, having regard to: (a) roof form and pitch;	<b>AO5.1</b> No acceptable outcome is provided.	YES	The proposed development will include development elements such as those described in the performance outcome, that are similar to the established built form found on the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on

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### 6.2.2 Community Facilities Zone Code

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
<ul> <li>(b) eaves and awnings;</li> <li>(c) building materials, colours and textures; and</li> <li>(d) window and door size and location.</li> </ul>			the other side of Byrnes Street. This ensures the proposed development will complement and integrate with the established character of the immediate locality and in turn, comply with the performance outcome.
AMENITY			
<ul> <li>PO6</li> <li>Development must not detract from the amenity of the local area, having regard to:</li> <li>(a) noise;</li> <li>(b) hours of operation;</li> <li>(c) traffic;</li> <li>(d) advertising devices;</li> <li>(e) visual amenity;</li> <li>(f) privacy;</li> <li>(g) lighting;</li> <li>(h) odour; and</li> <li>(i) emissions.</li> </ul>	<b>AO6.1</b> No acceptable outcome is provided.	YES	Please refer to Section 7.5 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.
<ul> <li>PO7</li> <li>Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to: <ul> <li>(a) noise;</li> <li>(b) hours of operation;</li> <li>(c) traffic;</li> <li>(d) advertising devices;</li> <li>(e) visual amenity;</li> <li>(f) privacy;</li> <li>(g) lighting;</li> <li>(h) odour; and</li> <li>(i) emissions.</li> </ul> </li> </ul>	<b>AO7.1</b> No acceptable outcome is provided.	YES	See AO6.1 above.

### 6.2.2 Community Facilities Zone Code

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT

#### Application

- (1) This code applies to assessing development where:
  - (a) located in the Medium density residential zone; and
  - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

#### Criteria for assessment

#### Table code 6.2.7.3 – Medium density residential zone code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT			
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT						
HEIGHT						
<ul> <li>PO1</li> <li>Building height takes into consideration and respects the following: <ul> <li>(a) the height of existing buildings on adjoining premises;</li> <li>(b) the development potential, with respect to height, on adjoining premises;</li> <li>(c) the height of buildings in the vicinity of the site;</li> <li>(d) access to sunlight and daylight for the site and adjoining sites;</li> <li>(e) privacy and overlooking; and</li> <li>(f) site area and street frontage length.</li> </ul> </li> </ul>	<ul> <li>AO1</li> <li>Development has a maximum building height of:</li> <li>(a) 8.5 metres; and</li> <li>(b) 2 storeys above ground level.</li> </ul>	YES	Please refer to Section 7.3 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.			

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT	
OUTBUILDINGS AND RESIDENTIAL SCALE				
<ul> <li>PO2</li> <li>Domestic outbuildings:</li> <li>(a) do not dominate the lot on which they are located; and</li> <li>(b) are consistent with the scale and character of development in the Medium density residential zone.</li> </ul>	AO2.1 Domestic buildings do not exceed: (a) 100m <sup>2</sup> in gross floor area; and (b) 5.5 metres in height above natural ground level.	N/A	The proposed development does not involve domestic buildings.	
SITING				
<ul> <li>PO3</li> <li>Development is sited in a manner that considers and respects: <ul> <li>(a) the siting and use of adjoining premises;</li> <li>(b) access to sunlight and daylight for the site and adjoining sites;</li> <li>(c) privacy and overlooking;</li> <li>(d) opportunities for casual surveillance of adjoining public spaces;</li> <li>(e) air circulation access to natural breezes;</li> <li>(f) appearance of building bulk; and</li> <li>(g) relationship with road corridors.</li> </ul> </li> </ul>	<ul> <li>AO3.1 Buildings and structures include a minimum setback of: <ul> <li>(a) 6 metres from the primary road frontage; and</li> <li>(b) 3 metres from any secondary road frontage.</li> </ul> </li> <li>AO3.2 Buildings and structures include a minimum setback of 2 metres from side and rear boundaries.</li> </ul>	YES	Please refer to Section 7.4 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome. Please refer to AO3.1 below.	
ACCOMMODATION DENSITY				
<ul> <li>PO4</li> <li>The density off Accommodation activities:</li> <li>(a) contributes to housing choice and affordability;</li> <li>(b) respects the nature and density of surrounding land use;</li> </ul>	<b>AO4.1</b> Development provides a maximum density for Accommodation activities in compliance with <b>Table</b> <b>6.2.7.3B.</b>	N/A	The proposed development does not involve accommodation activities.	

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
<ul><li>(c) does not cause amenity impacts beyond the reasonable expectation of accommodation density for the zone; and</li><li>(d) is commensurate to the scale and frontage of the site.</li></ul>			
<ul> <li>PO5</li> <li>Buildings and structures occupy the site in a manner that:</li> <li>(a) makes efficient use of land;</li> <li>(b) is consistent with the bulk and scale of surrounding buildings; and</li> <li>(c) appropriately balances built an natural features.</li> </ul>	<b>AO5.1</b> Gross floor area does not exceed 600m <sup>2</sup> .	N/A	Please refer to AO4.1 above.
FOR ASSESSABLE DEVELOPMENT		•	
BUILDING DESIGN			
<ul> <li>PO6</li> <li>Buildings facades are appropriately designed to: <ul> <li>(a) include visual interest and architectural variation;</li> </ul> </li> <li>(b) maintain and enhance the character of the surrounds;</li> <li>(c) provide opportunities for casual surveillance;</li> <li>(d) include a human scale; and</li> <li>(e) encourage occupation of outdoor space.</li> </ul>	AO6.1 Buildings include habitable space, pedestrian entrances and recreation space facing the primary road frontage.	YES	<ul> <li>The proposed development is not built up to nor does it directly address the road frontage of either Rankin or Byrnes Street and as such, an assessment against the Performance Outcome is required:</li> <li>(a) Each building will be provided with articulation and fenestration via variation in built form, the use of materials and the use of awnings and parapets which will facilitate visual and architectural interest;</li> <li>(b) The buildings will not be out of character with the type and scale of development on adjacent sites i.e., Coles, and/or MacDonalds, that are envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the community;</li> <li>(c) There are ample opportunities for casual surveillance such as from the outdoor dining and central forecourt mall, as well as throughout the car parking areas, and dining areas within the food and drink outlet;</li> </ul>

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PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
			<ul> <li>(d) The buildings include several human scale elements such as the outdoor dining and central forecourt areas; and</li> <li>(e) The outdoor dining, speciality shops and forecourt mall will all facilitate the outdoor occupation of the site.</li> </ul>
<ul> <li>PO7</li> <li>Development complements and integrates with the established built character of the Medium density residential zone, having regard to: <ul> <li>(a) roof form and pitch;</li> <li>(b) eaves and awnings;</li> <li>(c) building materials, colours and textures; and</li> <li>(d) window and door size and location</li> </ul> </li> </ul>	<b>AO7</b> No acceptable outcome is provided.	ALTERNATIVE SOLUTION SOUGHT	The proposed development will not integrate with the established character of the Medium Density Residential Zone as adjacent dwelling houses are generally single storey and 4-5m in height. That said, only a small portion of the site is located in the medium density residential zone (circa 3%) and the proposed development is for the most part, located on centre zoned land. As such, in this instance, while the charter and amenity of the Medium Density residential Zone cannot be ignored, it is more appropriate that the proposed development reflects the established built character of the adjacent centre zoned land to ensure an attractive and suitable streetscape when viewed from the main street of Mareeba, being Byrnes Street and other adjacent centre Zone Code which demonstrates the proposed development integrates with the established character of the adjacent locality).
NON-RESIDENTIAL DEVELOPMENT			
<ul> <li>PO8</li> <li>Non-residential development: <ul> <li>(a) is consistent with the scale of existing development;</li> <li>(b) does not detract from the amenity of nearby residential uses;</li> <li>(c) directly supports the day to day needs of the immediate residential community; and</li> </ul> </li> </ul>	<b>AO8.1</b> No acceptable outcome is provided.	ALTERNATIVE SOLUTION SOUGHT & YES	<ul> <li>The proposed development complies with the performance outcome as is outlined below:</li> <li>(a) As outlined above in AO7, the proposed development is not consistent with the scale of adjacent residential dwellings. That said, only a small portion of the site is located in the medium density residential zone (circa 3%) and the proposed development is for the most</li> </ul>

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
(d) does not impact on the orderly provision of non-residential development in other locations in the shire.			<ul> <li>part, located on centre zoned land. As such, in this instance, while the charter and amenity of the Medium Density residential Zone cannot be ignored, it is more appropriate that the proposed development reflects the established built character of the adjacent centre zoned land to ensure an attractive and suitable streetscape when viewed from the main street of Mareeba, being Byrnes Street and other adjacent centre streets/areas (see response to PO5 of the Centre Zone Code which demonstrates the proposed development integrates with the established character of the adjacent locality).</li> <li>(b) The proposed development will not have an unacceptable, adverse impact on the amenity of the nearby residential land uses (see section 7.5 of the Planning Report for further commentary on this matter);</li> <li>(c) As has been demonstrated in the Economic Need and Impact Assessment (see Attachment 8) there is a demonstrated need for the proposed development which ensures it will support the day to day needs of the community which are currently being under serviced; and</li> <li>(d) The proposed development will have no adverse impact on the provision of residential development in other areas of the shire.</li> </ul>
NON-RESIDENTIAL DEVELOPMENT			
<ul> <li>PO9</li> <li>Development must not detract from the amenity of the local area, having regard to:</li> <li>(a) noise;</li> <li>(b) hours of operation;</li> </ul>	<b>AO9.1</b> No acceptable outcome is provided.	YES	Please refer to Section 7.5 of the Planning Report for commentary on this matter and a demonstration of compliance with the Performance Outcome.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
<ul> <li>(c) traffic;</li> <li>(d) advertising devices;</li> <li>(e) visual amenity;</li> <li>(f) privacy;</li> <li>(g) lighting;</li> <li>(h) odour; and</li> <li>(i) emissions.</li> </ul>			
<ul> <li>PO10</li> <li>Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to:</li> <li>(a) noise;</li> <li>(b) hours of operation;</li> <li>(c) traffic;</li> <li>(d) advertising devices;</li> <li>(e) visual amenity;</li> <li>(f) privacy;</li> <li>(g) lighting;</li> <li>(h) odour; and</li> <li>(i) emissions.</li> </ul>	<b>AO10.1</b> No acceptable outcome is provided.	YES	See AO9.1 above.

#### Application

- (1) This code applies to assessing development where:
  - (a) Located in the Mareeba local plan area; and
  - (b) It is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

#### Criteria for assessment

#### Table 7.2.2.3 – Mareeba local plan – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT			
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIRE	FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT					
IF AFFECTED BY THE VEGETATED BUFFER AREA ELEMI	NT					
<ul> <li>PO1</li> <li>Industrial development is appropriately screened from view to minimise impacts on the:</li> <li>(a) visual amenity and character of the local plan area; and</li> <li>(b) amenity of nearby land uses.</li> </ul> IF IN THE STABLE PRECINCT	<b>AO1.1</b> A minimum 5 metre wide vegetated buffer area is provided in all areas of the site affected by the vegetated buffer element.	N/A	The site is not affected by the Vegetated Buffer Area Element			
<ul> <li>PO2</li> <li>Development facilitates the co-location of houses and stables while maintaining an appropriate level of amenity, having regard to emissions of:</li> <li>(a) noise;</li> <li>(b) odour; and</li> <li>(c) light</li> </ul>	<ul> <li>AO2</li> <li>Stables house no more than 10 animals and are: <ul> <li>(a) separated by a minimum distance of 3 metres from any residential building on the same site;</li> <li>(b) separated by a minimum distance of 5 metres from any residential building on an adjoining site; and</li> <li>(c) setback a minimum of 6 metres from any road frontage.</li> </ul> </li> </ul>	N/A	The site is not located in the Stable Precinct.			

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT			
IF ON A SITE WITH A FRONTAGE TO THE BYRNES STR	IF ON A SITE WITH A FRONTAGE TO THE BYRNES STREET CORE ELEMENT					
<ul> <li>PO3</li> <li>Development with a frontage to the Byrnes Street core element is designed to minimise the dominance of vehicular access within the streetscape by:</li> <li>(a) providing vehicular access from an alternative frontage;</li> <li>(b) minimising the size of necessary vehicle access; and</li> <li>(c) maximising the area of the frontage used for pedestrian focussed activities.</li> </ul>	<b>AO3.1</b> Where development has a frontage to the Byrnes Street core element, buildings are built to side boundaries, except where pedestrian access ways and where alternative vehicular access is not available. In such instances, vehicular and pedestrian access-ways are not wider than 7 metres. <i>Note: refer to Figure A for further details</i>	ALTERNATIVE SOLUTION SOUGHT	Due to the nature of the proposed development, it is not feasible to direct all traffic via Rankin Street as this would result in significant traffic impacts on the nearby rail corridor and the Byrnes Street/Rankin Street intersection. As such, some access via Byrnes Street is required in this instance to service the proposed development of which, is a use envisioned to occur on the site by the Planning Scheme. The ingress/egress locations to/from Byrnes Street that will service the proposed development are documented in the TIA (see <b>Attachment 6</b> ). While the accesses to/from Byrnes Street to service the proposed development will increase over and above the existing situation, they will not have an unacceptable, negative impact on the Byrnes Street streetscape and are required to ensure the proposed development can suitably address traffic impacts which demonstrates their suitability from a safety and efficiency perspective (see <b>Attachment 6</b> ).			
	<b>AO3.2</b> Vehicular access is not provided from Byrnes Street where a site has more than one frontage.	ALTERNATIVE SOLUTION SOUGHT	See AO3.1 above.			



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT	
IF ON A SITE AFFECTED BY THE TOWN CENTRE FRINGE 6 METRE SETBACK ELEMENT				
<ul> <li>PO4</li> <li>Larger destination-specific premises that require increased provision for car and service vehicle access are supported where it can be demonstrated that sufficient separation is provided between the use and adjoining residential uses to adequately mitigate any potential impacts on the amenity of adjoining premises, having regard to: <ul> <li>(a) noise;</li> <li>(b) odour;</li> <li>(c) light; and</li> <li>(d) overlooking and privacy.</li> </ul> </li> </ul>		N/A	The site is not located in the Town Fringe Precinct.	
IF IN THE TOWN CENTRE FRINGE PRECINCT				
PO5 Development's address to the primary street frontage ensures: (a) car parking areas are not a dominant feature; and	<b>AO5.1</b> No more than 50% of car parking is to be located between the building and the primary street frontage.	N/A	The site is not located in the Town Centre Fringe Precinct.	
<ul> <li>(b) sources of visual interest and casual surveillance of the street frontage are provided.</li> </ul>	<b>AO5.2</b> Buildings include uses that orientated toward the primary street frontage with entrances and windows addressing the street.	N/A	See AO5.1 above.	
FOR ASSESSABLE DEVELOPMENT				
<b>PO6</b> Development in the Mareeba local plan area:	<b>AO6</b> No acceptable outcome is provided.	YES	The proposed development complies with the Performance Outcome as follows:	



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
<ul> <li>(a) promotes and does not prejudice the ongoing operation of Mareeba as the major regional activity centre of the Shire;</li> <li>(b) provides growth or redevelopment in areas within close proximity to the Town centre core precinct;</li> <li>(c) locates Community facilities in accessible locations within walking distance of the Town centre core precinct; and</li> <li>(d) contributes to the vibrancy and local identity of the Mareeba community.</li> </ul>			<ul> <li>(a) The site is located in Mareeba and is predominately located within a Centre zoning designation where the proposed development is encouraged. As a result, the proposed development is suitably located and in turn, will not prejudice the ongoing operation of Mareeba as the major regional activity centre of the shire;</li> <li>(b) The proposed development will provide significant growth and economic stimulus to the community and will support the day to day needs of the community which are currently being under serviced (see the Economic Need and Impact Assessment in <b>Attachment 8</b>);</li> <li>(c) The proposed development does not involve any community facilities;</li> <li>(d) The proposed development does not involve any community facilities;</li> <li>(d) The proposed development to occur and as such, will not have any unacceptable, negative impacts on the vibrancy or local identity of the Mareeba community.</li> </ul>
<b>PO7</b> Development does prejudice the future construction of the Mareeba Bypass.	<b>AO7</b> Development involving permanent buildings or structures does not occur on land affected by the Mareeba bypass element.	N/A	The site is not identified as being located on the alignment of the future Mareeba bypass.
<b>PO8</b> Development integrates the following elements identified on the Mareeba local plan maps:	<b>AO8</b> No acceptable outcome is provided.	N/A	The site is not affected by any of the corresponding elements.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
<ul> <li>(a) open space elements;</li> <li>(b) indicative collector roads as higher order road linkages;</li> <li>(c) indicative minor roads in a similar design as shown as mapped; and</li> <li>(d) possible connections as important road linkages between developments.</li> </ul>			
<ul> <li>PO9</li> <li>Development integrates small-scale local retail centres that:</li> <li>(a) service the local neighbourhood; and</li> <li>(b) do not prejudice the ongoing operation of the Mareeba town centre.</li> </ul>	<b>AO9</b> No acceptable outcome is provided.	YES	The proposed development will service the community and will not have any unacceptable, negative impact on existing, similar traders (see the Economic Need and Impact Assessment in <b>Attachment 8</b> ).
IF IN THE STABLE PRECINCT			
<b>PO10</b> Development does not involve a density of residential development that is likely to prejudice the ongoing use of land within the precinct for stables, having regard to the existing level of amenity.	<b>AO10.1</b> Development does not result in a higher accommodation density than currently exists.	N/A	The site is not located in the Stable Precinct.
	<b>AO10.2</b> Development does not result in the creation of any new lots.	N/A	See AO10.1 above.
IF IN THE MAREEBA AIRPORT PRECINCT	1	<u>.</u>	1
PO11	A011	N/A	The site is not located in the Mareeba Airport Precinct.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
Development does not prejudice the ongoing operations or future development intentions of the Mareeba Airport.	Development is limited to activities which have a direct association with aviation.		
IF IN THE TOWN CENTRE CORE PRECINCT		1	
<ul> <li>PO12</li> <li>Development is to be of a scale and form which complements the character of the precinct, having regard to:</li> <li>(a) building location;</li> <li>(b) building height;</li> <li>(c) interface with the street; and</li> <li>(d) scale of windows, doors and structural elements</li> </ul>	AO12 No acceptable outcome is provided.	YES	<ul> <li>The proposed development complies with the corresponding Performance Outcome as follows:</li> <li>(a) The siting of the proposed development on the site is consistent with that of the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on the other side of Byrnes Street;</li> <li>(b) The height of the proposed development is consistent with that of the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on the other side of Byrnes Street;</li> <li>(c) The proposed development is not built up to nor directly addresses the road frontage of either Rankin or Byrnes Street as it: <ul> <li>Will facilitate an active and vibrant streetscape through the inclusion of articulation, fenestration, variations to the roof profile, landscaping, pedestrian footpaths and the central forecourt mall. Further, specific compliance can be ensured through reasonable and relevant conditions of approval where required;</li> <li>Each building will be provided with articulation and fenestration via</li> </ul> </li> </ul>



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			<ul> <li>variation in built form, the use of materials and the use of awnings and parapets which will facilitate visual and architectural interest;</li> <li>The buildings will not be out of character with the type and scale of development on adjacent sites i.e., Coles, and/or MacDonalds, that envisioned for the site by the Planning Scheme, nor, given the zoning of the site, that envisioned for the site by the planning Scheme, nor, given the zoning of the site, that envisioned for the site by the community;</li> <li>There are ample opportunities for casual surveillance such as from the outdoor dining and central forecourt mall, as well as throughout the car parking areas and dining areas within the food and drink outlet;</li> <li>The buildings include several human scale elements such as the outdoor dining and central forecourt areas; and The outdoor dining, speciality shops and forecourt mall will all facilitate the outdoor occupation of the</li> <li>(d) The scale of windows and doors within the proposed development is consistent with that of the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on the other side of Byrnes Street.</li> </ul>
PO13	AO13.1	N/A	The proposed development does not involve the re- use of any existing buildings.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
The character and style of buildings in the main street, including those representing the booming tobacco period of the 1950's and 1960's is maintained and protected.	<ul> <li>Buildings are re-used for new uses without alteration to their:</li> <li>(a) height;</li> <li>(b) width (at street frontage);</li> <li>(c) vertical or horizontal patterning; and</li> <li>(d) materials</li> <li>Note: Refer to Planning Scheme Policy 1 – Character Area Design Guidelines for additional guidance in relation to the development outcomes sought</li> </ul>		
	<b>AO13.2</b> Development on sites identified as building façade to be retained that retains the external (street facing) façade(s) of the building will qualify for a 10% reduction on car parking.	N/A	See AO13.1 above.
IF IN THE TOWN CENTRE FRINGE PRECINCT			
<b>PO14</b> Development does not undermine the role of the Town centre core precinct as Mareeba's primary retail and commercial precinct.	<b>AO14</b> No acceptable outcome is provided.	N/A	The site is not located in the Town Centre Fringe Precinct.
IF IN THE NOXIOUS AND HAZARDOUS INDUSTRY PRECINCT			
<b>PO15</b> Appropriate provision is made for siting, managing and buffering uses in the Noxious and hazardous industry precinct to limit impacts on adjoining properties, having regard to:	<b>AO15</b> No acceptable outcome is provided.	N/A	The site is not located in the Noxious and Hazardous Industry Precinct.
(a) noise;			

## Urban&Sync

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
<ul> <li>(b) hours of operation;</li> <li>(c) traffic;</li> <li>(d) advertising devices;</li> <li>(e) visual amenity;</li> <li>(f) privacy;</li> <li>(g) lighting;</li> <li>(h) odour; and</li> <li>(i) emissions.</li> <li>Note: A facility management plan can be prepared to demonstrate that the ongoing operation of the use will maintain compliance with this outcome.</li> </ul>			
IF IN THE INDUSTRIAL PARK PRECINCT			
PO16	AO16	N/A	The site is not located in the Industrial Park Precinct.
Development that attracts the public into the Industrial park precinct does not develop within the Industrial park precinct.	No acceptable outcome is provided.		
IF IN THE NORTHERN INVESTIGATION PRECINCT		<u></u>	1
<b>PO17</b> Development does not compromise the long term future urban intent of this precinct	<b>AO17</b> No acceptable outcome is provided.	N/A	The site is not located in the Northern Investigation Precinct.
IF IN THE NORTH-EASTERN EXPANSION PRECINCT, SOUTH-EASTERN EXPANSION PRECINCT OR SOUTH-WESTERN EXPANSION PRECINCT			
PO18	AO18 No acceptable outcome is provided.	N/A	The site is not located in any of the mentioned Expansion Precincts.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
Development provides an average net accommodation density of at least 12 dwellings or accommodation units per hectare.			
Note: Calculation of accommodation density excludes areas not developed as a result of provisions of an overlay.			
PO19	AO19	N/A	See AO18 above.
Development provides a wide range of housing options, including different dwelling sizes and types that meet the needs of a range of household compositions.	No acceptable outcome is provided.		
PO20	AO20	N/A	See AO18 above.
The road network is to be developed in a logical and sequential manner to provide for the coordinated development of the precinct.	No acceptable outcome is provided.		
PO21	A021	N/A	See AO18 above.
The road network provides encourages walking and cycling to daily activities to reduce local vehicle trips by:	No acceptable outcome is provided.		
<ul> <li>(a) being based on a street grid network;</li> <li>(b) having walkable block sizes;</li> <li>(c) providing safe, efficient and provides for the needs of all users;</li> <li>(d) having a high level of connectivity for all users; and</li> <li>(e) being linked to destinations such as shops, open spaces and schools.</li> </ul>			

#### Application

- (1) This code applies to assessing development where:
  - (a) Land the subject of development is affected by a constraint category identified on the Airport Environs Overlay Maps (OM-002a-f); and
  - (b) It is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note: Strategic airports and aviation facilities are appropriately reflected in Overlay Map 2 and is required to be mapped by State Government in response to Infrastructure State Interests.

#### Criteria for assessment

#### Table 8.2.2.3 – Airport Environs Overlay Code – for Acceptable Development Subject to Requirements and Assessable Development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT		
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREM	FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT				
<ul> <li>PO1</li> <li>Development does not interfere with movement of aircraft or the safe operation of an airport or aerodrome where within the:</li> <li>(a) Airport environs: OLS area of Mareeba Airport identified on Airport environs overlay map (OM-002c); or</li> <li>(b) Airport environs: OLS area of Cairns Airport identified on Airport environs overlay map (OM-002c.1); or</li> </ul>	<ul> <li>AO1.1</li> <li>Development does not exceed the height of the Obstacle Limitation Surface (OLS) where located within the Airport environs:</li> <li>OLS area of: <ul> <li>(a) Mareeba Airport identified on Airport environs overlay map (OM-002c); or</li> <li>(b) Cairns Airport identified on Airport environs overlay map (OM-002c.1).</li> </ul> </li> </ul>	YES	The proposed development will not encroach into the OLS.		
<ul> <li>(c) 'Airport environs: Airport buffer - 1 kilometre' of an aerodrome identified on Airport environs overlay map (OM-002f); or</li> <li>(d) 'Airport environs: Airport buffer - 3 kilometres' of an aerodrome identified on Airport environs overlay map (OM-002f).</li> </ul>	AO1.2 Development has a maximum height of 10 metres where within the 'Airport environs: Airport buffer - 1 kilometre' of an aerodrome identified on <b>Airport environs overlay map</b> (OM-002f).	N/A	The site is not located within the Airport Environs Airport Buffer.		



## 8.2.2 Airport Environs Overlay Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
LIGHTING	AO1.3 Development has a maximum height of 15 metres where within the 'Airport environs: Airport buffer - 3 kilometres' of an aerodrome identified on <b>Airport environs overlay map</b> (OM-002f).	N/A	See AO1.2 above.
PO2	A02.1	N/A	The site is not located within the Airport Environ's
<ul> <li>Development does not include lighting that:</li> <li>(a) has the potential to impact on the efficient and safe operation of Mareeba Airport or an aerodrome; or</li> <li>(b) could distract or confuse pilots.</li> </ul>	<ul> <li>Development within the 'Airport environs: Distance from airport - 6 kilometres' area for Mareeba Airport identified on Airport environs overlay map (OM-002b) or the 'Airport environs: Airport buffer - 3 kilometres' of an aerodrome identified on Airport environs overlay map (OM-002f) does not:</li> <li>(a) involve external lighting, including street lighting, that creates straight parallel lines of lighting that are more than 500 metres long; and</li> <li>(b) does not contain reflective cladding upwards shining lights, flashing lights or sodium lights.</li> </ul>		distance from Airport – 6km area.
NOISE EXPOSURE			
<b>PO3</b> Development not directly associated with Mareeba Airport is protected from aircraft noise levels that may cause harm or undue interference.	<b>AO3.1</b> Sensitive land uses are acoustically insulated to at least the minimum standards specified by AS2021 Acoustics - Aircraft Noise Intrusion - Building Siting and Construction where located within the 'Airport environs: 20-25 ANEF' area identified on <b>Airport environs overlay map (OM-002d)</b> .	N/A	The site is not located within the 20-25 ANEF area.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT		
PUBLIC SAFETY	PUBLIC SAFETY				
PO4	AO4.1	N/A	The site is not located within the Public Safety Area.		
Development does not compromise public safety or risk to property.	Development is not located within the 'Airport environs: Mareeba Airport public safety area' identified on <b>Airport</b> <b>environs overlay map (OM-002e)</b> .				
STATE SIGNIFICANT AVIATION FACILITIES ASSOCIATED	O WITH MAREEBA AIRPORT				
PO5	A05.1	N/A	The site is not located within the mentioned buffer.		
<ul> <li>Development does not impair the function of state significant aviation facilities by creating:</li> <li>(a) physical obstructions; or</li> <li>(b) electrical or electro-magnetic interference; or</li> <li>(c) deflection of signals.</li> </ul>	Development within 'Airport environs: Zone B (600 metre buffer)' for the 'Saddle Mountain VHF' facility identified on <b>Airport environs overlay map (OM-002a.1)</b> does not exceed a height of 640 metres AHD.				
	A05.2	N/A	See AO5.1 above.		
	Development within 'Airport environs: Zone B (4,000 metre buffer)' for the 'Hahn Tableland Radar (RSR)' facility identified on <b>Airport environs overlay map (OM-002a)</b> does not exceed a height of 950 metres AHD, unless associated with Hann Tableland Radar facility.				
	A05.3	N/A	See AO5.1 above.		
	Building work does not occur within 'Airport environs: Zone A (200 metre buffer)' of the 'Biboohra CVOR' facility identified on <b>Airport environs overlay map (OM-002a)</b> unless associated with the Biboohra CVOR facility.				
	A05.4	N/A	See AO5.1 above.		
	Development within 'Airport environs: Zone B (1,500 metre buffer)' of the 'Biboohra CVOR' facility identified on <b>Airport</b>				



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<ul> <li>environs overlay map (OM-002a), but outside 'Zone A (200 metre buffer)' identified on Airport environs overlay map (OM-002a), does not include:</li> <li>(a) the creation of a permanent or temporary physical line of sight obstruction above 13 metres in height; or</li> <li>(b) overhead power lines exceeding 5 metres in height; or</li> <li>(c) metallic structures exceeding 7.5 metres in height; or</li> <li>(d) trees and open lattice towers exceeding 10 metres in height; or</li> <li>(e) wooden structures exceeding 13 metres in height.</li> </ul>		
FOR ASSESSABLE DEVELOPMENT			
MAREEBA AIRPORT			
PROTECTION OF OPERATIONAL AIRSPACE			
<ul> <li>PO6</li> <li>Development within the vicinity of Mareeba Airport or an aerodrome does not interfere with the:</li> <li>(a) movement of aircraft; or</li> <li>(b) safe operation of the airport or facility</li> </ul>	<ul> <li>AO6.1</li> <li>Development involving sporting and recreational aviation activities such as parachuting, hot air ballooning or hang gliding, does not occur within the Airport environs: OLS area of: <ul> <li>(a) Mareeba Airport identified on Airport environs overlay map (OM-002c); or</li> <li>(b) Cairns Airport identified on Airport environs overlay map (OM-002c.1).</li> </ul> </li> </ul>	N/A	The proposed development does not involve any of the mentioned activities.
	<b>AO6.2</b> Development involving temporary or permanent aviation activities does not occur within the 'Airport environs: Airport	N/A	See AO6.1 above.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	buffer - 3 kilometres' of an aerodrome identified on <b>Airport</b> environs overlay map (OM-002f).		
<b>PO7</b> Development does not affect air turbulence, visibility or engine operation in the operational airspace of Mareeba Airport or regional aerodromes.	<ul> <li>AO7.1</li> <li>Development does not result in the emission of a gaseous plume, at a velocity exceeding 4.3 metres per second, or smoke, dust, ash or steam within: <ul> <li>(a) the Airport environs: OLS area of Mareeba Airport identified on Airport environs overlay map (OM-002c); or</li> <li>(b) the Airport environs: OLS area of Cairns Airport identified on Airport environs overlay map (OM-002c.1); or</li> <li>(c) the 'Airport environs: Airport buffer - 1 kilometre' of a regional aerodrome identified on Airport environs overlay map (OM-002c).</li> </ul> </li> </ul>	N/A	The site is not located in any of the mentioned areas.
MANAGING BIRD AND BAT STRIKE HAZARD TO AIRCR	AFT		
<b>PO8</b> Development in the environs of Mareeba Airport or an aerodrome does not contribute to the potentially serious hazard from wildlife (bird or bat) strike.	AO8.1 Development within the 'Airport environs: Distance from airport - 8 kilometres' Bird and bat strike zone of Mareeba Airport identified on Airport environs overlay map (OM- 002b) or the 'Airport environs: Airport buffer - 3 kilometres' of an aerodrome identified on Airport environs overlay map (OM-002f) provides that potential food and waste sources are covered and collected so that they are not accessible to wildlife.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	AO8.2 Development within the 'Airport environs: Distance from airport - 3 kilometres' Bird and bat strike zone of Mareeba Airport identified on Airport environs overlay map (OM- 002b) or the 'Airport environs: Airport buffer - 1 kilometre' of an aerodrome identified on Airport environs overlay map (OM-002f) does not include: (a) food processing; or (b) abattoir; or (c) intensive horticulture; or (d) intensive animal husbandry; or (e) garden centre; or (f) aquaculture.	N/A	The site is not located within the 3km buffer area.
	<ul> <li>AO8.3</li> <li>Putrescible waste disposal sites do not occur within the 'Airport environs: Distance from airport - 13 kilometres' Bird and bat strike zone of:</li> <li>(a) Mareeba Airport identified on Airport environs overlay map (OM-002b); or</li> <li>(b) Cairns Airport identified on Airport environs overlay map (OM-002b.1).</li> </ul>	N/A	The proposed development does not involve a putrescible waste disposal site.

#### Application

- (1) This code applies to assessing development where:
  - (a) Land the subject of development is affected by a constraint category identified on the **Extractive Resources Overlay Maps (OM-005a-e)**; and
  - (b) It is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

Note: Mining and extractive industry is appropriately reflected in the Strategic Framework Maps and Overlay Map 5 and is required to be mapped by State Government in response to Economic Growth State Interests.

#### Criteria for assessment

#### Table 8.2.5.3 – Extractive resources overlay code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
FOR ACCEPTABLE DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT			
HAULAGE ROUTE			
PO1 Vehicular access to a 'Key resource transport route' identified on Extractive resources overlay map (OM- 005e) does not adversely affect the safety or efficiency of the route for the existing or future transportation of extractive resources from a 'Key resource processing area' identified on Extractive resources overlay map (OM- 005e)	identified on Extractive resources overlay map (OM-005e)	YES	Rankin Street is an identified Haulage Route (Key Resource Transport Route) in the Extractive Resources Overlay Mapping and the proposed development involves an all-movements access to Rankin Street. That said, due to the nature of the proposed development and the fact that Byrnes Street is a State- controlled Road, in this instance, it is not considered reasonable or practical to provide all access to the site via Byrnes Street and providing ingress and egress to/from Rankin Street will assist in being able to mitigate potential traffic impacts from the proposed development to within acceptable levels. The TIA prepared by SLR Consulting (see <b>Attachment</b> <b>6</b> ) has demonstrated that the proposed development will not adversely affect the safety or efficiency of the



### 8.2.5 Extractive Resources Overlay Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			haulage route on Rankin Street which will ensure compliance with the Performance Outcome.
	AO1.2 Development does not result in an increase in the number of vehicles accessing the site from a 'Key resource transport route' identified on <b>Extractive resources overlay map (OM- 005e).</b>	YES	See AO1.1 above.
PO2 Development is appropriately located to minimise potential amenity impacts from the use of a 'Key resource transport route' identified <b>on Extractive resources</b> <b>overlay map (OM-005e)</b> for the existing or future transportation of extractive resources from a 'Key resource	AO2.1 Sensitive land uses susceptible to heavy vehicle traffic impacts are setback 100 metres from any frontage to a 'Key resource transport route' identified on Extractive resources overlay map (OM-005e).	N/A	The proposed development does not involve a sensitive land use.
processing area' identified on <b>Extractive resources</b> overlay map (OM- 005e).	AO2.2 New lots are not created wholly within 100 metres from any frontage to a 'Key resource transport route' identified on Extractive resources overlay map (OM-005e).	N/A	The proposed development does not involve a subdivision.
FOR ASSESSABLE DEVELOPMENT		I	
KEY RESOURCE AREA			
<b>PO3</b> Development in a 'Key resource processing area' or a 'Local resource area' identified on <b>Extractive resources overlay</b> <b>map (OM- 005e)</b> does not compromise existing or future extractive operations.	<b>AO3</b> No acceptable outcome is provided.	N/A	The site is not located within either of the areas mentioned in the Performance Outcome.



### 8.2.5 Extractive Resources Overlay Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT		
SEPARATION AREA	SEPARATION AREA				
PO4	A04	N/A	The site is not located within a 'Separation Area'.		
Development in a 'Key resource separation area' or a 'Local resource separation area' identified on <b>Extractive</b> <b>resources overlay map (OM-005e)</b> does not compromise the function of the separation area as a buffer between Extractive industry and incompatible uses.					
PO5	A05	N/A	See AO4 above.		
Development of Extractive industry in a 'Key resource separation area' or a 'Local resource separation area' identified on <b>Extractive resources overlay map (OM- 005e)</b> does not result in adverse impacts beyond the separation area, having regard to:	No acceptable outcome is provided.				
<ul> <li>(a) noise;</li> <li>(b) dust;</li> <li>(c) ground vibrations; and</li> <li>(d) air blast overpressure.</li> </ul>					

#### Application

- (1) This code applies to assessing development where:
  - (a) Land the subject of development adjoins a rail corridor identified on the **Transport Infrastructure Overlay Maps (OM-012a-j)**; and
  - (b) It is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

Note—State transport infrastructure is appropriately reflected in Overlay Map 12 and is required to be mapped by State Government in response to Infrastructure State Interests.

Note—The Transport infrastructure overlay includes mapped Transport Noise Corridors in accordance with section 246ZA of the Building Act. These corridors are mapped on Transport infrastructure overlay maps (OM-012i-s) for information purposes only. Development on land within a mapped corridor is not subject to any specific provisions under this planning scheme. The Queensland Development Code should be consulted in this respect.

#### Criteria for assessment

#### Table 8.2.12.3 – Transport infrastructure overlay code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT	
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT				
<ul> <li>PO1</li> <li>Development does prejudice the: <ul> <li>(a) ongoing operation of an active 'Rail corridor' identified on the Transport infrastructure overlay maps (OM012a-j); or</li> <li>(b) the potential future use of an inactive 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j).</li> </ul> </li> </ul>	<ul> <li>AO1 Buildings and structures are setback from a boundary with an active or inactive 'Rail corridor' identified on the Transport infrastructure overlay maps (OM-012a-j) a minimum of: <ul> <li>(a) 40 metres where:</li> <li>(i) in the Rural zone; and</li> <li>(ii) on a site with an area of 2 hectares or greater; <ul> <li>or</li> </ul> </li> <li>(b) 5 metres otherwise.</li> </ul></li></ul>	YES	<ul> <li>The proposed development has elements that encroach within the deemed to comply Acceptable Outcome being:</li> <li>A portion of the Shopping Centre Roof which is proposed to be built up to the boundary (with the bulk of the building being setback a minimum of 2.5m from this boundary).</li> <li>Despite these encroachments, the proposed development is orientated so no aspects of any buildings or structures will face the rail corridor. Moreover, this rail corridor is only used very sporadically and by trains travelling at low speeds. As a result, the proposed development will not prejudice the current or future operations of the adjoining Railway</li> </ul>	



### 8.2.12 Transport Infrastructure Overlay Code

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			Corridor which ensures compliance with the Performance Outcome. Note: The adjacent rail corridor is the responsibility of DTMR and it is suggested that DTMR should in this instance, be the relevant authority in regard to what is and what is not acceptable in regards to the rail corridor.
FOR ASSESSABLE DEVELOPMENT			
PO2 Non-residential development adjoining a rail corridor identified on the <b>Transport infrastructure overlay maps</b> (OM-012a-j) is designed to allow for the future use of the 'Rail corridor' by the land use.	<b>AO2</b> No acceptable outcome is provided	N/A	DTMR will not permit access to the adjacent rail corridor now or in the future.
<ul> <li>PO3</li> <li>Development adjoining a 'Rail corridor' identified on the</li> <li>Transport infrastructure overlay maps (OM-012a-j)</li> <li>used for the transportation of tourists is designed to: <ul> <li>(a) provide visual interest;</li> <li>(b) screen or enhance areas of limited visual interest; and</li> </ul> </li> <li>(c) complement and enhance the character of the shire.</li> </ul>	<b>AO3</b> No acceptable outcome is provided	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.

#### Application

- (1) This code applies to assessing development where:
  - (a) involving Commercials activities; and
  - (b) it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the planning scheme.

#### Criteria for assessment

#### Table code 9.3.2.3 – Commercial activities code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT		
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT					
<b>PO1</b> Buildings are finished with high quality materials, selected for their durability and contribution to the character of the area.		YES	The proposed development includes high quality materials and will contribute to the character of the area and therefore, complies with the performance outcome. More specific compliance can be ensured through the imposition of reasonable and relevant conditions of approval where necessary.		
IF FOR SALES OFFICE					
<ul> <li>PO2</li> <li>A Sales office is compatible with the built form, character and amenity of the surrounding area, having regard to:</li> <li>(a) duration of use;</li> <li>(b) size and scale;</li> <li>(c) intensity and nature of use;</li> <li>(d) number of employees; and</li> </ul>	<ul> <li>AO2.1</li> <li>The Sales office is limited in its duration to a period not greater than:</li> <li>(a) 2 years, where involving selling or displaying land or buildings (including a dwelling house, multiple dwelling, commercial or industrial buildings); or</li> <li>(b) 6 months, where involving land or buildings that can be won as a prize.</li> </ul>	N/A	The proposed development does not involve a Sales Office.		

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
(e) hours of operation.	<b>AO2.2</b> The Sales office does not exceed 100m2 gross floor area.	N/A	See AO2.1 above.
	Note—The Sales office may be located within part of a Dwelling house, Dual occupancy or Multiple dwelling for sale or that can be won as a prize.		
	<b>AO2.3</b> No more than 3 employees work within the sales office at any one time.	N/A	See AO2.1 above.
	<b>AO2.4</b> The Sales office does not operate outside the hours of 8.00am to 6.00pm.	N/A	See AO2.1 above.
<b>PO3</b> A Sales office is located to be accessible to visitors.	<ul> <li>AO3.1</li> <li>The Sales office is established at the entrance to:</li> <li>(a) the estate or stage of the estate where involving multiple properties or dwellings; or</li> <li>(b) the building or land where involving a single property dwelling.</li> </ul>	N/A	See AO2.1 above.
FOR ASSESSABLE DEVELOPMENT			
VISUAL AMENITY AND CHARACTER			
<ul> <li>PO4</li> <li>Commercial activities protect and enhance the character and amenity of the locality and streetscape through the appropriate location and screening of:</li> <li>(a) air conditioning;</li> <li>(b) refrigeration plant;</li> </ul>	<b>AO4.1</b> No acceptable outcome is provided.	YES	The plans of development provided in <b>Attachment 2</b> show that all the corresponding features identified in the Performance Outcome will be suitably screened from view and as such, will not have any unacceptable, negative impacts on the streetscape of either Byrnes or Rankin Street. Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
(c) mechanical plant; and (d) refuse bin storage areas.			
LOCATION AND SIZE			
<ul> <li>PO5</li> <li>Commercial activities are located and designed:</li> <li>(a) to be commensurate to the scale and nature of land uses located and intended to be located in the immediate vicinity; and</li> <li>(b) consistent with the intent of the activity centre hierarchy for Mareeba Shire.</li> </ul>	AO5.1 No acceptable outcome is provided.	YES	<ul> <li>The proposed development complies with the corresponding Performance Outcome as follows:</li> <li>(a) The siting, height and appearance of the proposed development is consistent with that of the adjacent Coles Shopping Centre, and drive through McDonalds, all of which are located adjacent to the site on the other side of Byrnes Street and as such, will be commensurate to the scale and nature of land uses in the surrounding locality;</li> <li>(b) The site is located in Mareeba and is predominately located within a Centre zoning designation where the proposed development is encouraged. As a result, the proposed development is consistent with the intent of the activity centre hierarchy for the shire.</li> </ul>

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT		
IF FOR SERVICE STATION OR CAR WASH					
<ul> <li>PO6</li> <li>The site is of suitable size, shape and configuration to accommodate all aspects of the use, such as:</li> <li>(a) the building/s and associated storage areas;</li> <li>(b) any ancillary activities;</li> <li>(c) fuel delivery and service vehicles;</li> <li>(d) vehicle access and on site manoeuvrability;</li> <li>(e) landscaping.</li> </ul>	<ul> <li>AO6.1</li> <li>The site has a: <ul> <li>(a) minimum area of 1500m<sup>2</sup>; and</li> <li>(b) minimum frontage of: <ul> <li>(i) 30 metres to each road where the site is a corner site; or</li> <li>(ii) 40 metres otherwise.</li> </ul> </li> </ul></li></ul>	N/A	The proposed development does not involve a Service Station or Car Wash.		
	<b>AO6.2</b> Bulk fuel storage tanks are situated on the site no closer than 8 metres to any road frontage.	N/A	See AO6.1 above.		
	<ul> <li>AO6.3</li> <li>Bulk fuel storage tanks are situated on the site:</li> <li>(a) so that delivery vehicles are standing wholly within the site when discharging fuel into the tanks; and</li> <li>(b) ensuring that the movement of other vehicles on the site is not restricted when fuel delivery occurs.</li> </ul>	N/A	See AO6.1 above.		
	<ul> <li>AO6.4</li> <li>Fuel pumps, car wash bays and facilities including air and water points are:</li> <li>(a) orientated to minimise vehicle conflicts associated with manoeuvring on site; and</li> <li>(b) located so that vehicles using or waiting to use the facilities are standing wholly within the site and in locations which do not restrict the movement of other vehicles on the site.</li> </ul>	N/A	See AO6.1 above.		
P07	<b>AO7.1</b> No acceptable outcome is provided.	N/A	See AO6.1 above.		

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	COMPLIES	COMMENT
<ul> <li>The use must provide for the collection, treatment and disposal of all solid and liquid wastes such that:</li> <li>(a) the off-site release of contaminants does not occur; and</li> <li>(b) there are no significant adverse impacts on the quality of surface water or ground water resources.</li> </ul>			

#### Application

This code applies where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

#### Criteria for assessment

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQU	REMENTS AND ASSESSMENT DEVELOPMENT		
<ul> <li>PO1</li> <li>Development, other than in the Rural zone, includes landscaping that:</li> <li>(a) contributes to the landscape character of the Shire;</li> <li>(b) compliments the character of the immediate surrounds;</li> <li>(c) provides an appropriate balance between built and natural elements; and</li> <li>(d) provides a source of visual interest.</li> </ul>	<ul> <li>AO1.1</li> <li>Development, other than in the Rural zone, provides: <ul> <li>(a) a minimum of 10% of the site as landscaping;</li> <li>(b) planting in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species;</li> <li>(c) for the integration of retained significant vegetation into landscaping areas;</li> <li>(d) on-street landscaping works in accordance with the Design Guidelines set out in Section D9 Landscaping, of the Planning Scheme Policy 4 - FNQROC Regional Development Manual.</li> </ul> </li> <li>Note—Where development exceeds a site cover of 90%, areas of landscaping may be provided above ground level to achieve a total supply of landscaping equivalent to 10% of the site area.</li> </ul>	YES	<ul> <li>The proposed development complies with all elements of the deemed to comply Acceptable Outcome, as outlined below (except for (a)): <ul> <li>(a) See below;</li> <li>(b) Compliance can be ensured through the imposition of reasonable and relevan conditions of approval;</li> <li>(c) The site is devoid of vegetation; and</li> <li>(d) Compliance can be ensured through the imposition of reasonable and relevan conditions of approval.</li> </ul> </li> <li>The proposed development will include 1,200m<sup>2</sup> o landscaping which equates to a total of 7.40% of the site area. We acknowledge that this is a 2.60% shortfall from the deemed to comply acceptable outcome, although the proposed development will significantly enhance the road verge of both Rankir and Byrnes Street and will greatly enhance the visual interest of the site over and above that which exists at present. As a result, it will contribute to the character of the shire, compliment the character of the area and provide a source of visual interest. As a result is a source of visual interest. As a result is a source of visual interest. As a source of visual interest.</li> </ul>

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			such, we believe that this non-compliance is minor in nature and will not be detrimental to the development when considered in the overall context of the proposal. This in turn, ensures compliance with the performance outcome.
<ul> <li>PO2</li> <li>Development, other than in the Rural zone, includes landscaping along site frontages that:</li> <li>(a) creates an attractive streetscape;</li> <li>(b) compliments the character of the immediate surrounds;</li> <li>(c) assists to break up and soften elements of built form;</li> <li>(d) screen areas of limited visual interest or servicing;</li> <li>(e) provide shade for pedestrians; and</li> <li>(f) includes a range and variety of planting.</li> </ul>	<ul> <li>AO2</li> <li>Development, other than in the Rural zone, includes a landscape strip along any site frontage: <ul> <li>(a) with a minimum width of 2 metres where adjoining a car parking area;</li> <li>(b) with a minimum width of 1.5 metres in all other locations; and</li> <li>(c) in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species.</li> </ul> </li> <li>Note—Where development is setback from a frontage less than 1.5 metres, the setback area is provided as a landscape strip.</li> </ul>	YES	<ul> <li>The proposed development complies with the Performance Outcome as follows:</li> <li>(a) The proposed development will result in the construction of an integrated Shopping Complex, inclusive of internal pedestrian links and will be a significant improvement of the streetscape over and above that which currently exists at present. A landscaping plan will also be submitted as part of a future Operational Works application;</li> <li>(b) The proposed development will provide landscaping akin to that provided in the Coles, and McDonalds developments that are adjacent to the site, on the opposite side of Byrnes Street</li> <li>(c) The purpose of the proposed landscaping will be to soften the built form of the proposed development while ensuring that the proposed development presents an attractive streetscape when viewed from both Byrnes and Rankin Streets (compliance will be demonstrated as part of a future Operational Works application);</li> <li>(d) All service areas will be screened, although compliance will be demonstrated as part</li> </ul>



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			of a landscaping plan to be provided as part of a future Operational Works application; (e) We are agreeable to discuss the extent of shade trees with Council prior to the future submission of the landscaping plan to Council; (f) Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
<ul> <li>PO3</li> <li>Development includes landscaping and fencing along side and rear boundaries that:</li> <li>(a) screens and buffer land uses;</li> <li>(b) assists to break up and soften elements of built form;</li> <li>(c) screens areas of limited visual interest;</li> <li>(d) preserves the amenity of sensitive land uses; and</li> <li>(e) includes a range and variety of planting.</li> </ul>	AO3.1 Development provides landscape treatments along side and rear boundaries in accordance with Table 9.4.2.3B.	YES	The proposed development does not comply with the deemed to comply Acceptable Outcome and as such, an assessment against the performance Outcome is provided below to demonstrate compliance. Note: The site adjoins residential and centre zoned land to the south (side) and a railway corridor to the west (rear). As such, this assessment will focus on the land to the south and east and in particular, the residential zoned land to the south. (a) The majority of the Shopping Centre adjoins undeveloped, centre zoned land to the south with no landscaping proposed along this boundary as the Shopping Centre requires a service lane which is used as a fire escape and landscape buffers between land uses that can be built to boundaries are not considered necessary. In respect to the residential land to the south, a small portion of the Shopping Centre adjoins this land; however, a landscaped area and pedestrian footpath generally adjoining



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			<ul> <li>this area and we are agreeable for Council to impose a condition to ensure that the landscaping in this area comprises of mature vegetation from the time of planting to aid in screening the Shopping Centre. In respect to the Railway Corridor to the west, the proposed development has sought to incorporate 1m wide landscaping buffers where possible; however, some areas of the car park will directly adjoin this Railway Corridor. Despite this, the proposed development has been architecturally designed so that it won't present as an eye sore and we are of the view that through suitable plant species and location, that we will be able to achieve suitable buffering from the Railway Corridor. It is also important to note that the rail corridor is used very infrequently;</li> <li>(b) See (a) above. We are agreeable to discuss the extent and species of landscaping with Council to ensure that the built form elements of the proposed development are softened;</li> <li>(c) All service areas will be screened, although compliance will be demonstrated as part of a future Operational Works application;</li> <li>(d) The only sensitive land uses are located to the south of the subject site and as identified in (a) above, we are agreeable to discuss the most appropriate species of</li> </ul>



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
			landscaping to establish in this area (i.e., mature veg) to ensure that appropriate screening is provided to these sensitive land uses; and (e) Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
	AO3.2	YES	Compliance can be conditioned.
	Shrubs and trees provided in landscape strips alongside and rear boundaries:		
	<ul> <li>(a) are planted at a maximum spacing of 1 metre;</li> <li>(b) will grow to a height of at least 2 metres;</li> <li>(c) will grow to form a screen of no less than 2 metres in height; and</li> <li>(d) are mulched to a minimum depth of 0.1 metres with organic mulch.</li> </ul>		
	<b>AO3.3</b> Any landscape strip provided along a side or rear boundary is designed in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species.	YES	See PO3 above.
<b>PO4</b> Car parking areas are improved with a variety of landscaping that:	<b>AO4.1</b> Landscaping is provided in car parking areas which provides:	YES	Landscaping throughout the car parking area is proposed, although compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
<ul> <li>(a) provides visual interest;</li> <li>(b) provides a source of shade for pedestrians;</li> <li>(c) assists to break up and soften elements; and</li> </ul>	<ul> <li>(a) a minimum of 1 shade tree for every 4 parking spaces, or part thereof, where the car parking area includes 12 or more spaces;</li> </ul>		

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
(d) improves legibility.	<ul> <li>(b) a minimum of 1 shade tree for every 6 parking spaces, or part thereof, otherwise; and</li> <li>(c) where involving a car parking area in excess of 500m<sup>2</sup>: <ul> <li>(i) shade structures are provided for 50% of parking spaces; and</li> <li>(ii) a minimum of 10% of the parking area as landscaping.</li> </ul> </li> <li>Note—Where a shade structure is provided over part of a car parking area, shade tree planting is not required in this area of the car parking area.</li> </ul>		
	<b>AO4.2</b> Landscaping in car parking areas is designed in accordance with Planning Scheme Policy 6 - Landscaping and preferred plant species.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
<ul><li>PO5</li><li>Landscaping areas include a range and variety of planting that:</li><li>(a) is suitable for the intended purpose and local</li></ul>	<b>AO5.1</b> Plant species are selected from the Plant Schedule in Planning Scheme Policy 6 - Landscaping and preferred plant species	YES	See A04.2 above.
<ul> <li>conditions;</li> <li>(b) contributes to the natural character of the Shire;</li> <li>(c) includes native species;</li> <li>(d) includes locally endemic species, where practical; and</li> <li>(e) does not include invasive plants or weeds.</li> </ul>	<b>AO5.2</b> A minimum of 25% of (new and existing) plants is provided as larger, advanced stock with a minimum plant height of 0.7 metres and mulched to a minimum depth of 0.1 metres with organic mulch.	YES	See A04.2 above.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
<b>PO6</b> Landscaping does not impact on the ongoing provision of infrastructure and services to the Shire.	<ul> <li>AO6.1</li> <li>Tree planting is a minimum of</li> <li>(a) 2 metres from any underground water, sewer, gas, electricity or telecommunications infrastructure; and</li> <li>(b) 4 metres from any inspection chamber.</li> </ul>	YES	See A04.2 above.
	<b>AO6.2</b> Vegetation below or within 4 metres of overhead electricity lines and power poles has a maximum height of 3.5 metres at maturity.	N/A	The proposed development will not involve any vegetation below or within 4m of an overhead electricity line and/or power pole.
	<ul> <li>AO6.3</li> <li>Vegetation adjoining an electricity substation boundary, at maturity, will have:</li> <li>(a) a height of less than 4 metres; and</li> <li>(b) no foliage within 3 metres of the substation boundary, unless the substation has a solid wall along any boundary.</li> </ul>	N/A	The site does not abut a sub-station site.
FOR ASSESSABLE DEVELOPMENT			
<b>PO7</b> Landscaping areas are designed to:	<b>AO7</b> No acceptable outcome is provided.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
<ul> <li>(a) be easily maintained throughout the ongoing use of the site;</li> <li>(b) allow sufficient area and access to sunlight and water for plant growth;</li> <li>(c) not cause a nuisance to occupants of the site or members of the public; and</li> </ul>			

PER	FORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
(d)	maintain or enhance the safety of pedestrians through the use of Crime Prevention Through Environmental Design principles.			

#### Application

This code applies to assessing development where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

Criteria for assessment

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT				
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT							
CAR PARKING SPACES							
<ul> <li>PO1</li> <li>Development provides sufficient car parking to accommodate the demand likely to be generated by the use, having regard to the: <ul> <li>(a) nature of the use;</li> <li>(b) location of the site;</li> <li>(c) proximity of the use to public transport services;</li> <li>(d) availability of active transport infrastructure; and</li> <li>(e) accessibility of the use to all members of the community.</li> </ul> </li> </ul>	1 31 1	YES	<ul> <li>Car Parking Rates for the development in accordance with Table 9.4.3.3B are as follows:</li> <li>Food and Drink Outlet – 1 space per 50m<sup>2</sup> for first 400m<sup>2</sup> GFA then 1 space per 15m<sup>2</sup> for GFA above 400m<sup>2</sup> = 4 car parking spaces;</li> <li>Shopping Centre – 1 space per 50m<sup>2</sup> for first 400m<sup>2</sup> then 1 space per 25m<sup>2</sup> GFA above 400m<sup>2</sup> = 180 car parking spaces; and</li> <li>Shop – 1 space per 50m<sup>2</sup> for first 400m<sup>2</sup> then 1 space per 10m<sup>2</sup> above 400m<sup>2</sup> defendence at the space per 10m<sup>2</sup> above 400m<sup>2</sup> GFA = 4 car parking spaces.</li> <li>Hence, the development is required to provide a total of 188 car parking spaces to achieve direct compliance with the Parking and Access code.</li> <li>In this instance, the proposed development has sought to provide a total of 215 on-site car parking spaces for a total of 220 car parking spaces to service the development.</li> </ul>				



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
VEHICLE CROSSOVERS			
<ul> <li>PO2</li> <li>Vehicle crossovers are provided to:</li> <li>(a) ensure safe and efficient access between the road and premises;</li> <li>(b) minimize interference with the function and operation of roads; and</li> </ul>	<b>AO2.1</b> Vehicular access to/from Council roads is designed and constructed in accordance with the Standard drawings in Planning Scheme Policy 4 - FNQROC Regional Development Manual.	YES	Compliance with the Performance Outcome can be conditioned (see also the TIA in <b>Attachment 6</b> ).
(c) minimise pedestrian to vehicle conflict.	<ul> <li>AO2.2</li> <li>Development on a site with two or more road frontages provides vehicular access from:</li> <li>(a) the primary frontage where involving Community activities or Sport and recreation activities, unless the primary road frontage is a State-controlled road; or</li> <li>(b) from the lowest order road in all other instances.</li> </ul>	ALTERNATIVE SOLUTION SOUGHT	Due to the nature of the proposed development, it is not feasible to direct all traffic via Rankin Street as this would result in significant traffic impacts on the nearby rail corridor and the Byrnes Street/Rankin Street intersection. As such, some access via Byrnes Street is required in this instance to service the proposed development of which, is a use envisioned to occur on the site by the Planning Scheme. The ingress/egress locations to/from Byrnes Street that will service the proposed development are generally existing ingress/egress points, with only minor modifications being undertaken to these existing ingress/egress points. While the accesses to/from Byrnes Street to service the proposed development will increase over and above the existing situation, they will not have an unacceptable, negative impact on the Byrnes Street streetscape and are required to ensure the proposed development can suitably address traffic impacts. The suitability of the access configurations for the proposed development has been demonstrated in the TIA prepared by SLR Consulting (see <b>Attachment 6</b> ) which ensures compliance with the performance outcome is demonstrated.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<b>AO2.3</b> Vehicular access for particular uses is provided in accordance with <b>Table 9.4.3.3E</b> .	YES	Compliance with the Performance Outcome can be conditioned (see also the TIA in <b>Attachment 6</b> ).
<ul> <li>PO3</li> <li>Access, maneuvering and car parking areas include appropriate pavement treatments having regard to:</li> <li>(a) the intensity of anticipated vehicle movements;</li> <li>(b) the nature of the use that they service; and</li> <li>(c) the character of the surrounding locality.</li> </ul>	<b>AO3.1</b> Access, maneuvering and car parking areas include pavements that are constructed in accordance with <b>Table</b> <b>9.4.3.3C</b> .	YES	Compliance with the Performance Outcome can be conditioned (see also the TIA in <b>Attachment 6</b> ).
FOR ASSESSABLE DEVELOPMENT			
PARKING AREA LOCATION AND DESIGN			
<ul> <li>PO4</li> <li>Car parking areas are located and designed to:</li> <li>(a) ensure safety and efficiency in operation; and</li> <li>(b) be consistent with the character of the surrounding locality.</li> </ul>	<b>AO4.1</b> Car parking spaces, access and circulation areas have dimensions in accordance with AS/NZS 2890.1 Off-street car parking.	YES	All carparking spaces (including PWD spaces), access and circulation areas have been designed in accordance with the relevant standards (see the TIA in <b>Attachment 6</b> ). Compliance can also be ensured through the imposition of reasonable and relevant conditions of approval.
	<b>AO4.2</b> Disabled access and car parking spaces are located and designed in accordance with AS/NZS 2890.6 Parking facilities - Off-street parking for people with disabilities.	YES	See AO4.1 above.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<b>AO4.3</b> The car parking area includes designated pedestrian routes that provide connections to building entrances.	YES	Pedestrian crossings have bene provided where required (see <b>Attachment 2</b> ).
	<ul> <li>AO4.4</li> <li>Parking and any set down areas are: <ul> <li>(a) wholly contained within the site;</li> <li>(b) visible from the street where involving Commercial activities, Community activities, Industrial activities or a use in the Recreation and open space zone;</li> <li>(c) are set back behind the main building line where involving a Dual occupancy, Multiple dwelling, Residential care facility or Retirement facility; and</li> <li>(d) provided at the side or rear of a building in all other instances.</li> </ul> </li> </ul>	YES	<ul> <li>With the exception of (d), the proposed development complies with the deemed to comply acceptable outcome as follows:</li> <li>(a) All parking and set down areas are wholly contained within the site;</li> <li>(b) The car parking and access points will be clearly visible from the street;</li> <li>(c) The proposed development does not involve any of the corresponding uses;</li> <li>(d) Due to the nature of the proposed development, the car parking area has been provided in the middle of the site, in front of the shopping centre, Shop and Food and Drink Outlet so the car parking spaces are easily visible and accessible from the street (compliance with the performance outcome will be demonstrated in the TIA to be prepared by SLR Consulting).</li> </ul>
SITE ACCESS AND MANOEUVRING			T
<ul> <li>PO5</li> <li>Access to, and manoeuvring within, the site is designed and located to:</li> <li>(a) ensure the safety and efficiency of the external road network;</li> <li>(b) ensure the safety of pedestrians;</li> <li>(c) provide a functional and convenient layout; and</li> </ul>	<ul> <li>AO5.1</li> <li>Access and manoeuvrability is in accordance with :</li> <li>(a) AS28901 – Car Parking Facilities (Off Street Parking); and</li> <li>(b) AS2890.2 – Parking Facilities (Off-street Parking) Commercial Vehicle Facilities.</li> </ul>	YES	All carparking spaces (including PWD spaces) have been designed in accordance with the relevant standards (see the TIA in <b>Attachment 6</b> ). Compliance can also be ensured through the imposition of reasonable and relevant conditions of approval.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
(d) accommodate all vehicles intended to use the site.	Note—Proposal plans should include turning circles designed in accordance with AP34/95 (Austroads 1995) Design Vehicles and Turning Path Templates.		
	<b>AO5.2</b> Vehicular access has a minimum sight distance in accordance with Part 5 of AUSTROADS.	YES	All vehicle access has sight distances that comply with the relevant standards (see the TIA in <b>Attachment 6</b> ). Compliance can also be ensured through the imposition of reasonable and relevant conditions of approval.
	<b>AO5.3</b> Vehicular access is located and designed so that all vehicles enter and exit the site in a forward gear.	YES	All vehicles will be able to enter and exit the site in a forward gear (see swept path analysis in the TIA in <b>Attachment 6</b> ).
	<ul> <li>AO5.4</li> <li>Pedestrian and cyclist access to the site: <ul> <li>(a) is clearly defined;</li> <li>(b) easily identifiable; and</li> <li>(c) provides a connection between the site frontage and the entrance to buildings and end of trip facilities (where provided).</li> </ul> </li> </ul>	YES	Pedestrian footpaths are proposed to the full frontage of both Byrnes and Rankin Street frontages and internal pedestrian connections will be provided upon completion of the TIA. Signage will also be incorporated so that pedestrian and cyclist access to the site is clearly defined, easily identifiable, and provides a safe and efficient connection between the site frontage and the entrance to buildings.
<ul> <li>PO6</li> <li>Development that involves an internal road network ensures that it's design:</li> <li>(a) ensure safety and efficiency in operation;</li> </ul>	AO6.1 Internal roads for a Tourist park have a minimum width of: (a) 4 metres if one way; or (b) 6 metres if two way.	N/A	The proposed development does not involve a Tourist Park, nor does it involve an internal road network.
<ul> <li>(b) does not impact on the amenity of residential uses on the site and on adjoining sites, having regard to matters of:</li> <li>(i) hours of operation;</li> <li>(ii) noise</li> </ul>	<b>AO6.2</b> For a Tourist park, internal road design avoids the use of cul-de-sacs in favour of circulating roads, where	N/A	See AO6.1 above.

PERI	FORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
(c) (d) (e)	<ul> <li>(iii) light; and</li> <li>(iv) odour;</li> <li>accommodates the nature and volume of vehicle movements anticipated to be generated by the use;</li> <li>allows for convenient access to key on-site features by pedestrians, cyclists and motor vehicles; and</li> <li>in the Rural zone, avoids environmental degradation.</li> </ul>	<ul> <li>ACCEPTABLE MEASURES</li> <li>unavoidable, cul-de-sacs provide a full turning circle for vehicles towing caravans having: <ul> <li>(a) a minimum approach and departure curve radius of 12 metres; and</li> <li>(b) a minimum turning circle radius of 8 metres.</li> </ul> </li> <li>AO6.3 <ul> <li>Internal roads are imperviously sealed and drained, apart from those for an Energy and infrastructure activity or Rural activity.</li> </ul> </li> <li>AO6.4</li> </ul>	N/A N/A	See AO6.1 above.
		Speed control devices are installed along all internal roads, apart from those for an Energy and infrastructure activity or Rural activity, in accordance with Complete Streets.		
		<b>AO6.5</b> Internal roads, apart from those for an Energy and infrastructure activity or Rural activity, are illuminated in accordance with AS 4282 (as amended) - Control of Obtrusive effects of outdoor lighting.	N/A	See AO6.1 above.
		<b>AO6.6</b> Where involving an accommodation activity, internal roads facilitate unobstructed access to every dwelling, accommodation unit, accommodation site and building by emergency services vehicles.	N/A	The proposed development does not involve an accommodation activity.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
SERVICING	<ul> <li>AO6.7</li> <li>For an Energy and infrastructure activity or Rural activity, internal road gradients:</li> <li>(a) are no steeper than 1:5; or</li> <li>(b) are steeper than 1:5 and are sealed.</li> </ul>	N/A	The proposed development does not involve Energy and/or infrastructure or rural activities.
<ul> <li>PO7</li> <li>Development provides access, maneuvering and servicing areas on site that:</li> <li>(a) accommodate a service vehicle commensurate with the likely demand generated by the use;</li> <li>(b) do not impact on the safety or efficiency of internal car parking or maneuvering areas;</li> <li>(c) do not adversely impact on the safety or</li> </ul>	<ul> <li>AO7.1</li> <li>All unloading, loading, service and waste disposal areas are located:</li> <li>(a) on the site;</li> <li>(b) to the side or rear of the building, behind the main building line;</li> <li>(c) not adjacent to a site boundary where the adjoining property is used for a sensitive use.</li> </ul>	YES	All loading, service and waste disposal areas are provided wholly on site, to the sides of each building in designated areas as shown on the Plans of Development provided in <b>Attachment 2</b> (see also the TIA in <b>Attachment 6</b> ).
<ul> <li>efficiency of the road network;</li> <li>(d) provide for all servicing functions associated with the use; and</li> <li>(e) are located and designed to minimise their impacts on adjoining sensitive land uses and streetscape quality.</li> </ul>	<b>AO7.2</b> Unloading, loading, service and waste disposal areas allow service vehicles to enter and exit the site in a forward gear.	YES	All unloading, loading, service and waste disposal areas are located to allow vehicles to safely enter and exit the site in a forward gear (see swept path analysis in the TIA in <b>Attachment 6</b> ).
	<b>AO7.3</b> Development provides a servicing area, site access and maneuvering areas to accommodate the applicable minimum servicing vehicle specified in <b>Table 9.4.3.3B</b> .	YES	Each designated land use has provided a loading/servicing areas suitable to accommodate each use in accordance with Table 9.4.3.3B (see the TIA in <b>Attachment 6</b> ).
MAINTENANCE			

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
<b>PO8</b> Parking areas are used and maintained for their intended purpose.	<b>AO8.1</b> Parking areas are kept and used exclusively for parking and are maintained in a suitable condition for parking and circulation of vehicles.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
	A08.2	YES	See AO8.1 above.
	All parking areas will be compacted, sealed, drained, line marked and maintained until such time as the development ceases.		
END OF TRIP FACILITIES			
<b>PO9</b> Development within the Centre zone; Industry zone or Emerging community zone provides facilities for active transport users that:	<b>AO9.1</b> The number of bicycle parking spaces provided for the use is in accordance with <b>Table 9.4.3.3D</b> .	YES	The proposed development has provided the required number of bicycle spaces (see <b>Attachment 2</b> and the TIA in <b>Attachment 6</b> ).
<ul> <li>(a) meet the anticipated demand generated from the use;</li> <li>(b) comprise secure and convenient bicycle parking and storage; and</li> <li>(c) provide end of trip facilities for all active transport users.</li> </ul>	AO9.2 End of trip facilities are provided in accordance with <b>Table</b> 9.4.3.3D.	YES	The proposed development has provided the required end of trip facilities (see <b>Attachment 2</b> and the TIA in <b>Attachment 6</b> ).
IF FOR EDUCATIONAL ESTABLISHMENT OR CHILD CA AND RECREATION ACTIVITIES, OR TOURIST PARK.	RE CENTRE WHERE INVOLVING MORE THAN 100 VEHICLE	MOVEMENTS	PER DAY OR RENEWABLE ENERGY FACILITY, SPORT
<b>P10</b> The level of traffic generated by the development on the surrounding local road network must not result in	<ul> <li>AO10.1</li> <li>A traffic impact report is prepared by a suitably qualified person that identifies:</li> <li>(a) the expected traffic movements to be generated by the facility;</li> </ul>	N/A	The proposed development does not involve any of the identified land uses.

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
unacceptable impacts on adjacent land and local road users.	<ul> <li>(b) any associated impacts on the road network; and</li> <li>(c) any works that will be required to address the identified impacts.</li> </ul>		
IF FOR EDUCATIONAL ESTABLISHMENT OR CHILD CA AND RECREATION ACTIVITIES, OR TOURIST PARK.	RE CENTRE WHERE INVOLVING MORE THAN 100 VEHICLE	MOVEMENTS	PER DAY OR RENEWABLE ENERGY FACILITY, SPORT
<b>PO11</b> The level of traffic generated by the development on the surrounding local road network must not result in unacceptable impacts on adjacent land and local road users.	person that identifies:	N/A	The proposed development does not involve any of the identified land uses.

#### Application

This code applies to assessing development where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

Criteria for assessment

#### Table 9.4.5.3 – Works, services and infrastructure code – For accepted development subject to requirements and assessable development

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT	
FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIR	REMENTS AND ASSESSABLE DEVELOPMENT			
WATER SUPPLY	WATER SUPPLY			
<ul> <li>PO1</li> <li>Each lot has an adequate volume and supply of water that:</li> <li>(a) meets the needs of users;</li> <li>(b) is adequate for fire-fighting purposes;</li> <li>(c) ensures the health, safety and convenience of the community; and</li> <li>(d) minimises adverse impacts on the receiving environment.</li> </ul>	<ul> <li>AO1.1</li> <li>Development is connected to a reticulated water supply system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located:</li> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated water supply service area.</li> </ul>	YES	See section 5.4.1 of the Planning Report. Compliance can also be ensured through the imposition of reasonable and relevant conditions of approval.	



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<ul> <li>AO1.2</li> <li>Development, where located outside a reticulated water supply service area and in the Conservation zone, Rural zone or Rural residential zone is provided with:</li> <li>(a) a bore or bores are provided in accordance with the Design Guidelines set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; or</li> <li>(b) on-site water storage tank/s: <ul> <li>(i) with a minimum capacity of 90,000L;</li> <li>(ii) fitted with a 50mm ball valve with a camlock fitting; and</li> <li>(iii) which are installed and connected prior to the occupation or use of the</li> </ul> </li> </ul>	N/A	See AO1.1 above.
WASTEWATER DISPOSAL	development.		
<ul> <li>PO2</li> <li>Each lot provides for the treatment and disposal of effluent and other waste water that:</li> <li>(a) meets the needs of users;</li> <li>(b) is adequate for fire-fighting purposes;</li> <li>(c) ensures the health, safety and convenience of the community; and</li> <li>(d) minimises adverse impacts on the receiving environment.</li> </ul>	<ul> <li>AO2.1</li> <li>Development is connected to a reticulated sewerage system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located:</li> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated sewerage service area.</li> </ul>	YES	See section 5.4.2 of the Planning Report. Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
	<b>AO2.2</b> An effluent disposal system is provided in accordance with ASNZ 1547 On-Site Domestic Wastewater	N/A	See AO2.1 above.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<ul> <li>Management (as amended) where development is located:</li> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated sewerage service area.</li> </ul>		
STORMWATER INFRASTRUCTURE			
<b>PO3</b> Stormwater infrastructure is designed and constructed to collect and convey the design storm event to a lawful point of discharge in a manner that mitigates impacts on life and property.	<b>AO3.1</b> Where located within a Priority infrastructure area or where stormwater infrastructure is available, development is connected to Council's stormwater network in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	YES	See section 5.4.4 of the Planning Report. Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
	<ul> <li>AO3.2</li> <li>On-site drainage systems are constructed:</li> <li>(a) to convey stormwater from the premises to a lawful point of discharge; and</li> <li>(b) in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.</li> </ul>	YES	See AO3.1 above.
ELECTRICITY SUPPLY		,	
<b>PO4</b> Each lot is provided with an adequate supply of electricity.	AO4 The premises: (a) is connected to the electricity supply network; or (b) has arranged a connection to the transmission grid; or	YES	See section 5.4.3 of the Planning Report. Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
TELECOMMUNICATIONS INFRASTRUCTURE	<ul> <li>(c) where not connected to the network, an independent energy system with sufficient capacity to service the development (at near average energy demands associated with the use) may be provided as an alternative to reticulated electricity where: <ul> <li>(i) it is approved by the relevant regulatory authority; and</li> <li>(ii) it can be demonstrated that no air or noise emissions; and</li> <li>(iii) it can be demonstrated that no adverse impact on visual amenity will occur.</li> </ul> </li> </ul>		
<b>PO5</b> Each lot is provided with an adequate supply of telecommunication infrastructure.	<b>AO5</b> Development is provided with a connection to the national broadband network or telecommunication services.	YES	See section 5.4.3 of the Planning Report. Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
EXISTING PUBLIC UTILITY SERVICES			
<b>PO6</b> Development and associated works do not affect the efficient functioning of public utility mains, services or installations.	<b>AO6</b> Public utility mains, services are relocated, altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	YES	It is not anticipated that any works will be required to public utility mains. However, Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
EXCAVATION OR FILLING			
PO7Excavation or filling must not have an adverse impact on the:(a)streetscape;(b)scenic amenity;(c)environmental values;(d)slope stability;(e)accessibility; or(f)privacy of adjoining premises.	<b>AO7.1</b> Excavation or filling does not occur within 1.5 metres of any site boundary.	N/A	As the extent of earthworks is not yet known, compliance can be ensured through the imposition of reasonable and relevant conditions of approval and/or can more appropriately be assessed as part of a future operational works application.
	<b>AO7.2</b> Excavation or filling at any point on a lot is to be no greater than 1.5 metres above or below natural ground level.	N/A	See AO7.1 above.
	<ul> <li>AO7.3</li> <li>Earthworks batters: <ul> <li>(a) are no greater than 1.5 metres in height;</li> <li>(b) are stepped with a minimum width 2 metre berm;</li> <li>(c) do not exceed a maximum of two batters and two berms (not greater than 3.6 metres in total height) on any one lot;</li> <li>(d) have a slope no greater than 1 in 4; and</li> <li>(e) are retained.</li> </ul> </li> </ul>	N/A	See AO7.1 above.
	AO7.4 Soil used for filling or spoil from excavation is not stockpiled in locations that can be viewed from: (a) adjoining premises; or	N/A	See AO7.1 above.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	(b) a road frontage, for a period exceeding 1 month from the commencement of the filling or excavation.		
	<b>AO7.5</b> All batters and berms to be constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.	N/A	See AO7.1 above.
	<b>AO7.6</b> Retaining walls have a maximum height of 1.5 metres and are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	N/A	See AO7.1 above.
	<b>A07.7</b> Excavation or filling at any point on a lot is to include measures that protect trees at the foot or top of cut or fill batters by the use of appropriate retaining methods and sensitive earth removal or placement and in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	N/A	See AO7.1 above.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
FOR ASSESSABLE DEVELOPMENT		<u> </u>	1
TRANSPORT NETWORK			
<b>PO8</b> The development has access to a transport network of adequate standard to provide for the safe and efficient movement of vehicles, pedestrians and cyclists.	AO8.1 Vehicle access, crossovers, road geometry, pavement, utilities and landscaping to the frontage/s of the site are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.	YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval. Compliance can be ensured through the imposition
PUBLIC INFRASTRUCTURE	AO8.2 Development provides footpath pavement treatments in accordance with Planning Scheme Policy 9 – Footpath Paving.	YES	of reasonable and relevant conditions of approval.
<b>PO9</b> The design, construction and provision of any infrastructure that is to be dedicated to Council is cost	AO9	YES	The only public infrastructure expected to be dedicated to Council will be the footpaths and these will be constructed in accordance with all relevant requirements. Compliance can also be ensured

PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
effective over its life cycle and incorporates provisions to minimise adverse impacts.	Development is in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.		through the imposition of reasonable and relevant conditions of approval.
STORMWATER QUALITY			
<ul> <li>PO10</li> <li>Development has a non-worsening effect on the site and surrounding land and is designed to:</li> <li>(a) optimise the interception, retention and removal of waterborne pollutants, prior to the discharge to receiving waters;</li> <li>(b) protect the environmental values of waterbodies affected by the development, including upstream, on-site and downstream waterbodies;</li> <li>(c) achieve specified water quality objectives;</li> <li>(d) minimise flooding;</li> <li>(e) maximise the use of natural channel design principles;</li> <li>(f) maximise community benefit; and</li> <li>(g) minimise risk to public safety.</li> </ul>	<ul> <li>AO10.1</li> <li>The following reporting is prepared for all Material change of use or Reconfiguring a lot proposals:</li> <li>(a) a Stormwater Management Plan and Report that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; and</li> <li>(b) an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia), including: <ul> <li>(i) drainage control;</li> <li>(ii) erosion control; and</li> <li>(iv) water quality outcomes.</li> </ul> </li> </ul>	YES	Please refer to the Stormwater management Plan in Attachment 7 for demonstration of compliance with the Performance Outcome. Note: The provision of an erosion and sediment control plan can be conditioned.
	<b>AO10.2</b> For development on land greater than 2,500m <sup>2</sup> or that result in more than 5 lots or more than 5 dwellings or accommodation units, a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) is prepared that demonstrates that the development:	YES	See AO10.1 above.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<ul> <li>(a) meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline;</li> <li>(b) is consistent with any local area stormwater water management planning;</li> <li>(c) accounts for development type, construction phase, local climatic conditions and design objectives; and</li> <li>(d) provides for stormwater quality treatment measures reflecting land use constraints, such as soil type, landscape features (including landform), nutrient hazardous areas, acid sulfate soil and rainfall erosivity.</li> </ul>		
PO11	A011	YES	See AO10.1 above.
<ul> <li>Storage areas for stormwater detention and retention:</li> <li>(a) protect or enhance the environmental values of receiving waters;</li> <li>(b) achieve specified water quality objectives;</li> <li>(c) where possible, provide for recreational use;</li> <li>(d) maximise community benefit; and</li> <li>(e) minimise risk to public safety.</li> </ul>	No acceptable outcome is provided.		
EXCAVATION OR FILLING			
<b>PO12</b> Traffic generated by filling or excavation does not impact on the amenity of the surrounding area.	<b>AO12.1</b> Haul routes used for transportation of fill to or from the site only use major roads and avoid residential areas.	N/A	As the extent of earthworks is not yet known, compliance can be also ensured through the imposition of reasonable and relevant conditions of approval and/or can more appropriately be assessed as part of a future operational works application.



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT
	<ul> <li>AO12.2</li> <li>Transportation of fill to or from the site does not occur:</li> <li>(a) within peak traffic times; and</li> <li>(b) before 7am or after 6pm Monday to Friday;</li> <li>(c) before 7am or after 1pm Saturdays; and</li> <li>(d) on Sundays or Public Holidays.</li> </ul>	N/A	See AO12.1 above.
<b>PO13</b> Air pollutants, dust and sediment particles from excavation or filling, do not cause significant environmental harm or nuisance impacts.		YES	Compliance can be ensured through the imposition of reasonable and relevant conditions of approval.
	<b>AO13.2</b> No other air pollutants, including odours, are detectable at the boundary of the site.	YES	See AO12.1 above.
	<b>AO13.3</b> A management plan for control of dust and air pollutants is prepared and implemented.	YES	See AO12.1 above.
PO14	A014	YES	See AO12.1 above.
Access to the premises (including driveways and paths) does not have an adverse impact on:	Access to the premises (including all works associated with the access):		
<ul> <li>(a) safety;</li> <li>(b) drainage;</li> <li>(c) visual amenity; and</li> <li>(d) privacy of adjoining premises.</li> </ul>	<ul> <li>(a) must follow as close as possible to the existing contours;</li> <li>(b) be contained within the premises and not the road reserve, and</li> <li>(c) are designed and constructed in accordance with the Design Guidelines and Specifications set out</li> </ul>		



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT	
	in the Planning Scheme Policy 4 – FNQROC Regional Development manual.			
WEED AND PEST MANAGEMENT				
<b>PO15</b> Development prevents the spread of weeds, seeds or other pests into clean areas or away from infested areas.	<b>AO15</b> No acceptable outcome is provided.	YES	If weeds or pests are found on-site, they will be dealt with accordingly. Compliance can also be ensured through the imposition of reasonable and relevant conditions of approval.	
CONTAMINATED LAND				
PO16 Development is located and designed to ensure that users and nearby sensitive land uses are not exposed to unacceptable levels of contaminants	<ul> <li>AO16</li> <li>Development is located where: <ul> <li>(a) soils are not contaminated by pollutants which represent a health or safety risk to users; or</li> <li>(b) contaminated soils are remediated prior to plan sealing, operational works permit, or issuing of building works permit.</li> </ul> </li> </ul>	YES	The site is located on the Environmental Management Register due to its previous use as a Sawmill. A Site Management Plan was submitted and approved by the State Government in 2009 which identified that the site is suitable for industrial/commercial use, including premises such as shops, offices, and industrial buildings, so long as the site is used and managed as per the Site Management Plan ( <b>Attachment 3</b> ). As a result, although the site is contaminated, the proposed development will be undertaken in accordance with the approved Site Management Plan and there will be no increase to the risk of human or environmental harm.	



PERFORMANCE OUTCOMES	ACCEPTABLE MEASURES	COMPLIES	COMMENT	
FIRE SERVICES IN DEVELOPMENTS ACCESSED BY COMMON PRIVATE TITLE				
<b>PO17</b> Fire hydrants are located in positions that will enable fire services to access water safely, effectively and efficiently.	<ul> <li>AO17.1</li> <li>Fire hydrants are located in accessways or private roads held in common private title at a maximum spacing of:</li> <li>(a) 120 metres for residential development; and</li> <li>(b) 90 metres for any other development.</li> </ul>	N/A	The proposed development does not involve common private title.	
	<b>AO17.2</b> Fire hydrants are located at all intersections of accessways or private roads held in common private title.	N/A	See AO17.1 above.	